# Appendix A – Test result

## Test campaign report

| Test Case ID | Sample | | Date | Conf | Verdict | Observations |
|---|---|---|---|---|---|---|
| TP_A_EU868_ED_MAC_104_BV_000 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_001_A | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_001_B | **Device ID** | WLR089-XPRO_EU | 2021-10-06 | Yes | **PASS** | |
| | **App ID** | CertApp_ABP | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_002 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_003 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_004 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_005 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_006 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |

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| TP_A_EU868_ED_MAC_104_BV_007 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_008 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_009 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_010 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_011 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_012_A | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_012_B | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_013 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_014 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_015_A | **Device ID** | WLR089-XPRO_EU | 2021-10-10 | No | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_015_B | **Device ID** | WLR089-XPRO_EU | 2021-10-10 | No | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |

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| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_016 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_017 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_018 | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_019_A | **Device ID** | WLR089-XPRO_EU | 2021-10-09 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_019_B | **Device ID** | WLR089-XPRO_EU | 2021-10-10 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_020 | **Device ID** | WLR089-XPRO_EU | 2021-10-10 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_021 | **Device ID** | WLR089-XPRO_EU | 2021-10-10 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |
| TP_A_EU868_ED_MAC_104_BV_022 | **Device ID** | WLR089-XPRO_EU | 2021-10-10 | Yes | **PASS** | |
| | **App ID** | CertApp_OTAA | | | | |
| | **Sw ver** | MLS_SDK_1_0_P_6_RC2 | | | | |
| | **Hw ver** | WLR089U0 | | | | |

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| **Test Case** | TP_A_EU868_ED_MAC_104_BV_000 |
| **Verdict** | PASS |
| **Date** | 2021-10-09 19:24:28 |
| **Comments** | Activation Pre-test |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 |
| **Project** | MLS_SDK_1_0_P_6_EU |
| **Project Creation Date** | 2021-10-05 00:16:03 |

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|---|---|---|
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.012978 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_000 |
| 0:00:00.047958 | LOG | ========== |
| 0:00:00.049957 | LOG | Start Test Step: Device activation |
| 0:00:00.061950 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:00:00.733573 | LOG | PULL_DATA: 02 0711 02 3834383419003400 |
| 0:00:00.735573 | LOG | PULL_ACK: 02 0711 04 |
| 0:00:06.027602 | LOG | PUSH_ACK: 02 2c0e 01 |
| 0:00:06.032599 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c0e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2657391052, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -22, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIBAFQf6Gs='}]} |
| 0:00:06.033599 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0001),MIC: 541fe86b) |
| 0:00:06.035599 | LOG | Server <---------- DUT |
| 0:00:06.036597 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:06.038597 | LOG | Previous DevNonce: 0 |
| 0:00:06.040597 | LOG | Actual DevNonce: 1 |
| 0:00:06.043595 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 010000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 4435ff08) |
| 0:00:06.045592 | LOG | PULL_RESP: Protocol version = 02, Token = bd3e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2663391052, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IJSRzzIPlSjAiL6aGo72f1I='}} |
| 0:00:06.047592 | LOG | Server ----------> DUT |
| 0:00:06.050590 | LOG | TX_ACK: 02 bd3e 05 3834383419003400 |
| 0:00:10.872883 | LOG | PULL_DATA: 02 e92b 02 3834383419003400 |
| 0:00:10.874882 | LOG | PULL_ACK: 02 e92b 04 |
| 0:00:14.383912 | LOG | PUSH_ACK: 02 2c11 01 |
| 0:00:14.385912 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c11, Identifier = 00, JSON = {'rxpk': [{'tmst': 2665754111, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAAABSczPDLHi'}]} |
| 0:00:14.386911 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: cf0cb1e2) |
| 0:00:14.388910 | LOG | Server <---------- DUT |
| 0:00:14.392908 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:00:14.394907 | LOG | Activation process has finished successfully |
| 0:00:14.396907 | LOG | Data stored in the DUT after Activation: |
| 0:00:14.398906 | LOG | DevAddr: 20202020 |
| 0:00:14.401903 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:14.404901 | LOG | NwkSKey: 3bdf9cf21f1e001b2c6c1b5dffb03d7f |
| 0:00:14.407901 | LOG | AppSKey: a2c624d1710f3e6c6bd015a06ef6002d |
| 0:00:14.411897 | LOG | End Test Step: Device activation |
| 0:00:14.416896 | LOG | Partial Verdict: PASS |
| 0:00:14.421892 | LOG | ========== |
| 0:00:14.426889 | LOG | ========== |
| 0:00:14.428887 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:14.440880 | LOG | DUT Pre-condition activation process starts |
| 0:00:14.446877 | LOG | Check FCntUp after reset process starts |
| 0:00:14.453875 | LOG | Check FCntUp after reset process complete |

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| 0:00:14.459871 | LOG | Send Test Command DutResetReq process starts |
| 0:00:14.462869 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0001, FOpts: ), FPort: e0, FRMPayload: 01), MIC: b5ba488c) |
| 0:00:14.464868 | LOG | Frame command sent to the DUT |
| 0:00:14.465868 | LOG | PULL_RESP: Protocol version = 02, Token = fd19, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2667754111, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAAQDgN7W6SIw='}} |
| 0:00:14.466867 | LOG | Server ----------> DUT |
| 0:00:14.469865 | LOG | Send Test Command DutResetReq process completed |
| 0:00:14.478860 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:00:20.972709 | LOG | PULL_DATA: 02 51ed 02 3834383419003400 |
| 0:00:20.974709 | LOG | PULL_ACK: 02 51ed 04 |
| 0:00:27.212179 | LOG | PUSH_ACK: 02 2c12 01 |
| 0:00:27.214179 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c12, Identifier = 00, JSON = {'rxpk': [{'tmst': 2678570385, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -39, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBICABFezD8='}]} |
| 0:00:27.215178 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0002),MIC: 115ecc3f) |
| 0:00:27.216178 | LOG | Server <---------- DUT |
| 0:00:27.218175 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:27.219174 | LOG | Previous DevNonce: 1 |
| 0:00:27.221174 | LOG | Actual DevNonce: 2 |
| 0:00:27.252155 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 020000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: c4632611) |
| 0:00:27.255154 | LOG | PULL_RESP: Protocol version = 02, Token = 9e3d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2683570385, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IBJVOZCuXTyX4MJJ3H3tY0Q='}} |
| 0:00:27.256153 | LOG | Server ----------> DUT |
| 0:00:27.259153 | LOG | TX_ACK: 02 9e3d 05 3834383419003400 |
| 0:00:31.033034 | LOG | PULL_DATA: 02 bd6a 02 3834383419003400 |
| 0:00:31.037033 | LOG | PULL_ACK: 02 bd6a 04 |
| 0:00:34.552059 | LOG | PUSH_ACK: 02 2c13 01 |
| 0:00:34.554057 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c13, Identifier = 00, JSON = {'rxpk': [{'tmst': 2685933436, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAAABrELIrUE6'}]} |
| 0:00:34.555059 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: c8ad413a) |
| 0:00:34.557056 | LOG | Server <---------- DUT |
| 0:00:34.561055 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:00:34.564052 | LOG | Activation process has finished successfully |
| 0:00:34.566053 | LOG | Data stored in the DUT after Activation: |
| 0:00:34.568052 | LOG | DevAddr: 20202020 |
| 0:00:34.572047 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:34.575046 | LOG | NwkSKey: e17362e00c1d56af9fc3dabf717ed85a |
| 0:00:34.578047 | LOG | AppSKey: 37df364be125e48b2f22bf858ea0b0e2 |
| 0:00:34.596034 | LOG | Check FCntUp after reset process starts |
| 0:00:34.602031 | LOG | Check FCntUp after reset process complete |
| 0:00:34.611025 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:00:34.614024 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0002, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: a2a519ea) |
| 0:00:34.616023 | LOG | Frame command sent to the DUT |

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|---|---|---|
| 0:00:34.617023 | LOG | PULL_RESP: Protocol version = 02, Token = b50e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2687933436, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAAgDg08CipRnq'}} |
| 0:00:34.619022 | LOG | Server ----------> DUT |
| 0:00:34.622020 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:00:34.626017 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:41.123371 | LOG | PULL_DATA: 02 3644 02 3834383419003400 |
| 0:00:41.125370 | LOG | PULL_ACK: 02 3644 04 |
| 0:00:43.961808 | LOG | PUSH_ACK: 02 2c15 01 |
| 0:00:43.964807 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c15, Identifier = 00, JSON = {'rxpk': [{'tmst': 2695300717, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAQAByzhiwxzt'}]} |
| 0:00:43.965807 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0001, MIC: 62c31ced) |
| 0:00:43.967804 | LOG | Server <---------- DUT |
| 0:00:43.969805 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0003, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: bac24ef1) |
| 0:00:43.972803 | LOG | Frame command sent to the DUT |
| 0:00:43.974802 | LOG | PULL_RESP: Protocol version = 02, Token = 19f5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2697300717, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAAwDgJhK6wk7x'}} |
| 0:00:43.975801 | LOG | Server ----------> DUT |
| 0:00:43.979768 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:43.984765 | LOG | Check ADR bit process starts |
| 0:00:48.948010 | LOG | PUSH_ACK: 02 2c16 01 |
| 0:00:48.951010 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c16, Identifier = 00, JSON = {'rxpk': [{'tmst': 2700305024, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAAgABYiW9TRHd'}]} |
| 0:00:48.953008 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: bd4d11dd) |
| 0:00:48.955006 | LOG | Server <---------- DUT |
| 0:00:48.989956 | LOG | ADR bit in FCtrl field is set |
| 0:00:48.996952 | LOG | Send LinkADRReq process starts |
| 0:00:51.332659 | LOG | PULL_DATA: 02 94c8 02 3834383419003400 |
| 0:00:51.334640 | LOG | PULL_ACK: 02 94c8 04 |
| 0:00:53.937199 | LOG | PUSH_ACK: 02 2c17 01 |
| 0:00:53.939210 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c17, Identifier = 00, JSON = {'rxpk': [{'tmst': 2705307976, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAwABILSDXaT7'}]} |
| 0:00:53.941208 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 835da4fb) |
| 0:00:53.943208 | LOG | Server <---------- DUT |
| 0:00:53.945205 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0004, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: c0e0c6cc) |
| 0:00:53.948204 | LOG | PULL_RESP: Protocol version = 02, Token = 8281, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2707307976, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAABAAAV3d0R3vA4MbM'}} |
| 0:00:53.950192 | LOG | Server ----------> DUT |
| 0:00:53.954202 | LOG | TX_ACK: 02 8281 05 3834383419003400 |
| 0:00:57.834992 | LOG | PUSH_ACK: 02 2c18 01 |

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|---|---|---|
| 0:00:57.836991 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c18, Identifier = 00, JSON = {'rxpk': [{'tmst': 2709210163, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCBAADBwH13rmRam0='}]} |
| 0:00:57.837990 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 0002, MIC: b9916a6d) |
| 0:00:57.838990 | LOG | Server <---------- DUT |
| 0:00:57.840989 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:57.841988 | LOG | Command Answer: 0307 |
| 0:00:57.847987 | LOG | MAC command communication completed |
| 0:00:57.852982 | LOG | Send Test Command DutVersionsReq process starts |
| 0:01:01.512958 | LOG | PULL_DATA: 02 af17 02 3834383419003400 |
| 0:01:01.517955 | LOG | PULL_ACK: 02 af17 04 |
| 0:01:02.824192 | LOG | PUSH_ACK: 02 2c19 01 |
| 0:01:02.826191 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c19, Identifier = 00, JSON = {'rxpk': [{'tmst': 2714207971, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABQABWIrwRmv9'}]} |
| 0:01:02.827191 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: f0466bfd) |
| 0:01:02.829189 | LOG | Server <---------- DUT |
| 0:01:02.830189 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0005, FOpts: ), FPort: e0, FRMPayload: 7f), MIC: 65395016) |
| 0:01:02.832187 | LOG | Frame command sent to the DUT |
| 0:01:02.834186 | LOG | PULL_RESP: Protocol version = 02, Token = 3d60, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2716207971, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAABQDg8GU5UBY='}} |
| 0:01:02.835186 | LOG | Server ----------> DUT |
| 0:01:02.838185 | LOG | TX_ACK: 02 3d60 05 3834383419003400 |
| 0:01:07.855369 | LOG | PUSH_ACK: 02 2c1a 01 |
| 0:01:07.857367 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c1a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2719232525, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 23, 'data': 'QCAgICCABgDgcxke3sIwxkx6aEBh91M='}]} |
| 0:01:07.858369 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 7f010004010004010004, MIC: 4061f753) |
| 0:01:07.859369 | LOG | Server <---------- DUT |
| 0:01:07.861366 | LOG | Answer in payload: 010004010004010004 |
| 0:01:07.862365 | LOG | Frame Command Payload in the Answer: 7f010004010004010004 |
| 0:01:07.867362 | LOG | DUT Version received: 010004010004010004 |
| 0:01:07.869361 | LOG | Send Test Command DutVersionsReq completed |
| 0:01:07.874358 | LOG | DUT Pre-condition activation completed |
| 0:01:07.878357 | LOG | End Test Step: DUT Pre-condition settings |
| 0:01:07.883353 | LOG | Partial Verdict: PASS |
| 0:01:07.889350 | LOG | ========== |
| 0:01:07.895346 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_000 |
| 0:01:07.897345 | LOG | Final Verdict: PASS |

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|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_001_A |
| **Verdict** | PASS |
| **Date** | 2021-10-09 19:25:39 |
| **Comments** | Over the Air Activation |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 |

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|---|---|---|
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Addition of a single channel frequency | 867.700 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.013008 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_001_A |
| 0:00:00.053985 | LOG | ========== |
| 0:00:00.055983 | LOG | Start Test Step: Device activation |
| 0:00:00.114951 | LOG | Activation process has finished successfully |
| 0:00:00.116950 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.118949 | LOG | DevAddr: 20202020 |
| 0:00:00.121947 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.125945 | LOG | NwkSKey: e17362e00c1d56af9fc3dabf717ed85a |
| 0:00:00.128943 | LOG | AppSKey: 37df364be125e48b2f22bf858ea0b0e2 |
| 0:00:00.131941 | LOG | End Test Step: Device activation |
| 0:00:00.135939 | LOG | Partial Verdict: PASS |
| 0:00:00.139937 | LOG | ========== |
| 0:00:00.147932 | LOG | ========== |
| 0:00:00.150930 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.160925 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.163923 | LOG | DUT Pre-condition activation completed |
| 0:00:00.166922 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.170919 | LOG | Partial Verdict: PASS |
| 0:00:00.174917 | LOG | ========== |
| 0:00:00.179915 | LOG | ========== |
| 0:00:00.182914 | LOG | Start Test Step: Pre-Join Behaviour for Dynamic Channel (DC) plan devices |
| 0:00:00.194906 | LOG | Send Test Command JoinReq process starts |
| 0:00:00.439769 | LOG | PULL_DATA: 02 f42c 02 3834383419003400 |
| 0:00:00.443772 | LOG | PULL_ACK: 02 f42c 04 |
| 0:00:00.446771 | LOG | First PULL_DATA received |
| 0:00:02.732487 | LOG | PUSH_ACK: 02 2c1d 01 |
| 0:00:02.735482 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c1d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2725325230, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICCABwABHVCIQfmB'}]} |
| 0:00:02.736481 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0007, FOpts: ), FPort: 01, FRMPayload: 0003, MIC: 8841f981) |
| 0:00:02.737481 | LOG | Server <---------- DUT |
| 0:00:02.739479 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 02), MIC: eaa27dff) |
| 0:00:02.742476 | LOG | Frame command sent to the DUT |
| 0:00:02.744477 | LOG | PULL_RESP: Protocol version = 02, Token = d62c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2727325230, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAABgDghuqiff8='}} |
| 0:00:02.745476 | LOG | Server ----------> DUT |
| 0:00:02.772460 | LOG | Send Test Command JoinReq process completed |
| 0:00:02.774460 | LOG | Expected frequencies to receive: {868.1, 868.3, 868.5} |
| 0:00:07.450834 | LOG | PUSH_ACK: 02 2c1e 01 |

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|---|---|---|
| 0:00:07.452833 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c1e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2730027120, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -29, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIDAO7oGBU='}]} |
| 0:00:07.454831 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0003),MIC: eee81815) |
| 0:00:07.458829 | LOG | Server <---------- DUT |
| 0:00:07.460828 | LOG | Correct RFU and Major bits in MHDR field |
| 0:00:07.462828 | LOG | 868.3 MHz has been added to the received frequencies list |
| 0:00:07.464826 | LOG | Actual list: {868.3} |
| 0:00:07.465825 | LOG | Expected frequencies to receive: {868.1, 868.3, 868.5} |
| 0:00:07.467824 | LOG | Attempt 1/9 |
| 0:00:10.519112 | LOG | PULL_DATA: 02 6c1b 02 3834383419003400 |
| 0:00:10.521111 | LOG | PULL_ACK: 02 6c1b 04 |
| 0:00:15.161507 | LOG | PUSH_ACK: 02 2c1f 01 |
| 0:00:15.163505 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c1f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2737757792, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -25, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIEALnVq84='}]} |
| 0:00:15.164504 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0004),MIC: b9d5abce) |
| 0:00:15.165504 | LOG | Server <---------- DUT |
| 0:00:15.167503 | LOG | Correct RFU and Major bits in MHDR field |
| 0:00:15.168502 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:15.169502 | LOG | Previous DevNonce: 3 |
| 0:00:15.170501 | LOG | Actual DevNonce: 4 |
| 0:00:15.172503 | LOG | 868.1 MHz has been added to the received frequencies list |
| 0:00:15.173501 | LOG | Actual list: {868.1, 868.3} |
| 0:00:15.175499 | LOG | Expected frequencies to receive: {868.1, 868.3, 868.5} |
| 0:00:15.177499 | LOG | Attempt 2/9 |
| 0:00:20.598456 | LOG | PULL_DATA: 02 b6c6 02 3834383419003400 |
| 0:00:20.600454 | LOG | PULL_ACK: 02 b6c6 04 |
| 0:00:22.923152 | LOG | PUSH_ACK: 02 2c20 01 |
| 0:00:22.926149 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c20, Identifier = 00, JSON = {'rxpk': [{'tmst': 2745488432, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -25, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIFAHa+Ic8='}]} |
| 0:00:22.928148 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0005),MIC: 76be21cf) |
| 0:00:22.930147 | LOG | Server <---------- DUT |
| 0:00:22.932146 | LOG | Correct RFU and Major bits in MHDR field |
| 0:00:22.934144 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:22.935144 | LOG | Previous DevNonce: 4 |
| 0:00:22.937142 | LOG | Actual DevNonce: 5 |
| 0:00:22.939141 | LOG | 868.1 MHz has been added to the received frequencies list |
| 0:00:22.941140 | LOG | Actual list: {868.1, 868.3} |
| 0:00:22.942140 | LOG | Expected frequencies to receive: {868.1, 868.3, 868.5} |
| 0:00:22.945138 | LOG | Attempt 3/9 |
| 0:00:30.636822 | LOG | PUSH_ACK: 02 2c22 01 |
| 0:00:30.640819 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c22, Identifier = 00, JSON = {'rxpk': [{'tmst': 2753219104, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -27, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIGALhMf3Q='}]} |
| 0:00:30.642818 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0006),MIC: b84c7f74) |
| 0:00:30.644817 | LOG | Server <---------- DUT |

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|---|---|---|
| 0:00:30.646816 | LOG | Correct RFU and Major bits in MHDR field |
| 0:00:30.647815 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:30.648815 | LOG | Previous DevNonce: 5 |
| 0:00:30.650813 | LOG | Actual DevNonce: 6 |
| 0:00:30.652813 | LOG | 868.5 MHz has been added to the received frequencies list |
| 0:00:30.682796 | LOG | Actual list: {868.1, 868.3, 868.5} |
| 0:00:30.684797 | LOG | Expected frequencies to receive: {868.1, 868.3, 868.5} |
| 0:00:30.685794 | LOG | Attempt 4/9 |
| 0:00:30.687793 | LOG | Data Rates saved from the valid Join Requests: {'packet_0': 'SF12BW125', 'packet_1': 'SF12BW125', 'packet_2': 'SF12BW125', 'packet_3': 'SF12BW125'} |
| 0:00:30.698788 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:00:38.366484 | LOG | PUSH_ACK: 02 2c24 01 |
| 0:00:38.368482 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c24, Identifier = 00, JSON = {'rxpk': [{'tmst': 2760949784, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -29, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIHAHEFBfs='}]} |
| 0:00:38.370481 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0007),MIC: 710505fb) |
| 0:00:38.371481 | LOG | Server <---------- DUT |
| 0:00:38.373480 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:38.375480 | LOG | Previous DevNonce: 6 |
| 0:00:38.376478 | LOG | Actual DevNonce: 7 |
| 0:00:38.380476 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 030000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 3eb5626c) |
| 0:00:38.383477 | LOG | PULL_RESP: Protocol version = 02, Token = 9dcf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2765949784, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IIO2IT/t6ltlPE+PeCfQi/4='}} |
| 0:00:38.384476 | LOG | Server ----------> DUT |
| 0:00:38.388471 | LOG | TX_ACK: 02 9dcf 05 3834383419003400 |
| 0:00:40.689180 | LOG | PULL_DATA: 02 2388 02 3834383419003400 |
| 0:00:40.691179 | LOG | PULL_ACK: 02 2388 04 |
| 0:00:45.715358 | LOG | PUSH_ACK: 02 2c25 01 |
| 0:00:45.717357 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c25, Identifier = 00, JSON = {'rxpk': [{'tmst': 2768312813, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAAAAB81qcmFSF'}]} |
| 0:00:45.720357 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0004, MIC: 9c985485) |
| 0:00:45.722355 | LOG | Server <---------- DUT |
| 0:00:45.728351 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:00:45.731351 | LOG | Activation process has finished successfully |
| 0:00:45.734347 | LOG | Data stored in the DUT after Activation: |
| 0:00:45.737346 | LOG | DevAddr: 20202020 |
| 0:00:45.742344 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:45.746341 | LOG | NwkSKey: bd5362806d2a6781bf9743286061993c |
| 0:00:45.750339 | LOG | AppSKey: 9af6b9284b8e43af56f787d809133c09 |
| 0:00:45.753337 | LOG | Check FCntUp after reset process starts |
| 0:00:45.760334 | LOG | Check FCntUp after reset process complete |
| 0:00:45.771329 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:00:45.801312 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0007, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 58a93cbb) |
| 0:00:45.803311 | LOG | Frame command sent to the DUT |
| 0:00:45.805309 | LOG | PULL_RESP: Protocol version = 02, Token = 190c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2770312813, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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|---|---|---|
| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABwDg+KtYqTy7'}} |
| 0:00:45.806310 | LOG | Server ----------> DUT |
| 0:00:45.808324 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:00:45.812305 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:50.848476 | LOG | PULL_DATA: 02 e64f 02 3834383419003400 |
| 0:00:50.850475 | LOG | PULL_ACK: 02 e64f 04 |
| 0:00:55.113081 | LOG | PUSH_ACK: 02 2c26 01 |
| 0:00:55.116080 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c26, Identifier = 00, JSON = {'rxpk': [{'tmst': 2777680088, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAQAB0AFfYTja'}]} |
| 0:00:55.118079 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0005, MIC: 5f6138da) |
| 0:00:55.119078 | LOG | Server <---------- DUT |
| 0:00:55.122076 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0008, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 0b815599) |
| 0:00:55.125074 | LOG | Frame command sent to the DUT |
| 0:00:55.127073 | LOG | PULL_RESP: Protocol version = 02, Token = 6feb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2779680088, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACADgHNkLgVWZ'}} |
| 0:00:55.129072 | LOG | Server ----------> DUT |
| 0:00:55.134069 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:55.177045 | LOG | Check ADR bit process starts |
| 0:01:00.113275 | LOG | PUSH_ACK: 02 2c27 01 |
| 0:01:00.115273 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c27, Identifier = 00, JSON = {'rxpk': [{'tmst': 2782683027, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAgABAQvbOhHl'}]} |
| 0:01:00.117303 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0006, MIC: db3a11e5) |
| 0:01:00.119273 | LOG | Server <---------- DUT |
| 0:01:00.123268 | LOG | ADR bit in FCtrl field is set |
| 0:01:00.129265 | LOG | Send LinkADRReq process starts |
| 0:01:01.008772 | LOG | PULL_DATA: 02 1323 02 3834383419003400 |
| 0:01:01.012768 | LOG | PULL_ACK: 02 1323 04 |
| 0:01:05.110468 | LOG | PUSH_ACK: 02 2c29 01 |
| 0:01:05.112467 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c29, Identifier = 00, JSON = {'rxpk': [{'tmst': 2787687339, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAwABaeGOuhp4'}]} |
| 0:01:05.113466 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 0006, MIC: 8eba1a78) |
| 0:01:05.114465 | LOG | Server <---------- DUT |
| 0:01:05.116464 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0009, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: d6cdf54f) |
| 0:01:05.118463 | LOG | PULL_RESP: Protocol version = 02, Token = 545d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2789687339, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAACQAAEVlvGR3WzfVP'}} |
| 0:01:05.119462 | LOG | Server ----------> DUT |
| 0:01:05.123460 | LOG | TX_ACK: 02 545d 05 3834383419003400 |
| 0:01:09.000302 | LOG | PUSH_ACK: 02 2c2a 01 |
| 0:01:09.002283 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c2a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2791588173, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCBAADBwEW3C5RQQI='}]} |
| 0:01:09.004281 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 0006, MIC: 2e514102) |
| 0:01:09.036959 | LOG | Server <---------- DUT |
| 0:01:09.037958 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:09.039958 | LOG | Command Answer: 0307 |
| 0:01:09.050951 | LOG | MAC command communication completed |
| 0:01:09.056947 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:01:11.208740 | LOG | PULL_DATA: 02 fc4d 02 3834383419003400 |
| 0:01:11.210740 | LOG | PULL_ACK: 02 fc4d 04 |
| 0:01:13.989178 | LOG | PUSH_ACK: 02 2c2b 01 |
| 0:01:13.991177 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c2b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2796585981, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCABQABX2rLXlR4'}]} |
| 0:01:13.992176 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 0006, MIC: cb5e5478) |
| 0:01:13.994175 | LOG | Server <---------- DUT |
| 0:01:13.995175 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000a, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 91d5cc18) |
| 0:01:13.997176 | LOG | Frame command sent to the DUT |
| 0:01:13.999172 | LOG | PULL_RESP: Protocol version = 02, Token = a148, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2798585981, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACgDgh0iR1cwY'}} |
| 0:01:14.000172 | LOG | Server ----------> DUT |
| 0:01:14.003171 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:01:14.011166 | LOG | Send Test Command JoinReq process starts |
| 0:01:18.968382 | LOG | PUSH_ACK: 02 2c2c 01 |
| 0:01:18.971382 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c2c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2801588895, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCABgABhnh99y5w'}]} |
| 0:01:18.972382 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0006, FOpts: ), FPort: 01, FRMPayload: 0007, MIC: 7df72e70) |
| 0:01:18.974379 | LOG | Server <---------- DUT |
| 0:01:18.976379 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000b, FOpts: ), FPort: e0, FRMPayload: 02), MIC: e9bf3fee) |
| 0:01:18.979376 | LOG | Frame command sent to the DUT |
| 0:01:18.980376 | LOG | PULL_RESP: Protocol version = 02, Token = fb00, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2803588895, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAACwDgsOm/P+4='}} |
| 0:01:18.982374 | LOG | Server ----------> DUT |
| 0:01:19.005361 | LOG | Send Test Command JoinReq process completed |
| 0:01:19.013357 | LOG | Send Join Accept process starts |
| 0:01:21.289080 | LOG | PULL_DATA: 02 be03 02 3834383419003400 |
| 0:01:21.291080 | LOG | PULL_ACK: 02 be03 04 |
| 0:01:23.713717 | LOG | PUSH_ACK: 02 2c2d 01 |
| 0:01:23.716716 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c2d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2806290889, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -33, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIIAN+KTvU='}]} |

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| 0:01:23.718715 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0008),MIC: df8a4ef5) |
| 0:01:23.719714 | LOG | Server <---------- DUT |
| 0:01:23.721713 | LOG | DevNonce is greater than the previous in Join Request |
| 0:01:23.723712 | LOG | Previous DevNonce: 7 |
| 0:01:23.724711 | LOG | Actual DevNonce: 8 |
| 0:01:23.727710 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 030000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 3eb5626c) |
| 0:01:23.731708 | LOG | PULL_RESP: Protocol version = 02, Token = fa42, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2812290889, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IIO2IT/t6ltlPE+PeCfQi/4='}} |
| 0:01:23.732707 | LOG | Server ----------> DUT |
| 0:01:23.736705 | LOG | TX_ACK: 02 fa42 05 3834383419003400 |
| 0:01:31.498364 | LOG | PULL_DATA: 02 5ea7 02 3834383419003400 |
| 0:01:31.502344 | LOG | PULL_ACK: 02 5ea7 04 |
| 0:01:32.482793 | LOG | PUSH_ACK: 02 2c2f 01 |
| 0:01:32.485792 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c2f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2814967796, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -33, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIJANfAp44='}]} |
| 0:01:32.487791 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0009),MIC: d7c0a78e) |
| 0:01:32.488790 | LOG | Server <---------- DUT |
| 0:01:32.489790 | LOG | DevNonce is greater than the previous in Join Request |
| 0:01:32.491789 | LOG | Previous DevNonce: 8 |
| 0:01:32.492788 | LOG | Actual DevNonce: 9 |
| 0:01:32.500784 | LOG | Send Join Accept process starts |
| 0:01:40.145491 | LOG | PUSH_ACK: 02 2c30 01 |
| 0:01:40.150488 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c30, Identifier = 00, JSON = {'rxpk': [{'tmst': 2822698460, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -20, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIKALZG1iE='}]} |
| 0:01:40.152488 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 000a),MIC: b646d621) |
| 0:01:40.153486 | LOG | Server <---------- DUT |
| 0:01:40.154486 | LOG | DevNonce is greater than the previous in Join Request |
| 0:01:40.155485 | LOG | Previous DevNonce: 9 |
| 0:01:40.156485 | LOG | Actual DevNonce: 10 |
| 0:01:40.159483 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 210000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: ae3214b8) |
| 0:01:40.162482 | LOG | PULL_RESP: Protocol version = 02, Token = 0ef7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2828698460, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IBgsXqTaBTDSWL91TUXFssA='}} |
| 0:01:40.165480 | LOG | Server ----------> DUT |
| 0:01:40.172476 | LOG | TX_ACK: 02 0ef7 05 3834383419003400 |
| 0:01:41.638653 | LOG | PULL_DATA: 02 2fb0 02 3834383419003400 |
| 0:01:41.640652 | LOG | PULL_ACK: 02 2fb0 04 |
| 0:01:48.466818 | LOG | PUSH_ACK: 02 2c31 01 |
| 0:01:48.468818 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c31, Identifier = 00, JSON = {'rxpk': [{'tmst': 2831061497, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAAAAB0XdG149g'}]} |
| 0:01:48.470816 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0008, MIC: 46d78f60) |

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| 0:01:48.472815 | LOG | Server <---------- DUT |
| 0:01:48.484808 | LOG | Join Accept message has been sent successfully |
| 0:01:48.489806 | LOG | Check FCntUp after reset process starts |
| 0:01:48.519789 | LOG | Check FCntUp after reset process complete |
| 0:01:48.538778 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:01:48.542776 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: eb5e9e8f) |
| 0:01:48.545775 | LOG | Frame command sent to the DUT |
| 0:01:48.546774 | LOG | PULL_RESP: Protocol version = 02, Token = aa61, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2833061497, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAADADgU2LrXp6P'}} |
| 0:01:48.548773 | LOG | Server ----------> DUT |
| 0:01:48.551771 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:01:48.555768 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:51.699005 | LOG | PULL_DATA: 02 94ec 02 3834383419003400 |
| 0:01:51.701004 | LOG | PULL_ACK: 02 94ec 04 |
| 0:01:57.863542 | LOG | PUSH_ACK: 02 2c32 01 |
| 0:01:57.866541 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c32, Identifier = 00, JSON = {'rxpk': [{'tmst': 2840428875, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAQABXDOL5hGs'}]} |
| 0:01:57.867540 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0009, MIC: 8be611ac) |
| 0:01:57.869539 | LOG | Server <---------- DUT |
| 0:01:57.871538 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000d, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 7651220a) |
| 0:01:57.874537 | LOG | Frame command sent to the DUT |
| 0:01:57.875536 | LOG | PULL_RESP: Protocol version = 02, Token = 4150, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2842428875, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAADQDgWpp2USIK'}} |
| 0:01:57.876535 | LOG | Server ----------> DUT |
| 0:01:57.880533 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:57.885530 | LOG | Check ADR bit process starts |
| 0:02:01.869293 | LOG | PULL_DATA: 02 1acb 02 3834383419003400 |
| 0:02:01.872292 | LOG | PULL_ACK: 02 1acb 04 |
| 0:02:02.881724 | LOG | PUSH_ACK: 02 2c34 01 |
| 0:02:02.883723 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c34, Identifier = 00, JSON = {'rxpk': [{'tmst': 2845433183, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAgABIlpoIkCW'}]} |
| 0:02:02.884724 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 000a, MIC: 68224096) |
| 0:02:02.886724 | LOG | Server <---------- DUT |
| 0:02:02.889721 | LOG | ADR bit in FCtrl field is set |
| 0:02:02.908711 | LOG | Send LinkADRReq process starts |
| 0:02:07.871922 | LOG | PUSH_ACK: 02 2c35 01 |
| 0:02:07.873921 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c35, Identifier = 00, JSON = {'rxpk': [{'tmst': 2850437479, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAwABiwlo7U6b'}]} |
| 0:02:07.875920 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 000a, MIC: 68ed4e9b) |
| 0:02:07.877919 | LOG | Server <---------- DUT |

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| 0:02:07.879918 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000e, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 4829c4cf) |
| 0:02:07.882916 | LOG | PULL_RESP: Protocol version = 02, Token = ed2d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2852437479, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAADgAAJvgiBsxIKcTP'}} |
| 0:02:07.884915 | LOG | Server ----------> DUT |
| 0:02:07.889912 | LOG | TX_ACK: 02 ed2d 05 3834383419003400 |
| 0:02:11.751745 | LOG | PUSH_ACK: 02 2c36 01 |
| 0:02:11.753743 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c36, Identifier = 00, JSON = {'rxpk': [{'tmst': 2854336935, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCBAADBwHYLAe6a8s='}]} |
| 0:02:11.755742 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 000a, MIC: 07ba6bcb) |
| 0:02:11.756741 | LOG | Server <---------- DUT |
| 0:02:11.757742 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:11.758742 | LOG | Command Answer: 0307 |
| 0:02:11.765736 | LOG | MAC command communication completed |
| 0:02:11.774731 | LOG | End Test Step: Pre-Join Behaviour for Dynamic Channel (DC) plan devices |
| 0:02:11.779729 | LOG | Partial Verdict: PASS |
| 0:02:11.785725 | LOG | ========== |
| 0:02:11.793720 | LOG | ========== |
| 0:02:11.796719 | LOG | Start Test Step: LinkADRReq Join-Accept with DLSettings |
| 0:02:11.806713 | LOG | Send Test Command JoinReq process starts |
| 0:02:11.879677 | LOG | PULL_DATA: 02 30ae 02 3834383419003400 |
| 0:02:11.882672 | LOG | PULL_ACK: 02 30ae 04 |
| 0:02:16.742943 | LOG | PUSH_ACK: 02 2c37 01 |
| 0:02:16.744940 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c37, Identifier = 00, JSON = {'rxpk': [{'tmst': 2859334759, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCABQABLkI9oBVu'}]} |
| 0:02:16.745940 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 000a, MIC: 3da0156e) |
| 0:02:16.747938 | LOG | Server <---------- DUT |
| 0:02:16.749937 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000f, FOpts: ), FPort: e0, FRMPayload: 02), MIC: dd1476d8) |
| 0:02:16.751938 | LOG | Frame command sent to the DUT |
| 0:02:16.752938 | LOG | PULL_RESP: Protocol version = 02, Token = 523b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2861334759, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAADwDgJ90Udtg='}} |
| 0:02:16.753937 | LOG | Server ----------> DUT |
| 0:02:16.773924 | LOG | Send Test Command JoinReq process completed |
| 0:02:16.777921 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:02:21.460293 | LOG | PUSH_ACK: 02 2c38 01 |
| 0:02:21.462295 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c38, Identifier = 00, JSON = {'rxpk': [{'tmst': 2864036729, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -29, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBILAL2DcjI='}]} |
| 0:02:21.463292 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 000b),MIC: bd837232) |
| 0:02:21.464291 | LOG | Server <---------- DUT |
| 0:02:21.466291 | LOG | DevNonce is greater than the previous in Join Request |
| 0:02:21.467319 | LOG | Previous DevNonce: 10 |

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| 0:02:21.469289 | LOG | Actual DevNonce: 11 |
| 0:02:21.471292 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 220000, NetID: 000000, DevAddr: 20202020, DLSettings: 23, RxDelay: 01, CFList: ), MIC: 96c6e378) |
| 0:02:21.474285 | LOG | PULL_RESP: Protocol version = 02, Token = bc2c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2870036729, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'INjB0pckM5Qb40FV3LVqjtY='}} |
| 0:02:21.475285 | LOG | Server ----------> DUT |
| 0:02:21.478283 | LOG | TX_ACK: 02 bc2c 05 3834383419003400 |
| 0:02:21.889053 | LOG | PULL_DATA: 02 93e0 02 3834383419003400 |
| 0:02:21.890053 | LOG | PULL_ACK: 02 93e0 04 |
| 0:02:29.804607 | LOG | PUSH_ACK: 02 2c39 01 |
| 0:02:29.807605 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c39, Identifier = 00, JSON = {'rxpk': [{'tmst': 2872399764, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAAAABxOF9T5qw'}]} |
| 0:02:29.808605 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 000b, MIC: 7d4f9ab0) |
| 0:02:29.810604 | LOG | Server <---------- DUT |
| 0:02:29.818599 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:02:29.823597 | LOG | Activation process has finished successfully |
| 0:02:29.827594 | LOG | Data stored in the DUT after Activation: |
| 0:02:29.830593 | LOG | DevAddr: 20202020 |
| 0:02:29.834590 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:02:29.838588 | LOG | NwkSKey: 578bb7e48e4a45e7662a8af0d50c3851 |
| 0:02:29.842586 | LOG | AppSKey: 1b59a275f7feae7213bc7596f9176321 |
| 0:02:29.846584 | LOG | Check FCntUp after reset process starts |
| 0:02:29.853579 | LOG | Check FCntUp after reset process complete |
| 0:02:29.862576 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:02:29.865573 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0010, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 6bb88e5d) |
| 0:02:29.867572 | LOG | Frame command sent to the DUT |
| 0:02:29.869571 | LOG | PULL_RESP: Protocol version = 02, Token = ebd9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2874399764, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAEADg5cZruI5d'}} |
| 0:02:29.870569 | LOG | Server ----------> DUT |
| 0:02:29.872569 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:02:29.876567 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:31.968970 | LOG | PULL_DATA: 02 c687 02 3834383419003400 |
| 0:02:31.973967 | LOG | PULL_ACK: 02 c687 04 |
| 0:02:38.173486 | LOG | PUSH_ACK: 02 2c3b 01 |
| 0:02:38.175485 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2880752174, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAQABWWV4kPX0'}]} |
| 0:02:38.176484 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 000c, MIC: 7890f5f4) |
| 0:02:38.177484 | LOG | Server <---------- DUT |
| 0:02:38.179483 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0011, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 5720a836) |
| 0:02:38.181482 | LOG | Frame command sent to the DUT |
| 0:02:38.183481 | LOG | PULL_RESP: Protocol version = 02, Token = 14f5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2882752174, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAEQDgqm9XIKg2'}} |

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| 0:02:38.184480 | LOG | Server ----------> DUT |
| 0:02:38.188478 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:38.194475 | LOG | Check ADR bit process starts |
| 0:02:42.169243 | LOG | PULL_DATA: 02 0c32 02 3834383419003400 |
| 0:02:42.170242 | LOG | PULL_ACK: 02 0c32 04 |
| 0:02:43.173222 | LOG | PUSH_ACK: 02 2c3c 01 |
| 0:02:43.175221 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c3c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2885755129, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAgAB4WNQG/MT'}]} |
| 0:02:43.176221 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 000d, MIC: 501bf313) |
| 0:02:43.178219 | LOG | Server <---------- DUT |
| 0:02:43.181217 | LOG | ADR bit in FCtrl field is set |
| 0:02:43.188213 | LOG | Send LinkADRReq process starts |
| 0:02:48.163419 | LOG | PUSH_ACK: 02 2c3d 01 |
| 0:02:48.166417 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c3d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2890758065, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAwAB+yHFU7+u'}]} |
| 0:02:48.167418 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 000d, MIC: c553bfae) |
| 0:02:48.169417 | LOG | Server <---------- DUT |
| 0:02:48.170415 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0012, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 5f58f93a) |
| 0:02:48.173413 | LOG | PULL_RESP: Protocol version = 02, Token = 0c67, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2892758065, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAEgAAvkVc7IJfWPk6'}} |
| 0:02:48.174413 | LOG | Server ----------> DUT |
| 0:02:48.177411 | LOG | TX_ACK: 02 0c67 05 3834383419003400 |
| 0:02:52.048238 | LOG | PUSH_ACK: 02 2c3e 01 |
| 0:02:52.050237 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c3e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2894657538, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCBAADBwGYmC0kQ5A='}]} |
| 0:02:52.052235 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 000d, MIC: 2d244390) |
| 0:02:52.053234 | LOG | Server <---------- DUT |
| 0:02:52.054234 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:52.056233 | LOG | Command Answer: 0307 |
| 0:02:52.062231 | LOG | MAC command communication completed |
| 0:02:52.069225 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:02:52.369057 | LOG | PULL_DATA: 02 a3c3 02 3834383419003400 |
| 0:02:52.371057 | LOG | PULL_ACK: 02 a3c3 04 |
| 0:02:57.036436 | LOG | PUSH_ACK: 02 2c3f 01 |
| 0:02:57.038435 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c3f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2899655354, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCABQABdk2t7Rds'}]} |
| 0:02:57.039435 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 000d, MIC: aded176c) |
| 0:02:57.041434 | LOG | Server <---------- DUT |
| 0:02:57.042434 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0013, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: cc258f20) |

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| 0:02:57.045431 | LOG | Frame command sent to the DUT |
| 0:02:57.047431 | LOG | PULL_RESP: Protocol version = 02, Token = a78f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2900655354, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAEwDg+Ktbt8wljyA='}} |
| 0:02:57.049429 | LOG | Server ----------> DUT |
| 0:02:57.052429 | LOG | TX_ACK: 02 a78f 05 3834383419003400 |
| 0:03:02.051621 | LOG | PUSH_ACK: 02 2c40 01 |
| 0:03:02.056618 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c40, Identifier = 00, JSON = {'rxpk': [{'tmst': 2904666797, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCABgDgZkClRR0svRE='}]} |
| 0:03:02.058617 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: 1d2cbd11) |
| 0:03:02.060616 | LOG | Server <---------- DUT |
| 0:03:02.061615 | LOG | Answer in payload: 020304 |
| 0:03:02.063614 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:03:02.070610 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:03:02.076607 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:03:02.081604 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:03:02.508857 | LOG | PULL_DATA: 02 f846 02 3834383419003400 |
| 0:03:02.510837 | LOG | PULL_ACK: 02 f846 04 |
| 0:03:07.053288 | LOG | PUSH_ACK: 02 2c42 01 |
| 0:03:07.056286 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c42, Identifier = 00, JSON = {'rxpk': [{'tmst': 2909662621, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCABwABP4Qr1Faq'}]} |
| 0:03:07.057289 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0007, FOpts: ), FPort: 01, FRMPayload: 000e, MIC: 2bd456aa) |
| 0:03:07.059289 | LOG | Server <---------- DUT |
| 0:03:07.060289 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0014, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 9fba458a) |
| 0:03:07.062287 | LOG | Frame command sent to the DUT |
| 0:03:07.064283 | LOG | PULL_RESP: Protocol version = 02, Token = 1435, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2911662621, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAFADgHjnf65+6RYo='}} |
| 0:03:07.065282 | LOG | Server ----------> DUT |
| 0:03:07.069280 | LOG | TX_ACK: 02 1435 05 3834383419003400 |
| 0:03:12.082465 | LOG | PUSH_ACK: 02 2c43 01 |
| 0:03:12.084461 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c43, Identifier = 00, JSON = {'rxpk': [{'tmst': 2914678198, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCACADgpZjcBRKxvFs='}]} |
| 0:03:12.085463 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0008, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: 12b1bc5b) |
| 0:03:12.086462 | LOG | Server <---------- DUT |
| 0:03:12.087462 | LOG | Answer in payload: 0b0c0d |
| 0:03:12.089459 | LOG | Frame Command Payload in the Answer: 080b0c0d |
| 0:03:12.092459 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:03:12.095457 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:03:12.099453 | LOG | Send Test Command JoinReq process starts |
| 0:03:12.529212 | LOG | PULL_DATA: 02 731b 02 3834383419003400 |
| 0:03:12.531212 | LOG | PULL_ACK: 02 731b 04 |
| 0:03:17.070663 | LOG | PUSH_ACK: 02 2c44 01 |

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| 0:03:17.073662 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c44, Identifier = 00, JSON = {'rxpk': [{'tmst': 2919672638, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCACQAB/mh7rcfO'}]} |
| 0:03:17.074661 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0009, FOpts: ), FPort: 01, FRMPayload: 000f, MIC: 7badc7ce) |
| 0:03:17.075661 | LOG | Server <---------- DUT |
| 0:03:17.077660 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0015, FOpts: ), FPort: e0, FRMPayload: 02), MIC: 6a6b6b55) |
| 0:03:17.079659 | LOG | Frame command sent to the DUT |
| 0:03:17.081656 | LOG | PULL_RESP: Protocol version = 02, Token = 32df, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2921672638, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAFQDgfWpra1U='}} |
| 0:03:17.083655 | LOG | Server ----------> DUT |
| 0:03:17.109640 | LOG | Send Test Command JoinReq process completed |
| 0:03:17.112656 | LOG | Send Join Accept process starts |
| 0:03:20.787575 | LOG | PUSH_ACK: 02 2c45 01 |
| 0:03:20.789574 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c45, Identifier = 00, JSON = {'rxpk': [{'tmst': 2923339343, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -20, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIMACj5O98='}]} |
| 0:03:20.791573 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 000c),MIC: 28f93bdf) |
| 0:03:20.792572 | LOG | Server <---------- DUT |
| 0:03:20.793571 | LOG | DevNonce is greater than the previous in Join Request |
| 0:03:20.795570 | LOG | Previous DevNonce: 11 |
| 0:03:20.796569 | LOG | Actual DevNonce: 12 |
| 0:03:20.799568 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 230000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 572b1548) |
| 0:03:20.803566 | LOG | PULL_RESP: Protocol version = 02, Token = 6f4f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2929339343, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'ICL7wkJgpmhy3KZ08hF2zGo='}} |
| 0:03:20.804565 | LOG | Server ----------> DUT |
| 0:03:20.808564 | LOG | TX_ACK: 02 6f4f 05 3834383419003400 |
| 0:03:22.688507 | LOG | PULL_DATA: 02 ce59 02 3834383419003400 |
| 0:03:22.691507 | LOG | PULL_ACK: 02 ce59 04 |
| 0:03:29.104904 | LOG | PUSH_ACK: 02 2c47 01 |
| 0:03:29.106903 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c47, Identifier = 00, JSON = {'rxpk': [{'tmst': 2931702371, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAAABVdMwwsr1'}]} |
| 0:03:29.108902 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0010, MIC: 30c2caf5) |
| 0:03:29.110901 | LOG | Server <---------- DUT |
| 0:03:29.118896 | LOG | Join Accept message has been sent successfully |
| 0:03:29.145881 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:03:29.149880 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0016, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 4a01a947) |
| 0:03:29.152878 | LOG | Frame command sent to the DUT |
| 0:03:29.154876 | LOG | PULL_RESP: Protocol version = 02, Token = 6f10, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2933702371, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAFgDg1kRKAalH'}} |
| 0:03:29.155875 | LOG | Server ----------> DUT |

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| 0:03:29.159874 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:03:29.163871 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:32.728888 | LOG | PULL_DATA: 02 6ae2 02 3834383419003400 |
| 0:03:32.733866 | LOG | PULL_ACK: 02 6ae2 04 |
| 0:03:38.511622 | LOG | PUSH_ACK: 02 2c49 01 |
| 0:03:38.514621 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c49, Identifier = 00, JSON = {'rxpk': [{'tmst': 2941069765, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAQAB5+QumgKk'}]} |
| 0:03:38.516619 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0011, MIC: 2e9a02a4) |
| 0:03:38.518619 | LOG | Server <---------- DUT |
| 0:03:38.520618 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0017, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 9ffce7e8) |
| 0:03:38.522616 | LOG | Frame command sent to the DUT |
| 0:03:38.524615 | LOG | PULL_RESP: Protocol version = 02, Token = 6c4d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2943069765, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAFwDg6J6f/Ofo'}} |
| 0:03:38.527614 | LOG | Server ----------> DUT |
| 0:03:38.531611 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:38.542606 | LOG | Check ADR bit process starts |
| 0:03:42.939136 | LOG | PULL_DATA: 02 7d66 02 3834383419003400 |
| 0:03:42.941135 | LOG | PULL_ACK: 02 7d66 04 |
| 0:03:43.503819 | LOG | PUSH_ACK: 02 2c4a 01 |
| 0:03:43.506818 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c4a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2946074087, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAgABnSa5VcSF'}]} |
| 0:03:43.507817 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0012, MIC: b955c485) |
| 0:03:43.508816 | LOG | Server <---------- DUT |
| 0:03:43.511816 | LOG | ADR bit in FCtrl field is set |
| 0:03:43.516813 | LOG | Send LinkADRReq process starts |
| 0:03:48.493018 | LOG | PUSH_ACK: 02 2c4b 01 |
| 0:03:48.495016 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c4b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2951077039, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAwABaI76SWGn'}]} |
| 0:03:48.496018 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 0012, MIC: fa4961a7) |
| 0:03:48.497018 | LOG | Server <---------- DUT |
| 0:03:48.499016 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0018, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 5502ecaf) |
| 0:03:48.502013 | LOG | PULL_RESP: Protocol version = 02, Token = 1f44, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2953077039, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAGAAAf9rhcpVVAuyv'}} |
| 0:03:48.504012 | LOG | Server ----------> DUT |
| 0:03:48.507012 | LOG | TX_ACK: 02 1f44 05 3834383419003400 |
| 0:03:52.390829 | LOG | PUSH_ACK: 02 2c4c 01 |
| 0:03:52.392828 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c4c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2954980575, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCBAADBwHdjMJ8Qz8='}]} |

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| 0:03:52.394827 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 0012, MIC: c27c433f) |
| 0:03:52.395827 | LOG | Server <---------- DUT |
| 0:03:52.396826 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:52.397827 | LOG | Command Answer: 0307 |
| 0:03:52.407820 | LOG | MAC command communication completed |
| 0:03:52.419814 | LOG | End Test Step: LinkADRReq Join-Accept with DLSettings |
| 0:03:52.423810 | LOG | Partial Verdict: PASS |
| 0:03:52.427808 | LOG | ========== |
| 0:03:52.431807 | LOG | ========== |
| 0:03:52.433805 | LOG | Start Test Step: Join-Accept with Delay Settings |
| 0:03:52.443800 | LOG | Send Test Command JoinReq process starts |
| 0:03:53.119420 | LOG | PULL_DATA: 02 2f3b 02 3834383419003400 |
| 0:03:53.121419 | LOG | PULL_ACK: 02 2f3b 04 |
| 0:03:57.379072 | LOG | PUSH_ACK: 02 2c4d 01 |
| 0:03:57.382071 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c4d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2959978399, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABQABzXD8O4IK'}]} |
| 0:03:57.383070 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 0012, MIC: fc3b820a) |
| 0:03:57.384069 | LOG | Server <---------- DUT |
| 0:03:57.386069 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0019, FOpts: ), FPort: e0, FRMPayload: 02), MIC: c67813e9) |
| 0:03:57.388067 | LOG | Frame command sent to the DUT |
| 0:03:57.389067 | LOG | PULL_RESP: Protocol version = 02, Token = be07, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2961978399, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAGQDg18Z4E+k='}} |
| 0:03:57.390066 | LOG | Server ----------> DUT |
| 0:03:57.411054 | LOG | Send Test Command JoinReq process completed |
| 0:03:57.419051 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:04:02.103452 | LOG | PUSH_ACK: 02 2c4e 01 |
| 0:04:02.106450 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c4e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2964680419, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -39, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBINADD1dkY='}]} |
| 0:04:02.107451 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 000d),MIC: 30f57646) |
| 0:04:02.109449 | LOG | Server <---------- DUT |
| 0:04:02.111447 | LOG | DevNonce is greater than the previous in Join Request |
| 0:04:02.112449 | LOG | Previous DevNonce: 12 |
| 0:04:02.113448 | LOG | Actual DevNonce: 13 |
| 0:04:02.116445 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 240000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 02, CFList: ), MIC: ba6bf292) |
| 0:04:02.119443 | LOG | PULL_RESP: Protocol version = 02, Token = 4dd9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2970680419, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'ICr1AQowbqH2gD0uFKU9MBE='}} |
| 0:04:02.121442 | LOG | Server ----------> DUT |
| 0:04:02.125440 | LOG | TX_ACK: 02 4dd9 05 3834383419003400 |
| 0:04:03.168526 | LOG | PULL_DATA: 02 6a8d 02 3834383419003400 |
| 0:04:03.172523 | LOG | PULL_ACK: 02 6a8d 04 |
| 0:04:10.446440 | LOG | PUSH_ACK: 02 2c50 01 |

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| 0:04:10.448439 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c50, Identifier = 00, JSON = {'rxpk': [{'tmst': 2973043454, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAAABmm9f64Uh'}]} |
| 0:04:10.452435 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0013, MIC: 5feb8521) |
| 0:04:10.456433 | LOG | Server <---------- DUT |
| 0:04:10.463430 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:04:10.465432 | LOG | Activation process has finished successfully |
| 0:04:10.471425 | LOG | Data stored in the DUT after Activation: |
| 0:04:10.474424 | LOG | DevAddr: 20202020 |
| 0:04:10.477409 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:04:10.479410 | LOG | NwkSKey: b2086b3e6467023677b4c56546d22c98 |
| 0:04:10.481407 | LOG | AppSKey: fde8d7e38444f6773706a025c0b66c38 |
| 0:04:10.483390 | LOG | Check FCntUp after reset process starts |
| 0:04:10.489386 | LOG | Check FCntUp after reset process complete |
| 0:04:10.499380 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:04:10.503376 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001a, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 4d71d41d) |
| 0:04:10.505393 | LOG | Frame command sent to the DUT |
| 0:04:10.507375 | LOG | PULL_RESP: Protocol version = 02, Token = fe31, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2976043454, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAGgDguxNNcdQd'}} |
| 0:04:10.508393 | LOG | Server ----------> DUT |
| 0:04:10.511372 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:04:10.514372 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:13.239582 | LOG | PULL_DATA: 02 e399 02 3834383419003400 |
| 0:04:13.241581 | LOG | PULL_ACK: 02 e399 04 |
| 0:04:20.846328 | LOG | PUSH_ACK: 02 2c51 01 |
| 0:04:20.848309 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c51, Identifier = 00, JSON = {'rxpk': [{'tmst': 2983410816, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAQABGC4jisRk'}]} |
| 0:04:20.849310 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0014, MIC: 238ac464) |
| 0:04:20.851308 | LOG | Server <---------- DUT |
| 0:04:20.852307 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001b, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 4182c4df) |
| 0:04:20.855305 | LOG | Frame command sent to the DUT |
| 0:04:20.857304 | LOG | PULL_RESP: Protocol version = 02, Token = a8a4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2986410816, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAGwDgGbNBgsTf'}} |
| 0:04:20.859303 | LOG | Server ----------> DUT |
| 0:04:20.862303 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:20.872298 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:04:23.379429 | LOG | PULL_DATA: 02 3d77 02 3834383419003400 |
| 0:04:23.381428 | LOG | PULL_ACK: 02 3d77 04 |
| 0:04:30.852235 | LOG | PUSH_ACK: 02 2c52 01 |
| 0:04:30.854234 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c52, Identifier = 00, JSON = {'rxpk': [{'tmst': 2993416739, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAgABGVN5WCMB'}]} |
| 0:04:30.855231 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0015, MIC: 79582301) |

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| 0:04:30.857230 | LOG | Server <---------- DUT |
| 0:04:30.859229 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001c, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 640a9846) |
| 0:04:30.861230 | LOG | Frame command sent to the DUT |
| 0:04:30.863226 | LOG | PULL_RESP: Protocol version = 02, Token = 4548, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2995416739, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAHADgWMEgzmQKmEY='}} |
| 0:04:30.864226 | LOG | Server ----------> DUT |
| 0:04:30.868224 | LOG | TX_ACK: 02 4548 05 3834383419003400 |
| 0:04:33.588841 | LOG | PULL_DATA: 02 8557 02 3834383419003400 |
| 0:04:33.593840 | LOG | PULL_ACK: 02 8557 04 |
| 0:04:36.004487 | LOG | PUSH_ACK: 02 2c54 01 |
| 0:04:36.005487 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c54, Identifier = 00, JSON = {'rxpk': [{'tmst': 2998589638, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -12, 'size': 17, 'data': 'QCAgICCAAwDgcLu4H3sWED8='}]} |
| 0:04:36.007484 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: 7b16103f) |
| 0:04:36.009483 | LOG | Server <---------- DUT |
| 0:04:36.010483 | LOG | Answer in payload: 020304 |
| 0:04:36.012481 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:04:36.015481 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:04:36.021476 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:04:36.028472 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:04:40.837866 | LOG | PUSH_ACK: 02 2c55 01 |
| 0:04:40.839866 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c55, Identifier = 00, JSON = {'rxpk': [{'tmst': 3003425358, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCABAABOMy5rlLR'}]} |
| 0:04:40.842865 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0004, FOpts: ), FPort: 01, FRMPayload: 0016, MIC: b9ae52d1) |
| 0:04:40.846861 | LOG | Server <---------- DUT |
| 0:04:40.849861 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001d, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 0440906f) |
| 0:04:40.856856 | LOG | Frame command sent to the DUT |
| 0:04:40.861855 | LOG | PULL_RESP: Protocol version = 02, Token = 8be2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3006425358, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAHQDgpCERSgRAkG8='}} |
| 0:04:40.865821 | LOG | Server ----------> DUT |
| 0:04:40.869821 | LOG | TX_ACK: 02 8be2 05 3834383419003400 |
| 0:04:43.599317 | LOG | PULL_DATA: 02 42b5 02 3834383419003400 |
| 0:04:43.601316 | LOG | PULL_ACK: 02 42b5 04 |
| 0:04:51.021266 | LOG | PUSH_ACK: 02 2c56 01 |
| 0:04:51.023265 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c56, Identifier = 00, JSON = {'rxpk': [{'tmst': 3013598490, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -12, 'size': 17, 'data': 'QCAgICCABQDgFVr+TlCdhyA='}]} |
| 0:04:51.024264 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: 509d8720) |
| 0:04:51.025263 | LOG | Server <---------- DUT |
| 0:04:51.027262 | LOG | Answer in payload: 0b0c0d |
| 0:04:51.028262 | LOG | Frame Command Payload in the Answer: 080b0c0d |
| 0:04:51.031260 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:04:51.035258 | LOG | Send Test Command EchoPayloadReq process completed |

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| 0:04:51.039256 | LOG | Send Test Command JoinReq process starts |
| 0:04:53.678862 | LOG | PULL_DATA: 02 06d5 02 3834383419003400 |
| 0:04:53.680863 | LOG | PULL_ACK: 02 06d5 04 |
| 0:04:55.854611 | LOG | PUSH_ACK: 02 2c57 01 |
| 0:04:55.856610 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c57, Identifier = 00, JSON = {'rxpk': [{'tmst': 3018435578, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCABgAB0RxpoWCI'}]} |
| 0:04:55.857611 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0006, FOpts: ), FPort: 01, FRMPayload: 0017, MIC: 69a16088) |
| 0:04:55.858611 | LOG | Server <---------- DUT |
| 0:04:55.860608 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001e, FOpts: ), FPort: e0, FRMPayload: 02), MIC: c66e64f7) |
| 0:04:55.862609 | LOG | Frame command sent to the DUT |
| 0:04:55.864606 | LOG | PULL_RESP: Protocol version = 02, Token = 8fa8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3021435578, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAHgDgacZuZPc='}} |
| 0:04:55.865605 | LOG | Server ----------> DUT |
| 0:04:55.893589 | LOG | Send Test Command JoinReq process completed |
| 0:04:55.895590 | LOG | Send Join Accept process starts |
| 0:05:01.561369 | LOG | PUSH_ACK: 02 2c58 01 |
| 0:05:01.564369 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c58, Identifier = 00, JSON = {'rxpk': [{'tmst': 3024137549, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -27, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIOAFZV+RI='}]} |
| 0:05:01.565368 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 000e),MIC: 5655f912) |
| 0:05:01.567365 | LOG | Server <---------- DUT |
| 0:05:01.569337 | LOG | DevNonce is greater than the previous in Join Request |
| 0:05:01.570364 | LOG | Previous DevNonce: 13 |
| 0:05:01.573362 | LOG | Actual DevNonce: 14 |
| 0:05:01.576361 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 250000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 8a5543d9) |
| 0:05:01.579358 | LOG | PULL_RESP: Protocol version = 02, Token = 904d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3030137549, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IAbIW0gabvfXsVDn3k4zwaU='}} |
| 0:05:01.580359 | LOG | Server ----------> DUT |
| 0:05:01.584358 | LOG | TX_ACK: 02 904d 05 3834383419003400 |
| 0:05:03.888660 | LOG | PULL_DATA: 02 95cc 02 3834383419003400 |
| 0:05:03.892657 | LOG | PULL_ACK: 02 95cc 04 |
| 0:05:09.904283 | LOG | PUSH_ACK: 02 2c5a 01 |
| 0:05:09.908279 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c5a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3032500583, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAAABrhgcxB0X'}]} |
| 0:05:09.912278 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0018, MIC: 1cc41d17) |
| 0:05:09.916276 | LOG | Server <---------- DUT |
| 0:05:09.929269 | LOG | Join Accept message has been sent successfully |
| 0:05:09.946259 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:05:09.948275 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001f, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: e520de65) |
| 0:05:09.951256 | LOG | Frame command sent to the DUT |

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| 0:05:09.953256 | LOG | PULL_RESP: Protocol version = 02, Token = 4b67, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3034500583, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAHwDgKBflIN5l'}} |
| 0:05:09.954274 | LOG | Server ----------> DUT |
| 0:05:09.957252 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:05:09.961252 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:13.939163 | LOG | PULL_DATA: 02 5da2 02 3834383419003400 |
| 0:05:13.941162 | LOG | PULL_ACK: 02 5da2 04 |
| 0:05:19.301152 | LOG | PUSH_ACK: 02 2c5b 01 |
| 0:05:19.303151 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c5b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3041869345, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAQABa3y2T/Tm'}]} |
| 0:05:19.305150 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0019, MIC: b64ff4e6) |
| 0:05:19.307149 | LOG | Server <---------- DUT |
| 0:05:19.309150 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0020, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 50075de5) |
| 0:05:19.311148 | LOG | Frame command sent to the DUT |
| 0:05:19.312148 | LOG | PULL_RESP: Protocol version = 02, Token = d833, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3043869345, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAIADgNNRQB13l'}} |
| 0:05:19.313147 | LOG | Server ----------> DUT |
| 0:05:19.317143 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:19.322141 | LOG | Check ADR bit process starts |
| 0:05:24.139160 | LOG | PULL_DATA: 02 fe00 02 3834383419003400 |
| 0:05:24.141162 | LOG | PULL_ACK: 02 fe00 04 |
| 0:05:24.303274 | LOG | PUSH_ACK: 02 2c5c 01 |
| 0:05:24.305273 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c5c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3046873659, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAgABmT04GSFw'}]} |
| 0:05:24.306273 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 001a, MIC: 38192170) |
| 0:05:24.308272 | LOG | Server <---------- DUT |
| 0:05:24.311270 | LOG | ADR bit in FCtrl field is set |
| 0:05:24.317267 | LOG | Send LinkADRReq process starts |
| 0:05:29.291077 | LOG | PUSH_ACK: 02 2c5d 01 |
| 0:05:29.293076 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c5d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3051876603, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAwABKhbOj4sl'}]} |
| 0:05:29.295079 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 001a, MIC: ce8f8b25) |
| 0:05:29.296074 | LOG | Server <---------- DUT |
| 0:05:29.297078 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0021, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 76b2f6d7) |
| 0:05:29.299077 | LOG | PULL_RESP: Protocol version = 02, Token = 34f5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3053876603, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAIQAAUNvX8bZ2svbX'}} |
| 0:05:29.303070 | LOG | Server ----------> DUT |
| 0:05:29.310066 | LOG | TX_ACK: 02 34f5 05 3834383419003400 |
| 0:05:33.153925 | LOG | PUSH_ACK: 02 2c5f 01 |

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| 0:05:33.156925 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c5f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3055777427, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCBAADBwHQsAo+Vs4='}]} |
| 0:05:33.160922 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 001a, MIC: 0a3e56ce) |
| 0:05:33.164920 | LOG | Server <---------- DUT |
| 0:05:33.169918 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:33.173915 | LOG | Command Answer: 0307 |
| 0:05:33.190904 | LOG | MAC command communication completed |
| 0:05:33.198899 | LOG | End Test Step: Join-Accept with Delay Settings |
| 0:05:33.202898 | LOG | Partial Verdict: PASS |
| 0:05:33.208894 | LOG | ========== |
| 0:05:33.216889 | LOG | ========== |
| 0:05:33.218888 | LOG | Start Test Step: Join-Accept with CFList for Dynamic Channel (DC) plan |
| 0:05:33.226883 | LOG | Send Test Command JoinReq process starts |
| 0:05:34.349263 | LOG | PULL_DATA: 02 65f6 02 3834383419003400 |
| 0:05:34.352259 | LOG | PULL_ACK: 02 65f6 04 |
| 0:05:38.195101 | LOG | PUSH_ACK: 02 2c60 01 |
| 0:05:38.198100 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c60, Identifier = 00, JSON = {'rxpk': [{'tmst': 3060776611, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCABQABpAQVuYEn'}]} |
| 0:05:38.199099 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 001a, MIC: 15b98127) |
| 0:05:38.201100 | LOG | Server <---------- DUT |
| 0:05:38.202098 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0022, FOpts: ), FPort: e0, FRMPayload: 02), MIC: f8556189) |
| 0:05:38.205096 | LOG | Frame command sent to the DUT |
| 0:05:38.208097 | LOG | PULL_RESP: Protocol version = 02, Token = 81c5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3062776611, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAIgDg2PhVYYk='}} |
| 0:05:38.209094 | LOG | Server ----------> DUT |
| 0:05:38.241076 | LOG | Send Test Command JoinReq process completed |
| 0:05:38.248072 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:05:42.903515 | LOG | PUSH_ACK: 02 2c61 01 |
| 0:05:42.905512 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c61, Identifier = 00, JSON = {'rxpk': [{'tmst': 3065478592, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -33, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIPACNCpdY='}]} |
| 0:05:42.907484 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 000f),MIC: 2342a5d6) |
| 0:05:42.909510 | LOG | Server <---------- DUT |
| 0:05:42.910510 | LOG | DevNonce is greater than the previous in Join Request |
| 0:05:42.912510 | LOG | Previous DevNonce: 14 |
| 0:05:42.913507 | LOG | Actual DevNonce: 15 |
| 0:05:42.917505 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 260000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: 886684000000000000000000000000), MIC: 57f21281) |
| 0:05:42.921503 | LOG | PULL_RESP: Protocol version = 02, Token = f95c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3071478592, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 33, 'data': 'IEShhao2FF0Jzn7pY4ycRaaIpRZsMR0TDi2xHh8pJX7X'}} |
| 0:05:42.923502 | LOG | Server ----------> DUT |

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| 0:05:42.928500 | LOG | TX_ACK: 02 f95c 05 3834383419003400 |
| 0:05:44.388837 | LOG | PULL_DATA: 02 46d8 02 3834383419003400 |
| 0:05:44.390835 | LOG | PULL_ACK: 02 46d8 04 |
| 0:05:51.899646 | LOG | PUSH_ACK: 02 2c62 01 |
| 0:05:51.902644 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c62, Identifier = 00, JSON = {'rxpk': [{'tmst': 3074497137, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAAABSbyS9r/G'}]} |
| 0:05:51.904642 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 001b, MIC: 92f6bfc6) |
| 0:05:51.905641 | LOG | Server <---------- DUT |
| 0:05:51.910608 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:05:51.913607 | LOG | Activation process has finished successfully |
| 0:05:51.916621 | LOG | Data stored in the DUT after Activation: |
| 0:05:51.918622 | LOG | DevAddr: 20202020 |
| 0:05:51.920602 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:05:51.922602 | LOG | NwkSKey: 77867245c42328be559a0ebd29c7dfeb |
| 0:05:51.924600 | LOG | AppSKey: 5832f4d2381a74267be7f294acea9890 |
| 0:05:51.927598 | LOG | Check FCntUp after reset process starts |
| 0:05:51.933613 | LOG | Check FCntUp after reset process complete |
| 0:05:51.950586 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:05:51.955583 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0023, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 422558de) |
| 0:05:51.959581 | LOG | Frame command sent to the DUT |
| 0:05:51.961579 | LOG | PULL_RESP: Protocol version = 02, Token = cdcf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3076497137, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAIwDgElZCJVje'}} |
| 0:05:51.962579 | LOG | Server ----------> DUT |
| 0:05:51.965579 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:05:51.970574 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:54.478845 | LOG | PULL_DATA: 02 1215 02 3834383419003400 |
| 0:05:54.480843 | LOG | PULL_ACK: 02 1215 04 |
| 0:06:01.299048 | LOG | PUSH_ACK: 02 2c64 01 |
| 0:06:01.301046 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c64, Identifier = 00, JSON = {'rxpk': [{'tmst': 3083864543, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAQABpPqA3cMM'}]} |
| 0:06:01.303045 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 001c, MIC: 80ddc30c) |
| 0:06:01.304046 | LOG | Server <---------- DUT |
| 0:06:01.306044 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0024, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: acc58109) |
| 0:06:01.309042 | LOG | Frame command sent to the DUT |
| 0:06:01.311040 | LOG | PULL_RESP: Protocol version = 02, Token = f37d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3085864543, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAJADgxLSsxYEJ'}} |
| 0:06:01.312040 | LOG | Server ----------> DUT |
| 0:06:01.317037 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:01.327032 | LOG | Receive frame on specific channels process starts |
| 0:06:01.335027 | LOG | Attempt 1/20 |
| 0:06:04.669610 | LOG | PULL_DATA: 02 327c 02 3834383419003400 |
| 0:06:04.677607 | LOG | PULL_ACK: 02 327c 04 |
| 0:06:06.298921 | LOG | PUSH_ACK: 02 2c66 01 |

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| 0:06:06.300912 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c66, Identifier = 00, JSON = {'rxpk': [{'tmst': 3088867497, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAgABpPBqmhpG'}]} |
| 0:06:06.302911 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 001d, MIC: 6a9a1a46) |
| 0:06:06.303911 | LOG | Server <---------- DUT |
| 0:06:06.305910 | LOG | Attempt 2/20 |
| 0:06:11.287181 | LOG | PUSH_ACK: 02 2c67 01 |
| 0:06:11.290181 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c67, Identifier = 00, JSON = {'rxpk': [{'tmst': 3093871817, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAwABotBCMdLv'}]} |
| 0:06:11.291179 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 001d, MIC: 4231d2ef) |
| 0:06:11.292181 | LOG | Server <---------- DUT |
| 0:06:11.295179 | LOG | Receive frame on specific channels process tested successfully |
| 0:06:11.298176 | LOG | Send Test Command JoinReq process starts |
| 0:06:14.759261 | LOG | PULL_DATA: 02 f7af 02 3834383419003400 |
| 0:06:14.761260 | LOG | PULL_ACK: 02 f7af 04 |
| 0:06:16.327349 | LOG | PUSH_ACK: 02 2c68 01 |
| 0:06:16.329348 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c68, Identifier = 00, JSON = {'rxpk': [{'tmst': 3098876137, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCABAABy7iiVUCC'}]} |
| 0:06:16.331348 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0004, FOpts: ), FPort: 01, FRMPayload: 001d, MIC: a2554082) |
| 0:06:16.332349 | LOG | Server <---------- DUT |
| 0:06:16.334348 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0025, FOpts: ), FPort: e0, FRMPayload: 02), MIC: 61575548) |
| 0:06:16.336345 | LOG | Frame command sent to the DUT |
| 0:06:16.338344 | LOG | PULL_RESP: Protocol version = 02, Token = 88e1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3100876137, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAJQDgdWFXVUg='}} |
| 0:06:16.340343 | LOG | Server ----------> DUT |
| 0:06:16.368326 | LOG | Send Test Command JoinReq process completed |
| 0:06:16.379321 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:06:21.002439 | LOG | PUSH_ACK: 02 2c69 01 |
| 0:06:21.004442 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c69, Identifier = 00, JSON = {'rxpk': [{'tmst': 3103578122, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -21, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIQANAGQyk='}]} |
| 0:06:21.006438 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0010),MIC: d0064329) |
| 0:06:21.008437 | LOG | Server <---------- DUT |
| 0:06:21.009435 | LOG | DevNonce is greater than the previous in Join Request |
| 0:06:21.011435 | LOG | Previous DevNonce: 15 |
| 0:06:21.012438 | LOG | Actual DevNonce: 16 |
| 0:06:21.015431 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 270000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: 886684000000000000000000000000001), MIC: 8510801b) |
| 0:06:21.018430 | LOG | PULL_RESP: Protocol version = 02, Token = 8d6c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3109578122, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 33, 'data': 'IEZ3FchWrNrmtb30HFGECwh2B4uPqZYqiK4ZJFPG7Pao'}} |

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| 0:06:21.020430 | LOG | Server ----------> DUT |
| 0:06:21.024429 | LOG | TX_ACK: 02 8d6c 05 3834383419003400 |
| 0:06:24.798709 | LOG | PULL_DATA: 02 e326 02 3834383419003400 |
| 0:06:24.800679 | LOG | PULL_ACK: 02 e326 04 |
| 0:06:30.000812 | LOG | PUSH_ACK: 02 2c6a 01 |
| 0:06:30.003810 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c6a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3112596501, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAAABf+LBQZrm'}]} |
| 0:06:30.005809 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 001e, MIC: c1419ae6) |
| 0:06:30.006809 | LOG | Server <---------- DUT |
| 0:06:30.010806 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:06:30.013804 | LOG | Activation process has finished successfully |
| 0:06:30.015803 | LOG | Data stored in the DUT after Activation: |
| 0:06:30.017802 | LOG | DevAddr: 20202020 |
| 0:06:30.020800 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:06:30.022799 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:06:30.025797 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:06:30.027796 | LOG | Check FCntUp after reset process starts |
| 0:06:30.033793 | LOG | Check FCntUp after reset process complete |
| 0:06:30.043787 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:06:30.046785 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0026, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: e763a784) |
| 0:06:30.048785 | LOG | Frame command sent to the DUT |
| 0:06:30.049784 | LOG | PULL_RESP: Protocol version = 02, Token = 6ed9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3114596501, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAJgDgz8XnY6eE'}} |
| 0:06:30.051783 | LOG | Server ----------> DUT |
| 0:06:30.055781 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:06:30.060778 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:34.878947 | LOG | PULL_DATA: 02 ea4d 02 3834383419003400 |
| 0:06:34.883945 | LOG | PULL_ACK: 02 ea4d 04 |
| 0:06:39.415400 | LOG | PUSH_ACK: 02 2c6c 01 |
| 0:06:39.417399 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c6c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3121963880, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAQABkrst87ng'}]} |
| 0:06:39.418398 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 001f, MIC: 2df3b9e0) |
| 0:06:39.419396 | LOG | Server <---------- DUT |
| 0:06:39.421396 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0027, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 34715c47) |
| 0:06:39.424393 | LOG | Frame command sent to the DUT |
| 0:06:39.427394 | LOG | PULL_RESP: Protocol version = 02, Token = ea8f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3123963880, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAJwDgkUc0cVxH'}} |
| 0:06:39.428392 | LOG | Server ----------> DUT |
| 0:06:39.432390 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:39.439385 | LOG | Receive frame on specific channels process starts |
| 0:06:39.451379 | LOG | Attempt 1/15 |
| 0:06:44.398783 | LOG | PUSH_ACK: 02 2c6d 01 |
| 0:06:44.403779 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c6d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3126966809, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAgABqX2u22ti'}]} |
| 0:06:44.405779 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: aedb6b62) |
| 0:06:44.407776 | LOG | Server <---------- DUT |
| 0:06:44.408751 | LOG | Attempt 2/15 |
| 0:06:44.889506 | LOG | PULL_DATA: 02 b3cd 02 3834383419003400 |
| 0:06:44.892504 | LOG | PULL_ACK: 02 b3cd 04 |
| 0:06:49.390979 | LOG | PUSH_ACK: 02 2c6f 01 |
| 0:06:49.392976 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c6f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3131969745, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAwAB4HWl1umZ'}]} |
| 0:06:49.394948 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: a5d6e999) |
| 0:06:49.396975 | LOG | Server <---------- DUT |
| 0:06:49.398974 | LOG | Attempt 3/15 |
| 0:06:54.379259 | LOG | PUSH_ACK: 02 2c70 01 |
| 0:06:54.382258 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c70, Identifier = 00, JSON = {'rxpk': [{'tmst': 3136972673, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCABAABOHRn29QN'}]} |
| 0:06:54.383258 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0004, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 67dbd40d) |
| 0:06:54.384257 | LOG | Server <---------- DUT |
| 0:06:54.385257 | LOG | Attempt 4/15 |
| 0:06:54.968946 | LOG | PULL_DATA: 02 e6f1 02 3834383419003400 |
| 0:06:54.970927 | LOG | PULL_ACK: 02 e6f1 04 |
| 0:06:59.419279 | LOG | PUSH_ACK: 02 2c71 01 |
| 0:06:59.421308 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c71, Identifier = 00, JSON = {'rxpk': [{'tmst': 3141976985, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABQABG37XnkJN'}]} |
| 0:06:59.423277 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: d79e424d) |
| 0:06:59.424281 | LOG | Server <---------- DUT |
| 0:06:59.426276 | LOG | Attempt 5/15 |
| 0:07:04.421468 | LOG | PUSH_ACK: 02 2c73 01 |
| 0:07:04.423466 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c73, Identifier = 00, JSON = {'rxpk': [{'tmst': 3146981305, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABgABPr48hFGw'}]} |
| 0:07:04.425467 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0006, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 3c8451b0) |
| 0:07:04.426465 | LOG | Server <---------- DUT |
| 0:07:04.428464 | LOG | Attempt 6/15 |
| 0:07:05.049528 | LOG | PULL_DATA: 02 456b 02 3834383419003400 |
| 0:07:05.054525 | LOG | PULL_ACK: 02 456b 04 |
| 0:07:09.411084 | LOG | PUSH_ACK: 02 2c74 01 |
| 0:07:09.416080 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c74, Identifier = 00, JSON = {'rxpk': [{'tmst': 3151984233, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCABwABOJkgRC5w'}]} |
| 0:07:09.417076 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0007, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 20442e70) |
| 0:07:09.418081 | LOG | Server <---------- DUT |

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| 0:07:09.420078 | LOG | Attempt 7/15 |
| 0:07:14.401638 | LOG | PUSH_ACK: 02 2c75 01 |
| 0:07:14.403636 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c75, Identifier = 00, JSON = {'rxpk': [{'tmst': 3156987185, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCACAAB6Zqp6MI/'}]} |
| 0:07:14.406635 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0008, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: a9e8c23f) |
| 0:07:14.407635 | LOG | Server <---------- DUT |
| 0:07:14.409633 | LOG | Attempt 8/15 |
| 0:07:15.129229 | LOG | PULL_DATA: 02 4887 02 3834383419003400 |
| 0:07:15.131228 | LOG | PULL_ACK: 02 4887 04 |
| 0:07:19.441806 | LOG | PUSH_ACK: 02 2c76 01 |
| 0:07:19.444806 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c76, Identifier = 00, JSON = {'rxpk': [{'tmst': 3161990129, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICCACQABwR2TZTFT'}]} |
| 0:07:19.446803 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0009, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 93653153) |
| 0:07:19.447803 | LOG | Server <---------- DUT |
| 0:07:19.449803 | LOG | Attempt 9/15 |
| 0:07:24.432004 | LOG | PUSH_ACK: 02 2c78 01 |
| 0:07:24.434003 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c78, Identifier = 00, JSON = {'rxpk': [{'tmst': 3166993185, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCACgABKWz9E6Lb'}]} |
| 0:07:24.435001 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000a, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: fd13a2db) |
| 0:07:24.436000 | LOG | Server <---------- DUT |
| 0:07:24.437002 | LOG | Attempt 10/15 |
| 0:07:25.208763 | LOG | PULL_DATA: 02 204e 02 3834383419003400 |
| 0:07:25.210762 | LOG | PULL_ACK: 02 204e 04 |
| 0:07:29.419765 | LOG | PUSH_ACK: 02 2c79 01 |
| 0:07:29.421765 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c79, Identifier = 00, JSON = {'rxpk': [{'tmst': 3171997505, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -12, 'size': 15, 'data': 'QCAgICCACwAB1lZF6sw2'}]} |
| 0:07:29.423764 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000b, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 45eacc36) |
| 0:07:29.424763 | LOG | Server <---------- DUT |
| 0:07:29.426762 | LOG | Attempt 11/15 |
| 0:07:34.421155 | LOG | PUSH_ACK: 02 2c7b 01 |
| 0:07:34.423154 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c7b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3177001825, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCADAAB9r6M25/A'}]} |
| 0:07:34.424152 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000c, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 8cdb9fc0) |
| 0:07:34.426151 | LOG | Server <---------- DUT |
| 0:07:34.427151 | LOG | Attempt 12/15 |
| 0:07:35.288839 | LOG | PULL_DATA: 02 5db6 02 3834383419003400 |
| 0:07:35.293836 | LOG | PULL_ACK: 02 5db6 04 |
| 0:07:39.409524 | LOG | PUSH_ACK: 02 2c7c 01 |
| 0:07:39.415520 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c7c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3182004777, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -11, 'size': 15, 'data': 'QCAgICCADQABaKp7a+pb'}]} |
| 0:07:39.418519 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000d, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 7b6bea5b) |
| 0:07:39.421517 | LOG | Server <---------- DUT |
| 0:07:39.425515 | LOG | Attempt 13/15 |
| 0:07:44.452572 | LOG | PUSH_ACK: 02 2c7d 01 |
| 0:07:44.454571 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c7d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3187007729, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCADgABChcQOlt0'}]} |
| 0:07:44.456570 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000e, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 103a5b74) |
| 0:07:44.457569 | LOG | Server <---------- DUT |
| 0:07:44.458568 | LOG | Attempt 14/15 |
| 0:07:45.368923 | LOG | PULL_DATA: 02 1aba 02 3834383419003400 |
| 0:07:45.370922 | LOG | PULL_ACK: 02 1aba 04 |
| 0:07:49.441635 | LOG | PUSH_ACK: 02 2c7e 01 |
| 0:07:49.443634 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c7e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3192012033, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCADwABcPQoExzK'}]} |
| 0:07:49.445633 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000f, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 28131cca) |
| 0:07:49.447632 | LOG | Server <---------- DUT |
| 0:07:49.448633 | LOG | Attempt 15/15 |
| 0:07:54.429537 | LOG | PUSH_ACK: 02 2c7f 01 |
| 0:07:54.431537 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c7f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3197015001, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAEAABO5Zo6KSv'}]} |
| 0:07:54.432536 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0010, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 68e8a4af) |
| 0:07:54.434535 | LOG | Server <---------- DUT |
| 0:07:54.446528 | LOG | Receive frame on specific channels process tested successfully |
| 0:07:54.456523 | LOG | End Test Step: Join-Accept with CFList for Dynamic Channel (DC) plan |
| 0:07:54.461520 | LOG | Partial Verdict: PASS |
| 0:07:54.465518 | LOG | ========== |
| 0:07:54.470516 | LOG | ========== |
| 0:07:54.472513 | LOG | Start Test Step: Restore default parameters |
| 0:07:54.482510 | LOG | Send MAC command block process starts |
| 0:07:55.449188 | LOG | PULL_DATA: 02 5818 02 3834383419003400 |
| 0:07:55.451187 | LOG | PULL_ACK: 02 5818 04 |
| 0:07:59.469900 | LOG | PUSH_ACK: 02 2c80 01 |
| 0:07:59.471904 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c80, Identifier = 00, JSON = {'rxpk': [{'tmst': 3202019297, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAEQABA8cD7bxB'}]} |
| 0:07:59.472899 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0011, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 03edbc41) |
| 0:07:59.473898 | LOG | Server <---------- DUT |
| 0:07:59.475899 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0028, FOpts: ), FPort: 00, FRMPayload: 03500700010500d2ad84), MIC: 3e730adc) |
| 0:07:59.478896 | LOG | PULL_RESP: Protocol version = 02, Token = a356, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3204019297, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAKAAAEMRyJgZKpvnyST5zCtw='}} |
| 0:07:59.480895 | LOG | Server ----------> DUT |
| 0:07:59.483892 | LOG | TX_ACK: 02 a356 05 3834383419003400 |
| 0:08:03.310445 | LOG | PUSH_ACK: 02 2c82 01 |
| 0:08:03.313443 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c82, Identifier = 00, JSON = {'rxpk': [{'tmst': 3205920133, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 19, 'data': 'QCAgICCEEgADBwUHAUhBC9m5NA=='}]} |
| 0:08:03.314443 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0012, FOpts: 03070507), FPort: 01, FRMPayload: 0020, MIC: 0bd9b934) |
| 0:08:03.316443 | LOG | Server <---------- DUT |
| 0:08:03.318441 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:03.319440 | LOG | Command Answer: 03070507 |
| 0:08:03.391371 | LOG | MAC command communication completed |
| 0:08:03.400364 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:08:05.569177 | LOG | PULL_DATA: 02 babd 02 3834383419003400 |
| 0:08:05.574174 | LOG | PULL_ACK: 02 babd 04 |
| 0:08:08.300611 | LOG | PUSH_ACK: 02 2c83 01 |
| 0:08:08.305609 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c83, Identifier = 00, JSON = {'rxpk': [{'tmst': 3210923093, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCEwAFBwGAqs7bBaw='}]} |
| 0:08:08.309606 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0013, FOpts: 0507), FPort: 01, FRMPayload: 0020, MIC: cedb05ac) |
| 0:08:08.314603 | LOG | Server <---------- DUT |
| 0:08:08.317602 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0029, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: 6b1e23ac) |
| 0:08:08.319600 | LOG | Frame command sent to the DUT |
| 0:08:08.321600 | LOG | PULL_RESP: Protocol version = 02, Token = 8eb1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3212923093, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAKQDgL09rHiOs'}} |
| 0:08:08.322599 | LOG | Server ----------> DUT |
| 0:08:08.324598 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:08:08.327597 | LOG | End Test Step: Restore default parameters |
| 0:08:08.330595 | LOG | Partial Verdict: PASS |
| 0:08:08.334592 | LOG | ========== |
| 0:08:08.338590 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_001_A |
| 0:08:08.339589 | LOG | Final Verdict: PASS |

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| **Test Case** | TP_A_EU868_ED_MAC_104_BV_001_B | |
| **Verdict** | PASS | |
| **Date** | 2021-10-06 20:54:32 | |
| **Comments** | Activation by Personalization | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_ABP \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | RX2 Receive window frequency | 868.525 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.046595 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_001_B |
| 0:00:00.082572 | LOG | ========== |
| 0:00:00.085572 | LOG | Start Test Step: Device activation |
| 0:00:00.144538 | LOG | Activation process has finished successfully |
| 0:00:00.146537 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.149535 | LOG | DevAddr: 20202020 |
| 0:00:00.151505 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.154505 | LOG | NwkSKey: abcdabcdabcdabcdabcdabcdabcdabcd |
| 0:00:00.157503 | LOG | AppSKey: 12345678123456781234567812345678 |
| 0:00:00.160528 | LOG | End Test Step: Device activation |
| 0:00:00.164526 | LOG | Partial Verdict: PASS |
| 0:00:00.167524 | LOG | ========== |
| 0:00:00.174521 | LOG | ========== |
| 0:00:00.177519 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.190512 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.195509 | LOG | Check FCntUp after reset process starts |
| 0:00:00.199511 | LOG | Check FCntUp after reset process complete |
| 0:00:00.202505 | LOG | Check minimum DR after reset (only ABP) process starts |
| 0:00:00.208474 | LOG | Check ADR bit process starts |
| 0:00:03.239939 | LOG | PULL_DATA: 02 dcc4 02 3834383419003400 |
| 0:00:03.241937 | LOG | PULL_ACK: 02 dcc4 04 |
| 0:00:03.243935 | LOG | First PULL_DATA received |
| 0:00:03.247933 | LOG | PUSH_ACK: 02 05ce 01 |
| 0:00:03.249932 | LOG | PUSH_DATA: Protocol version = 02, Token = 05ce, Identifier = 00, JSON = {'rxpk': [{'tmst': 350160203, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCACQABn/JZp680'}]} |
| 0:00:03.250933 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0009, FOpts: ), FPort: 01, FRMPayload: 0003, MIC: 59a7af34) |
| 0:00:03.252932 | LOG | Server <---------- DUT |
| 0:00:03.255929 | LOG | ADR bit in FCtrl field is set |
| 0:00:03.260926 | LOG | Check previous uplink data rate process starts |
| 0:00:03.264925 | LOG | Uplink received with expected Data Rate |
| 0:00:03.267923 | LOG | Check minimum DR after reset (only ABP) process complete |
| 0:00:03.273893 | LOG | Send Test Command DutResetReq process starts |
| 0:00:03.277890 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 01), MIC: 4fdfdd5a) |
| 0:00:03.280914 | LOG | Frame command sent to the DUT |
| 0:00:03.281914 | LOG | PULL_RESP: Protocol version = 02, Token = 960a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 352160203, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAABgDga0/f3Vo='}} |
| 0:00:03.282915 | LOG | Server ----------> DUT |
| 0:00:03.285883 | LOG | Send Test Command DutResetReq process completed |
| 0:00:03.300892 | LOG | Check FCntUp after reset process starts |
| 0:00:03.305891 | LOG | Wait until a confirmed or unconfirmed uplink arrives process starts |
| 0:00:13.359262 | LOG | PULL_DATA: 02 c698 02 3834383419003400 |
| 0:00:13.362261 | LOG | PULL_ACK: 02 c698 04 |
| 0:00:15.799878 | LOG | PUSH_ACK: 02 05d1 01 |
| 0:00:15.801876 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d1, Identifier = 00, JSON = {'rxpk': [{'tmst': 362726015, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCACgABwMD/mmPz'}]} |

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| 0:00:15.803875 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000a, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: ff9a63f3) |
| 0:00:15.804874 | LOG | Server <---------- DUT |
| 0:00:15.807873 | LOG | Wait until a confirmed or unconfirmed uplink arrives tested successfully |
| 0:00:15.810871 | LOG | Check FCntUp after reset process complete |
| 0:00:15.814869 | LOG | Check minimum DR after reset (only ABP) process starts |
| 0:00:15.818866 | LOG | Check ADR bit process starts |
| 0:00:20.789047 | LOG | PUSH_ACK: 02 05d2 01 |
| 0:00:20.792045 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d2, Identifier = 00, JSON = {'rxpk': [{'tmst': 367728983, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICCACwABgTTbO1X6'}]} |
| 0:00:20.794044 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000b, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: db3b55fa) |
| 0:00:20.795043 | LOG | Server <---------- DUT |
| 0:00:20.803038 | LOG | ADR bit in FCtrl field is set |
| 0:00:20.809035 | LOG | Check previous uplink data rate process starts |
| 0:00:20.814032 | LOG | Uplink received with expected Data Rate |
| 0:00:20.818030 | LOG | Check minimum DR after reset (only ABP) process complete |
| 0:00:20.830022 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:00:20.834021 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0007, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 5758a84e) |
| 0:00:20.837020 | LOG | Frame command sent to the DUT |
| 0:00:20.839018 | LOG | PULL_RESP: Protocol version = 02, Token = f44e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 369728983, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABwDg+HFXWKhO'}} |
| 0:00:20.841017 | LOG | Server ----------> DUT |
| 0:00:20.845015 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:00:20.849013 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:23.569469 | LOG | PULL_DATA: 02 2c11 02 3834383419003400 |
| 0:00:23.571468 | LOG | PULL_ACK: 02 2c11 04 |
| 0:00:30.173722 | LOG | PUSH_ACK: 02 05d3 01 |
| 0:00:30.179718 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d3, Identifier = 00, JSON = {'rxpk': [{'tmst': 377114794, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCADAABsKF2Dwtu'}]} |
| 0:00:30.181717 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000c, FOpts: ), FPort: 01, FRMPayload: 0001, MIC: 760f0b6e) |
| 0:00:30.182717 | LOG | Server <---------- DUT |
| 0:00:30.183716 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0008, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 3c626f72) |
| 0:00:30.186714 | LOG | Frame command sent to the DUT |
| 0:00:30.187714 | LOG | PULL_RESP: Protocol version = 02, Token = c6c0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 379114794, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACADgwKU8Ym9y'}} |
| 0:00:30.188713 | LOG | Server ----------> DUT |
| 0:00:30.192710 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:30.195709 | LOG | Check ADR bit process starts |
| 0:00:33.759687 | LOG | PULL_DATA: 02 f783 02 3834383419003400 |
| 0:00:33.761687 | LOG | PULL_ACK: 02 f783 04 |
| 0:00:35.191874 | LOG | PUSH_ACK: 02 05d4 01 |
| 0:00:35.194873 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d4, Identifier = 00, JSON = {'rxpk': [{'tmst': 382118164, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCADQABQcLbSz4+'}]} |
| 0:00:35.195872 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000d, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: db4b3e3e) |
| 0:00:35.196871 | LOG | Server <---------- DUT |
| 0:00:35.199869 | LOG | ADR bit in FCtrl field is set |
| 0:00:35.204867 | LOG | Send LinkADRReq process starts |
| 0:00:40.199033 | LOG | PUSH_ACK: 02 05d6 01 |
| 0:00:40.201033 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d6, Identifier = 00, JSON = {'rxpk': [{'tmst': 387121516, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCADgABf+m7YBPO'}]} |
| 0:00:40.203031 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000e, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: bb6013ce) |
| 0:00:40.204030 | LOG | Server <---------- DUT |
| 0:00:40.206029 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0009, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 0abb00c8) |
| 0:00:40.209029 | LOG | PULL_RESP: Protocol version = 02, Token = a0e4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 389121516, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAACQAAyjstKDwKuwDI'}} |
| 0:00:40.210027 | LOG | Server ----------> DUT |
| 0:00:40.213030 | LOG | TX_ACK: 02 a0e4 05 3834383419003400 |
| 0:00:43.779711 | LOG | PULL_DATA: 02 d6ee 02 3834383419003400 |
| 0:00:43.780710 | LOG | PULL_ACK: 02 d6ee 04 |
| 0:00:44.078540 | LOG | PUSH_ACK: 02 05d7 01 |
| 0:00:44.080541 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d7, Identifier = 00, JSON = {'rxpk': [{'tmst': 391021749, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCDwADBwF178MBMcM='}]} |
| 0:00:44.081540 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 000f, FOpts: 0307), FPort: 01, FRMPayload: 0002, MIC: c30131c3) |
| 0:00:44.082540 | LOG | Server <---------- DUT |
| 0:00:44.084539 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:44.085539 | LOG | Command Answer: 0307 |
| 0:00:44.091533 | LOG | MAC command communication completed |
| 0:00:44.098529 | LOG | Send Test Command DutVersionsReq process starts |
| 0:00:49.066710 | LOG | PUSH_ACK: 02 05d8 01 |
| 0:00:49.068710 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d8, Identifier = 00, JSON = {'rxpk': [{'tmst': 396019917, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAEAAB4YKVFvEk'}]} |
| 0:00:49.069710 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0010, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 9516f124) |
| 0:00:49.071708 | LOG | Server <---------- DUT |
| 0:00:49.072707 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000a, FOpts: ), FPort: e0, FRMPayload: 7f), MIC: 34a7b2b7) |
| 0:00:49.074708 | LOG | Frame command sent to the DUT |
| 0:00:49.076707 | LOG | PULL_RESP: Protocol version = 02, Token = 31ef, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 398019917, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAACgDgVDSnsrc='}} |
| 0:00:49.077704 | LOG | Server ----------> DUT |
| 0:00:49.080703 | LOG | TX_ACK: 02 31ef 05 3834383419003400 |
| 0:00:53.908963 | LOG | PULL_DATA: 02 3eef 02 3834383419003400 |

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| 0:00:53.910962 | LOG | PULL_ACK: 02 3eef 04 |
| 0:00:54.096857 | LOG | PUSH_ACK: 02 05d9 01 |
| 0:00:54.098855 | LOG | PUSH_DATA: Protocol version = 02, Token = 05d9, Identifier = 00, JSON = {'rxpk': [{'tmst': 401043423, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 23, 'data': 'QCAgICCAEQDgH/Vlmzx+OUpW3HnE6Rs='}]} |
| 0:00:54.100856 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0011, FOpts: ), FPort: e0, FRMPayload: 7f010004010004010004, MIC: 79c4e91b) |
| 0:00:54.101854 | LOG | Server <---------- DUT |
| 0:00:54.102853 | LOG | Answer in payload: 010004010004010004 |
| 0:00:54.103854 | LOG | Frame Command Payload in the Answer: 7f010004010004010004 |
| 0:00:54.107852 | LOG | DUT Version received: 010004010004010004 |
| 0:00:54.109849 | LOG | Send Test Command DutVersionsReq completed |
| 0:00:54.111849 | LOG | DUT Pre-condition activation completed |
| 0:00:54.114848 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:54.117845 | LOG | Partial Verdict: PASS |
| 0:00:54.121844 | LOG | ========== |
| 0:00:54.127839 | LOG | ========== |
| 0:00:54.130837 | LOG | Start Test Step: Test DUT Configuration after reset |
| 0:00:54.142830 | LOG | Send MAC command block process starts |
| 0:01:00.216384 | LOG | PUSH_ACK: 02 05da 01 |
| 0:01:00.220382 | LOG | PUSH_DATA: Protocol version = 02, Token = 05da, Identifier = 00, JSON = {'rxpk': [{'tmst': 407135336, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAEgABHzavbrzD'}]} |
| 0:01:00.222381 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0012, FOpts: ), FPort: 01, FRMPayload: 0003, MIC: af6ebcc3) |
| 0:01:00.223380 | LOG | Server <---------- DUT |
| 0:01:00.225380 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000b, FOpts: ), FPort: 00, FRMPayload: 03570100010533c286840a00f87d840802), MIC: 1c31bbc5) |
| 0:01:00.227378 | LOG | PULL_RESP: Protocol version = 02, Token = 52f5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 409135336, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 30, 'data': 'YCAgICAACwAATWf/ytcvfZUBYKR+fbspbtEcMbvF'}} |
| 0:01:00.228377 | LOG | Server ----------> DUT |
| 0:01:00.231375 | LOG | TX_ACK: 02 52f5 05 3834383419003400 |
| 0:01:04.009232 | LOG | PULL_DATA: 02 217e 02 3834383419003400 |
| 0:01:04.010232 | LOG | PULL_ACK: 02 217e 04 |
| 0:01:04.060204 | LOG | PUSH_ACK: 02 05db 01 |
| 0:01:04.063202 | LOG | PUSH_DATA: Protocol version = 02, Token = 05db, Identifier = 00, JSON = {'rxpk': [{'tmst': 411040690, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -33, 'size': 22, 'data': 'QCAgICCHEwADBwUHCgMIAa6Wlnh4MQ=='}]} |
| 0:01:04.064219 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 87, FCnt: 0013, FOpts: 030705070a0308), FPort: 01, FRMPayload: 0003, MIC: 96787831) |
| 0:01:04.065202 | LOG | Server <---------- DUT |
| 0:01:04.067200 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:04.068200 | LOG | Command Answer: 030705070a0308 |
| 0:01:04.155149 | LOG | MAC command communication completed |
| 0:01:04.158147 | LOG | Send Test Command DutResetReq process starts |
| 0:01:09.108339 | LOG | PUSH_ACK: 02 05dd 01 |
| 0:01:09.110338 | LOG | PUSH_DATA: Protocol version = 02, Token = 05dd, Identifier = 00, JSON = {'rxpk': [{'tmst': 416043858, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -33, 'size': 20, 'data': 'QCAgICCFFAAFBwoDCAF/IzYzqdg='}]} |
| 0:01:09.112338 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 85, FCnt: 0014, FOpts: 05070a0308), FPort: 01, FRMPayload: 0003, MIC: 3633a9d8) |
| 0:01:09.113336 | LOG | Server <---------- DUT |
| 0:01:09.114337 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 01), MIC: 9f26f130) |
| 0:01:09.116336 | LOG | Frame command sent to the DUT |
| 0:01:09.118335 | LOG | PULL_RESP: Protocol version = 02, Token = a824, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 419043858, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 868.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAADADgjp8m8TA='}} |
| 0:01:09.119332 | LOG | Server ----------> DUT |
| 0:01:09.122333 | LOG | Send Test Command DutResetReq process completed |
| 0:01:09.125329 | LOG | Check minimum DR after reset (only ABP) process starts |
| 0:01:09.129327 | LOG | Check ADR bit process starts |
| 0:01:14.159643 | LOG | PULL_DATA: 02 9599 02 3834383419003400 |
| 0:01:14.160644 | LOG | PULL_ACK: 02 9599 04 |
| 0:01:21.662386 | LOG | PUSH_ACK: 02 05de 01 |
| 0:01:21.665384 | LOG | PUSH_DATA: Protocol version = 02, Token = 05de, Identifier = 00, JSON = {'rxpk': [{'tmst': 428574891, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAFQABkjjfVMDU'}]} |
| 0:01:21.666383 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0015, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: df54c0d4) |
| 0:01:21.667383 | LOG | Server <---------- DUT |
| 0:01:21.670381 | LOG | ADR bit in FCtrl field is set |
| 0:01:21.674379 | LOG | Check previous uplink data rate process starts |
| 0:01:21.678377 | LOG | Uplink received with expected Data Rate |
| 0:01:21.680376 | LOG | Check minimum DR after reset (only ABP) process complete |
| 0:01:21.687372 | LOG | Wait until a confirmed or unconfirmed uplink arrives process starts |
| 0:01:24.249918 | LOG | PULL_DATA: 02 3653 02 3834383419003400 |
| 0:01:24.250919 | LOG | PULL_ACK: 02 3653 04 |
| 0:01:26.651555 | LOG | PUSH_ACK: 02 05df 01 |
| 0:01:26.653554 | LOG | PUSH_DATA: Protocol version = 02, Token = 05df, Identifier = 00, JSON = {'rxpk': [{'tmst': 433577931, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -28, 'size': 15, 'data': 'QCAgICCAFgABJiK6naBV'}]} |
| 0:01:26.655553 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0016, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: ba9da055) |
| 0:01:26.657551 | LOG | Server <---------- DUT |
| 0:01:26.661549 | LOG | Wait until a confirmed or unconfirmed uplink arrives tested successfully |
| 0:01:26.664547 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:01:26.667548 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000d, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: cc2093d6) |
| 0:01:26.668546 | LOG | Frame command sent to the DUT |
| 0:01:26.670545 | LOG | PULL_RESP: Protocol version = 02, Token = 01b0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 435577931, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAADQDg9gvMIJPW'}} |
| 0:01:26.671544 | LOG | Server ----------> DUT |
| 0:01:26.674544 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:01:26.677540 | LOG | Check ACK bit in next uplink starts |
| 0:01:34.439176 | LOG | PULL_DATA: 02 85ee 02 3834383419003400 |
| 0:01:34.444173 | LOG | PULL_ACK: 02 85ee 04 |
| 0:01:36.023278 | LOG | PUSH_ACK: 02 05e0 01 |

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| 0:01:36.025276 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e0, Identifier = 00, JSON = {'rxpk': [{'tmst': 442963949, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -27, 'size': 15, 'data': 'QCAgICCgFwABxbPiu+3u'}]} |
| 0:01:36.026277 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 0017, FOpts: ), FPort: 01, FRMPayload: 0001, MIC: e2bbedee) |
| 0:01:36.027275 | LOG | Server <---------- DUT |
| 0:01:36.031274 | LOG | Check ACK bit in next uplink tested successfully |
| 0:01:36.045265 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:41.019442 | LOG | PUSH_ACK: 02 05e2 01 |
| 0:01:41.021441 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e2, Identifier = 00, JSON = {'rxpk': [{'tmst': 447967365, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAGAAB2Z2/S2ty'}]} |
| 0:01:41.023440 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0018, FOpts: ), FPort: 01, FRMPayload: 0001, MIC: bf4b6b72) |
| 0:01:41.025439 | LOG | Server <---------- DUT |
| 0:01:41.027440 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000e, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: b1cd393a) |
| 0:01:41.029438 | LOG | Frame command sent to the DUT |
| 0:01:41.031435 | LOG | PULL_RESP: Protocol version = 02, Token = 0a6a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 450967365, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 868.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAADgDgwYexzTk6'}} |
| 0:01:41.032434 | LOG | Server ----------> DUT |
| 0:01:41.035451 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:41.039433 | LOG | Check ADR bit process starts |
| 0:01:44.599637 | LOG | PULL_DATA: 02 7bd6 02 3834383419003400 |
| 0:01:44.600639 | LOG | PULL_ACK: 02 7bd6 04 |
| 0:01:46.054812 | LOG | PUSH_ACK: 02 05e3 01 |
| 0:01:46.056811 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e3, Identifier = 00, JSON = {'rxpk': [{'tmst': 452970727, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAGQABqYHEyaI3'}]} |
| 0:01:46.058809 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0019, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: c4c9a237) |
| 0:01:46.059811 | LOG | Server <---------- DUT |
| 0:01:46.062809 | LOG | ADR bit in FCtrl field is set |
| 0:01:46.068805 | LOG | Receive frame on specific channels process starts |
| 0:01:46.079800 | LOG | Attempt 1/15 |
| 0:01:51.043981 | LOG | PUSH_ACK: 02 05e4 01 |
| 0:01:51.045980 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e4, Identifier = 00, JSON = {'rxpk': [{'tmst': 457974143, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -28, 'size': 15, 'data': 'QCAgICCAGgAB5EXa1UDk'}]} |
| 0:01:51.046979 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001a, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: dad540e4) |
| 0:01:51.047979 | LOG | Server <---------- DUT |
| 0:01:51.048978 | LOG | Attempt 2/15 |
| 0:01:54.678918 | LOG | PULL_DATA: 02 2cdb 02 3834383419003400 |
| 0:01:54.680917 | LOG | PULL_ACK: 02 2cdb 04 |
| 0:01:56.032150 | LOG | PUSH_ACK: 02 05e5 01 |
| 0:01:56.034149 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e5, Identifier = 00, JSON = {'rxpk': [{'tmst': 462977535, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -28, 'size': 15, 'data': 'QCAgICCAGwABhlk8ioB9'}]} |

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|---|---|---|
| 0:01:56.035149 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001b, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 3c8a807d) |
| 0:01:56.037149 | LOG | Server <---------- DUT |
| 0:01:56.038147 | LOG | Attempt 3/15 |
| 0:02:01.072336 | LOG | PUSH_ACK: 02 05e6 01 |
| 0:02:01.074334 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e6, Identifier = 00, JSON = {'rxpk': [{'tmst': 467980999, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -29, 'size': 15, 'data': 'QCAgICCAHAABd5aawK1W'}]} |
| 0:02:01.076332 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001c, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 9ac0ad56) |
| 0:02:01.077331 | LOG | Server <---------- DUT |
| 0:02:01.079330 | LOG | Attempt 4/15 |
| 0:02:04.759320 | LOG | PULL_DATA: 02 fd22 02 3834383419003400 |
| 0:02:04.763319 | LOG | PULL_ACK: 02 fd22 04 |
| 0:02:06.060582 | LOG | PUSH_ACK: 02 05e7 01 |
| 0:02:06.062581 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e7, Identifier = 00, JSON = {'rxpk': [{'tmst': 472984415, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -26, 'size': 15, 'data': 'QCAgICCAHQABaQ9GVWmV'}]} |
| 0:02:06.063581 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001d, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 46556995) |
| 0:02:06.064582 | LOG | Server <---------- DUT |
| 0:02:06.066578 | LOG | Attempt 5/15 |
| 0:02:11.061745 | LOG | PUSH_ACK: 02 05e9 01 |
| 0:02:11.063743 | LOG | PUSH_DATA: Protocol version = 02, Token = 05e9, Identifier = 00, JSON = {'rxpk': [{'tmst': 477987719, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAHgABGPtp9wp4'}]} |
| 0:02:11.065742 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001e, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 69f70a78) |
| 0:02:11.067741 | LOG | Server <---------- DUT |
| 0:02:11.069740 | LOG | Attempt 6/15 |
| 0:02:14.839601 | LOG | PULL_DATA: 02 8cc7 02 3834383419003400 |
| 0:02:14.841599 | LOG | PULL_ACK: 02 8cc7 04 |
| 0:02:16.050915 | LOG | PUSH_ACK: 02 05ea 01 |
| 0:02:16.052913 | LOG | PUSH_DATA: Protocol version = 02, Token = 05ea, Identifier = 00, JSON = {'rxpk': [{'tmst': 482991151, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAHwAB67akH+xz'}]} |
| 0:02:16.054911 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001f, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: a41fec73) |
| 0:02:16.056910 | LOG | Server <---------- DUT |
| 0:02:16.057909 | LOG | Attempt 7/15 |
| 0:02:21.039083 | LOG | PUSH_ACK: 02 05eb 01 |
| 0:02:21.041084 | LOG | PUSH_DATA: Protocol version = 02, Token = 05eb, Identifier = 00, JSON = {'rxpk': [{'tmst': 487994559, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -31, 'size': 15, 'data': 'QCAgICCAIAABRBKMwBPF'}]} |
| 0:02:21.043081 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0020, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 8cc013c5) |
| 0:02:21.044080 | LOG | Server <---------- DUT |
| 0:02:21.046080 | LOG | Attempt 8/15 |
| 0:02:24.918883 | LOG | PULL_DATA: 02 d3bb 02 3834383419003400 |
| 0:02:24.920880 | LOG | PULL_ACK: 02 d3bb 04 |
| 0:02:26.079223 | LOG | PUSH_ACK: 02 05ec 01 |

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| 0:02:26.081222 | LOG | PUSH_DATA: Protocol version = 02, Token = 05ec, Identifier = 00, JSON = {'rxpk': [{'tmst': 492997975, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -28, 'size': 15, 'data': 'QCAgICCAIQABhmy+gxKl'}]} |
| 0:02:26.083221 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0021, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: be8312a5) |
| 0:02:26.084220 | LOG | Server <---------- DUT |
| 0:02:26.086219 | LOG | Attempt 9/15 |
| 0:02:31.069391 | LOG | PUSH_ACK: 02 05ee 01 |
| 0:02:31.072391 | LOG | PUSH_DATA: Protocol version = 02, Token = 05ee, Identifier = 00, JSON = {'rxpk': [{'tmst': 498001399, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -28, 'size': 15, 'data': 'QCAgICCAIgAB6Y301Oj0'}]} |
| 0:02:31.073389 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0022, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: f4d4e8f4) |
| 0:02:31.075388 | LOG | Server <---------- DUT |
| 0:02:31.076388 | LOG | Attempt 10/15 |
| 0:02:34.999162 | LOG | PULL_DATA: 02 90b0 02 3834383419003400 |
| 0:02:35.002162 | LOG | PULL_ACK: 02 90b0 04 |
| 0:02:36.057561 | LOG | PUSH_ACK: 02 05ef 01 |
| 0:02:36.060561 | LOG | PUSH_DATA: Protocol version = 02, Token = 05ef, Identifier = 00, JSON = {'rxpk': [{'tmst': 503004823, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAIwABx04HW08i'}]} |
| 0:02:36.061559 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0023, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 075b4f22) |
| 0:02:36.062559 | LOG | Server <---------- DUT |
| 0:02:36.064561 | LOG | Attempt 11/15 |
| 0:02:41.061740 | LOG | PUSH_ACK: 02 05f1 01 |
| 0:02:41.063721 | LOG | PUSH_DATA: Protocol version = 02, Token = 05f1, Identifier = 00, JSON = {'rxpk': [{'tmst': 508008239, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAJAABkuorLWwb'}]} |
| 0:02:41.064720 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0024, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 2b2d6c1b) |
| 0:02:41.065720 | LOG | Server <---------- DUT |
| 0:02:41.070717 | LOG | Receive frame on specific channels process tested successfully |
| 0:02:41.074715 | LOG | End Test Step: Test DUT Configuration after reset |
| 0:02:41.078715 | LOG | Partial Verdict: PASS |
| 0:02:41.083710 | LOG | ========== |
| 0:02:41.088708 | LOG | ========== |
| 0:02:41.091705 | LOG | Start Test Step: Restore DUT Configuration |
| 0:02:41.106697 | LOG | Send MAC command block process starts |
| 0:02:45.078622 | LOG | PULL_DATA: 02 8056 02 3834383419003400 |
| 0:02:45.080622 | LOG | PULL_ACK: 02 8056 04 |
| 0:02:46.102041 | LOG | PUSH_ACK: 02 05f2 01 |
| 0:02:46.104042 | LOG | PUSH_DATA: Protocol version = 02, Token = 05f2, Identifier = 00, JSON = {'rxpk': [{'tmst': 513011583, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -27, 'size': 15, 'data': 'QCAgICCAJQABzvg4zssE'}]} |
| 0:02:46.105041 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0025, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 38cecb04) |
| 0:02:46.107041 | LOG | Server <---------- DUT |
| 0:02:46.109038 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000f, FOpts: ), FPort: 00, FRMPayload: 0500d2ad840a0028768408010350000061), MIC: 4972407b) |

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| 0:02:46.111037 | LOG | PULL_RESP: Protocol version = 02, Token = 8ba0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 516011583, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 868.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 30, 'data': 'YCAgICAADwAA73SdWrfFnXTdCYPYIWf21+tJckB7'}} |
| 0:02:46.112036 | LOG | Server ----------> DUT |
| 0:02:46.116035 | LOG | TX_ACK: 02 8ba0 05 3834383419003400 |
| 0:02:49.978843 | LOG | PUSH_ACK: 02 05f3 01 |
| 0:02:49.980840 | LOG | PUSH_DATA: Protocol version = 02, Token = 05f3, Identifier = 00, JSON = {'rxpk': [{'tmst': 516917194, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 22, 'data': 'QCAgICCHJgAFBwoDCAMHAbGSC5ipzQ=='}]} |
| 0:02:49.981841 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 87, FCnt: 0026, FOpts: 05070a03080307), FPort: 01, FRMPayload: 0002, MIC: 0b98a9cd) |
| 0:02:49.983839 | LOG | Server <---------- DUT |
| 0:02:49.984840 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:49.985839 | LOG | Command Answer: 05070a03080307 |
| 0:02:50.085781 | LOG | MAC command communication completed |
| 0:02:50.088779 | LOG | End Test Step: Restore DUT Configuration |
| 0:02:50.091778 | LOG | Partial Verdict: PASS |
| 0:02:50.095775 | LOG | ========== |
| 0:02:50.099773 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_001_B |
| 0:02:50.101772 | LOG | Final Verdict: PASS |

| | | |
|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_002 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 19:33:51 | |
| **Comments** | Cryptography | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.014223 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_002 |
| 0:00:00.050204 | LOG | ========== |
| 0:00:00.052203 | LOG | Start Test Step: Device activation |
| 0:00:00.111187 | LOG | Activation process has finished successfully |
| 0:00:00.113169 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.115167 | LOG | DevAddr: 20202020 |
| 0:00:00.118166 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.120164 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.123162 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.126179 | LOG | End Test Step: Device activation |
| 0:00:00.129178 | LOG | Partial Verdict: PASS |
| 0:00:00.132176 | LOG | ========== |
| 0:00:00.136173 | LOG | ========== |
| 0:00:00.138156 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.148171 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.151148 | LOG | DUT Pre-condition activation completed |
| 0:00:00.155147 | LOG | End Test Step: DUT Pre-condition settings |

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| 0:00:00.160144 | LOG | Partial Verdict: PASS |
| 0:00:00.163142 | LOG | ========== |
| 0:00:00.168139 | LOG | ========== |
| 0:00:00.170137 | LOG | Start Test Step: AES Encryption |
| 0:00:00.183130 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:01.603330 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:03.964004 | LOG | PULL_DATA: 02 0f00 02 3834383419003400 |
| 0:00:03.967003 | LOG | PULL_ACK: 02 0f00 04 |
| 0:00:03.968002 | LOG | First PULL_DATA received |
| 0:00:06.596528 | LOG | PUSH_ACK: 02 2c85 01 |
| 0:00:06.598527 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c85, Identifier = 00, JSON = {'rxpk': [{'tmst': 3220925205, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAFQAB0t1Ohq53'}]} |
| 0:00:06.599526 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0015, FOpts: ), FPort: 01, FRMPayload: 0021, MIC: 4e86ae77) |
| 0:00:06.600526 | LOG | Server <---------- DUT |
| 0:00:06.602524 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002a, FOpts: ), FPort: e0, FRMPayload: 0801), MIC: 56e37acf) |
| 0:00:06.607522 | LOG | Frame command sent to the DUT |
| 0:00:06.611524 | LOG | PULL_RESP: Protocol version = 02, Token = 4918, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3222925205, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAKgDg0A1W43rP'}} |
| 0:00:06.614522 | LOG | Server ----------> DUT |
| 0:00:06.620513 | LOG | TX_ACK: 02 4918 05 3834383419003400 |
| 0:00:11.602715 | LOG | PUSH_ACK: 02 2c86 01 |
| 0:00:11.605713 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c86, Identifier = 00, JSON = {'rxpk': [{'tmst': 3225931089, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAFgDgy1uRhErX'}]} |
| 0:00:11.606717 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0016, FOpts: ), FPort: e0, FRMPayload: 0802, MIC: 91844ad7) |
| 0:00:11.607717 | LOG | Server <---------- DUT |
| 0:00:11.608716 | LOG | Answer in payload: 02 |
| 0:00:11.610714 | LOG | Frame Command Payload in the Answer: 0802 |
| 0:00:11.614708 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:11.617706 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:11.620703 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:14.174269 | LOG | PULL_DATA: 02 9521 02 3834383419003400 |
| 0:00:14.176268 | LOG | PULL_ACK: 02 9521 04 |
| 0:00:16.642882 | LOG | PUSH_ACK: 02 2c87 01 |
| 0:00:16.644880 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c87, Identifier = 00, JSON = {'rxpk': [{'tmst': 3230931129, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAFwABRXF3jlMQ'}]} |
| 0:00:16.645880 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0017, FOpts: ), FPort: 01, FRMPayload: 0022, MIC: 778e5310) |
| 0:00:16.646879 | LOG | Server <---------- DUT |
| 0:00:16.648878 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002b, FOpts: ), FPort: e0, FRMPayload: 080f0f0f0f0f0f0f0f0f0f0f0f0f0f), MIC: 995bdbfa) |
| 0:00:16.651877 | LOG | Frame command sent to the DUT |
| 0:00:16.652876 | LOG | PULL_RESP: Protocol version = 02, Token = 63c8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3232931129, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 29, 'data': 'YCAgICAAKwDgFF5UlMf3bOpanxWPxa5xtJlb2/o='}} |
| 0:00:16.654875 | LOG | Server ----------> DUT |
| 0:00:16.658874 | LOG | TX_ACK: 02 63c8 05 3834383419003400 |
| 0:00:21.648070 | LOG | PUSH_ACK: 02 2c89 01 |
| 0:00:21.650069 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c89, Identifier = 00, JSON = {'rxpk': [{'tmst': 3235960763, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 29, 'data': 'QCAgICCAGADgUmq7ls8iwqZUNxePiC9sBObGsro='}]} |
| 0:00:21.651068 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0018, FOpts: ), FPort: e0, FRMPayload: 08101010101010101010101010101010, MIC: e6c6b2ba) |
| 0:00:21.653068 | LOG | Server <---------- DUT |
| 0:00:21.654068 | LOG | Answer in payload: 10101010101010101010101010101010 |
| 0:00:21.656066 | LOG | Frame Command Payload in the Answer: 08101010101010101010101010101010 |
| 0:00:21.661062 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:21.665061 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:21.668059 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:24.214628 | LOG | PULL_DATA: 02 15c7 02 3834383419003400 |
| 0:00:24.216627 | LOG | PULL_ACK: 02 15c7 04 |
| 0:00:31.620467 | LOG | PUSH_ACK: 02 2c8a 01 |
| 0:00:31.625464 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c8a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3245939947, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAGQABREPoI5IG'}]} |
| 0:00:31.626464 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0019, FOpts: ), FPort: 01, FRMPayload: 0023, MIC: e8239206) |
| 0:00:31.628463 | LOG | Server <---------- DUT |
| 0:00:31.629462 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002c, FOpts: ), FPort: e0, FRMPayload: 08202020202020202020202020202020202020202020), MIC: 1b468603) |
| 0:00:31.631461 | LOG | Frame command sent to the DUT |
| 0:00:31.632460 | LOG | PULL_RESP: Protocol version = 02, Token = 8547, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3247939947, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 34, 'data': 'YCAgICAALADgnr3MBOKfAt79VDsZSoBS7d2GYM0AG0aGAw=='}} |
| 0:00:31.633461 | LOG | Server ----------> DUT |
| 0:00:31.637458 | LOG | TX_ACK: 02 8547 05 3834383419003400 |
| 0:00:34.364213 | LOG | PULL_DATA: 02 9d0c 02 3834383419003400 |
| 0:00:34.369211 | LOG | PULL_ACK: 02 9d0c 04 |
| 0:00:36.656925 | LOG | PUSH_ACK: 02 2c8b 01 |
| 0:00:36.658925 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c8b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3250981014, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 34, 'data': 'QCAgICCAGgDgGr7HgupKrUEQ5Xj4hBY6PaLN020taLm4HA=='}]} |
| 0:00:36.659922 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001a, FOpts: ), FPort: e0, FRMPayload: 08212121212121212121212121212121212121212121, MIC: 68b9b81c) |
| 0:00:36.660924 | LOG | Server <---------- DUT |
| 0:00:36.662923 | LOG | Answer in payload: 21212121212121212121212121212121212121212121 |
| 0:00:36.663922 | LOG | Frame Command Payload in the Answer: 08212121212121212121212121212121212121212121 |
| 0:00:36.667920 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:36.670916 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:36.675913 | LOG | Send Test Command EchoPayloadReq process starts |

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| 0:00:44.454544 | LOG | PULL_DATA: 02 7680 02 3834383419003400 |
| 0:00:44.455543 | LOG | PULL_ACK: 02 7680 04 |
| 0:00:46.629324 | LOG | PUSH_ACK: 02 2c8c 01 |
| 0:00:46.631321 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c8c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3260950190, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAGwABEqoxw8df'}]} |
| 0:00:46.632320 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001b, FOpts: ), FPort: 01, FRMPayload: 0024, MIC: 31c3c75f) |
| 0:00:46.633321 | LOG | Server <---------- DUT |
| 0:00:46.635320 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002d, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 936d0e97) |
| 0:00:46.637319 | LOG | Frame command sent to the DUT |
| 0:00:46.639317 | LOG | PULL_RESP: Protocol version = 02, Token = c269, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3262950190, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALQDg9ImdNDPWQhQ0tXOkAR95xbfhwzXbHvpgBezhGpDXgv7so5CevJiNvkYrAgrWU5Ip+juQk20Olw=='}} |
| 0:00:46.640317 | LOG | Server ----------> DUT |
| 0:00:46.645313 | LOG | TX_ACK: 02 c269 05 3834383419003400 |
| 0:00:51.742451 | LOG | PUSH_ACK: 02 2c8e 01 |
| 0:00:51.746448 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c8e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3266039250, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -16, 'size': 64, 'data': 'QCAgICCAHADg4FVzAYBByHjcDru3Ewr23hAYSIa/jDnoXyHITEhNdz+goOkY4C9TQ25DzBEUo33+ZCHxwSaYiA=='}]} |
| 0:00:51.750446 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001c, FOpts: ), FPort: e0, FRMPayload: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202), MIC: c1269888) |
| 0:00:51.751450 | LOG | Server <---------- DUT |
| 0:00:51.752449 | LOG | Answer in payload: 02020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:51.754444 | LOG | Frame Command Payload in the Answer: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:51.757441 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:51.762438 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:51.766436 | LOG | End Test Step: AES Encryption |
| 0:00:51.771434 | LOG | Partial Verdict: PASS |
| 0:00:51.774432 | LOG | ========== |
| 0:00:51.782427 | LOG | ========== |
| 0:00:51.785427 | LOG | Start Test Step: Message Integrity Code |
| 0:00:51.798420 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process starts |
| 0:00:54.623849 | LOG | PULL_DATA: 02 3261 02 3834383419003400 |
| 0:00:54.625829 | LOG | PULL_ACK: 02 3261 04 |
| 0:01:04.714162 | LOG | PULL_DATA: 02 cde6 02 3834383419003400 |
| 0:01:04.720158 | LOG | PULL_ACK: 02 cde6 04 |
| 0:01:06.648075 | LOG | PUSH_ACK: 02 2c8f 01 |
| 0:01:06.650074 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c8f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3280962066, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAHQABqrStrnpn'}]} |
| 0:01:06.651073 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001d, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: adae7a67) |
| 0:01:06.653072 | LOG | Server <---------- DUT |
| 0:01:06.654072 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002e, FOpts: ), FPort: e0, FRMPayload: 0801), MIC: 3911f6c6) |
| 0:01:06.657070 | LOG | Frame command sent to the DUT |
| 0:01:06.659069 | LOG | PULL_RESP: Protocol version = 02, Token = b81d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3282962066, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAALgDg6ec5EfbG'}} |
| 0:01:06.661068 | LOG | Server ----------> DUT |
| 0:01:06.664068 | LOG | TX_ACK: 02 b81d 05 3834383419003400 |
| 0:01:11.640376 | LOG | PUSH_ACK: 02 2c90 01 |
| 0:01:11.643375 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c90, Identifier = 00, JSON = {'rxpk': [{'tmst': 3285966372, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAHgAB3CU3YAEd'}]} |
| 0:01:11.644346 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001e, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 3760011d) |
| 0:01:11.645345 | LOG | Server <---------- DUT |
| 0:01:11.646344 | LOG | Command Sent header: 08 |
| 0:01:11.648343 | LOG | Payload received from the DUT (bad MIC sent): 0025 |
| 0:01:11.649343 | LOG | Payload sent by the DUT before send the command: 0025 |
| 0:01:11.650342 | LOG | Echo with bad mic has been sent. DUT must ignore it |
| 0:01:11.651342 | LOG | Frame Command Payload in the Answer: 0025 |
| 0:01:11.656338 | LOG | Checking if the payload of the EchoPayloadAns is not correct (bad MIC) |
| 0:01:11.660335 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process completed |
| 0:01:11.663334 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process starts |
| 0:01:14.854540 | LOG | PULL_DATA: 02 2eb3 02 3834383419003400 |
| 0:01:14.856539 | LOG | PULL_ACK: 02 2eb3 04 |
| 0:01:16.680515 | LOG | PUSH_ACK: 02 2c91 01 |
| 0:01:16.682518 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c91, Identifier = 00, JSON = {'rxpk': [{'tmst': 3290969348, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAHwABG6GVeIbs'}]} |
| 0:01:16.683519 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001f, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 957886ec) |
| 0:01:16.686511 | LOG | Server <---------- DUT |
| 0:01:16.688509 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002f, FOpts: ), FPort: e0, FRMPayload: 080f0f0f0f0f0f0f0f0f0f0f0f0f0f0f), MIC: fb626bd0) |
| 0:01:16.691508 | LOG | Frame command sent to the DUT |
| 0:01:16.693507 | LOG | PULL_RESP: Protocol version = 02, Token = a2ea, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3292969348, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 29, 'data': 'YCAgICAALwDggE9O6NH7yo8Hvz1EXb7bsvtia9A='}} |
| 0:01:16.695506 | LOG | Server ----------> DUT |
| 0:01:16.700503 | LOG | TX_ACK: 02 a2ea 05 3834383419003400 |
| 0:01:21.688702 | LOG | PUSH_ACK: 02 2c93 01 |
| 0:01:21.690701 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c93, Identifier = 00, JSON = {'rxpk': [{'tmst': 3295972311, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAIAABVdynKzXy'}]} |

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| 0:01:21.692700 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0020, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: a72b35f2) |
| 0:01:21.693700 | LOG | Server <---------- DUT |
| 0:01:21.694699 | LOG | Command Sent header: 08 |
| 0:01:21.695699 | LOG | Payload received from the DUT (bad MIC sent): 0025 |
| 0:01:21.697698 | LOG | Payload sent by the DUT before send the command: 0025 |
| 0:01:21.698695 | LOG | Echo with bad mic has been sent. DUT must ignore it |
| 0:01:21.699696 | LOG | Frame Command Payload in the Answer: 0025 |
| 0:01:21.704692 | LOG | Checking if the payload of the EchoPayloadAns is not correct (bad MIC) |
| 0:01:21.708689 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process completed |
| 0:01:21.714686 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process starts |
| 0:01:24.883906 | LOG | PULL_DATA: 02 d773 02 3834383419003400 |
| 0:01:24.885905 | LOG | PULL_ACK: 02 d773 04 |
| 0:01:26.677897 | LOG | PUSH_ACK: 02 2c94 01 |
| 0:01:26.679898 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c94, Identifier = 00, JSON = {'rxpk': [{'tmst': 3300975271, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAIQAB1YIRaRiR'}]} |
| 0:01:26.680898 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0021, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 11691891) |
| 0:01:26.681897 | LOG | Server <---------- DUT |
| 0:01:26.683895 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0030, FOpts: ), FPort: e0, FRMPayload: 08202020202020202020202020202020202020202020), MIC: be31e8bb) |
| 0:01:26.685893 | LOG | Frame command sent to the DUT |
| 0:01:26.686895 | LOG | PULL_RESP: Protocol version = 02, Token = 10f1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3302975271, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 34, 'data': 'YCAgICAAMADgu6TT4WBDBMUVo7r2V2YN8ey8wv58vjHouw==''}} |
| 0:01:26.687894 | LOG | Server ----------> DUT |
| 0:01:26.690891 | LOG | TX_ACK: 02 10f1 05 3834383419003400 |
| 0:01:31.693081 | LOG | PUSH_ACK: 02 2c95 01 |
| 0:01:31.698082 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c95, Identifier = 00, JSON = {'rxpk': [{'tmst': 3305979593, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAIgAB2cAjGqBS'}]} |
| 0:01:31.701077 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0022, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 231aa052) |
| 0:01:31.705074 | LOG | Server <---------- DUT |
| 0:01:31.708074 | LOG | Command Sent header: 08 |
| 0:01:31.713071 | LOG | Payload received from the DUT (bad MIC sent): 0025 |
| 0:01:31.715068 | LOG | Payload sent by the DUT before send the command: 0025 |
| 0:01:31.717067 | LOG | Echo with bad mic has been sent. DUT must ignore it |
| 0:01:31.719066 | LOG | Frame Command Payload in the Answer: 0025 |
| 0:01:31.725062 | LOG | Checking if the payload of the EchoPayloadAns is not correct (bad MIC) |
| 0:01:31.731059 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process completed |
| 0:01:31.735057 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process starts |
| 0:01:35.084174 | LOG | PULL_DATA: 02 1e1f 02 3834383419003400 |
| 0:01:35.089172 | LOG | PULL_ACK: 02 1e1f 04 |
| 0:01:36.683278 | LOG | PUSH_ACK: 02 2c96 01 |
| 0:01:36.685275 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c96, Identifier = 00, JSON = {'rxpk': [{'tmst': 3310983921, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAIwABrC4GkxeS'}]} |

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| 0:01:36.686277 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0023, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 06931792) |
| 0:01:36.687274 | LOG | Server <---------- DUT |
| 0:01:36.689273 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0031, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 12c1d1c1) |
| 0:01:36.691272 | LOG | Frame command sent to the DUT |
| 0:01:36.693271 | LOG | PULL_RESP: Protocol version = 02, Token = 1520, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3312983921, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMQDg9oEWMPTqL7Aw8xR+4OOGVZs0D4rOZj1aMxjfjfSCQEfPaaPpJDjy43MTFTgOCgXHopiQEsHRwQ=='}} |
| 0:01:36.695270 | LOG | Server ----------> DUT |
| 0:01:36.699269 | LOG | TX_ACK: 02 1520 05 3834383419003400 |
| 0:01:45.093592 | LOG | PULL_DATA: 02 fb3f 02 3834383419003400 |
| 0:01:45.095572 | LOG | PULL_ACK: 02 fb3f 04 |
| 0:01:46.691676 | LOG | PUSH_ACK: 02 2c97 01 |
| 0:01:46.693674 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c97, Identifier = 00, JSON = {'rxpk': [{'tmst': 3320992578, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAJAABf2YX9BBm'}]} |
| 0:01:46.695674 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0024, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 17f41066) |
| 0:01:46.697672 | LOG | Server <---------- DUT |
| 0:01:46.698671 | LOG | Command Sent header: 08 |
| 0:01:46.699671 | LOG | Payload received from the DUT (bad MIC sent): 0025 |
| 0:01:46.700670 | LOG | Payload sent by the DUT before send the command: 0025 |
| 0:01:46.702669 | LOG | Echo with bad mic has been sent. DUT must ignore it |
| 0:01:46.703669 | LOG | Frame Command Payload in the Answer: 0025 |
| 0:01:46.708666 | LOG | Checking if the payload of the EchoPayloadAns is not correct (bad MIC) |
| 0:01:46.713663 | LOG | Send Test Command EchoPayloadReq (with bad MIC) process completed |
| 0:01:46.717661 | LOG | End Test Step: Message Integrity Code |
| 0:01:46.721659 | LOG | Partial Verdict: PASS |
| 0:01:46.726656 | LOG | ========== |
| 0:01:46.733652 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_002 |
| 0:01:46.736650 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_003 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 19:35:40 | |
| **Comments** | Downlink Sequence Number | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.011561 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_003 |
| 0:00:00.046541 | LOG | ========== |

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|---|---|---|
| 0:00:00.048542 | LOG | Start Test Step: Device activation |
| 0:00:00.108506 | LOG | Activation process has finished successfully |
| 0:00:00.110505 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.112504 | LOG | DevAddr: 20202020 |
| 0:00:00.115477 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.118476 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.121500 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.124497 | LOG | End Test Step: Device activation |
| 0:00:00.127496 | LOG | Partial Verdict: PASS |
| 0:00:00.130494 | LOG | ========== |
| 0:00:00.136491 | LOG | ========== |
| 0:00:00.139491 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.149483 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.153482 | LOG | DUT Pre-condition activation completed |
| 0:00:00.157479 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.161476 | LOG | Partial Verdict: PASS |
| 0:00:00.164476 | LOG | ========== |
| 0:00:00.172472 | LOG | ========== |
| 0:00:00.174472 | LOG | Start Test Step: Downlink Sequence Number |
| 0:00:00.192434 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:01.885508 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:05.365554 | LOG | PULL_DATA: 02 6e58 02 3834383419003400 |
| 0:00:05.367553 | LOG | PULL_ACK: 02 6e58 04 |
| 0:00:05.368552 | LOG | First PULL_DATA received |
| 0:00:06.877703 | LOG | PUSH_ACK: 02 2c9a 01 |
| 0:00:06.880702 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c9a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3330998514, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAJgABiM0rCgY3'}]} |
| 0:00:06.882702 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0026, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 2b0a0637) |
| 0:00:06.883702 | LOG | Server <---------- DUT |
| 0:00:06.884701 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0096, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: c1f91475) |
| 0:00:06.887699 | LOG | Frame command sent to the DUT |
| 0:00:06.889698 | LOG | PULL_RESP: Protocol version = 02, Token = 869e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3332998514, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAlgDgAxTB+RR1'}} |
| 0:00:06.890671 | LOG | Server ----------> DUT |
| 0:00:06.894694 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:06.901660 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:11.867904 | LOG | PUSH_ACK: 02 2c9b 01 |
| 0:00:11.869900 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c9b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3336001459, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAJwABAGIyeR9U'}]} |
| 0:00:11.870899 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0027, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: 32791f54) |
| 0:00:11.872898 | LOG | Server <---------- DUT |
| 0:00:11.873870 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0095, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: b1886c72) |
| 0:00:11.877869 | LOG | Frame command sent to the DUT |
| 0:00:11.878894 | LOG | PULL_RESP: Protocol version = 02, Token = fc94, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3338001459, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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|---|---|---|
| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAlQDgsfWxiGxy'}} |
| 0:00:11.879893 | LOG | Server ----------> DUT |
| 0:00:11.883864 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:11.894884 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:15.445891 | LOG | PULL_DATA: 02 f588 02 3834383419003400 |
| 0:00:15.447890 | LOG | PULL_ACK: 02 f588 04 |
| 0:00:16.870090 | LOG | PUSH_ACK: 02 2c9c 01 |
| 0:00:16.872088 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c9c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3341004397, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAKAABR/CNaSYH'}]} |
| 0:00:16.874089 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0028, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: 8d692607) |
| 0:00:16.875087 | LOG | Server <---------- DUT |
| 0:00:16.876087 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0094, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: 06e921ba) |
| 0:00:16.879085 | LOG | Frame command sent to the DUT |
| 0:00:16.880087 | LOG | PULL_RESP: Protocol version = 02, Token = d9c9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3343004397, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAlADgfi8G6SG6'}} |
| 0:00:16.882084 | LOG | Server ----------> DUT |
| 0:00:16.886083 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:16.896075 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:21.874278 | LOG | PUSH_ACK: 02 2c9d 01 |
| 0:00:21.876277 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c9d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3346008726, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAKQABJrQpFS5X'}]} |
| 0:00:21.877277 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0029, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: 29152e57) |
| 0:00:21.878276 | LOG | Server <---------- DUT |
| 0:00:21.880277 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0093, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: de82f6e7) |
| 0:00:21.882274 | LOG | Frame command sent to the DUT |
| 0:00:21.884274 | LOG | PULL_RESP: Protocol version = 02, Token = aa59, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3348008726, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAkwDg0zzegvbn'}} |
| 0:00:21.886273 | LOG | Server ----------> DUT |
| 0:00:21.890271 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:21.900266 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:25.455266 | LOG | PULL_DATA: 02 124d 02 3834383419003400 |
| 0:00:25.457267 | LOG | PULL_ACK: 02 124d 04 |
| 0:00:26.877468 | LOG | PUSH_ACK: 02 2c9e 01 |
| 0:00:26.879467 | LOG | PUSH_DATA: Protocol version = 02, Token = 2c9e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3351011687, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAKgABJ6axHq8w'}]} |
| 0:00:26.881465 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002a, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: b11eaf30) |
| 0:00:26.882466 | LOG | Server <---------- DUT |
| 0:00:26.885464 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0092, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: a4d46297) |
| 0:00:26.888461 | LOG | Frame command sent to the DUT |

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|---|---|---|
| 0:00:26.889462 | LOG | PULL_RESP: Protocol version = 02, Token = eaa5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3353011687, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAkgDgrqik1GKX'}} |
| 0:00:26.890461 | LOG | Server ----------> DUT |
| 0:00:26.893460 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:26.898429 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:00:31.889652 | LOG | PUSH_ACK: 02 2ca0 01 |
| 0:00:31.893651 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3356014631, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAKwABHEAXkzuM'}]} |
| 0:00:31.894650 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002b, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: 17933b8c) |
| 0:00:31.895648 | LOG | Server <---------- DUT |
| 0:00:31.899646 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:00:31.911640 | LOG | End Test Step: Downlink Sequence Number |
| 0:00:31.914637 | LOG | Partial Verdict: PASS |
| 0:00:31.919605 | LOG | ========== |
| 0:00:31.925602 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_003 |
| 0:00:31.927600 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_004 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 19:36:15 | |
| **Comments** | Confirmed Frames | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.010881 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_004 |
| 0:00:00.044861 | LOG | ========== |
| 0:00:00.047860 | LOG | Start Test Step: Device activation |
| 0:00:00.108826 | LOG | Activation process has finished successfully |
| 0:00:00.110825 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.113823 | LOG | DevAddr: 20202020 |
| 0:00:00.115822 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.118821 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.121819 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.125817 | LOG | End Test Step: Device activation |
| 0:00:00.130814 | LOG | Partial Verdict: PASS |
| 0:00:00.135811 | LOG | ========== |
| 0:00:00.142807 | LOG | ========== |
| 0:00:00.145806 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.158797 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.163795 | LOG | DUT Pre-condition activation completed |
| 0:00:00.165794 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.169792 | LOG | Partial Verdict: PASS |
| 0:00:00.175788 | LOG | ========== |

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| 0:00:00.182785 | LOG | ========== |
| 0:00:00.185782 | LOG | Start Test Step: Confirmed Uplinks |
| 0:00:00.198776 | LOG | Send Test Command RxAppCntReq process starts |
| 0:00:00.516628 | LOG | PULL_DATA: 02 a1cc 02 3834383419003400 |
| 0:00:00.519626 | LOG | PULL_ACK: 02 a1cc 04 |
| 0:00:00.521625 | LOG | First PULL_DATA received |
| 0:00:01.902817 | LOG | PUSH_ACK: 02 2ca1 01 |
| 0:00:01.904817 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3361017591, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCALAABAHPQGuwL'}]} |
| 0:00:01.906816 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002c, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: d01aec0b) |
| 0:00:01.907815 | LOG | Server <---------- DUT |
| 0:00:01.909814 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0129, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 20660c39) |
| 0:00:01.911813 | LOG | Frame command sent to the DUT |
| 0:00:01.912813 | LOG | PULL_RESP: Protocol version = 02, Token = 1baa, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3363017591, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAKQHgESBmDDk='}} |
| 0:00:01.914811 | LOG | Server ----------> DUT |
| 0:00:01.917809 | LOG | TX_ACK: 02 1baa 05 3834383419003400 |
| 0:00:06.959976 | LOG | PUSH_ACK: 02 2ca2 01 |
| 0:00:06.961975 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3366028824, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 16, 'data': 'QCAgICCALQDg4cU2/0+QHw=='}]} |
| 0:00:06.963974 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002d, FOpts: ), FPort: e0, FRMPayload: 092700, MIC: ff4f901f) |
| 0:00:06.964974 | LOG | Server <---------- DUT |
| 0:00:06.965973 | LOG | Answer in payload: 2700 |
| 0:00:06.967972 | LOG | Frame Command Payload in the Answer: 092700 |
| 0:00:06.970970 | LOG | RX Count received by DUT: 39 |
| 0:00:06.973969 | LOG | Send Test Command RxAppCntReq process completed |
| 0:00:06.978966 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:10.525971 | LOG | PULL_DATA: 02 0ab0 02 3834383419003400 |
| 0:00:10.527990 | LOG | PULL_ACK: 02 0ab0 04 |
| 0:00:16.937368 | LOG | PUSH_ACK: 02 2ca3 01 |
| 0:00:16.942365 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3376026464, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCALgABUysMlSbZ'}]} |
| 0:00:16.945363 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002e, FOpts: ), FPort: 01, FRMPayload: 0027, MIC: 0c9526d9) |
| 0:00:16.948362 | LOG | Server <---------- DUT |
| 0:00:16.950361 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 012a, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: 5a2dc0b3) |
| 0:00:16.953359 | LOG | Frame command sent to the DUT |
| 0:00:16.954359 | LOG | PULL_RESP: Protocol version = 02, Token = a4c8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3378026464, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAKgHgNRVaLcCz'}} |
| 0:00:16.956358 | LOG | Server ----------> DUT |
| 0:00:16.961355 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:16.965353 | LOG | Wait Until Confirmed Uplink arrives process starts |

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| 0:00:20.736232 | LOG | PULL_DATA: 02 cc9f 02 3834383419003400 |
| 0:00:20.738232 | LOG | PULL_ACK: 02 cc9f 04 |
| 0:00:21.916569 | LOG | PUSH_ACK: 02 2ca4 01 |
| 0:00:21.918568 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3381030608, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'gCAgICCALwABdJbfY5uU'}]} |
| 0:00:21.919568 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002f, FOpts: ), FPort: 01, FRMPayload: 0028, MIC: df639b94) |
| 0:00:21.921568 | LOG | Server <---------- DUT |
| 0:00:21.925564 | LOG | Wait Until Confirmed Uplink arrives tested successfully |
| 0:00:21.929562 | LOG | Send ACK to DUT process starts |
| 0:00:21.932561 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 20, FCnt: 012b, FOpts: ), FPort: , FRMPayload: ), MIC: ecf330ea) |
| 0:00:21.935558 | LOG | PULL_RESP: Protocol version = 02, Token = 74a0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3383030608, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 12, 'data': 'YCAgICAgKwHs8zDq'}} |
| 0:00:21.937557 | LOG | Server ----------> DUT |
| 0:00:21.941555 | LOG | Send ACK to DUT tested successfully |
| 0:00:21.945553 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:26.921756 | LOG | PUSH_ACK: 02 2ca6 01 |
| 0:00:26.923755 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3386034931, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'gCAgICCAMAABeCWi91hs'}]} |
| 0:00:26.925756 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0030, FOpts: ), FPort: 01, FRMPayload: 0029, MIC: a2f7586c) |
| 0:00:26.926755 | LOG | Server <---------- DUT |
| 0:00:26.928753 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 20, FCnt: 012c, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: f13ee735) |
| 0:00:26.931770 | LOG | Frame command sent to the DUT |
| 0:00:26.933750 | LOG | PULL_RESP: Protocol version = 02, Token = 503c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3388034931, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAgLAHgtEjxPuc1'}} |
| 0:00:26.934750 | LOG | Server ----------> DUT |
| 0:00:26.938746 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:26.942746 | LOG | Wait Until Confirmed Uplink arrives process starts |
| 0:00:30.926508 | LOG | PULL_DATA: 02 d1e2 02 3834383419003400 |
| 0:00:30.931533 | LOG | PULL_ACK: 02 d1e2 04 |
| 0:00:31.924943 | LOG | PUSH_ACK: 02 2ca7 01 |
| 0:00:31.926942 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3391039247, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'gCAgICCAMQABPuS4UiSe'}]} |
| 0:00:31.927944 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0031, FOpts: ), FPort: 01, FRMPayload: 002a, MIC: b852249e) |
| 0:00:31.929941 | LOG | Server <---------- DUT |
| 0:00:31.931941 | LOG | Wait Until Confirmed Uplink arrives tested successfully |
| 0:00:31.934941 | LOG | Send Test Command RxAppCntReq process starts |
| 0:00:36.966110 | LOG | PUSH_ACK: 02 2ca8 01 |
| 0:00:36.968110 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3396042215, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'gCAgICCAMgABOmCgoruL'}]} |

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| 0:00:36.969110 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0032, FOpts: ), FPort: 01, FRMPayload: 002a, MIC: a0a2bb8b) |
| 0:00:36.970109 | LOG | Server <---------- DUT |
| 0:00:36.972108 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 20, FCnt: 012d, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 716adc43) |
| 0:00:36.974108 | LOG | Frame command sent to the DUT |
| 0:00:36.978103 | LOG | PULL_RESP: Protocol version = 02, Token = ae07, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3398042215, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAgLQHgxXFq3EM='}} |
| 0:00:36.979102 | LOG | Server ----------> DUT |
| 0:00:36.983100 | LOG | TX_ACK: 02 ae07 05 3834383419003400 |
| 0:00:40.965893 | LOG | PULL_DATA: 02 676e 02 3834383419003400 |
| 0:00:40.967892 | LOG | PULL_ACK: 02 676e 04 |
| 0:00:41.984321 | LOG | PUSH_ACK: 02 2ca9 01 |
| 0:00:41.987319 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ca9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3401053440, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 16, 'data': 'gCAgICCAMwDgGcL1Nv2jKA=='}]} |
| 0:00:41.988318 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0033, FOpts: ), FPort: e0, FRMPayload: 092b00, MIC: 36fda328) |
| 0:00:41.990316 | LOG | Server <---------- DUT |
| 0:00:41.992314 | LOG | Answer in payload: 2b00 |
| 0:00:41.994313 | LOG | Frame Command Payload in the Answer: 092b00 |
| 0:00:41.999280 | LOG | RX Count received by DUT: 43 |
| 0:00:42.001280 | LOG | Send Test Command RxAppCntReq process completed |
| 0:00:42.007276 | LOG | Wait Until Confirmed Uplink arrives process starts |
| 0:00:51.046227 | LOG | PULL_DATA: 02 eedd 02 3834383419003400 |
| 0:00:51.048225 | LOG | PULL_ACK: 02 eedd 04 |
| 0:00:51.956715 | LOG | PUSH_ACK: 02 2caa 01 |
| 0:00:51.958714 | LOG | PUSH_DATA: Protocol version = 02, Token = 2caa, Identifier = 00, JSON = {'rxpk': [{'tmst': 3411059360, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 16, 'data': 'gCAgICCANADguWVYIAhnvg=='}]} |
| 0:00:51.960712 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0034, FOpts: ), FPort: e0, FRMPayload: 092b00, MIC: 200867be) |
| 0:00:51.962711 | LOG | Server <---------- DUT |
| 0:00:51.966709 | LOG | Wait Until Confirmed Uplink arrives tested successfully |
| 0:00:51.972705 | LOG | End Test Step: Confirmed Uplinks |
| 0:00:51.978703 | LOG | Partial Verdict: PASS |
| 0:00:51.983700 | LOG | ========== |
| 0:00:51.991664 | LOG | ========== |
| 0:00:51.995661 | LOG | Start Test Step: Restore unconfirmed frame in DUT |
| 0:00:52.010653 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:01.126560 | LOG | PULL_DATA: 02 ef21 02 3834383419003400 |
| 0:01:01.130558 | LOG | PULL_ACK: 02 ef21 04 |
| 0:01:01.997041 | LOG | PUSH_ACK: 02 2cac 01 |
| 0:01:01.999038 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cac, Identifier = 00, JSON = {'rxpk': [{'tmst': 3421065288, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 16, 'data': 'gCAgICCANQDg/vpAWuonNw=='}]} |
| 0:01:02.001038 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0035, FOpts: ), FPort: e0, FRMPayload: 092b00, MIC: 5aea2737) |
| 0:01:02.002039 | LOG | Server <---------- DUT |
| 0:01:02.004037 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 20, FCnt: 012e, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: e29a8f6a) |

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| 0:01:02.006035 | LOG | Frame command sent to the DUT |
| 0:01:02.007036 | LOG | PULL_RESP: Protocol version = 02, Token = 1cf3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3423065288, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAgLgHgENbimo9q'}} |
| 0:01:02.009035 | LOG | Server ----------> DUT |
| 0:01:02.012032 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:02.016029 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:01:11.245915 | LOG | PULL_DATA: 02 3ebc 02 3834383419003400 |
| 0:01:11.248914 | LOG | PULL_ACK: 02 3ebc 04 |
| 0:01:11.992496 | LOG | PUSH_ACK: 02 2cae 01 |
| 0:01:11.994495 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cae, Identifier = 00, JSON = {'rxpk': [{'tmst': 3431071402, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 16, 'data': 'QCAgICCANgDgJ4ad2vWzpQ=='}]} |
| 0:01:11.996493 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0036, FOpts: ), FPort: e0, FRMPayload: 000000, MIC: daf5b3a5) |
| 0:01:11.997495 | LOG | Server <---------- DUT |
| 0:01:12.000491 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:01:12.004489 | LOG | End Test Step: Restore unconfirmed frame in DUT |
| 0:01:12.008487 | LOG | Partial Verdict: PASS |
| 0:01:12.012484 | LOG | ========== |
| 0:01:12.020480 | LOG | ========== |
| 0:01:12.023479 | LOG | Start Test Step: Confirmed Downlinks |
| 0:01:12.040469 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:21.326249 | LOG | PULL_DATA: 02 076d 02 3834383419003400 |
| 0:01:21.328248 | LOG | PULL_ACK: 02 076d 04 |
| 0:01:21.963891 | LOG | PUSH_ACK: 02 2caf 01 |
| 0:01:21.965891 | LOG | PUSH_DATA: Protocol version = 02, Token = 2caf, Identifier = 00, JSON = {'rxpk': [{'tmst': 3441070402, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCANwABSq3lpNIY'}]} |
| 0:01:21.966889 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0037, FOpts: ), FPort: 01, FRMPayload: 002c, MIC: e5a4d218) |
| 0:01:21.968888 | LOG | Server <---------- DUT |
| 0:01:21.970887 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 012f, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: 5961a14f) |
| 0:01:21.972886 | LOG | Frame command sent to the DUT |
| 0:01:21.973885 | LOG | PULL_RESP: Protocol version = 02, Token = 81b4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3443070402, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAALwHgompZYaFP'}} |
| 0:01:21.975884 | LOG | Server ----------> DUT |
| 0:01:21.979881 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:21.982882 | LOG | Check ACK bit in next uplink starts |
| 0:01:26.973075 | LOG | PUSH_ACK: 02 2cb1 01 |
| 0:01:26.975074 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3446074541, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'gCAgICCgOAAB6c3cm5Mj'}]} |
| 0:01:26.977073 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 0038, FOpts: ), FPort: 01, FRMPayload: 002d, MIC: dc9b9323) |
| 0:01:26.978072 | LOG | Server <---------- DUT |
| 0:01:26.980073 | LOG | Check ACK bit in next uplink tested successfully |
| 0:01:26.983071 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:31.436566 | LOG | PULL_DATA: 02 70de 02 3834383419003400 |

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| 0:01:31.440564 | LOG | PULL_ACK: 02 70de 04 |
| 0:01:31.961271 | LOG | PUSH_ACK: 02 2cb2 01 |
| 0:01:31.963270 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3451077493, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'gCAgICCAOQABGtV7NHLE'}]} |
| 0:01:31.964269 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0039, FOpts: ), FPort: 01, FRMPayload: 002d, MIC: 7b3472c4) |
| 0:01:31.965269 | LOG | Server <---------- DUT |
| 0:01:31.967268 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 20, FCnt: 0130, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: fb0568e3) |
| 0:01:31.969266 | LOG | Frame command sent to the DUT |
| 0:01:31.971265 | LOG | PULL_RESP: Protocol version = 02, Token = 65e4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3453077493, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAgMAHghlH7BWjj'}} |
| 0:01:31.972265 | LOG | Server ----------> DUT |
| 0:01:31.977263 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:31.981260 | LOG | Check ACK bit in next uplink starts |
| 0:01:36.968456 | LOG | PUSH_ACK: 02 2cb3 01 |
| 0:01:36.970455 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3456080639, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCgOgABc1l/4lVZ'}]} |
| 0:01:36.972454 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 003a, FOpts: ), FPort: 01, FRMPayload: 002e, MIC: 7fe25559) |
| 0:01:36.973454 | LOG | Server <---------- DUT |
| 0:01:36.979450 | LOG | Check ACK bit in next uplink tested successfully |
| 0:01:36.983450 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:41.635833 | LOG | PULL_DATA: 02 e08e 02 3834383419003400 |
| 0:01:41.637832 | LOG | PULL_ACK: 02 e08e 04 |
| 0:01:42.008623 | LOG | PUSH_ACK: 02 2cb4 01 |
| 0:01:42.012623 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3461083599, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAOwAB8CaXvQoq'}]} |
| 0:01:42.015620 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003b, FOpts: ), FPort: 01, FRMPayload: 002e, MIC: 97bd0a2a) |
| 0:01:42.018618 | LOG | Server <---------- DUT |
| 0:01:42.022616 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0131, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 3731ef33) |
| 0:01:42.026615 | LOG | Frame command sent to the DUT |
| 0:01:42.027618 | LOG | PULL_RESP: Protocol version = 02, Token = b43b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3463083599, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAAMQHgmKc3Me8z'}} |
| 0:01:42.028617 | LOG | Server ----------> DUT |
| 0:01:42.031618 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:42.034612 | LOG | Check ACK bit in next uplink starts |
| 0:01:46.973834 | LOG | PUSH_ACK: 02 2cb5 01 |
| 0:01:46.975833 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3466086540, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCgPAABoR8ze8iZ'}]} |
| 0:01:46.976832 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 003c, FOpts: ), FPort: 01, FRMPayload: 002f, MIC: 337bc899) |

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| 0:01:46.978830 | LOG | Server <---------- DUT |
| 0:01:46.980828 | LOG | Check ACK bit in next uplink tested successfully |
| 0:01:46.988824 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:51.686183 | LOG | PULL_DATA: 02 fddb 02 3834383419003400 |
| 0:01:51.688183 | LOG | PULL_ACK: 02 fddb 04 |
| 0:01:52.013999 | LOG | PUSH_ACK: 02 2cb6 01 |
| 0:01:52.016000 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3471090860, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAPQABPRUp3G19'}]} |
| 0:01:52.016999 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003d, FOpts: ), FPort: 01, FRMPayload: 002f, MIC: 29dc6d7d) |
| 0:01:52.018997 | LOG | Server <---------- DUT |
| 0:01:52.020995 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0131, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 3731ef33) |
| 0:01:52.022996 | LOG | Frame command sent to the DUT |
| 0:01:52.024993 | LOG | PULL_RESP: Protocol version = 02, Token = 4279, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3473090860, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAAMQHgmKc3Me8z'}} |
| 0:01:52.026993 | LOG | Server ----------> DUT |
| 0:01:52.030990 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:52.038987 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:56.993830 | LOG | PUSH_ACK: 02 2cb8 01 |
| 0:01:56.995811 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3476095165, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAPgABcAFtsQ3F'}]} |
| 0:01:56.997810 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003e, FOpts: ), FPort: 01, FRMPayload: 0030, MIC: 6db10dc5) |
| 0:01:56.998809 | LOG | Server <---------- DUT |
| 0:01:56.999808 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0131, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 3731ef33) |
| 0:01:57.001809 | LOG | Frame command sent to the DUT |
| 0:01:57.003807 | LOG | PULL_RESP: Protocol version = 02, Token = 370b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3478095165, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAAMQHgmKc3Me8z'}} |
| 0:01:57.004808 | LOG | Server ----------> DUT |
| 0:01:57.007804 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:57.014800 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:01.837095 | LOG | PULL_DATA: 02 cd6b 02 3834383419003400 |
| 0:02:01.845087 | LOG | PULL_ACK: 02 cd6b 04 |
| 0:02:01.986025 | LOG | PUSH_ACK: 02 2cb9 01 |
| 0:02:01.988006 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cb9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3481099484, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAPwABwGxtjcCq'}]} |
| 0:02:01.990004 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003f, FOpts: ), FPort: 01, FRMPayload: 0031, MIC: 6d8dc0aa) |
| 0:02:01.991003 | LOG | Server <---------- DUT |
| 0:02:01.993002 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0131, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 3731ef33) |
| 0:02:01.996002 | LOG | Frame command sent to the DUT |
| 0:02:01.997000 | LOG | PULL_RESP: Protocol version = 02, Token = da9c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3483099484, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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|---|---|---|
| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAAMQHgmKc3Me8z'}} |
| 0:02:01.997998 | LOG | Server ----------> DUT |
| 0:02:02.000997 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:02.006996 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:06.991694 | LOG | PUSH_ACK: 02 2cba 01 |
| 0:02:06.994692 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cba, Identifier = 00, JSON = {'rxpk': [{'tmst': 3486102446, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAQAABOWz29+Gr'}]} |
| 0:02:06.996691 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0040, FOpts: ), FPort: 01, FRMPayload: 0032, MIC: f6f7e1ab) |
| 0:02:06.998691 | LOG | Server <---------- DUT |
| 0:02:07.000690 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0131, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 3731ef33) |
| 0:02:07.002689 | LOG | Frame command sent to the DUT |
| 0:02:07.004689 | LOG | PULL_RESP: Protocol version = 02, Token = 9b5f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3488102446, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAAMQHgmKc3Me8z'}} |
| 0:02:07.006686 | LOG | Server ----------> DUT |
| 0:02:07.010685 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:07.015682 | LOG | Check ACK bit in next uplink starts |
| 0:02:11.992883 | LOG | PUSH_ACK: 02 2cbb 01 |
| 0:02:11.994883 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cbb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3491105383, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAQQABhIxKTFrj'}]} |
| 0:02:11.996884 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0041, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4a4c5ae3) |
| 0:02:11.998879 | LOG | Server <---------- DUT |
| 0:02:12.003876 | LOG | End Test Step: Confirmed Downlinks |
| 0:02:12.008874 | LOG | Partial Verdict: PASS |
| 0:02:12.013843 | LOG | ========== |
| 0:02:12.019843 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_004 |
| 0:02:12.022869 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_005 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 19:38:31 | |
| **Comments** | DevStatusReq MAC command | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.015400 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_005 |
| 0:00:00.050381 | LOG | ========== |
| 0:00:00.052381 | LOG | Start Test Step: Device activation |
| 0:00:00.110347 | LOG | Activation process has finished successfully |

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|---|---|---|
| 0:00:00.113347 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.115346 | LOG | DevAddr: 20202020 |
| 0:00:00.117345 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.120343 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.122342 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.126338 | LOG | End Test Step: Device activation |
| 0:00:00.129337 | LOG | Partial Verdict: PASS |
| 0:00:00.134333 | LOG | ========== |
| 0:00:00.141331 | LOG | ========== |
| 0:00:00.143330 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.156321 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.159321 | LOG | DUT Pre-condition activation completed |
| 0:00:00.162318 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.166317 | LOG | Partial Verdict: PASS |
| 0:00:00.170315 | LOG | ========== |
| 0:00:00.175310 | LOG | ========== |
| 0:00:00.178308 | LOG | Start Test Step: DevStatusReq MAC command |
| 0:00:00.191301 | LOG | Send DevStatusReq process starts |
| 0:00:01.957339 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:06.946504 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:07.044450 | LOG | PULL_DATA: 02 f445 02 3834383419003400 |
| 0:00:07.046457 | LOG | PULL_ACK: 02 f445 04 |
| 0:00:07.048448 | LOG | First PULL_DATA received |
| 0:00:11.963684 | LOG | PUSH_ACK: 02 2cbf 01 |
| 0:00:11.965683 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cbf, Identifier = 00, JSON = {'rxpk': [{'tmst': 3506116999, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCARAAB5LsOm9Kk'}]} |
| 0:00:11.967682 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0044, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0e9bd2a4) |
| 0:00:11.968681 | LOG | Server <---------- DUT |
| 0:00:11.970680 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0132, FOpts: ), FPort: 00, FRMPayload: 06), MIC: bde7a2ca) |
| 0:00:11.972679 | LOG | PULL_RESP: Protocol version = 02, Token = e1c4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3508116999, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAMgEAtb3noso='}} |
| 0:00:11.973678 | LOG | Server ----------> DUT |
| 0:00:11.976677 | LOG | TX_ACK: 02 e1c4 05 3834383419003400 |
| 0:00:16.925894 | LOG | PUSH_ACK: 02 2cc0 01 |
| 0:00:16.927895 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cc0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3511126490, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 18, 'data': 'QCAgICCDRQAGAAkBY0Z4YVM4'}]} |
| 0:00:16.928895 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 83, FCnt: 0045, FOpts: 060009), FPort: 01, FRMPayload: 0033, MIC: 78615338) |
| 0:00:16.930894 | LOG | Server <---------- DUT |
| 0:00:16.931893 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:16.932893 | LOG | Command Answer: 060009 |
| 0:00:16.936890 | LOG | Battery level (byte value) 00 |
| 0:00:16.937890 | LOG | Radio Status (byte value) 09 |
| 0:00:16.939889 | LOG | MAC command communication completed |
| 0:00:16.943884 | LOG | End Test Step: DevStatusReq MAC command |
| 0:00:16.948882 | LOG | Partial Verdict: PASS |

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|---|---|---|
| 0:00:16.955878 | LOG | ========== |
| 0:00:16.962874 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_005 |
| 0:00:16.965872 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_006 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 19:38:51 | |
| **Comments** | NewChannelReq MAC command for Dynamic Channel plan devices only | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Addition of a single channel frequency | 867.700 |
| | Addition of a multiple channels frequencies | 867.100;867.300;867.500;867.700;867.900;867.900;867.700;867.500;867.300;867.100;868.500;868.300;868.100 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.011703 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_006 |
| 0:00:00.053680 | LOG | ========== |
| 0:00:00.056678 | LOG | Start Test Step: Device activation |
| 0:00:00.113663 | LOG | Activation process has finished successfully |
| 0:00:00.117643 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.120642 | LOG | DevAddr: 20202020 |
| 0:00:00.122643 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.125639 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.127638 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.131635 | LOG | End Test Step: Device activation |
| 0:00:00.135633 | LOG | Partial Verdict: PASS |
| 0:00:00.141630 | LOG | ========== |
| 0:00:00.148627 | LOG | ========== |
| 0:00:00.152624 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.162619 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.165616 | LOG | DUT Pre-condition activation completed |
| 0:00:00.168634 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.171631 | LOG | Partial Verdict: PASS |
| 0:00:00.175629 | LOG | ========== |
| 0:00:00.179626 | LOG | ========== |
| 0:00:00.181610 | LOG | Start Test Step: Read-only default channels |
| 0:00:00.194618 | LOG | Send MAC command block process starts |
| 0:00:07.160690 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:07.507491 | LOG | PULL_DATA: 02 1119 02 3834383419003400 |
| 0:00:07.508491 | LOG | PULL_ACK: 02 1119 04 |
| 0:00:07.510488 | LOG | First PULL_DATA received |
| 0:00:12.149880 | LOG | PUSH_ACK: 02 2cc2 01 |
| 0:00:12.152878 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cc2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3526130210, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCARwABU7ZTWBEm'}]} |

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| 0:00:12.154877 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0047, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 53581126) |
| 0:00:12.155877 | LOG | Server <---------- DUT |
| 0:00:12.157875 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0133, FOpts: ), FPort: 00, FRMPayload: 0700184f84500701184f84500702184f8450), MIC: 27157095) |
| 0:00:12.160874 | LOG | PULL_RESP: Protocol version = 02, Token = 13ac, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3528130210, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 31, 'data': 'YCAgICAAMwEAjAJCZ5uwPYC2AQxWiAlRbSJHJxVwlQ=='}} |
| 0:00:12.161873 | LOG | Server ----------> DUT |
| 0:00:12.165871 | LOG | TX_ACK: 02 13ac 05 3834383419003400 |
| 0:00:17.171059 | LOG | PUSH_ACK: 02 2cc3 01 |
| 0:00:17.173058 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cc3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3531144812, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 21, 'data': 'QCAgICCGSAAHAAcABwABQZaT2NcE'}]} |
| 0:00:17.174058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 86, FCnt: 0048, FOpts: 070007000700), FPort: 01, FRMPayload: 0033, MIC: 93d8d704) |
| 0:00:17.175057 | LOG | Server <---------- DUT |
| 0:00:17.176056 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:17.178054 | LOG | Command Answer: 070007000700 |
| 0:00:17.248033 | LOG | MAC command communication completed |
| 0:00:17.252014 | LOG | End Test Step: Read-only default channels |
| 0:00:17.256030 | LOG | Partial Verdict: PASS |
| 0:00:17.260008 | LOG | ========== |
| 0:00:17.267008 | LOG | ========== |
| 0:00:17.271003 | LOG | Start Test Step: Addition of a single channel |
| 0:00:17.288991 | LOG | Send NewChannelReq process starts |
| 0:00:17.616807 | LOG | PULL_DATA: 02 45de 02 3834383419003400 |
| 0:00:17.619805 | LOG | PULL_ACK: 02 45de 04 |
| 0:00:27.160444 | LOG | PUSH_ACK: 02 2cc5 01 |
| 0:00:27.166440 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cc5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3541140420, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCASQABebmqu0JG'}]} |
| 0:00:27.170439 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0049, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: aabb4246) |
| 0:00:27.174436 | LOG | Server <---------- DUT |
| 0:00:27.180433 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0134, FOpts: ), FPort: 00, FRMPayload: 070f88668450), MIC: 26d9f688) |
| 0:00:27.223407 | LOG | PULL_RESP: Protocol version = 02, Token = b6e7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3543140420, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAANAEA1tlojt0NJtn2iA=='}} |
| 0:00:27.224407 | LOG | Server ----------> DUT |
| 0:00:27.227406 | LOG | TX_ACK: 02 b6e7 05 3834383419003400 |
| 0:00:27.647168 | LOG | PULL_DATA: 02 b916 02 3834383419003400 |
| 0:00:27.649168 | LOG | PULL_ACK: 02 b916 04 |
| 0:00:32.162632 | LOG | PUSH_ACK: 02 2cc6 01 |
| 0:00:32.167630 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cc6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3546151238, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCSgAHAwG6uCtFfpQ='}]} |

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| 0:00:32.169629 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 004a, FOpts: 0703), FPort: 01, FRMPayload: 0033, MIC: 2b457e94) |
| 0:00:32.170628 | LOG | Server <---------- DUT |
| 0:00:32.172625 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:32.173625 | LOG | Command Answer: 0703 |
| 0:00:32.178622 | LOG | MAC command communication completed |
| 0:00:32.181620 | LOG | Receive frame on specific channels process starts |
| 0:00:32.191615 | LOG | Attempt 1/20 |
| 0:00:37.727502 | LOG | PULL_DATA: 02 c020 02 3834383419003400 |
| 0:00:37.729502 | LOG | PULL_ACK: 02 c020 04 |
| 0:00:42.189998 | LOG | PUSH_ACK: 02 2cc7 01 |
| 0:00:42.191996 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cc7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3556151974, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCASwABDoVC5wqQ'}]} |
| 0:00:42.194998 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004b, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 42e70a90) |
| 0:00:42.198991 | LOG | Server <---------- DUT |
| 0:00:42.202989 | LOG | Attempt 2/20 |
| 0:00:47.807837 | LOG | PULL_DATA: 02 84ae 02 3834383419003400 |
| 0:00:47.808836 | LOG | PULL_ACK: 02 84ae 04 |
| 0:00:52.176387 | LOG | PUSH_ACK: 02 2cc9 01 |
| 0:00:52.178382 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cc9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3566159214, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCATQABvFcWkzVg'}]} |
| 0:00:52.180378 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004d, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 16933560) |
| 0:00:52.181397 | LOG | Server <---------- DUT |
| 0:00:52.183396 | LOG | Attempt 3/20 |
| 0:00:57.165582 | LOG | PUSH_ACK: 02 2cca 01 |
| 0:00:57.170575 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cca, Identifier = 00, JSON = {'rxpk': [{'tmst': 3571162190, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCATgAB5n3Kwbbz'}]} |
| 0:00:57.173574 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004e, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: cac1b6f3) |
| 0:00:57.177575 | LOG | Server <---------- DUT |
| 0:00:57.180570 | LOG | Attempt 4/20 |
| 0:00:57.887016 | LOG | PULL_DATA: 02 fd73 02 3834383419003400 |
| 0:00:57.889015 | LOG | PULL_ACK: 02 fd73 04 |
| 0:01:02.207588 | LOG | PUSH_ACK: 02 2ccb 01 |
| 0:01:02.212586 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ccb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3576165150, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCATwABQFQ3cIIJ'}]} |
| 0:01:02.214587 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004f, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 37708209) |
| 0:01:02.251563 | LOG | Server <---------- DUT |
| 0:01:02.252562 | LOG | Attempt 5/20 |
| 0:01:07.198782 | LOG | PUSH_ACK: 02 2ccc 01 |
| 0:01:07.200780 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ccc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3581168119, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAUAAB6G/3XoG1'}]} |

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| 0:01:07.201782 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0050, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: f75e81b5) |
| 0:01:07.202781 | LOG | Server <---------- DUT |
| 0:01:07.206778 | LOG | Receive frame on specific channels process tested successfully |
| 0:01:07.209778 | LOG | End Test Step: Addition of a single channel |
| 0:01:07.213775 | LOG | Partial Verdict: PASS |
| 0:01:07.217773 | LOG | ========== |
| 0:01:07.225766 | LOG | ========== |
| 0:01:07.228766 | LOG | Start Test Step: Removal of a single channel |
| 0:01:07.247754 | LOG | Send NewChannelReq process starts |
| 0:01:07.967349 | LOG | PULL_DATA: 02 cf3c 02 3834383419003400 |
| 0:01:07.969349 | LOG | PULL_ACK: 02 cf3c 04 |
| 0:01:12.187977 | LOG | PUSH_ACK: 02 2ccd 01 |
| 0:01:12.188979 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ccd, Identifier = 00, JSON = {'rxpk': [{'tmst': 3586171079, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAUQABj/uEmaq9'}]} |
| 0:01:12.190976 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0051, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 8499aabd) |
| 0:01:12.191975 | LOG | Server <---------- DUT |
| 0:01:12.192976 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0135, FOpts: ), FPort: 00, FRMPayload: 070f00000050), MIC: cd8fb971) |
| 0:01:12.194975 | LOG | PULL_RESP: Protocol version = 02, Token = 439d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3588171079, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAANQEAkV24UxYlzY+5cQ=='}} |
| 0:01:12.195975 | LOG | Server ----------> DUT |
| 0:01:12.199001 | LOG | TX_ACK: 02 439d 05 3834383419003400 |
| 0:01:17.193164 | LOG | PUSH_ACK: 02 2cce 01 |
| 0:01:17.195163 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cce, Identifier = 00, JSON = {'rxpk': [{'tmst': 3591179161, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCUgAHAwHGdIAeWZc='}]} |
| 0:01:17.196162 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0052, FOpts: 0703), FPort: 01, FRMPayload: 0033, MIC: 801e5997) |
| 0:01:17.197162 | LOG | Server <---------- DUT |
| 0:01:17.199160 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:17.200160 | LOG | Command Answer: 0703 |
| 0:01:17.206156 | LOG | MAC command communication completed |
| 0:01:17.210154 | LOG | Receive frame on specific channels process starts |
| 0:01:17.222147 | LOG | Attempt 1/15 |
| 0:01:18.077666 | LOG | PULL_DATA: 02 30d6 02 3834383419003400 |
| 0:01:18.079666 | LOG | PULL_ACK: 02 30d6 04 |
| 0:01:27.231522 | LOG | PUSH_ACK: 02 2cd0 01 |
| 0:01:27.233522 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3601179945, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAUwABYqym68WK'}]} |
| 0:01:27.234521 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0053, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a6ebc58a) |
| 0:01:27.236519 | LOG | Server <---------- DUT |
| 0:01:27.238517 | LOG | Attempt 2/15 |
| 0:01:28.157001 | LOG | PULL_DATA: 02 a9a0 02 3834383419003400 |
| 0:01:28.159000 | LOG | PULL_ACK: 02 a9a0 04 |
| 0:01:32.219717 | LOG | PUSH_ACK: 02 2cd1 01 |

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| 0:01:32.223715 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3606182921, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVAAB5gzVHgZU'}]} |
| 0:01:32.224714 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0054, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: d51e0654) |
| 0:01:32.225716 | LOG | Server <---------- DUT |
| 0:01:32.227713 | LOG | Attempt 3/15 |
| 0:01:37.209912 | LOG | PUSH_ACK: 02 2cd2 01 |
| 0:01:37.211911 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3611185865, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAVQABQeEd73yf'}]} |
| 0:01:37.212910 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0055, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 1def7c9f) |
| 0:01:37.213910 | LOG | Server <---------- DUT |
| 0:01:37.214909 | LOG | Attempt 4/15 |
| 0:01:38.237335 | LOG | PULL_DATA: 02 b489 02 3834383419003400 |
| 0:01:38.239334 | LOG | PULL_ACK: 02 b489 04 |
| 0:01:42.197109 | LOG | PUSH_ACK: 02 2cd3 01 |
| 0:01:42.200107 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3616188801, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVgAB6soJ1TS3'}]} |
| 0:01:42.201108 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0056, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 09d534b7) |
| 0:01:42.203106 | LOG | Server <---------- DUT |
| 0:01:42.205106 | LOG | Attempt 5/15 |
| 0:01:47.237275 | LOG | PUSH_ACK: 02 2cd4 01 |
| 0:01:47.239275 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3621191761, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAVwABEfl/Oh6J'}]} |
| 0:01:47.240274 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0057, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 7f3a1e89) |
| 0:01:47.242273 | LOG | Server <---------- DUT |
| 0:01:47.243272 | LOG | Attempt 6/15 |
| 0:01:48.326743 | LOG | PULL_DATA: 02 2eb2 02 3834383419003400 |
| 0:01:48.328723 | LOG | PULL_ACK: 02 2eb2 04 |
| 0:01:52.238525 | LOG | PUSH_ACK: 02 2cd6 01 |
| 0:01:52.240524 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3626196081, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAWAABDlFR9V9t'}]} |
| 0:01:52.244522 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0058, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 51f55f6d) |
| 0:01:52.247522 | LOG | Server <---------- DUT |
| 0:01:52.251518 | LOG | Attempt 7/15 |
| 0:01:57.227721 | LOG | PUSH_ACK: 02 2cd8 01 |
| 0:01:57.229720 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3631200425, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAWQAB8HXOW+vZ'}]} |
| 0:01:57.231720 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0059, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: ce5bebd9) |
| 0:01:57.232720 | LOG | Server <---------- DUT |

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| 0:01:57.233720 | LOG | Attempt 8/15 |
| 0:01:58.417052 | LOG | PULL_DATA: 02 65fc 02 3834383419003400 |
| 0:01:58.419051 | LOG | PULL_ACK: 02 65fc 04 |
| 0:02:02.216917 | LOG | PUSH_ACK: 02 2cd9 01 |
| 0:02:02.218915 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cd9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3636203393, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAWgABNSDZ8j9W'}]} |
| 0:02:02.220914 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 005a, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: d9f23f56) |
| 0:02:02.221913 | LOG | Server <---------- DUT |
| 0:02:02.223912 | LOG | Attempt 9/15 |
| 0:02:07.256115 | LOG | PUSH_ACK: 02 2cda 01 |
| 0:02:07.262111 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cda, Identifier = 00, JSON = {'rxpk': [{'tmst': 3641206361, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAWwABvmFAnJ+6'}]} |
| 0:02:07.264110 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 005b, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 409c9fba) |
| 0:02:07.265109 | LOG | Server <---------- DUT |
| 0:02:07.267109 | LOG | Attempt 10/15 |
| 0:02:08.497387 | LOG | PULL_DATA: 02 1d98 02 3834383419003400 |
| 0:02:08.499385 | LOG | PULL_ACK: 02 1d98 04 |
| 0:02:12.247278 | LOG | PUSH_ACK: 02 2cdb 01 |
| 0:02:12.249279 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cdb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3646209321, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAXAAB9Y6cTp9B'}]} |
| 0:02:12.250276 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 005c, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9c4e9f41) |
| 0:02:12.251278 | LOG | Server <---------- DUT |
| 0:02:12.253276 | LOG | Attempt 11/15 |
| 0:02:17.236474 | LOG | PUSH_ACK: 02 2cdc 01 |
| 0:02:17.238472 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cdc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3651212289, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAXQABDCl0oMcp'}]} |
| 0:02:17.239472 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 005d, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 74a0c729) |
| 0:02:17.241471 | LOG | Server <---------- DUT |
| 0:02:17.242470 | LOG | Attempt 12/15 |
| 0:02:18.577779 | LOG | PULL_DATA: 02 be11 02 3834383419003400 |
| 0:02:18.578775 | LOG | PULL_ACK: 02 be11 04 |
| 0:02:22.237717 | LOG | PUSH_ACK: 02 2cde 01 |
| 0:02:22.239716 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cde, Identifier = 00, JSON = {'rxpk': [{'tmst': 3656215241, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAXgABKwUSSdYd'}]} |
| 0:02:22.240717 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 005e, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 1249d61d) |
| 0:02:22.241717 | LOG | Server <---------- DUT |
| 0:02:22.243716 | LOG | Attempt 13/15 |
| 0:02:27.226913 | LOG | PUSH_ACK: 02 2cdf 01 |
| 0:02:27.228912 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cdf, Identifier = 00, JSON = {'rxpk': [{'tmst': 3661219577, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAXwAB8FU1b7pV'}]} |
| 0:02:27.230910 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 005f, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 356fba55) |
| 0:02:27.231910 | LOG | Server <---------- DUT |
| 0:02:27.233909 | LOG | Attempt 14/15 |
| 0:02:28.657143 | LOG | PULL_DATA: 02 dece 02 3834383419003400 |
| 0:02:28.659142 | LOG | PULL_ACK: 02 dece 04 |
| 0:02:32.267114 | LOG | PUSH_ACK: 02 2ce0 01 |
| 0:02:32.269112 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3666222545, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAYAABSgT8CV4q'}]} |
| 0:02:32.270112 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0060, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: fc095e2a) |
| 0:02:32.271111 | LOG | Server <---------- DUT |
| 0:02:32.273110 | LOG | Attempt 15/15 |
| 0:02:37.255776 | LOG | PUSH_ACK: 02 2ce1 01 |
| 0:02:37.257776 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3671225513, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAYQABam6fV01u'}]} |
| 0:02:37.258775 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0061, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9f574d6e) |
| 0:02:37.259774 | LOG | Server <---------- DUT |
| 0:02:37.264772 | LOG | Receive frame on specific channels process tested successfully |
| 0:02:37.268769 | LOG | End Test Step: Removal of a single channel |
| 0:02:37.271768 | LOG | Partial Verdict: PASS |
| 0:02:37.276765 | LOG | ========== |
| 0:02:37.282762 | LOG | ========== |
| 0:02:37.285760 | LOG | Start Test Step: Adding multiple channels 1 |
| 0:02:37.328736 | LOG | Send MAC command block process starts |
| 0:02:38.736943 | LOG | PULL_DATA: 02 a6ef 02 3834383419003400 |
| 0:02:38.738943 | LOG | PULL_ACK: 02 a6ef 04 |
| 0:02:42.242972 | LOG | PUSH_ACK: 02 2ce2 01 |
| 0:02:42.244971 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3676228465, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAYgABu4Waor76'}]} |
| 0:02:42.245972 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0062, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9aa2befa) |
| 0:02:42.246970 | LOG | Server <---------- DUT |
| 0:02:42.248968 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0136, FOpts: ), FPort: 00, FRMPayload: 0703184f84500704e85684500705b85e8450070688668450070758 6e8450), MIC: ceec5990) |
| 0:02:42.250968 | LOG | PULL_RESP: Protocol version = 02, Token = 5849, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3678228465, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 43, 'data': 'YCAgICAANgEAlMRFiC1YzVSiREqlyT52BpFsQCwYcmTiQqPyo8mWzuxZkA=='}} |
| 0:02:42.251967 | LOG | Server ----------> DUT |
| 0:02:42.255965 | LOG | TX_ACK: 02 5849 05 3834383419003400 |
| 0:02:47.298343 | LOG | PUSH_ACK: 02 2ce3 01 |

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| 0:02:47.301340 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3681246877, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 25, 'data': 'QCAgICCKYwAHAwcDBwMHAwcDAas4siYkRQ=='}]} |
| 0:02:47.302340 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 8a, FCnt: 0063, FOpts: 07030703070307030703), FPort: 01, FRMPayload: 0033, MIC: b2262445) |
| 0:02:47.304339 | LOG | Server <---------- DUT |
| 0:02:47.306337 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:47.308336 | LOG | Command Answer: 07030703070307030703 |
| 0:02:47.453223 | LOG | MAC command communication completed |
| 0:02:47.456222 | LOG | End Test Step: Adding multiple channels 1 |
| 0:02:47.486205 | LOG | Partial Verdict: PASS |
| 0:02:47.492202 | LOG | ========== |
| 0:02:47.499198 | LOG | ========== |
| 0:02:47.503196 | LOG | Start Test Step: Adding multiple channels 2 |
| 0:02:47.518189 | LOG | Send MAC command block process starts |
| 0:02:48.757490 | LOG | PULL_DATA: 02 e7eb 02 3834383419003400 |
| 0:02:48.759489 | LOG | PULL_ACK: 02 e7eb 04 |
| 0:02:57.282696 | LOG | PUSH_ACK: 02 2ce5 01 |
| 0:02:57.284695 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3691237469, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAZAABhgeoYglW'}]} |
| 0:02:57.285694 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0064, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a8620956) |
| 0:02:57.287693 | LOG | Server <---------- DUT |
| 0:02:57.289692 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0137, FOpts: ), FPort: 00, FRMPayload: 0708586e8450070988668450070ab85e8450070be8568450070c184f8450), MIC: cc106e76) |
| 0:02:57.292691 | LOG | PULL_RESP: Protocol version = 02, Token = 6e91, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3693237469, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 43, 'data': 'YCAgICAANwEAnqChhf0kuqK0knLP1Pqv8jYJlaXguEcBDN+y6mBLzBBudg==='}} |
| 0:02:57.293690 | LOG | Server ----------> DUT |
| 0:02:57.297687 | LOG | TX_ACK: 02 6e91 05 3834383419003400 |
| 0:02:58.766891 | LOG | PULL_DATA: 02 cda0 02 3834383419003400 |
| 0:02:58.768861 | LOG | PULL_ACK: 02 cda0 04 |
| 0:03:02.308099 | LOG | PUSH_ACK: 02 2ce6 01 |
| 0:03:02.311097 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3696259946, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 25, 'data': 'QCAgICCKZQAHAwcDBwMHAwcDAVC/bA17OA=='}]} |
| 0:03:02.312097 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 8a, FCnt: 0065, FOpts: 07030703070307030703), FPort: 01, FRMPayload: 0033, MIC: 6c0d7b38) |
| 0:03:02.314095 | LOG | Server <---------- DUT |
| 0:03:02.316095 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:02.317094 | LOG | Command Answer: 07030703070307030703 |
| 0:03:02.454017 | LOG | MAC command communication completed |
| 0:03:02.457017 | LOG | End Test Step: Adding multiple channels 2 |

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| 0:03:02.460015 | LOG | Partial Verdict: PASS |
| 0:03:02.464013 | LOG | ========== |
| 0:03:02.469008 | LOG | ========== |
| 0:03:02.472007 | LOG | Start Test Step: Adding multiple channels 3 |
| 0:03:02.486998 | LOG | Send MAC command block process starts |
| 0:03:08.857415 | LOG | PULL_DATA: 02 018d 02 3834383419003400 |
| 0:03:08.861413 | LOG | PULL_ACK: 02 018d 04 |
| 0:03:12.279490 | LOG | PUSH_ACK: 02 2ce7 01 |
| 0:03:12.282489 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3706250450, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAZgABl9wJ+viK'}]} |
| 0:03:12.283488 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0066, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 09faf88a) |
| 0:03:12.284488 | LOG | Server <---------- DUT |
| 0:03:12.286489 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0138, FOpts: ), FPort: 00, FRMPayload: 070dc8858450070ef87d8450070f28768450), MIC: 29b7e130) |
| 0:03:12.288504 | LOG | PULL_RESP: Protocol version = 02, Token = 60fb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3708250450, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 31, 'data': 'YCAgICAAOAEAlLLhjQTSdnEWkYl8FVRQCBAiKbfhMA=='}} |
| 0:03:12.289485 | LOG | Server ----------> DUT |
| 0:03:12.293483 | LOG | TX_ACK: 02 60fb 05 3834383419003400 |
| 0:03:17.290677 | LOG | PUSH_ACK: 02 2ce8 01 |
| 0:03:17.292671 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ce8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3711263694, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 21, 'data': 'QCAgICCGZwAHAwcDBwMBufvdUkt8'}]} |
| 0:03:17.294672 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 86, FCnt: 0067, FOpts: 070307030703), FPort: 01, FRMPayload: 0033, MIC: dd524b7c) |
| 0:03:17.295672 | LOG | Server <---------- DUT |
| 0:03:17.296671 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:17.298670 | LOG | Command Answer: 070307030703 |
| 0:03:17.373626 | LOG | MAC command communication completed |
| 0:03:17.376624 | LOG | End Test Step: Adding multiple channels 3 |
| 0:03:17.379623 | LOG | Partial Verdict: PASS |
| 0:03:17.382621 | LOG | ========== |
| 0:03:17.387618 | LOG | ========== |
| 0:03:17.389617 | LOG | Start Test Step: Checking channel usage 12 to 15 |
| 0:03:17.404609 | LOG | Send LinkADRReq process starts |
| 0:03:19.006727 | LOG | PULL_DATA: 02 c086 02 3834383419003400 |
| 0:03:19.008707 | LOG | PULL_ACK: 02 c086 04 |
| 0:03:22.289862 | LOG | PUSH_ACK: 02 2cea 01 |
| 0:03:22.294859 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cea, Identifier = 00, JSON = {'rxpk': [{'tmst': 3716256358, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAaAABb1aloMDo'}]} |
| 0:03:22.298861 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0068, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a5a0c0e8) |
| 0:03:22.300861 | LOG | Server <---------- DUT |
| 0:03:22.302854 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0139, FOpts: ), FPort: 00, FRMPayload: 035000f001), MIC: b043846a) |

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| 0:03:22.304854 | LOG | PULL_RESP: Protocol version = 02, Token = 88f1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3718256358, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAOQEAAIgA6sewQ4Rq'}} |
| 0:03:22.306852 | LOG | Server ----------> DUT |
| 0:03:22.309849 | LOG | TX_ACK: 02 88f1 05 3834383419003400 |
| 0:03:27.279056 | LOG | PUSH_ACK: 02 2ceb 01 |
| 0:03:27.281055 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ceb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3721265809, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCaQADBwFl1p9Lgfc='}]} |
| 0:03:27.282053 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0069, FOpts: 0307), FPort: 01, FRMPayload: 0033, MIC: 9f4b81f7) |
| 0:03:27.284052 | LOG | Server <---------- DUT |
| 0:03:27.285051 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:27.287050 | LOG | Command Answer: 0307 |
| 0:03:27.294046 | LOG | MAC command communication completed |
| 0:03:27.298044 | LOG | Receive frame on specific channels process starts |
| 0:03:27.309039 | LOG | Attempt 1/20 |
| 0:03:29.027091 | LOG | PULL_DATA: 02 3cbe 02 3834383419003400 |
| 0:03:29.029071 | LOG | PULL_ACK: 02 3cbe 04 |
| 0:03:32.319222 | LOG | PUSH_ACK: 02 2cec 01 |
| 0:03:32.321220 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cec, Identifier = 00, JSON = {'rxpk': [{'tmst': 3726264833, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAagAB9rg0a1Tl'}]} |
| 0:03:32.322220 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 006a, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 346b54e5) |
| 0:03:32.323220 | LOG | Server <---------- DUT |
| 0:03:32.325217 | LOG | Attempt 2/20 |
| 0:03:37.308080 | LOG | PUSH_ACK: 02 2ced 01 |
| 0:03:37.310079 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ced, Identifier = 00, JSON = {'rxpk': [{'tmst': 3731267833, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAawABwWbEPe5x'}]} |
| 0:03:37.312078 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 006b, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: c43dee71) |
| 0:03:37.313077 | LOG | Server <---------- DUT |
| 0:03:37.314077 | LOG | Attempt 3/20 |
| 0:03:39.106759 | LOG | PULL_DATA: 02 f90b 02 3834383419003400 |
| 0:03:39.111756 | LOG | PULL_ACK: 02 f90b 04 |
| 0:03:42.296969 | LOG | PUSH_ACK: 02 2cee 01 |
| 0:03:42.298966 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cee, Identifier = 00, JSON = {'rxpk': [{'tmst': 3736270809, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAbAABPNo+fQHC'}]} |
| 0:03:42.300963 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 006c, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 3e7d01c2) |
| 0:03:42.301963 | LOG | Server <---------- DUT |
| 0:03:42.302962 | LOG | Attempt 4/20 |
| 0:03:47.286161 | LOG | PUSH_ACK: 02 2cef 01 |
| 0:03:47.290158 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cef, Identifier = 00, JSON = {'rxpk': [{'tmst': 3741273769, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAbQABfW0Jj0IT'}]} |

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| 0:03:47.292155 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 006d, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 098f4213) |
| 0:03:47.294154 | LOG | Server <---------- DUT |
| 0:03:47.297153 | LOG | Attempt 5/20 |
| 0:03:49.186922 | LOG | PULL_DATA: 02 fa29 02 3834383419003400 |
| 0:03:49.188920 | LOG | PULL_ACK: 02 fa29 04 |
| 0:03:52.288177 | LOG | PUSH_ACK: 02 2cf1 01 |
| 0:03:52.290175 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3746276713, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAbgABbHjw+Y79'}]} |
| 0:03:52.291175 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 006e, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: f0f98efd) |
| 0:03:52.292175 | LOG | Server <---------- DUT |
| 0:03:52.294174 | LOG | Attempt 6/20 |
| 0:03:57.327348 | LOG | PUSH_ACK: 02 2cf2 01 |
| 0:03:57.331346 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3751279705, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAbwABdVD4ofw0'}]} |
| 0:03:57.335340 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 006f, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: f8a1fc34) |
| 0:03:57.339338 | LOG | Server <---------- DUT |
| 0:03:57.342335 | LOG | Attempt 7/20 |
| 0:03:59.267252 | LOG | PULL_DATA: 02 e2a3 02 3834383419003400 |
| 0:03:59.269251 | LOG | PULL_ACK: 02 e2a3 04 |
| 0:04:02.317555 | LOG | PUSH_ACK: 02 2cf3 01 |
| 0:04:02.319537 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3756284025, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAcAAB4HhEFFmx'}]} |
| 0:04:02.321535 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0070, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 441459b1) |
| 0:04:02.322552 | LOG | Server <---------- DUT |
| 0:04:02.324535 | LOG | Attempt 8/20 |
| 0:04:07.305731 | LOG | PUSH_ACK: 02 2cf4 01 |
| 0:04:07.308729 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3761286985, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAcQAB1g2eWWwx'}]} |
| 0:04:07.309728 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0071, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9e596c31) |
| 0:04:07.311727 | LOG | Server <---------- DUT |
| 0:04:07.313726 | LOG | Attempt 9/20 |
| 0:04:09.347583 | LOG | PULL_DATA: 02 c996 02 3834383419003400 |
| 0:04:09.351580 | LOG | PULL_ACK: 02 c996 04 |
| 0:04:12.294925 | LOG | PUSH_ACK: 02 2cf5 01 |
| 0:04:12.296924 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3766289953, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAcgABzTivaJsB'}]} |
| 0:04:12.298923 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0072, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: af689b01) |
| 0:04:12.299922 | LOG | Server <---------- DUT |
| 0:04:12.301921 | LOG | Attempt 10/20 |
| 0:04:17.334091 | LOG | PUSH_ACK: 02 2cf6 01 |

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| 0:04:17.336090 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3771292905, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAcwABFPpdOCzV'}]} |
| 0:04:17.338089 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0073, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 5d382cd5) |
| 0:04:17.339088 | LOG | Server <---------- DUT |
| 0:04:17.341106 | LOG | Attempt 11/20 |
| 0:04:19.427071 | LOG | PULL_DATA: 02 2cf8 02 3834383419003400 |
| 0:04:19.429051 | LOG | PULL_ACK: 02 2cf8 04 |
| 0:04:22.339414 | LOG | PUSH_ACK: 02 2cf8 01 |
| 0:04:22.344411 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3776295865, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAdAABnY70y5NR'}]} |
| 0:04:22.345413 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0074, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: f4cb9351) |
| 0:04:22.347412 | LOG | Server <---------- DUT |
| 0:04:22.348409 | LOG | Attempt 12/20 |
| 0:04:27.330607 | LOG | PUSH_ACK: 02 2cf9 01 |
| 0:04:27.332606 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cf9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3781298817, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAdQABt++hGT9u'}]} |
| 0:04:27.333608 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0075, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a1193f6e) |
| 0:04:27.334605 | LOG | Server <---------- DUT |
| 0:04:27.336604 | LOG | Attempt 13/20 |
| 0:04:29.507413 | LOG | PULL_DATA: 02 4891 02 3834383419003400 |
| 0:04:29.509414 | LOG | PULL_ACK: 02 4891 04 |
| 0:04:32.318802 | LOG | PUSH_ACK: 02 2cfa 01 |
| 0:04:32.320801 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cfa, Identifier = 00, JSON = {'rxpk': [{'tmst': 3786303137, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAdgABmqud3g4j'}]} |
| 0:04:32.322800 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0076, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9dde0e23) |
| 0:04:32.323799 | LOG | Server <---------- DUT |
| 0:04:32.324798 | LOG | Attempt 14/20 |
| 0:04:37.309243 | LOG | PUSH_ACK: 02 2cfc 01 |
| 0:04:37.312241 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cfc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3791306105, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAdwABEQJThgmw'}]} |
| 0:04:37.313243 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0077, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 538609b0) |
| 0:04:37.314242 | LOG | Server <---------- DUT |
| 0:04:37.316241 | LOG | Attempt 15/20 |
| 0:04:39.587232 | LOG | PULL_DATA: 02 f466 02 3834383419003400 |
| 0:04:39.590230 | LOG | PULL_ACK: 02 f466 04 |
| 0:04:42.349696 | LOG | PUSH_ACK: 02 2cfd 01 |
| 0:04:42.351698 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cfd, Identifier = 00, JSON = {'rxpk': [{'tmst': 3796309073, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAeAAB26UkMjOh'}]} |

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| 0:04:42.353706 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0078, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 243233a1) |
| 0:04:42.355693 | LOG | Server <---------- DUT |
| 0:04:42.356695 | LOG | Attempt 16/20 |
| 0:04:47.337873 | LOG | PUSH_ACK: 02 2cfe 01 |
| 0:04:47.339872 | LOG | PUSH_DATA: Protocol version = 02, Token = 2cfe, Identifier = 00, JSON = {'rxpk': [{'tmst': 3801312057, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAeQABdMubeEYx'}]} |
| 0:04:47.340871 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0079, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9b784631) |
| 0:04:47.341888 | LOG | Server <---------- DUT |
| 0:04:47.343869 | LOG | Attempt 17/20 |
| 0:04:49.667561 | LOG | PULL_DATA: 02 2ab2 02 3834383419003400 |
| 0:04:49.668561 | LOG | PULL_ACK: 02 2ab2 04 |
| 0:04:52.338409 | LOG | PUSH_ACK: 02 2d00 01 |
| 0:04:52.340408 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d00, Identifier = 00, JSON = {'rxpk': [{'tmst': 3806315009, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAegABau9SPjUW'}]} |
| 0:04:52.341408 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 007a, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 523e3516) |
| 0:04:52.343407 | LOG | Server <---------- DUT |
| 0:04:52.345406 | LOG | Attempt 18/20 |
| 0:04:57.325825 | LOG | PUSH_ACK: 02 2d01 01 |
| 0:04:57.327823 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d01, Identifier = 00, JSON = {'rxpk': [{'tmst': 3811317945, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAewABtjOuGjBp'}]} |
| 0:04:57.329823 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 007b, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: ae1a3069) |
| 0:04:57.330823 | LOG | Server <---------- DUT |
| 0:04:57.331822 | LOG | Attempt 19/20 |
| 0:04:59.747463 | LOG | PULL_DATA: 02 7708 02 3834383419003400 |
| 0:04:59.748462 | LOG | PULL_ACK: 02 7708 04 |
| 0:05:02.366990 | LOG | PUSH_ACK: 02 2d02 01 |
| 0:05:02.368989 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d02, Identifier = 00, JSON = {'rxpk': [{'tmst': 3816322273, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAfAABN4n+1JRV'}]} |
| 0:05:02.369988 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 007c, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: fed49455) |
| 0:05:02.370988 | LOG | Server <---------- DUT |
| 0:05:02.371987 | LOG | Attempt 20/20 |
| 0:05:07.355186 | LOG | PUSH_ACK: 02 2d03 01 |
| 0:05:07.357184 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d03, Identifier = 00, JSON = {'rxpk': [{'tmst': 3821326609, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAfQAB3Mq6Axne'}]} |
| 0:05:07.358183 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 007d, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: ba0319de) |
| 0:05:07.359182 | LOG | Server <---------- DUT |
| 0:05:07.366178 | LOG | Receive frame on specific channels process tested successfully |
| 0:05:07.370176 | LOG | End Test Step: Checking channel usage 12 to 15 |
| 0:05:07.373177 | LOG | Partial Verdict: PASS |
| 0:05:07.377174 | LOG | ========== |

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| 0:05:07.383169 | LOG | ========== |
| 0:05:07.386167 | LOG | Start Test Step: Checking channel usage 8 to 11 |
| 0:05:07.400159 | LOG | Send LinkADRReq process starts |
| 0:05:09.827556 | LOG | PULL_DATA: 02 801e 02 3834383419003400 |
| 0:05:09.831553 | LOG | PULL_ACK: 02 801e 04 |
| 0:05:12.343151 | LOG | PUSH_ACK: 02 2d04 01 |
| 0:05:12.345138 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d04, Identifier = 00, JSON = {'rxpk': [{'tmst': 3826329545, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAfgABFeHsCvAT'}]} |
| 0:05:12.347138 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 007e, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: ec0af013) |
| 0:05:12.348138 | LOG | Server <---------- DUT |
| 0:05:12.349137 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 013a, FOpts: ), FPort: 00, FRMPayload: 0350000f01), MIC: b6287109) |
| 0:05:12.352135 | LOG | PULL_RESP: Protocol version = 02, Token = abf3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3828329545, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAOgEAh7YwPJS2KHEJ'}} |
| 0:05:12.353135 | LOG | Server ----------> DUT |
| 0:05:12.355134 | LOG | TX_ACK: 02 abf3 05 3834383419003400 |
| 0:05:17.352185 | LOG | PUSH_ACK: 02 2d05 01 |
| 0:05:17.354184 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d05, Identifier = 00, JSON = {'rxpk': [{'tmst': 3831338996, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCfwADBwHO75cRmjU='}]} |
| 0:05:17.356183 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 007f, FOpts: 0307), FPort: 01, FRMPayload: 0033, MIC: 97119a35) |
| 0:05:17.357182 | LOG | Server <---------- DUT |
| 0:05:17.359181 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:17.361180 | LOG | Command Answer: 0307 |
| 0:05:17.369176 | LOG | MAC command communication completed |
| 0:05:17.372193 | LOG | Receive frame on specific channels process starts |
| 0:05:17.384168 | LOG | Attempt 1/20 |
| 0:05:19.907472 | LOG | PULL_DATA: 02 f768 02 3834383419003400 |
| 0:05:19.909471 | LOG | PULL_ACK: 02 f768 04 |
| 0:05:27.385007 | LOG | PUSH_ACK: 02 2d07 01 |
| 0:05:27.387006 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d07, Identifier = 00, JSON = {'rxpk': [{'tmst': 3841339772, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAgAABm//Ii+h9'}]} |
| 0:05:27.389005 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0080, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: c88be87d) |
| 0:05:27.391004 | LOG | Server <---------- DUT |
| 0:05:27.392004 | LOG | Attempt 2/20 |
| 0:05:29.987544 | LOG | PULL_DATA: 02 09c5 02 3834383419003400 |
| 0:05:29.989543 | LOG | PULL_ACK: 02 09c5 04 |
| 0:05:32.374202 | LOG | PUSH_ACK: 02 2d08 01 |
| 0:05:32.376200 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d08, Identifier = 00, JSON = {'rxpk': [{'tmst': 3846342708, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAgQABPYcJMBOb'}]} |
| 0:05:32.377200 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0081, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0930139b) |
| 0:05:32.380199 | LOG | Server <---------- DUT |

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| 0:05:32.383197 | LOG | Attempt 3/20 |
| 0:05:37.362397 | LOG | PUSH_ACK: 02 2d09 01 |
| 0:05:37.364396 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d09, Identifier = 00, JSON = {'rxpk': [{'tmst': 3851347028, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAggABsVp3fS+W'}]} |
| 0:05:37.365394 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0082, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 777d2f96) |
| 0:05:37.367393 | LOG | Server <---------- DUT |
| 0:05:37.368393 | LOG | Attempt 4/20 |
| 0:05:40.066774 | LOG | PULL_DATA: 02 080b 02 3834383419003400 |
| 0:05:40.071771 | LOG | PULL_ACK: 02 080b 04 |
| 0:05:42.402461 | LOG | PUSH_ACK: 02 2d0a 01 |
| 0:05:42.405457 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d0a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3856349980, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAgwABk5BMCYEc'}]} |
| 0:05:42.406456 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0083, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4c09811c) |
| 0:05:42.408456 | LOG | Server <---------- DUT |
| 0:05:42.410456 | LOG | Attempt 5/20 |
| 0:05:47.390731 | LOG | PUSH_ACK: 02 2d0b 01 |
| 0:05:47.393731 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d0b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3861352924, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAhAABN/gPmSwF'}]} |
| 0:05:47.395728 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0084, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0f992c05) |
| 0:05:47.397728 | LOG | Server <---------- DUT |
| 0:05:47.398727 | LOG | Attempt 6/20 |
| 0:05:50.147182 | LOG | PULL_DATA: 02 52c9 02 3834383419003400 |
| 0:05:50.149179 | LOG | PULL_ACK: 02 52c9 04 |
| 0:05:52.390921 | LOG | PUSH_ACK: 02 2d0d 01 |
| 0:05:52.392918 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d0d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3866355884, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAhQABhDmnYsi0'}]} |
| 0:05:52.394917 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0085, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a762c8b4) |
| 0:05:52.395917 | LOG | Server <---------- DUT |
| 0:05:52.397915 | LOG | Attempt 7/20 |
| 0:05:57.378114 | LOG | PUSH_ACK: 02 2d0e 01 |
| 0:05:57.380113 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d0e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3871358836, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAhgABUOyRLYeM'}]} |
| 0:05:57.382113 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0086, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 912d878c) |
| 0:05:57.383111 | LOG | Server <---------- DUT |
| 0:05:57.384113 | LOG | Attempt 8/20 |
| 0:06:00.227512 | LOG | PULL_DATA: 02 918e 02 3834383419003400 |
| 0:06:00.229511 | LOG | PULL_ACK: 02 918e 04 |
| 0:06:02.366309 | LOG | PUSH_ACK: 02 2d0f 01 |
| 0:06:02.368308 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d0f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3876361788, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAhwABep2ukeHM'}]} |
| 0:06:02.370308 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0087, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: ae91e1cc) |
| 0:06:02.371308 | LOG | Server <---------- DUT |
| 0:06:02.373323 | LOG | Attempt 9/20 |
| 0:06:07.405474 | LOG | PUSH_ACK: 02 2d10 01 |
| 0:06:07.408473 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d10, Identifier = 00, JSON = {'rxpk': [{'tmst': 3881366100, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiAABuDL6e6+s'}]} |
| 0:06:07.409474 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0088, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: fa7bafac) |
| 0:06:07.410474 | LOG | Server <---------- DUT |
| 0:06:07.412471 | LOG | Attempt 10/20 |
| 0:06:10.306862 | LOG | PULL_DATA: 02 878a 02 3834383419003400 |
| 0:06:10.311843 | LOG | PULL_ACK: 02 878a 04 |
| 0:06:12.394670 | LOG | PUSH_ACK: 02 2d11 01 |
| 0:06:12.396667 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d11, Identifier = 00, JSON = {'rxpk': [{'tmst': 3886369028, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiQABZq1OjHOf'}]} |
| 0:06:12.398667 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0089, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4e8c739f) |
| 0:06:12.399666 | LOG | Server <---------- DUT |
| 0:06:12.401665 | LOG | Attempt 11/20 |
| 0:06:17.384864 | LOG | PUSH_ACK: 02 2d13 01 |
| 0:06:17.385863 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d13, Identifier = 00, JSON = {'rxpk': [{'tmst': 3891371988, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAigAB/luEXMoL'}]} |
| 0:06:17.387863 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 008a, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 845cca0b) |
| 0:06:17.388862 | LOG | Server <---------- DUT |
| 0:06:17.389861 | LOG | Attempt 12/20 |
| 0:06:20.387179 | LOG | PULL_DATA: 02 9a81 02 3834383419003400 |
| 0:06:20.389202 | LOG | PULL_ACK: 02 9a81 04 |
| 0:06:22.391048 | LOG | PUSH_ACK: 02 2d15 01 |
| 0:06:22.393046 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d15, Identifier = 00, JSON = {'rxpk': [{'tmst': 3896374932, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiwABk2HRlTmt'}]} |
| 0:06:22.395062 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 008b, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: d19539ad) |
| 0:06:22.397043 | LOG | Server <---------- DUT |
| 0:06:22.398042 | LOG | Attempt 13/20 |
| 0:06:27.431214 | LOG | PUSH_ACK: 02 2d16 01 |
| 0:06:27.433213 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d16, Identifier = 00, JSON = {'rxpk': [{'tmst': 3901377884, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAjAABNYHuJWpS'}]} |
| 0:06:27.434210 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 008c, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: ee256a52) |
| 0:06:27.435212 | LOG | Server <---------- DUT |
| 0:06:27.436211 | LOG | Attempt 14/20 |
| 0:06:30.467506 | LOG | PULL_DATA: 02 b47c 02 3834383419003400 |

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| 0:06:30.468505 | LOG | PULL_ACK: 02 b47c 04 |
| 0:06:32.419407 | LOG | PUSH_ACK: 02 2d17 01 |
| 0:06:32.422405 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d17, Identifier = 00, JSON = {'rxpk': [{'tmst': 3906380844, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAjQABED+PybwG'}]} |
| 0:06:32.423404 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 008d, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 8fc9bc06) |
| 0:06:32.425403 | LOG | Server <---------- DUT |
| 0:06:32.426403 | LOG | Attempt 15/20 |
| 0:06:37.408601 | LOG | PUSH_ACK: 02 2d18 01 |
| 0:06:37.410599 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d18, Identifier = 00, JSON = {'rxpk': [{'tmst': 3911385156, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAjgABIIhmmRbm'}]} |
| 0:06:37.411599 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 008e, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 669916e6) |
| 0:06:37.413598 | LOG | Server <---------- DUT |
| 0:06:37.414598 | LOG | Attempt 16/20 |
| 0:06:40.546837 | LOG | PULL_DATA: 02 247d 02 3834383419003400 |
| 0:06:40.551834 | LOG | PULL_ACK: 02 247d 04 |
| 0:06:42.396795 | LOG | PUSH_ACK: 02 2d19 01 |
| 0:06:42.398796 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d19, Identifier = 00, JSON = {'rxpk': [{'tmst': 3916389460, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAjwABx2strKDZ'}]} |
| 0:06:42.400794 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 008f, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 2daca0d9) |
| 0:06:42.401812 | LOG | Server <---------- DUT |
| 0:06:42.403809 | LOG | Attempt 17/20 |
| 0:06:47.436960 | LOG | PUSH_ACK: 02 2d1a 01 |
| 0:06:47.438961 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d1a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3921392420, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAkAABr+27t+8b'}]} |
| 0:06:47.439959 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0090, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: bbb7ef1b) |
| 0:06:47.441958 | LOG | Server <---------- DUT |
| 0:06:47.442957 | LOG | Attempt 18/20 |
| 0:06:50.627166 | LOG | PULL_DATA: 02 1250 02 3834383419003400 |
| 0:06:50.629167 | LOG | PULL_ACK: 02 1250 04 |
| 0:06:52.441146 | LOG | PUSH_ACK: 02 2d1c 01 |
| 0:06:52.443145 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d1c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3926395388, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAkQABHo+b4vQl'}]} |
| 0:06:52.444144 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0091, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9be2f425) |
| 0:06:52.446145 | LOG | Server <---------- DUT |
| 0:06:52.447143 | LOG | Attempt 19/20 |
| 0:06:57.429340 | LOG | PUSH_ACK: 02 2d1d 01 |
| 0:06:57.431341 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d1d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3931398332, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAkgABw6LE0exI'}]} |

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| 0:06:57.432358 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0092, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: c4d1ec48) |
| 0:06:57.434338 | LOG | Server <---------- DUT |
| 0:06:57.436338 | LOG | Attempt 20/20 |
| 0:07:00.707497 | LOG | PULL_DATA: 02 755b 02 3834383419003400 |
| 0:07:00.709496 | LOG | PULL_ACK: 02 755b 04 |
| 0:07:02.417535 | LOG | PUSH_ACK: 02 2d1e 01 |
| 0:07:02.420534 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d1e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3936401300, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAkwABuy/1Ifeh'}]} |
| 0:07:02.421535 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0093, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: f521f7a1) |
| 0:07:02.423534 | LOG | Server <---------- DUT |
| 0:07:02.433527 | LOG | Receive frame on specific channels process tested successfully |
| 0:07:02.438526 | LOG | End Test Step: Checking channel usage 8 to 11 |
| 0:07:02.443522 | LOG | Partial Verdict: PASS |
| 0:07:02.469506 | LOG | ========== |
| 0:07:02.474503 | LOG | ========== |
| 0:07:02.476503 | LOG | Start Test Step: Checking channel usage 4 to 7 |
| 0:07:02.488496 | LOG | Send LinkADRReq process starts |
| 0:07:07.457701 | LOG | PUSH_ACK: 02 2d1f 01 |
| 0:07:07.459699 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d1f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3941405612, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAlAABMbh6KG+S'}]} |
| 0:07:07.461699 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0094, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 7a286f92) |
| 0:07:07.462698 | LOG | Server <---------- DUT |
| 0:07:07.465698 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 013b, FOpts: ), FPort: 00, FRMPayload: 0350f00001), MIC: 6bf90f6b) |
| 0:07:07.469694 | LOG | PULL_RESP: Protocol version = 02, Token = b3ba, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3943405612, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAOwEAEKiGcHhr+Q9r'}} |
| 0:07:07.471695 | LOG | Server ----------> DUT |
| 0:07:07.474691 | LOG | TX_ACK: 02 b3ba 05 3834383419003400 |
| 0:07:10.826806 | LOG | PULL_DATA: 02 e269 02 3834383419003400 |
| 0:07:10.832802 | LOG | PULL_ACK: 02 e269 04 |
| 0:07:12.428905 | LOG | PUSH_ACK: 02 2d20 01 |
| 0:07:12.430904 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d20, Identifier = 00, JSON = {'rxpk': [{'tmst': 3946415055, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCClQADBwFz7Hfl3NY='}]} |
| 0:07:12.432903 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0095, FOpts: 0307), FPort: 01, FRMPayload: 0033, MIC: 77e5dcd6) |
| 0:07:12.434902 | LOG | Server <---------- DUT |
| 0:07:12.436901 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:12.438900 | LOG | Command Answer: 0307 |
| 0:07:12.445896 | LOG | MAC command communication completed |
| 0:07:12.450894 | LOG | Receive frame on specific channels process starts |
| 0:07:12.468882 | LOG | Attempt 1/20 |
| 0:07:20.907137 | LOG | PULL_DATA: 02 c10c 02 3834383419003400 |
| 0:07:20.909136 | LOG | PULL_ACK: 02 c10c 04 |
| 0:07:22.463262 | LOG | PUSH_ACK: 02 2d22 01 |

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| 0:07:22.465260 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d22, Identifier = 00, JSON = {'rxpk': [{'tmst': 3956417207, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAlgABaLepEUw6'}]} |
| 0:07:22.467259 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0096, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a9114c3a) |
| 0:07:22.468259 | LOG | Server <---------- DUT |
| 0:07:22.470257 | LOG | Attempt 2/20 |
| 0:07:27.451456 | LOG | PUSH_ACK: 02 2d23 01 |
| 0:07:37.568764 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d23, Identifier = 00, JSON = {'rxpk': [{'tmst': 3961420158, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAlwABE5kV/hqK'}]} |
| 0:07:37.592751 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0097, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 15fe1a8a) |
| 0:07:37.593750 | LOG | Server <---------- DUT |
| 0:07:37.595750 | LOG | Attempt 3/20 |
| 0:07:41.066795 | LOG | PULL_DATA: 02 149c 02 3834383419003400 |
| 0:07:41.072793 | LOG | PULL_ACK: 02 149c 04 |
| 0:07:42.449018 | LOG | PUSH_ACK: 02 2d26 01 |
| 0:07:42.452016 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d26, Identifier = 00, JSON = {'rxpk': [{'tmst': 3976430367, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAmgABjAkIqiAw'}]} |
| 0:07:42.453017 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 009a, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 08aa2030) |
| 0:07:42.455014 | LOG | Server <---------- DUT |
| 0:07:42.456014 | LOG | Attempt 4/20 |
| 0:07:47.438211 | LOG | PUSH_ACK: 02 2d27 01 |
| 0:07:47.439210 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d27, Identifier = 00, JSON = {'rxpk': [{'tmst': 3981433295, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAmwABz9loBoU0'}]} |
| 0:07:47.441209 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 009b, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 68068534) |
| 0:07:47.442208 | LOG | Server <---------- DUT |
| 0:07:47.444207 | LOG | Attempt 5/20 |
| 0:07:51.147124 | LOG | PULL_DATA: 02 560b 02 3834383419003400 |
| 0:07:51.149122 | LOG | PULL_ACK: 02 560b 04 |
| 0:07:52.441396 | LOG | PUSH_ACK: 02 2d29 01 |
| 0:07:52.615297 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d29, Identifier = 00, JSON = {'rxpk': [{'tmst': 3986436263, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAnAABtmEbtSXi'}]} |
| 0:07:52.617296 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 009c, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 1bb525e2) |
| 0:07:52.619295 | LOG | Server <---------- DUT |
| 0:07:52.620295 | LOG | Attempt 6/20 |
| 0:07:57.490820 | LOG | PUSH_ACK: 02 2d2a 01 |
| 0:07:57.493817 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d2a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3991439222, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAnQABSwjLl4gS'}]} |
| 0:07:57.494817 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 009d, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: cb978812) |
| 0:07:57.496816 | LOG | Server <---------- DUT |

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| 0:07:57.685134 | LOG | Attempt 7/20 |
| 0:08:01.227139 | LOG | PULL_DATA: 02 0460 02 3834383419003400 |
| 0:08:01.228140 | LOG | PULL_ACK: 02 0460 04 |
| 0:08:02.479436 | LOG | PUSH_ACK: 02 2d2b 01 |
| 0:08:02.481433 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d2b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3996442175, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 6.2, 'rssi': -11, 'size': 15, 'data': 'QCAgICCAngAB2TSeM2pa'}]} |
| 0:08:02.482433 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 009e, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9e336a5a) |
| 0:08:02.483432 | LOG | Server <---------- DUT |
| 0:08:02.484432 | LOG | Attempt 8/20 |
| 0:08:07.467371 | LOG | PUSH_ACK: 02 2d2c 01 |
| 0:08:07.469367 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d2c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4001445118, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAnwABMQwu9LUX'}]} |
| 0:08:07.471366 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 009f, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 2ef4b517) |
| 0:08:07.472367 | LOG | Server <---------- DUT |
| 0:08:07.474368 | LOG | Attempt 9/20 |
| 0:08:11.307177 | LOG | PULL_DATA: 02 d00d 02 3834383419003400 |
| 0:08:11.310175 | LOG | PULL_ACK: 02 d00d 04 |
| 0:08:12.454550 | LOG | PUSH_ACK: 02 2d2d 01 |
| 0:08:12.456549 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d2d, Identifier = 00, JSON = {'rxpk': [{'tmst': 4006449431, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 6.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAoAAB5VznVsT7'}]} |
| 0:08:12.458546 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a0, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: e756c4fb) |
| 0:08:12.459560 | LOG | Server <---------- DUT |
| 0:08:12.461545 | LOG | Attempt 10/20 |
| 0:08:17.494696 | LOG | PUSH_ACK: 02 2d2e 01 |
| 0:08:17.496695 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d2e, Identifier = 00, JSON = {'rxpk': [{'tmst': 4011453750, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAoQABxhEA+lgK'}]} |
| 0:08:17.497695 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a1, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 00fa580a) |
| 0:08:17.498694 | LOG | Server <---------- DUT |
| 0:08:17.499694 | LOG | Attempt 11/20 |
| 0:08:21.387152 | LOG | PULL_DATA: 02 6b23 02 3834383419003400 |
| 0:08:21.389154 | LOG | PULL_ACK: 02 6b23 04 |
| 0:08:22.493558 | LOG | PUSH_ACK: 02 2d30 01 |
| 0:08:22.495557 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d30, Identifier = 00, JSON = {'rxpk': [{'tmst': 4016456695, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAogABYk99xtoQ'}]} |
| 0:08:22.497557 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a2, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 7dc6da10) |
| 0:08:22.498556 | LOG | Server <---------- DUT |
| 0:08:22.500555 | LOG | Attempt 12/20 |
| 0:08:27.481721 | LOG | PUSH_ACK: 02 2d31 01 |
| 0:08:27.483720 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d31, Identifier = 00, JSON = {'rxpk': [{'tmst': 4021459663, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAowABUGsY+/66'}]} |
| 0:08:27.484719 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a3, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 18fbfeba) |
| 0:08:27.485719 | LOG | Server <---------- DUT |
| 0:08:27.486718 | LOG | Attempt 13/20 |
| 0:08:31.466610 | LOG | PULL_DATA: 02 d6fc 02 3834383419003400 |
| 0:08:31.468609 | LOG | PULL_ACK: 02 d6fc 04 |
| 0:08:32.469046 | LOG | PUSH_ACK: 02 2d32 01 |
| 0:08:32.471044 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d32, Identifier = 00, JSON = {'rxpk': [{'tmst': 4026462623, 'chan': 7, 'rfch': 0, 'freq': 867.9, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCApAABQpAG7JaC'}]} |
| 0:08:32.472045 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a4, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 06ec9682) |
| 0:08:32.474044 | LOG | Server <---------- DUT |
| 0:08:32.475044 | LOG | Attempt 14/20 |
| 0:08:37.509147 | LOG | PUSH_ACK: 02 2d34 01 |
| 0:08:37.577109 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d34, Identifier = 00, JSON = {'rxpk': [{'tmst': 4031465567, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCApQABOAi5Y/Cy'}]} |
| 0:08:37.578108 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a5, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: b963f0b2) |
| 0:08:37.580107 | LOG | Server <---------- DUT |
| 0:08:37.581107 | LOG | Attempt 15/20 |
| 0:08:41.546875 | LOG | PULL_DATA: 02 b15d 02 3834383419003400 |
| 0:08:41.551872 | LOG | PULL_ACK: 02 b15d 04 |
| 0:08:42.512332 | LOG | PUSH_ACK: 02 2d35 01 |
| 0:08:42.514331 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d35, Identifier = 00, JSON = {'rxpk': [{'tmst': 4036469871, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 6.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCApgABlVSPcQvn'}]} |
| 0:08:42.516329 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a6, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 8f710be7) |
| 0:08:42.517329 | LOG | Server <---------- DUT |
| 0:08:42.518328 | LOG | Attempt 16/20 |
| 0:08:47.501525 | LOG | PUSH_ACK: 02 2d36 01 |
| 0:08:47.504523 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d36, Identifier = 00, JSON = {'rxpk': [{'tmst': 4041474190, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCApwABP2SQACef'}]} |
| 0:08:47.505522 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a7, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9000279f) |
| 0:08:47.506521 | LOG | Server <---------- DUT |
| 0:08:47.507521 | LOG | Attempt 17/20 |
| 0:08:51.626825 | LOG | PULL_DATA: 02 864b 02 3834383419003400 |
| 0:08:51.628825 | LOG | PULL_ACK: 02 864b 04 |
| 0:08:52.503333 | LOG | PUSH_ACK: 02 2d38 01 |
| 0:08:52.508330 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d38, Identifier = 00, JSON = {'rxpk': [{'tmst': 4046477127, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAqAABiDB1/Qcs'}]} |
| 0:08:52.511328 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a8, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 75fd072c) |
| 0:08:52.514326 | LOG | Server <---------- DUT |

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| 0:08:52.515326 | LOG | Attempt 18/20 |
| 0:08:57.494527 | LOG | PUSH_ACK: 02 2d39 01 |
| 0:08:57.498524 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d39, Identifier = 00, JSON = {'rxpk': [{'tmst': 4051480094, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAqQABG5hoQ02h'}]} |
| 0:08:57.502522 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00a9, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 68434da1) |
| 0:08:57.506519 | LOG | Server <---------- DUT |
| 0:08:57.510517 | LOG | Attempt 19/20 |
| 0:09:01.707153 | LOG | PULL_DATA: 02 de3a 02 3834383419003400 |
| 0:09:01.709152 | LOG | PULL_ACK: 02 de3a 04 |
| 0:09:02.534833 | LOG | PUSH_ACK: 02 2d3a 01 |
| 0:09:02.536832 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d3a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4056483030, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAqgABjSbDtATY'}]} |
| 0:09:02.538831 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00aa, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: c3b404d8) |
| 0:09:02.540831 | LOG | Server <---------- DUT |
| 0:09:02.541829 | LOG | Attempt 20/20 |
| 0:09:07.524225 | LOG | PUSH_ACK: 02 2d3b 01 |
| 0:09:07.526224 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 4061485983, 'chan': 5, 'rfch': 0, 'freq': 867.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAqwABfFNalV1i'}]} |
| 0:09:07.527223 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ab, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 5a955d62) |
| 0:09:07.529222 | LOG | Server <---------- DUT |
| 0:09:07.541215 | LOG | Receive frame on specific channels process tested successfully |
| 0:09:07.546212 | LOG | End Test Step: Checking channel usage 4 to 7 |
| 0:09:07.551210 | LOG | Partial Verdict: PASS |
| 0:09:07.558206 | LOG | ========== |
| 0:09:07.564203 | LOG | ========== |
| 0:09:07.568200 | LOG | Start Test Step: Checking channel usage 0 to 3 |
| 0:09:07.581193 | LOG | Send LinkADRReq process starts |
| 0:09:11.796927 | LOG | PULL_DATA: 02 c702 02 3834383419003400 |
| 0:09:11.800924 | LOG | PULL_ACK: 02 c702 04 |
| 0:09:12.513813 | LOG | PUSH_ACK: 02 2d3c 01 |
| 0:09:12.514812 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d3c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4066490287, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCArAABUuNfOiRo'}]} |
| 0:09:12.516813 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ac, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 5f3a2468) |
| 0:09:12.517813 | LOG | Server <---------- DUT |
| 0:09:12.518813 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 013c, FOpts: ), FPort: 00, FRMPayload: 03500f0001), MIC: cbe3dcc4) |
| 0:09:12.521810 | LOG | PULL_RESP: Protocol version = 02, Token = 2669, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4068490287, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAPAEAGW1qcFfL49zE'}} |
| 0:09:12.523809 | LOG | Server ----------> DUT |
| 0:09:12.526807 | LOG | TX_ACK: 02 2669 05 3834383419003400 |
| 0:09:17.512001 | LOG | PUSH_ACK: 02 2d3d 01 |

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| 0:09:17.514001 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d3d, Identifier = 00, JSON = {'rxpk': [{'tmst': 4071499729, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCrQADBwFfMZXJPfg='}]} |
| 0:09:17.515999 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00ad, FOpts: 0307), FPort: 01, FRMPayload: 0033, MIC: 95c93df8) |
| 0:09:17.517998 | LOG | Server <---------- DUT |
| 0:09:17.518997 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:09:17.521996 | LOG | Command Answer: 0307 |
| 0:09:17.532990 | LOG | MAC command communication completed |
| 0:09:17.550979 | LOG | Receive frame on specific channels process starts |
| 0:09:17.581962 | LOG | Attempt 1/20 |
| 0:09:21.967671 | LOG | PULL_DATA: 02 b8da 02 3834383419003400 |
| 0:09:21.971668 | LOG | PULL_ACK: 02 b8da 04 |
| 0:09:27.547529 | LOG | PUSH_ACK: 02 2d3f 01 |
| 0:09:27.549530 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d3f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4081501873, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCArgAB1CY37gw4'}]} |
| 0:09:27.550529 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ae, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 37ee0c38) |
| 0:09:27.552546 | LOG | Server <---------- DUT |
| 0:09:27.554526 | LOG | Attempt 2/20 |
| 0:09:32.056991 | LOG | PULL_DATA: 02 522d 02 3834383419003400 |
| 0:09:32.058991 | LOG | PULL_ACK: 02 522d 04 |
| 0:09:32.534723 | LOG | PUSH_ACK: 02 2d40 01 |
| 0:09:32.536722 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d40, Identifier = 00, JSON = {'rxpk': [{'tmst': 4086504801, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCArwABpz9/PXjX'}]} |
| 0:09:32.538721 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00af, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 7f3d78d7) |
| 0:09:32.539720 | LOG | Server <---------- DUT |
| 0:09:32.541720 | LOG | Attempt 3/20 |
| 0:09:37.523918 | LOG | PUSH_ACK: 02 2d41 01 |
| 0:09:37.525916 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d41, Identifier = 00, JSON = {'rxpk': [{'tmst': 4091507745, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAsAABfr5Wcb02'}]} |
| 0:09:37.526914 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b0, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 5671bd36) |
| 0:09:37.527913 | LOG | Server <---------- DUT |
| 0:09:37.528915 | LOG | Attempt 4/20 |
| 0:09:42.147314 | LOG | PULL_DATA: 02 3534 02 3834383419003400 |
| 0:09:42.151312 | LOG | PULL_ACK: 02 3534 04 |
| 0:09:42.563128 | LOG | PUSH_ACK: 02 2d42 01 |
| 0:09:42.565125 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d42, Identifier = 00, JSON = {'rxpk': [{'tmst': 4096510681, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAsQABTJ1n2XD/'}]} |
| 0:09:42.566127 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b1, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 67d970ff) |
| 0:09:42.568124 | LOG | Server <---------- DUT |
| 0:09:42.569123 | LOG | Attempt 5/20 |
| 0:09:47.551320 | LOG | PUSH_ACK: 02 2d43 01 |

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| 0:09:47.554318 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d43, Identifier = 00, JSON = {'rxpk': [{'tmst': 4101514985, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAsgABNMBKLjLJ'}]} |
| 0:09:47.555319 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b2, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4a2e32c9) |
| 0:09:47.556319 | LOG | Server <---------- DUT |
| 0:09:47.557318 | LOG | Attempt 6/20 |
| 0:09:52.226688 | LOG | PULL_DATA: 02 97f6 02 3834383419003400 |
| 0:09:52.228688 | LOG | PULL_ACK: 02 97f6 04 |
| 0:09:52.554504 | LOG | PUSH_ACK: 02 2d45 01 |
| 0:09:52.556504 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d45, Identifier = 00, JSON = {'rxpk': [{'tmst': 4106517905, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAswAB655by2d5'}]} |
| 0:09:52.557504 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b3, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 5bcb6779) |
| 0:09:52.559502 | LOG | Server <---------- DUT |
| 0:09:52.561501 | LOG | Attempt 7/20 |
| 0:09:57.541964 | LOG | PUSH_ACK: 02 2d46 01 |
| 0:09:57.543963 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d46, Identifier = 00, JSON = {'rxpk': [{'tmst': 4111520841, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAtAABLCF5YLC6'}]} |
| 0:09:57.545962 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b4, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 7960b0ba) |
| 0:09:57.546961 | LOG | Server <---------- DUT |
| 0:09:57.547961 | LOG | Attempt 8/20 |
| 0:10:02.317236 | LOG | PULL_DATA: 02 40b3 02 3834383419003400 |
| 0:10:02.319235 | LOG | PULL_ACK: 02 40b3 04 |
| 0:10:02.531116 | LOG | PUSH_ACK: 02 2d47 01 |
| 0:10:02.533115 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d47, Identifier = 00, JSON = {'rxpk': [{'tmst': 4116523761, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAtQABxyNx3Tbq'}]} |
| 0:10:02.534114 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b5, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 71dd36ea) |
| 0:10:02.536113 | LOG | Server <---------- DUT |
| 0:10:02.538112 | LOG | Attempt 9/20 |
| 0:10:07.571282 | LOG | PUSH_ACK: 02 2d48 01 |
| 0:10:07.573279 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d48, Identifier = 00, JSON = {'rxpk': [{'tmst': 4121526713, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAtgABWqvBy9Jd'}]} |
| 0:10:07.575277 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b6, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: c1cbd25d) |
| 0:10:07.576279 | LOG | Server <---------- DUT |
| 0:10:07.577278 | LOG | Attempt 10/20 |
| 0:10:12.397564 | LOG | PULL_DATA: 02 2e54 02 3834383419003400 |
| 0:10:12.400562 | LOG | PULL_ACK: 02 2e54 04 |
| 0:10:12.560769 | LOG | PUSH_ACK: 02 2d49 01 |
| 0:10:12.564768 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d49, Identifier = 00, JSON = {'rxpk': [{'tmst': 4126529657, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAtwABhX9tpyT9'}]} |

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| 0:10:12.567761 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b7, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 6da724fd) |
| 0:10:12.571762 | LOG | Server <---------- DUT |
| 0:10:12.576757 | LOG | Attempt 11/20 |
| 0:10:17.550986 | LOG | PUSH_ACK: 02 2d4a 01 |
| 0:10:17.552986 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d4a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4131533945, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAuAABZuoKxE6X'}]} |
| 0:10:17.553984 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b8, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0ac44e97) |
| 0:10:17.555984 | LOG | Server <---------- DUT |
| 0:10:17.556955 | LOG | Attempt 12/20 |
| 0:10:22.477213 | LOG | PULL_DATA: 02 4f85 02 3834383419003400 |
| 0:10:22.479213 | LOG | PULL_ACK: 02 4f85 04 |
| 0:10:22.555139 | LOG | PUSH_ACK: 02 2d4c 01 |
| 0:10:22.557140 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d4c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4136538241, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAuQABGt9yoQbd'}]} |
| 0:10:22.559138 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00b9, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 72a106dd) |
| 0:10:22.561136 | LOG | Server <---------- DUT |
| 0:10:22.562138 | LOG | Attempt 13/20 |
| 0:10:27.595333 | LOG | PUSH_ACK: 02 2d4d 01 |
| 0:10:27.597333 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d4d, Identifier = 00, JSON = {'rxpk': [{'tmst': 4141541169, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAugAB7Qq77d+3'}]} |
| 0:10:27.598336 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ba, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: bbeddfb7) |
| 0:10:27.599331 | LOG | Server <---------- DUT |
| 0:10:27.600303 | LOG | Attempt 14/20 |
| 0:10:32.557744 | LOG | PULL_DATA: 02 6054 02 3834383419003400 |
| 0:10:32.562741 | LOG | PULL_ACK: 02 6054 04 |
| 0:10:32.582729 | LOG | PUSH_ACK: 02 2d4e 01 |
| 0:10:32.584728 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d4e, Identifier = 00, JSON = {'rxpk': [{'tmst': 4146544113, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAuwABKIw26LhE'}]} |
| 0:10:32.585727 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00bb, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 36e8b844) |
| 0:10:32.586726 | LOG | Server <---------- DUT |
| 0:10:32.588725 | LOG | Attempt 15/20 |
| 0:10:37.571921 | LOG | PUSH_ACK: 02 2d4f 01 |
| 0:10:37.573921 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d4f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4151547041, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAvAABJ2iDJ6+y'}]} |
| 0:10:37.574919 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00bc, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 8327afb2) |
| 0:10:37.576918 | LOG | Server <---------- DUT |
| 0:10:37.578917 | LOG | Attempt 16/20 |
| 0:10:42.560114 | LOG | PUSH_ACK: 02 2d50 01 |
| 0:10:42.565112 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d50, Identifier = 00, JSON = {'rxpk': [{'tmst': 4156549993, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAvQABDaiA3Fiv'}]} |
| 0:10:42.567110 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00bd, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 80dc58af) |
| 0:10:42.568110 | LOG | Server <---------- DUT |
| 0:10:42.570108 | LOG | Attempt 17/20 |
| 0:10:42.637072 | LOG | PULL_DATA: 02 e530 02 3834383419003400 |
| 0:10:42.639070 | LOG | PULL_ACK: 02 e530 04 |
| 0:10:47.602334 | LOG | PUSH_ACK: 02 2d51 01 |
| 0:10:47.604331 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d51, Identifier = 00, JSON = {'rxpk': [{'tmst': 4161552937, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAvgABpKMsMno3'}]} |
| 0:10:47.606332 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00be, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 2c327a37) |
| 0:10:47.608327 | LOG | Server <---------- DUT |
| 0:10:47.609328 | LOG | Attempt 18/20 |
| 0:10:52.605519 | LOG | PUSH_ACK: 02 2d53 01 |
| 0:10:52.607517 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d53, Identifier = 00, JSON = {'rxpk': [{'tmst': 4166557249, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAvwABKGJLcVGc'}]} |
| 0:10:52.609515 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00bf, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4b71519c) |
| 0:10:52.610516 | LOG | Server <---------- DUT |
| 0:10:52.612515 | LOG | Attempt 19/20 |
| 0:10:52.717424 | LOG | PULL_DATA: 02 6150 02 3834383419003400 |
| 0:10:52.718423 | LOG | PULL_ACK: 02 6150 04 |
| 0:10:57.594709 | LOG | PUSH_ACK: 02 2d54 01 |
| 0:10:57.596708 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d54, Identifier = 00, JSON = {'rxpk': [{'tmst': 4171560193, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAwAABhYGSLvRe'}]} |
| 0:10:57.597708 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00c0, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 922ef45e) |
| 0:10:57.599681 | LOG | Server <---------- DUT |
| 0:10:57.600707 | LOG | Attempt 20/20 |
| 0:11:02.582903 | LOG | PUSH_ACK: 02 2d55 01 |
| 0:11:02.584876 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d55, Identifier = 00, JSON = {'rxpk': [{'tmst': 4176563145, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAwQABXKB3D79Z'}]} |
| 0:11:02.586900 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00c1, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 770fbf59) |
| 0:11:02.587900 | LOG | Server <---------- DUT |
| 0:11:02.596894 | LOG | Receive frame on specific channels process tested successfully |
| 0:11:02.600894 | LOG | End Test Step: Checking channel usage 0 to 3 |
| 0:11:02.604890 | LOG | Partial Verdict: PASS |
| 0:11:02.610861 | LOG | ========== |
| 0:11:02.619854 | LOG | ========== |
| 0:11:02.621881 | LOG | Start Test Step: Removing multiple channels 1 |
| 0:11:02.634843 | LOG | Send MAC command block process starts |
| 0:11:02.797432 | LOG | PULL_DATA: 02 5337 02 3834383419003400 |
| 0:11:02.798460 | LOG | PULL_ACK: 02 5337 04 |
| 0:11:07.574062 | LOG | PUSH_ACK: 02 2d57 01 |

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| 0:11:07.576062 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d57, Identifier = 00, JSON = {'rxpk': [{'tmst': 4181566073, 'chan': 3, 'rfch': 0, 'freq': 867.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAwgABqkL6Gzey'}]} |
| 0:11:07.578061 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00c2, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: fa1b37b2) |
| 0:11:07.579060 | LOG | Server <---------- DUT |
| 0:11:07.581058 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 013d, FOpts: ), FPort: 00, FRMPayload: 07030000005007040000005007050000005007060000005007070000005 0), MIC: b1a3f522) |
| 0:11:07.584057 | LOG | PULL_RESP: Protocol version = 02, Token = b53c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4183566073, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 43, 'data': 'YCAgICAAPQEAHhUpm9dI/7dUVvpsQ7ZeinCfWMUCu4Uzd6nSafzesaP1Ig==' }} |
| 0:11:07.586056 | LOG | Server ----------> DUT |
| 0:11:07.589054 | LOG | TX_ACK: 02 b53c 05 3834383419003400 |
| 0:11:12.636214 | LOG | PUSH_ACK: 02 2d58 01 |
| 0:11:12.640212 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d58, Identifier = 00, JSON = {'rxpk': [{'tmst': 4186584451, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 25, 'data': 'QCAgICCKwwAHAwcDBwMHAwcDAa/X7yfbbQ=='}]} |
| 0:11:12.641211 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 8a, FCnt: 00c3, FOpts: 07030703070307030703), FPort: 01, FRMPayload: 0033, MIC: ef27db6d) |
| 0:11:12.643210 | LOG | Server <---------- DUT |
| 0:11:12.644210 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:11:12.646209 | LOG | Command Answer: 07030703070307030703 |
| 0:11:12.758145 | LOG | MAC command communication completed |
| 0:11:12.761144 | LOG | End Test Step: Removing multiple channels 1 |
| 0:11:12.765141 | LOG | Partial Verdict: PASS |
| 0:11:12.769139 | LOG | ========== |
| 0:11:12.773137 | LOG | ========== |
| 0:11:12.776135 | LOG | Start Test Step: Removing multiple channels 2 |
| 0:11:12.786129 | LOG | Send MAC command block process starts |
| 0:11:12.837101 | LOG | PULL_DATA: 02 4c05 02 3834383419003400 |
| 0:11:12.838102 | LOG | PULL_ACK: 02 4c05 04 |
| 0:11:22.625651 | LOG | PUSH_ACK: 02 2d5a 01 |
| 0:11:22.627649 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d5a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4196574891, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAxAABXAaoteE5'}]} |
| 0:11:22.629649 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00c4, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a8b5e139) |
| 0:11:22.630648 | LOG | Server <---------- DUT |
| 0:11:22.631647 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 013e, FOpts: ), FPort: 00, FRMPayload: 07080000005007090000005007 0a00000050070b00000050070c00000050), MIC: 954fd76e) |
| 0:11:22.634646 | LOG | PULL_RESP: Protocol version = 02, Token = 1abf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4198574891, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 43, 'data': |

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| | | 'YCAgICAAPgEAnk583sVgrJ9K9R9FrwWKKn/wdvSCUjRpdIo3PQg2lU/Xbg==' }} |
| 0:11:22.636645 | LOG | Server ----------> DUT |
| 0:11:22.639643 | LOG | TX_ACK: 02 1abf 05 3834383419003400 |
| 0:11:22.846526 | LOG | PULL_DATA: 02 94d2 02 3834383419003400 |
| 0:11:22.850524 | LOG | PULL_ACK: 02 94d2 04 |
| 0:11:27.645707 | LOG | PUSH_ACK: 02 2d5b 01 |
| 0:11:27.647706 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d5b, Identifier = 00, JSON = {'rxpk': [{'tmst': 4201593262, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 25, 'data': 'QCAgICCKxQAHAwcDBwMHAwcDAag1ASX1JA=='}]} |
| 0:11:27.649705 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 8a, FCnt: 00c5, FOpts: 07030703070307030703), FPort: 01, FRMPayload: 0033, MIC: 0125f524) |
| 0:11:27.650704 | LOG | Server <---------- DUT |
| 0:11:27.652703 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:11:27.653702 | LOG | Command Answer: 07030703070307030703 |
| 0:11:27.779650 | LOG | MAC command communication completed |
| 0:11:27.783629 | LOG | End Test Step: Removing multiple channels 2 |
| 0:11:27.787627 | LOG | Partial Verdict: PASS |
| 0:11:27.791625 | LOG | ========== |
| 0:11:27.796622 | LOG | ========== |
| 0:11:27.799621 | LOG | Start Test Step: Removing multiple channels 3 |
| 0:11:27.808615 | LOG | Send MAC command block process starts |
| 0:11:32.936847 | LOG | PULL_DATA: 02 5072 02 3834383419003400 |
| 0:11:32.938845 | LOG | PULL_ACK: 02 5072 04 |
| 0:11:37.618212 | LOG | PUSH_ACK: 02 2d5c 01 |
| 0:11:37.620211 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d5c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4211583702, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAxgABjxz7iS4Z'}]} |
| 0:11:37.621210 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00c6, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: fb892e19) |
| 0:11:37.623209 | LOG | Server <---------- DUT |
| 0:11:37.625208 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 013f, FOpts: ), FPort: 00, FRMPayload: 070d00000050070e00000050070f00000050), MIC: 7f4d6170) |
| 0:11:37.628206 | LOG | PULL_RESP: Protocol version = 02, Token = 8ffc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4213583702, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 31, 'data': 'YCAgICAAPwEA9uBYnkRkmSJ51WglypBVjVfvf01hcA=='}} |
| 0:11:37.629206 | LOG | Server ----------> DUT |
| 0:11:37.633203 | LOG | TX_ACK: 02 8ffc 05 3834383419003400 |
| 0:11:42.627393 | LOG | PUSH_ACK: 02 2d5d 01 |
| 0:11:42.629392 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d5d, Identifier = 00, JSON = {'rxpk': [{'tmst': 4216596936, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 21, 'data': 'QCAgICCGxwAHAwcDBwMBbPWH6e31'}]} |
| 0:11:42.630392 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 86, FCnt: 00c7, FOpts: 070307030703), FPort: 01, FRMPayload: 0033, MIC: 87e9edf5) |
| 0:11:42.631391 | LOG | Server <---------- DUT |
| 0:11:42.633390 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:11:42.634389 | LOG | Command Answer: 070307030703 |
| 0:11:42.713344 | LOG | MAC command communication completed |

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| 0:11:42.717343 | LOG | End Test Step: Removing multiple channels 3 |
| 0:11:42.721340 | LOG | Partial Verdict: PASS |
| 0:11:42.724339 | LOG | ========== |
| 0:11:42.730335 | LOG | ========== |
| 0:11:42.733334 | LOG | Start Test Step: Receive in default frequencies after remove |
| 0:11:42.745327 | LOG | Receive frame on specific channels process starts |
| 0:11:42.755322 | LOG | Attempt 1/15 |
| 0:11:43.087134 | LOG | PULL_DATA: 02 0d18 02 3834383419003400 |
| 0:11:43.089134 | LOG | PULL_ACK: 02 0d18 04 |
| 0:11:52.615773 | LOG | PUSH_ACK: 02 2d5f 01 |
| 0:11:52.617772 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d5f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4226592504, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAyAABoI/YWMUZ'}]} |
| 0:11:52.619770 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00c8, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: d858c519) |
| 0:11:52.620770 | LOG | Server <---------- DUT |
| 0:11:52.622769 | LOG | Attempt 2/15 |
| 0:11:53.166463 | LOG | PULL_DATA: 02 74c5 02 3834383419003400 |
| 0:11:53.168462 | LOG | PULL_ACK: 02 74c5 04 |
| 0:11:57.606965 | LOG | PUSH_ACK: 02 2d61 01 |
| 0:11:57.608963 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d61, Identifier = 00, JSON = {'rxpk': [{'tmst': 4231596792, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAyQABLSQMZbqo'}]} |
| 0:11:57.609962 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00c9, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0c65baa8) |
| 0:11:57.611963 | LOG | Server <---------- DUT |
| 0:11:57.612963 | LOG | Attempt 3/15 |
| 0:12:02.646297 | LOG | PUSH_ACK: 02 2d62 01 |
| 0:12:02.648296 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d62, Identifier = 00, JSON = {'rxpk': [{'tmst': 4236599728, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAygABjMPgHKiI'}]} |
| 0:12:02.649295 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ca, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: e01ca888) |
| 0:12:02.651294 | LOG | Server <---------- DUT |
| 0:12:02.652293 | LOG | Attempt 4/15 |
| 0:12:03.246959 | LOG | PULL_DATA: 02 f2c6 02 3834383419003400 |
| 0:12:03.248958 | LOG | PULL_ACK: 02 f2c6 04 |
| 0:12:07.634490 | LOG | PUSH_ACK: 02 2d63 01 |
| 0:12:07.637488 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d63, Identifier = 00, JSON = {'rxpk': [{'tmst': 4241602680, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAywABTF+p+6Wp'}]} |
| 0:12:07.639487 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00cb, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a9fba5a9) |
| 0:12:07.640487 | LOG | Server <---------- DUT |
| 0:12:07.642485 | LOG | Attempt 5/15 |
| 0:12:12.623683 | LOG | PUSH_ACK: 02 2d64 01 |
| 0:12:12.625682 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d64, Identifier = 00, JSON = {'rxpk': [{'tmst': 4246605632, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAzAABR6ZKcep/'}]} |
| 0:12:12.627680 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00cc, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4a71ea7f) |

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| 0:12:12.628680 | LOG | Server <---------- DUT |
| 0:12:12.630679 | LOG | Attempt 6/15 |
| 0:12:13.327052 | LOG | PULL_DATA: 02 f227 02 3834383419003400 |
| 0:12:13.330069 | LOG | PULL_ACK: 02 f227 04 |
| 0:12:17.612640 | LOG | PUSH_ACK: 02 2d65 01 |
| 0:12:17.615639 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d65, Identifier = 00, JSON = {'rxpk': [{'tmst': 4251608568, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAzQAB8NlBmeLx'}]} |
| 0:12:17.619653 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00cd, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4199e2f1) |
| 0:12:17.622634 | LOG | Server <---------- DUT |
| 0:12:17.625632 | LOG | Attempt 7/15 |
| 0:12:22.666304 | LOG | PUSH_ACK: 02 2d67 01 |
| 0:12:22.668302 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d67, Identifier = 00, JSON = {'rxpk': [{'tmst': 4256612856, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzgABjigHGj2s'}]} |
| 0:12:22.669302 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ce, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 071a3dac) |
| 0:12:22.670319 | LOG | Server <---------- DUT |
| 0:12:22.671302 | LOG | Attempt 8/15 |
| 0:12:23.416783 | LOG | PULL_DATA: 02 fb89 02 3834383419003400 |
| 0:12:23.417782 | LOG | PULL_ACK: 02 fb89 04 |
| 0:12:27.654409 | LOG | PUSH_ACK: 02 2d68 01 |
| 0:12:27.656408 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d68, Identifier = 00, JSON = {'rxpk': [{'tmst': 4261617168, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAzwABktQlclsM'}]} |
| 0:12:27.657407 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00cf, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 25725b0c) |
| 0:12:27.659407 | LOG | Server <---------- DUT |
| 0:12:27.660380 | LOG | Attempt 9/15 |
| 0:12:32.644397 | LOG | PUSH_ACK: 02 2d6a 01 |
| 0:12:32.646396 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d6a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4266620096, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA0AABhMm2yexA'}]} |
| 0:12:32.648395 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d0, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: b6c9ec40) |
| 0:12:32.649394 | LOG | Server <---------- DUT |
| 0:12:32.651393 | LOG | Attempt 10/15 |
| 0:12:33.497918 | LOG | PULL_DATA: 02 1d3b 02 3834383419003400 |
| 0:12:33.502915 | LOG | PULL_ACK: 02 1d3b 04 |
| 0:12:37.633589 | LOG | PUSH_ACK: 02 2d6b 01 |
| 0:12:37.635587 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d6b, Identifier = 00, JSON = {'rxpk': [{'tmst': 4271623048, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA0QABvEQ08kpo'}]} |
| 0:12:37.637586 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d1, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 34f24a68) |
| 0:12:37.638586 | LOG | Server <---------- DUT |
| 0:12:37.640585 | LOG | Attempt 11/15 |
| 0:12:42.672751 | LOG | PUSH_ACK: 02 2d6c 01 |
| 0:12:42.675751 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d6c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4276625968, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA0gAB3lIgeb7u'}]} |
| 0:12:42.676749 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d2, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 2079beee) |
| 0:12:42.678748 | LOG | Server <---------- DUT |
| 0:12:42.680748 | LOG | Attempt 12/15 |
| 0:12:43.587238 | LOG | PULL_DATA: 02 3c4b 02 3834383419003400 |
| 0:12:43.591254 | LOG | PULL_ACK: 02 3c4b 04 |
| 0:12:47.663497 | LOG | PUSH_ACK: 02 2d6e 01 |
| 0:12:47.665496 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d6e, Identifier = 00, JSON = {'rxpk': [{'tmst': 4281628912, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA0wABbTgFg7P2'}]} |
| 0:12:47.667495 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d3, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0583b3f6) |
| 0:12:47.668495 | LOG | Server <---------- DUT |
| 0:12:47.670494 | LOG | Attempt 13/15 |
| 0:12:53.667314 | LOG | PULL_DATA: 02 908c 02 3834383419003400 |
| 0:12:53.668313 | LOG | PULL_ACK: 02 908c 04 |
| 0:12:57.650072 | LOG | PUSH_ACK: 02 2d70 01 |
| 0:12:57.653070 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d70, Identifier = 00, JSON = {'rxpk': [{'tmst': 4291636144, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA1QABRGYjfY/V'}]} |
| 0:12:57.654069 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d5, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 237d8fd5) |
| 0:12:57.656068 | LOG | Server <---------- DUT |
| 0:12:57.657067 | LOG | Attempt 14/15 |
| 0:13:02.690234 | LOG | PUSH_ACK: 02 2d71 01 |
| 0:13:02.692234 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d71, Identifier = 00, JSON = {'rxpk': [{'tmst': 1671792, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA1gABD5rOsDIH'}]} |
| 0:13:02.693234 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d6, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: ceb03207) |
| 0:13:02.695232 | LOG | Server <---------- DUT |
| 0:13:02.696231 | LOG | Attempt 15/15 |
| 0:13:03.746639 | LOG | PULL_DATA: 02 d0f0 02 3834383419003400 |
| 0:13:03.748639 | LOG | PULL_ACK: 02 d0f0 04 |
| 0:13:07.677427 | LOG | PUSH_ACK: 02 2d72 01 |
| 0:13:07.679426 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d72, Identifier = 00, JSON = {'rxpk': [{'tmst': 6674720, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA1wAB7Y+diM5U'}]} |
| 0:13:07.681425 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d7, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9d88ce54) |
| 0:13:07.682424 | LOG | Server <---------- DUT |
| 0:13:07.689420 | LOG | Receive frame on specific channels process tested successfully |
| 0:13:07.693418 | LOG | End Test Step: Receive in default frequencies after remove |
| 0:13:07.698416 | LOG | Partial Verdict: PASS |
| 0:13:07.703413 | LOG | ========== |
| 0:13:07.711408 | LOG | ========== |
| 0:13:07.715406 | LOG | Start Test Step: Invalid command processing - Frequency |
| 0:13:07.727399 | LOG | Send NewChannelReq process starts |
| 0:13:12.665783 | LOG | PUSH_ACK: 02 2d73 01 |

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| 0:13:12.667782 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d73, Identifier = 00, JSON = {'rxpk': [{'tmst': 11677640, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA2AABWeCb4dpt'}]} |
| 0:13:12.669781 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00d8, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 9be1da6d) |
| 0:13:12.670780 | LOG | Server <---------- DUT |
| 0:13:12.672779 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0140, FOpts: ), FPort: 00, FRMPayload: 070398e68a50), MIC: 3419336d) |
| 0:13:12.675777 | LOG | PULL_RESP: Protocol version = 02, Token = 17a2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 13677640, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAQAEAc2xM18acNBkzbQ=='}} |
| 0:13:12.676777 | LOG | Server ----------> DUT |
| 0:13:12.679775 | LOG | TX_ACK: 02 17a2 05 3834383419003400 |
| 0:13:13.937067 | LOG | PULL_DATA: 02 e0b5 02 3834383419003400 |
| 0:13:13.941065 | LOG | PULL_ACK: 02 e0b5 04 |
| 0:13:17.666967 | LOG | PUSH_ACK: 02 2d74 01 |
| 0:13:17.669966 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d74, Identifier = 00, JSON = {'rxpk': [{'tmst': 16685714, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCC2QAHAgEn533B1rA='}]} |
| 0:13:17.670965 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00d9, FOpts: 0702), FPort: 01, FRMPayload: 0033, MIC: 7dc1d6b0) |
| 0:13:17.672964 | LOG | Server <---------- DUT |
| 0:13:17.674963 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:13:17.675962 | LOG | Command Answer: 0702 |
| 0:13:17.684957 | LOG | End Test Step: Invalid command processing - Frequency |
| 0:13:17.689955 | LOG | Partial Verdict: PASS |
| 0:13:17.694952 | LOG | ========== |
| 0:13:17.701948 | LOG | ========== |
| 0:13:17.705947 | LOG | Start Test Step: Invalid command processing - Data Rate |
| 0:13:17.747922 | LOG | Send NewChannelReq process starts |
| 0:13:24.016416 | LOG | PULL_DATA: 02 2041 02 3834383419003400 |
| 0:13:24.018392 | LOG | PULL_ACK: 02 2041 04 |
| 0:13:27.703350 | LOG | PUSH_ACK: 02 2d76 01 |
| 0:13:27.706346 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d76, Identifier = 00, JSON = {'rxpk': [{'tmst': 26686442, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA2gABIsXNd7ob'}]} |
| 0:13:27.708347 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00da, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: cd77ba1b) |
| 0:13:27.710345 | LOG | Server <---------- DUT |
| 0:13:27.712346 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0141, FOpts: ), FPort: 00, FRMPayload: 070328768498), MIC: 71ee35d3) |
| 0:13:27.715346 | LOG | PULL_RESP: Protocol version = 02, Token = 70c6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 28686442, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAQQEAJ1fxFckhce410w=='}} |
| 0:13:27.717341 | LOG | Server ----------> DUT |
| 0:13:27.723338 | LOG | TX_ACK: 02 70c6 05 3834383419003400 |
| 0:13:32.676337 | LOG | PUSH_ACK: 02 2d77 01 |
| 0:13:32.678336 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d77, Identifier = 00, JSON = {'rxpk': [{'tmst': 31695875, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', |

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| | | 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC2wAHAQFrM+BNSoU='}]} |
| 0:13:32.679336 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00db, FOpts: 0701), FPort: 01, FRMPayload: 0033, MIC: e04d4a85) |
| 0:13:32.681335 | LOG | Server <---------- DUT |
| 0:13:32.682334 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:13:32.684334 | LOG | Command Answer: 0701 |
| 0:13:32.692328 | LOG | End Test Step: Invalid command processing - Data Rate |
| 0:13:32.696326 | LOG | Partial Verdict: PASS |
| 0:13:32.700324 | LOG | ========== |
| 0:13:32.706320 | LOG | ========== |
| 0:13:32.709319 | LOG | Start Test Step: Removal of default channels - not allowed |
| 0:13:32.726309 | LOG | Send MAC command block process starts |
| 0:13:34.227135 | LOG | PULL_DATA: 02 0574 02 3834383419003400 |
| 0:13:34.229136 | LOG | PULL_ACK: 02 0574 04 |
| 0:13:42.700366 | LOG | PUSH_ACK: 02 2d78 01 |
| 0:13:42.702365 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d78, Identifier = 00, JSON = {'rxpk': [{'tmst': 41697979, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA3AABLOhH2jgf'}]} |
| 0:13:42.703364 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00dc, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 47da381f) |
| 0:13:42.705363 | LOG | Server <---------- DUT |
| 0:13:42.707363 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0142, FOpts: ), FPort: 00, FRMPayload: 07000000005007010000005007020000005 0), MIC: 8a10792b) |
| 0:13:42.710360 | LOG | PULL_RESP: Protocol version = 02, Token = 9b7b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 43697979, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 31, 'data': 'YCAgICAAQgEAz+XHxdS1E2mozAafRn6iadZ+ihB5Kw=='}} |
| 0:13:42.711360 | LOG | Server ----------> DUT |
| 0:13:42.717331 | LOG | TX_ACK: 02 9b7b 05 3834383419003400 |
| 0:13:44.396382 | LOG | PULL_DATA: 02 7851 02 3834383419003400 |
| 0:13:44.400381 | LOG | PULL_ACK: 02 7851 04 |
| 0:13:47.708547 | LOG | PUSH_ACK: 02 2d79 01 |
| 0:13:47.710545 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d79, Identifier = 00, JSON = {'rxpk': [{'tmst': 46711204, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 21, 'data': 'QCAgICCG3QAHAAcABwABfUEkVS8k'}]} |
| 0:13:47.712546 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 86, FCnt: 00dd, FOpts: 070007000700), FPort: 01, FRMPayload: 0033, MIC: 24552f24) |
| 0:13:47.713544 | LOG | Server <---------- DUT |
| 0:13:47.715544 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:13:47.717542 | LOG | Command Answer: 070007000700 |
| 0:13:47.797470 | LOG | MAC command communication completed |
| 0:13:47.801464 | LOG | Receive frame on specific channels process starts |
| 0:13:47.811459 | LOG | Attempt 1/15 |
| 0:13:54.477188 | LOG | PULL_DATA: 02 790c 02 3834383419003400 |
| 0:13:54.481185 | LOG | PULL_ACK: 02 790c 04 |
| 0:13:57.690377 | LOG | PUSH_ACK: 02 2d7b 01 |
| 0:13:57.692376 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d7b, Identifier = 00, JSON = {'rxpk': [{'tmst': 56706788, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA3gABzTBSQpIC'}]} |

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| 0:13:57.694375 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00de, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 52429202) |
| 0:13:57.695375 | LOG | Server <---------- DUT |
| 0:13:57.697373 | LOG | Attempt 2/15 |
| 0:14:02.731401 | LOG | PUSH_ACK: 02 2d7c 01 |
| 0:14:02.733400 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d7c, Identifier = 00, JSON = {'rxpk': [{'tmst': 61711084, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA3wABTFJ9AyhF'}]} |
| 0:14:02.735397 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00df, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 7d032845) |
| 0:14:02.736399 | LOG | Server <---------- DUT |
| 0:14:02.738397 | LOG | Attempt 3/15 |
| 0:14:04.556351 | LOG | PULL_DATA: 02 24c9 02 3834383419003400 |
| 0:14:04.559373 | LOG | PULL_ACK: 02 24c9 04 |
| 0:14:07.719593 | LOG | PUSH_ACK: 02 2d7d 01 |
| 0:14:07.721591 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d7d, Identifier = 00, JSON = {'rxpk': [{'tmst': 66714020, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA4AABZh0R5ECG'}]} |
| 0:14:07.723591 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e0, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 11e44086) |
| 0:14:07.724591 | LOG | Server <---------- DUT |
| 0:14:07.726589 | LOG | Attempt 4/15 |
| 0:14:12.707785 | LOG | PUSH_ACK: 02 2d7e 01 |
| 0:14:12.709784 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d7e, Identifier = 00, JSON = {'rxpk': [{'tmst': 71716996, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA4QABsF0gKgQc'}]} |
| 0:14:12.710782 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e1, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 202a041c) |
| 0:14:12.712783 | LOG | Server <---------- DUT |
| 0:14:12.714780 | LOG | Attempt 5/15 |
| 0:14:14.636698 | LOG | PULL_DATA: 02 7e31 02 3834383419003400 |
| 0:14:14.641696 | LOG | PULL_ACK: 02 7e31 04 |
| 0:14:17.695614 | LOG | PUSH_ACK: 02 2d7f 01 |
| 0:14:17.697614 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d7f, Identifier = 00, JSON = {'rxpk': [{'tmst': 76719916, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA4gABs3eQ5/bb'}]} |
| 0:14:17.699612 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e2, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 90e7f6db) |
| 0:14:17.701611 | LOG | Server <---------- DUT |
| 0:14:17.703610 | LOG | Attempt 6/15 |
| 0:14:22.698798 | LOG | PUSH_ACK: 02 2d81 01 |
| 0:14:22.700797 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d81, Identifier = 00, JSON = {'rxpk': [{'tmst': 81722876, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA4wABBqYBCKpM'}]} |
| 0:14:22.701796 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e3, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0108aa4c) |
| 0:14:22.702796 | LOG | Server <---------- DUT |
| 0:14:22.704795 | LOG | Attempt 7/15 |
| 0:14:24.716681 | LOG | PULL_DATA: 02 e1f2 02 3834383419003400 |
| 0:14:24.718661 | LOG | PULL_ACK: 02 e1f2 04 |
| 0:14:27.740961 | LOG | PUSH_ACK: 02 2d82 01 |

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| 0:14:27.744957 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d82, Identifier = 00, JSON = {'rxpk': [{'tmst': 86727172, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA5AABBe19wVJb'}]} |
| 0:14:27.746957 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e4, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 7dc1525b) |
| 0:14:27.747958 | LOG | Server <---------- DUT |
| 0:14:27.748957 | LOG | Attempt 8/15 |
| 0:14:32.732610 | LOG | PUSH_ACK: 02 2d83 01 |
| 0:14:32.734608 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d83, Identifier = 00, JSON = {'rxpk': [{'tmst': 91731484, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA5QAB0NyK/no5'}]} |
| 0:14:32.735608 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e5, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 8afe7a39) |
| 0:14:32.737609 | LOG | Server <---------- DUT |
| 0:14:32.739606 | LOG | Attempt 9/15 |
| 0:14:34.796448 | LOG | PULL_DATA: 02 f6d3 02 3834383419003400 |
| 0:14:34.798447 | LOG | PULL_ACK: 02 f6d3 04 |
| 0:14:37.722803 | LOG | PUSH_ACK: 02 2d84 01 |
| 0:14:37.724799 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d84, Identifier = 00, JSON = {'rxpk': [{'tmst': 96734420, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5gABihvHCLC8'}]} |
| 0:14:37.725799 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e6, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: c708b0bc) |
| 0:14:37.726799 | LOG | Server <---------- DUT |
| 0:14:37.728797 | LOG | Attempt 10/15 |
| 0:14:42.711836 | LOG | PUSH_ACK: 02 2d85 01 |
| 0:14:42.713835 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d85, Identifier = 00, JSON = {'rxpk': [{'tmst': 101737372, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA5wABvAyvrwaL'}]} |
| 0:14:42.715833 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e7, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: afaf068b) |
| 0:14:42.716832 | LOG | Server <---------- DUT |
| 0:14:42.718832 | LOG | Attempt 11/15 |
| 0:14:44.876430 | LOG | PULL_DATA: 02 b8e8 02 3834383419003400 |
| 0:14:44.880426 | LOG | PULL_ACK: 02 b8e8 04 |
| 0:14:47.753808 | LOG | PUSH_ACK: 02 2d86 01 |
| 0:14:47.755807 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d86, Identifier = 00, JSON = {'rxpk': [{'tmst': 106740308, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA6AABH1dIjN+V'}]} |
| 0:14:47.757806 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e8, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 488cdf95) |
| 0:14:47.759805 | LOG | Server <---------- DUT |
| 0:14:47.760804 | LOG | Attempt 12/15 |
| 0:14:52.758676 | LOG | PUSH_ACK: 02 2d88 01 |
| 0:14:52.760675 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d88, Identifier = 00, JSON = {'rxpk': [{'tmst': 111743228, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA6QABwdAL+kWH'}]} |
| 0:14:52.761675 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00e9, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 0bfa4587) |
| 0:14:52.763673 | LOG | Server <---------- DUT |

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| 0:14:52.765670 | LOG | Attempt 13/15 |
| 0:14:54.956440 | LOG | PULL_DATA: 02 fab3 02 3834383419003400 |
| 0:14:54.959436 | LOG | PULL_ACK: 02 fab3 04 |
| 0:14:57.746826 | LOG | PUSH_ACK: 02 2d89 01 |
| 0:14:57.748826 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d89, Identifier = 00, JSON = {'rxpk': [{'tmst': 116746172, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA6gABChY18fLe'}]} |
| 0:14:57.749824 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ea, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 35f1f2de) |
| 0:14:57.751823 | LOG | Server <---------- DUT |
| 0:14:57.752822 | LOG | Attempt 14/15 |
| 0:15:02.736019 | LOG | PUSH_ACK: 02 2d8a 01 |
| 0:15:02.737017 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d8a, Identifier = 00, JSON = {'rxpk': [{'tmst': 121750492, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA6wABj3VCRCBP'}]} |
| 0:15:02.739016 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00eb, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 4244204f) |
| 0:15:02.740017 | LOG | Server <---------- DUT |
| 0:15:02.742016 | LOG | Attempt 15/15 |
| 0:15:05.036722 | LOG | PULL_DATA: 02 7217 02 3834383419003400 |
| 0:15:05.038721 | LOG | PULL_ACK: 02 7217 04 |
| 0:15:07.777180 | LOG | PUSH_ACK: 02 2d8b 01 |
| 0:15:07.779179 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d8b, Identifier = 00, JSON = {'rxpk': [{'tmst': 126753292, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA7AAB9+g975gS'}]} |
| 0:15:07.780178 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ec, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 3def9812) |
| 0:15:07.781179 | LOG | Server <---------- DUT |
| 0:15:07.789173 | LOG | Receive frame on specific channels process tested successfully |
| 0:15:07.793171 | LOG | End Test Step: Removal of default channels - not allowed |
| 0:15:07.797186 | LOG | Partial Verdict: PASS |
| 0:15:07.803166 | LOG | ========== |
| 0:15:07.812161 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_006 |
| 0:15:07.815158 | LOG | Final Verdict: PASS |

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| **Test Case** | TP_A_EU868_ED_MAC_104_BV_007 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 19:54:02 | |
| **Comments** | DlChannelReq for Dynamic Channel plan devices only | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.011352 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_007 |
| 0:00:00.045334 | LOG | ========== |
| 0:00:00.048330 | LOG | Start Test Step: Device activation |

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| 0:00:00.103299 | LOG | Activation process has finished successfully |
| 0:00:00.105298 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.108297 | LOG | DevAddr: 20202020 |
| 0:00:00.110299 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.113295 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.116293 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.120290 | LOG | End Test Step: Device activation |
| 0:00:00.123290 | LOG | Partial Verdict: PASS |
| 0:00:00.128288 | LOG | ========== |
| 0:00:00.135284 | LOG | ========== |
| 0:00:00.137300 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.149274 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.153272 | LOG | DUT Pre-condition activation completed |
| 0:00:00.156271 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.160285 | LOG | Partial Verdict: PASS |
| 0:00:00.163266 | LOG | ========== |
| 0:00:00.168281 | LOG | ========== |
| 0:00:00.170262 | LOG | Start Test Step: DlChannel Request |
| 0:00:00.183255 | LOG | Send DlChannelReq process starts |
| 0:00:01.164704 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:03.521375 | LOG | PULL_DATA: 02 efae 02 3834383419003400 |
| 0:00:03.522375 | LOG | PULL_ACK: 02 efae 04 |
| 0:00:03.524376 | LOG | First PULL_DATA received |
| 0:00:06.154893 | LOG | PUSH_ACK: 02 2d8d 01 |
| 0:00:06.157893 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d8d, Identifier = 00, JSON = {'rxpk': [{'tmst': 136759204, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA7gABHjbPHj1Q'}]} |
| 0:00:06.158891 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00ee, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: cf1e3d50) |
| 0:00:06.160890 | LOG | Server <---------- DUT |
| 0:00:06.162890 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0143, FOpts: ), FPort: 00, FRMPayload: 0a00f87d84), MIC: 822c88cc) |
| 0:00:06.165888 | LOG | PULL_RESP: Protocol version = 02, Token = 1b13, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 137759204, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAQwEAyCWG206CLIjM'}} |
| 0:00:06.166889 | LOG | Server ----------> DUT |
| 0:00:06.171884 | LOG | TX_ACK: 02 1b13 05 3834383419003400 |
| 0:00:11.152083 | LOG | PUSH_ACK: 02 2d8f 01 |
| 0:00:11.154079 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d8f, Identifier = 00, JSON = {'rxpk': [{'tmst': 141767265, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCC7wAKAwEnJKSxY4Q='}]} |
| 0:00:11.156078 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00ef, FOpts: 0a03), FPort: 01, FRMPayload: 0033, MIC: a4b16384) |
| 0:00:11.157077 | LOG | Server <---------- DUT |
| 0:00:11.159076 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:11.160076 | LOG | Command Answer: 0a03 |
| 0:00:11.167071 | LOG | MAC command communication completed |
| 0:00:11.174068 | LOG | End Test Step: DlChannel Request |
| 0:00:11.178065 | LOG | Partial Verdict: PASS |
| 0:00:11.183062 | LOG | ========== |
| 0:00:11.188060 | LOG | ========== |

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| 0:00:11.189059 | LOG | Start Test Step: Test reply retransmission |
| 0:00:11.201053 | LOG | Expect a MAC answer retransmission |
| 0:00:13.730647 | LOG | PULL_DATA: 02 637f 02 3834383419003400 |
| 0:00:13.732628 | LOG | PULL_ACK: 02 637f 04 |
| 0:00:21.177437 | LOG | PUSH_ACK: 02 2d90 01 |
| 0:00:21.179436 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d90, Identifier = 00, JSON = {'rxpk': [{'tmst': 151773121, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC8AAKAwHdAJ4OyfQ='}]} |
| 0:00:21.181435 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00f0, FOpts: 0a03), FPort: 01, FRMPayload: 0033, MIC: 9e0ec9f4) |
| 0:00:21.183434 | LOG | Server <---------- DUT |
| 0:00:21.185432 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:21.189432 | LOG | MAC answer retransmission completed |
| 0:00:21.192429 | LOG | Expect a MAC answer retransmission |
| 0:00:23.810954 | LOG | PULL_DATA: 02 3a33 02 3834383419003400 |
| 0:00:23.812954 | LOG | PULL_ACK: 02 3a33 04 |
| 0:00:31.151822 | LOG | PUSH_ACK: 02 2d91 01 |
| 0:00:31.157821 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d91, Identifier = 00, JSON = {'rxpk': [{'tmst': 161779001, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCC8QAKAwEoleQrDOc='}]} |
| 0:00:31.158820 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00f1, FOpts: 0a03), FPort: 01, FRMPayload: 0033, MIC: e42b0ce7) |
| 0:00:31.160819 | LOG | Server <---------- DUT |
| 0:00:31.161817 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:31.167814 | LOG | MAC answer retransmission completed |
| 0:00:31.172811 | LOG | Expect a MAC answer retransmission |
| 0:00:33.890281 | LOG | PULL_DATA: 02 6f1a 02 3834383419003400 |
| 0:00:33.892280 | LOG | PULL_ACK: 02 6f1a 04 |
| 0:00:41.193171 | LOG | PUSH_ACK: 02 2d93 01 |
| 0:00:41.195170 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d93, Identifier = 00, JSON = {'rxpk': [{'tmst': 171786273, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 17, 'data': 'QCAgICCC8gAKAwGTSqPkEuc='}]} |
| 0:00:41.197167 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00f2, FOpts: 0a03), FPort: 01, FRMPayload: 0033, MIC: a3e412e7) |
| 0:00:41.198167 | LOG | Server <---------- DUT |
| 0:00:41.200167 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:41.204164 | LOG | MAC answer retransmission completed |
| 0:00:41.211160 | LOG | Test EchoPayloadReq in default channels process starts |
| 0:00:43.970625 | LOG | PULL_DATA: 02 e98f 02 3834383419003400 |
| 0:00:43.972635 | LOG | PULL_ACK: 02 e98f 04 |
| 0:00:51.165556 | LOG | PUSH_ACK: 02 2d94 01 |
| 0:00:51.168555 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d94, Identifier = 00, JSON = {'rxpk': [{'tmst': 181792137, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC8wAKAwG6gzwBGfM='}]} |
| 0:00:51.169554 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00f3, FOpts: 0a03), FPort: 01, FRMPayload: 0033, MIC: 3c0119f3) |
| 0:00:51.170554 | LOG | Server <---------- DUT |
| 0:00:51.172553 | LOG | Attempt 0/15 |

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| 0:00:51.173552 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0144, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 362796dd) |
| 0:00:51.176550 | LOG | PULL_RESP: Protocol version = 02, Token = 612d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 182792137, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAARAHgYkjfxjYnlt0='}} |
| 0:00:51.177549 | LOG | Server ----------> DUT |
| 0:00:51.179548 | LOG | Echo sent to the DUT |
| 0:00:54.120893 | LOG | PULL_DATA: 02 5bee 02 3834383419003400 |
| 0:00:54.122891 | LOG | PULL_ACK: 02 5bee 04 |
| 0:01:01.197909 | LOG | PUSH_ACK: 02 2d95 01 |
| 0:01:01.202906 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d95, Identifier = 00, JSON = {'rxpk': [{'tmst': 191801378, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCA9ADgvcrhDcuUwAw='}]} |
| 0:01:01.204905 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00f4, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: cb94c00c) |
| 0:01:01.205905 | LOG | Server <---------- DUT |
| 0:01:01.206904 | LOG | Echo Ans is correct: 0b0c0d |
| 0:01:01.208903 | LOG | Frequencies received: [868.3] |
| 0:01:04.201218 | LOG | PULL_DATA: 02 03d3 02 3834383419003400 |
| 0:01:04.203217 | LOG | PULL_ACK: 02 03d3 04 |
| 0:01:11.183288 | LOG | PUSH_ACK: 02 2d97 01 |
| 0:01:11.185288 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d97, Identifier = 00, JSON = {'rxpk': [{'tmst': 201798754, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA9QABT+cgo/o2'}]} |
| 0:01:11.187288 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00f5, FOpts: ), FPort: 01, FRMPayload: 0034, MIC: 20a3fa36) |
| 0:01:11.188289 | LOG | Server <---------- DUT |
| 0:01:11.189286 | LOG | Attempt 1/15 |
| 0:01:11.190286 | LOG | Uplink frequency currently checked. All received: [868.3] Expected: [868.1, 868.3, 868.5] |
| 0:01:14.280544 | LOG | PULL_DATA: 02 407c 02 3834383419003400 |
| 0:01:14.282545 | LOG | PULL_ACK: 02 407c 04 |
| 0:01:16.173480 | LOG | PUSH_ACK: 02 2d98 01 |
| 0:01:16.176478 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d98, Identifier = 00, JSON = {'rxpk': [{'tmst': 206801698, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA9gABVEWJy9mp'}]} |
| 0:01:16.177477 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00f6, FOpts: ), FPort: 01, FRMPayload: 0034, MIC: 89cbd9a9) |
| 0:01:16.178476 | LOG | Server <---------- DUT |
| 0:01:16.180476 | LOG | Attempt 2/15 |
| 0:01:16.182475 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0145, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 8f48c91c) |
| 0:01:16.186473 | LOG | PULL_RESP: Protocol version = 02, Token = 6873, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 207801698, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAARQHgX5cRpY9IyRw='}} |
| 0:01:16.188471 | LOG | Server ----------> DUT |
| 0:01:16.190470 | LOG | Echo sent to the DUT |
| 0:01:16.193468 | LOG | TX_ACK: 02 6873 05 3834383419003400 |
| 0:01:21.226635 | LOG | PUSH_ACK: 02 2d99 01 |
| 0:01:21.228633 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d99, Identifier = 00, JSON = {'rxpk': [{'tmst': 211813122, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 17, 'data': 'QCAgICCA9wDgBE62MRk4e7c='}]} |
| 0:01:21.229633 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00f7, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: 19387bb7) |
| 0:01:21.231632 | LOG | Server <---------- DUT |
| 0:01:21.233631 | LOG | Echo Ans is correct: 0b0c0d |
| 0:01:21.234630 | LOG | Frequencies received: [868.3, 868.1] |
| 0:01:24.380859 | LOG | PULL_DATA: 02 df64 02 3834383419003400 |
| 0:01:24.381861 | LOG | PULL_ACK: 02 df64 04 |
| 0:01:31.201020 | LOG | PUSH_ACK: 02 2d9b 01 |
| 0:01:31.203020 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d9b, Identifier = 00, JSON = {'rxpk': [{'tmst': 221810506, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA+AABkPKmUHdv'}]} |
| 0:01:31.204020 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00f8, FOpts: ), FPort: 01, FRMPayload: 0035, MIC: a650776f) |
| 0:01:31.205020 | LOG | Server <---------- DUT |
| 0:01:31.207017 | LOG | Attempt 3/15 |
| 0:01:31.209017 | LOG | Uplink frequency currently checked. All received: [868.3, 868.1] Expected: [868.1, 868.3, 868.5] |
| 0:01:34.461185 | LOG | PULL_DATA: 02 465d 02 3834383419003400 |
| 0:01:34.464183 | LOG | PULL_ACK: 02 465d 04 |
| 0:01:36.189212 | LOG | PUSH_ACK: 02 2d9c 01 |
| 0:01:36.191211 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d9c, Identifier = 00, JSON = {'rxpk': [{'tmst': 226813442, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA+QABieSagUja'}]} |
| 0:01:36.192211 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00f9, FOpts: ), FPort: 01, FRMPayload: 0035, MIC: 9a8148da) |
| 0:01:36.194210 | LOG | Server <---------- DUT |
| 0:01:36.195209 | LOG | Attempt 4/15 |
| 0:01:36.196209 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0146, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 1366757c) |
| 0:01:36.199207 | LOG | PULL_RESP: Protocol version = 02, Token = 9c89, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 227813442, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAARgHgjTbv0RNmdXw='}} |
| 0:01:36.201206 | LOG | Server ----------> DUT |
| 0:01:36.203204 | LOG | Echo sent to the DUT |
| 0:01:41.193395 | LOG | PUSH_ACK: 02 2d9e 01 |
| 0:01:41.195394 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d9e, Identifier = 00, JSON = {'rxpk': [{'tmst': 231824877, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -13, 'size': 17, 'data': 'QCAgICCA+gDgcUicQiy21jI='}]} |
| 0:01:41.197394 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00fa, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: 2cb6d632) |
| 0:01:41.198394 | LOG | Server <---------- DUT |
| 0:01:41.200391 | LOG | Echo Ans is correct: 0b0c0d |
| 0:01:41.202392 | LOG | Frequencies received: [868.3, 868.1, 868.5] |
| 0:01:41.206388 | LOG | Test EchoPayloadReq in default channels process complete |
| 0:01:41.211385 | LOG | End Test Step: Test reply retransmission |
| 0:01:41.215383 | LOG | Partial Verdict: PASS |
| 0:01:41.220380 | LOG | ========== |
| 0:01:41.226377 | LOG | ========== |
| 0:01:41.229375 | LOG | Start Test Step: Restore default downlink parameters |
| 0:01:41.239370 | LOG | Send DlChannelReq process starts |

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| 0:01:44.610472 | LOG | PULL_DATA: 02 9527 02 3834383419003400 |
| 0:01:44.612471 | LOG | PULL_ACK: 02 9527 04 |
| 0:01:51.216753 | LOG | PUSH_ACK: 02 2d9f 01 |
| 0:01:51.218753 | LOG | PUSH_DATA: Protocol version = 02, Token = 2d9f, Identifier = 00, JSON = {'rxpk': [{'tmst': 241822253, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA+wAB8wOeKISL'}]} |
| 0:01:51.220752 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 00fb, FOpts: ), FPort: 01, FRMPayload: 0036, MIC: 9e28848b) |
| 0:01:51.221752 | LOG | Server <---------- DUT |
| 0:01:51.222751 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0147, FOpts: ), FPort: 00, FRMPayload: 0a00287684), MIC: 2f9ad596) |
| 0:01:51.225748 | LOG | PULL_RESP: Protocol version = 02, Token = 1eed, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 243822253, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAARwEAB5mlQzUvmtWW'}} |
| 0:01:51.226749 | LOG | Server ----------> DUT |
| 0:01:51.230745 | LOG | TX_ACK: 02 1eed 05 3834383419003400 |
| 0:01:54.800735 | LOG | PULL_DATA: 02 4f8b 02 3834383419003400 |
| 0:01:54.801735 | LOG | PULL_ACK: 02 4f8b 04 |
| 0:01:56.207943 | LOG | PUSH_ACK: 02 2da0 01 |
| 0:01:56.210942 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da0, Identifier = 00, JSON = {'rxpk': [{'tmst': 246831686, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC/AAKAwGU9JG+qn4='}]} |
| 0:01:56.211941 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00fc, FOpts: 0a03), FPort: 01, FRMPayload: 0036, MIC: 91beaa7e) |
| 0:01:56.212941 | LOG | Server <---------- DUT |
| 0:01:56.214939 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:56.215939 | LOG | Command Answer: 0a03 |
| 0:01:56.222935 | LOG | MAC command communication completed |
| 0:01:56.227932 | LOG | End Test Step: Restore default downlink parameters |
| 0:01:56.230931 | LOG | Partial Verdict: PASS |
| 0:01:56.235928 | LOG | ========== |
| 0:01:56.240925 | LOG | ========== |
| 0:01:56.242923 | LOG | Start Test Step: Test reply retransmission default |
| 0:01:56.255917 | LOG | Expect a MAC answer retransmission |
| 0:02:04.881178 | LOG | PULL_DATA: 02 fb08 02 3834383419003400 |
| 0:02:04.884174 | LOG | PULL_ACK: 02 fb08 04 |
| 0:02:06.234444 | LOG | PUSH_ACK: 02 2da1 01 |
| 0:02:06.236445 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da1, Identifier = 00, JSON = {'rxpk': [{'tmst': 256837566, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCC/QAKAwEe9cG/Dqs='}]} |
| 0:02:06.237444 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00fd, FOpts: 0a03), FPort: 01, FRMPayload: 0036, MIC: c1bf0eab) |
| 0:02:06.239442 | LOG | Server <---------- DUT |
| 0:02:06.241440 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:06.244440 | LOG | MAC answer retransmission completed |
| 0:02:06.247439 | LOG | Expect a MAC answer retransmission |
| 0:02:14.960502 | LOG | PULL_DATA: 02 73f5 02 3834383419003400 |
| 0:02:14.962501 | LOG | PULL_ACK: 02 73f5 04 |
| 0:02:16.219826 | LOG | PUSH_ACK: 02 2da3 01 |

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| 0:02:16.221823 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da3, Identifier = 00, JSON = {'rxpk': [{'tmst': 266844798, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCC/gAKAwH00bAMfek='}]} |
| 0:02:16.223822 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00fe, FOpts: 0a03), FPort: 01, FRMPayload: 0036, MIC: b00c7de9) |
| 0:02:16.224822 | LOG | Server <---------- DUT |
| 0:02:16.225821 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:16.230818 | LOG | MAC answer retransmission completed |
| 0:02:16.233816 | LOG | Expect a MAC answer retransmission |
| 0:02:25.040827 | LOG | PULL_DATA: 02 bbe5 02 3834383419003400 |
| 0:02:25.042826 | LOG | PULL_ACK: 02 bbe5 04 |
| 0:02:26.245180 | LOG | PUSH_ACK: 02 2da4 01 |
| 0:02:26.248177 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da4, Identifier = 00, JSON = {'rxpk': [{'tmst': 276850654, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC/wAKAwHvL1AZ6fk='}]} |
| 0:02:26.249151 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 00ff, FOpts: 0a03), FPort: 01, FRMPayload: 0036, MIC: 5019e9f9) |
| 0:02:26.251149 | LOG | Server <---------- DUT |
| 0:02:26.252174 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:26.256174 | LOG | MAC answer retransmission completed |
| 0:02:26.263168 | LOG | Test EchoPayloadReq in default channels process starts |
| 0:02:35.121150 | LOG | PULL_DATA: 02 0daa 02 3834383419003400 |
| 0:02:35.124178 | LOG | PULL_ACK: 02 0daa 04 |
| 0:02:36.271532 | LOG | PUSH_ACK: 02 2da5 01 |
| 0:02:36.273532 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da5, Identifier = 00, JSON = {'rxpk': [{'tmst': 286856550, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCAAEKAwEAvWZmTKA='}]} |
| 0:02:36.275530 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0100, FOpts: 0a03), FPort: 01, FRMPayload: 0036, MIC: 66664ca0) |
| 0:02:36.277530 | LOG | Server <---------- DUT |
| 0:02:36.278529 | LOG | Attempt 0/15 |
| 0:02:36.281525 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0148, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 29642f60) |
| 0:02:36.284525 | LOG | PULL_RESP: Protocol version = 02, Token = b6b6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 287856550, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAASAHgxopX3ClkL2A='}} |
| 0:02:36.285525 | LOG | Server ----------> DUT |
| 0:02:36.288496 | LOG | Echo sent to the DUT |
| 0:02:36.291521 | LOG | TX_ACK: 02 b6b6 05 3834383419003400 |
| 0:02:45.320471 | LOG | PULL_DATA: 02 9470 02 3834383419003400 |
| 0:02:45.322451 | LOG | PULL_ACK: 02 9470 04 |
| 0:02:46.279911 | LOG | PUSH_ACK: 02 2da7 01 |
| 0:02:46.281911 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da7, Identifier = 00, JSON = {'rxpk': [{'tmst': 296868514, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCAAQHgl2I1S+QVpko='}]} |
| 0:02:46.282910 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0101, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: e415a64a) |
| 0:02:46.284909 | LOG | Server <---------- DUT |
| 0:02:46.286911 | LOG | Echo Ans is correct: 0b0c0d |

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| 0:02:46.288908 | LOG | Frequencies received: [868.3] |
| 0:02:55.400776 | LOG | PULL_DATA: 02 29ce 02 3834383419003400 |
| 0:02:55.402774 | LOG | PULL_ACK: 02 29ce 04 |
| 0:02:56.252295 | LOG | PUSH_ACK: 02 2da8 01 |
| 0:02:56.255294 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da8, Identifier = 00, JSON = {'rxpk': [{'tmst': 306865898, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAgEB5MWFfqKt'}]} |
| 0:02:56.256293 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0102, FOpts: ), FPort: 01, FRMPayload: 0037, MIC: 857ea2ad) |
| 0:02:56.258292 | LOG | Server <---------- DUT |
| 0:02:56.259291 | LOG | Attempt 1/15 |
| 0:02:56.260291 | LOG | Uplink frequency currently checked. All received: [868.3] Expected: [868.1, 868.3, 868.5] |
| 0:03:01.241486 | LOG | PUSH_ACK: 02 2da9 01 |
| 0:03:01.243484 | LOG | PUSH_DATA: Protocol version = 02, Token = 2da9, Identifier = 00, JSON = {'rxpk': [{'tmst': 311870202, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAwEBSYdfpJ51'}]} |
| 0:03:01.245485 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0103, FOpts: ), FPort: 01, FRMPayload: 0037, MIC: 5fa49e75) |
| 0:03:01.246484 | LOG | Server <---------- DUT |
| 0:03:01.247484 | LOG | Attempt 2/15 |
| 0:03:01.249481 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0149, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 4b4479dc) |
| 0:03:01.251480 | LOG | PULL_RESP: Protocol version = 02, Token = 86f0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 312870202, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAASQHgCxb4c0tEedw='}} |
| 0:03:01.253479 | LOG | Server ----------> DUT |
| 0:03:01.256477 | LOG | Echo sent to the DUT |
| 0:03:01.259475 | LOG | TX_ACK: 02 86f0 05 3834383419003400 |
| 0:03:05.451115 | LOG | PULL_DATA: 02 a398 02 3834383419003400 |
| 0:03:05.455112 | LOG | PULL_ACK: 02 a398 04 |
| 0:03:06.294640 | LOG | PUSH_ACK: 02 2daa 01 |
| 0:03:06.296638 | LOG | PUSH_DATA: Protocol version = 02, Token = 2daa, Identifier = 00, JSON = {'rxpk': [{'tmst': 316884387, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCABAHgeHymX/LYAWQ='}]} |
| 0:03:06.297638 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0104, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: f2d80164) |
| 0:03:06.298637 | LOG | Server <---------- DUT |
| 0:03:06.300636 | LOG | Echo Ans is correct: 0b0c0d |
| 0:03:06.301635 | LOG | Frequencies received: [868.3, 868.1] |
| 0:03:15.530570 | LOG | PULL_DATA: 02 e98c 02 3834383419003400 |
| 0:03:15.532568 | LOG | PULL_ACK: 02 e98c 04 |
| 0:03:16.279148 | LOG | PUSH_ACK: 02 2dac 01 |
| 0:03:16.281147 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dac, Identifier = 00, JSON = {'rxpk': [{'tmst': 326881755, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCABQEBBuKh81NT'}]} |
| 0:03:16.283146 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0105, FOpts: ), FPort: 01, FRMPayload: 0038, MIC: a1f35353) |
| 0:03:16.284144 | LOG | Server <---------- DUT |
| 0:03:16.286144 | LOG | Attempt 3/15 |

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| 0:03:16.287145 | LOG | Uplink frequency currently checked. All received: [868.3, 868.1] Expected: [868.1, 868.3, 868.5] |
| 0:03:21.268339 | LOG | PUSH_ACK: 02 2dad 01 |
| 0:03:21.270355 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dad, Identifier = 00, JSON = {'rxpk': [{'tmst': 331884683, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCABgEB3Rlmmo9i'}]} |
| 0:03:21.272336 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0106, FOpts: ), FPort: 01, FRMPayload: 0038, MIC: 669a8f62) |
| 0:03:21.273335 | LOG | Server <---------- DUT |
| 0:03:21.274336 | LOG | Attempt 4/15 |
| 0:03:21.275336 | LOG | Uplink frequency currently checked. All received: [868.3, 868.1] Expected: [868.1, 868.3, 868.5] |
| 0:03:25.610840 | LOG | PULL_DATA: 02 2844 02 3834383419003400 |
| 0:03:25.611841 | LOG | PULL_ACK: 02 2844 04 |
| 0:03:26.259475 | LOG | PUSH_ACK: 02 2dae 01 |
| 0:03:26.261475 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dae, Identifier = 00, JSON = {'rxpk': [{'tmst': 336887627, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCABwEBnxbAjTHq'}]} |
| 0:03:26.263473 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0107, FOpts: ), FPort: 01, FRMPayload: 0038, MIC: c08d31ea) |
| 0:03:26.264473 | LOG | Server <---------- DUT |
| 0:03:26.266471 | LOG | Attempt 5/15 |
| 0:03:26.268470 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 014a, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: a00bff6d) |
| 0:03:26.271470 | LOG | PULL_RESP: Protocol version = 02, Token = d736, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 337887627, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAASgHgRDcEYKAL/20='}} |
| 0:03:26.273468 | LOG | Server ----------> DUT |
| 0:03:26.275467 | LOG | Echo sent to the DUT |
| 0:03:26.278465 | LOG | TX_ACK: 02 d736 05 3834383419003400 |
| 0:03:31.312630 | LOG | PUSH_ACK: 02 2daf 01 |
| 0:03:31.314628 | LOG | PUSH_DATA: Protocol version = 02, Token = 2daf, Identifier = 00, JSON = {'rxpk': [{'tmst': 341900429, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCACAHgCt3xgGIFQEo='}]} |
| 0:03:31.315629 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0108, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: 6205404a) |
| 0:03:31.316629 | LOG | Server <---------- DUT |
| 0:03:31.318626 | LOG | Echo Ans is correct: 0b0c0d |
| 0:03:31.320625 | LOG | Frequencies received: [868.3, 868.1, 868.5] |
| 0:03:31.325623 | LOG | Test EchoPayloadReq in default channels process complete |
| 0:03:31.330621 | LOG | End Test Step: Test reply retransmission default |
| 0:03:31.333620 | LOG | Partial Verdict: PASS |
| 0:03:31.336618 | LOG | ========== |
| 0:03:31.343612 | LOG | ========== |
| 0:03:31.346610 | LOG | Start Test Step: DlChannel Request with invalid parameters |
| 0:03:31.357604 | LOG | Send DlChannelReq process starts |
| 0:03:35.720325 | LOG | PULL_DATA: 02 7b2b 02 3834383419003400 |
| 0:03:35.724323 | LOG | PULL_ACK: 02 7b2b 04 |
| 0:03:41.296186 | LOG | PUSH_ACK: 02 2db1 01 |
| 0:03:41.298184 | LOG | PUSH_DATA: Protocol version = 02, Token = 2db1, Identifier = 00, JSON = {'rxpk': [{'tmst': 351897781, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCACQEBK4bNwxLp'}]} |
| 0:03:41.300183 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0109, FOpts: ), FPort: 01, FRMPayload: 0039, MIC: cdc312e9) |
| 0:03:41.301184 | LOG | Server <---------- DUT |
| 0:03:41.304180 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 014b, FOpts: ), FPort: 00, FRMPayload: 0a0098e68a), MIC: 62daa4f5) |
| 0:03:41.306180 | LOG | PULL_RESP: Protocol version = 02, Token = 6711, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 353897781, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAASwEAj7tTG3ti2qT1'}} |
| 0:03:41.307179 | LOG | Server ----------> DUT |
| 0:03:41.310683 | LOG | TX_ACK: 02 6711 05 3834383419003400 |
| 0:03:45.730306 | LOG | PULL_DATA: 02 18bb 02 3834383419003400 |
| 0:03:45.732305 | LOG | PULL_ACK: 02 18bb 04 |
| 0:03:46.282994 | LOG | PUSH_ACK: 02 2db2 01 |
| 0:03:46.283994 | LOG | PUSH_DATA: Protocol version = 02, Token = 2db2, Identifier = 00, JSON = {'rxpk': [{'tmst': 356905881, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCCgEKAgEM4JWjbYc='}]} |
| 0:03:46.285993 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 010a, FOpts: 0a02), FPort: 01, FRMPayload: 0039, MIC: 95a36d87) |
| 0:03:46.286992 | LOG | Server <---------- DUT |
| 0:03:46.288992 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:46.289991 | LOG | Command Answer: 0a02 |
| 0:03:46.293989 | LOG | MAC command communication completed |
| 0:03:46.299985 | LOG | Expect a MAC answer retransmission |
| 0:03:55.810631 | LOG | PULL_DATA: 02 a8f7 02 3834383419003400 |
| 0:03:55.812627 | LOG | PULL_ACK: 02 a8f7 04 |
| 0:03:56.305350 | LOG | PUSH_ACK: 02 2db3 01 |
| 0:03:56.308348 | LOG | PUSH_DATA: Protocol version = 02, Token = 2db3, Identifier = 00, JSON = {'rxpk': [{'tmst': 366911729, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCCwEKAgF0ILg1HSA='}]} |
| 0:03:56.309348 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 010b, FOpts: 0a02), FPort: 01, FRMPayload: 0039, MIC: b8351d20) |
| 0:03:56.310349 | LOG | Server <---------- DUT |
| 0:03:56.312346 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:56.315346 | LOG | MAC answer retransmission completed |
| 0:03:56.319343 | LOG | Expect a MAC answer retransmission |
| 0:04:05.890951 | LOG | PULL_DATA: 02 1fee 02 3834383419003400 |
| 0:04:05.901953 | LOG | PULL_ACK: 02 1fee 04 |
| 0:04:06.330704 | LOG | PUSH_ACK: 02 2db4 01 |
| 0:04:06.332703 | LOG | PUSH_DATA: Protocol version = 02, Token = 2db4, Identifier = 00, JSON = {'rxpk': [{'tmst': 376917601, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCDAEKAgHwfyL6goA='}]} |
| 0:04:06.334702 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 010c, FOpts: 0a02), FPort: 01, FRMPayload: 0039, MIC: 22fa8280) |
| 0:04:06.335700 | LOG | Server <---------- DUT |
| 0:04:06.336700 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:06.341698 | LOG | MAC answer retransmission completed |
| 0:04:06.344696 | LOG | Expect a MAC answer retransmission |

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| 0:04:15.981270 | LOG | PULL_DATA: 02 55b4 02 3834383419003400 |
| 0:04:15.984269 | LOG | PULL_ACK: 02 55b4 04 |
| 0:04:16.320078 | LOG | PUSH_ACK: 02 2db6 01 |
| 0:04:16.322077 | LOG | PUSH_DATA: Protocol version = 02, Token = 2db6, Identifier = 00, JSON = {'rxpk': [{'tmst': 386924849, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCDQEKAgF9i21oGFs='}]} |
| 0:04:16.323076 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 010d, FOpts: 0a02), FPort: 01, FRMPayload: 0039, MIC: 6d68185b) |
| 0:04:16.325075 | LOG | Server <---------- DUT |
| 0:04:16.326074 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:16.331071 | LOG | MAC answer retransmission completed |
| 0:04:16.333070 | LOG | Send DlChannelReq process starts |
| 0:04:26.060593 | LOG | PULL_DATA: 02 15a4 02 3834383419003400 |
| 0:04:26.062592 | LOG | PULL_ACK: 02 15a4 04 |
| 0:04:26.342433 | LOG | PUSH_ACK: 02 2db7 01 |
| 0:04:26.344432 | LOG | PUSH_DATA: Protocol version = 02, Token = 2db7, Identifier = 00, JSON = {'rxpk': [{'tmst': 396930721, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCDgEKAgEVxOfQEVc='}]} |
| 0:04:26.345431 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 010e, FOpts: 0a02), FPort: 01, FRMPayload: 0039, MIC: e7d01157) |
| 0:04:26.346430 | LOG | Server <---------- DUT |
| 0:04:26.348430 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 014c, FOpts: ), FPort: 00, FRMPayload: 0a04f87d84), MIC: 20b77d0c) |
| 0:04:26.350428 | LOG | PULL_RESP: Protocol version = 02, Token = 22f0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 398930721, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAATAEA+d+h0nYgt30M'}} |
| 0:04:26.351428 | LOG | Server ----------> DUT |
| 0:04:26.355426 | LOG | TX_ACK: 02 22f0 05 3834383419003400 |
| 0:04:36.220734 | LOG | PULL_DATA: 02 3f10 02 3834383419003400 |
| 0:04:36.223732 | LOG | PULL_ACK: 02 3f10 04 |
| 0:04:36.351661 | LOG | PUSH_ACK: 02 2db8 01 |
| 0:04:36.354659 | LOG | PUSH_DATA: Protocol version = 02, Token = 2db8, Identifier = 00, JSON = {'rxpk': [{'tmst': 406939323, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCDwEKAQHKuZMI55Q='}]} |
| 0:04:36.355658 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 010f, FOpts: 0a01), FPort: 01, FRMPayload: 0039, MIC: 9308e794) |
| 0:04:36.356659 | LOG | Server <---------- DUT |
| 0:04:36.357659 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:36.358658 | LOG | Command Answer: 0a01 |
| 0:04:36.362654 | LOG | MAC command communication completed |
| 0:04:36.367652 | LOG | Expect a MAC answer retransmission |
| 0:04:46.301056 | LOG | PULL_DATA: 02 acb2 02 3834383419003400 |
| 0:04:46.303055 | LOG | PULL_ACK: 02 acb2 04 |
| 0:04:46.343033 | LOG | PUSH_ACK: 02 2dba 01 |
| 0:04:46.345031 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dba, Identifier = 00, JSON = {'rxpk': [{'tmst': 416946579, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCEAEKAQGV0QYr+Jo='}]} |
| 0:04:46.347030 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0110, FOpts: 0a01), FPort: 01, FRMPayload: 0039, MIC: 062bf89a) |

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|---|---|---|
| 0:04:46.348030 | LOG | Server <---------- DUT |
| 0:04:46.350030 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:46.354027 | LOG | MAC answer retransmission completed |
| 0:04:46.358024 | LOG | Expect a MAC answer retransmission |
| 0:04:56.367389 | LOG | PUSH_ACK: 02 2dbb 01 |
| 0:04:56.369387 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dbb, Identifier = 00, JSON = {'rxpk': [{'tmst': 426952491, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCEQEKAQE1tAas16I='}]} |
| 0:04:56.370385 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0111, FOpts: 0a01), FPort: 01, FRMPayload: 0039, MIC: 06acd7a2) |
| 0:04:56.371387 | LOG | Server <---------- DUT |
| 0:04:56.373384 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:56.377383 | LOG | MAC answer retransmission completed |
| 0:04:56.381379 | LOG | Expect a MAC answer retransmission |
| 0:05:06.340770 | LOG | PUSH_ACK: 02 2dbc 01 |
| 0:05:06.343770 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dbc, Identifier = 00, JSON = {'rxpk': [{'tmst': 436958347, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCEgEKAQEYhOS6Vpw='}]} |
| 0:05:06.345768 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0112, FOpts: 0a01), FPort: 01, FRMPayload: 0039, MIC: e4ba569c) |
| 0:05:06.346768 | LOG | Server <---------- DUT |
| 0:05:06.347768 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:06.351763 | LOG | MAC answer retransmission completed |
| 0:05:06.354764 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:06.460703 | LOG | PULL_DATA: 02 9813 02 3834383419003400 |
| 0:05:06.463707 | LOG | PULL_ACK: 02 9813 04 |
| 0:05:16.331143 | LOG | PUSH_ACK: 02 2dbe 01 |
| 0:05:16.333142 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dbe, Identifier = 00, JSON = {'rxpk': [{'tmst': 446964235, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCEwEKAQGZp0zfh8k='}]} |
| 0:05:16.334141 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0113, FOpts: 0a01), FPort: 01, FRMPayload: 0039, MIC: 4cdf87c9) |
| 0:05:16.336141 | LOG | Server <---------- DUT |
| 0:05:16.338139 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 014d, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 916544a3) |
| 0:05:16.341138 | LOG | Frame command sent to the DUT |
| 0:05:16.343136 | LOG | PULL_RESP: Protocol version = 02, Token = e763, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 448964235, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAATQHgqu6RZUSj'}} |
| 0:05:16.344136 | LOG | Server ----------> DUT |
| 0:05:16.347134 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:16.351151 | LOG | End Test Step: DlChannel Request with invalid parameters |
| 0:05:16.355129 | LOG | Partial Verdict: PASS |
| 0:05:16.360128 | LOG | ========== |
| 0:05:16.366123 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_007 |
| 0:05:16.369122 | LOG | Final Verdict: PASS |

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| **Test Case** | TP_A_EU868_ED_MAC_104_BV_008 |
| **Verdict** | PASS |

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|---|---|---|
| **Date** | 2021-10-09 19:59:21 | |
| **Comments** | RXParameterSetupReq MAC command | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | RX2 Receive window frequency | 868.525 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.014825 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_008 |
| 0:00:00.054784 | LOG | ========== |
| 0:00:00.056783 | LOG | Start Test Step: Device activation |
| 0:00:00.111752 | LOG | Activation process has finished successfully |
| 0:00:00.113750 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.116749 | LOG | DevAddr: 20202020 |
| 0:00:00.118748 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.121746 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.123745 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.126745 | LOG | End Test Step: Device activation |
| 0:00:00.129741 | LOG | Partial Verdict: PASS |
| 0:00:00.133758 | LOG | ========== |
| 0:00:00.139736 | LOG | ========== |
| 0:00:00.141735 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.151728 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.154727 | LOG | DUT Pre-condition activation completed |
| 0:00:00.157725 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.160724 | LOG | Partial Verdict: PASS |
| 0:00:00.164722 | LOG | ========== |
| 0:00:00.170719 | LOG | ========== |
| 0:00:00.172718 | LOG | Start Test Step: Modify RX1 and RX2 downlink parameters |
| 0:00:00.184711 | LOG | Send LinkADRReq process starts |
| 0:00:06.902927 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:07.155784 | LOG | PULL_DATA: 02 833c 02 3834383419003400 |
| 0:00:07.157783 | LOG | PULL_ACK: 02 833c 04 |
| 0:00:07.159783 | LOG | First PULL_DATA received |
| 0:00:11.900112 | LOG | PUSH_ACK: 02 2dc0 01 |
| 0:00:11.903113 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc0, Identifier = 00, JSON = {'rxpk': [{'tmst': 461969286, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAFQEBcczEchDA'}]} |
| 0:00:11.904110 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0115, FOpts: ), FPort: 01, FRMPayload: 003a, MIC: c47210c0) |
| 0:00:11.906109 | LOG | Server <---------- DUT |
| 0:00:11.908108 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 014e, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 7f232fbc) |
| 0:00:11.911107 | LOG | PULL_RESP: Protocol version = 02, Token = b1e1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 463969286, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAATgEAkL8xlWR/Iy+8'}} |
| 0:00:11.912105 | LOG | Server ----------> DUT |
| 0:00:11.917103 | LOG | TX_ACK: 02 b1e1 05 3834383419003400 |

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|---|---|---|
| 0:00:16.880308 | LOG | PUSH_ACK: 02 2dc1 01 |
| 0:00:16.882306 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc1, Identifier = 00, JSON = {'rxpk': [{'tmst': 466977367, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCFgEDBwEAppAhdlM='}]} |
| 0:00:16.884305 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0116, FOpts: 0307), FPort: 01, FRMPayload: 003a, MIC: 90217653) |
| 0:00:16.886304 | LOG | Server <---------- DUT |
| 0:00:16.887303 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:16.889302 | LOG | Command Answer: 0307 |
| 0:00:16.895301 | LOG | MAC command communication completed |
| 0:00:16.899297 | LOG | Check previous uplink data rate process starts |
| 0:00:16.903296 | LOG | Uplink received with expected Data Rate |
| 0:00:16.907292 | LOG | Send RXParamSetupReq process starts |
| 0:00:17.165148 | LOG | PULL_DATA: 02 fa26 02 3834383419003400 |
| 0:00:17.167146 | LOG | PULL_ACK: 02 fa26 04 |
| 0:00:26.917029 | LOG | PUSH_ACK: 02 2dc3 01 |
| 0:00:26.919029 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc3, Identifier = 00, JSON = {'rxpk': [{'tmst': 476978119, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAFwEBt5P3AL04'}]} |
| 0:00:26.921028 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0117, FOpts: ), FPort: 01, FRMPayload: 003a, MIC: f700bd38) |
| 0:00:26.922027 | LOG | Server <---------- DUT |
| 0:00:26.924027 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 014f, FOpts: ), FPort: 00, FRMPayload: 0522c28684), MIC: d1bc7d80) |
| 0:00:26.928024 | LOG | PULL_RESP: Protocol version = 02, Token = 2a46, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 478978119, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAATwEAQWtf6aDRvH2A'}} |
| 0:00:26.929023 | LOG | Server ----------> DUT |
| 0:00:26.933021 | LOG | TX_ACK: 02 2a46 05 3834383419003400 |
| 0:00:27.345788 | LOG | PULL_DATA: 02 d4e3 02 3834383419003400 |
| 0:00:27.346789 | LOG | PULL_ACK: 02 d4e3 04 |
| 0:00:31.887231 | LOG | PUSH_ACK: 02 2dc4 01 |
| 0:00:31.892228 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc4, Identifier = 00, JSON = {'rxpk': [{'tmst': 481987555, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCGAEFBwHAPvvAPGo='}]} |
| 0:00:31.894226 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0118, FOpts: 0507), FPort: 01, FRMPayload: 003a, MIC: fbc03c6a) |
| 0:00:31.895226 | LOG | Server <---------- DUT |
| 0:00:31.897225 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:31.898225 | LOG | Command Answer: 0507 |
| 0:00:31.917213 | LOG | MAC command communication completed |
| 0:00:31.922211 | LOG | Expect a MAC answer retransmission |
| 0:00:37.426111 | LOG | PULL_DATA: 02 b3fc 02 3834383419003400 |
| 0:00:37.427113 | LOG | PULL_ACK: 02 b3fc 04 |
| 0:00:41.913583 | LOG | PUSH_ACK: 02 2dc5 01 |
| 0:00:41.915583 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc5, Identifier = 00, JSON = {'rxpk': [{'tmst': 491993419, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCGQEFBwGiBRpbTCU='}]} |

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| 0:00:41.917581 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0119, FOpts: 0507), FPort: 01, FRMPayload: 003a, MIC: 1a5b4c25) |
| 0:00:41.918581 | LOG | Server <---------- DUT |
| 0:00:41.920580 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:41.923578 | LOG | MAC answer retransmission completed |
| 0:00:41.926576 | LOG | Expect a MAC answer retransmission |
| 0:00:47.516428 | LOG | PULL_DATA: 02 282e 02 3834383419003400 |
| 0:00:47.518427 | LOG | PULL_ACK: 02 282e 04 |
| 0:00:51.901959 | LOG | PUSH_ACK: 02 2dc7 01 |
| 0:00:51.903957 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc7, Identifier = 00, JSON = {'rxpk': [{'tmst': 501999307, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCGgEFBwGiwTZv0t4='}]} |
| 0:00:51.905956 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 011a, FOpts: 0507), FPort: 01, FRMPayload: 003a, MIC: 366fd2de) |
| 0:00:51.906955 | LOG | Server <---------- DUT |
| 0:00:51.908954 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:51.912952 | LOG | MAC answer retransmission completed |
| 0:00:51.915950 | LOG | Expect a MAC answer retransmission |
| 0:00:57.595751 | LOG | PULL_DATA: 02 2840 02 3834383419003400 |
| 0:00:57.597750 | LOG | PULL_ACK: 02 2840 04 |
| 0:01:01.927343 | LOG | PUSH_ACK: 02 2dc8 01 |
| 0:01:01.933340 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc8, Identifier = 00, JSON = {'rxpk': [{'tmst': 512005203, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCGwEFBwFihMeaa04='}]} |
| 0:01:01.935339 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 011b, FOpts: 0507), FPort: 01, FRMPayload: 003a, MIC: c79a6b4e) |
| 0:01:01.936338 | LOG | Server <---------- DUT |
| 0:01:01.938337 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:01.943322 | LOG | MAC answer retransmission completed |
| 0:01:01.949299 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:07.676074 | LOG | PULL_DATA: 02 e9d0 02 3834383419003400 |
| 0:01:07.677073 | LOG | PULL_ACK: 02 e9d0 04 |
| 0:01:11.904693 | LOG | PUSH_ACK: 02 2dc9 01 |
| 0:01:11.906692 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dc9, Identifier = 00, JSON = {'rxpk': [{'tmst': 522011091, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCHAEFBwG4NEdWzxw='}]} |
| 0:01:11.908690 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 011c, FOpts: 0507), FPort: 01, FRMPayload: 003a, MIC: 4756cf1c) |
| 0:01:11.909690 | LOG | Server <---------- DUT |
| 0:01:11.911689 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0150, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: f3ae6a5d) |
| 0:01:11.913687 | LOG | Frame command sent to the DUT |
| 0:01:11.914688 | LOG | PULL_RESP: Protocol version = 02, Token = 121e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 523011091, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAUAHghZHXMvOual0='}} |
| 0:01:11.915687 | LOG | Server ----------> DUT |
| 0:01:11.919684 | LOG | TX_ACK: 02 121e 05 3834383419003400 |
| 0:01:17.795374 | LOG | PULL_DATA: 02 3708 02 3834383419003400 |
| 0:01:17.797374 | LOG | PULL_ACK: 02 3708 04 |

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|---|---|---|
| 0:01:21.923050 | LOG | PUSH_ACK: 02 2dcb 01 |
| 0:01:21.926049 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dcb, Identifier = 00, JSON = {'rxpk': [{'tmst': 532020325, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCAHQHgR/2SFfmXbn4='}]} |
| 0:01:21.927048 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 011d, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: f9976e7e) |
| 0:01:21.929047 | LOG | Server <---------- DUT |
| 0:01:21.930046 | LOG | Answer in payload: 020304 |
| 0:01:21.931045 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:01:21.936043 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:21.940040 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:21.947036 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:27.875697 | LOG | PULL_DATA: 02 be8c 02 3834383419003400 |
| 0:01:27.877696 | LOG | PULL_ACK: 02 be8c 04 |
| 0:01:31.947406 | LOG | PUSH_ACK: 02 2dcc 01 |
| 0:01:31.950403 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dcc, Identifier = 00, JSON = {'rxpk': [{'tmst': 542017693, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAHgEB7EbjLxBb'}]} |
| 0:01:31.951404 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 011e, FOpts: ), FPort: 01, FRMPayload: 003b, MIC: e32f105b) |
| 0:01:31.953401 | LOG | Server <---------- DUT |
| 0:01:31.954400 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0151, FOpts: ), FPort: e0, FRMPayload: 08121314), MIC: f93b1884) |
| 0:01:31.956399 | LOG | Frame command sent to the DUT |
| 0:01:31.958400 | LOG | PULL_RESP: Protocol version = 02, Token = 60da, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 544017693, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAUQHgQRwKovk7GIQ='}} |
| 0:01:31.959397 | LOG | Server ----------> DUT |
| 0:01:31.963397 | LOG | TX_ACK: 02 60da 05 3834383419003400 |
| 0:01:36.965610 | LOG | PUSH_ACK: 02 2dcd 01 |
| 0:01:36.967609 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dcd, Identifier = 00, JSON = {'rxpk': [{'tmst': 547029145, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCAHwHgbtnw68xf1hk='}]} |
| 0:01:36.968610 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 011f, FOpts: ), FPort: e0, FRMPayload: 08131415, MIC: cc5fd619) |
| 0:01:36.970608 | LOG | Server <---------- DUT |
| 0:01:36.972610 | LOG | Answer in payload: 131415 |
| 0:01:36.973608 | LOG | Frame Command Payload in the Answer: 08131415 |
| 0:01:36.979603 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:36.982601 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:36.987598 | LOG | End Test Step: Modify RX1 and RX2 downlink parameters |
| 0:01:36.992597 | LOG | Partial Verdict: PASS |
| 0:01:36.997592 | LOG | ========== |
| 0:01:37.004589 | LOG | ========== |
| 0:01:37.008587 | LOG | Start Test Step: Restore default downlink parameters |
| 0:01:37.022579 | LOG | Send RXParamSetupReq process starts |
| 0:01:38.046004 | LOG | PULL_DATA: 02 bcd3 02 3834383419003400 |
| 0:01:38.047002 | LOG | PULL_ACK: 02 bcd3 04 |
| 0:01:46.936996 | LOG | PUSH_ACK: 02 2dce 01 |
| 0:01:46.939993 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dce, Identifier = 00, JSON = {'rxpk': [{'tmst': 557026545, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAIAEBNt8JX/Ue'}]} |
| 0:01:46.941992 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0120, FOpts: ), FPort: 01, FRMPayload: 003c, MIC: 095ff51e) |
| 0:01:46.942991 | LOG | Server <---------- DUT |
| 0:01:46.944990 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0152, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: bcd90753) |
| 0:01:46.947989 | LOG | PULL_RESP: Protocol version = 02, Token = e055, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 559026545, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAUgEAOusoAWy82QdT'}} |
| 0:01:46.948990 | LOG | Server ----------> DUT |
| 0:01:46.952986 | LOG | TX_ACK: 02 e055 05 3834383419003400 |
| 0:01:48.215277 | LOG | PULL_DATA: 02 31fb 02 3834383419003400 |
| 0:01:48.217274 | LOG | PULL_ACK: 02 31fb 04 |
| 0:01:51.933181 | LOG | PUSH_ACK: 02 2dd0 01 |
| 0:01:51.935180 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd0, Identifier = 00, JSON = {'rxpk': [{'tmst': 562035979, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCIQEFBwFpOMPx9Ak='}]} |
| 0:01:51.937179 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0121, FOpts: 0507), FPort: 01, FRMPayload: 003c, MIC: c3f1f409) |
| 0:01:51.938180 | LOG | Server <---------- DUT |
| 0:01:51.940178 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:51.942177 | LOG | Command Answer: 0507 |
| 0:01:51.958167 | LOG | MAC command communication completed |
| 0:01:51.965163 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:58.295599 | LOG | PULL_DATA: 02 e4dd 02 3834383419003400 |
| 0:01:58.297596 | LOG | PULL_ACK: 02 e4dd 04 |
| 0:02:08.374938 | LOG | PULL_DATA: 02 adea 02 3834383419003400 |
| 0:02:08.379916 | LOG | PULL_ACK: 02 adea 04 |
| 0:02:11.975891 | LOG | PUSH_ACK: 02 2dd1 01 |
| 0:02:11.977889 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd1, Identifier = 00, JSON = {'rxpk': [{'tmst': 582049155, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCIwEFBwHI8lizehY='}]} |
| 0:02:11.979888 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0123, FOpts: 0507), FPort: 01, FRMPayload: 003c, MIC: 58b37a16) |
| 0:02:11.980887 | LOG | Server <---------- DUT |
| 0:02:11.981887 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0153, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 5c81fa6a) |
| 0:02:11.984887 | LOG | Frame command sent to the DUT |
| 0:02:11.986885 | LOG | PULL_RESP: Protocol version = 02, Token = ebaf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 583049155, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAUwHggS/kvFyB+mo='}} |
| 0:02:11.988883 | LOG | Server ----------> DUT |
| 0:02:11.991881 | LOG | TX_ACK: 02 ebaf 05 3834383419003400 |
| 0:02:18.495216 | LOG | PULL_DATA: 02 4545 02 3834383419003400 |
| 0:02:18.496216 | LOG | PULL_ACK: 02 4545 04 |
| 0:02:21.994245 | LOG | PUSH_ACK: 02 2dd3 01 |
| 0:02:21.997244 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd3, Identifier = 00, JSON = {'rxpk': [{'tmst': 592058413, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCAJAHgxr/5Skz2m1Y='}]} |

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| 0:02:21.998243 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0124, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: 4cf69b56) |
| 0:02:22.000242 | LOG | Server <---------- DUT |
| 0:02:22.001242 | LOG | Answer in payload: 020304 |
| 0:02:22.026228 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:02:22.032224 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:02:22.036222 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:02:22.043218 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:02:28.575537 | LOG | PULL_DATA: 02 fd58 02 3834383419003400 |
| 0:02:28.577538 | LOG | PULL_ACK: 02 fd58 04 |
| 0:02:31.965627 | LOG | PUSH_ACK: 02 2dd4 01 |
| 0:02:31.968626 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd4, Identifier = 00, JSON = {'rxpk': [{'tmst': 602055789, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAJQEBfi921JqF'}]} |
| 0:02:31.969625 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0125, FOpts: ), FPort: 01, FRMPayload: 003d, MIC: 76d49a85) |
| 0:02:31.971624 | LOG | Server <---------- DUT |
| 0:02:31.973623 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0154, FOpts: ), FPort: e0, FRMPayload: 08121314), MIC: 397adc51) |
| 0:02:31.975624 | LOG | Frame command sent to the DUT |
| 0:02:31.976623 | LOG | PULL_RESP: Protocol version = 02, Token = ad7c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 604055789, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAVAHgbn7VTTl63FE='}} |
| 0:02:31.977623 | LOG | Server ----------> DUT |
| 0:02:31.981618 | LOG | TX_ACK: 02 ad7c 05 3834383419003400 |
| 0:02:37.005868 | LOG | PUSH_ACK: 02 2dd5 01 |
| 0:02:37.007867 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd5, Identifier = 00, JSON = {'rxpk': [{'tmst': 607067262, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCAJgHgMfShZSK4OaU='}]} |
| 0:02:37.009868 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0126, FOpts: ), FPort: e0, FRMPayload: 08131415, MIC: 22b839a5) |
| 0:02:37.010866 | LOG | Server <---------- DUT |
| 0:02:37.011865 | LOG | Answer in payload: 131415 |
| 0:02:37.013864 | LOG | Frame Command Payload in the Answer: 08131415 |
| 0:02:37.018861 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:02:37.022858 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:02:37.025857 | LOG | End Test Step: Restore default downlink parameters |
| 0:02:37.028857 | LOG | Partial Verdict: PASS |
| 0:02:37.032854 | LOG | ========== |
| 0:02:37.037851 | LOG | ========== |
| 0:02:37.041848 | LOG | Start Test Step: Verify that the DUT ignores wrong parameters |
| 0:02:37.052842 | LOG | Send RXParamSetupReq process starts |
| 0:02:38.695916 | LOG | PULL_DATA: 02 7180 02 3834383419003400 |
| 0:02:38.699914 | LOG | PULL_ACK: 02 7180 04 |
| 0:02:46.978250 | LOG | PUSH_ACK: 02 2dd6 01 |
| 0:02:46.979269 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd6, Identifier = 00, JSON = {'rxpk': [{'tmst': 617064646, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAJwEBcV/CnQhY'}]} |
| 0:02:46.981249 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0127, FOpts: ), FPort: 01, FRMPayload: 003e, MIC: c29d0858) |
| 0:02:46.982248 | LOG | Server <---------- DUT |

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| 0:02:46.983247 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0155, FOpts: ), FPort: 00, FRMPayload: 0560c28684), MIC: 6942254a) |
| 0:02:46.985263 | LOG | PULL_RESP: Protocol version = 02, Token = 679d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 619064646, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAVQEAHOxN4sdpQiVK'}} |
| 0:02:46.986246 | LOG | Server ----------> DUT |
| 0:02:46.990243 | LOG | TX_ACK: 02 679d 05 3834383419003400 |
| 0:02:48.875228 | LOG | PULL_DATA: 02 946c 02 3834383419003400 |
| 0:02:48.877228 | LOG | PULL_ACK: 02 946c 04 |
| 0:02:51.990015 | LOG | PUSH_ACK: 02 2dd8 01 |
| 0:02:51.992014 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd8, Identifier = 00, JSON = {'rxpk': [{'tmst': 622072721, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCKAEFAwHD1xD55eE='}]} |
| 0:02:51.993014 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0128, FOpts: 0503), FPort: 01, FRMPayload: 003e, MIC: 10f9e5e1) |
| 0:02:51.995013 | LOG | Server <---------- DUT |
| 0:02:51.996012 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:51.998011 | LOG | Command Answer: 0503 |
| 0:02:52.003008 | LOG | MAC command communication completed |
| 0:02:52.008007 | LOG | Send RXParamSetupReq process starts |
| 0:02:58.955109 | LOG | PULL_DATA: 02 a668 02 3834383419003400 |
| 0:02:58.957109 | LOG | PULL_ACK: 02 a668 04 |
| 0:03:02.013368 | LOG | PUSH_ACK: 02 2dd9 01 |
| 0:03:02.015367 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dd9, Identifier = 00, JSON = {'rxpk': [{'tmst': 632078609, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCKQEFAwE0qZsqtVM='}]} |
| 0:03:02.017366 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0129, FOpts: 0503), FPort: 01, FRMPayload: 003e, MIC: 9b2ab553) |
| 0:03:02.018366 | LOG | Server <---------- DUT |
| 0:03:02.020364 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0156, FOpts: ), FPort: 00, FRMPayload: 0509c28684), MIC: 029d80ae) |
| 0:03:02.023363 | LOG | PULL_RESP: Protocol version = 02, Token = 0a17, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 634078609, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAVgEAyMBfW18CnYCu'}} |
| 0:03:02.026361 | LOG | Server ----------> DUT |
| 0:03:02.029359 | LOG | TX_ACK: 02 0a17 05 3834383419003400 |
| 0:03:09.165339 | LOG | PULL_DATA: 02 4f59 02 3834383419003400 |
| 0:03:09.169336 | LOG | PULL_ACK: 02 4f59 04 |
| 0:03:12.022729 | LOG | PUSH_ACK: 02 2dda 01 |
| 0:03:12.024728 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dda, Identifier = 00, JSON = {'rxpk': [{'tmst': 642085875, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCKgEFBQF+zqb0auE='}]} |
| 0:03:12.026727 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 012a, FOpts: 0505), FPort: 01, FRMPayload: 003e, MIC: a6f46ae1) |
| 0:03:12.027726 | LOG | Server <---------- DUT |
| 0:03:12.029725 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:12.031724 | LOG | Command Answer: 0505 |
| 0:03:12.036721 | LOG | MAC command communication completed |
| 0:03:12.042717 | LOG | Send RXParamSetupReq process starts |

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| 0:03:19.255654 | LOG | PULL_DATA: 02 6577 02 3834383419003400 |
| 0:03:19.256655 | LOG | PULL_ACK: 02 6577 04 |
| 0:03:22.007103 | LOG | PUSH_ACK: 02 2ddc 01 |
| 0:03:22.010102 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ddc, Identifier = 00, JSON = {'rxpk': [{'tmst': 652091787, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCKwEFBQGuNZPuIbQ='}]} |
| 0:03:22.011101 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 012b, FOpts: 0505), FPort: 01, FRMPayload: 003e, MIC: 93ee21b4) |
| 0:03:22.013101 | LOG | Server <---------- DUT |
| 0:03:22.015099 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0157, FOpts: ), FPort: 00, FRMPayload: 0500f0018b), MIC: 84536f46) |
| 0:03:22.017098 | LOG | PULL_RESP: Protocol version = 02, Token = d547, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 654091787, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAVwEArN6/cGeEU29G'}} |
| 0:03:22.018099 | LOG | Server ----------> DUT |
| 0:03:22.023095 | LOG | TX_ACK: 02 d547 05 3834383419003400 |
| 0:03:29.365006 | LOG | PULL_DATA: 02 878d 02 3834383419003400 |
| 0:03:29.367005 | LOG | PULL_ACK: 02 878d 04 |
| 0:03:32.035501 | LOG | PUSH_ACK: 02 2ddd 01 |
| 0:03:32.038500 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ddd, Identifier = 00, JSON = {'rxpk': [{'tmst': 662097685, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCLAEFBgEfBwZrdYc='}]} |
| 0:03:32.039499 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 012c, FOpts: 0506), FPort: 01, FRMPayload: 003e, MIC: 066b7587) |
| 0:03:32.041499 | LOG | Server <---------- DUT |
| 0:03:32.042497 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:32.044497 | LOG | Command Answer: 0506 |
| 0:03:32.050493 | LOG | MAC command communication completed |
| 0:03:32.061487 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:03:39.445327 | LOG | PULL_DATA: 02 b770 02 3834383419003400 |
| 0:03:39.448327 | LOG | PULL_ACK: 02 b770 04 |
| 0:03:42.007883 | LOG | PUSH_ACK: 02 2dde 01 |
| 0:03:42.010881 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dde, Identifier = 00, JSON = {'rxpk': [{'tmst': 672104933, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 6.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCLQEFBgEb/0tN2OA='}]} |
| 0:03:42.012880 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 012d, FOpts: 0506), FPort: 01, FRMPayload: 003e, MIC: 4b4dd8e0) |
| 0:03:42.013879 | LOG | Server <---------- DUT |
| 0:03:42.015879 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0158, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 13b7c58a) |
| 0:03:42.017878 | LOG | Frame command sent to the DUT |
| 0:03:42.019876 | LOG | PULL_RESP: Protocol version = 02, Token = 5e2f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 673104933, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAWAHgPSzKQRO3xYo='}} |
| 0:03:42.020876 | LOG | Server ----------> DUT |
| 0:03:42.024874 | LOG | TX_ACK: 02 5e2f 05 3834383419003400 |
| 0:03:49.575620 | LOG | PULL_DATA: 02 5def 02 3834383419003400 |
| 0:03:49.578619 | LOG | PULL_ACK: 02 5def 04 |
| 0:03:52.047227 | LOG | PUSH_ACK: 02 2de0 01 |

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|---|---|---|
| 0:03:52.049226 | LOG | PUSH_DATA: Protocol version = 02, Token = 2de0, Identifier = 00, JSON = {'rxpk': [{'tmst': 682114196, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCALgHgahuuysqx+DU='}]} |
| 0:03:52.051224 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 012e, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: cab1f835) |
| 0:03:52.052224 | LOG | Server <---------- DUT |
| 0:03:52.054223 | LOG | Answer in payload: 020304 |
| 0:03:52.056222 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:03:52.064217 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:03:52.071213 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:03:52.081207 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:03:59.655940 | LOG | PULL_DATA: 02 781b 02 3834383419003400 |
| 0:03:59.660937 | LOG | PULL_ACK: 02 781b 04 |
| 0:04:02.018609 | LOG | PUSH_ACK: 02 2de1 01 |
| 0:04:02.021607 | LOG | PUSH_DATA: Protocol version = 02, Token = 2de1, Identifier = 00, JSON = {'rxpk': [{'tmst': 692112948, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCALwEB/ty2dGr8'}]} |
| 0:04:02.022607 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 012f, FOpts: ), FPort: 01, FRMPayload: 003f, MIC: b6746afc) |
| 0:04:02.023606 | LOG | Server <---------- DUT |
| 0:04:02.026604 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0159, FOpts: ), FPort: e0, FRMPayload: 08121314), MIC: 9711ab9f) |
| 0:04:02.028603 | LOG | Frame command sent to the DUT |
| 0:04:02.029602 | LOG | PULL_RESP: Protocol version = 02, Token = 2e30, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 694112948, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAWQHgXBLjEZcRq58='}} |
| 0:04:02.031601 | LOG | Server ----------> DUT |
| 0:04:02.034599 | LOG | TX_ACK: 02 2e30 05 3834383419003400 |
| 0:04:07.063766 | LOG | PUSH_ACK: 02 2de2 01 |
| 0:04:07.065766 | LOG | PUSH_DATA: Protocol version = 02, Token = 2de2, Identifier = 00, JSON = {'rxpk': [{'tmst': 697124385, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCAMAHgQxmxZpKLtjg='}]} |
| 0:04:07.067765 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0130, FOpts: ), FPort: e0, FRMPayload: 08131415, MIC: 928bb638) |
| 0:04:07.068781 | LOG | Server <---------- DUT |
| 0:04:07.070764 | LOG | Answer in payload: 131415 |
| 0:04:07.072761 | LOG | Frame Command Payload in the Answer: 08131415 |
| 0:04:07.078757 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:04:07.083756 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:04:07.088752 | LOG | End Test Step: Verify that the DUT ignores wrong parameters |
| 0:04:07.092752 | LOG | Partial Verdict: PASS |
| 0:04:07.096748 | LOG | ========== |
| 0:04:07.101745 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_008 |
| 0:04:07.103744 | LOG | Final Verdict: PASS |

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|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_009 |
| **Verdict** | PASS |
| **Date** | 2021-10-09 20:03:32 |
| **Comments** | RXTimingSetupReq MAC command |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 |

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|---|---|---|
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.020155 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_009 |
| 0:00:00.055135 | LOG | ========== |
| 0:00:00.057133 | LOG | Start Test Step: Device activation |
| 0:00:00.116101 | LOG | Activation process has finished successfully |
| 0:00:00.118101 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.121098 | LOG | DevAddr: 20202020 |
| 0:00:00.123097 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.126096 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.129094 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.133091 | LOG | End Test Step: Device activation |
| 0:00:00.137090 | LOG | Partial Verdict: PASS |
| 0:00:00.141088 | LOG | ========== |
| 0:00:00.146085 | LOG | ========== |
| 0:00:00.148084 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.161075 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.165073 | LOG | DUT Pre-condition activation completed |
| 0:00:00.168073 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.172068 | LOG | Partial Verdict: PASS |
| 0:00:00.176068 | LOG | ========== |
| 0:00:00.180065 | LOG | ========== |
| 0:00:00.182064 | LOG | Start Test Step: Modify RX1 and RX2 timing to X second delay |
| 0:00:00.193058 | LOG | Send RXTimingSetupReq process starts |
| 0:00:06.669427 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:09.501812 | LOG | PULL_DATA: 02 eeac 02 3834383419003400 |
| 0:00:09.502811 | LOG | PULL_ACK: 02 eeac 04 |
| 0:00:09.503811 | LOG | First PULL_DATA received |
| 0:00:11.684582 | LOG | PUSH_ACK: 02 2de7 01 |
| 0:00:11.687581 | LOG | PUSH_DATA: Protocol version = 02, Token = 2de7, Identifier = 00, JSON = {'rxpk': [{'tmst': 712124737, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAMgEBxlD9L33I'}]} |
| 0:00:11.689579 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0132, FOpts: ), FPort: 01, FRMPayload: 0040, MIC: fd2f7dc8) |
| 0:00:11.690579 | LOG | Server <---------- DUT |
| 0:00:11.693589 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 015a, FOpts: ), FPort: 00, FRMPayload: 0803), MIC: 1c6e8232) |
| 0:00:11.695578 | LOG | PULL_RESP: Protocol version = 02, Token = 1aff, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 714124737, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAWgEAMs8cboIy'}} |
| 0:00:11.696595 | LOG | Server ----------> DUT |
| 0:00:11.699574 | LOG | TX_ACK: 02 1aff 05 3834383419003400 |
| 0:00:16.648798 | LOG | PUSH_ACK: 02 2de8 01 |
| 0:00:16.651796 | LOG | PUSH_DATA: Protocol version = 02, Token = 2de8, Identifier = 00, JSON = {'rxpk': [{'tmst': 717132834, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 16, 'data': 'QCAgICCBMwEIAeoMicm5Yw=='}]} |

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|---|---|---|
| 0:00:16.652794 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0133, FOpts: 08), FPort: 01, FRMPayload: 0040, MIC: 89c9b963) |
| 0:00:16.653794 | LOG | Server <---------- DUT |
| 0:00:16.655793 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:16.656792 | LOG | Command Answer: 08 |
| 0:00:16.666788 | LOG | MAC command communication completed |
| 0:00:16.671784 | LOG | Expect a MAC answer retransmission |
| 0:00:19.671096 | LOG | PULL_DATA: 02 2fd2 02 3834383419003400 |
| 0:00:19.673094 | LOG | PULL_ACK: 02 2fd2 04 |
| 0:00:26.673149 | LOG | PUSH_ACK: 02 2de9 01 |
| 0:00:26.675149 | LOG | PUSH_DATA: Protocol version = 02, Token = 2de9, Identifier = 00, JSON = {'rxpk': [{'tmst': 727138722, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 16, 'data': 'QCAgICCBNAEIAd4dTM5AyA=='}]} |
| 0:00:26.677148 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0134, FOpts: 08), FPort: 01, FRMPayload: 0040, MIC: 4cce40c8) |
| 0:00:26.678147 | LOG | Server <---------- DUT |
| 0:00:26.679147 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:26.685142 | LOG | MAC answer retransmission completed |
| 0:00:26.690139 | LOG | Expect a MAC answer retransmission |
| 0:00:29.751415 | LOG | PULL_DATA: 02 8add 02 3834383419003400 |
| 0:00:29.755412 | LOG | PULL_ACK: 02 8add 04 |
| 0:00:36.698502 | LOG | PUSH_ACK: 02 2dea 01 |
| 0:00:36.702500 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dea, Identifier = 00, JSON = {'rxpk': [{'tmst': 737145954, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 16, 'data': 'QCAgICCBNQEIAUxRHtGhHw=='}]} |
| 0:00:36.706498 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0135, FOpts: 08), FPort: 01, FRMPayload: 0040, MIC: 1ed1a11f) |
| 0:00:36.710495 | LOG | Server <---------- DUT |
| 0:00:36.714493 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:36.720488 | LOG | MAC answer retransmission completed |
| 0:00:36.724486 | LOG | Expect a MAC answer retransmission |
| 0:00:39.841730 | LOG | PULL_DATA: 02 bccf 02 3834383419003400 |
| 0:00:39.843729 | LOG | PULL_ACK: 02 bccf 04 |
| 0:00:46.685874 | LOG | PUSH_ACK: 02 2dec 01 |
| 0:00:46.687873 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dec, Identifier = 00, JSON = {'rxpk': [{'tmst': 747151842, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 16, 'data': 'QCAgICCBNgEIAUXZRt2P6A=='}]} |
| 0:00:46.688872 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0136, FOpts: 08), FPort: 01, FRMPayload: 0040, MIC: 46dd8fe8) |
| 0:00:46.690872 | LOG | Server <---------- DUT |
| 0:00:46.691870 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:46.696868 | LOG | MAC answer retransmission completed |
| 0:00:46.701865 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:49.921475 | LOG | PULL_DATA: 02 22b9 02 3834383419003400 |
| 0:00:49.923476 | LOG | PULL_ACK: 02 22b9 04 |
| 0:00:56.707652 | LOG | PUSH_ACK: 02 2ded 01 |
| 0:00:56.710650 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ded, Identifier = 00, JSON = {'rxpk': [{'tmst': 757157714, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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|---|---|---|
| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 16, 'data': 'QCAgICCBNwEIAaQW9B2g9Q=='}]} |
| 0:00:56.711651 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0137, FOpts: 08), FPort: 01, FRMPayload: 0040, MIC: f41da0f5) |
| 0:00:56.713621 | LOG | Server <---------- DUT |
| 0:00:56.715648 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 015b, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 263a7872) |
| 0:00:56.718618 | LOG | Frame command sent to the DUT |
| 0:00:56.720645 | LOG | PULL_RESP: Protocol version = 02, Token = 1f47, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 760157714, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAWwHgUACLFyY6eHI='}} |
| 0:00:56.722643 | LOG | Server ----------> DUT |
| 0:00:56.726613 | LOG | TX_ACK: 02 1f47 05 3834383419003400 |
| 0:01:00.080752 | LOG | PULL_DATA: 02 2794 02 3834383419003400 |
| 0:01:00.085721 | LOG | PULL_ACK: 02 2794 04 |
| 0:01:06.710987 | LOG | PUSH_ACK: 02 2dee 01 |
| 0:01:06.712985 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dee, Identifier = 00, JSON = {'rxpk': [{'tmst': 767168316, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCAOAHgAx8m8ADDyd8='}]} |
| 0:01:06.713985 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0138, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: 00c3c9df) |
| 0:01:06.715001 | LOG | Server <---------- DUT |
| 0:01:06.716002 | LOG | Answer in payload: 020304 |
| 0:01:06.716983 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:01:06.720980 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:06.724979 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:06.730974 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:10.161042 | LOG | PULL_DATA: 02 39bb 02 3834383419003400 |
| 0:01:10.164040 | LOG | PULL_ACK: 02 39bb 04 |
| 0:01:16.695359 | LOG | PUSH_ACK: 02 2df0 01 |
| 0:01:16.697359 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df0, Identifier = 00, JSON = {'rxpk': [{'tmst': 777165692, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAOQEBweeY7FNX'}]} |
| 0:01:16.698358 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0139, FOpts: ), FPort: 01, FRMPayload: 0041, MIC: 98ec5357) |
| 0:01:16.699358 | LOG | Server <---------- DUT |
| 0:01:16.701357 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 015c, FOpts: ), FPort: e0, FRMPayload: 08121314), MIC: 62572e3f) |
| 0:01:16.703359 | LOG | Frame command sent to the DUT |
| 0:01:16.704357 | LOG | PULL_RESP: Protocol version = 02, Token = cea7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 781165692, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAXAHgK754+mJXLj8='}} |
| 0:01:16.705372 | LOG | Server ----------> DUT |
| 0:01:16.708390 | LOG | TX_ACK: 02 cea7 05 3834383419003400 |
| 0:01:20.270814 | LOG | PULL_DATA: 02 00e0 02 3834383419003400 |
| 0:01:20.272813 | LOG | PULL_ACK: 02 00e0 04 |
| 0:01:26.722180 | LOG | PUSH_ACK: 02 2df1 01 |
| 0:01:26.724180 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df1, Identifier = 00, JSON = {'rxpk': [{'tmst': 787182821, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCAOgHgdNj3nmQ9WhY='}]} |

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|---|---|---|
| 0:01:26.726177 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 013a, FOpts: ), FPort: e0, FRMPayload: 08131415, MIC: 643d5a16) |
| 0:01:26.762158 | LOG | Server <---------- DUT |
| 0:01:26.763156 | LOG | Answer in payload: 131415 |
| 0:01:26.765155 | LOG | Frame Command Payload in the Answer: 08131415 |
| 0:01:26.770152 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:26.775150 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:26.778150 | LOG | End Test Step: Modify RX1 and RX2 timing to X second delay |
| 0:01:26.783146 | LOG | Partial Verdict: PASS |
| 0:01:26.788142 | LOG | ========== |
| 0:01:26.794139 | LOG | ========== |
| 0:01:26.796138 | LOG | Start Test Step: Modify RX1 and RX2 timing to 2 second delay |
| 0:01:26.809130 | LOG | Send RXTimingSetupReq process starts |
| 0:01:30.351135 | LOG | PULL_DATA: 02 244f 02 3834383419003400 |
| 0:01:30.355132 | LOG | PULL_ACK: 02 244f 04 |
| 0:01:36.745532 | LOG | PUSH_ACK: 02 2df2 01 |
| 0:01:36.747531 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df2, Identifier = 00, JSON = {'rxpk': [{'tmst': 797180197, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAOwEBuj/7wuJ7'}]} |
| 0:01:36.749530 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 013b, FOpts: ), FPort: 01, FRMPayload: 0042, MIC: fbc2e27b) |
| 0:01:36.750530 | LOG | Server <---------- DUT |
| 0:01:36.752528 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 015d, FOpts: ), FPort: 00, FRMPayload: 0802), MIC: 5b79c0c2) |
| 0:01:36.755527 | LOG | PULL_RESP: Protocol version = 02, Token = 8346, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 801180197, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAXQEAV+NbecDC'}} |
| 0:01:36.758528 | LOG | Server ----------> DUT |
| 0:01:36.762523 | LOG | TX_ACK: 02 8346 05 3834383419003400 |
| 0:01:40.541393 | LOG | PULL_DATA: 02 3989 02 3834383419003400 |
| 0:01:40.543392 | LOG | PULL_ACK: 02 3989 04 |
| 0:01:46.735903 | LOG | PUSH_ACK: 02 2df4 01 |
| 0:01:46.736903 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df4, Identifier = 00, JSON = {'rxpk': [{'tmst': 807191229, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 16, 'data': 'QCAgICCBPAEIAfGHa/eK4w=='}]} |
| 0:01:46.738904 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 013c, FOpts: 08), FPort: 01, FRMPayload: 0042, MIC: 6bf78ae3) |
| 0:01:46.739903 | LOG | Server <---------- DUT |
| 0:01:46.741900 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:46.742900 | LOG | Command Answer: 08 |
| 0:01:46.754893 | LOG | MAC command communication completed |
| 0:01:46.760889 | LOG | Expect a MAC answer retransmission |
| 0:01:50.621716 | LOG | PULL_DATA: 02 c7c1 02 3834383419003400 |
| 0:01:50.622714 | LOG | PULL_ACK: 02 c7c1 04 |
| 0:01:56.758257 | LOG | PUSH_ACK: 02 2df5 01 |
| 0:01:56.760256 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df5, Identifier = 00, JSON = {'rxpk': [{'tmst': 817197117, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 16, 'data': 'QCAgICCBPQEIAcbwKei3tA=='}]} |
| 0:01:56.761255 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 013d, FOpts: 08), FPort: 01, FRMPayload: 0042, MIC: 29e8b7b4) |
| 0:01:56.762255 | LOG | Server <---------- DUT |

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| 0:01:56.764254 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:56.768253 | LOG | MAC answer retransmission completed |
| 0:01:56.771250 | LOG | Expect a MAC answer retransmission |
| 0:02:00.701035 | LOG | PULL_DATA: 02 167e 02 3834383419003400 |
| 0:02:00.705035 | LOG | PULL_ACK: 02 167e 04 |
| 0:02:06.729640 | LOG | PUSH_ACK: 02 2df6 01 |
| 0:02:06.732637 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df6, Identifier = 00, JSON = {'rxpk': [{'tmst': 827202885, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 16, 'data': 'QCAgICCBPgEIAe0eIwjaeQ=='}]} |
| 0:02:06.733637 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 013e, FOpts: 08), FPort: 01, FRMPayload: 0042, MIC: 2308da79) |
| 0:02:06.734638 | LOG | Server <---------- DUT |
| 0:02:06.735637 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:06.742631 | LOG | MAC answer retransmission completed |
| 0:02:06.747629 | LOG | Expect a MAC answer retransmission |
| 0:02:10.781356 | LOG | PULL_DATA: 02 3173 02 3834383419003400 |
| 0:02:10.783355 | LOG | PULL_ACK: 02 3173 04 |
| 0:02:16.766985 | LOG | PUSH_ACK: 02 2df8 01 |
| 0:02:16.768983 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df8, Identifier = 00, JSON = {'rxpk': [{'tmst': 837208789, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 16, 'data': 'QCAgICCBPwEIAdmTehvmRA=='}]} |
| 0:02:16.769982 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 013f, FOpts: 08), FPort: 01, FRMPayload: 0042, MIC: 7a1be644) |
| 0:02:16.771981 | LOG | Server <---------- DUT |
| 0:02:16.773980 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:16.778977 | LOG | MAC answer retransmission completed |
| 0:02:16.784974 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:02:20.861678 | LOG | PULL_DATA: 02 6daa 02 3834383419003400 |
| 0:02:20.862676 | LOG | PULL_ACK: 02 6daa 04 |
| 0:02:26.739365 | LOG | PUSH_ACK: 02 2df9 01 |
| 0:02:26.741364 | LOG | PUSH_DATA: Protocol version = 02, Token = 2df9, Identifier = 00, JSON = {'rxpk': [{'tmst': 847214693, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 16, 'data': 'QCAgICCBQAEIAdIYMTkV8g=='}]} |
| 0:02:26.743363 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0140, FOpts: 08), FPort: 01, FRMPayload: 0042, MIC: 313915f2) |
| 0:02:26.744363 | LOG | Server <---------- DUT |
| 0:02:26.746361 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 015e, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: f4965ba2) |
| 0:02:26.748360 | LOG | Frame command sent to the DUT |
| 0:02:26.750359 | LOG | PULL_RESP: Protocol version = 02, Token = 4c1d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 849214693, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAXgHgEC6ZmvSWW6I='}} |
| 0:02:26.752358 | LOG | Server ----------> DUT |
| 0:02:26.755356 | LOG | TX_ACK: 02 4c1d 05 3834383419003400 |
| 0:02:30.950992 | LOG | PULL_DATA: 02 8ee9 02 3834383419003400 |
| 0:02:30.955990 | LOG | PULL_ACK: 02 8ee9 04 |
| 0:02:36.744729 | LOG | PUSH_ACK: 02 2dfa 01 |
| 0:02:36.746729 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dfa, Identifier = 00, JSON = {'rxpk': [{'tmst': 857223971, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 17, 'data': 'QCAgICCAQQHgTg/kYYWBABE='}]} |
| 0:02:36.747728 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0141, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: 85810011) |
| 0:02:36.749725 | LOG | Server <---------- DUT |
| 0:02:36.751724 | LOG | Answer in payload: 020304 |
| 0:02:36.752726 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:02:36.758720 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:02:36.763718 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:02:36.769715 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:02:41.031313 | LOG | PULL_DATA: 02 de7c 02 3834383419003400 |
| 0:02:41.033312 | LOG | PULL_ACK: 02 de7c 04 |
| 0:02:46.779074 | LOG | PUSH_ACK: 02 2dfc 01 |
| 0:02:46.781073 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dfc, Identifier = 00, JSON = {'rxpk': [{'tmst': 867221355, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAQgEBBJevvpVs'}]} |
| 0:02:46.783073 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0142, FOpts: ), FPort: 01, FRMPayload: 0043, MIC: afbe956c) |
| 0:02:46.784072 | LOG | Server <---------- DUT |
| 0:02:46.785071 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 015f, FOpts: ), FPort: e0, FRMPayload: 08121314), MIC: 1d6b5178) |
| 0:02:46.787070 | LOG | Frame command sent to the DUT |
| 0:02:46.789069 | LOG | PULL_RESP: Protocol version = 02, Token = 57b8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 870221355, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAXwHgSVxqkh1rUXg='}} |
| 0:02:46.790069 | LOG | Server ----------> DUT |
| 0:02:46.793067 | LOG | TX_ACK: 02 57b8 05 3834383419003400 |
| 0:02:51.201586 | LOG | PULL_DATA: 02 950e 02 3834383419003400 |
| 0:02:51.202585 | LOG | PULL_ACK: 02 950e 04 |
| 0:02:51.771263 | LOG | PUSH_ACK: 02 2dfd 01 |
| 0:02:51.773260 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dfd, Identifier = 00, JSON = {'rxpk': [{'tmst': 872232795, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCAQwHgvoWdqikDTjs='}]} |
| 0:02:51.775259 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0143, FOpts: ), FPort: e0, FRMPayload: 08131415, MIC: 29034e3b) |
| 0:02:51.776258 | LOG | Server <---------- DUT |
| 0:02:51.778257 | LOG | Answer in payload: 131415 |
| 0:02:51.779257 | LOG | Frame Command Payload in the Answer: 08131415 |
| 0:02:51.784254 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:02:51.787252 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:02:51.790251 | LOG | End Test Step: Modify RX1 and RX2 timing to 2 second delay |
| 0:02:51.793249 | LOG | Partial Verdict: PASS |
| 0:02:51.797249 | LOG | ========== |
| 0:02:51.801246 | LOG | ========== |
| 0:02:51.803243 | LOG | Start Test Step: Modify RX1 and RX2 timing to 15 second delay |
| 0:02:51.819235 | LOG | Send RXTimingSetupReq process starts |
| 0:03:01.280902 | LOG | PULL_DATA: 02 4f1f 02 3834383419003400 |
| 0:03:01.284898 | LOG | PULL_ACK: 02 4f1f 04 |
| 0:03:01.793611 | LOG | PUSH_ACK: 02 2dfe 01 |
| 0:03:01.795610 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dfe, Identifier = 00, JSON = {'rxpk': [{'tmst': 882231555, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCARAEBHYjv7MFF'}]} |

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| 0:03:01.797609 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0144, FOpts: ), FPort: 01, FRMPayload: 0044, MIC: efecc145) |
| 0:03:01.798609 | LOG | Server <---------- DUT |
| 0:03:01.799608 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0160, FOpts: ), FPort: 00, FRMPayload: 080f), MIC: 11bfadb0) |
| 0:03:01.802607 | LOG | PULL_RESP: Protocol version = 02, Token = 814b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 885231555, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAYAEA1xERv62w'}} |
| 0:03:01.803606 | LOG | Server ----------> DUT |
| 0:03:01.806605 | LOG | TX_ACK: 02 814b 05 3834383419003400 |
| 0:03:06.779885 | LOG | PUSH_ACK: 02 2dff 01 |
| 0:03:06.782885 | LOG | PUSH_DATA: Protocol version = 02, Token = 2dff, Identifier = 00, JSON = {'rxpk': [{'tmst': 887239645, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 16, 'data': 'QCAgICCBRQEIAXaIcrl4Cw=='}]} |
| 0:03:06.783883 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0145, FOpts: 08), FPort: 01, FRMPayload: 0044, MIC: 72b9780b) |
| 0:03:06.785882 | LOG | Server <---------- DUT |
| 0:03:06.786881 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:06.788880 | LOG | Command Answer: 08 |
| 0:03:06.800892 | LOG | MAC command communication completed |
| 0:03:06.803872 | LOG | Expect a MAC answer retransmission |
| 0:03:11.461246 | LOG | PULL_DATA: 02 eb0b 02 3834383419003400 |
| 0:03:11.463245 | LOG | PULL_ACK: 02 eb0b 04 |
| 0:03:21.540565 | LOG | PULL_DATA: 02 ef0d 02 3834383419003400 |
| 0:03:21.542563 | LOG | PULL_ACK: 02 ef0d 04 |
| 0:03:26.786608 | LOG | PUSH_ACK: 02 2e01 01 |
| 0:03:26.788606 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e01, Identifier = 00, JSON = {'rxpk': [{'tmst': 907253405, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 16, 'data': 'QCAgICCBRgEIARn/dTtmhA=='}]} |
| 0:03:26.790605 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0146, FOpts: 08), FPort: 01, FRMPayload: 0044, MIC: 753b6684) |
| 0:03:26.792606 | LOG | Server <---------- DUT |
| 0:03:26.794603 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:26.798600 | LOG | MAC answer retransmission completed |
| 0:03:26.801599 | LOG | Expect a MAC answer retransmission |
| 0:03:31.620882 | LOG | PULL_DATA: 02 c516 02 3834383419003400 |
| 0:03:31.625879 | LOG | PULL_ACK: 02 c516 04 |
| 0:03:41.701199 | LOG | PULL_DATA: 02 a1fe 02 3834383419003400 |
| 0:03:41.703198 | LOG | PULL_ACK: 02 a1fe 04 |
| 0:03:46.789350 | LOG | PUSH_ACK: 02 2e04 01 |
| 0:03:46.791330 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e04, Identifier = 00, JSON = {'rxpk': [{'tmst': 927267213, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 16, 'data': 'QCAgICCBRwEIAfE7pZxVKg=='}]} |
| 0:03:46.792331 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0147, FOpts: 08), FPort: 01, FRMPayload: 0044, MIC: a59c552a) |
| 0:03:46.793331 | LOG | Server <---------- DUT |
| 0:03:46.795330 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:46.798326 | LOG | MAC answer retransmission completed |
| 0:03:46.801326 | LOG | Expect a MAC answer retransmission |

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| 0:03:51.781518 | LOG | PULL_DATA: 02 d2a1 02 3834383419003400 |
| 0:03:51.782517 | LOG | PULL_ACK: 02 d2a1 04 |
| 0:04:01.860836 | LOG | PULL_DATA: 02 def6 02 3834383419003400 |
| 0:04:01.865833 | LOG | PULL_ACK: 02 def6 04 |
| 0:04:06.831033 | LOG | PUSH_ACK: 02 2e05 01 |
| 0:04:06.833032 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e05, Identifier = 00, JSON = {'rxpk': [{'tmst': 947279661, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 16, 'data': 'QCAgICCBSAEIAbX24Gxg5g=='}]} |
| 0:04:06.835033 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0148, FOpts: 08), FPort: 01, FRMPayload: 0044, MIC: e06c60e6) |
| 0:04:06.836031 | LOG | Server <---------- DUT |
| 0:04:06.837030 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:06.841030 | LOG | MAC answer retransmission completed |
| 0:04:06.850023 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:04:11.941152 | LOG | PULL_DATA: 02 f118 02 3834383419003400 |
| 0:04:11.943152 | LOG | PULL_ACK: 02 f118 04 |
| 0:04:22.020471 | LOG | PULL_DATA: 02 7fb8 02 3834383419003400 |
| 0:04:22.022491 | LOG | PULL_ACK: 02 7fb8 04 |
| 0:04:26.836756 | LOG | PUSH_ACK: 02 2e07 01 |
| 0:04:26.838755 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e07, Identifier = 00, JSON = {'rxpk': [{'tmst': 967292125, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 16, 'data': 'QCAgICCBSQEIAQja6koIZA=='}]} |
| 0:04:26.840754 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0149, FOpts: 08), FPort: 01, FRMPayload: 0044, MIC: ea4a0864) |
| 0:04:26.841754 | LOG | Server <---------- DUT |
| 0:04:26.843753 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0161, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 7e54406a) |
| 0:04:26.846752 | LOG | Frame command sent to the DUT |
| 0:04:26.848749 | LOG | PULL_RESP: Protocol version = 02, Token = 7abf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 982292125, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAYQHghs77UH5UQGo='}} |
| 0:04:26.850748 | LOG | Server ----------> DUT |
| 0:04:26.853746 | LOG | TX_ACK: 02 7abf 05 3834383419003400 |
| 0:04:32.100789 | LOG | PULL_DATA: 02 d995 02 3834383419003400 |
| 0:04:32.104786 | LOG | PULL_ACK: 02 d995 04 |
| 0:04:42.181106 | LOG | PULL_DATA: 02 360a 02 3834383419003400 |
| 0:04:42.183105 | LOG | PULL_ACK: 02 360a 04 |
| 0:04:46.842478 | LOG | PUSH_ACK: 02 2e09 01 |
| 0:04:46.844479 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e09, Identifier = 00, JSON = {'rxpk': [{'tmst': 987307951, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 17, 'data': 'QCAgICCASgHgzfkMlNJeUxg='}]} |
| 0:04:46.846477 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 014a, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: d25e5318) |
| 0:04:46.847476 | LOG | Server <---------- DUT |
| 0:04:46.849475 | LOG | Answer in payload: 020304 |
| 0:04:46.851473 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:04:46.854472 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:04:46.858470 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:04:46.866465 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:04:52.261424 | LOG | PULL_DATA: 02 08a4 02 3834383419003400 |
| 0:04:52.262423 | LOG | PULL_ACK: 02 08a4 04 |

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| 0:05:02.340743 | LOG | PULL_DATA: 02 b496 02 3834383419003400 |
| 0:05:02.345740 | LOG | PULL_ACK: 02 b496 04 |
| 0:05:06.832210 | LOG | PUSH_ACK: 02 2e0a 01 |
| 0:05:06.835211 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e0a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1007312663, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCASwEBAH6ohhK0'}]} |
| 0:05:06.836210 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 014b, FOpts: ), FPort: 01, FRMPayload: 0045, MIC: a88612b4) |
| 0:05:06.838207 | LOG | Server <---------- DUT |
| 0:05:06.840207 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0162, FOpts: ), FPort: e0, FRMPayload: 08121314), MIC: eb341070) |
| 0:05:06.842207 | LOG | Frame command sent to the DUT |
| 0:05:06.843206 | LOG | PULL_RESP: Protocol version = 02, Token = 6382, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1023312663, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAYgHgtTwm4es0EHA='}} |
| 0:05:06.844204 | LOG | Server ----------> DUT |
| 0:05:06.847202 | LOG | TX_ACK: 02 6382 05 3834383419003400 |
| 0:05:12.511009 | LOG | PULL_DATA: 02 8d93 02 3834383419003400 |
| 0:05:12.513008 | LOG | PULL_ACK: 02 8d93 04 |
| 0:05:22.601321 | LOG | PULL_DATA: 02 1222 02 3834383419003400 |
| 0:05:22.602320 | LOG | PULL_ACK: 02 1222 04 |
| 0:05:26.864918 | LOG | PUSH_ACK: 02 2e0c 01 |
| 0:05:26.866916 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e0c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1027333010, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCATAHgkwGpiUEMSRM='}]} |
| 0:05:26.868916 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 014c, FOpts: ), FPort: e0, FRMPayload: 08131415, MIC: 410c4913) |
| 0:05:26.869915 | LOG | Server <---------- DUT |
| 0:05:26.871914 | LOG | Answer in payload: 131415 |
| 0:05:26.873913 | LOG | Frame Command Payload in the Answer: 08131415 |
| 0:05:26.879909 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:05:26.884907 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:05:26.887905 | LOG | End Test Step: Modify RX1 and RX2 timing to 15 second delay |
| 0:05:26.891903 | LOG | Partial Verdict: PASS |
| 0:05:26.894901 | LOG | ========== |
| 0:05:26.901897 | LOG | ========== |
| 0:05:26.904896 | LOG | Start Test Step: Restore default settings |
| 0:05:26.915888 | LOG | Send RXTimingSetupReq process starts |
| 0:05:32.680639 | LOG | PULL_DATA: 02 a161 02 3834383419003400 |
| 0:05:32.684637 | LOG | PULL_ACK: 02 a161 04 |
| 0:05:42.760975 | LOG | PULL_DATA: 02 428c 02 3834383419003400 |
| 0:05:42.761956 | LOG | PULL_ACK: 02 428c 04 |
| 0:05:46.869641 | LOG | PUSH_ACK: 02 2e0e 01 |
| 0:05:46.871641 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e0e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1047336354, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCATQEBjZfdrG+u'}]} |
| 0:05:46.872639 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 014d, FOpts: ), FPort: 01, FRMPayload: 0046, MIC: ddac6fae) |
| 0:05:46.874639 | LOG | Server <---------- DUT |
| 0:05:46.875638 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0163, FOpts: ), FPort: 00, FRMPayload: 0800), MIC: c5639ff3) |

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| 0:05:46.877655 | LOG | PULL_RESP: Protocol version = 02, Token = b681, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1063336354, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAYwEAcrPFY5/z'}} |
| 0:05:46.878654 | LOG | Server ----------> DUT |
| 0:05:46.881634 | LOG | TX_ACK: 02 b681 05 3834383419003400 |
| 0:05:52.970548 | LOG | PULL_DATA: 02 6d31 02 3834383419003400 |
| 0:05:52.972547 | LOG | PULL_ACK: 02 6d31 04 |
| 0:06:03.050884 | LOG | PULL_DATA: 02 9932 02 3834383419003400 |
| 0:06:03.053866 | LOG | PULL_ACK: 02 9932 04 |
| 0:06:06.888702 | LOG | PUSH_ACK: 02 2e0f 01 |
| 0:06:06.891701 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e0f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1067353364, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 16, 'data': 'QCAgICCBTgEIAd69B/g0Vw=='}]} |
| 0:06:06.892702 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 014e, FOpts: 08), FPort: 01, FRMPayload: 0046, MIC: 07f83457) |
| 0:06:06.894701 | LOG | Server <---------- DUT |
| 0:06:06.896698 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:06.897698 | LOG | Command Answer: 08 |
| 0:06:06.909693 | LOG | MAC command communication completed |
| 0:06:06.916687 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:06:13.131183 | LOG | PULL_DATA: 02 473b 02 3834383419003400 |
| 0:06:13.133183 | LOG | PULL_ACK: 02 473b 04 |
| 0:06:16.921047 | LOG | PUSH_ACK: 02 2e11 01 |
| 0:06:16.923046 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e11, Identifier = 00, JSON = {'rxpk': [{'tmst': 1077359260, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 16, 'data': 'QCAgICCBTwEIATSOsI7HVA=='}]} |
| 0:06:16.924045 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 014f, FOpts: 08), FPort: 01, FRMPayload: 0046, MIC: b08ec754) |
| 0:06:16.925045 | LOG | Server <---------- DUT |
| 0:06:16.928043 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0164, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 2bb4fa4d) |
| 0:06:16.931042 | LOG | Frame command sent to the DUT |
| 0:06:16.933041 | LOG | PULL_RESP: Protocol version = 02, Token = 3a1d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1078359260, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAZAHgmPA/5yu0+k0='}} |
| 0:06:16.935040 | LOG | Server ----------> DUT |
| 0:06:16.939037 | LOG | TX_ACK: 02 3a1d 05 3834383419003400 |
| 0:06:23.230491 | LOG | PULL_DATA: 02 3019 02 3834383419003400 |
| 0:06:23.232490 | LOG | PULL_ACK: 02 3019 04 |
| 0:06:26.917412 | LOG | PUSH_ACK: 02 2e12 01 |
| 0:06:26.920410 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e12, Identifier = 00, JSON = {'rxpk': [{'tmst': 1087368550, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCAUAHgEPw0bVi2qCk='}]} |
| 0:06:26.922410 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0150, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: 58b6a829) |
| 0:06:26.923409 | LOG | Server <---------- DUT |
| 0:06:26.924409 | LOG | Answer in payload: 020304 |
| 0:06:26.926408 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:06:26.932404 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:06:26.939401 | LOG | Send Test Command EchoPayloadReq process completed |

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|---|---|---|
| 0:06:26.945396 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:06:33.310810 | LOG | PULL_DATA: 02 dc0f 02 3834383419003400 |
| 0:06:33.315805 | LOG | PULL_ACK: 02 dc0f 04 |
| 0:06:36.888791 | LOG | PUSH_ACK: 02 2e13 01 |
| 0:06:36.891790 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e13, Identifier = 00, JSON = {'rxpk': [{'tmst': 1097365934, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAUQEB5CG8wRlQ'}]} |
| 0:06:36.892789 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0151, FOpts: ), FPort: 01, FRMPayload: 0047, MIC: bcc11950) |
| 0:06:36.893789 | LOG | Server <---------- DUT |
| 0:06:36.895787 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0165, FOpts: ), FPort: e0, FRMPayload: 08121314), MIC: 2830875f) |
| 0:06:36.897786 | LOG | Frame command sent to the DUT |
| 0:06:36.898786 | LOG | PULL_RESP: Protocol version = 02, Token = 2ffb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1099365934, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAZQHg0saFAygwh18='}} |
| 0:06:36.900784 | LOG | Server ----------> DUT |
| 0:06:36.904782 | LOG | TX_ACK: 02 2ffb 05 3834383419003400 |
| 0:06:41.910237 | LOG | PUSH_ACK: 02 2e15 01 |
| 0:06:41.912236 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e15, Identifier = 00, JSON = {'rxpk': [{'tmst': 1102377385, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCAUgHgKqj2vaRdzuQ='}]} |
| 0:06:41.913236 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0152, FOpts: ), FPort: e0, FRMPayload: 08131415, MIC: a45dcee4) |
| 0:06:41.915233 | LOG | Server <---------- DUT |
| 0:06:41.917234 | LOG | Answer in payload: 131415 |
| 0:06:41.918233 | LOG | Frame Command Payload in the Answer: 08131415 |
| 0:06:41.923230 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:06:41.928227 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:06:41.932224 | LOG | End Test Step: Restore default settings |
| 0:06:41.937222 | LOG | Partial Verdict: PASS |
| 0:06:41.942190 | LOG | ========== |
| 0:06:41.948185 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_009 |
| 0:06:41.950183 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_010 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 20:10:17 | |
| **Comments** | TxParamSetupReq MAC Command | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.028436 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_010 |
| 0:00:00.063415 | LOG | ========== |
| 0:00:00.066413 | LOG | Start Test Step: Device activation |

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|---|---|---|
| 0:00:00.124381 | LOG | Activation process has finished successfully |
| 0:00:00.126379 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.129380 | LOG | DevAddr: 20202020 |
| 0:00:00.132376 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.136374 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.139374 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.142372 | LOG | End Test Step: Device activation |
| 0:00:00.145387 | LOG | Partial Verdict: PASS |
| 0:00:00.149368 | LOG | ========== |
| 0:00:00.154366 | LOG | ========== |
| 0:00:00.157365 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.167357 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.171354 | LOG | DUT Pre-condition activation completed |
| 0:00:00.175354 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.180367 | LOG | Partial Verdict: PASS |
| 0:00:00.184347 | LOG | ========== |
| 0:00:00.190345 | LOG | ========== |
| 0:00:00.192344 | LOG | Start Test Step: TxParamSetupReq Mac command |
| 0:00:00.204337 | LOG | Send TxParamSetupReq process starts |
| 0:00:06.921552 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:08.474674 | LOG | PULL_DATA: 02 278e 02 3834383419003400 |
| 0:00:08.476702 | LOG | PULL_ACK: 02 278e 04 |
| 0:00:08.478702 | LOG | First PULL_DATA received |
| 0:00:11.918762 | LOG | PUSH_ACK: 02 2e18 01 |
| 0:00:11.921761 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e18, Identifier = 00, JSON = {'rxpk': [{'tmst': 1117377769, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAVAEBNZIYeQat'}]} |
| 0:00:11.922761 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0154, FOpts: ), FPort: 01, FRMPayload: 0048, MIC: 187906ad) |
| 0:00:11.924761 | LOG | Server <---------- DUT |
| 0:00:11.926757 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0166, FOpts: ), FPort: 00, FRMPayload: 0905), MIC: aa1874a4) |
| 0:00:11.928756 | LOG | PULL_RESP: Protocol version = 02, Token = e1a8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1119377769, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAZgEAEJSqGHSk'}} |
| 0:00:11.930757 | LOG | Server ----------> DUT |
| 0:00:11.933755 | LOG | TX_ACK: 02 e1a8 05 3834383419003400 |
| 0:00:16.886965 | LOG | PUSH_ACK: 02 2e19 01 |
| 0:00:16.888962 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e19, Identifier = 00, JSON = {'rxpk': [{'tmst': 1122382074, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVQEB3MEohNZV'}]} |
| 0:00:16.890960 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0155, FOpts: ), FPort: 01, FRMPayload: 0048, MIC: 2884d655) |
| 0:00:16.892958 | LOG | Server <---------- DUT |
| 0:00:16.893957 | LOG | MAC command not received because FPort field is not set to 0 and FOpts field is empty |
| 0:00:16.897956 | LOG | End Test Step: TxParamSetupReq Mac command |
| 0:00:16.901954 | LOG | Partial Verdict: PASS |
| 0:00:16.905951 | LOG | ========== |
| 0:00:16.909950 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_010 |
| 0:00:16.911949 | LOG | Final Verdict: PASS |

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|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_011 |
| **Verdict** | PASS |
| **Date** | 2021-10-09 20:10:37 |
| **Comments** | LinkCheckReq MAC Command |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 |
| **Project** | MLS_SDK_1_0_P_6_EU |
| **Project Creation Date** | 2021-10-05 00:16:03 |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 |
| **Parameters** | Conformance \| TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.015815 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_011 |
| 0:00:00.047797 | LOG | ========== |
| 0:00:00.050795 | LOG | Start Test Step: Device activation |
| 0:00:00.105764 | LOG | Activation process has finished successfully |
| 0:00:00.107763 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.110764 | LOG | DevAddr: 20202020 |
| 0:00:00.112762 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.115761 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.118759 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.122755 | LOG | End Test Step: Device activation |
| 0:00:00.125755 | LOG | Partial Verdict: PASS |
| 0:00:00.129769 | LOG | ========== |
| 0:00:00.135748 | LOG | ========== |
| 0:00:00.138746 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.149740 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.154737 | LOG | DUT Pre-condition activation completed |
| 0:00:00.159734 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.165731 | LOG | Partial Verdict: PASS |
| 0:00:00.169729 | LOG | ========== |
| 0:00:00.174725 | LOG | ========== |
| 0:00:00.177724 | LOG | Start Test Step: LinkCheckReq MAC command |
| 0:00:00.189717 | LOG | Send Test Command LinkCheckReq process starts |
| 0:00:02.097641 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:07.057845 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:08.892830 | LOG | PULL_DATA: 02 23bc 02 3834383419003400 |
| 0:00:08.894810 | LOG | PULL_ACK: 02 23bc 04 |
| 0:00:08.896808 | LOG | First PULL_DATA received |
| 0:00:12.107001 | LOG | PUSH_ACK: 02 2e1d 01 |
| 0:00:12.108998 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e1d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1137390946, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAWAEB/t2iyXfr'}]} |
| 0:00:12.110997 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0158, FOpts: ), FPort: 01, FRMPayload: 0048, MIC: a2c977eb) |
| 0:00:12.111998 | LOG | Server <---------- DUT |
| 0:00:12.113995 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0167, FOpts: ), FPort: e0, FRMPayload: 20), MIC: 6bfb3b97) |
| 0:00:12.116993 | LOG | Frame command sent to the DUT |
| 0:00:12.118992 | LOG | PULL_RESP: Protocol version = 02, Token = 07d6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1139390946, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAZwHg0Gv7O5c='}} |
| 0:00:12.120991 | LOG | Server ----------> DUT |
| 0:00:12.124989 | LOG | Send Test Command LinkCheckReq process completed |
| 0:00:12.127987 | LOG | Wait a MAC command from the DUT process starts |
| 0:00:17.068203 | LOG | PUSH_ACK: 02 2e1e 01 |
| 0:00:17.070203 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e1e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1142399035, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 16, 'data': 'QCAgICCBWQECARc62qeetA=='}]} |
| 0:00:17.072202 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0159, FOpts: 02), FPort: 01, FRMPayload: 0049, MIC: daa79eb4) |
| 0:00:17.073201 | LOG | Server <---------- DUT |
| 0:00:17.074201 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:17.076200 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0168, FOpts: ), FPort: 00, FRMPayload: 021101), MIC: c17d169a) |
| 0:00:17.079198 | LOG | PULL_RESP: Protocol version = 02, Token = 182a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1144399035, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 16, 'data': 'YCAgICAAaAEAsMLswX0Wmg=='}} |
| 0:00:17.080198 | LOG | Server ----------> DUT |
| 0:00:17.084193 | LOG | Wait a MAC command from the DUT process completed |
| 0:00:17.089190 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:18.973207 | LOG | PULL_DATA: 02 0a2b 02 3834383419003400 |
| 0:00:18.975206 | LOG | PULL_ACK: 02 0a2b 04 |
| 0:00:27.111621 | LOG | PUSH_ACK: 02 2e1f 01 |
| 0:00:27.113618 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e1f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1152399805, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAWgEBbBSI9dHl'}]} |
| 0:00:27.115617 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 015a, FOpts: ), FPort: 01, FRMPayload: 0049, MIC: 88f5d1e5) |
| 0:00:27.116617 | LOG | Server <---------- DUT |
| 0:00:27.118616 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0169, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: a33381ad) |
| 0:00:27.121614 | LOG | Frame command sent to the DUT |
| 0:00:27.124612 | LOG | PULL_RESP: Protocol version = 02, Token = 78d9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1154399805, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAaQHgGK1GeaMzga0='}} |
| 0:00:27.126611 | LOG | Server ----------> DUT |
| 0:00:27.130609 | LOG | TX_ACK: 02 78d9 05 3834383419003400 |
| 0:00:29.012548 | LOG | PULL_DATA: 02 60bf 02 3834383419003400 |
| 0:00:29.014547 | LOG | PULL_ACK: 02 60bf 04 |
| 0:00:32.127792 | LOG | PUSH_ACK: 02 2e20 01 |
| 0:00:32.131791 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e20, Identifier = 00, JSON = {'rxpk': [{'tmst': 1157412615, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 17, 'data': 'QCAgICCAWwHgq/+2bIn0dpk='}]} |
| 0:00:32.132789 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 015b, FOpts: ), FPort: e0, FRMPayload: 08020304, MIC: 89f47699) |
| 0:00:32.134788 | LOG | Server <---------- DUT |
| 0:00:32.136787 | LOG | Answer in payload: 020304 |
| 0:00:32.137786 | LOG | Frame Command Payload in the Answer: 08020304 |
| 0:00:32.143785 | LOG | Checking if the payload of the EchoPayloadAns is correct |

| | | |
|---|---|---|
| 0:00:32.147783 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:32.150779 | LOG | End Test Step: LinkCheckReq MAC command |
| 0:00:32.155776 | LOG | Partial Verdict: PASS |
| 0:00:32.161773 | LOG | ========== |
| 0:00:32.168769 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_011 |
| 0:00:32.171767 | LOG | Final Verdict: PASS |

| | | |
|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_012_A | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 20:11:12 | |
| **Comments** | LinkADRReq MAC command (Part 1) | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Addition of a single channel frequency | 867.700 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.011375 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_012_A |
| 0:00:00.045356 | LOG | ========== |
| 0:00:00.047356 | LOG | Start Test Step: Device activation |
| 0:00:00.112318 | LOG | Activation process has finished successfully |
| 0:00:00.114317 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.117315 | LOG | DevAddr: 20202020 |
| 0:00:00.119313 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.124311 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.127309 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.130308 | LOG | End Test Step: Device activation |
| 0:00:00.133306 | LOG | Partial Verdict: PASS |
| 0:00:00.136306 | LOG | ========== |
| 0:00:00.141305 | LOG | ========== |
| 0:00:00.144302 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.156292 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.160291 | LOG | DUT Pre-condition activation completed |
| 0:00:00.164288 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.168287 | LOG | Partial Verdict: PASS |
| 0:00:00.173284 | LOG | ========== |
| 0:00:00.180279 | LOG | ========== |
| 0:00:00.183279 | LOG | Start Test Step: Test TXPower |
| 0:00:00.197270 | LOG | Send LinkADRReq process starts |
| 0:00:03.831221 | LOG | PULL_DATA: 02 c1ed 02 3834383419003400 |
| 0:00:03.833221 | LOG | PULL_ACK: 02 c1ed 04 |
| 0:00:03.835219 | LOG | First PULL_DATA received |
| 0:00:06.845522 | LOG | PUSH_ACK: 02 2e22 01 |
| 0:00:06.848520 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e22, Identifier = 00, JSON = {'rxpk': [{'tmst': 1167410015, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAXAEBackMSJv1'}]} |
| 0:00:06.849520 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 015c, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 0c489bf5) |

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|---|---|---|
| 0:00:06.851519 | LOG | Server <---------- DUT |
| 0:00:06.852519 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 016a, FOpts: ), FPort: 00, FRMPayload: 0357070001), MIC: 051ad93c) |
| 0:00:06.855517 | LOG | PULL_RESP: Protocol version = 02, Token = 6613, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1169410015, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAagEAsUkHZZ0FGtk8'}} |
| 0:00:06.857515 | LOG | Server ----------> DUT |
| 0:00:06.861513 | LOG | TX_ACK: 02 6613 05 3834383419003400 |
| 0:00:11.834709 | LOG | PUSH_ACK: 02 2e23 01 |
| 0:00:11.837708 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e23, Identifier = 00, JSON = {'rxpk': [{'tmst': 1172418104, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -28, 'size': 17, 'data': 'QCAgICCCXQEDBwH9SYLtTMg='}]} |
| 0:00:11.838707 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 015d, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: 82ed4cc8) |
| 0:00:11.840706 | LOG | Server <---------- DUT |
| 0:00:11.842705 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:11.843704 | LOG | Command Answer: 0307 |
| 0:00:11.847702 | LOG | MAC command communication completed |
| 0:00:11.854698 | LOG | DUT set the minimum TXPower |
| 0:00:11.859695 | LOG | Calculate RSSI average process starts |
| 0:00:14.000487 | LOG | PULL_DATA: 02 52d4 02 3834383419003400 |
| 0:00:14.003486 | LOG | PULL_ACK: 02 52d4 04 |
| 0:00:21.858057 | LOG | PUSH_ACK: 02 2e24 01 |
| 0:00:21.860055 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e24, Identifier = 00, JSON = {'rxpk': [{'tmst': 1182418872, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -29, 'size': 15, 'data': 'QCAgICCAXgEBSQ/AIjkL'}]} |
| 0:00:21.861055 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 015e, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: c022390b) |
| 0:00:21.863054 | LOG | Server <---------- DUT |
| 0:00:24.080803 | LOG | PULL_DATA: 02 0ff3 02 3834383419003400 |
| 0:00:24.082803 | LOG | PULL_ACK: 02 0ff3 04 |
| 0:00:26.847243 | LOG | PUSH_ACK: 02 2e25 01 |
| 0:00:26.849244 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e25, Identifier = 00, JSON = {'rxpk': [{'tmst': 1187423192, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -29, 'size': 15, 'data': 'QCAgICCAXwEBZIozFroT'}]} |
| 0:00:26.850243 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 015f, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 3316ba13) |
| 0:00:26.852241 | LOG | Server <---------- DUT |
| 0:00:31.847424 | LOG | PUSH_ACK: 02 2e27 01 |
| 0:00:31.852421 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e27, Identifier = 00, JSON = {'rxpk': [{'tmst': 1192426128, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -29, 'size': 15, 'data': 'QCAgICCAYAEBVcxfAxeq'}]} |
| 0:00:31.854420 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0160, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 5f0317aa) |
| 0:00:31.855422 | LOG | Server <---------- DUT |
| 0:00:31.858420 | LOG | Calculate RSSI average process completed |
| 0:00:31.863414 | LOG | Send LinkADRReq process starts |
| 0:00:34.161119 | LOG | PULL_DATA: 02 3551 02 3834383419003400 |
| 0:00:34.163118 | LOG | PULL_ACK: 02 3551 04 |
| 0:00:36.838609 | LOG | PUSH_ACK: 02 2e28 01 |

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| 0:00:36.841608 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e28, Identifier = 00, JSON = {'rxpk': [{'tmst': 1197429096, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -31, 'size': 15, 'data': 'QCAgICCAYQEBYBZQTmPQ'}]} |
| 0:00:36.843606 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0161, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 504e63d0) |
| 0:00:36.844606 | LOG | Server <---------- DUT |
| 0:00:36.846604 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 016b, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: b8ca2969) |
| 0:00:36.849603 | LOG | PULL_RESP: Protocol version = 02, Token = 6a75, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1199429096, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAawEA7jED5l64yilp'}} |
| 0:00:36.850602 | LOG | Server ----------> DUT |
| 0:00:36.853603 | LOG | TX_ACK: 02 6a75 05 3834383419003400 |
| 0:00:41.853781 | LOG | PUSH_ACK: 02 2e29 01 |
| 0:00:41.855780 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e29, Identifier = 00, JSON = {'rxpk': [{'tmst': 1202438529, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCYgEDBwEWjmUn1ho='}]} |
| 0:00:41.856781 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0162, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: 6527d61a) |
| 0:00:41.858778 | LOG | Server <---------- DUT |
| 0:00:41.860777 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:41.862776 | LOG | Command Answer: 0307 |
| 0:00:41.869772 | LOG | MAC command communication completed |
| 0:00:41.872770 | LOG | Calculate RSSI average process starts |
| 0:00:44.201487 | LOG | PULL_DATA: 02 7fa2 02 3834383419003400 |
| 0:00:44.203486 | LOG | PULL_ACK: 02 7fa2 04 |
| 0:00:51.877130 | LOG | PUSH_ACK: 02 2e2a 01 |
| 0:00:51.879127 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e2a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1212439297, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAYwEBIKp7SbgT'}]} |
| 0:00:51.880127 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0163, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 7b49b813) |
| 0:00:51.881126 | LOG | Server <---------- DUT |
| 0:00:54.280773 | LOG | PULL_DATA: 02 8218 02 3834383419003400 |
| 0:00:54.282772 | LOG | PULL_ACK: 02 8218 04 |
| 0:00:56.865316 | LOG | PUSH_ACK: 02 2e2b 01 |
| 0:00:56.867316 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e2b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1217443601, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAZAEBzgXI5Rwb'}]} |
| 0:00:56.869314 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0164, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: c8e51c1b) |
| 0:00:56.870315 | LOG | Server <---------- DUT |
| 0:01:01.868494 | LOG | PUSH_ACK: 02 2e2d 01 |
| 0:01:01.873492 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e2d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1222446553, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAZQEBft/Pm2Ax'}]} |
| 0:01:01.875492 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0165, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: cf9b6031) |
| 0:01:01.876493 | LOG | Server <---------- DUT |

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|---|---|---|
| 0:01:01.880488 | LOG | Calculate RSSI average process completed |
| 0:01:01.883486 | LOG | Send LinkADRReq process starts |
| 0:01:04.361089 | LOG | PULL_DATA: 02 d4ca 02 3834383419003400 |
| 0:01:04.362088 | LOG | PULL_ACK: 02 d4ca 04 |
| 0:01:06.860680 | LOG | PUSH_ACK: 02 2e2e 01 |
| 0:01:06.862678 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e2e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1227449505, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAZgEBNI1gn/w+'}]} |
| 0:01:06.863678 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0166, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 609ffc3e) |
| 0:01:06.864677 | LOG | Server <---------- DUT |
| 0:01:06.866676 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 016c, FOpts: ), FPort: 00, FRMPayload: 0358070001), MIC: 8046f004) |
| 0:01:06.869674 | LOG | PULL_RESP: Protocol version = 02, Token = 8faf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1229449505, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAbAEAKc6UTQSARvAE'}} |
| 0:01:06.870674 | LOG | Server ----------> DUT |
| 0:01:06.873672 | LOG | TX_ACK: 02 8faf 05 3834383419003400 |
| 0:01:11.874852 | LOG | PUSH_ACK: 02 2e2f 01 |
| 0:01:11.876851 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e2f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1232460307, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCZwEDAwH2XJTJWOc='}]} |
| 0:01:11.877850 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0167, FOpts: 0303), FPort: 01, FRMPayload: 004a, MIC: 94c958e7) |
| 0:01:11.879849 | LOG | Server <---------- DUT |
| 0:01:11.880848 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:11.882848 | LOG | Command Answer: 0303 |
| 0:01:11.887844 | LOG | MAC command communication completed |
| 0:01:11.890842 | LOG | RFU tested. Answer: 03 |
| 0:01:11.894841 | LOG | Send LinkADRReq process starts |
| 0:01:14.431410 | LOG | PULL_DATA: 02 5305 02 3834383419003400 |
| 0:01:14.433409 | LOG | PULL_ACK: 02 5305 04 |
| 0:01:21.898200 | LOG | PUSH_ACK: 02 2e30 01 |
| 0:01:21.900198 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e30, Identifier = 00, JSON = {'rxpk': [{'tmst': 1242461083, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAaAEBq1/JswfI'}]} |
| 0:01:21.901198 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0168, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: c9b307c8) |
| 0:01:21.902197 | LOG | Server <---------- DUT |
| 0:01:21.904196 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 016d, FOpts: ), FPort: 00, FRMPayload: 035f070001), MIC: 66a08d40) |
| 0:01:21.906195 | LOG | PULL_RESP: Protocol version = 02, Token = 07fd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1244461083, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAbQEAWCVBsndmoI1A'}} |
| 0:01:21.908194 | LOG | Server ----------> DUT |
| 0:01:21.911193 | LOG | TX_ACK: 02 07fd 05 3834383419003400 |
| 0:01:24.640653 | LOG | PULL_DATA: 02 e330 02 3834383419003400 |
| 0:01:24.642652 | LOG | PULL_ACK: 02 e330 04 |
| 0:01:26.886388 | LOG | PUSH_ACK: 02 2e31 01 |

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| 0:01:26.888385 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e31, Identifier = 00, JSON = {'rxpk': [{'tmst': 1247470525, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCaQEDBwHhs/EpGIo='}]} |
| 0:01:26.890384 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0169, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: f129188a) |
| 0:01:26.891384 | LOG | Server <---------- DUT |
| 0:01:26.892383 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:26.894383 | LOG | Command Answer: 0307 |
| 0:01:26.903378 | LOG | MAC command communication completed |
| 0:01:26.907375 | LOG | Calculate RSSI average process starts |
| 0:01:34.720969 | LOG | PULL_DATA: 02 14f3 02 3834383419003400 |
| 0:01:34.724966 | LOG | PULL_ACK: 02 14f3 04 |
| 0:01:36.922727 | LOG | PUSH_ACK: 02 2e33 01 |
| 0:01:36.924727 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e33, Identifier = 00, JSON = {'rxpk': [{'tmst': 1257472645, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAagEBTusph/e+'}]} |
| 0:01:36.925725 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 016a, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 2987f7be) |
| 0:01:36.927724 | LOG | Server <---------- DUT |
| 0:01:41.910914 | LOG | PUSH_ACK: 02 2e34 01 |
| 0:01:41.912913 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e34, Identifier = 00, JSON = {'rxpk': [{'tmst': 1262475581, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAawEBLDzDrqF/'}]} |
| 0:01:41.913912 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 016b, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: c3aea17f) |
| 0:01:41.914912 | LOG | Server <---------- DUT |
| 0:01:44.801284 | LOG | PULL_DATA: 02 fd3b 02 3834383419003400 |
| 0:01:44.802284 | LOG | PULL_ACK: 02 fd3b 04 |
| 0:01:46.899101 | LOG | PUSH_ACK: 02 2e35 01 |
| 0:01:46.901100 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e35, Identifier = 00, JSON = {'rxpk': [{'tmst': 1267478549, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAbAEBrWO6PSLE'}]} |
| 0:01:46.903099 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 016c, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: ba3d22c4) |
| 0:01:46.904098 | LOG | Server <---------- DUT |
| 0:01:46.908096 | LOG | Calculate RSSI average process completed |
| 0:01:46.919090 | LOG | Send LinkADRReq process starts |
| 0:01:51.888290 | LOG | PUSH_ACK: 02 2e36 01 |
| 0:01:51.890287 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e36, Identifier = 00, JSON = {'rxpk': [{'tmst': 1272481501, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAbQEBbIhb4cdz'}]} |
| 0:01:51.891288 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 016d, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 5be1c773) |
| 0:01:51.893285 | LOG | Server <---------- DUT |
| 0:01:51.895284 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 016e, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 7b4b0570) |
| 0:01:51.898283 | LOG | PULL_RESP: Protocol version = 02, Token = 98da, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1274481501, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAbgEAGoyJRlZ7SwVw'}} |

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| 0:01:51.900281 | LOG | Server ----------> DUT |
| 0:01:51.904279 | LOG | TX_ACK: 02 98da 05 3834383419003400 |
| 0:01:54.840623 | LOG | PULL_DATA: 02 8183 02 3834383419003400 |
| 0:01:54.842622 | LOG | PULL_ACK: 02 8183 04 |
| 0:01:56.906490 | LOG | PUSH_ACK: 02 2e37 01 |
| 0:01:56.909487 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e37, Identifier = 00, JSON = {'rxpk': [{'tmst': 1277490958, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCbgEDBwFoHN3AGWE='}]} |
| 0:01:56.910492 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 016e, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: ddc01961) |
| 0:01:56.911460 | LOG | Server <---------- DUT |
| 0:01:56.913454 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:56.915453 | LOG | Command Answer: 0307 |
| 0:01:56.921450 | LOG | MAC command communication completed |
| 0:01:56.924466 | LOG | End Test Step: Test TXPower |
| 0:01:56.927447 | LOG | Partial Verdict: PASS |
| 0:01:56.931444 | LOG | ========== |
| 0:01:56.937440 | LOG | ========== |
| 0:01:56.939439 | LOG | Start Test Step: Check unsupported data rates |
| 0:01:56.953432 | LOG | Send LinkADRReq process starts |
| 0:02:04.920939 | LOG | PULL_DATA: 02 3ba5 02 3834383419003400 |
| 0:02:04.925936 | LOG | PULL_ACK: 02 3ba5 04 |
| 0:02:06.942798 | LOG | PUSH_ACK: 02 2e3a 01 |
| 0:02:06.945797 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e3a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1287491742, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAbwEBm6HrkwBa'}]} |
| 0:02:06.946797 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 016f, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: eb93005a) |
| 0:02:06.947796 | LOG | Server <---------- DUT |
| 0:02:06.949795 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 016f, FOpts: ), FPort: 00, FRMPayload: 0380070001), MIC: a34914ee) |
| 0:02:06.951793 | LOG | PULL_RESP: Protocol version = 02, Token = 3ac6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1289491742, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAbwEANeyDOFmjSRTu'}} |
| 0:02:06.953792 | LOG | Server ----------> DUT |
| 0:02:06.956792 | LOG | TX_ACK: 02 3ac6 05 3834383419003400 |
| 0:02:11.917100 | LOG | PUSH_ACK: 02 2e3b 01 |
| 0:02:11.918099 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1292502535, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCcAEDBQHFbWAi6J4='}]} |
| 0:02:11.920098 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0170, FOpts: 0305), FPort: 01, FRMPayload: 004a, MIC: 6022e89e) |
| 0:02:11.921097 | LOG | Server <---------- DUT |
| 0:02:11.922097 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:11.924096 | LOG | Command Answer: 0305 |
| 0:02:11.928094 | LOG | MAC command communication completed |
| 0:02:11.932091 | LOG | Invalid DR tested. Answer: 05 |
| 0:02:11.936089 | LOG | Send LinkADRReq process starts |
| 0:02:14.931400 | LOG | PULL_DATA: 02 3f45 02 3834383419003400 |
| 0:02:14.932400 | LOG | PULL_ACK: 02 3f45 04 |

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| 0:02:21.938448 | LOG | PUSH_ACK: 02 2e3c 01 |
| 0:02:21.940448 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e3c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1302503311, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAcQEB0iiREXe7'}]} |
| 0:02:21.942449 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0171, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 911177bb) |
| 0:02:21.943446 | LOG | Server <---------- DUT |
| 0:02:21.945445 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0170, FOpts: ), FPort: 00, FRMPayload: 0360070001), MIC: 082a22d7) |
| 0:02:21.948443 | LOG | PULL_RESP: Protocol version = 02, Token = a8ba, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1304503311, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAcAEAFNIEHmYIKiLX'}} |
| 0:02:21.950443 | LOG | Server ----------> DUT |
| 0:02:21.953440 | LOG | TX_ACK: 02 a8ba 05 3834383419003400 |
| 0:02:25.100665 | LOG | PULL_DATA: 02 d09f 02 3834383419003400 |
| 0:02:25.101665 | LOG | PULL_ACK: 02 d09f 04 |
| 0:02:26.928635 | LOG | PUSH_ACK: 02 2e3d 01 |
| 0:02:26.930634 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e3d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1307512736, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCcgEDBQFPlCaAPc0='}]} |
| 0:02:26.931635 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0172, FOpts: 0305), FPort: 01, FRMPayload: 004a, MIC: 26803dcd) |
| 0:02:26.932635 | LOG | Server <---------- DUT |
| 0:02:26.934633 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:26.935633 | LOG | Command Answer: 0305 |
| 0:02:26.939631 | LOG | MAC command communication completed |
| 0:02:26.941629 | LOG | Optional SF7BW250 DR tested. Answer: 05 |
| 0:02:26.944626 | LOG | Send LinkADRReq process starts |
| 0:02:35.180981 | LOG | PULL_DATA: 02 0492 02 3834383419003400 |
| 0:02:35.183981 | LOG | PULL_ACK: 02 0492 04 |
| 0:02:36.964975 | LOG | PUSH_ACK: 02 2e3f 01 |
| 0:02:36.967974 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e3f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1317513480, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAcwEBrte9iuAk'}]} |
| 0:02:36.968974 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0173, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: bd8ae024) |
| 0:02:36.969974 | LOG | Server <---------- DUT |
| 0:02:36.971973 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0171, FOpts: ), FPort: 00, FRMPayload: 0370070001), MIC: 1b46c600) |
| 0:02:36.974971 | LOG | PULL_RESP: Protocol version = 02, Token = 2026, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1319513480, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAcQEAIjO6Is8bRsYA'}} |
| 0:02:36.975971 | LOG | Server ----------> DUT |
| 0:02:36.978967 | LOG | TX_ACK: 02 2026 05 3834383419003400 |
| 0:02:41.938685 | LOG | PUSH_ACK: 02 2e40 01 |
| 0:02:41.941683 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e40, Identifier = 00, JSON = {'rxpk': [{'tmst': 1322522929, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCdAEDBQEmrwMMwiE='}]} |

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| 0:02:41.942682 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0174, FOpts: 0305), FPort: 01, FRMPayload: 004a, MIC: 030cc221) |
| 0:02:41.944681 | LOG | Server <---------- DUT |
| 0:02:41.946681 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:41.947681 | LOG | Command Answer: 0305 |
| 0:02:41.980662 | LOG | MAC command communication completed |
| 0:02:41.983659 | LOG | Optional FSK DR tested. Answer: 05 |
| 0:02:41.987675 | LOG | Send LinkADRReq process starts |
| 0:02:45.370749 | LOG | PULL_DATA: 02 8c56 02 3834383419003400 |
| 0:02:45.371749 | LOG | PULL_ACK: 02 8c56 04 |
| 0:02:51.962032 | LOG | PUSH_ACK: 02 2e41 01 |
| 0:02:51.965031 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e41, Identifier = 00, JSON = {'rxpk': [{'tmst': 1332523681, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAdQEBVdPdOE8H'}]} |
| 0:02:51.966031 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0175, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: dd384f07) |
| 0:02:51.968029 | LOG | Server <---------- DUT |
| 0:02:51.970028 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0172, FOpts: ), FPort: 00, FRMPayload: 03f0070001), MIC: 9356b5aa) |
| 0:02:51.972029 | LOG | PULL_RESP: Protocol version = 02, Token = 6273, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1334523681, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAcgEAFnCmfuuTVrWq'}} |
| 0:02:51.973028 | LOG | Server ----------> DUT |
| 0:02:51.978023 | LOG | TX_ACK: 02 6273 05 3834383419003400 |
| 0:02:55.541014 | LOG | PULL_DATA: 02 669b 02 3834383419003400 |
| 0:02:55.542013 | LOG | PULL_ACK: 02 669b 04 |
| 0:02:56.950219 | LOG | PUSH_ACK: 02 2e43 01 |
| 0:02:56.952218 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e43, Identifier = 00, JSON = {'rxpk': [{'tmst': 1337531754, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCdgEDBwF5z/Rcn+E='}]} |
| 0:02:56.954217 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0176, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: f45c9fe1) |
| 0:02:56.955217 | LOG | Server <---------- DUT |
| 0:02:56.957216 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:56.959215 | LOG | Command Answer: 0307 |
| 0:02:56.967212 | LOG | MAC command communication completed |
| 0:02:56.972207 | LOG | Check previous uplink data rate process starts |
| 0:02:56.976205 | LOG | Uplink received with expected Data Rate |
| 0:02:56.979203 | LOG | Send LinkADRReq process starts |
| 0:03:05.620330 | LOG | PULL_DATA: 02 499b 02 3834383419003400 |
| 0:03:05.625327 | LOG | PULL_ACK: 02 499b 04 |
| 0:03:06.986560 | LOG | PUSH_ACK: 02 2e45 01 |
| 0:03:06.988559 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e45, Identifier = 00, JSON = {'rxpk': [{'tmst': 1347532530, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAdwEBb28c4bkd'}]} |
| 0:03:06.989558 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0177, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 1ce1b91d) |
| 0:03:06.991559 | LOG | Server <---------- DUT |
| 0:03:06.992557 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0173, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 1e43af9e) |

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| 0:03:06.995555 | LOG | PULL_RESP: Protocol version = 02, Token = a895, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1349532530, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAcwEAHZXYrPUeQ6+e'}} |
| 0:03:06.996555 | LOG | Server ----------> DUT |
| 0:03:07.000552 | LOG | TX_ACK: 02 a895 05 3834383419003400 |
| 0:03:11.958756 | LOG | PUSH_ACK: 02 2e46 01 |
| 0:03:11.960755 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e46, Identifier = 00, JSON = {'rxpk': [{'tmst': 1352544723, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCeAEDBwG3aXJxotM='}]} |
| 0:03:11.961754 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0178, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: 7271a2d3) |
| 0:03:11.963754 | LOG | Server <---------- DUT |
| 0:03:11.964753 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:11.966752 | LOG | Command Answer: 0307 |
| 0:03:11.973748 | LOG | MAC command communication completed |
| 0:03:11.977746 | LOG | End Test Step: Check unsupported data rates |
| 0:03:11.981743 | LOG | Partial Verdict: PASS |
| 0:03:11.987740 | LOG | ========== |
| 0:03:11.994735 | LOG | ========== |
| 0:03:11.996735 | LOG | Start Test Step: Test Channel mask functionality and disable all channels |
| 0:03:12.009727 | LOG | Send MAC command block process starts |
| 0:03:15.810585 | LOG | PULL_DATA: 02 edc8 02 3834383419003400 |
| 0:03:15.812583 | LOG | PULL_ACK: 02 edc8 04 |
| 0:03:21.982104 | LOG | PUSH_ACK: 02 2e47 01 |
| 0:03:21.984102 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e47, Identifier = 00, JSON = {'rxpk': [{'tmst': 1362545451, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAeQEB3YdFXUrp'}]} |
| 0:03:21.985102 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0179, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 455d4ae9) |
| 0:03:21.986101 | LOG | Server <---------- DUT |
| 0:03:21.988100 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0174, FOpts: ), FPort: 00, FRMPayload: 0703886684500350070001), MIC: 35da635a) |
| 0:03:21.991100 | LOG | PULL_RESP: Protocol version = 02, Token = 397d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1364545451, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 24, 'data': 'YCAgICAAdAEApDogHSSCDhsx5/I12mNa'}} |
| 0:03:21.992098 | LOG | Server ----------> DUT |
| 0:03:21.995099 | LOG | TX_ACK: 02 397d 05 3834383419003400 |
| 0:03:25.980850 | LOG | PULL_DATA: 02 3e6f 02 3834383419003400 |
| 0:03:25.982848 | LOG | PULL_ACK: 02 3e6f 04 |
| 0:03:26.979285 | LOG | PUSH_ACK: 02 2e48 01 |
| 0:03:26.981285 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e48, Identifier = 00, JSON = {'rxpk': [{'tmst': 1367553532, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 19, 'data': 'QCAgICCEegEHAwMHAaFNoyA+Mg=='}]} |
| 0:03:26.983284 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 017a, FOpts: 07030307), FPort: 01, FRMPayload: 004a, MIC: a3203e32) |
| 0:03:26.984285 | LOG | Server <---------- DUT |
| 0:03:26.986282 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:26.987282 | LOG | Command Answer: 07030307 |

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| 0:03:27.045248 | LOG | MAC command communication completed |
| 0:03:27.047247 | LOG | Check previous uplink data rate process starts |
| 0:03:27.051245 | LOG | Uplink received with expected Data Rate |
| 0:03:27.056242 | LOG | Receive frame on specific channels process starts |
| 0:03:27.061240 | LOG | Attempt 1/20 |
| 0:03:36.061166 | LOG | PULL_DATA: 02 e112 02 3834383419003400 |
| 0:03:36.064163 | LOG | PULL_ACK: 02 e112 04 |
| 0:03:36.964655 | LOG | PUSH_ACK: 02 2e4a 01 |
| 0:03:36.967653 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e4a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1377554284, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAewEBSkMtN2Pu'}]} |
| 0:03:36.968655 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 017b, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 2d3763ee) |
| 0:03:36.970652 | LOG | Server <---------- DUT |
| 0:03:36.971651 | LOG | Attempt 2/20 |
| 0:03:42.005812 | LOG | PUSH_ACK: 02 2e4b 01 |
| 0:03:42.007813 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e4b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1382557220, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAfAEB9IPwoxFa'}]} |
| 0:03:42.009812 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 017c, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: f0a3115a) |
| 0:03:42.010810 | LOG | Server <---------- DUT |
| 0:03:42.011811 | LOG | Attempt 3/20 |
| 0:03:46.140480 | LOG | PULL_DATA: 02 3934 02 3834383419003400 |
| 0:03:46.142481 | LOG | PULL_ACK: 02 3934 04 |
| 0:03:46.995005 | LOG | PUSH_ACK: 02 2e4c 01 |
| 0:03:46.999997 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e4c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1387560188, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAfQEBhKrhtFEA'}]} |
| 0:03:47.004995 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 017d, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: e1b45100) |
| 0:03:47.009993 | LOG | Server <---------- DUT |
| 0:03:47.013990 | LOG | Attempt 4/20 |
| 0:03:51.985185 | LOG | PUSH_ACK: 02 2e4d 01 |
| 0:03:51.987184 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e4d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1392563140, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAfgEBWyZNHbsd'}]} |
| 0:03:51.989183 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 017e, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 4d1dbb1d) |
| 0:03:51.991182 | LOG | Server <---------- DUT |
| 0:03:51.992181 | LOG | Attempt 5/20 |
| 0:03:56.220796 | LOG | PULL_DATA: 02 171d 02 3834383419003400 |
| 0:03:56.221796 | LOG | PULL_ACK: 02 171d 04 |
| 0:03:56.974373 | LOG | PUSH_ACK: 02 2e4e 01 |
| 0:03:56.976370 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e4e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1397566084, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAfwEBA/fUQQrU'}]} |
| 0:03:56.977371 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 017f, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: d4410ad4) |
| 0:03:56.979369 | LOG | Server <---------- DUT |
| 0:03:56.981367 | LOG | Attempt 6/20 |

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| 0:04:01.979549 | LOG | PUSH_ACK: 02 2e50 01 |
| 0:04:01.981547 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e50, Identifier = 00, JSON = {'rxpk': [{'tmst': 1402570364, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAgAEByXzSsfMB'}]} |
| 0:04:01.983547 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0180, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: d2b1f301) |
| 0:04:01.984546 | LOG | Server <---------- DUT |
| 0:04:01.986545 | LOG | Attempt 7/20 |
| 0:04:06.301112 | LOG | PULL_DATA: 02 642b 02 3834383419003400 |
| 0:04:06.304110 | LOG | PULL_ACK: 02 642b 04 |
| 0:04:07.022705 | LOG | PUSH_ACK: 02 2e52 01 |
| 0:04:07.025703 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e52, Identifier = 00, JSON = {'rxpk': [{'tmst': 1407574692, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAgQEBvuJOvJhL'}]} |
| 0:04:07.026703 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0181, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 4ebc984b) |
| 0:04:07.028702 | LOG | Server <---------- DUT |
| 0:04:07.029701 | LOG | Attempt 8/20 |
| 0:04:12.011891 | LOG | PUSH_ACK: 02 2e53 01 |
| 0:04:12.013890 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e53, Identifier = 00, JSON = {'rxpk': [{'tmst': 1412577644, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAggEBTqoWou6k'}]} |
| 0:04:12.014892 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0182, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 16a2eea4) |
| 0:04:12.016889 | LOG | Server <---------- DUT |
| 0:04:12.018888 | LOG | Attempt 9/20 |
| 0:04:16.380428 | LOG | PULL_DATA: 02 1062 02 3834383419003400 |
| 0:04:16.382428 | LOG | PULL_ACK: 02 1062 04 |
| 0:04:17.000078 | LOG | PUSH_ACK: 02 2e54 01 |
| 0:04:17.003077 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e54, Identifier = 00, JSON = {'rxpk': [{'tmst': 1417580596, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAgwEBUR1Pk5kV'}]} |
| 0:04:17.004078 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0183, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 4f939915) |
| 0:04:17.005076 | LOG | Server <---------- DUT |
| 0:04:17.007076 | LOG | Attempt 10/20 |
| 0:04:22.040464 | LOG | PUSH_ACK: 02 2e55 01 |
| 0:04:22.042463 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e55, Identifier = 00, JSON = {'rxpk': [{'tmst': 1422583540, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAhAEBNj09n8Vs'}]} |
| 0:04:22.043460 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0184, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 3d9fc56c) |
| 0:04:22.044464 | LOG | Server <---------- DUT |
| 0:04:22.046463 | LOG | Attempt 11/20 |
| 0:04:26.460956 | LOG | PULL_DATA: 02 6691 02 3834383419003400 |
| 0:04:26.462955 | LOG | PULL_ACK: 02 6691 04 |
| 0:04:27.027637 | LOG | PUSH_ACK: 02 2e56 01 |
| 0:04:27.029636 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e56, Identifier = 00, JSON = {'rxpk': [{'tmst': 1427586492, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAhQEBqCDJ8nKg'}]} |

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| 0:04:27.031635 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0185, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: c9f272a0) |
| 0:04:27.033634 | LOG | Server <---------- DUT |
| 0:04:27.035633 | LOG | Attempt 12/20 |
| 0:04:32.032450 | LOG | PUSH_ACK: 02 2e58 01 |
| 0:04:32.034448 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e58, Identifier = 00, JSON = {'rxpk': [{'tmst': 1432589436, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAhgEBchUR5qmi'}]} |
| 0:04:32.035448 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0186, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 11e6a9a2) |
| 0:04:32.037447 | LOG | Server <---------- DUT |
| 0:04:32.039445 | LOG | Attempt 13/20 |
| 0:04:36.540907 | LOG | PULL_DATA: 02 e5a1 02 3834383419003400 |
| 0:04:36.543906 | LOG | PULL_ACK: 02 e5a1 04 |
| 0:04:37.021638 | LOG | PUSH_ACK: 02 2e59 01 |
| 0:04:37.023634 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e59, Identifier = 00, JSON = {'rxpk': [{'tmst': 1437593756, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAhwEB/wM2B3en'}]} |
| 0:04:37.024634 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0187, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 360777a7) |
| 0:04:37.026635 | LOG | Server <---------- DUT |
| 0:04:37.027635 | LOG | Attempt 14/20 |
| 0:04:42.009823 | LOG | PUSH_ACK: 02 2e5a 01 |
| 0:04:42.011822 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e5a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1442598060, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiAEBB4/1+9MC'}]} |
| 0:04:42.012823 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0188, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: f5fbd302) |
| 0:04:42.013823 | LOG | Server <---------- DUT |
| 0:04:42.014822 | LOG | Attempt 15/20 |
| 0:04:46.620225 | LOG | PULL_DATA: 02 3624 02 3834383419003400 |
| 0:04:46.622221 | LOG | PULL_ACK: 02 3624 04 |
| 0:04:47.048981 | LOG | PUSH_ACK: 02 2e5b 01 |
| 0:04:47.051980 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e5b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1447601020, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiQEBCM3ratqh'}]} |
| 0:04:47.053979 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0189, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: eb6adaa1) |
| 0:04:47.055978 | LOG | Server <---------- DUT |
| 0:04:47.057977 | LOG | Attempt 16/20 |
| 0:04:52.038168 | LOG | PUSH_ACK: 02 2e5c 01 |
| 0:04:52.041168 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e5c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1452603956, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAigEBI+w2Lx7l'}]} |
| 0:04:52.042166 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 018a, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 362f1ee5) |
| 0:04:52.044165 | LOG | Server <---------- DUT |
| 0:04:52.045164 | LOG | Attempt 17/20 |
| 0:04:56.700538 | LOG | PULL_DATA: 02 e707 02 3834383419003400 |
| 0:04:56.702538 | LOG | PULL_ACK: 02 e707 04 |
| 0:04:57.027355 | LOG | PUSH_ACK: 02 2e5d 01 |

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| 0:04:57.029353 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e5d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1457606924, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAiwEBVvWoVNiH'}]} |
| 0:04:57.031352 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 018b, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: a854d887) |
| 0:04:57.032353 | LOG | Server <---------- DUT |
| 0:04:57.034351 | LOG | Attempt 18/20 |
| 0:05:02.031533 | LOG | PUSH_ACK: 02 2e5f 01 |
| 0:05:02.033531 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e5f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1462609868, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAjAEBAtVkvxlb'}]} |
| 0:05:02.035550 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 018c, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 64bf195b) |
| 0:05:02.037530 | LOG | Server <---------- DUT |
| 0:05:02.038528 | LOG | Attempt 19/20 |
| 0:05:06.790849 | LOG | PULL_DATA: 02 c3eb 02 3834383419003400 |
| 0:05:06.794848 | LOG | PULL_ACK: 02 c3eb 04 |
| 0:05:07.020719 | LOG | PUSH_ACK: 02 2e60 01 |
| 0:05:07.022718 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e60, Identifier = 00, JSON = {'rxpk': [{'tmst': 1467614172, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAjQEBD4kLWHF/'}]} |
| 0:05:07.024717 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 018d, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 0b58717f) |
| 0:05:07.025718 | LOG | Server <---------- DUT |
| 0:05:07.027716 | LOG | Attempt 20/20 |
| 0:05:12.060876 | LOG | PUSH_ACK: 02 2e61 01 |
| 0:05:12.062875 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e61, Identifier = 00, JSON = {'rxpk': [{'tmst': 1472618500, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAjgEB9Z4e0tN7'}]} |
| 0:05:12.063875 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 018e, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 1ed2d37b) |
| 0:05:12.065873 | LOG | Server <---------- DUT |
| 0:05:12.075867 | LOG | Send LinkADRReq process starts |
| 0:05:16.870162 | LOG | PULL_DATA: 02 994f 02 3834383419003400 |
| 0:05:16.872161 | LOG | PULL_ACK: 02 994f 04 |
| 0:05:17.049062 | LOG | PUSH_ACK: 02 2e62 01 |
| 0:05:17.051061 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e62, Identifier = 00, JSON = {'rxpk': [{'tmst': 1477621460, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAjwEBLtT4O63x'}]} |
| 0:05:17.053059 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 018f, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: f83badf1) |
| 0:05:17.055058 | LOG | Server <---------- DUT |
| 0:05:17.056058 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0175, FOpts: ), FPort: 00, FRMPayload: 03500f0001), MIC: c8b63f36) |
| 0:05:17.059056 | LOG | PULL_RESP: Protocol version = 02, Token = 135c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1479621460, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAdQEARvShK2XItj82'}} |
| 0:05:17.061055 | LOG | Server ----------> DUT |
| 0:05:17.064053 | LOG | TX_ACK: 02 135c 05 3834383419003400 |
| 0:05:22.046044 | LOG | PUSH_ACK: 02 2e63 01 |

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| 0:05:22.048040 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e63, Identifier = 00, JSON = {'rxpk': [{'tmst': 1482633622, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCkAEDBwEdyjJo+7Y='}]} |
| 0:05:22.050039 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0190, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: 3268fbb6) |
| 0:05:22.051038 | LOG | Server <---------- DUT |
| 0:05:22.053038 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:22.055039 | LOG | Command Answer: 0307 |
| 0:05:22.061032 | LOG | MAC command communication completed |
| 0:05:22.064035 | LOG | Receive frame on specific channels process starts |
| 0:05:22.079024 | LOG | Attempt 1/20 |
| 0:05:26.930255 | LOG | PULL_DATA: 02 42ff 02 3834383419003400 |
| 0:05:26.932253 | LOG | PULL_ACK: 02 42ff 04 |
| 0:05:32.083378 | LOG | PUSH_ACK: 02 2e65 01 |
| 0:05:32.085376 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e65, Identifier = 00, JSON = {'rxpk': [{'tmst': 1492634422, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAkQEBAXddiai1'}]} |
| 0:05:32.086376 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0191, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 5d89a8b5) |
| 0:05:32.088375 | LOG | Server <---------- DUT |
| 0:05:32.090373 | LOG | Attempt 2/20 |
| 0:05:37.010575 | LOG | PULL_DATA: 02 ea8b 02 3834383419003400 |
| 0:05:37.019563 | LOG | PULL_ACK: 02 ea8b 04 |
| 0:05:37.071532 | LOG | PUSH_ACK: 02 2e66 01 |
| 0:05:37.074533 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e66, Identifier = 00, JSON = {'rxpk': [{'tmst': 1497638742, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAkgEB5/OPXJSD'}]} |
| 0:05:37.075532 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0192, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 8f5c9483) |
| 0:05:37.077532 | LOG | Server <---------- DUT |
| 0:05:37.079530 | LOG | Attempt 3/20 |
| 0:05:42.060749 | LOG | PUSH_ACK: 02 2e67 01 |
| 0:05:42.062747 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e67, Identifier = 00, JSON = {'rxpk': [{'tmst': 1502643047, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAkwEBqZN+oHXI'}]} |
| 0:05:42.063745 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0193, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 7ea075c8) |
| 0:05:42.065747 | LOG | Server <---------- DUT |
| 0:05:42.066745 | LOG | Attempt 4/20 |
| 0:05:47.100904 | LOG | PUSH_ACK: 02 2e68 01 |
| 0:05:47.103901 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e68, Identifier = 00, JSON = {'rxpk': [{'tmst': 1507645999, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAlAEBhsuJn0HL'}]} |
| 0:05:47.104901 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0194, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 899f41cb) |
| 0:05:47.106901 | LOG | Server <---------- DUT |
| 0:05:47.108900 | LOG | Attempt 5/20 |
| 0:05:52.089091 | LOG | PUSH_ACK: 02 2e69 01 |
| 0:05:52.091089 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e69, Identifier = 00, JSON = {'rxpk': [{'tmst': 1512648966, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAlQEB8z8SNSMh'}]} |
| 0:05:52.092087 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0195, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 12352321) |
| 0:05:52.093060 | LOG | Server <---------- DUT |
| 0:05:52.095088 | LOG | Attempt 6/20 |
| 0:05:57.078274 | LOG | PUSH_ACK: 02 2e6a 01 |
| 0:05:57.080275 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e6a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1517651910, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAlgEBD5Voz31f'}]} |
| 0:05:57.081273 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0196, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 68cf7d5f) |
| 0:05:57.082275 | LOG | Server <---------- DUT |
| 0:05:57.084271 | LOG | Attempt 7/20 |
| 0:05:57.180217 | LOG | PULL_DATA: 02 54d8 02 3834383419003400 |
| 0:05:57.182215 | LOG | PULL_ACK: 02 54d8 04 |
| 0:06:02.082421 | LOG | PUSH_ACK: 02 2e6c 01 |
| 0:06:02.084420 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e6c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1522654886, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAlwEBVzb/W0jb'}]} |
| 0:06:02.085419 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0197, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: ff5b48db) |
| 0:06:02.087418 | LOG | Server <---------- DUT |
| 0:06:02.091416 | LOG | Receive frame on specific channels process tested successfully |
| 0:06:02.094414 | LOG | Send NewChannelReq process starts |
| 0:06:07.069609 | LOG | PUSH_ACK: 02 2e6d 01 |
| 0:06:07.073636 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e6d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1527657838, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAmAEB48Z2E/Nl'}]} |
| 0:06:07.075634 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0198, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 7613f365) |
| 0:06:07.076633 | LOG | Server <---------- DUT |
| 0:06:07.079632 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0176, FOpts: ), FPort: 00, FRMPayload: 070300000050), MIC: cbbcb0aa) |
| 0:06:07.082630 | LOG | PULL_RESP: Protocol version = 02, Token = 2f37, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1529657838, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAdgEA65plHw5Jy7ywqg=='}} |
| 0:06:07.083629 | LOG | Server ----------> DUT |
| 0:06:07.087597 | LOG | TX_ACK: 02 2f37 05 3834383419003400 |
| 0:06:07.290482 | LOG | PULL_DATA: 02 4735 02 3834383419003400 |
| 0:06:07.291481 | LOG | PULL_ACK: 02 4735 04 |
| 0:06:12.082808 | LOG | PUSH_ACK: 02 2e6e 01 |
| 0:06:12.084808 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e6e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1532667289, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCmQEHAwEQCuhp/+4='}]} |
| 0:06:12.086806 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0199, FOpts: 0703), FPort: 01, FRMPayload: 004a, MIC: e869ffee) |
| 0:06:12.088778 | LOG | Server <---------- DUT |
| 0:06:12.089806 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:12.091803 | LOG | Command Answer: 0703 |

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| 0:06:12.097802 | LOG | MAC command communication completed |
| 0:06:12.100798 | LOG | Send LinkADRReq process starts |
| 0:06:17.370146 | LOG | PULL_DATA: 02 eb80 02 3834383419003400 |
| 0:06:17.372163 | LOG | PULL_ACK: 02 eb80 04 |
| 0:06:22.106472 | LOG | PUSH_ACK: 02 2e6f 01 |
| 0:06:22.108471 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e6f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1542669441, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAmgEBanLAG4p0'}]} |
| 0:06:22.109470 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 019a, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: c01b8a74) |
| 0:06:22.110470 | LOG | Server <---------- DUT |
| 0:06:22.112469 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0177, FOpts: ), FPort: 00, FRMPayload: 0350000001), MIC: 7eb329b4) |
| 0:06:22.114468 | LOG | PULL_RESP: Protocol version = 02, Token = 6b8b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1544669441, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAdwEAgUSCPmt+sym0'}} |
| 0:06:22.115467 | LOG | Server ----------> DUT |
| 0:06:22.118484 | LOG | TX_ACK: 02 6b8b 05 3834383419003400 |
| 0:06:27.095657 | LOG | PUSH_ACK: 02 2e70 01 |
| 0:06:27.101657 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e70, Identifier = 00, JSON = {'rxpk': [{'tmst': 1547678873, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCmwEDBAHF+zMCMfU='}]} |
| 0:06:27.105652 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 019b, FOpts: 0304), FPort: 01, FRMPayload: 004a, MIC: 330231f5) |
| 0:06:27.110648 | LOG | Server <---------- DUT |
| 0:06:27.114652 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:27.118646 | LOG | Command Answer: 0304 |
| 0:06:27.129638 | LOG | MAC command communication completed |
| 0:06:27.133636 | LOG | LinkADRAns received: 04 |
| 0:06:27.138634 | LOG | Send LinkADRReq process starts |
| 0:06:27.570505 | LOG | PULL_DATA: 02 6902 02 3834383419003400 |
| 0:06:27.572505 | LOG | PULL_ACK: 02 6902 04 |
| 0:06:37.087136 | LOG | PUSH_ACK: 02 2e72 01 |
| 0:06:37.091134 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e72, Identifier = 00, JSON = {'rxpk': [{'tmst': 1557679633, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAnAEBreFTfHfw'}]} |
| 0:06:37.093133 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 019c, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 537c77f0) |
| 0:06:37.094132 | LOG | Server <---------- DUT |
| 0:06:37.095132 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0178, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 5c97cf12) |
| 0:06:37.098130 | LOG | PULL_RESP: Protocol version = 02, Token = 915b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1559679633, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAeAEAa4rTplRcl88S'}} |
| 0:06:37.100130 | LOG | Server ----------> DUT |
| 0:06:37.104128 | LOG | TX_ACK: 02 915b 05 3834383419003400 |
| 0:06:37.730116 | LOG | PULL_DATA: 02 9dce 02 3834383419003400 |
| 0:06:37.732114 | LOG | PULL_ACK: 02 9dce 04 |
| 0:06:42.106645 | LOG | PUSH_ACK: 02 2e73 01 |

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| 0:06:42.108644 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e73, Identifier = 00, JSON = {'rxpk': [{'tmst': 1562689091, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCnQEDBwGorSXZ+7E='}]} |
| 0:06:42.109644 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 019d, FOpts: 0307), FPort: 01, FRMPayload: 004a, MIC: 25d9fbb1) |
| 0:06:42.111643 | LOG | Server <---------- DUT |
| 0:06:42.113642 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:42.114641 | LOG | Command Answer: 0307 |
| 0:06:42.119638 | LOG | MAC command communication completed |
| 0:06:42.122637 | LOG | End Test Step: Test Channel mask functionality and disable all channels |
| 0:06:42.125653 | LOG | Partial Verdict: PASS |
| 0:06:42.129652 | LOG | ========== |
| 0:06:42.134632 | LOG | ========== |
| 0:06:42.136630 | LOG | Start Test Step: Redundancy |
| 0:06:42.155618 | LOG | Send Test Command RxAppCntReq process starts |
| 0:06:47.810427 | LOG | PULL_DATA: 02 2ead 02 3834383419003400 |
| 0:06:47.812427 | LOG | PULL_ACK: 02 2ead 04 |
| 0:06:52.129990 | LOG | PUSH_ACK: 02 2e74 01 |
| 0:06:52.131989 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e74, Identifier = 00, JSON = {'rxpk': [{'tmst': 1572691219, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAngEBebImrkWj'}]} |
| 0:06:52.133988 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 019e, FOpts: ), FPort: 01, FRMPayload: 004a, MIC: 26ae45a3) |
| 0:06:52.134988 | LOG | Server <---------- DUT |
| 0:06:52.135987 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0179, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 485187b0) |
| 0:06:52.137986 | LOG | Frame command sent to the DUT |
| 0:06:52.139985 | LOG | PULL_RESP: Protocol version = 02, Token = 4728, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1574691219, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAeQHgr0hRh7A='}} |
| 0:06:52.141984 | LOG | Server ----------> DUT |
| 0:06:52.144982 | LOG | TX_ACK: 02 4728 05 3834383419003400 |
| 0:06:57.157154 | LOG | PUSH_ACK: 02 2e75 01 |
| 0:06:57.159154 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e75, Identifier = 00, JSON = {'rxpk': [{'tmst': 1577703804, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 16, 'data': 'QCAgICCAnwHgHlppmfLTHA=='}]} |
| 0:06:57.160152 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 019f, FOpts: ), FPort: e0, FRMPayload: 094b00, MIC: 99f2d31c) |
| 0:06:57.162153 | LOG | Server <---------- DUT |
| 0:06:57.163151 | LOG | Answer in payload: 4b00 |
| 0:06:57.164150 | LOG | Frame Command Payload in the Answer: 094b00 |
| 0:06:57.171146 | LOG | RX Count received by DUT: 75 |
| 0:06:57.178142 | LOG | Send Test Command RxAppCntReq process completed |
| 0:06:57.210125 | LOG | Send LinkADRReq process starts |
| 0:06:58.020667 | LOG | PULL_DATA: 02 3094 02 3834383419003400 |
| 0:06:58.022666 | LOG | PULL_ACK: 02 3094 04 |
| 0:07:07.140521 | LOG | PUSH_ACK: 02 2e78 01 |
| 0:07:07.144521 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e78, Identifier = 00, JSON = {'rxpk': [{'tmst': 1587701452, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAoAEBFnNlkrIl'}]} |

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| 0:07:07.145519 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a0, FOpts: ), FPort: 01, FRMPayload: 004b, MIC: 6592b225) |
| 0:07:07.146520 | LOG | Server <---------- DUT |
| 0:07:07.148519 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 017a, FOpts: ), FPort: 00, FRMPayload: 0350070002), MIC: 0e1fa365) |
| 0:07:07.150517 | LOG | PULL_RESP: Protocol version = 02, Token = 2fd9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1589701452, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAegEAIeu9+lMOH6Nl'}} |
| 0:07:07.151516 | LOG | Server ----------> DUT |
| 0:07:07.155513 | LOG | TX_ACK: 02 2fd9 05 3834383419003400 |
| 0:07:08.200583 | LOG | PULL_DATA: 02 3f15 02 3834383419003400 |
| 0:07:08.202582 | LOG | PULL_ACK: 02 3f15 04 |
| 0:07:12.126371 | LOG | PUSH_ACK: 02 2e7a 01 |
| 0:07:12.128369 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e7a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1592710902, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCoQEDBwGxrnCZ9so='}]} |
| 0:07:12.129369 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01a1, FOpts: 0307), FPort: 01, FRMPayload: 004b, MIC: 7099f6ca) |
| 0:07:12.130368 | LOG | Server <---------- DUT |
| 0:07:12.131368 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:12.132367 | LOG | Command Answer: 0307 |
| 0:07:12.141360 | LOG | MAC command communication completed |
| 0:07:12.145358 | LOG | Check number of uplinks repetitions process starts |
| 0:07:17.268901 | LOG | PUSH_ACK: 02 2e7b 01 |
| 0:07:17.271899 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e7b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1597835510, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCoQEDBwGxrnCZ9so='}]} |
| 0:07:17.272899 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01a1, FOpts: 0307), FPort: 01, FRMPayload: 004b, MIC: 7099f6ca) |
| 0:07:17.273898 | LOG | Server <---------- DUT |
| 0:07:17.274898 | LOG | FRMPayload is the same between retransmissions |
| 0:07:17.276897 | LOG | Original uplink: 004b |
| 0:07:17.277896 | LOG | Actual retransmission: 004b |
| 0:07:17.279895 | LOG | FOpts is the same between retransmissions |
| 0:07:17.280895 | LOG | Original uplink: 0307 |
| 0:07:17.281894 | LOG | Actual retransmission: 0307 |
| 0:07:17.282894 | LOG | FPort is the same between retransmissions |
| 0:07:17.283893 | LOG | Original uplink: 01 |
| 0:07:17.284893 | LOG | Actual retransmission: 01 |
| 0:07:18.280330 | LOG | PULL_DATA: 02 3675 02 3834383419003400 |
| 0:07:18.282330 | LOG | PULL_ACK: 02 3675 04 |
| 0:07:27.138333 | LOG | PUSH_ACK: 02 2e7c 01 |
| 0:07:27.140332 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e7c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1607715998, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAogEBycRzOyx1'}]} |
| 0:07:27.142332 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a2, FOpts: ), FPort: 01, FRMPayload: 004b, MIC: 733b2c75) |
| 0:07:27.143332 | LOG | Server <---------- DUT |
| 0:07:27.146328 | LOG | Expected repetitions of uplink message have been received |
| 0:07:27.149327 | LOG | Check number of uplinks repetitions process starts |
| 0:07:28.360644 | LOG | PULL_DATA: 02 391d 02 3834383419003400 |

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| 0:07:28.364642 | LOG | PULL_ACK: 02 391d 04 |
| 0:07:31.784713 | LOG | PUSH_ACK: 02 2e7e 01 |
| 0:07:31.786710 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e7e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1612340230, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAogEBycRzOyx1'}]} |
| 0:07:31.787711 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a2, FOpts: ), FPort: 01, FRMPayload: 004b, MIC: 733b2c75) |
| 0:07:31.788711 | LOG | Server <---------- DUT |
| 0:07:31.790708 | LOG | FRMPayload is the same between retransmissions |
| 0:07:31.792707 | LOG | Original uplink: 004b |
| 0:07:31.793706 | LOG | Actual retransmission: 004b |
| 0:07:31.794706 | LOG | FOpts is the same between retransmissions |
| 0:07:31.796706 | LOG | Original uplink: |
| 0:07:31.797706 | LOG | Actual retransmission: |
| 0:07:31.798705 | LOG | FPort is the same between retransmissions |
| 0:07:31.799705 | LOG | Original uplink: 01 |
| 0:07:31.800705 | LOG | Actual retransmission: 01 |
| 0:07:37.132167 | LOG | PUSH_ACK: 02 2e7f 01 |
| 0:07:37.134166 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e7f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1617721902, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAowEBTp8XNukq'}]} |
| 0:07:37.135166 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a3, FOpts: ), FPort: 01, FRMPayload: 004b, MIC: 1736e92a) |
| 0:07:37.137165 | LOG | Server <---------- DUT |
| 0:07:37.142162 | LOG | Expected repetitions of uplink message have been received |
| 0:07:37.149158 | LOG | Send Test Command RxAppCntReq process starts |
| 0:07:37.153156 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 017b, FOpts: ), FPort: e0, FRMPayload: 09), MIC: b832ac38) |
| 0:07:37.156154 | LOG | Frame command sent to the DUT |
| 0:07:37.161151 | LOG | PULL_RESP: Protocol version = 02, Token = 6462, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1618721902, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAewHgSLgyrDg='}} |
| 0:07:37.163150 | LOG | Server ----------> DUT |
| 0:07:37.166148 | LOG | TX_ACK: 02 6462 05 3834383419003400 |
| 0:07:38.420440 | LOG | PULL_DATA: 02 7cfc 02 3834383419003400 |
| 0:07:38.421440 | LOG | PULL_ACK: 02 7cfc 04 |
| 0:07:42.181319 | LOG | PUSH_ACK: 02 2e80 01 |
| 0:07:42.183319 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e80, Identifier = 00, JSON = {'rxpk': [{'tmst': 1622734481, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 16, 'data': 'QCAgICCApAHgxrJBcp0Bfg=='}]} |
| 0:07:42.184317 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a4, FOpts: ), FPort: e0, FRMPayload: 094c00, MIC: 729d017e) |
| 0:07:42.185316 | LOG | Server <---------- DUT |
| 0:07:42.187315 | LOG | Answer in payload: 4c00 |
| 0:07:42.188315 | LOG | Frame Command Payload in the Answer: 094c00 |
| 0:07:42.194312 | LOG | RX Count received by DUT: 76 |
| 0:07:42.197310 | LOG | Send Test Command RxAppCntReq process completed |
| 0:07:42.203306 | LOG | Check number of uplinks repetitions process starts |
| 0:07:47.272418 | LOG | PUSH_ACK: 02 2e81 01 |
| 0:07:47.274418 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e81, Identifier = 00, JSON = {'rxpk': [{'tmst': 1627860465, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 16, 'data': 'QCAgICCApAHgxrJBcp0Bfg=='}]} |
| 0:07:47.276390 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a4, FOpts: ), FPort: e0, FRMPayload: 094c00, MIC: 729d017e) |
| 0:07:47.277390 | LOG | Server <---------- DUT |
| 0:07:47.279415 | LOG | FRMPayload is the same between retransmissions |
| 0:07:47.281414 | LOG | Original uplink: 094c00 |
| 0:07:47.282413 | LOG | Actual retransmission: 094c00 |
| 0:07:47.284386 | LOG | FOpts is the same between retransmissions |
| 0:07:47.285385 | LOG | Original uplink: |
| 0:07:47.287380 | LOG | Actual retransmission: |
| 0:07:47.289380 | LOG | FPort is the same between retransmissions |
| 0:07:47.290378 | LOG | Original uplink: e0 |
| 0:07:47.292377 | LOG | Actual retransmission: e0 |
| 0:07:48.500732 | LOG | PULL_DATA: 02 0815 02 3834383419003400 |
| 0:07:48.502731 | LOG | PULL_ACK: 02 0815 04 |
| 0:07:58.580046 | LOG | PULL_DATA: 02 4b4a 02 3834383419003400 |
| 0:07:58.582045 | LOG | PULL_ACK: 02 4b4a 04 |
| 0:08:01.784238 | LOG | PUSH_ACK: 02 2e84 01 |
| 0:08:01.786237 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e84, Identifier = 00, JSON = {'rxpk': [{'tmst': 1642360649, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCApQEBfhWOVRsT'}]} |
| 0:08:01.788236 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a5, FOpts: ), FPort: 01, FRMPayload: 004c, MIC: 8e551b13) |
| 0:08:01.789235 | LOG | Server <---------- DUT |
| 0:08:01.794232 | LOG | Expected repetitions of uplink message have been received |
| 0:08:01.803227 | LOG | Send Test Command RxAppCntReq process starts |
| 0:08:01.807225 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 017c, FOpts: ), FPort: e0, FRMPayload: 09), MIC: c15e6575) |
| 0:08:01.809225 | LOG | Frame command sent to the DUT |
| 0:08:01.811223 | LOG | PULL_RESP: Protocol version = 02, Token = 9ab2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1644360649, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAfAHg7cFeZXU='}} |
| 0:08:01.812222 | LOG | Server ----------> DUT |
| 0:08:01.816220 | LOG | TX_ACK: 02 9ab2 05 3834383419003400 |
| 0:08:07.186190 | LOG | PUSH_ACK: 02 2e85 01 |
| 0:08:07.191187 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e85, Identifier = 00, JSON = {'rxpk': [{'tmst': 1647751970, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 16, 'data': 'QCAgICCApgHgOvG8hJJQGw=='}]} |
| 0:08:07.192188 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a6, FOpts: ), FPort: e0, FRMPayload: 094d00, MIC: 8492501b) |
| 0:08:07.194189 | LOG | Server <---------- DUT |
| 0:08:07.195203 | LOG | Answer in payload: 4d00 |
| 0:08:07.197184 | LOG | Frame Command Payload in the Answer: 094d00 |
| 0:08:07.201182 | LOG | RX Count received by DUT: 77 |
| 0:08:07.203180 | LOG | Send Test Command RxAppCntReq process completed |
| 0:08:07.207195 | LOG | Check number of uplinks repetitions process starts |
| 0:08:08.741241 | LOG | PULL_DATA: 02 1435 02 3834383419003400 |
| 0:08:08.744239 | LOG | PULL_ACK: 02 1435 04 |
| 0:08:12.331216 | LOG | PUSH_ACK: 02 2e86 01 |
| 0:08:12.334214 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e86, Identifier = 00, JSON = {'rxpk': [{'tmst': 1652876594, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 16, 'data': 'QCAgICCApgHgOvG8hJJQGw==='}]} |
| 0:08:12.335214 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a6, FOpts: ), FPort: e0, FRMPayload: 094d00, MIC: 8492501b) |
| 0:08:12.337212 | LOG | Server <---------- DUT |
| 0:08:12.339212 | LOG | FRMPayload is the same between retransmissions |
| 0:08:12.341211 | LOG | Original uplink: 094d00 |
| 0:08:12.342210 | LOG | Actual retransmission: 094d00 |
| 0:08:12.344209 | LOG | FOpts is the same between retransmissions |
| 0:08:12.346208 | LOG | Original uplink: |
| 0:08:12.347207 | LOG | Actual retransmission: |
| 0:08:12.349206 | LOG | FPort is the same between retransmissions |
| 0:08:12.351206 | LOG | Original uplink: e0 |
| 0:08:12.352204 | LOG | Actual retransmission: e0 |
| 0:08:18.820554 | LOG | PULL_DATA: 02 d6af 02 3834383419003400 |
| 0:08:18.821554 | LOG | PULL_ACK: 02 d6af 04 |
| 0:08:22.200366 | LOG | PUSH_ACK: 02 2e87 01 |
| 0:08:22.203364 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e87, Identifier = 00, JSON = {'rxpk': [{'tmst': 1662753914, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCApwEB+iutUrgz'}]} |
| 0:08:22.205363 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a7, FOpts: ), FPort: 01, FRMPayload: 004d, MIC: ad52b833) |
| 0:08:22.206363 | LOG | Server <---------- DUT |
| 0:08:22.211360 | LOG | Expected repetitions of uplink message have been received |
| 0:08:22.218356 | LOG | Send LinkADRReq process starts |
| 0:08:26.830754 | LOG | PUSH_ACK: 02 2e88 01 |
| 0:08:26.832753 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e88, Identifier = 00, JSON = {'rxpk': [{'tmst': 1667378138, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCApwEB+iutUrgz'}]} |
| 0:08:26.834751 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a7, FOpts: ), FPort: 01, FRMPayload: 004d, MIC: ad52b833) |
| 0:08:26.835750 | LOG | Server <---------- DUT |
| 0:08:26.837749 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 017d, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 8fda0be0) |
| 0:08:26.840748 | LOG | PULL_RESP: Protocol version = 02, Token = 8645, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1669378138, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAfQEABdZVLNuP2gvg'}} |
| 0:08:26.842747 | LOG | Server ----------> DUT |
| 0:08:26.846744 | LOG | TX_ACK: 02 8645 05 3834383419003400 |
| 0:08:28.939564 | LOG | PULL_DATA: 02 0d2a 02 3834383419003400 |
| 0:08:28.941562 | LOG | PULL_ACK: 02 0d2a 04 |
| 0:08:32.174738 | LOG | PUSH_ACK: 02 2e8a 01 |
| 0:08:32.176737 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e8a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1672766324, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCqAEDBwFNgcUyrrU='}]} |
| 0:08:32.178736 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01a8, FOpts: 0307), FPort: 01, FRMPayload: 004d, MIC: c532aeb5) |
| 0:08:32.180735 | LOG | Server <---------- DUT |
| 0:08:32.181735 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:32.183734 | LOG | Command Answer: 0307 |
| 0:08:32.191729 | LOG | MAC command communication completed |

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| 0:08:32.196726 | LOG | Check number of uplinks repetitions process starts |
| 0:08:39.019836 | LOG | PULL_DATA: 02 8754 02 3834383419003400 |
| 0:08:39.024834 | LOG | PULL_ACK: 02 8754 04 |
| 0:08:42.198050 | LOG | PUSH_ACK: 02 2e8b 01 |
| 0:08:42.201051 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e8b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1682767108, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAqQEByWMcesfa'}]} |
| 0:08:42.202049 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01a9, FOpts: ), FPort: 01, FRMPayload: 004d, MIC: 1c7ac7da) |
| 0:08:42.203050 | LOG | Server <---------- DUT |
| 0:08:42.205049 | LOG | Expected repetitions of uplink message have been received |
| 0:08:42.208047 | LOG | Check number of uplinks repetitions process starts |
| 0:08:47.186830 | LOG | PUSH_ACK: 02 2e8c 01 |
| 0:08:47.189828 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e8c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1687771412, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAqgEBg1TBxnJg'}]} |
| 0:08:47.191827 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01aa, FOpts: ), FPort: 01, FRMPayload: 004d, MIC: c1c67260) |
| 0:08:47.192827 | LOG | Server <---------- DUT |
| 0:08:47.196824 | LOG | Expected repetitions of uplink message have been received |
| 0:08:47.200822 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:49.109935 | LOG | PULL_DATA: 02 5f72 02 3834383419003400 |
| 0:08:49.111917 | LOG | PULL_ACK: 02 5f72 04 |
| 0:08:52.226630 | LOG | PUSH_ACK: 02 2e8d 01 |
| 0:08:52.228629 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e8d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1692775732, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAqwEBBQSp9Tni'}]} |
| 0:08:52.230630 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ab, FOpts: ), FPort: 01, FRMPayload: 004d, MIC: a9f539e2) |
| 0:08:52.231628 | LOG | Server <---------- DUT |
| 0:08:52.232627 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 017e, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: c88e2167) |
| 0:08:52.234628 | LOG | Frame command sent to the DUT |
| 0:08:52.236626 | LOG | PULL_RESP: Protocol version = 02, Token = 54fb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1694775732, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAfgHgjhzIjiFn'}} |
| 0:08:52.237624 | LOG | Server ----------> DUT |
| 0:08:52.240622 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:52.246619 | LOG | Send LinkADRReq process starts |
| 0:08:57.190557 | LOG | PUSH_ACK: 02 2e8e 01 |
| 0:08:57.192556 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e8e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1697779862, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'gCAgICCArAEB5B19Q1R0'}]} |
| 0:08:57.194583 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ac, FOpts: ), FPort: 01, FRMPayload: 004e, MIC: 7d435474) |
| 0:08:57.195583 | LOG | Server <---------- DUT |
| 0:08:57.197581 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 20, FCnt: 017f, FOpts: ), FPort: 00, FRMPayload: 0350070003), MIC: ab977333) |
| 0:08:57.200578 | LOG | PULL_RESP: Protocol version = 02, Token = 5e7f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1699779862, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAgfwEAK6Xjhnarl3Mz'}} |
| 0:08:57.202579 | LOG | Server ----------> DUT |
| 0:08:57.205576 | LOG | TX_ACK: 02 5e7f 05 3834383419003400 |
| 0:08:59.299981 | LOG | PULL_DATA: 02 d4c8 02 3834383419003400 |
| 0:08:59.301979 | LOG | PULL_ACK: 02 d4c8 04 |
| 0:09:05.614374 | LOG | PUSH_ACK: 02 2e90 01 |
| 0:09:05.623369 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e90, Identifier = 00, JSON = {'rxpk': [{'tmst': 1702792049, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'gCAgICCCrQEDBwEx5KHDRwc='}]} |
| 0:09:05.624368 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01ad, FOpts: 0307), FPort: 01, FRMPayload: 004f, MIC: a1c34707) |
| 0:09:05.626367 | LOG | Server <---------- DUT |
| 0:09:05.628366 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:09:05.630365 | LOG | Command Answer: 0307 |
| 0:09:05.652352 | LOG | MAC command communication completed |
| 0:09:05.656350 | LOG | Check number of uplinks repetitions process starts |
| 0:09:07.367635 | LOG | PUSH_ACK: 02 2e91 01 |
| 0:09:07.369636 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e91, Identifier = 00, JSON = {'rxpk': [{'tmst': 1707916745, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 17, 'data': 'gCAgICCCrQEDBwEx5KHDRwc='}]} |
| 0:09:07.370634 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01ad, FOpts: 0307), FPort: 01, FRMPayload: 004f, MIC: a1c34707) |
| 0:09:07.372635 | LOG | Server <---------- DUT |
| 0:09:07.373633 | LOG | FRMPayload is the same between retransmissions |
| 0:09:07.374634 | LOG | Original uplink: 004f |
| 0:09:07.375633 | LOG | Actual retransmission: 004f |
| 0:09:07.377631 | LOG | FOpts is the same between retransmissions |
| 0:09:07.378630 | LOG | Original uplink: 0307 |
| 0:09:07.380628 | LOG | Actual retransmission: 0307 |
| 0:09:07.381628 | LOG | FPort is the same between retransmissions |
| 0:09:07.382629 | LOG | Original uplink: 01 |
| 0:09:07.384627 | LOG | Actual retransmission: 01 |
| 0:09:09.379782 | LOG | PULL_DATA: 02 7572 02 3834383419003400 |
| 0:09:09.383779 | LOG | PULL_ACK: 02 7572 04 |
| 0:09:12.460012 | LOG | PUSH_ACK: 02 2e92 01 |
| 0:09:12.464011 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e92, Identifier = 00, JSON = {'rxpk': [{'tmst': 1713041425, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 17, 'data': 'gCAgICCCrQEDBwEx5KHDRwc='}]} |
| 0:09:12.465010 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01ad, FOpts: 0307), FPort: 01, FRMPayload: 004f, MIC: a1c34707) |
| 0:09:12.466009 | LOG | Server <---------- DUT |
| 0:09:12.468008 | LOG | FRMPayload is the same between retransmissions |
| 0:09:12.469008 | LOG | Original uplink: 004f |
| 0:09:12.471007 | LOG | Actual retransmission: 004f |
| 0:09:12.472006 | LOG | FOpts is the same between retransmissions |
| 0:09:12.474007 | LOG | Original uplink: 0307 |
| 0:09:12.476005 | LOG | Actual retransmission: 0307 |
| 0:09:12.477003 | LOG | FPort is the same between retransmissions |
| 0:09:12.478004 | LOG | Original uplink: 01 |
| 0:09:12.479002 | LOG | Actual retransmission: 01 |
| 0:09:19.459732 | LOG | PULL_DATA: 02 96a3 02 3834383419003400 |

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| 0:09:19.461732 | LOG | PULL_ACK: 02 96a3 04 |
| 0:09:22.227744 | LOG | PUSH_ACK: 02 2e93 01 |
| 0:09:22.229743 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e93, Identifier = 00, JSON = {'rxpk': [{'tmst': 1722798745, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'gCAgICCArgEBenlYztmc'}]} |
| 0:09:22.230743 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ae, FOpts: ), FPort: 01, FRMPayload: 004f, MIC: 58ced99c) |
| 0:09:22.231742 | LOG | Server <---------- DUT |
| 0:09:22.234741 | LOG | Expected repetitions of uplink message have been received |
| 0:09:22.237738 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:27.061017 | LOG | PUSH_ACK: 02 2e94 01 |
| 0:09:27.063017 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e94, Identifier = 00, JSON = {'rxpk': [{'tmst': 1727642425, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'gCAgICCArgEBenlYztmc'}]} |
| 0:09:27.064018 | LOG | DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ae, FOpts: ), FPort: 01, FRMPayload: 004f, MIC: 58ced99c) |
| 0:09:27.066015 | LOG | Server <---------- DUT |
| 0:09:27.068014 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 20, FCnt: 0180, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: c8e3326f) |
| 0:09:27.070013 | LOG | Frame command sent to the DUT |
| 0:09:27.073011 | LOG | PULL_RESP: Protocol version = 02, Token = c447, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1729642425, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAggAHgrwbI4zJv'}} |
| 0:09:27.074012 | LOG | Server ----------> DUT |
| 0:09:27.078008 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:27.081006 | LOG | Send Test Command RxAppCntReq process starts |
| 0:09:29.590036 | LOG | PULL_DATA: 02 1fc6 02 3834383419003400 |
| 0:09:29.592034 | LOG | PULL_ACK: 02 1fc6 04 |
| 0:09:32.222551 | LOG | PUSH_ACK: 02 2e96 01 |
| 0:09:32.224548 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e96, Identifier = 00, JSON = {'rxpk': [{'tmst': 1732806212, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCArwEBoPNRVgfN'}]} |
| 0:09:32.226548 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01af, FOpts: ), FPort: 01, FRMPayload: 0050, MIC: 515607cd) |
| 0:09:32.227547 | LOG | Server <---------- DUT |
| 0:09:32.229546 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0181, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 4d1a8eee) |
| 0:09:32.232544 | LOG | Frame command sent to the DUT |
| 0:09:32.234543 | LOG | PULL_RESP: Protocol version = 02, Token = fec9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1734806212, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAgQHgI00aju4='}} |
| 0:09:32.235542 | LOG | Server ----------> DUT |
| 0:09:32.239540 | LOG | TX_ACK: 02 fec9 05 3834383419003400 |
| 0:09:37.272273 | LOG | PUSH_ACK: 02 2e97 01 |
| 0:09:37.275268 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e97, Identifier = 00, JSON = {'rxpk': [{'tmst': 1737818798, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 16, 'data': 'QCAgICCAsAHgr1vj86Cb1w=='}]} |
| 0:09:37.277238 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b0, FOpts: ), FPort: e0, FRMPayload: 095100, MIC: f3a09bd7) |
| 0:09:37.278267 | LOG | Server <---------- DUT |

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| 0:09:37.280265 | LOG | Answer in payload: 5100 |
| 0:09:37.282265 | LOG | Frame Command Payload in the Answer: 095100 |
| 0:09:37.286263 | LOG | RX Count received by DUT: 81 |
| 0:09:37.289260 | LOG | Send Test Command RxAppCntReq process completed |
| 0:09:37.293260 | LOG | Check number of uplinks repetitions process starts |
| 0:09:39.790488 | LOG | PULL_DATA: 02 375e 02 3834383419003400 |
| 0:09:39.794486 | LOG | PULL_ACK: 02 375e 04 |
| 0:09:42.261094 | LOG | PUSH_ACK: 02 2e98 01 |
| 0:09:42.264093 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e98, Identifier = 00, JSON = {'rxpk': [{'tmst': 1742844406, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 16, 'data': 'QCAgICCAsAHgr1vj86Cb1w=='}]} |
| 0:09:42.265092 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b0, FOpts: ), FPort: e0, FRMPayload: 095100, MIC: f3a09bd7) |
| 0:09:42.267091 | LOG | Server <---------- DUT |
| 0:09:42.269090 | LOG | FRMPayload is the same between retransmissions |
| 0:09:42.270090 | LOG | Original uplink: 095100 |
| 0:09:42.272088 | LOG | Actual retransmission: 095100 |
| 0:09:42.273088 | LOG | FOpts is the same between retransmissions |
| 0:09:42.275087 | LOG | Original uplink: |
| 0:09:42.276088 | LOG | Actual retransmission: |
| 0:09:42.277087 | LOG | FPort is the same between retransmissions |
| 0:09:42.278087 | LOG | Original uplink: e0 |
| 0:09:42.280084 | LOG | Actual retransmission: e0 |
| 0:09:47.404193 | LOG | PUSH_ACK: 02 2e99 01 |
| 0:09:47.406192 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e99, Identifier = 00, JSON = {'rxpk': [{'tmst': 1747969030, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 16, 'data': 'QCAgICCAsAHgr1vj86Cb1w=='}]} |
| 0:09:47.408191 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b0, FOpts: ), FPort: e0, FRMPayload: 095100, MIC: f3a09bd7) |
| 0:09:47.410189 | LOG | Server <---------- DUT |
| 0:09:47.411189 | LOG | FRMPayload is the same between retransmissions |
| 0:09:47.413188 | LOG | Original uplink: 095100 |
| 0:09:47.415187 | LOG | Actual retransmission: 095100 |
| 0:09:47.416186 | LOG | FOpts is the same between retransmissions |
| 0:09:47.417185 | LOG | Original uplink: |
| 0:09:47.419184 | LOG | Actual retransmission: |
| 0:09:47.420184 | LOG | FPort is the same between retransmissions |
| 0:09:47.421184 | LOG | Original uplink: e0 |
| 0:09:47.423182 | LOG | Actual retransmission: e0 |
| 0:09:49.870159 | LOG | PULL_DATA: 02 db6d 02 3834383419003400 |
| 0:09:49.872158 | LOG | PULL_ACK: 02 db6d 04 |
| 0:09:57.272983 | LOG | PUSH_ACK: 02 2e9a 01 |
| 0:09:57.275981 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e9a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1757823718, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAsQEBU4CAuaHp'}]} |
| 0:09:57.276980 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b1, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 80b9a1e9) |
| 0:09:57.278980 | LOG | Server <---------- DUT |
| 0:09:57.281980 | LOG | Expected repetitions of uplink message have been received |
| 0:09:57.288973 | LOG | Send LinkADRReq process starts |
| 0:09:59.950472 | LOG | PULL_DATA: 02 d414 02 3834383419003400 |
| 0:09:59.951471 | LOG | PULL_ACK: 02 d414 04 |

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| 0:10:01.866391 | LOG | PUSH_ACK: 02 2e9c 01 |
| 0:10:01.869389 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e9c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1762447950, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAsQEBU4CAuaHp'}]} |
| 0:10:01.870389 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b1, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 80b9a1e9) |
| 0:10:01.871388 | LOG | Server <---------- DUT |
| 0:10:01.873387 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0182, FOpts: ), FPort: 00, FRMPayload: 0350070000), MIC: 7c4c4ef9) |
| 0:10:01.877385 | LOG | PULL_RESP: Protocol version = 02, Token = ed16, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1764447950, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAggEAbgcsfbV8TE75'}} |
| 0:10:01.878384 | LOG | Server ----------> DUT |
| 0:10:01.882382 | LOG | TX_ACK: 02 ed16 05 3834383419003400 |
| 0:10:07.284110 | LOG | PUSH_ACK: 02 2e9d 01 |
| 0:10:07.286108 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e9d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1767836142, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCsgEDBwFf+UWwfnU='}]} |
| 0:10:07.287109 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01b2, FOpts: 0307), FPort: 01, FRMPayload: 0051, MIC: 45b07e75) |
| 0:10:07.289109 | LOG | Server <---------- DUT |
| 0:10:07.290106 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:10:07.292106 | LOG | Command Answer: 0307 |
| 0:10:07.301072 | LOG | MAC command communication completed |
| 0:10:07.305099 | LOG | Check number of uplinks repetitions process starts |
| 0:10:10.070037 | LOG | PULL_DATA: 02 8a50 02 3834383419003400 |
| 0:10:10.074029 | LOG | PULL_ACK: 02 8a50 04 |
| 0:10:17.255977 | LOG | PUSH_ACK: 02 2e9e 01 |
| 0:10:17.257974 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e9e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1777836918, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAswEBN4X8k57T'}]} |
| 0:10:17.259973 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b3, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: fc939ed3) |
| 0:10:17.260973 | LOG | Server <---------- DUT |
| 0:10:17.265970 | LOG | Expected repetitions of uplink message have been received |
| 0:10:17.269968 | LOG | Check number of uplinks repetitions process starts |
| 0:10:20.150499 | LOG | PULL_DATA: 02 1093 02 3834383419003400 |
| 0:10:20.152499 | LOG | PULL_ACK: 02 1093 04 |
| 0:10:22.295407 | LOG | PUSH_ACK: 02 2e9f 01 |
| 0:10:22.297406 | LOG | PUSH_DATA: Protocol version = 02, Token = 2e9f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1782841230, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAtAEB3KUzKtsF'}]} |
| 0:10:22.299405 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b4, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 332adb05) |
| 0:10:22.300404 | LOG | Server <---------- DUT |
| 0:10:22.302404 | LOG | Expected repetitions of uplink message have been received |
| 0:10:22.306401 | LOG | Send LinkADRReq process starts |
| 0:10:27.284592 | LOG | PUSH_ACK: 02 2ea0 01 |
| 0:10:27.286592 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ea0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1787845558, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAtQEBFlJiILr8'}]} |
| 0:10:27.287592 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b5, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 6220bafc) |
| 0:10:27.288591 | LOG | Server <---------- DUT |
| 0:10:27.290590 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0183, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 87b9b4a2) |
| 0:10:27.292588 | LOG | PULL_RESP: Protocol version = 02, Token = f06f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1789845558, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAgwEAZsUn612HubSi'}} |
| 0:10:27.294587 | LOG | Server ----------> DUT |
| 0:10:27.297587 | LOG | TX_ACK: 02 f06f 05 3834383419003400 |
| 0:10:30.229803 | LOG | PULL_DATA: 02 665b 02 3834383419003400 |
| 0:10:30.232802 | LOG | PULL_ACK: 02 665b 04 |
| 0:10:32.284644 | LOG | PUSH_ACK: 02 2ea2 01 |
| 0:10:32.286643 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ea2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1792857749, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCtgEDBwFTeOhiOMw='}]} |
| 0:10:32.287643 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01b6, FOpts: 0307), FPort: 01, FRMPayload: 0051, MIC: e86238cc) |
| 0:10:32.288642 | LOG | Server <---------- DUT |
| 0:10:32.290641 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:10:32.291640 | LOG | Command Answer: 0307 |
| 0:10:32.303633 | LOG | MAC command communication completed |
| 0:10:32.306634 | LOG | End Test Step: Redundancy |
| 0:10:32.309649 | LOG | Partial Verdict: PASS |
| 0:10:32.313645 | LOG | ========== |
| 0:10:32.317643 | LOG | ========== |
| 0:10:32.319624 | LOG | Start Test Step: Successful LinkADRReq commands block |
| 0:10:32.327637 | LOG | Send MAC command block process starts |
| 0:10:40.330230 | LOG | PULL_DATA: 02 dd7a 02 3834383419003400 |
| 0:10:40.333228 | LOG | PULL_ACK: 02 dd7a 04 |
| 0:10:42.306787 | LOG | PUSH_ACK: 02 2ea3 01 |
| 0:10:42.308786 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ea3, Identifier = 00, JSON = {'rxpk': [{'tmst': 1802858517, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAtwEBN4aTw6Oi'}]} |
| 0:10:42.310786 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b7, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 93c3a3a2) |
| 0:10:42.311784 | LOG | Server <---------- DUT |
| 0:10:42.314782 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0184, FOpts: ), FPort: 00, FRMPayload: 03010000000344010000033100006 1), MIC: fa1f2d37) |
| 0:10:42.316782 | LOG | PULL_RESP: Protocol version = 02, Token = 25fb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1804858517, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 28, 'data': 'YCAgICAAhAEAYAaVc13VIFruW0Helcra+h8tNw=='}} |
| 0:10:42.318781 | LOG | Server ----------> DUT |
| 0:10:42.321778 | LOG | TX_ACK: 02 25fb 05 3834383419003400 |
| 0:10:47.456468 | LOG | PUSH_ACK: 02 2ea4 01 |
| 0:10:47.457466 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ea4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1808000536, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -19, 'size': 21, 'data': 'QCAgICCGuAEDBwMHAwcBop0Hjwfi'}]} |
| 0:10:47.459465 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 86, FCnt: 01b8, FOpts: 030703070307), FPort: 01, FRMPayload: 0051, MIC: 078f07e2) |
| 0:10:47.460466 | LOG | Server <---------- DUT |
| 0:10:47.461465 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:10:47.462465 | LOG | Command Answer: 030703070307 |
| 0:10:47.565405 | LOG | MAC command communication completed |
| 0:10:47.569403 | LOG | Receive frame on specific channels process starts |
| 0:10:47.578397 | LOG | Attempt 1/15 |
| 0:10:50.509744 | LOG | PULL_DATA: 02 91b3 02 3834383419003400 |
| 0:10:50.511742 | LOG | PULL_ACK: 02 91b3 04 |
| 0:11:00.590055 | LOG | PULL_DATA: 02 299e 02 3834383419003400 |
| 0:11:00.592053 | LOG | PULL_ACK: 02 299e 04 |
| 0:11:07.404208 | LOG | PUSH_ACK: 02 2ea6 01 |
| 0:11:07.407207 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ea6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1827991816, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAuQEBfppfISOJ'}]} |
| 0:11:07.408207 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01b9, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 5f212389) |
| 0:11:07.409207 | LOG | Server <---------- DUT |
| 0:11:07.411204 | LOG | Attempt 2/15 |
| 0:11:10.670206 | LOG | PULL_DATA: 02 ddb1 02 3834383419003400 |
| 0:11:10.674204 | LOG | PULL_ACK: 02 ddb1 04 |
| 0:11:20.749486 | LOG | PULL_DATA: 02 f23c 02 3834383419003400 |
| 0:11:20.751486 | LOG | PULL_ACK: 02 f23c 04 |
| 0:11:27.446740 | LOG | PUSH_ACK: 02 2ea7 01 |
| 0:11:27.447711 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ea7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1848003648, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAugEBK0L0lxTe'}]} |
| 0:11:27.449736 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ba, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: f49714de) |
| 0:11:27.450736 | LOG | Server <---------- DUT |
| 0:11:27.452735 | LOG | Attempt 3/15 |
| 0:11:30.829827 | LOG | PULL_DATA: 02 23c6 02 3834383419003400 |
| 0:11:30.831828 | LOG | PULL_ACK: 02 23c6 04 |
| 0:11:40.910139 | LOG | PULL_DATA: 02 0598 02 3834383419003400 |
| 0:11:40.914138 | LOG | PULL_ACK: 02 0598 04 |
| 0:11:47.454445 | LOG | PUSH_ACK: 02 2ea9 01 |
| 0:11:47.456444 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ea9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1868016832, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAuwEB6E0ItDS8'}]} |
| 0:11:47.458446 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01bb, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 08b434bc) |
| 0:11:47.459448 | LOG | Server <---------- DUT |
| 0:11:47.467438 | LOG | Receive frame on specific channels process tested successfully |
| 0:11:47.471436 | LOG | Send LinkADRReq process starts |
| 0:11:50.989450 | LOG | PULL_DATA: 02 389b 02 3834383419003400 |
| 0:11:50.991448 | LOG | PULL_ACK: 02 389b 04 |
| 0:12:01.069539 | LOG | PULL_DATA: 02 3b58 02 3834383419003400 |
| 0:12:01.071538 | LOG | PULL_ACK: 02 3b58 04 |
| 0:12:07.455752 | LOG | PUSH_ACK: 02 2eab 01 |

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|---|---|---|
| 0:12:07.458752 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eab, Identifier = 00, JSON = {'rxpk': [{'tmst': 1888028648, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAvAEBGAPVbau+'}]} |
| 0:12:07.459752 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01bc, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: d56dabbe) |
| 0:12:07.460751 | LOG | Server <---------- DUT |
| 0:12:07.462748 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0185, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: ee48e70a) |
| 0:12:07.465747 | LOG | PULL_RESP: Protocol version = 02, Token = f42b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1890028648, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAhQEAXvyG+PXuSOcK'}} |
| 0:12:07.466746 | LOG | Server ----------> DUT |
| 0:12:07.471743 | LOG | TX_ACK: 02 f42b 05 3834383419003400 |
| 0:12:11.250248 | LOG | PULL_DATA: 02 6273 02 3834383419003400 |
| 0:12:11.254246 | LOG | PULL_ACK: 02 6273 04 |
| 0:12:21.339554 | LOG | PULL_DATA: 02 b63d 02 3834383419003400 |
| 0:12:21.341552 | LOG | PULL_ACK: 02 b63d 04 |
| 0:12:27.353159 | LOG | PUSH_ACK: 02 2ead 01 |
| 0:12:27.356159 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ead, Identifier = 00, JSON = {'rxpk': [{'tmst': 1907929786, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCvQEDBwEBEy7uv7w='}]} |
| 0:12:27.358156 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01bd, FOpts: 0307), FPort: 01, FRMPayload: 0051, MIC: 2eeebfbc) |
| 0:12:27.359157 | LOG | Server <---------- DUT |
| 0:12:27.361155 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:12:27.362154 | LOG | Command Answer: 0307 |
| 0:12:27.372148 | LOG | MAC command communication completed |
| 0:12:27.376146 | LOG | End Test Step: Successful LinkADRReq commands block |
| 0:12:27.380163 | LOG | Partial Verdict: PASS |
| 0:12:27.383143 | LOG | ========== |
| 0:12:27.390138 | LOG | ========== |
| 0:12:27.393137 | LOG | Start Test Step: Unsuccessful LinkADRReq commands block |
| 0:12:27.402132 | LOG | Send MAC command block process starts |
| 0:12:31.449847 | LOG | PULL_DATA: 02 e08a 02 3834383419003400 |
| 0:12:31.451846 | LOG | PULL_ACK: 02 e08a 04 |
| 0:12:37.342521 | LOG | PUSH_ACK: 02 2eaf 01 |
| 0:12:37.345519 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eaf, Identifier = 00, JSON = {'rxpk': [{'tmst': 1917931938, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAvgEBD74dtjQL'}]} |
| 0:12:37.346519 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01be, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: 1db6340b) |
| 0:12:37.348518 | LOG | Server <---------- DUT |
| 0:12:37.350517 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0186, FOpts: ), FPort: 00, FRMPayload: 034401000003310000610350000001), MIC: 1ab6fc78) |
| 0:12:37.353515 | LOG | PULL_RESP: Protocol version = 02, Token = 6640, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1919931938, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 28, 'data': 'YCAgICAAhgEAVT8m1Bw3gB0ZJ8JsFXrlGrb8eA=='}} |
| 0:12:37.355514 | LOG | Server ----------> DUT |
| 0:12:37.359512 | LOG | TX_ACK: 02 6640 05 3834383419003400 |

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|---|---|---|
| 0:12:41.559571 | LOG | PULL_DATA: 02 526b 02 3834383419003400 |
| 0:12:41.564569 | LOG | PULL_ACK: 02 526b 04 |
| 0:12:42.376110 | LOG | PUSH_ACK: 02 2eb0 01 |
| 0:12:42.378110 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1922947917, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 21, 'data': 'QCAgICCGvwEDBAMEAwQBNz3VZsPi'}]} |
| 0:12:42.380109 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 86, FCnt: 01bf, FOpts: 030403040304), FPort: 01, FRMPayload: 0051, MIC: d566c3e2) |
| 0:12:42.381108 | LOG | Server <---------- DUT |
| 0:12:42.383107 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:12:42.384106 | LOG | Command Answer: 030403040304 |
| 0:12:42.475055 | LOG | MAC command communication completed |
| 0:12:42.478053 | LOG | End Test Step: Unsuccessful LinkADRReq commands block |
| 0:12:42.482051 | LOG | Partial Verdict: PASS |
| 0:12:42.485050 | LOG | ========== |
| 0:12:42.490047 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_012_A |
| 0:12:42.492046 | LOG | Final Verdict: PASS |

| | | |
|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_012_B | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 20:23:58 | |
| **Comments** | LinkADRReq MAC command (Part 2) | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | SF7BW250 Frequency | 868.100 |
| | FSK Frequency | 868.100 |
| | Addition of a single channel frequency | 867.700 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.011118 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_012_B |
| 0:00:00.059090 | LOG | ========== |
| 0:00:00.061089 | LOG | Start Test Step: Device activation |
| 0:00:00.126053 | LOG | Activation process has finished successfully |
| 0:00:00.129051 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.131050 | LOG | DevAddr: 20202020 |
| 0:00:00.134048 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.137046 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.140044 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.144042 | LOG | End Test Step: Device activation |
| 0:00:00.149039 | LOG | Partial Verdict: PASS |
| 0:00:00.153038 | LOG | ========== |
| 0:00:00.157035 | LOG | ========== |
| 0:00:00.161033 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.173026 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.176025 | LOG | DUT Pre-condition activation completed |
| 0:00:00.180022 | LOG | End Test Step: DUT Pre-condition settings |

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|---|---|---|
| 0:00:00.185019 | LOG | Partial Verdict: PASS |
| 0:00:00.189017 | LOG | ========== |
| 0:00:00.193014 | LOG | ========== |
| 0:00:00.196014 | LOG | Start Test Step: Data Rate Decay for all devices |
| 0:00:00.207008 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:00:04.999302 | LOG | PULL_DATA: 02 db62 02 3834383419003400 |
| 0:00:05.001301 | LOG | PULL_ACK: 02 db62 04 |
| 0:00:05.003300 | LOG | First PULL_DATA received |
| 0:00:05.761872 | LOG | PUSH_ACK: 02 2eb1 01 |
| 0:00:05.764870 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb1, Identifier = 00, JSON = {'rxpk': [{'tmst': 1932943517, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAwAEBY03oQevW'}]} |
| 0:00:05.766869 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c0, FOpts: ), FPort: 01, FRMPayload: 0051, MIC: e841ebd6) |
| 0:00:05.767868 | LOG | Server <---------- DUT |
| 0:00:05.770867 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0187, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 5c43167e) |
| 0:00:05.772865 | LOG | Frame command sent to the DUT |
| 0:00:05.774864 | LOG | PULL_RESP: Protocol version = 02, Token = 9d79, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1934943517, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAhwHgBo9cQxZ+'}} |
| 0:00:05.776864 | LOG | Server ----------> DUT |
| 0:00:05.784859 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:00:05.789856 | LOG | Send NewChannelReq process starts |
| 0:00:10.717075 | LOG | PUSH_ACK: 02 2eb2 01 |
| 0:00:10.719076 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1937947821, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAwQEB90Lb3q8n'}]} |
| 0:00:10.721074 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c1, FOpts: ), FPort: 01, FRMPayload: 0052, MIC: dbdeaf27) |
| 0:00:10.722072 | LOG | Server <---------- DUT |
| 0:00:10.724071 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0188, FOpts: ), FPort: 00, FRMPayload: 070388668450), MIC: 3e5bd16d) |
| 0:00:10.727072 | LOG | PULL_RESP: Protocol version = 02, Token = 9a0a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1939947821, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAiAEADpEd/YqbPlvRbQ=='}} |
| 0:00:10.729068 | LOG | Server ----------> DUT |
| 0:00:10.733068 | LOG | TX_ACK: 02 9a0a 05 3834383419003400 |
| 0:00:15.138581 | LOG | PULL_DATA: 02 fe41 02 3834383419003400 |
| 0:00:15.140579 | LOG | PULL_ACK: 02 fe41 04 |
| 0:00:15.744239 | LOG | PUSH_ACK: 02 2eb5 01 |
| 0:00:15.746245 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1942955911, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCwgEHAwGSs6birb4='}]} |
| 0:00:15.747239 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01c2, FOpts: 0703), FPort: 01, FRMPayload: 0052, MIC: a6e2adbe) |
| 0:00:15.749240 | LOG | Server <---------- DUT |
| 0:00:15.750236 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:15.782216 | LOG | Command Answer: 0703 |
| 0:00:15.789212 | LOG | MAC command communication completed |

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| 0:00:15.792210 | LOG | Send LinkADRReq process starts |
| 0:00:20.732422 | LOG | PUSH_ACK: 02 2eb6 01 |
| 0:00:20.734421 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1947955120, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAwwEBQ7r0rMEU'}]} |
| 0:00:20.736420 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c3, FOpts: ), FPort: 01, FRMPayload: 0052, MIC: f4acc114) |
| 0:00:20.737420 | LOG | Server <---------- DUT |
| 0:00:20.739418 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0189, FOpts: ), FPort: 00, FRMPayload: 0351080002), MIC: 0ee694fc) |
| 0:00:20.742417 | LOG | PULL_RESP: Protocol version = 02, Token = 5dcc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1949955120, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAiQEAWrp40jMO5pT8'}} |
| 0:00:20.743416 | LOG | Server ----------> DUT |
| 0:00:20.747414 | LOG | TX_ACK: 02 5dcc 05 3834383419003400 |
| 0:00:25.148929 | LOG | PULL_DATA: 02 bedb 02 3834383419003400 |
| 0:00:25.150929 | LOG | PULL_ACK: 02 bedb 04 |
| 0:00:25.739596 | LOG | PUSH_ACK: 02 2eb7 01 |
| 0:00:25.741595 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1952964556, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCxAEDBwEW2x8/lNs='}]} |
| 0:00:25.743594 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01c4, FOpts: 0307), FPort: 01, FRMPayload: 0052, MIC: 1f3f94db) |
| 0:00:25.744594 | LOG | Server <---------- DUT |
| 0:00:25.746593 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:25.747592 | LOG | Command Answer: 0307 |
| 0:00:25.755587 | LOG | MAC command communication completed |
| 0:00:25.760584 | LOG | Check number of uplinks repetitions process starts |
| 0:00:28.056289 | LOG | PUSH_ACK: 02 2eb8 01 |
| 0:00:28.058288 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb8, Identifier = 00, JSON = {'rxpk': [{'tmst': 1955251460, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCxAEDBwEW2x8/lNs='}]} |
| 0:00:28.059287 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 01c4, FOpts: 0307), FPort: 01, FRMPayload: 0052, MIC: 1f3f94db) |
| 0:00:28.061287 | LOG | Server <---------- DUT |
| 0:00:28.063285 | LOG | FRMPayload is the same between retransmissions |
| 0:00:28.064284 | LOG | Original uplink: 0052 |
| 0:00:28.065284 | LOG | Actual retransmission: 0052 |
| 0:00:28.066283 | LOG | FOpts is the same between retransmissions |
| 0:00:28.067282 | LOG | Original uplink: 0307 |
| 0:00:28.068282 | LOG | Actual retransmission: 0307 |
| 0:00:28.070281 | LOG | FPort is the same between retransmissions |
| 0:00:28.071280 | LOG | Original uplink: 01 |
| 0:00:28.072280 | LOG | Actual retransmission: 01 |
| 0:00:30.732778 | LOG | PUSH_ACK: 02 2eb9 01 |
| 0:00:30.737775 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eb9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1957962372, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAxQEB45Wi86IR'}]} |
| 0:00:30.739774 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c5, FOpts: ), FPort: 01, FRMPayload: 0052, MIC: a2f3a211) |

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| 0:00:30.741773 | LOG | Server <---------- DUT |
| 0:00:30.751767 | LOG | Expected repetitions of uplink message have been received |
| 0:00:30.756765 | LOG | Check previous uplink data rate process starts |
| 0:00:30.766759 | LOG | Uplink received with expected Data Rate |
| 0:00:30.769757 | LOG | Sending an EchoPayloadReq CP command to restart the ADRACKCnt in DUT |
| 0:00:30.773755 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:33.052469 | LOG | PUSH_ACK: 02 2eba 01 |
| 0:00:33.054468 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eba, Identifier = 00, JSON = {'rxpk': [{'tmst': 1960244164, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAxQEB45Wi86IR'}]} |
| 0:00:33.056467 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c5, FOpts: ), FPort: 01, FRMPayload: 0052, MIC: a2f3a211) |
| 0:00:33.057466 | LOG | Server <---------- DUT |
| 0:00:33.058466 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 018a, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: ed90f86e) |
| 0:00:33.085452 | LOG | Frame command sent to the DUT |
| 0:00:33.086452 | LOG | PULL_RESP: Protocol version = 02, Token = 0f33, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1962244164, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAigHg6hgnbO2Q+G4='}} |
| 0:00:33.088449 | LOG | Server ----------> DUT |
| 0:00:33.092446 | LOG | TX_ACK: 02 0f33 05 3834383419003400 |
| 0:00:35.188264 | LOG | PULL_DATA: 02 bb4f 02 3834383419003400 |
| 0:00:35.190262 | LOG | PULL_ACK: 02 bb4f 04 |
| 0:00:40.791101 | LOG | PUSH_ACK: 02 2ebb 01 |
| 0:00:40.794099 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ebb, Identifier = 00, JSON = {'rxpk': [{'tmst': 1967978173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCAxgHg/T28krE1giQ='}]} |
| 0:00:40.795099 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c6, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: b1358224) |
| 0:00:40.831079 | LOG | Server <---------- DUT |
| 0:00:40.832079 | LOG | Answer in payload: 0b0c0d |
| 0:00:40.833079 | LOG | Frame Command Payload in the Answer: 080b0c0d |
| 0:00:40.837075 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:40.840075 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:40.845071 | LOG | ADRACKReq bit is disabled |
| 0:00:40.847069 | LOG | ADRACKReq bit from DUT tested successfully |
| 0:00:40.851086 | LOG | Test adaptive data rate control in frame header process starts |
| 0:00:43.057821 | LOG | PUSH_ACK: 02 2ebc 01 |
| 0:00:43.058821 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ebc, Identifier = 00, JSON = {'rxpk': [{'tmst': 1970265069, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCAxgHg/T28krE1giQ='}], 'stat': {'time': '2021-10-09 06:35:18 GMT', 'rxnb': 8, 'rxok': 7, 'rxfw': 7, 'ackr': 87.5, 'dwnb': 2, 'txnb': 3}} |
| 0:00:43.060820 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c6, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: b1358224) |
| 0:00:43.061820 | LOG | Server <---------- DUT |
| 0:00:43.062820 | LOG | Repeated frame. It does not count |
| 0:00:45.268573 | LOG | PULL_DATA: 02 8fe5 02 3834383419003400 |
| 0:00:45.270572 | LOG | PULL_ACK: 02 8fe5 04 |
| 0:00:45.785282 | LOG | PUSH_ACK: 02 2ebd 01 |
| 0:00:45.787281 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ebd, Identifier = 00, JSON = {'rxpk': [{'tmst': 1972972597, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAxwEB+vp0gt3G'}]} |
| 0:00:45.788280 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7482ddc6) |
| 0:00:45.789280 | LOG | Server <---------- DUT |
| 0:00:45.790279 | LOG | Count = 2 |
| 0:00:48.050098 | LOG | PUSH_ACK: 02 2ebe 01 |
| 0:00:48.052097 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ebe, Identifier = 00, JSON = {'rxpk': [{'tmst': 1975254357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAxwEB+vp0gt3G'}]} |
| 0:00:48.053096 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7482ddc6) |
| 0:00:48.054095 | LOG | Server <---------- DUT |
| 0:00:48.055095 | LOG | Repeated frame. It does not count |
| 0:00:50.778558 | LOG | PUSH_ACK: 02 2ebf 01 |
| 0:00:50.780556 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ebf, Identifier = 00, JSON = {'rxpk': [{'tmst': 1977975549, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAyAEBioeeUbTL'}]} |
| 0:00:50.781556 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9e51b4cb) |
| 0:00:50.783555 | LOG | Server <---------- DUT |
| 0:00:50.784556 | LOG | Count = 3 |
| 0:00:53.043282 | LOG | PUSH_ACK: 02 2ec0 01 |
| 0:00:53.046279 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1980257317, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAyAEBioeeUbTL'}]} |
| 0:00:53.047279 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9e51b4cb) |
| 0:00:53.048279 | LOG | Server <---------- DUT |
| 0:00:53.050276 | LOG | Repeated frame. It does not count |
| 0:00:55.348978 | LOG | PULL_DATA: 02 ed6c 02 3834383419003400 |
| 0:00:55.349979 | LOG | PULL_ACK: 02 ed6c 04 |
| 0:00:55.771739 | LOG | PUSH_ACK: 02 2ec1 01 |
| 0:00:55.774738 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec1, Identifier = 00, JSON = {'rxpk': [{'tmst': 1982978509, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAyQEB8LAj24vW'}]} |
| 0:00:55.775739 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 23db8bd6) |
| 0:00:55.776739 | LOG | Server <---------- DUT |
| 0:00:55.778736 | LOG | Count = 4 |
| 0:00:58.037461 | LOG | PUSH_ACK: 02 2ec2 01 |
| 0:00:58.039461 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1985260277, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAyQEB8LAj24vW'}]} |
| 0:00:58.040461 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01c9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 23db8bd6) |
| 0:00:58.042458 | LOG | Server <---------- DUT |
| 0:00:58.043457 | LOG | Repeated frame. It does not count |
| 0:01:00.764921 | LOG | PUSH_ACK: 02 2ec3 01 |
| 0:01:00.768920 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec3, Identifier = 00, JSON = {'rxpk': [{'tmst': 1987981461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAygEBR/fgQyrc'}]} |
| 0:01:00.770918 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ca, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e0432adc) |
| 0:01:00.772917 | LOG | Server <---------- DUT |
| 0:01:00.773916 | LOG | Count = 5 |
| 0:01:03.031642 | LOG | PUSH_ACK: 02 2ec4 01 |
| 0:01:03.033641 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1990263213, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAygEBR/fgQyrc'}]} |
| 0:01:03.035640 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ca, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e0432adc) |
| 0:01:03.036639 | LOG | Server <---------- DUT |
| 0:01:03.037638 | LOG | Repeated frame. It does not count |
| 0:01:05.429288 | LOG | PULL_DATA: 02 96df 02 3834383419003400 |
| 0:01:05.430287 | LOG | PULL_ACK: 02 96df 04 |
| 0:01:05.760104 | LOG | PUSH_ACK: 02 2ec5 01 |
| 0:01:05.762101 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1992985773, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAywEBQAR+93Yf'}]} |
| 0:01:05.764099 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7ef7761f) |
| 0:01:05.765099 | LOG | Server <---------- DUT |
| 0:01:05.767099 | LOG | Count = 6 |
| 0:01:08.076794 | LOG | PUSH_ACK: 02 2ec6 01 |
| 0:01:08.078793 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1995268909, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAywEBQAR+93Yf'}]} |
| 0:01:08.079792 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7ef7761f) |
| 0:01:08.080792 | LOG | Server <---------- DUT |
| 0:01:08.081792 | LOG | Repeated frame. It does not count |
| 0:01:10.803255 | LOG | PUSH_ACK: 02 2ec7 01 |
| 0:01:10.806254 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1997990093, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzAEB9/KBZKNt'}]} |
| 0:01:10.807253 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8164a36d) |
| 0:01:10.808252 | LOG | Server <---------- DUT |
| 0:01:10.810252 | LOG | Count = 7 |
| 0:01:13.068976 | LOG | PUSH_ACK: 02 2ec8 01 |
| 0:01:13.071975 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2000273181, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAzAEB9/KBZKNt'}], 'stat': {'time': '2021-10-09 06:35:48 GMT', 'rxnb': 12, 'rxok': 12, 'rxfw': 12, 'ackr': 100.0, 'dwnb': 0, 'txnb': 0}} |
| 0:01:13.073974 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8164a36d) |
| 0:01:13.074974 | LOG | Server <---------- DUT |
| 0:01:13.075973 | LOG | Repeated frame. It does not count |
| 0:01:15.518593 | LOG | PULL_DATA: 02 a9b9 02 3834383419003400 |
| 0:01:15.520594 | LOG | PULL_ACK: 02 a9b9 04 |

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| 0:01:15.797436 | LOG | PUSH_ACK: 02 2ec9 01 |
| 0:01:15.799436 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ec9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2002994413, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzQEB1Eb8xDmB'}]} |
| 0:01:15.801436 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fcc43981) |
| 0:01:15.802436 | LOG | Server <---------- DUT |
| 0:01:15.804434 | LOG | Count = 8 |
| 0:01:18.063158 | LOG | PUSH_ACK: 02 2eca 01 |
| 0:01:18.065157 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eca, Identifier = 00, JSON = {'rxpk': [{'tmst': 2005276173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAzQEB1Eb8xDmB'}]} |
| 0:01:18.067156 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fcc43981) |
| 0:01:18.068155 | LOG | Server <---------- DUT |
| 0:01:18.070154 | LOG | Repeated frame. It does not count |
| 0:01:20.792617 | LOG | PUSH_ACK: 02 2ecc 01 |
| 0:01:20.794616 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ecc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2007997357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzgEBGBE3v4h2'}]} |
| 0:01:20.796615 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ce, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 37bf8876) |
| 0:01:20.797615 | LOG | Server <---------- DUT |
| 0:01:20.798616 | LOG | Count = 9 |
| 0:01:23.058340 | LOG | PUSH_ACK: 02 2ecd 01 |
| 0:01:23.061337 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ecd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2010279117, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzgEBGBE3v4h2'}]} |
| 0:01:23.062336 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ce, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 37bf8876) |
| 0:01:23.064335 | LOG | Server <---------- DUT |
| 0:01:23.066334 | LOG | Repeated frame. It does not count |
| 0:01:25.598905 | LOG | PULL_DATA: 02 a5ae 02 3834383419003400 |
| 0:01:25.599905 | LOG | PULL_ACK: 02 a5ae 04 |
| 0:01:25.786798 | LOG | PUSH_ACK: 02 2ece 01 |
| 0:01:25.788797 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ece, Identifier = 00, JSON = {'rxpk': [{'tmst': 2013000317, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAzwEB7t0Ca5BI'}]} |
| 0:01:25.790796 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cf, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 026b9048) |
| 0:01:25.792796 | LOG | Server <---------- DUT |
| 0:01:25.794794 | LOG | Count = 10 |
| 0:01:28.052520 | LOG | PUSH_ACK: 02 2ecf 01 |
| 0:01:28.054519 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ecf, Identifier = 00, JSON = {'rxpk': [{'tmst': 2015282085, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzwEB7t0Ca5BI'}]} |
| 0:01:28.055518 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01cf, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 026b9048) |
| 0:01:28.056518 | LOG | Server <---------- DUT |
| 0:01:28.057518 | LOG | Repeated frame. It does not count |

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| 0:01:30.778980 | LOG | PUSH_ACK: 02 2ed0 01 |
| 0:01:30.783978 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2018003261, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA0AEBznxNuJKc'}]} |
| 0:01:30.784978 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4db8929c) |
| 0:01:30.786977 | LOG | Server <---------- DUT |
| 0:01:30.787976 | LOG | Count = 11 |
| 0:01:33.098671 | LOG | PUSH_ACK: 02 2ed1 01 |
| 0:01:33.100671 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2020285029, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA0AEBznxNuJKc'}]} |
| 0:01:33.101672 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4db8929c) |
| 0:01:33.102672 | LOG | Server <---------- DUT |
| 0:01:33.103671 | LOG | Repeated frame. It does not count |
| 0:01:35.678216 | LOG | PULL_DATA: 02 52de 02 3834383419003400 |
| 0:01:35.680216 | LOG | PULL_ACK: 02 52de 04 |
| 0:01:35.774161 | LOG | PUSH_ACK: 02 2ed2 01 |
| 0:01:35.776161 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2023007589, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA0QEBKGfw2Trr'}]} |
| 0:01:35.778160 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f0d93aeb) |
| 0:01:35.779159 | LOG | Server <---------- DUT |
| 0:01:35.781158 | LOG | Count = 12 |
| 0:01:38.090860 | LOG | PUSH_ACK: 02 2ed3 01 |
| 0:01:38.093856 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2025290725, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA0QEBKGfw2Trr'}]} |
| 0:01:38.094855 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f0d93aeb) |
| 0:01:38.095855 | LOG | Server <---------- DUT |
| 0:01:38.097852 | LOG | Repeated frame. It does not count |
| 0:01:40.819314 | LOG | PUSH_ACK: 02 2ed4 01 |
| 0:01:40.822312 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2028013261, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA0gEBVp1Cy3h3'}]} |
| 0:01:40.823312 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 42cb7877) |
| 0:01:40.824311 | LOG | Server <---------- DUT |
| 0:01:40.825311 | LOG | Count = 13 |
| 0:01:43.086012 | LOG | PUSH_ACK: 02 2ed5 01 |
| 0:01:43.088011 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2030296389, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA0gEBVp1Cy3h3'}], 'stat': {'time': '2021-10-09 06:36:18 GMT', 'rxnb': 13, 'rxok': 12, 'rxfw': 12, 'ackr': 100.0, 'dwnb': 0, 'txnb': 0}} |
| 0:01:43.089009 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 42cb7877) |
| 0:01:43.090011 | LOG | Server <---------- DUT |

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| 0:01:43.092007 | LOG | Repeated frame. It does not count |
| 0:01:45.758502 | LOG | PULL_DATA: 02 498d 02 3834383419003400 |
| 0:01:45.760501 | LOG | PULL_ACK: 02 498d 04 |
| 0:01:45.814471 | LOG | PUSH_ACK: 02 2ed6 01 |
| 0:01:45.815471 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2033017589, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA0wEBEAodJFTX'}]} |
| 0:01:45.817469 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1d2454d7) |
| 0:01:45.818469 | LOG | Server <---------- DUT |
| 0:01:45.819468 | LOG | Count = 14 |
| 0:01:48.080192 | LOG | PUSH_ACK: 02 2ed7 01 |
| 0:01:48.082192 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2035299373, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA0wEBEAodJFTX'}]} |
| 0:01:48.083190 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1d2454d7) |
| 0:01:48.085189 | LOG | Server <---------- DUT |
| 0:01:48.086190 | LOG | Repeated frame. It does not count |
| 0:01:50.808401 | LOG | PUSH_ACK: 02 2ed8 01 |
| 0:01:50.811399 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2038020541, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA1AEBz4Dz/ESH'}]} |
| 0:01:50.812398 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f3fc4487) |
| 0:01:50.813397 | LOG | Server <---------- DUT |
| 0:01:50.815397 | LOG | Count = 15 |
| 0:01:53.074596 | LOG | PUSH_ACK: 02 2ed9 01 |
| 0:01:53.076594 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ed9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2040302293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA1AEBz4Dz/ESH'}]} |
| 0:01:53.078592 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f3fc4487) |
| 0:01:53.079592 | LOG | Server <---------- DUT |
| 0:01:53.080592 | LOG | Repeated frame. It does not count |
| 0:01:55.803087 | LOG | PUSH_ACK: 02 2eda 01 |
| 0:01:55.805085 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eda, Identifier = 00, JSON = {'rxpk': [{'tmst': 2043023493, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA1QEBubYKnJrt'}]} |
| 0:01:55.807084 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0a9c9aed) |
| 0:01:55.808084 | LOG | Server <---------- DUT |
| 0:01:55.809082 | LOG | Count = 16 |
| 0:01:55.849029 | LOG | PULL_DATA: 02 36ab 02 3834383419003400 |
| 0:01:55.851028 | LOG | PULL_ACK: 02 36ab 04 |
| 0:01:58.069775 | LOG | PUSH_ACK: 02 2edc 01 |
| 0:01:58.071774 | LOG | PUSH_DATA: Protocol version = 02, Token = 2edc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2045305245, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA1QEBubYKnJrt'}]} |

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| 0:01:58.072774 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0a9c9aed) |
| 0:01:58.073773 | LOG | Server <---------- DUT |
| 0:01:58.075772 | LOG | Repeated frame. It does not count |
| 0:02:00.797266 | LOG | PUSH_ACK: 02 2edd 01 |
| 0:02:00.802268 | LOG | PUSH_DATA: Protocol version = 02, Token = 2edd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2048026445, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA1gEBLn4UTFqA'}]} |
| 0:02:00.803263 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 144c5a80) |
| 0:02:00.804262 | LOG | Server <---------- DUT |
| 0:02:00.806264 | LOG | Count = 17 |
| 0:02:03.116958 | LOG | PUSH_ACK: 02 2ede 01 |
| 0:02:03.118956 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ede, Identifier = 00, JSON = {'rxpk': [{'tmst': 2050308229, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA1gEBLn4UTFqA'}]} |
| 0:02:03.120955 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 144c5a80) |
| 0:02:03.121955 | LOG | Server <---------- DUT |
| 0:02:03.122954 | LOG | Repeated frame. It does not count |
| 0:02:05.844418 | LOG | PUSH_ACK: 02 2edf 01 |
| 0:02:05.846418 | LOG | PUSH_DATA: Protocol version = 02, Token = 2edf, Identifier = 00, JSON = {'rxpk': [{'tmst': 2053030773, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA1wEB+tsvO6Sy'}]} |
| 0:02:05.848415 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2f3ba4b2) |
| 0:02:05.850414 | LOG | Server <---------- DUT |
| 0:02:05.851414 | LOG | Count = 18 |
| 0:02:05.928370 | LOG | PULL_DATA: 02 00ec 02 3834383419003400 |
| 0:02:05.930369 | LOG | PULL_ACK: 02 00ec 04 |
| 0:02:08.111139 | LOG | PUSH_ACK: 02 2ee0 01 |
| 0:02:08.116106 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2055312533, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA1wEB+tsvO6Sy'}]} |
| 0:02:08.118105 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2f3ba4b2) |
| 0:02:08.119104 | LOG | Server <---------- DUT |
| 0:02:08.121102 | LOG | Repeated frame. It does not count |
| 0:02:10.841597 | LOG | PUSH_ACK: 02 2ee1 01 |
| 0:02:10.843596 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2058035077, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA2AEBfXRurHa0'}]} |
| 0:02:10.844596 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6eac76b4) |
| 0:02:10.845596 | LOG | Server <---------- DUT |
| 0:02:10.846595 | LOG | Count = 19 |
| 0:02:13.170254 | LOG | PUSH_ACK: 02 2ee3 01 |
| 0:02:13.172254 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2060318173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA2AEBfXRurHa0'}]} |

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| 0:02:13.173251 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6eac76b4) |
| 0:02:13.175251 | LOG | Server <---------- DUT |
| 0:02:13.177251 | LOG | Repeated frame. It does not count |
| 0:02:15.845656 | LOG | PUSH_ACK: 02 2ee4 01 |
| 0:02:15.848656 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2063039389, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA2QEBci520GjK'}]} |
| 0:02:15.849654 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 76d068ca) |
| 0:02:15.850653 | LOG | Server <---------- DUT |
| 0:02:15.852652 | LOG | Count = 20 |
| 0:02:16.008565 | LOG | PULL_DATA: 02 e9e1 02 3834383419003400 |
| 0:02:16.010563 | LOG | PULL_ACK: 02 e9e1 04 |
| 0:02:18.111378 | LOG | PUSH_ACK: 02 2ee5 01 |
| 0:02:18.113376 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2065321173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA2QEBci520GjK'}]} |
| 0:02:18.115375 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01d9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 76d068ca) |
| 0:02:18.116375 | LOG | Server <---------- DUT |
| 0:02:18.118373 | LOG | Repeated frame. It does not count |
| 0:02:20.839838 | LOG | PUSH_ACK: 02 2ee6 01 |
| 0:02:20.842836 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2068043701, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA2gEBayls1DMb'}]} |
| 0:02:20.844834 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01da, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6cd4331b) |
| 0:02:20.845834 | LOG | Server <---------- DUT |
| 0:02:20.847833 | LOG | Count = 21 |
| 0:02:23.106559 | LOG | PUSH_ACK: 02 2ee7 01 |
| 0:02:23.110557 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2070325469, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA2gEBayls1DMb'}]} |
| 0:02:23.113555 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01da, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6cd4331b) |
| 0:02:23.117553 | LOG | Server <---------- DUT |
| 0:02:23.120551 | LOG | Repeated frame. It does not count |
| 0:02:25.835017 | LOG | PUSH_ACK: 02 2ee8 01 |
| 0:02:25.837016 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2073046669, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA2wEBFHZFDoqA'}]} |
| 0:02:25.838016 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01db, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 450e8a80) |
| 0:02:25.840015 | LOG | Server <---------- DUT |
| 0:02:25.841014 | LOG | Count = 22 |
| 0:02:26.088875 | LOG | PULL_DATA: 02 773b 02 3834383419003400 |
| 0:02:26.090875 | LOG | PULL_ACK: 02 773b 04 |
| 0:02:28.099739 | LOG | PUSH_ACK: 02 2ee9 01 |
| 0:02:28.101737 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ee9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2075328429, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA2wEBFHZFDoqA'}]} |
| 0:02:28.102737 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01db, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 450e8a80) |
| 0:02:28.104736 | LOG | Server <---------- DUT |
| 0:02:28.105735 | LOG | Repeated frame. It does not count |
| 0:02:30.827825 | LOG | PUSH_ACK: 02 2eea 01 |
| 0:02:30.831822 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eea, Identifier = 00, JSON = {'rxpk': [{'tmst': 2078049613, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA3AEBn7wSXetS'}]} |
| 0:02:30.833821 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01dc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 125deb52) |
| 0:02:30.834820 | LOG | Server <---------- DUT |
| 0:02:30.836819 | LOG | Count = 23 |
| 0:02:33.147514 | LOG | PUSH_ACK: 02 2eeb 01 |
| 0:02:33.149515 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eeb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2080331405, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA3AEBn7wSXetS'}]} |
| 0:02:33.150513 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01dc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 125deb52) |
| 0:02:33.151513 | LOG | Server <---------- DUT |
| 0:02:33.152513 | LOG | Repeated frame. It does not count |
| 0:02:35.824003 | LOG | PUSH_ACK: 02 2eec 01 |
| 0:02:35.826002 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eec, Identifier = 00, JSON = {'rxpk': [{'tmst': 2083053933, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA3QEBNk3Iiifi'}]} |
| 0:02:35.827002 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01dd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c88a27e2) |
| 0:02:35.829001 | LOG | Server <---------- DUT |
| 0:02:35.830000 | LOG | Count = 24 |
| 0:02:36.168809 | LOG | PULL_DATA: 02 4c52 02 3834383419003400 |
| 0:02:36.169808 | LOG | PULL_ACK: 02 4c52 04 |
| 0:02:38.140695 | LOG | PUSH_ACK: 02 2eed 01 |
| 0:02:38.142695 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eed, Identifier = 00, JSON = {'rxpk': [{'tmst': 2085335693, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA3QEBNk3Iiifi'}]} |
| 0:02:38.143696 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01dd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c88a27e2) |
| 0:02:38.145693 | LOG | Server <---------- DUT |
| 0:02:38.146692 | LOG | Repeated frame. It does not count |
| 0:02:40.870470 | LOG | PUSH_ACK: 02 2eee 01 |
| 0:02:40.871469 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eee, Identifier = 00, JSON = {'rxpk': [{'tmst': 2088058253, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA3gEBwOpvC6K8'}]} |
| 0:02:40.873468 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01de, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6f0ba2bc) |
| 0:02:40.874468 | LOG | Server <---------- DUT |
| 0:02:40.875467 | LOG | Count = 25 |
| 0:02:43.199373 | LOG | PUSH_ACK: 02 2ef0 01 |
| 0:02:43.201372 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2090341365, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA3gEBwOpvC6K8'}]} |
| 0:02:43.202371 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01de, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6f0ba2bc) |
| 0:02:43.203371 | LOG | Server <---------- DUT |
| 0:02:43.205370 | LOG | Repeated frame. It does not count |
| 0:02:45.875400 | LOG | PUSH_ACK: 02 2ef1 01 |
| 0:02:45.877399 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2093062565, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA3wEBZd0cNN5C'}]} |
| 0:02:45.879397 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01df, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1c34de42) |
| 0:02:45.880397 | LOG | Server <---------- DUT |
| 0:02:45.881397 | LOG | Count = 26 |
| 0:02:46.248189 | LOG | PULL_DATA: 02 9d4a 02 3834383419003400 |
| 0:02:46.250189 | LOG | PULL_ACK: 02 9d4a 04 |
| 0:02:48.142126 | LOG | PUSH_ACK: 02 2ef2 01 |
| 0:02:48.147119 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2095345669, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA3wEBZd0cNN5C'}]} |
| 0:02:48.150118 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01df, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1c34de42) |
| 0:02:48.155116 | LOG | Server <---------- DUT |
| 0:02:48.161111 | LOG | Repeated frame. It does not count |
| 0:02:50.871579 | LOG | PUSH_ACK: 02 2ef3 01 |
| 0:02:50.874579 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2098066893, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA4AEBrxFBUiU5'}]} |
| 0:02:50.875577 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 41522539) |
| 0:02:50.876576 | LOG | Server <---------- DUT |
| 0:02:50.878576 | LOG | Count = 27 |
| 0:02:53.139298 | LOG | PUSH_ACK: 02 2ef4 01 |
| 0:02:53.144296 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2100348645, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA4AEBrxFBUiU5'}]} |
| 0:02:53.147294 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 41522539) |
| 0:02:53.149293 | LOG | Server <---------- DUT |
| 0:02:53.151292 | LOG | Repeated frame. It does not count |
| 0:02:55.869757 | LOG | PUSH_ACK: 02 2ef5 01 |
| 0:02:55.871756 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2103069845, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA4QEBx2RnaSzZ'}]} |
| 0:02:55.873755 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 67692cd9) |
| 0:02:55.874756 | LOG | Server <---------- DUT |
| 0:02:55.876753 | LOG | Count = 28 |
| 0:02:56.328498 | LOG | PULL_DATA: 02 935b 02 3834383419003400 |
| 0:02:56.330497 | LOG | PULL_ACK: 02 935b 04 |
| 0:02:58.135872 | LOG | PUSH_ACK: 02 2ef6 01 |

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| 0:02:58.137870 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2105351605, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA4QEBx2RnaSzZ'}]} |
| 0:02:58.138870 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 67692cd9) |
| 0:02:58.139869 | LOG | Server <---------- DUT |
| 0:02:58.140869 | LOG | Repeated frame. It does not count |
| 0:03:00.863774 | LOG | PUSH_ACK: 02 2ef7 01 |
| 0:03:00.867772 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2108072789, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA4gEBxs2odkBv'}]} |
| 0:03:00.869771 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a876406f) |
| 0:03:00.870770 | LOG | Server <---------- DUT |
| 0:03:00.872770 | LOG | Count = 29 |
| 0:03:03.132627 | LOG | PUSH_ACK: 02 2ef8 01 |
| 0:03:03.138622 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2110354573, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA4gEBxs2odkBv'}]} |
| 0:03:03.139624 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a876406f) |
| 0:03:03.140623 | LOG | Server <---------- DUT |
| 0:03:03.142621 | LOG | Repeated frame. It does not count |
| 0:03:05.862264 | LOG | PUSH_ACK: 02 2ef9 01 |
| 0:03:05.864263 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ef9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2113075733, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA4wEBvNfClvQu'}]} |
| 0:03:05.866262 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c296f42e) |
| 0:03:05.868261 | LOG | Server <---------- DUT |
| 0:03:05.869261 | LOG | Count = 30 |
| 0:03:06.408956 | LOG | PULL_DATA: 02 254e 02 3834383419003400 |
| 0:03:06.410955 | LOG | PULL_ACK: 02 254e 04 |
| 0:03:08.127985 | LOG | PUSH_ACK: 02 2efa 01 |
| 0:03:08.129984 | LOG | PUSH_DATA: Protocol version = 02, Token = 2efa, Identifier = 00, JSON = {'rxpk': [{'tmst': 2115357509, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA4wEBvNfClvQu'}]} |
| 0:03:08.130984 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c296f42e) |
| 0:03:08.131983 | LOG | Server <---------- DUT |
| 0:03:08.133982 | LOG | Repeated frame. It does not count |
| 0:03:10.856424 | LOG | PUSH_ACK: 02 2efb 01 |
| 0:03:10.858423 | LOG | PUSH_DATA: Protocol version = 02, Token = 2efb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2118080061, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA5AEBdZcH9ECi'}]} |
| 0:03:10.860421 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 07f440a2) |
| 0:03:10.861421 | LOG | Server <---------- DUT |
| 0:03:10.862420 | LOG | Count = 31 |
| 0:03:13.192105 | LOG | PUSH_ACK: 02 2efd 01 |

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| 0:03:13.194104 | LOG | PUSH_DATA: Protocol version = 02, Token = 2efd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2120363189, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA5AEBdZcH9ECi'}]} |
| 0:03:13.195105 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 07f440a2) |
| 0:03:13.196103 | LOG | Server <---------- DUT |
| 0:03:13.198102 | LOG | Repeated frame. It does not count |
| 0:03:15.870592 | LOG | PUSH_ACK: 02 2efe 01 |
| 0:03:15.872591 | LOG | PUSH_DATA: Protocol version = 02, Token = 2efe, Identifier = 00, JSON = {'rxpk': [{'tmst': 2123085741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5QEB6DZNfTLw'}]} |
| 0:03:15.874590 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4d7d32f0) |
| 0:03:15.875590 | LOG | Server <---------- DUT |
| 0:03:15.877589 | LOG | Count = 32 |
| 0:03:16.488244 | LOG | PULL_DATA: 02 aab4 02 3834383419003400 |
| 0:03:16.490243 | LOG | PULL_ACK: 02 aab4 04 |
| 0:03:18.138312 | LOG | PUSH_ACK: 02 2eff 01 |
| 0:03:18.140311 | LOG | PUSH_DATA: Protocol version = 02, Token = 2eff, Identifier = 00, JSON = {'rxpk': [{'tmst': 2125368861, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5QEB6DZNfTLw'}]} |
| 0:03:18.141310 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4d7d32f0) |
| 0:03:18.142310 | LOG | Server <---------- DUT |
| 0:03:18.143309 | LOG | Repeated frame. It does not count |
| 0:03:20.868772 | LOG | PUSH_ACK: 02 2f00 01 |
| 0:03:20.870769 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f00, Identifier = 00, JSON = {'rxpk': [{'tmst': 2128090045, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA5gEB5P887y1y'}]} |
| 0:03:20.871769 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 3cef2d72) |
| 0:03:20.872768 | LOG | Server <---------- DUT |
| 0:03:20.874767 | LOG | Count = 33 |
| 0:03:23.187588 | LOG | PUSH_ACK: 02 2f01 01 |
| 0:03:23.189588 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f01, Identifier = 00, JSON = {'rxpk': [{'tmst': 2130371805, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5gEB5P887y1y'}]} |
| 0:03:23.191586 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 3cef2d72) |
| 0:03:23.192585 | LOG | Server <---------- DUT |
| 0:03:23.194585 | LOG | Repeated frame. It does not count |
| 0:03:25.867076 | LOG | PUSH_ACK: 02 2f02 01 |
| 0:03:25.870074 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f02, Identifier = 00, JSON = {'rxpk': [{'tmst': 2133093013, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA5wEBupT9q1BL'}]} |
| 0:03:25.872073 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fdab504b) |
| 0:03:25.874072 | LOG | Server <---------- DUT |
| 0:03:25.875072 | LOG | Count = 34 |
| 0:03:26.568679 | LOG | PULL_DATA: 02 3397 02 3834383419003400 |

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| 0:03:26.569679 | LOG | PULL_ACK: 02 3397 04 |
| 0:03:28.186800 | LOG | PUSH_ACK: 02 2f03 01 |
| 0:03:28.188799 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f03, Identifier = 00, JSON = {'rxpk': [{'tmst': 2135374781, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5wEBupT9q1BL'}]} |
| 0:03:28.189799 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fdab504b) |
| 0:03:28.190798 | LOG | Server <---------- DUT |
| 0:03:28.191798 | LOG | Repeated frame. It does not count |
| 0:03:30.864957 | LOG | PUSH_ACK: 02 2f04 01 |
| 0:03:30.866958 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f04, Identifier = 00, JSON = {'rxpk': [{'tmst': 2138095973, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA6AEBl+rCXOx/'}]} |
| 0:03:30.867955 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c25cec7f) |
| 0:03:30.869954 | LOG | Server <---------- DUT |
| 0:03:30.870954 | LOG | Count = 35 |
| 0:03:33.184374 | LOG | PUSH_ACK: 02 2f05 01 |
| 0:03:33.193369 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f05, Identifier = 00, JSON = {'rxpk': [{'tmst': 2140377717, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA6AEBl+rCXOx/'}]} |
| 0:03:33.196368 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c25cec7f) |
| 0:03:33.198367 | LOG | Server <---------- DUT |
| 0:03:33.200366 | LOG | Repeated frame. It does not count |
| 0:03:35.869861 | LOG | PUSH_ACK: 02 2f06 01 |
| 0:03:35.872876 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f06, Identifier = 00, JSON = {'rxpk': [{'tmst': 2143098909, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA6QEBHcEsIxWv'}]} |
| 0:03:35.873876 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2c2315af) |
| 0:03:35.875874 | LOG | Server <---------- DUT |
| 0:03:35.876855 | LOG | Count = 36 |
| 0:03:36.648450 | LOG | PULL_DATA: 02 21c9 02 3834383419003400 |
| 0:03:36.650449 | LOG | PULL_ACK: 02 21c9 04 |
| 0:03:38.189550 | LOG | PUSH_ACK: 02 2f07 01 |
| 0:03:38.191550 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f07, Identifier = 00, JSON = {'rxpk': [{'tmst': 2145380685, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA6QEBHcEsIxWv'}]} |
| 0:03:38.192547 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01e9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2c2315af) |
| 0:03:38.193549 | LOG | Server <---------- DUT |
| 0:03:38.194548 | LOG | Repeated frame. It does not count |
| 0:03:40.919039 | LOG | PUSH_ACK: 02 2f08 01 |
| 0:03:40.921008 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f08, Identifier = 00, JSON = {'rxpk': [{'tmst': 2148103229, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA6gEBEcCElg1D'}]} |
| 0:03:40.922036 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ea, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 84960d43) |
| 0:03:40.923036 | LOG | Server <---------- DUT |

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| 0:03:40.925035 | LOG | Count = 37 |
| 0:03:43.200533 | LOG | PUSH_ACK: 02 2f0a 01 |
| 0:03:43.204530 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f0a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2150385005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA6gEBEcCElg1D'}]} |
| 0:03:43.208529 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ea, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 84960d43) |
| 0:03:43.211526 | LOG | Server <---------- DUT |
| 0:03:43.214523 | LOG | Repeated frame. It does not count |
| 0:03:45.881017 | LOG | PUSH_ACK: 02 2f0b 01 |
| 0:03:45.883016 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f0b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2153107557, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA6wEBf0ulDZKw'}]} |
| 0:03:45.885016 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01eb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a50d92b0) |
| 0:03:45.886015 | LOG | Server <---------- DUT |
| 0:03:45.887014 | LOG | Count = 38 |
| 0:03:46.728539 | LOG | PULL_DATA: 02 76ca 02 3834383419003400 |
| 0:03:46.729538 | LOG | PULL_ACK: 02 76ca 04 |
| 0:03:48.199708 | LOG | PUSH_ACK: 02 2f0c 01 |
| 0:03:48.201707 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f0c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2155390669, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA6wEBf0ulDZKw'}]} |
| 0:03:48.202708 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01eb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a50d92b0) |
| 0:03:48.204708 | LOG | Server <---------- DUT |
| 0:03:48.205705 | LOG | Repeated frame. It does not count |
| 0:03:50.929168 | LOG | PUSH_ACK: 02 2f0d 01 |
| 0:03:50.931166 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f0d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2158111877, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA7AEB7LcczK7g'}]} |
| 0:03:50.933165 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ec, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1cccaee0) |
| 0:03:50.934164 | LOG | Server <---------- DUT |
| 0:03:50.935164 | LOG | Count = 39 |
| 0:03:53.196888 | LOG | PUSH_ACK: 02 2f0e 01 |
| 0:03:53.199886 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f0e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2160393613, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA7AEB7LcczK7g'}]} |
| 0:03:53.200884 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ec, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1cccaee0) |
| 0:03:53.201884 | LOG | Server <---------- DUT |
| 0:03:53.203883 | LOG | Repeated frame. It does not count |
| 0:03:55.928364 | LOG | PUSH_ACK: 02 2f0f 01 |
| 0:03:55.930362 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f0f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2163114829, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA7QEB0gIwhYIy'}]} |
| 0:03:55.932362 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ed, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 30858232) |
| 0:03:55.933361 | LOG | Server <---------- DUT |

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| 0:03:55.935360 | LOG | Count = 40 |
| 0:03:56.838059 | LOG | PULL_DATA: 02 831c 02 3834383419003400 |
| 0:03:56.840086 | LOG | PULL_ACK: 02 831c 04 |
| 0:03:58.196290 | LOG | PUSH_ACK: 02 2f10 01 |
| 0:03:58.198290 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f10, Identifier = 00, JSON = {'rxpk': [{'tmst': 2165396589, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA7QEB0gIwhYIy'}]} |
| 0:03:58.199289 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ed, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 30858232) |
| 0:03:58.200287 | LOG | Server <---------- DUT |
| 0:03:58.202286 | LOG | Repeated frame. It does not count |
| 0:04:00.926890 | LOG | PUSH_ACK: 02 2f11 01 |
| 0:04:00.928890 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f11, Identifier = 00, JSON = {'rxpk': [{'tmst': 2168117797, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA7gEBkq7ytILk'}]} |
| 0:04:00.930889 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ee, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f2b482e4) |
| 0:04:00.931889 | LOG | Server <---------- DUT |
| 0:04:00.933887 | LOG | Count = 41 |
| 0:04:03.194610 | LOG | PUSH_ACK: 02 2f12 01 |
| 0:04:03.198608 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f12, Identifier = 00, JSON = {'rxpk': [{'tmst': 2170399557, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA7gEBkq7ytILk'}]} |
| 0:04:03.199607 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ee, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f2b482e4) |
| 0:04:03.200608 | LOG | Server <---------- DUT |
| 0:04:03.201607 | LOG | Repeated frame. It does not count |
| 0:04:05.927067 | LOG | PUSH_ACK: 02 2f13 01 |
| 0:04:05.929068 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f13, Identifier = 00, JSON = {'rxpk': [{'tmst': 2173120749, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA7wEB6V/2qQBM'}]} |
| 0:04:05.931065 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ef, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f6a9004c) |
| 0:04:05.932064 | LOG | Server <---------- DUT |
| 0:04:05.933066 | LOG | Count = 42 |
| 0:04:06.938496 | LOG | PULL_DATA: 02 78d5 02 3834383419003400 |
| 0:04:06.939498 | LOG | PULL_ACK: 02 78d5 04 |
| 0:04:08.194788 | LOG | PUSH_ACK: 02 2f14 01 |
| 0:04:08.197786 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f14, Identifier = 00, JSON = {'rxpk': [{'tmst': 2175402525, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA7wEB6V/2qQBM'}]} |
| 0:04:08.198785 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ef, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f6a9004c) |
| 0:04:08.199784 | LOG | Server <---------- DUT |
| 0:04:08.200783 | LOG | Repeated frame. It does not count |
| 0:04:10.926167 | LOG | PUSH_ACK: 02 2f15 01 |
| 0:04:10.928166 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f15, Identifier = 00, JSON = {'rxpk': [{'tmst': 2178123701, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA8AEBemYPDTS2'}]} |

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| 0:04:10.929165 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0f0d34b6) |
| 0:04:10.931163 | LOG | Server <---------- DUT |
| 0:04:10.932163 | LOG | Count = 43 |
| 0:04:13.210845 | LOG | PUSH_ACK: 02 2f17 01 |
| 0:04:13.212844 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f17, Identifier = 00, JSON = {'rxpk': [{'tmst': 2180405453, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA8AEBemYPDTS2'}]} |
| 0:04:13.213845 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0f0d34b6) |
| 0:04:13.214844 | LOG | Server <---------- DUT |
| 0:04:13.216843 | LOG | Repeated frame. It does not count |
| 0:04:15.939091 | LOG | PUSH_ACK: 02 2f18 01 |
| 0:04:15.941090 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f18, Identifier = 00, JSON = {'rxpk': [{'tmst': 2183128005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA8QEBPt6VAfVM'}]} |
| 0:04:15.942090 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9501f54c) |
| 0:04:15.943091 | LOG | Server <---------- DUT |
| 0:04:15.945088 | LOG | Count = 44 |
| 0:04:17.028593 | LOG | PULL_DATA: 02 fac1 02 3834383419003400 |
| 0:04:17.030591 | LOG | PULL_ACK: 02 fac1 04 |
| 0:04:18.206927 | LOG | PUSH_ACK: 02 2f19 01 |
| 0:04:18.212924 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f19, Identifier = 00, JSON = {'rxpk': [{'tmst': 2185411117, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA8QEBPt6VAfVM'}]} |
| 0:04:18.215923 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9501f54c) |
| 0:04:18.218920 | LOG | Server <---------- DUT |
| 0:04:18.221919 | LOG | Repeated frame. It does not count |
| 0:04:20.939385 | LOG | PUSH_ACK: 02 2f1a 01 |
| 0:04:20.942383 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f1a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2188132333, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA8gEBe0b74xcY'}]} |
| 0:04:20.943382 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fbe31718) |
| 0:04:20.945381 | LOG | Server <---------- DUT |
| 0:04:20.947380 | LOG | Count = 45 |
| 0:04:23.208105 | LOG | PUSH_ACK: 02 2f1b 01 |
| 0:04:23.210103 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f1b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2190415461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA8gEBe0b74xcY'}]} |
| 0:04:23.211104 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fbe31718) |
| 0:04:23.212103 | LOG | Server <---------- DUT |
| 0:04:23.214101 | LOG | Repeated frame. It does not count |
| 0:04:25.937563 | LOG | PUSH_ACK: 02 2f1c 01 |
| 0:04:25.939562 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f1c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2193136645, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA8wEBLcPAhn3z'}]} |

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| 0:04:25.941560 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c0867df3) |
| 0:04:25.942560 | LOG | Server <---------- DUT |
| 0:04:25.944559 | LOG | Count = 46 |
| 0:04:27.108901 | LOG | PULL_DATA: 02 6230 02 3834383419003400 |
| 0:04:27.110900 | LOG | PULL_ACK: 02 6230 04 |
| 0:04:28.205282 | LOG | PUSH_ACK: 02 2f1d 01 |
| 0:04:28.208281 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f1d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2195418421, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA8wEBLcPAhn3z'}]} |
| 0:04:28.209280 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c0867df3) |
| 0:04:28.210279 | LOG | Server <---------- DUT |
| 0:04:28.212278 | LOG | Repeated frame. It does not count |
| 0:04:30.935740 | LOG | PUSH_ACK: 02 2f1e 01 |
| 0:04:30.937740 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f1e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2198139597, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA9AEBWbr0kj8R'}]} |
| 0:04:30.939740 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f4923f11) |
| 0:04:30.940738 | LOG | Server <---------- DUT |
| 0:04:30.941737 | LOG | Count = 47 |
| 0:04:33.203602 | LOG | PUSH_ACK: 02 2f1f 01 |
| 0:04:33.205601 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f1f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2200421357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA9AEBWbr0kj8R'}]} |
| 0:04:33.206601 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f4923f11) |
| 0:04:33.207600 | LOG | Server <---------- DUT |
| 0:04:33.211598 | LOG | Repeated frame. It does not count |
| 0:04:35.933498 | LOG | PUSH_ACK: 02 2f20 01 |
| 0:04:35.936495 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f20, Identifier = 00, JSON = {'rxpk': [{'tmst': 2203142549, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA9QEBKp7h3xF8'}]} |
| 0:04:35.938497 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e1df117c) |
| 0:04:35.939494 | LOG | Server <---------- DUT |
| 0:04:35.940494 | LOG | Count = 48 |
| 0:04:37.187788 | LOG | PULL_DATA: 02 6d63 02 3834383419003400 |
| 0:04:37.189787 | LOG | PULL_ACK: 02 6d63 04 |
| 0:04:38.202217 | LOG | PUSH_ACK: 02 2f21 01 |
| 0:04:38.206215 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f21, Identifier = 00, JSON = {'rxpk': [{'tmst': 2205424317, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA9QEBKp7h3xF8'}]} |
| 0:04:38.209214 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e1df117c) |
| 0:04:38.210214 | LOG | Server <---------- DUT |
| 0:04:38.211213 | LOG | Repeated frame. It does not count |
| 0:04:40.933674 | LOG | PUSH_ACK: 02 2f22 01 |
| 0:04:40.935673 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f22, Identifier = 00, JSON = {'rxpk': [{'tmst': 2208145485, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA9gEBtTusHkF8'}]} |
| 0:04:40.937672 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ac1e417c) |
| 0:04:40.938672 | LOG | Server <---------- DUT |
| 0:04:40.939671 | LOG | Count = 49 |
| 0:04:43.211541 | LOG | PUSH_ACK: 02 2f24 01 |
| 0:04:43.214539 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f24, Identifier = 00, JSON = {'rxpk': [{'tmst': 2210427261, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA9gEBtTusHkF8'}]} |
| 0:04:43.216538 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ac1e417c) |
| 0:04:43.217538 | LOG | Server <---------- DUT |
| 0:04:43.219537 | LOG | Repeated frame. It does not count |
| 0:04:45.942000 | LOG | PUSH_ACK: 02 2f25 01 |
| 0:04:45.943999 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f25, Identifier = 00, JSON = {'rxpk': [{'tmst': 2213149813, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA9wEBBP/arwoM'}]} |
| 0:04:45.944998 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: daaf0a0c) |
| 0:04:45.945997 | LOG | Server <---------- DUT |
| 0:04:45.947996 | LOG | Count = 50 |
| 0:04:47.287883 | LOG | PULL_DATA: 02 1c56 02 3834383419003400 |
| 0:04:47.289881 | LOG | PULL_ACK: 02 1c56 04 |
| 0:04:48.209362 | LOG | PUSH_ACK: 02 2f26 01 |
| 0:04:48.211361 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f26, Identifier = 00, JSON = {'rxpk': [{'tmst': 2215432949, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA9wEBBP/arwoM'}]} |
| 0:04:48.213360 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: daaf0a0c) |
| 0:04:48.215359 | LOG | Server <---------- DUT |
| 0:04:48.216358 | LOG | Repeated frame. It does not count |
| 0:04:50.938822 | LOG | PUSH_ACK: 02 2f27 01 |
| 0:04:50.940821 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f27, Identifier = 00, JSON = {'rxpk': [{'tmst': 2218154141, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA+AEBv0/rIrbD'}]} |
| 0:04:50.941821 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eb22b6c3) |
| 0:04:50.942821 | LOG | Server <---------- DUT |
| 0:04:50.943820 | LOG | Count = 51 |
| 0:04:53.206122 | LOG | PUSH_ACK: 02 2f28 01 |
| 0:04:53.208121 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f28, Identifier = 00, JSON = {'rxpk': [{'tmst': 2220437253, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA+AEBv0/rIrbD'}]} |
| 0:04:53.210119 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eb22b6c3) |
| 0:04:53.211119 | LOG | Server <---------- DUT |
| 0:04:53.213119 | LOG | Repeated frame. It does not count |
| 0:04:55.937043 | LOG | PUSH_ACK: 02 2f29 01 |
| 0:04:55.939041 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f29, Identifier = 00, JSON = {'rxpk': [{'tmst': 2223158469, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA+QEBaIawwx5Q'}]} |
| 0:04:55.940039 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b0c31e50) |
| 0:04:55.942039 | LOG | Server <---------- DUT |
| 0:04:55.943038 | LOG | Count = 52 |
| 0:04:57.368234 | LOG | PULL_DATA: 02 4493 02 3834383419003400 |
| 0:04:57.370232 | LOG | PULL_ACK: 02 4493 04 |
| 0:04:58.252751 | LOG | PUSH_ACK: 02 2f2a 01 |
| 0:04:58.255732 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f2a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2225440229, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA+QEBaIawwx5Q'}]} |
| 0:04:58.256732 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01f9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b0c31e50) |
| 0:04:58.257749 | LOG | Server <---------- DUT |
| 0:04:58.259730 | LOG | Repeated frame. It does not count |
| 0:05:00.932321 | LOG | PUSH_ACK: 02 2f2b 01 |
| 0:05:00.934320 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f2b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2228161141, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA+gEBQPRuKfwl'}]} |
| 0:05:00.936320 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fa, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6e29fc25) |
| 0:05:00.937319 | LOG | Server <---------- DUT |
| 0:05:00.939318 | LOG | Count = 53 |
| 0:05:03.252547 | LOG | PUSH_ACK: 02 2f2c 01 |
| 0:05:03.261540 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f2c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2230442893, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA+gEBQPRuKfwl'}]} |
| 0:05:03.263540 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fa, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6e29fc25) |
| 0:05:03.264539 | LOG | Server <---------- DUT |
| 0:05:03.266538 | LOG | Repeated frame. It does not count |
| 0:05:05.938030 | LOG | PUSH_ACK: 02 2f2d 01 |
| 0:05:05.940028 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f2d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2233164109, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA+wEBaobD23vQ'}]} |
| 0:05:05.942027 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c3db7bd0) |
| 0:05:05.944026 | LOG | Server <---------- DUT |
| 0:05:05.946025 | LOG | Count = 54 |
| 0:05:07.448177 | LOG | PULL_DATA: 02 9190 02 3834383419003400 |
| 0:05:07.450175 | LOG | PULL_ACK: 02 9190 04 |
| 0:05:08.255721 | LOG | PUSH_ACK: 02 2f2e 01 |
| 0:05:08.257720 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f2e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2235445869, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA+wEBaobD23vQ'}]} |
| 0:05:08.259720 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c3db7bd0) |
| 0:05:08.260718 | LOG | Server <---------- DUT |
| 0:05:08.293699 | LOG | Repeated frame. It does not count |
| 0:05:10.931210 | LOG | PUSH_ACK: 02 2f2f 01 |

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| 0:05:10.933211 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f2f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2238167077, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA/AEB2CyfZIai'}]} |
| 0:05:10.935208 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9f6486a2) |
| 0:05:10.936207 | LOG | Server <---------- DUT |
| 0:05:10.938206 | LOG | Count = 55 |
| 0:05:13.260964 | LOG | PUSH_ACK: 02 2f31 01 |
| 0:05:13.262965 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f31, Identifier = 00, JSON = {'rxpk': [{'tmst': 2240448829, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA/AEB2CyfZIai'}]} |
| 0:05:13.263963 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9f6486a2) |
| 0:05:13.264962 | LOG | Server <---------- DUT |
| 0:05:13.266961 | LOG | Repeated frame. It does not count |
| 0:05:15.936933 | LOG | PUSH_ACK: 02 2f32 01 |
| 0:05:15.937932 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f32, Identifier = 00, JSON = {'rxpk': [{'tmst': 2243170029, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA/QEBto8whpTx'}]} |
| 0:05:15.939931 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 308694f1) |
| 0:05:15.940932 | LOG | Server <---------- DUT |
| 0:05:15.942930 | LOG | Count = 56 |
| 0:05:17.528229 | LOG | PULL_DATA: 02 e52e 02 3834383419003400 |
| 0:05:17.530228 | LOG | PULL_ACK: 02 e52e 04 |
| 0:05:18.254916 | LOG | PUSH_ACK: 02 2f34 01 |
| 0:05:18.256897 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f34, Identifier = 00, JSON = {'rxpk': [{'tmst': 2245451797, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA/QEBto8whpTx'}]} |
| 0:05:18.258896 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 308694f1) |
| 0:05:18.259895 | LOG | Server <---------- DUT |
| 0:05:18.260895 | LOG | Repeated frame. It does not count |
| 0:05:20.982463 | LOG | PUSH_ACK: 02 2f35 01 |
| 0:05:20.984463 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f35, Identifier = 00, JSON = {'rxpk': [{'tmst': 2248174349, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA/gEB8D3W1e64'}]} |
| 0:05:20.986461 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fe, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d6d5eeb8) |
| 0:05:20.987460 | LOG | Server <---------- DUT |
| 0:05:20.988460 | LOG | Count = 57 |
| 0:05:23.248153 | LOG | PUSH_ACK: 02 2f36 01 |
| 0:05:23.250152 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f36, Identifier = 00, JSON = {'rxpk': [{'tmst': 2250456109, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA/gEB8D3W1e64'}]} |
| 0:05:23.252153 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01fe, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d6d5eeb8) |
| 0:05:23.253152 | LOG | Server <---------- DUT |
| 0:05:23.254152 | LOG | Repeated frame. It does not count |
| 0:05:25.976197 | LOG | PUSH_ACK: 02 2f37 01 |

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| 0:05:25.978197 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f37, Identifier = 00, JSON = {'rxpk': [{'tmst': 2253178661, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA/wEBxxzgS7K0'}]} |
| 0:05:25.979199 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ff, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e04bb2b4) |
| 0:05:25.980197 | LOG | Server <---------- DUT |
| 0:05:25.982196 | LOG | Count = 58 |
| 0:05:27.608439 | LOG | PULL_DATA: 02 da78 02 3834383419003400 |
| 0:05:27.610437 | LOG | PULL_ACK: 02 da78 04 |
| 0:05:28.242670 | LOG | PUSH_ACK: 02 2f38 01 |
| 0:05:28.244669 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f38, Identifier = 00, JSON = {'rxpk': [{'tmst': 2255461805, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA/wEBxxzgS7K0'}]} |
| 0:05:28.245668 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 01ff, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e04bb2b4) |
| 0:05:28.246668 | LOG | Server <---------- DUT |
| 0:05:28.248667 | LOG | Repeated frame. It does not count |
| 0:05:30.970044 | LOG | PUSH_ACK: 02 2f39 01 |
| 0:05:30.972044 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f39, Identifier = 00, JSON = {'rxpk': [{'tmst': 2258182997, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAAIB0VGYGT8Q'}]} |
| 0:05:30.974017 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0200, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 98193f10) |
| 0:05:30.976042 | LOG | Server <---------- DUT |
| 0:05:30.978042 | LOG | Count = 59 |
| 0:05:33.236736 | LOG | PUSH_ACK: 02 2f3a 01 |
| 0:05:33.240733 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f3a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2260464757, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAAIB0VGYGT8Q'}]} |
| 0:05:33.243733 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0200, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 98193f10) |
| 0:05:33.247728 | LOG | Server <---------- DUT |
| 0:05:33.250727 | LOG | Repeated frame. It does not count |
| 0:05:35.965907 | LOG | PUSH_ACK: 02 2f3b 01 |
| 0:05:35.969905 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2263185957, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAQIBld31YXrK'}]} |
| 0:05:35.970905 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0201, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f5617aca) |
| 0:05:35.972904 | LOG | Server <---------- DUT |
| 0:05:35.974903 | LOG | Count = 60 |
| 0:05:37.697930 | LOG | PULL_DATA: 02 8aff 02 3834383419003400 |
| 0:05:37.699928 | LOG | PULL_ACK: 02 8aff 04 |
| 0:05:38.233627 | LOG | PUSH_ACK: 02 2f3c 01 |
| 0:05:38.235626 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f3c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2265467717, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAQIBld31YXrK'}]} |
| 0:05:38.237625 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0201, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f5617aca) |
| 0:05:38.239624 | LOG | Server <---------- DUT |

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| 0:05:38.241623 | LOG | Repeated frame. It does not count |
| 0:05:40.962015 | LOG | PUSH_ACK: 02 2f3d 01 |
| 0:05:40.964014 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f3d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2268188925, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAgIBb2ytg0J6'}]} |
| 0:05:40.966012 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0202, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ad83427a) |
| 0:05:40.966984 | LOG | Server <---------- DUT |
| 0:05:40.969011 | LOG | Count = 61 |
| 0:05:43.240727 | LOG | PUSH_ACK: 02 2f3f 01 |
| 0:05:43.243698 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f3f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2270470685, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAAgIBb2ytg0J6'}]} |
| 0:05:43.244725 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0202, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ad83427a) |
| 0:05:43.246724 | LOG | Server <---------- DUT |
| 0:05:43.247724 | LOG | Repeated frame. It does not count |
| 0:05:45.969263 | LOG | PUSH_ACK: 02 2f40 01 |
| 0:05:45.972261 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f40, Identifier = 00, JSON = {'rxpk': [{'tmst': 2273191877, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAwIB0VDuR392'}]} |
| 0:05:45.973261 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0203, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ee477f76) |
| 0:05:45.975260 | LOG | Server <---------- DUT |
| 0:05:45.976260 | LOG | Count = 62 |
| 0:05:47.778242 | LOG | PULL_DATA: 02 c734 02 3834383419003400 |
| 0:05:47.780241 | LOG | PULL_ACK: 02 c734 04 |
| 0:05:48.286955 | LOG | PUSH_ACK: 02 2f41 01 |
| 0:05:48.287955 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f41, Identifier = 00, JSON = {'rxpk': [{'tmst': 2275473645, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAAwIB0VDuR392'}]} |
| 0:05:48.289953 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0203, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ee477f76) |
| 0:05:48.290953 | LOG | Server <---------- DUT |
| 0:05:48.291952 | LOG | Repeated frame. It does not count |
| 0:05:50.962444 | LOG | PUSH_ACK: 02 2f42 01 |
| 0:05:50.964443 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f42, Identifier = 00, JSON = {'rxpk': [{'tmst': 2278194829, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCABAIBvWGLfN34'}]} |
| 0:05:50.965442 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0204, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8b7cddf8) |
| 0:05:50.967442 | LOG | Server <---------- DUT |
| 0:05:50.968441 | LOG | Count = 63 |
| 0:05:53.279138 | LOG | PUSH_ACK: 02 2f43 01 |
| 0:05:53.281137 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f43, Identifier = 00, JSON = {'rxpk': [{'tmst': 2280476605, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCABAIBvWGLfN34'}]} |
| 0:05:53.282134 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0204, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8b7cddf8) |
| 0:05:53.283136 | LOG | Server <---------- DUT |

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| 0:05:53.284135 | LOG | Repeated frame. It does not count |
| 0:05:56.006111 | LOG | PUSH_ACK: 02 2f44 01 |
| 0:05:56.008112 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f44, Identifier = 00, JSON = {'rxpk': [{'tmst': 2283199141, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDABQIB48z6aOHB'}]} |
| 0:05:56.010109 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0205, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fa68e1c1) |
| 0:05:56.011108 | LOG | Server <---------- DUT |
| 0:05:56.013107 | LOG | Count = 64 |
| 0:05:56.014107 | LOG | Waiting for the retransmissions |
| 0:05:57.868059 | LOG | PULL_DATA: 02 b4fa 02 3834383419003400 |
| 0:05:57.870059 | LOG | PULL_ACK: 02 b4fa 04 |
| 0:05:58.273346 | LOG | PUSH_ACK: 02 2f45 01 |
| 0:05:58.275345 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f45, Identifier = 00, JSON = {'rxpk': [{'tmst': 2285482269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDABQIB48z6aOHB'}]} |
| 0:05:58.277344 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0205, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fa68e1c1) |
| 0:05:58.278343 | LOG | Server <---------- DUT |
| 0:05:58.299331 | LOG | Expected number of uplink messages have been received |
| 0:05:58.303329 | LOG | Test adaptive data rate control in frame header process starts |
| 0:06:01.000937 | LOG | PUSH_ACK: 02 2f46 01 |
| 0:06:01.003936 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f46, Identifier = 00, JSON = {'rxpk': [{'tmst': 2288203461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDABgIBRDybwMUG'}]} |
| 0:06:01.004936 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0206, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9bc0c506) |
| 0:06:01.006935 | LOG | Server <---------- DUT |
| 0:06:01.008933 | LOG | Count = 2 |
| 0:06:03.266660 | LOG | PUSH_ACK: 02 2f47 01 |
| 0:06:03.269657 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f47, Identifier = 00, JSON = {'rxpk': [{'tmst': 2290486589, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDABgIBRDybwMUG'}]} |
| 0:06:03.271656 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0206, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9bc0c506) |
| 0:06:03.273656 | LOG | Server <---------- DUT |
| 0:06:03.275655 | LOG | Repeated frame. It does not count |
| 0:06:05.995006 | LOG | PUSH_ACK: 02 2f48 01 |
| 0:06:06.000004 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f48, Identifier = 00, JSON = {'rxpk': [{'tmst': 2293207773, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDABwIBzp5E6Pf1'}]} |
| 0:06:06.002003 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0207, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 44e8f7f5) |
| 0:06:06.003002 | LOG | Server <---------- DUT |
| 0:06:06.004002 | LOG | Count = 3 |
| 0:06:07.947719 | LOG | PULL_DATA: 02 ccd5 02 3834383419003400 |
| 0:06:07.949717 | LOG | PULL_ACK: 02 ccd5 04 |
| 0:06:08.265556 | LOG | PUSH_ACK: 02 2f49 01 |
| 0:06:08.269541 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f49, Identifier = 00, JSON = {'rxpk': [{'tmst': 2295489533, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDABwIBzp5E6Pf1'}]} |
| 0:06:08.271534 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0207, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 44e8f7f5) |
| 0:06:08.272534 | LOG | Server <---------- DUT |
| 0:06:08.273533 | LOG | Repeated frame. It does not count |
| 0:06:10.994996 | LOG | PUSH_ACK: 02 2f4a 01 |
| 0:06:10.996995 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f4a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2298210717, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDACAIBr6yKMCYc'}]} |
| 0:06:10.998994 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0208, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8a30261c) |
| 0:06:11.000993 | LOG | Server <---------- DUT |
| 0:06:11.001994 | LOG | Count = 4 |
| 0:06:13.271713 | LOG | PUSH_ACK: 02 2f4c 01 |
| 0:06:13.274710 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f4c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2300492485, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDACAIBr6yKMCYc'}]} |
| 0:06:13.276708 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0208, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8a30261c) |
| 0:06:13.277708 | LOG | Server <---------- DUT |
| 0:06:13.278707 | LOG | Repeated frame. It does not count |
| 0:06:16.000170 | LOG | PUSH_ACK: 02 2f4d 01 |
| 0:06:16.002170 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f4d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2303213685, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDACQIBK20xzJW1'}]} |
| 0:06:16.003169 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0209, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 31cc95b5) |
| 0:06:16.004169 | LOG | Server <---------- DUT |
| 0:06:16.005168 | LOG | Count = 5 |
| 0:06:18.028025 | LOG | PULL_DATA: 02 c442 02 3834383419003400 |
| 0:06:18.030025 | LOG | PULL_ACK: 02 c442 04 |
| 0:06:18.265893 | LOG | PUSH_ACK: 02 2f4e 01 |
| 0:06:18.270890 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f4e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2305495453, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDACQIBK20xzJW1'}]} |
| 0:06:18.274888 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0209, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 31cc95b5) |
| 0:06:18.278886 | LOG | Server <---------- DUT |
| 0:06:18.282884 | LOG | Repeated frame. It does not count |
| 0:06:20.996350 | LOG | PUSH_ACK: 02 2f4f 01 |
| 0:06:20.998348 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f4f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2308216637, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDACgIBT91mh5fR'}]} |
| 0:06:21.000348 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 668797d1) |
| 0:06:21.001347 | LOG | Server <---------- DUT |
| 0:06:21.002347 | LOG | Count = 6 |
| 0:06:23.314041 | LOG | PUSH_ACK: 02 2f50 01 |
| 0:06:23.316040 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f50, Identifier = 00, JSON = {'rxpk': [{'tmst': 2310498397, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDACgIBT91mh5fR'}]} |
| 0:06:23.318039 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 668797d1) |
| 0:06:23.319038 | LOG | Server <---------- DUT |
| 0:06:23.321037 | LOG | Repeated frame. It does not count |
| 0:06:25.990440 | LOG | PUSH_ACK: 02 2f51 01 |
| 0:06:25.992439 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f51, Identifier = 00, JSON = {'rxpk': [{'tmst': 2313220949, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDACwIB1o983+oC'}]} |
| 0:06:25.993440 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7cdfea02) |
| 0:06:25.995439 | LOG | Server <---------- DUT |
| 0:06:25.996457 | LOG | Count = 7 |
| 0:06:28.108245 | LOG | PULL_DATA: 02 9f47 02 3834383419003400 |
| 0:06:28.109246 | LOG | PULL_ACK: 02 9f47 04 |
| 0:06:28.306133 | LOG | PUSH_ACK: 02 2f52 01 |
| 0:06:28.308133 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f52, Identifier = 00, JSON = {'rxpk': [{'tmst': 2315502693, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDACwIB1o983+oC'}]} |
| 0:06:28.310131 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7cdfea02) |
| 0:06:28.311131 | LOG | Server <---------- DUT |
| 0:06:28.312132 | LOG | Repeated frame. It does not count |
| 0:06:31.034545 | LOG | PUSH_ACK: 02 2f53 01 |
| 0:06:31.036543 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f53, Identifier = 00, JSON = {'rxpk': [{'tmst': 2318223917, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDADAIBU4bG3tj1'}]} |
| 0:06:31.037544 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c6ded8f5) |
| 0:06:31.039541 | LOG | Server <---------- DUT |
| 0:06:31.041541 | LOG | Count = 8 |
| 0:06:33.300161 | LOG | PUSH_ACK: 02 2f54 01 |
| 0:06:33.302159 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f54, Identifier = 00, JSON = {'rxpk': [{'tmst': 2320507037, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDADAIBU4bG3tj1'}]} |
| 0:06:33.304157 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c6ded8f5) |
| 0:06:33.305156 | LOG | Server <---------- DUT |
| 0:06:33.307155 | LOG | Repeated frame. It does not count |
| 0:06:36.027725 | LOG | PUSH_ACK: 02 2f55 01 |
| 0:06:36.032724 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f55, Identifier = 00, JSON = {'rxpk': [{'tmst': 2323228237, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDADQIBDjWXHTgG'}]} |
| 0:06:36.033723 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 971d3806) |
| 0:06:36.035722 | LOG | Server <---------- DUT |
| 0:06:36.036720 | LOG | Count = 9 |
| 0:06:38.188427 | LOG | PULL_DATA: 02 5e17 02 3834383419003400 |
| 0:06:38.190426 | LOG | PULL_ACK: 02 5e17 04 |
| 0:06:38.296366 | LOG | PUSH_ACK: 02 2f56 01 |

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| 0:06:38.298365 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f56, Identifier = 00, JSON = {'rxpk': [{'tmst': 2325509997, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDADQIBDjWXHTgG'}]} |
| 0:06:38.299369 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 971d3806) |
| 0:06:38.302363 | LOG | Server <---------- DUT |
| 0:06:38.307366 | LOG | Repeated frame. It does not count |
| 0:06:41.025009 | LOG | PUSH_ACK: 02 2f57 01 |
| 0:06:41.027008 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f57, Identifier = 00, JSON = {'rxpk': [{'tmst': 2328231205, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDADgIBMV0q+Q5o'}]} |
| 0:06:41.028007 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2af90e68) |
| 0:06:41.029009 | LOG | Server <---------- DUT |
| 0:06:41.031006 | LOG | Count = 10 |
| 0:06:43.302723 | LOG | PUSH_ACK: 02 2f59 01 |
| 0:06:43.304722 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f59, Identifier = 00, JSON = {'rxpk': [{'tmst': 2330512981, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDADgIBMV0q+Q5o'}]} |
| 0:06:43.305721 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2af90e68) |
| 0:06:43.306721 | LOG | Server <---------- DUT |
| 0:06:43.308720 | LOG | Repeated frame. It does not count |
| 0:06:46.029965 | LOG | PUSH_ACK: 02 2f5a 01 |
| 0:06:46.031964 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f5a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2333234157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDADwIBh6XhZbsb'}]} |
| 0:06:46.032962 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e165bb1b) |
| 0:06:46.033962 | LOG | Server <---------- DUT |
| 0:06:46.034961 | LOG | Count = 11 |
| 0:06:48.267701 | LOG | PULL_DATA: 02 1c58 02 3834383419003400 |
| 0:06:48.269699 | LOG | PULL_ACK: 02 1c58 04 |
| 0:06:48.295684 | LOG | PUSH_ACK: 02 2f5b 01 |
| 0:06:48.297684 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f5b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2335515933, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDADwIBh6XhZbsb'}]} |
| 0:06:48.299653 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 020f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e165bb1b) |
| 0:06:48.300683 | LOG | Server <---------- DUT |
| 0:06:48.302683 | LOG | Repeated frame. It does not count |
| 0:06:51.023286 | LOG | PUSH_ACK: 02 2f5c 01 |
| 0:06:51.026284 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f5c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2338237117, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAEAIBa/4lJ8T9'}]} |
| 0:06:51.027284 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0210, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2527c4fd) |
| 0:06:51.028283 | LOG | Server <---------- DUT |
| 0:06:51.030282 | LOG | Count = 12 |
| 0:06:53.289354 | LOG | PUSH_ACK: 02 2f5d 01 |

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| 0:06:53.291324 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f5d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2340518869, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAEAIBa/4lJ8T9'}]} |
| 0:06:53.292352 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0210, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2527c4fd) |
| 0:06:53.293351 | LOG | Server <---------- DUT |
| 0:06:53.295349 | LOG | Repeated frame. It does not count |
| 0:06:56.017813 | LOG | PUSH_ACK: 02 2f5e 01 |
| 0:06:56.019813 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f5e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2343241437, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAEQIBApgVgSOR'}]} |
| 0:06:56.021783 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0211, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 15812391) |
| 0:06:56.022809 | LOG | Server <---------- DUT |
| 0:06:56.024781 | LOG | Count = 13 |
| 0:06:58.334504 | LOG | PUSH_ACK: 02 2f5f 01 |
| 0:06:58.336503 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f5f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2345524557, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAEQIBApgVgSOR'}]} |
| 0:06:58.337503 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0211, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 15812391) |
| 0:06:58.338504 | LOG | Server <---------- DUT |
| 0:06:58.340502 | LOG | Repeated frame. It does not count |
| 0:06:58.348497 | LOG | PULL_DATA: 02 d87e 02 3834383419003400 |
| 0:06:58.350497 | LOG | PULL_ACK: 02 d87e 04 |
| 0:07:01.010993 | LOG | PUSH_ACK: 02 2f60 01 |
| 0:07:01.013991 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f60, Identifier = 00, JSON = {'rxpk': [{'tmst': 2348247093, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAEgIBeLG+2Alk'}]} |
| 0:07:01.014992 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0212, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: bed80964) |
| 0:07:01.016991 | LOG | Server <---------- DUT |
| 0:07:01.017990 | LOG | Count = 14 |
| 0:07:03.328941 | LOG | PUSH_ACK: 02 2f61 01 |
| 0:07:03.330939 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f61, Identifier = 00, JSON = {'rxpk': [{'tmst': 2350530245, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAEgIBeLG+2Alk'}]} |
| 0:07:03.331939 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0212, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: bed80964) |
| 0:07:03.333938 | LOG | Server <---------- DUT |
| 0:07:03.334909 | LOG | Repeated frame. It does not count |
| 0:07:06.056402 | LOG | PUSH_ACK: 02 2f62 01 |
| 0:07:06.061398 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f62, Identifier = 00, JSON = {'rxpk': [{'tmst': 2353251413, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAEwIB3/6F29EN'}]} |
| 0:07:06.062369 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0213, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 85dbd10d) |
| 0:07:06.064398 | LOG | Server <---------- DUT |
| 0:07:06.066396 | LOG | Count = 15 |
| 0:07:08.325092 | LOG | PUSH_ACK: 02 2f63 01 |

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| 0:07:08.327091 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f63, Identifier = 00, JSON = {'rxpk': [{'tmst': 2355533189, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAEwIB3/6F29EN'}]} |
| 0:07:08.328090 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0213, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 85dbd10d) |
| 0:07:08.330088 | LOG | Server <---------- DUT |
| 0:07:08.331089 | LOG | Repeated frame. It does not count |
| 0:07:08.427595 | LOG | PULL_DATA: 02 8845 02 3834383419003400 |
| 0:07:08.429593 | LOG | PULL_ACK: 02 8845 04 |
| 0:07:11.055111 | LOG | PUSH_ACK: 02 2f64 01 |
| 0:07:11.057109 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f64, Identifier = 00, JSON = {'rxpk': [{'tmst': 2358254357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAFAIBNp6zDrzG'}]} |
| 0:07:11.058109 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0214, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b30ebcc6) |
| 0:07:11.060108 | LOG | Server <---------- DUT |
| 0:07:11.062106 | LOG | Count = 16 |
| 0:07:13.333594 | LOG | PUSH_ACK: 02 2f66 01 |
| 0:07:13.335592 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f66, Identifier = 00, JSON = {'rxpk': [{'tmst': 2360536093, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAFAIBNp6zDrzG'}]} |
| 0:07:13.336592 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0214, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b30ebcc6) |
| 0:07:13.338591 | LOG | Server <---------- DUT |
| 0:07:13.339590 | LOG | Repeated frame. It does not count |
| 0:07:16.062053 | LOG | PUSH_ACK: 02 2f67 01 |
| 0:07:16.064052 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f67, Identifier = 00, JSON = {'rxpk': [{'tmst': 2363257309, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAFQIBOyiF6XoC'}]} |
| 0:07:16.065051 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0215, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 85e97a02) |
| 0:07:16.066053 | LOG | Server <---------- DUT |
| 0:07:16.068050 | LOG | Count = 17 |
| 0:07:18.327216 | LOG | PUSH_ACK: 02 2f68 01 |
| 0:07:18.329217 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f68, Identifier = 00, JSON = {'rxpk': [{'tmst': 2365539061, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAFQIBOyiF6XoC'}]} |
| 0:07:18.330215 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0215, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 85e97a02) |
| 0:07:18.332214 | LOG | Server <---------- DUT |
| 0:07:18.333214 | LOG | Repeated frame. It does not count |
| 0:07:18.508119 | LOG | PULL_DATA: 02 e1a5 02 3834383419003400 |
| 0:07:18.510115 | LOG | PULL_ACK: 02 e1a5 04 |
| 0:07:21.056676 | LOG | PUSH_ACK: 02 2f69 01 |
| 0:07:21.058675 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f69, Identifier = 00, JSON = {'rxpk': [{'tmst': 2368260253, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAFgIB1a4T33cC'}]} |
| 0:07:21.060673 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0216, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 13df7702) |
| 0:07:21.062672 | LOG | Server <---------- DUT |

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| 0:07:21.063672 | LOG | Count = 18 |
| 0:07:23.322396 | LOG | PUSH_ACK: 02 2f6a 01 |
| 0:07:23.324395 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f6a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2370542005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAFgIB1a4T33cC'}]} |
| 0:07:23.326394 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0216, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 13df7702) |
| 0:07:23.328393 | LOG | Server <---------- DUT |
| 0:07:23.329392 | LOG | Repeated frame. It does not count |
| 0:07:26.051011 | LOG | PUSH_ACK: 02 2f6b 01 |
| 0:07:26.053010 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f6b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2373264581, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAFwIBRgLulA/H'}]} |
| 0:07:26.055007 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0217, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ee940fc7) |
| 0:07:26.056007 | LOG | Server <---------- DUT |
| 0:07:26.057007 | LOG | Count = 19 |
| 0:07:28.316731 | LOG | PUSH_ACK: 02 2f6c 01 |
| 0:07:28.318730 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f6c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2375546333, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAFwIBRgLulA/H'}]} |
| 0:07:28.319728 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0217, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ee940fc7) |
| 0:07:28.320727 | LOG | Server <---------- DUT |
| 0:07:28.322728 | LOG | Repeated frame. It does not count |
| 0:07:28.588432 | LOG | PULL_DATA: 02 9b25 02 3834383419003400 |
| 0:07:28.589431 | LOG | PULL_ACK: 02 9b25 04 |
| 0:07:31.045045 | LOG | PUSH_ACK: 02 2f6d 01 |
| 0:07:31.048043 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f6d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2378268893, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAGAIBEZLirWfd'}]} |
| 0:07:31.049044 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0218, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e2ad67dd) |
| 0:07:31.051042 | LOG | Server <---------- DUT |
| 0:07:31.053040 | LOG | Count = 20 |
| 0:07:33.361737 | LOG | PUSH_ACK: 02 2f6e 01 |
| 0:07:33.363735 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f6e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2380552005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAGAIBEZLirWfd'}]} |
| 0:07:33.364734 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0218, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e2ad67dd) |
| 0:07:33.366733 | LOG | Server <---------- DUT |
| 0:07:33.367733 | LOG | Repeated frame. It does not count |
| 0:07:36.088861 | LOG | PUSH_ACK: 02 2f6f 01 |
| 0:07:36.092859 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f6f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2383273213, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAGQIBh0crpzqb'}]} |
| 0:07:36.094858 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0219, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2ba73a9b) |
| 0:07:36.095857 | LOG | Server <---------- DUT |

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| 0:07:36.097856 | LOG | Count = 21 |
| 0:07:38.355262 | LOG | PUSH_ACK: 02 2f70 01 |
| 0:07:38.357260 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f70, Identifier = 00, JSON = {'rxpk': [{'tmst': 2385556349, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAGQIBh0crpzqb'}]} |
| 0:07:38.359259 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0219, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2ba73a9b) |
| 0:07:38.360258 | LOG | Server <---------- DUT |
| 0:07:38.362258 | LOG | Repeated frame. It does not count |
| 0:07:38.668425 | LOG | PULL_DATA: 02 382c 02 3834383419003400 |
| 0:07:38.670424 | LOG | PULL_ACK: 02 382c 04 |
| 0:07:41.083868 | LOG | PUSH_ACK: 02 2f71 01 |
| 0:07:41.085866 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f71, Identifier = 00, JSON = {'rxpk': [{'tmst': 2388277533, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAGgIBbQ1EokRU'}]} |
| 0:07:41.086867 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 44a24454) |
| 0:07:41.087838 | LOG | Server <---------- DUT |
| 0:07:41.088837 | LOG | Count = 22 |
| 0:07:43.364932 | LOG | PUSH_ACK: 02 2f73 01 |
| 0:07:43.366930 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f73, Identifier = 00, JSON = {'rxpk': [{'tmst': 2390559285, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAGgIBbQ1EokRU'}]} |
| 0:07:43.367930 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 44a24454) |
| 0:07:43.369929 | LOG | Server <---------- DUT |
| 0:07:43.371927 | LOG | Repeated frame. It does not count |
| 0:07:46.093588 | LOG | PUSH_ACK: 02 2f74 01 |
| 0:07:46.095585 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f74, Identifier = 00, JSON = {'rxpk': [{'tmst': 2393280501, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAGwIByrutHdda'}]} |
| 0:07:46.097585 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ad1dd75a) |
| 0:07:46.099584 | LOG | Server <---------- DUT |
| 0:07:46.100555 | LOG | Count = 23 |
| 0:07:48.359362 | LOG | PUSH_ACK: 02 2f75 01 |
| 0:07:48.361361 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f75, Identifier = 00, JSON = {'rxpk': [{'tmst': 2395562269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAGwIByrutHdda'}]} |
| 0:07:48.362360 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ad1dd75a) |
| 0:07:48.364359 | LOG | Server <---------- DUT |
| 0:07:48.365359 | LOG | Repeated frame. It does not count |
| 0:07:48.747838 | LOG | PULL_DATA: 02 b51e 02 3834383419003400 |
| 0:07:48.749838 | LOG | PULL_ACK: 02 b51e 04 |
| 0:07:51.087517 | LOG | PUSH_ACK: 02 2f76 01 |
| 0:07:51.089516 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f76, Identifier = 00, JSON = {'rxpk': [{'tmst': 2398283453, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAHAIB+wCrBvDp'}]} |

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| 0:07:51.091515 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ab06f0e9) |
| 0:07:51.092514 | LOG | Server <---------- DUT |
| 0:07:51.094513 | LOG | Count = 24 |
| 0:07:53.353542 | LOG | PUSH_ACK: 02 2f77 01 |
| 0:07:53.355542 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f77, Identifier = 00, JSON = {'rxpk': [{'tmst': 2400565261, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAHAIB+wCrBvDp'}]} |
| 0:07:53.357540 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ab06f0e9) |
| 0:07:53.358538 | LOG | Server <---------- DUT |
| 0:07:53.359539 | LOG | Repeated frame. It does not count |
| 0:07:56.082002 | LOG | PUSH_ACK: 02 2f78 01 |
| 0:07:56.083999 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f78, Identifier = 00, JSON = {'rxpk': [{'tmst': 2403286413, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAHQIB7uQQs6AV'}]} |
| 0:07:56.085999 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 10b3a015) |
| 0:07:56.086999 | LOG | Server <---------- DUT |
| 0:07:56.087998 | LOG | Count = 25 |
| 0:07:58.347624 | LOG | PUSH_ACK: 02 2f79 01 |
| 0:07:58.349623 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f79, Identifier = 00, JSON = {'rxpk': [{'tmst': 2405568173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAHQIB7uQQs6AV'}]} |
| 0:07:58.350624 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 10b3a015) |
| 0:07:58.351621 | LOG | Server <---------- DUT |
| 0:07:58.353592 | LOG | Repeated frame. It does not count |
| 0:07:58.828106 | LOG | PULL_DATA: 02 5b8f 02 3834383419003400 |
| 0:07:58.830106 | LOG | PULL_ACK: 02 5b8f 04 |
| 0:08:01.073837 | LOG | PUSH_ACK: 02 2f7a 01 |
| 0:08:01.076836 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f7a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2408290733, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAHgIBQKtiNy50'}]} |
| 0:08:01.077835 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 62372e74) |
| 0:08:01.078835 | LOG | Server <---------- DUT |
| 0:08:01.080833 | LOG | Count = 26 |
| 0:08:03.339974 | LOG | PUSH_ACK: 02 2f7b 01 |
| 0:08:03.341973 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f7b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2410573861, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAHgIBQKtiNy50'}]} |
| 0:08:03.343972 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 62372e74) |
| 0:08:03.345971 | LOG | Server <---------- DUT |
| 0:08:03.346970 | LOG | Repeated frame. It does not count |
| 0:08:06.068433 | LOG | PUSH_ACK: 02 2f7c 01 |
| 0:08:06.070432 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f7c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2413295053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAHwIB4yxPukaJ'}]} |

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| 0:08:06.072431 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4fba4689) |
| 0:08:06.073430 | LOG | Server <---------- DUT |
| 0:08:06.074429 | LOG | Count = 27 |
| 0:08:08.385124 | LOG | PUSH_ACK: 02 2f7d 01 |
| 0:08:08.389122 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f7d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2415578189, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAHwIB4yxPukaJ'}]} |
| 0:08:08.391121 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 021f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4fba4689) |
| 0:08:08.392120 | LOG | Server <---------- DUT |
| 0:08:08.395119 | LOG | Repeated frame. It does not count |
| 0:08:08.907941 | LOG | PULL_DATA: 02 96e5 02 3834383419003400 |
| 0:08:08.909940 | LOG | PULL_ACK: 02 96e5 04 |
| 0:08:11.064723 | LOG | PUSH_ACK: 02 2f7e 01 |
| 0:08:11.066722 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f7e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2418299357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAIAIBktEIBwcY'}]} |
| 0:08:11.067722 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0220, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 08070718) |
| 0:08:11.068721 | LOG | Server <---------- DUT |
| 0:08:11.070719 | LOG | Count = 28 |
| 0:08:13.395408 | LOG | PUSH_ACK: 02 2f80 01 |
| 0:08:13.400406 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f80, Identifier = 00, JSON = {'rxpk': [{'tmst': 2420581117, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAIAIBktEIBwcY'}]} |
| 0:08:13.402403 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0220, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 08070718) |
| 0:08:13.429388 | LOG | Server <---------- DUT |
| 0:08:13.431386 | LOG | Repeated frame. It does not count |
| 0:08:16.074893 | LOG | PUSH_ACK: 02 2f81 01 |
| 0:08:16.076892 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f81, Identifier = 00, JSON = {'rxpk': [{'tmst': 2423302325, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAIQIBmt06Dvys'}]} |
| 0:08:16.078891 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0221, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 3a0efcac) |
| 0:08:16.079890 | LOG | Server <---------- DUT |
| 0:08:16.102877 | LOG | Count = 29 |
| 0:08:18.391585 | LOG | PUSH_ACK: 02 2f82 01 |
| 0:08:18.393584 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f82, Identifier = 00, JSON = {'rxpk': [{'tmst': 2425584085, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAIQIBmt06Dvys'}]} |
| 0:08:18.395583 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0221, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 3a0efcac) |
| 0:08:18.397581 | LOG | Server <---------- DUT |
| 0:08:18.398581 | LOG | Repeated frame. It does not count |
| 0:08:18.988248 | LOG | PULL_DATA: 02 8f5d 02 3834383419003400 |
| 0:08:18.990247 | LOG | PULL_ACK: 02 8f5d 04 |
| 0:08:21.120044 | LOG | PUSH_ACK: 02 2f83 01 |
| 0:08:21.122043 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f83, Identifier = 00, JSON = {'rxpk': [{'tmst': 2428305269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAIgIB8K2XlqZw'}]} |
| 0:08:21.123044 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0222, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9796a670) |
| 0:08:21.125041 | LOG | Server <---------- DUT |
| 0:08:21.126043 | LOG | Count = 30 |
| 0:08:23.385764 | LOG | PUSH_ACK: 02 2f84 01 |
| 0:08:23.387762 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f84, Identifier = 00, JSON = {'rxpk': [{'tmst': 2430587021, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAIgIB8K2XlqZw'}]} |
| 0:08:23.388762 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0222, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9796a670) |
| 0:08:23.390761 | LOG | Server <---------- DUT |
| 0:08:23.392760 | LOG | Repeated frame. It does not count |
| 0:08:26.116043 | LOG | PUSH_ACK: 02 2f86 01 |
| 0:08:26.120040 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f86, Identifier = 00, JSON = {'rxpk': [{'tmst': 2433308221, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAIwIBWipsOVcc'}]} |
| 0:08:26.122033 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0223, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6c39571c) |
| 0:08:26.123032 | LOG | Server <---------- DUT |
| 0:08:26.125032 | LOG | Count = 31 |
| 0:08:28.381971 | LOG | PUSH_ACK: 02 2f87 01 |
| 0:08:28.384970 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f87, Identifier = 00, JSON = {'rxpk': [{'tmst': 2435589981, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAIwIBWipsOVcc'}]} |
| 0:08:28.385969 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0223, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6c39571c) |
| 0:08:28.387968 | LOG | Server <---------- DUT |
| 0:08:28.388967 | LOG | Repeated frame. It does not count |
| 0:08:29.067921 | LOG | PULL_DATA: 02 1943 02 3834383419003400 |
| 0:08:29.068919 | LOG | PULL_ACK: 02 1943 04 |
| 0:08:31.110766 | LOG | PUSH_ACK: 02 2f88 01 |
| 0:08:31.112763 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f88, Identifier = 00, JSON = {'rxpk': [{'tmst': 2438312549, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAJAIBmA2GzGlV'}]} |
| 0:08:31.113763 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0224, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 86cc6955) |
| 0:08:31.114762 | LOG | Server <---------- DUT |
| 0:08:31.116763 | LOG | Count = 32 |
| 0:08:33.376583 | LOG | PUSH_ACK: 02 2f89 01 |
| 0:08:33.378580 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f89, Identifier = 00, JSON = {'rxpk': [{'tmst': 2440595661, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAJAIBmA2GzGlV'}]} |
| 0:08:33.379581 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0224, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 86cc6955) |
| 0:08:33.381580 | LOG | Server <---------- DUT |
| 0:08:33.383578 | LOG | Repeated frame. It does not count |
| 0:08:36.104855 | LOG | PUSH_ACK: 02 2f8a 01 |
| 0:08:36.106855 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f8a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2443318261, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAJQIB9ILVlNdL'}]} |
| 0:08:36.107853 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0225, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d594d74b) |
| 0:08:36.109854 | LOG | Server <---------- DUT |
| 0:08:36.110853 | LOG | Count = 33 |
| 0:08:38.370021 | LOG | PUSH_ACK: 02 2f8b 01 |
| 0:08:38.372019 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f8b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2445601365, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAJQIB9ILVlNdL'}]} |
| 0:08:38.373019 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0225, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d594d74b) |
| 0:08:38.375018 | LOG | Server <---------- DUT |
| 0:08:38.376017 | LOG | Repeated frame. It does not count |
| 0:08:39.147581 | LOG | PULL_DATA: 02 58e5 02 3834383419003400 |
| 0:08:39.152579 | LOG | PULL_ACK: 02 58e5 04 |
| 0:08:41.097480 | LOG | PUSH_ACK: 02 2f8c 01 |
| 0:08:41.099479 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f8c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2448322565, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAJgIBN5zJZSCY'}]} |
| 0:08:41.101478 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0226, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c9652098) |
| 0:08:41.102479 | LOG | Server <---------- DUT |
| 0:08:41.103478 | LOG | Count = 34 |
| 0:08:43.373360 | LOG | PUSH_ACK: 02 2f8e 01 |
| 0:08:43.375360 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f8e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2450604293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAJgIBN5zJZSCY'}]} |
| 0:08:43.377359 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0226, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c9652098) |
| 0:08:43.378357 | LOG | Server <---------- DUT |
| 0:08:43.380356 | LOG | Repeated frame. It does not count |
| 0:08:46.100332 | LOG | PUSH_ACK: 02 2f8f 01 |
| 0:08:46.102331 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f8f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2453325501, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAJwIBC83SJtwJ'}]} |
| 0:08:46.104330 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0227, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d226dc09) |
| 0:08:46.105327 | LOG | Server <---------- DUT |
| 0:08:46.107328 | LOG | Count = 35 |
| 0:08:48.417994 | LOG | PUSH_ACK: 02 2f90 01 |
| 0:08:48.420020 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f90, Identifier = 00, JSON = {'rxpk': [{'tmst': 2455607253, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAJwIBC83SJtwJ'}]} |
| 0:08:48.421019 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0227, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d226dc09) |
| 0:08:48.423019 | LOG | Server <---------- DUT |
| 0:08:48.424018 | LOG | Repeated frame. It does not count |
| 0:08:49.227537 | LOG | PULL_DATA: 02 181c 02 3834383419003400 |
| 0:08:49.229563 | LOG | PULL_ACK: 02 181c 04 |
| 0:08:51.094509 | LOG | PUSH_ACK: 02 2f91 01 |

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| 0:08:51.096510 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f91, Identifier = 00, JSON = {'rxpk': [{'tmst': 2458328477, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAKAIBW0Kz9JsB'}]} |
| 0:08:51.097507 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0228, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b3f49b01) |
| 0:08:51.098508 | LOG | Server <---------- DUT |
| 0:08:51.099508 | LOG | Count = 36 |
| 0:08:53.410426 | LOG | PUSH_ACK: 02 2f92 01 |
| 0:08:53.412398 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f92, Identifier = 00, JSON = {'rxpk': [{'tmst': 2460610229, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAKAIBW0Kz9JsB'}]} |
| 0:08:53.414424 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0228, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b3f49b01) |
| 0:08:53.415423 | LOG | Server <---------- DUT |
| 0:08:53.416423 | LOG | Repeated frame. It does not count |
| 0:08:56.140940 | LOG | PUSH_ACK: 02 2f94 01 |
| 0:08:56.142941 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f94, Identifier = 00, JSON = {'rxpk': [{'tmst': 2463331421, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAKQIBeGHJndZx'}]} |
| 0:08:56.143938 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0229, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c99dd671) |
| 0:08:56.144938 | LOG | Server <---------- DUT |
| 0:08:56.146937 | LOG | Count = 37 |
| 0:08:58.406213 | LOG | PUSH_ACK: 02 2f95 01 |
| 0:08:58.408211 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f95, Identifier = 00, JSON = {'rxpk': [{'tmst': 2465613173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAKQIBeGHJndZx'}]} |
| 0:08:58.410210 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0229, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c99dd671) |
| 0:08:58.411211 | LOG | Server <---------- DUT |
| 0:08:58.412209 | LOG | Repeated frame. It does not count |
| 0:08:59.307543 | LOG | PULL_DATA: 02 28b7 02 3834383419003400 |
| 0:08:59.309542 | LOG | PULL_ACK: 02 28b7 04 |
| 0:09:01.135492 | LOG | PUSH_ACK: 02 2f96 01 |
| 0:09:01.137490 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f96, Identifier = 00, JSON = {'rxpk': [{'tmst': 2468334365, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAKgIBnJT7pZe5'}]} |
| 0:09:01.138491 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fba597b9) |
| 0:09:01.139489 | LOG | Server <---------- DUT |
| 0:09:01.140489 | LOG | Count = 38 |
| 0:09:03.400316 | LOG | PUSH_ACK: 02 2f97 01 |
| 0:09:03.402314 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f97, Identifier = 00, JSON = {'rxpk': [{'tmst': 2470616133, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAKgIBnJT7pZe5'}]} |
| 0:09:03.403314 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fba597b9) |
| 0:09:03.404314 | LOG | Server <---------- DUT |
| 0:09:03.405313 | LOG | Repeated frame. It does not count |
| 0:09:06.129193 | LOG | PUSH_ACK: 02 2f98 01 |

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| 0:09:06.131192 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f98, Identifier = 00, JSON = {'rxpk': [{'tmst': 2473338693, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAKwIB/e+BkszZ'}]} |
| 0:09:06.133191 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8192ccd9) |
| 0:09:06.134191 | LOG | Server <---------- DUT |
| 0:09:06.135190 | LOG | Count = 39 |
| 0:09:08.394914 | LOG | PUSH_ACK: 02 2f99 01 |
| 0:09:08.396913 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f99, Identifier = 00, JSON = {'rxpk': [{'tmst': 2475621821, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAKwIB/e+BkszZ'}]} |
| 0:09:08.398912 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8192ccd9) |
| 0:09:08.399929 | LOG | Server <---------- DUT |
| 0:09:08.401910 | LOG | Repeated frame. It does not count |
| 0:09:09.417933 | LOG | PULL_DATA: 02 6386 02 3834383419003400 |
| 0:09:09.421932 | LOG | PULL_ACK: 02 6386 04 |
| 0:09:11.121666 | LOG | PUSH_ACK: 02 2f9a 01 |
| 0:09:11.123665 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f9a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2478343013, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDALAIB9DpUdVzZ'}]} |
| 0:09:11.124663 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 54755cd9) |
| 0:09:11.126662 | LOG | Server <---------- DUT |
| 0:09:11.127662 | LOG | Count = 40 |
| 0:09:13.405441 | LOG | PUSH_ACK: 02 2f9c 01 |
| 0:09:13.407441 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f9c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2480624757, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDALAIB9DpUdVzZ'}]} |
| 0:09:13.409439 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 54755cd9) |
| 0:09:13.410439 | LOG | Server <---------- DUT |
| 0:09:13.412438 | LOG | Repeated frame. It does not count |
| 0:09:16.133522 | LOG | PUSH_ACK: 02 2f9d 01 |
| 0:09:16.135521 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f9d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2483345957, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDALQIBT+P1F0c8'}]} |
| 0:09:16.137520 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f517473c) |
| 0:09:16.138520 | LOG | Server <---------- DUT |
| 0:09:16.140519 | LOG | Count = 41 |
| 0:09:18.398681 | LOG | PUSH_ACK: 02 2f9e 01 |
| 0:09:18.400680 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f9e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2485627709, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDALQIBT+P1F0c8'}]} |
| 0:09:18.402679 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f517473c) |
| 0:09:18.403680 | LOG | Server <---------- DUT |
| 0:09:18.405679 | LOG | Repeated frame. It does not count |
| 0:09:19.498137 | LOG | PULL_DATA: 02 ce7f 02 3834383419003400 |

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| 0:09:19.499107 | LOG | PULL_ACK: 02 ce7f 04 |
| 0:09:21.126216 | LOG | PUSH_ACK: 02 2f9f 01 |
| 0:09:21.128216 | LOG | PUSH_DATA: Protocol version = 02, Token = 2f9f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2488348925, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDALgIB5MqJEi67'}]} |
| 0:09:21.129215 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 89122ebb) |
| 0:09:21.130214 | LOG | Server <---------- DUT |
| 0:09:21.132188 | LOG | Count = 42 |
| 0:09:23.441908 | LOG | PUSH_ACK: 02 2fa0 01 |
| 0:09:23.443907 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2490630701, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDALgIB5MqJEi67'}]} |
| 0:09:23.444908 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 89122ebb) |
| 0:09:23.445907 | LOG | Server <---------- DUT |
| 0:09:23.447905 | LOG | Repeated frame. It does not count |
| 0:09:26.122203 | LOG | PUSH_ACK: 02 2fa3 01 |
| 0:09:26.124202 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2493351893, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDALwIBt40nN/bg'}]} |
| 0:09:26.126203 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2737f6e0) |
| 0:09:26.128200 | LOG | Server <---------- DUT |
| 0:09:26.129199 | LOG | Count = 43 |
| 0:09:28.439567 | LOG | PUSH_ACK: 02 2fa4 01 |
| 0:09:28.442566 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2495633669, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDALwIBt40nN/bg'}]} |
| 0:09:28.443566 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 022f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2737f6e0) |
| 0:09:28.444565 | LOG | Server <---------- DUT |
| 0:09:28.445564 | LOG | Repeated frame. It does not count |
| 0:09:29.577925 | LOG | PULL_DATA: 02 dfa6 02 3834383419003400 |
| 0:09:29.579925 | LOG | PULL_ACK: 02 dfa6 04 |
| 0:09:31.167400 | LOG | PUSH_ACK: 02 2fa5 01 |
| 0:09:31.170401 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2498354845, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAMAIB73VeZv+y'}]} |
| 0:09:31.171398 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0230, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5e66ffb2) |
| 0:09:31.173398 | LOG | Server <---------- DUT |
| 0:09:31.174402 | LOG | Count = 44 |
| 0:09:33.433122 | LOG | PUSH_ACK: 02 2fa6 01 |
| 0:09:33.436118 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2500636621, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAMAIB73VeZv+y'}]} |
| 0:09:33.437118 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0230, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5e66ffb2) |
| 0:09:33.438119 | LOG | Server <---------- DUT |

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| 0:09:33.440116 | LOG | Repeated frame. It does not count |
| 0:09:36.161580 | LOG | PUSH_ACK: 02 2fa7 01 |
| 0:09:36.163578 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2503359165, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAMQIBHj155zJp'}]} |
| 0:09:36.164578 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0231, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 79e73269) |
| 0:09:36.165578 | LOG | Server <---------- DUT |
| 0:09:36.167575 | LOG | Count = 45 |
| 0:09:38.426302 | LOG | PUSH_ACK: 02 2fa8 01 |
| 0:09:38.428299 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2505642317, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAMQIBHj155zJp'}]} |
| 0:09:38.430299 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0231, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 79e73269) |
| 0:09:38.431299 | LOG | Server <---------- DUT |
| 0:09:38.433297 | LOG | Repeated frame. It does not count |
| 0:09:39.658195 | LOG | PULL_DATA: 02 fd67 02 3834383419003400 |
| 0:09:39.661192 | LOG | PULL_ACK: 02 fd67 04 |
| 0:09:41.154349 | LOG | PUSH_ACK: 02 2fa9 01 |
| 0:09:41.156348 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fa9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2508363485, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAMgIBgZl51P9v'}]} |
| 0:09:41.157347 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0232, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 79d4ff6f) |
| 0:09:41.159346 | LOG | Server <---------- DUT |
| 0:09:41.161345 | LOG | Count = 46 |
| 0:09:43.434254 | LOG | PUSH_ACK: 02 2fab 01 |
| 0:09:43.437252 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fab, Identifier = 00, JSON = {'rxpk': [{'tmst': 2510646605, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAMgIBgZl51P9v'}]} |
| 0:09:43.438251 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0232, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 79d4ff6f) |
| 0:09:43.439251 | LOG | Server <---------- DUT |
| 0:09:43.441250 | LOG | Repeated frame. It does not count |
| 0:09:46.162712 | LOG | PUSH_ACK: 02 2fac 01 |
| 0:09:46.165711 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fac, Identifier = 00, JSON = {'rxpk': [{'tmst': 2513367805, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAMwIB+VpRvkVr'}]} |
| 0:09:46.166710 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0233, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 51be456b) |
| 0:09:46.168710 | LOG | Server <---------- DUT |
| 0:09:46.169709 | LOG | Count = 47 |
| 0:09:48.428433 | LOG | PUSH_ACK: 02 2fad 01 |
| 0:09:48.431432 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fad, Identifier = 00, JSON = {'rxpk': [{'tmst': 2515649565, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAMwIB+VpRvkVr'}]} |
| 0:09:48.432430 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0233, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 51be456b) |
| 0:09:48.434430 | LOG | Server <---------- DUT |

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| 0:09:48.435429 | LOG | Repeated frame. It does not count |
| 0:09:49.737694 | LOG | PULL_DATA: 02 ecdf 02 3834383419003400 |
| 0:09:49.739692 | LOG | PULL_ACK: 02 ecdf 04 |
| 0:09:51.156892 | LOG | PUSH_ACK: 02 2fae 01 |
| 0:09:51.158891 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fae, Identifier = 00, JSON = {'rxpk': [{'tmst': 2518370765, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDANAIBNdXda8T+'}]} |
| 0:09:51.159890 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0234, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: dd6bc4fe) |
| 0:09:51.161889 | LOG | Server <---------- DUT |
| 0:09:51.162889 | LOG | Count = 48 |
| 0:09:53.422617 | LOG | PUSH_ACK: 02 2faf 01 |
| 0:09:53.424615 | LOG | PUSH_DATA: Protocol version = 02, Token = 2faf, Identifier = 00, JSON = {'rxpk': [{'tmst': 2520652541, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDANAIBNdXda8T+'}]} |
| 0:09:53.425614 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0234, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: dd6bc4fe) |
| 0:09:53.426616 | LOG | Server <---------- DUT |
| 0:09:53.427614 | LOG | Repeated frame. It does not count |
| 0:09:56.149190 | LOG | PUSH_ACK: 02 2fb0 01 |
| 0:09:56.151191 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2523373725, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDANQIBfz615s7B'}]} |
| 0:09:56.153187 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0235, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b5e6cec1) |
| 0:09:56.154188 | LOG | Server <---------- DUT |
| 0:09:56.155187 | LOG | Count = 49 |
| 0:09:58.466881 | LOG | PUSH_ACK: 02 2fb1 01 |
| 0:09:58.468881 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2525655525, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDANQIBfz615s7B'}]} |
| 0:09:58.470853 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0235, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b5e6cec1) |
| 0:09:58.471880 | LOG | Server <---------- DUT |
| 0:09:58.473878 | LOG | Repeated frame. It does not count |
| 0:09:59.818118 | LOG | PULL_DATA: 02 0c87 02 3834383419003400 |
| 0:09:59.820116 | LOG | PULL_ACK: 02 0c87 04 |
| 0:10:01.143369 | LOG | PUSH_ACK: 02 2fb2 01 |
| 0:10:01.146369 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2528376677, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDANgIBysprbOFa'}]} |
| 0:10:01.147367 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0236, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6b6ce15a) |
| 0:10:01.149366 | LOG | Server <---------- DUT |
| 0:10:01.150341 | LOG | Count = 50 |
| 0:10:03.461061 | LOG | PUSH_ACK: 02 2fb3 01 |
| 0:10:03.462060 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2530658445, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDANgIBysprbOFa'}]} |

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| 0:10:03.464059 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0236, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6b6ce15a) |
| 0:10:03.465060 | LOG | Server <---------- DUT |
| 0:10:03.466058 | LOG | Repeated frame. It does not count |
| 0:10:06.189374 | LOG | PUSH_ACK: 02 2fb4 01 |
| 0:10:06.191372 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2533380989, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDANwIB+akATCpL'}]} |
| 0:10:06.192373 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0237, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 004c2a4b) |
| 0:10:06.193371 | LOG | Server <---------- DUT |
| 0:10:06.195370 | LOG | Count = 51 |
| 0:10:08.454220 | LOG | PUSH_ACK: 02 2fb5 01 |
| 0:10:08.456219 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2535664125, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDANwIB+akATCpL'}]} |
| 0:10:08.458218 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0237, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 004c2a4b) |
| 0:10:08.460217 | LOG | Server <---------- DUT |
| 0:10:08.461217 | LOG | Repeated frame. It does not count |
| 0:10:09.897497 | LOG | PULL_DATA: 02 0445 02 3834383419003400 |
| 0:10:09.902492 | LOG | PULL_ACK: 02 0445 04 |
| 0:10:11.182866 | LOG | PUSH_ACK: 02 2fb6 01 |
| 0:10:11.184866 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2538385309, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAOAIBrsF9nOb+'}]} |
| 0:10:11.185865 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0238, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7d9ce6fe) |
| 0:10:11.187864 | LOG | Server <---------- DUT |
| 0:10:11.188863 | LOG | Count = 52 |
| 0:10:13.466109 | LOG | PUSH_ACK: 02 2fb8 01 |
| 0:10:13.468108 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2540668437, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAOAIBrsF9nOb+'}]} |
| 0:10:13.469107 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0238, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7d9ce6fe) |
| 0:10:13.470107 | LOG | Server <---------- DUT |
| 0:10:13.472106 | LOG | Repeated frame. It does not count |
| 0:10:16.193569 | LOG | PUSH_ACK: 02 2fb9 01 |
| 0:10:16.196567 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fb9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2543389637, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAOQIBX4FCCSKG'}]} |
| 0:10:16.197566 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0239, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 42092286) |
| 0:10:16.199565 | LOG | Server <---------- DUT |
| 0:10:16.201564 | LOG | Count = 53 |
| 0:10:18.460041 | LOG | PUSH_ACK: 02 2fba 01 |
| 0:10:18.462039 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fba, Identifier = 00, JSON = {'rxpk': [{'tmst': 2545671413, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAOQIBX4FCCSKG'}]} |

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| 0:10:18.464038 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0239, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 42092286) |
| 0:10:18.465037 | LOG | Server <---------- DUT |
| 0:10:18.467036 | LOG | Repeated frame. It does not count |
| 0:10:19.977184 | LOG | PULL_DATA: 02 b4ba 02 3834383419003400 |
| 0:10:19.979184 | LOG | PULL_ACK: 02 b4ba 04 |
| 0:10:21.187692 | LOG | PUSH_ACK: 02 2fbb 01 |
| 0:10:21.189692 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fbb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2548392581, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAOgIBrvn8I2dL'}]} |
| 0:10:21.190691 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fc23674b) |
| 0:10:21.191692 | LOG | Server <---------- DUT |
| 0:10:21.193689 | LOG | Count = 54 |
| 0:10:23.452415 | LOG | PUSH_ACK: 02 2fbc 01 |
| 0:10:23.455412 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fbc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2550674365, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAOgIBrvn8I2dL'}]} |
| 0:10:23.457411 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fc23674b) |
| 0:10:23.458410 | LOG | Server <---------- DUT |
| 0:10:23.461408 | LOG | Repeated frame. It does not count |
| 0:10:26.181846 | LOG | PUSH_ACK: 02 2fbe 01 |
| 0:10:26.183845 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fbe, Identifier = 00, JSON = {'rxpk': [{'tmst': 2553395549, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAOwIBw/edyXTV'}]} |
| 0:10:26.185844 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9dc974d5) |
| 0:10:26.186843 | LOG | Server <---------- DUT |
| 0:10:26.188842 | LOG | Count = 55 |
| 0:10:28.447566 | LOG | PUSH_ACK: 02 2fbf 01 |
| 0:10:28.450564 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fbf, Identifier = 00, JSON = {'rxpk': [{'tmst': 2555677317, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAOwIBw/edyXTV'}]} |
| 0:10:28.452564 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9dc974d5) |
| 0:10:28.453563 | LOG | Server <---------- DUT |
| 0:10:28.455562 | LOG | Repeated frame. It does not count |
| 0:10:30.057658 | LOG | PULL_DATA: 02 630f 02 3834383419003400 |
| 0:10:30.058656 | LOG | PULL_ACK: 02 630f 04 |
| 0:10:31.175918 | LOG | PUSH_ACK: 02 2fc0 01 |
| 0:10:31.177916 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2558398493, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAPAIBiovxNrD4'}]} |
| 0:10:31.178915 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f136b0f8) |
| 0:10:31.179914 | LOG | Server <---------- DUT |
| 0:10:31.181913 | LOG | Count = 56 |
| 0:10:33.492610 | LOG | PUSH_ACK: 02 2fc1 01 |
| 0:10:33.495608 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2560680269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAPAIBiovxNrD4'}]} |
| 0:10:33.496608 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f136b0f8) |
| 0:10:33.498606 | LOG | Server <---------- DUT |
| 0:10:33.499605 | LOG | Repeated frame. It does not count |
| 0:10:36.169948 | LOG | PUSH_ACK: 02 2fc2 01 |
| 0:10:36.171945 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2563402821, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAPQIBYuq5Zf2J'}]} |
| 0:10:36.172945 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b965fd89) |
| 0:10:36.174944 | LOG | Server <---------- DUT |
| 0:10:36.175943 | LOG | Count = 57 |
| 0:10:38.486345 | LOG | PUSH_ACK: 02 2fc3 01 |
| 0:10:38.489341 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2565684581, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAPQIBYuq5Zf2J'}]} |
| 0:10:38.490341 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b965fd89) |
| 0:10:38.491341 | LOG | Server <---------- DUT |
| 0:10:38.493340 | LOG | Repeated frame. It does not count |
| 0:10:40.137410 | LOG | PULL_DATA: 02 49f9 02 3834383419003400 |
| 0:10:40.140410 | LOG | PULL_ACK: 02 49f9 04 |
| 0:10:41.215464 | LOG | PUSH_ACK: 02 2fc4 01 |
| 0:10:41.217462 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2568407133, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAPgIBFf8s/cjZ'}]} |
| 0:10:41.219462 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2cfdc8d9) |
| 0:10:41.220460 | LOG | Server <---------- DUT |
| 0:10:41.222460 | LOG | Count = 58 |
| 0:10:43.497143 | LOG | PUSH_ACK: 02 2fc6 01 |
| 0:10:43.500142 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2570690245, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAPgIBFf8s/cjZ'}]} |
| 0:10:43.501143 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2cfdc8d9) |
| 0:10:43.503141 | LOG | Server <---------- DUT |
| 0:10:43.504140 | LOG | Repeated frame. It does not count |
| 0:10:46.224604 | LOG | PUSH_ACK: 02 2fc7 01 |
| 0:10:46.226602 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2573411461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAPwIB+KtEEqbP'}]} |
| 0:10:46.227601 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4412a6cf) |
| 0:10:46.228601 | LOG | Server <---------- DUT |
| 0:10:46.230600 | LOG | Count = 59 |
| 0:10:48.489324 | LOG | PUSH_ACK: 02 2fc8 01 |
| 0:10:48.491323 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2575693237, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAPwIB+KtEEqbP'}]} |
| 0:10:48.493322 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 023f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4412a6cf) |
| 0:10:48.494323 | LOG | Server <---------- DUT |
| 0:10:48.496320 | LOG | Repeated frame. It does not count |
| 0:10:50.217822 | LOG | PULL_DATA: 02 f4d8 02 3834383419003400 |
| 0:10:50.219846 | LOG | PULL_ACK: 02 f4d8 04 |
| 0:10:51.217284 | LOG | PUSH_ACK: 02 2fc9 01 |
| 0:10:51.219257 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fc9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2578414413, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAQAIBZNUom/ZX'}]} |
| 0:10:51.221281 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0240, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 289bf657) |
| 0:10:51.222280 | LOG | Server <---------- DUT |
| 0:10:51.224280 | LOG | Count = 60 |
| 0:10:53.483417 | LOG | PUSH_ACK: 02 2fca 01 |
| 0:10:53.485415 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fca, Identifier = 00, JSON = {'rxpk': [{'tmst': 2580696189, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAQAIBZNUom/ZX'}]} |
| 0:10:53.486446 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0240, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 289bf657) |
| 0:10:53.488445 | LOG | Server <---------- DUT |
| 0:10:53.489444 | LOG | Repeated frame. It does not count |
| 0:10:56.211875 | LOG | PUSH_ACK: 02 2fcb 01 |
| 0:10:56.213902 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fcb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2583417381, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAQQIBCc8vTpp7'}]} |
| 0:10:56.214900 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0241, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2f4e9a7b) |
| 0:10:56.216873 | LOG | Server <---------- DUT |
| 0:10:56.217899 | LOG | Count = 61 |
| 0:10:58.477595 | LOG | PUSH_ACK: 02 2fcc 01 |
| 0:10:58.479623 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fcc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2585699157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAQQIBCc8vTpp7'}]} |
| 0:10:58.480623 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0241, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2f4e9a7b) |
| 0:10:58.482593 | LOG | Server <---------- DUT |
| 0:10:58.484620 | LOG | Repeated frame. It does not count |
| 0:11:00.297836 | LOG | PULL_DATA: 02 570d 02 3834383419003400 |
| 0:11:00.299834 | LOG | PULL_ACK: 02 570d 04 |
| 0:11:01.205292 | LOG | PUSH_ACK: 02 2fcd 01 |
| 0:11:01.207293 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fcd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2588420333, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAQgIB3OQb4VPA'}]} |
| 0:11:01.208292 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0242, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1be153c0) |
| 0:11:01.209292 | LOG | Server <---------- DUT |
| 0:11:01.211291 | LOG | Count = 62 |
| 0:11:03.471013 | LOG | PUSH_ACK: 02 2fce 01 |

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| 0:11:03.473013 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fce, Identifier = 00, JSON = {'rxpk': [{'tmst': 2590702101, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAQgIB3OQb4VPA'}]} |
| 0:11:03.474011 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0242, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1be153c0) |
| 0:11:03.475011 | LOG | Server <---------- DUT |
| 0:11:03.477010 | LOG | Repeated frame. It does not count |
| 0:11:06.199291 | LOG | PUSH_ACK: 02 2fcf 01 |
| 0:11:06.201290 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fcf, Identifier = 00, JSON = {'rxpk': [{'tmst': 2593423285, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAQwIBA52Qw/dV'}]} |
| 0:11:06.203289 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0243, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 90c3f755) |
| 0:11:06.204288 | LOG | Server <---------- DUT |
| 0:11:06.206287 | LOG | Count = 63 |
| 0:11:08.516982 | LOG | PUSH_ACK: 02 2fd0 01 |
| 0:11:08.518981 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2595705045, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAQwIBA52Qw/dV'}]} |
| 0:11:08.519980 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0243, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 90c3f755) |
| 0:11:08.521979 | LOG | Server <---------- DUT |
| 0:11:08.522979 | LOG | Repeated frame. It does not count |
| 0:11:10.377931 | LOG | PULL_DATA: 02 1baf 02 3834383419003400 |
| 0:11:10.381929 | LOG | PULL_ACK: 02 1baf 04 |
| 0:11:11.193471 | LOG | PUSH_ACK: 02 2fd1 01 |
| 0:11:11.195470 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2598427597, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDARAIBHkf4Cxxw'}]} |
| 0:11:11.196469 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0244, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f80b1c70) |
| 0:11:11.197469 | LOG | Server <---------- DUT |
| 0:11:11.198468 | LOG | Count = 64 |
| 0:11:13.476182 | LOG | PUSH_ACK: 02 2fd3 01 |
| 0:11:13.478180 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2600710733, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDARAIBHkf4Cxxw'}]} |
| 0:11:13.479179 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0244, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f80b1c70) |
| 0:11:13.480179 | LOG | Server <---------- DUT |
| 0:11:13.482178 | LOG | Repeated frame. It does not count |
| 0:11:16.202641 | LOG | PUSH_ACK: 02 2fd4 01 |
| 0:11:16.204643 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2603431933, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDARQIB7RWkECAn'}]} |
| 0:11:16.206639 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0245, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a4102027) |
| 0:11:16.207638 | LOG | Server <---------- DUT |
| 0:11:16.209638 | LOG | Count = 65 |
| 0:11:18.570193 | LOG | PUSH_ACK: 02 2fd5 01 |

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| 0:11:18.572191 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2605760045, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDARQIB7RWkECAn'}]} |
| 0:11:18.574191 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0245, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a4102027) |
| 0:11:18.575189 | LOG | Server <---------- DUT |
| 0:11:18.577190 | LOG | Repeated frame. It does not count |
| 0:11:20.457892 | LOG | PULL_DATA: 02 f333 02 3834383419003400 |
| 0:11:20.459891 | LOG | PULL_ACK: 02 f333 04 |
| 0:11:21.245446 | LOG | PUSH_ACK: 02 2fd6 01 |
| 0:11:21.247445 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2608481197, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDARgIB+51LQNTb'}]} |
| 0:11:21.249445 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0246, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4b40d4db) |
| 0:11:21.250445 | LOG | Server <---------- DUT |
| 0:11:21.252443 | LOG | Count = 66 |
| 0:11:21.254442 | LOG | Waiting for the retransmissions |
| 0:11:23.613305 | LOG | PUSH_ACK: 02 2fd7 01 |
| 0:11:23.615304 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2610809301, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDARgIB+51LQNTb'}]} |
| 0:11:23.617302 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0246, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4b40d4db) |
| 0:11:23.619302 | LOG | Server <---------- DUT |
| 0:11:23.649286 | LOG | Expected number of uplink messages have been received |
| 0:11:23.653282 | LOG | Test adaptive data rate control in frame header process starts |
| 0:11:26.289793 | LOG | PUSH_ACK: 02 2fd8 01 |
| 0:11:26.291792 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2613484173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDARwIBMlQbvhzu'}]} |
| 0:11:26.293792 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0247, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1bbe1cee) |
| 0:11:26.294790 | LOG | Server <---------- DUT |
| 0:11:26.295790 | LOG | Count = 2 |
| 0:11:28.607330 | LOG | PUSH_ACK: 02 2fd9 01 |
| 0:11:28.609328 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fd9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2615812277, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDARwIBMlQbvhzu'}]} |
| 0:11:28.610327 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0247, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1bbe1cee) |
| 0:11:28.611326 | LOG | Server <---------- DUT |
| 0:11:28.612326 | LOG | Repeated frame. It does not count |
| 0:11:30.537343 | LOG | PULL_DATA: 02 cb1b 02 3834383419003400 |
| 0:11:30.539343 | LOG | PULL_ACK: 02 cb1b 04 |
| 0:11:31.282924 | LOG | PUSH_ACK: 02 2fda 01 |
| 0:11:31.284921 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fda, Identifier = 00, JSON = {'rxpk': [{'tmst': 2618487101, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDASAIBmt9MgN1+'}]} |

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| 0:11:31.286921 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0248, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4c80dd7e) |
| 0:11:31.288919 | LOG | Server <---------- DUT |
| 0:11:31.289919 | LOG | Count = 3 |
| 0:11:33.599460 | LOG | PUSH_ACK: 02 2fdb 01 |
| 0:11:33.601432 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fdb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2620815229, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDASAIBmt9MgN1+'}]} |
| 0:11:33.603458 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0248, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4c80dd7e) |
| 0:11:33.604430 | LOG | Server <---------- DUT |
| 0:11:33.605457 | LOG | Repeated frame. It does not count |
| 0:11:36.276833 | LOG | PUSH_ACK: 02 2fdc 01 |
| 0:11:36.278830 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fdc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2623490077, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDASQIB/93DLhu/'}]} |
| 0:11:36.279831 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0249, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c32e1bbf) |
| 0:11:36.280831 | LOG | Server <---------- DUT |
| 0:11:36.282830 | LOG | Count = 4 |
| 0:11:38.593154 | LOG | PUSH_ACK: 02 2fdd 01 |
| 0:11:38.596153 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fdd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2625818157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDASQIB/93DLhu/'}]} |
| 0:11:38.597152 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0249, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c32e1bbf) |
| 0:11:38.599151 | LOG | Server <---------- DUT |
| 0:11:38.601150 | LOG | Repeated frame. It does not count |
| 0:11:40.617985 | LOG | PULL_DATA: 02 ea2e 02 3834383419003400 |
| 0:11:40.622000 | LOG | PULL_ACK: 02 ea2e 04 |
| 0:11:41.270094 | LOG | PUSH_ACK: 02 2fde 01 |
| 0:11:41.272092 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fde, Identifier = 00, JSON = {'rxpk': [{'tmst': 2628493029, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDASgIBg737bmiN'}]} |
| 0:11:41.274091 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fb6e688d) |
| 0:11:41.275090 | LOG | Server <---------- DUT |
| 0:11:41.277089 | LOG | Count = 5 |
| 0:11:43.599777 | LOG | PUSH_ACK: 02 2fe0 01 |
| 0:11:46.259277 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2630821141, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDASgIBg737bmiN'}]} |
| 0:11:46.262274 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fb6e688d) |
| 0:11:46.264274 | LOG | Server <---------- DUT |
| 0:11:46.267272 | LOG | Repeated frame. It does not count |
| 0:11:46.287259 | LOG | PUSH_ACK: 02 2fe1 01 |
| 0:11:46.290257 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2633497349, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDASwIBtZGV1gu3'}]} |

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| 0:11:46.291256 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 95d60bb7) |
| 0:11:46.292256 | LOG | Server <---------- DUT |
| 0:11:46.293255 | LOG | Count = 6 |
| 0:11:48.604570 | LOG | PUSH_ACK: 02 2fe2 01 |
| 0:11:48.606569 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2635826821, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDASwIBtZGV1gu3'}]} |
| 0:11:48.608568 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 95d60bb7) |
| 0:11:48.609567 | LOG | Server <---------- DUT |
| 0:11:48.611567 | LOG | Repeated frame. It does not count |
| 0:11:50.697387 | LOG | PULL_DATA: 02 a1b8 02 3834383419003400 |
| 0:11:50.699387 | LOG | PULL_ACK: 02 a1b8 04 |
| 0:11:51.281060 | LOG | PUSH_ACK: 02 2fe3 01 |
| 0:11:51.283057 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2638501677, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDATAIBolnYCMNv'}]} |
| 0:11:51.285056 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d808c36f) |
| 0:11:51.286056 | LOG | Server <---------- DUT |
| 0:11:51.288055 | LOG | Count = 7 |
| 0:11:53.598749 | LOG | PUSH_ACK: 02 2fe4 01 |
| 0:11:53.600748 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2640829781, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDATAIBolnYCMNv'}]} |
| 0:11:53.602747 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d808c36f) |
| 0:11:53.603746 | LOG | Server <---------- DUT |
| 0:11:53.605745 | LOG | Repeated frame. It does not count |
| 0:11:56.276237 | LOG | PUSH_ACK: 02 2fe5 01 |
| 0:11:56.278236 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2643504645, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDATQIBQNf9g/V7'}]} |
| 0:11:56.280236 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fd83f57b) |
| 0:11:56.281235 | LOG | Server <---------- DUT |
| 0:11:56.283234 | LOG | Count = 8 |
| 0:11:58.648074 | LOG | PUSH_ACK: 02 2fe6 01 |
| 0:11:58.654054 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2645832741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDATQIBQNf9g/V7'}]} |
| 0:11:58.655055 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fd83f57b) |
| 0:11:58.656055 | LOG | Server <---------- DUT |
| 0:11:58.658053 | LOG | Repeated frame. It does not count |
| 0:12:00.777476 | LOG | PULL_DATA: 02 ad80 02 3834383419003400 |
| 0:12:00.779475 | LOG | PULL_ACK: 02 ad80 04 |
| 0:12:01.278192 | LOG | PUSH_ACK: 02 2fe7 01 |
| 0:12:01.280190 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2648507613, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDATgIBye0rqLDZ'}]} |
| 0:12:01.283190 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2ba8b0d9) |
| 0:12:01.285189 | LOG | Server <---------- DUT |
| 0:12:01.286188 | LOG | Count = 9 |
| 0:12:03.648756 | LOG | PUSH_ACK: 02 2fe8 01 |
| 0:12:03.650756 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2650835709, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDATgIBye0rqLDZ'}]} |
| 0:12:03.651755 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2ba8b0d9) |
| 0:12:03.654753 | LOG | Server <---------- DUT |
| 0:12:03.655752 | LOG | Repeated frame. It does not count |
| 0:12:06.327403 | LOG | PUSH_ACK: 02 2fe9 01 |
| 0:12:06.329402 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fe9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2653510549, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDATwIBTkRbPTqd'}]} |
| 0:12:06.331401 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5b3d3a9d) |
| 0:12:06.332400 | LOG | Server <---------- DUT |
| 0:12:06.334399 | LOG | Count = 10 |
| 0:12:08.646823 | LOG | PUSH_ACK: 02 2fea 01 |
| 0:12:08.648823 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fea, Identifier = 00, JSON = {'rxpk': [{'tmst': 2655838653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDATwIBTkRbPTqd'}]} |
| 0:12:08.649823 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 024f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5b3d3a9d) |
| 0:12:08.651821 | LOG | Server <---------- DUT |
| 0:12:08.652821 | LOG | Repeated frame. It does not count |
| 0:12:10.857953 | LOG | PULL_DATA: 02 5faa 02 3834383419003400 |
| 0:12:10.862949 | LOG | PULL_ACK: 02 5faa 04 |
| 0:12:11.324690 | LOG | PUSH_ACK: 02 2feb 01 |
| 0:12:11.328688 | LOG | PUSH_DATA: Protocol version = 02, Token = 2feb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2658513517, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAUAIBZOQieCwf'}]} |
| 0:12:11.332685 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0250, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 22782c1f) |
| 0:12:11.333683 | LOG | Server <---------- DUT |
| 0:12:11.334683 | LOG | Count = 11 |
| 0:12:13.611682 | LOG | PUSH_ACK: 02 2fed 01 |
| 0:12:13.614681 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fed, Identifier = 00, JSON = {'rxpk': [{'tmst': 2660841613, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAUAIBZOQieCwf'}]} |
| 0:12:13.615680 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0250, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 22782c1f) |
| 0:12:13.617678 | LOG | Server <---------- DUT |
| 0:12:13.619678 | LOG | Repeated frame. It does not count |
| 0:12:16.291526 | LOG | PUSH_ACK: 02 2fee 01 |
| 0:12:16.293524 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fee, Identifier = 00, JSON = {'rxpk': [{'tmst': 2663517829, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAUQIBim1ttt0Q'}]} |
| 0:12:16.294524 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0251, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6db6dd10) |
| 0:12:16.296523 | LOG | Server <---------- DUT |
| 0:12:16.297522 | LOG | Count = 12 |
| 0:12:18.660829 | LOG | PUSH_ACK: 02 2fef 01 |
| 0:12:18.663828 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fef, Identifier = 00, JSON = {'rxpk': [{'tmst': 2665847293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAUQIBim1ttt0Q'}]} |
| 0:12:18.664827 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0251, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6db6dd10) |
| 0:12:18.665826 | LOG | Server <---------- DUT |
| 0:12:18.666828 | LOG | Repeated frame. It does not count |
| 0:12:20.957574 | LOG | PULL_DATA: 02 e84b 02 3834383419003400 |
| 0:12:20.959574 | LOG | PULL_ACK: 02 e84b 04 |
| 0:12:21.340524 | LOG | PUSH_ACK: 02 2ff0 01 |
| 0:12:21.345517 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2668523517, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAUgIBiqOx1j2N'}]} |
| 0:12:21.349515 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0252, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b1d63d8d) |
| 0:12:21.352513 | LOG | Server <---------- DUT |
| 0:12:21.354510 | LOG | Count = 13 |
| 0:12:23.660990 | LOG | PUSH_ACK: 02 2ff1 01 |
| 0:12:23.662989 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2670852973, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAUgIBiqOx1j2N'}]} |
| 0:12:23.664990 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0252, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b1d63d8d) |
| 0:12:23.665988 | LOG | Server <---------- DUT |
| 0:12:23.666987 | LOG | Repeated frame. It does not count |
| 0:12:26.337669 | LOG | PUSH_ACK: 02 2ff2 01 |
| 0:12:26.338668 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2673527821, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAUwIBikpgaxZ1'}]} |
| 0:12:26.340665 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0253, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 606b1675) |
| 0:12:26.341665 | LOG | Server <---------- DUT |
| 0:12:26.343663 | LOG | Count = 14 |
| 0:12:28.654557 | LOG | PUSH_ACK: 02 2ff3 01 |
| 0:12:28.656556 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2675855901, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAUwIBikpgaxZ1'}]} |
| 0:12:28.658556 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0253, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 606b1675) |
| 0:12:28.659555 | LOG | Server <---------- DUT |
| 0:12:28.660554 | LOG | Repeated frame. It does not count |
| 0:12:31.037309 | LOG | PULL_DATA: 02 89f4 02 3834383419003400 |
| 0:12:31.039308 | LOG | PULL_ACK: 02 89f4 04 |
| 0:12:31.331402 | LOG | PUSH_ACK: 02 2ff4 01 |

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| 0:12:31.332402 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2678530805, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAVAIB6+Ng9kOk'}]} |
| 0:12:31.333402 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0254, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 60f643a4) |
| 0:12:31.334400 | LOG | Server <---------- DUT |
| 0:12:31.336399 | LOG | Count = 15 |
| 0:12:33.647065 | LOG | PUSH_ACK: 02 2ff5 01 |
| 0:12:33.650064 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2680858909, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAVAIB6+Ng9kOk'}]} |
| 0:12:33.651064 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0254, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 60f643a4) |
| 0:12:33.653061 | LOG | Server <---------- DUT |
| 0:12:33.655060 | LOG | Repeated frame. It does not count |
| 0:12:36.325308 | LOG | PUSH_ACK: 02 2ff6 01 |
| 0:12:36.327307 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2683533749, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAVQIBCEmuCCKZ'}]} |
| 0:12:36.329306 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0255, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ae082299) |
| 0:12:36.330305 | LOG | Server <---------- DUT |
| 0:12:36.331306 | LOG | Count = 16 |
| 0:12:38.644468 | LOG | PUSH_ACK: 02 2ff7 01 |
| 0:12:38.646450 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2685861861, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAVQIBCEmuCCKZ'}]} |
| 0:12:38.647448 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0255, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ae082299) |
| 0:12:38.649446 | LOG | Server <---------- DUT |
| 0:12:38.650446 | LOG | Repeated frame. It does not count |
| 0:12:41.117704 | LOG | PULL_DATA: 02 d28e 02 3834383419003400 |
| 0:12:41.121701 | LOG | PULL_ACK: 02 d28e 04 |
| 0:12:41.323587 | LOG | PUSH_ACK: 02 2ff8 01 |
| 0:12:41.325586 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ff8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2688536693, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAVgIBH7HRoHRM'}]} |
| 0:12:41.326585 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0256, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d1a0744c) |
| 0:12:41.328584 | LOG | Server <---------- DUT |
| 0:12:41.329584 | LOG | Count = 17 |
| 0:12:43.652209 | LOG | PUSH_ACK: 02 2ffa 01 |
| 0:12:43.655207 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ffa, Identifier = 00, JSON = {'rxpk': [{'tmst': 2690864781, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAVgIBH7HRoHRM'}]} |
| 0:12:43.656207 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0256, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d1a0744c) |
| 0:12:43.658205 | LOG | Server <---------- DUT |
| 0:12:43.660205 | LOG | Repeated frame. It does not count |
| 0:12:46.331696 | LOG | PUSH_ACK: 02 2ffb 01 |

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| 0:12:46.333694 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ffb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2693541021, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAVwIB9ZXqgiCi'}]} |
| 0:12:46.335692 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0257, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ea8220a2) |
| 0:12:46.336694 | LOG | Server <---------- DUT |
| 0:12:46.338691 | LOG | Count = 18 |
| 0:12:48.650698 | LOG | PUSH_ACK: 02 2ffc 01 |
| 0:12:48.652696 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ffc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2695870485, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAVwIB9ZXqgiCi'}]} |
| 0:12:48.653696 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0257, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ea8220a2) |
| 0:12:48.655694 | LOG | Server <---------- DUT |
| 0:12:48.657692 | LOG | Repeated frame. It does not count |
| 0:12:51.197287 | LOG | PULL_DATA: 02 3986 02 3834383419003400 |
| 0:12:51.199287 | LOG | PULL_ACK: 02 3986 04 |
| 0:12:51.328183 | LOG | PUSH_ACK: 02 2ffd 01 |
| 0:12:51.330183 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ffd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2698546717, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAWAIBiw+ttKUY'}]} |
| 0:12:51.332182 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0258, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: adb4a518) |
| 0:12:51.333181 | LOG | Server <---------- DUT |
| 0:12:51.335180 | LOG | Count = 19 |
| 0:12:53.647239 | LOG | PUSH_ACK: 02 2ffe 01 |
| 0:12:53.649238 | LOG | PUSH_DATA: Protocol version = 02, Token = 2ffe, Identifier = 00, JSON = {'rxpk': [{'tmst': 2700876173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAWAIBiw+ttKUY'}]} |
| 0:12:53.651237 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0258, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: adb4a518) |
| 0:12:53.653236 | LOG | Server <---------- DUT |
| 0:12:53.657234 | LOG | Repeated frame. It does not count |
| 0:12:56.324728 | LOG | PUSH_ACK: 02 2fff 01 |
| 0:12:56.326725 | LOG | PUSH_DATA: Protocol version = 02, Token = 2fff, Identifier = 00, JSON = {'rxpk': [{'tmst': 2703551021, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAWQIBMyo3JTVn'}]} |
| 0:12:56.327725 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0259, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 37253567) |
| 0:12:56.329724 | LOG | Server <---------- DUT |
| 0:12:56.330723 | LOG | Count = 20 |
| 0:12:58.694924 | LOG | PUSH_ACK: 02 3000 01 |
| 0:12:58.696923 | LOG | PUSH_DATA: Protocol version = 02, Token = 3000, Identifier = 00, JSON = {'rxpk': [{'tmst': 2705879117, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAWQIBMyo3JTVn'}]} |
| 0:12:58.698922 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0259, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 37253567) |
| 0:12:58.699921 | LOG | Server <---------- DUT |
| 0:12:58.701921 | LOG | Repeated frame. It does not count |
| 0:13:01.277465 | LOG | PULL_DATA: 02 489c 02 3834383419003400 |

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| 0:13:01.279464 | LOG | PULL_ACK: 02 489c 04 |
| 0:13:01.322440 | LOG | PUSH_ACK: 02 3001 01 |
| 0:13:01.324439 | LOG | PUSH_DATA: Protocol version = 02, Token = 3001, Identifier = 00, JSON = {'rxpk': [{'tmst': 2708553997, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAWgIB4EElkOJm'}]} |
| 0:13:01.326437 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2590e266) |
| 0:13:01.328436 | LOG | Server <---------- DUT |
| 0:13:01.329436 | LOG | Count = 21 |
| 0:13:03.693481 | LOG | PUSH_ACK: 02 3002 01 |
| 0:13:03.696480 | LOG | PUSH_DATA: Protocol version = 02, Token = 3002, Identifier = 00, JSON = {'rxpk': [{'tmst': 2710882053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAWgIB4EElkOJm'}]} |
| 0:13:03.697479 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2590e266) |
| 0:13:03.699478 | LOG | Server <---------- DUT |
| 0:13:03.701477 | LOG | Repeated frame. It does not count |
| 0:13:06.372967 | LOG | PUSH_ACK: 02 3003 01 |
| 0:13:06.374966 | LOG | PUSH_DATA: Protocol version = 02, Token = 3003, Identifier = 00, JSON = {'rxpk': [{'tmst': 2713556941, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAWwIBRXw4+VBh'}]} |
| 0:13:06.376965 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 38f95061) |
| 0:13:06.378964 | LOG | Server <---------- DUT |
| 0:13:06.379963 | LOG | Count = 22 |
| 0:13:08.692199 | LOG | PUSH_ACK: 02 3004 01 |
| 0:13:08.695198 | LOG | PUSH_DATA: Protocol version = 02, Token = 3004, Identifier = 00, JSON = {'rxpk': [{'tmst': 2715885053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAWwIBRXw4+VBh'}]} |
| 0:13:08.697197 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 38f95061) |
| 0:13:08.699196 | LOG | Server <---------- DUT |
| 0:13:08.700195 | LOG | Repeated frame. It does not count |
| 0:13:11.357068 | LOG | PULL_DATA: 02 9591 02 3834383419003400 |
| 0:13:11.362065 | LOG | PULL_ACK: 02 9591 04 |
| 0:13:11.371060 | LOG | PUSH_ACK: 02 3005 01 |
| 0:13:11.374059 | LOG | PUSH_DATA: Protocol version = 02, Token = 3005, Identifier = 00, JSON = {'rxpk': [{'tmst': 2718559885, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAXAIBh1es1fTa'}]} |
| 0:13:11.376058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: acd5f4da) |
| 0:13:11.377057 | LOG | Server <---------- DUT |
| 0:13:11.379056 | LOG | Count = 23 |
| 0:13:13.705248 | LOG | PUSH_ACK: 02 3007 01 |
| 0:13:13.707247 | LOG | PUSH_DATA: Protocol version = 02, Token = 3007, Identifier = 00, JSON = {'rxpk': [{'tmst': 2720887997, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAXAIBh1es1fTa'}]} |
| 0:13:13.709246 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: acd5f4da) |
| 0:13:13.710245 | LOG | Server <---------- DUT |

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| 0:13:13.712244 | LOG | Repeated frame. It does not count |
| 0:13:16.333225 | LOG | PUSH_ACK: 02 3008 01 |
| 0:13:16.335222 | LOG | PUSH_DATA: Protocol version = 02, Token = 3008, Identifier = 00, JSON = {'rxpk': [{'tmst': 2723562845, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAXQIB5iXB7nwW'}]} |
| 0:13:16.337221 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c1ee7c16) |
| 0:13:16.338220 | LOG | Server <---------- DUT |
| 0:13:16.340219 | LOG | Count = 24 |
| 0:13:18.703838 | LOG | PUSH_ACK: 02 3009 01 |
| 0:13:18.705837 | LOG | PUSH_DATA: Protocol version = 02, Token = 3009, Identifier = 00, JSON = {'rxpk': [{'tmst': 2725890925, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAXQIB5iXB7nwW'}]} |
| 0:13:18.707836 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c1ee7c16) |
| 0:13:18.709835 | LOG | Server <---------- DUT |
| 0:13:18.710834 | LOG | Repeated frame. It does not count |
| 0:13:21.382902 | LOG | PUSH_ACK: 02 300a 01 |
| 0:13:21.385900 | LOG | PUSH_DATA: Protocol version = 02, Token = 300a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2728567157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAXgIBTLD8hUSG'}]} |
| 0:13:21.386900 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fc854486) |
| 0:13:21.388899 | LOG | Server <---------- DUT |
| 0:13:21.389899 | LOG | Count = 25 |
| 0:13:21.436871 | LOG | PULL_DATA: 02 9689 02 3834383419003400 |
| 0:13:21.438871 | LOG | PULL_ACK: 02 9689 04 |
| 0:13:23.702592 | LOG | PUSH_ACK: 02 300b 01 |
| 0:13:23.704590 | LOG | PUSH_DATA: Protocol version = 02, Token = 300b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2730896621, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAXgIBTLD8hUSG'}]} |
| 0:13:23.706589 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fc854486) |
| 0:13:23.707589 | LOG | Server <---------- DUT |
| 0:13:23.708588 | LOG | Repeated frame. It does not count |
| 0:13:26.382176 | LOG | PUSH_ACK: 02 300c 01 |
| 0:13:26.384176 | LOG | PUSH_DATA: Protocol version = 02, Token = 300c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2733571469, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAXwIBOGyXTHWC'}]} |
| 0:13:26.386173 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 974c7582) |
| 0:13:26.388173 | LOG | Server <---------- DUT |
| 0:13:26.389173 | LOG | Count = 26 |
| 0:13:28.701174 | LOG | PUSH_ACK: 02 300d 01 |
| 0:13:28.703172 | LOG | PUSH_DATA: Protocol version = 02, Token = 300d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2735899573, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAXwIBOGyXTHWC'}]} |
| 0:13:28.705172 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 025f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 974c7582) |
| 0:13:28.707170 | LOG | Server <---------- DUT |

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| 0:13:28.709169 | LOG | Repeated frame. It does not count |
| 0:13:31.380437 | LOG | PUSH_ACK: 02 300e 01 |
| 0:13:31.382435 | LOG | PUSH_DATA: Protocol version = 02, Token = 300e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2738574413, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAYAIBQEFgu7Ao'}]} |
| 0:13:31.383435 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0260, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 60bbb028) |
| 0:13:31.385434 | LOG | Server <---------- DUT |
| 0:13:31.386434 | LOG | Count = 27 |
| 0:13:31.517358 | LOG | PULL_DATA: 02 6aed 02 3834383419003400 |
| 0:13:31.518360 | LOG | PULL_ACK: 02 6aed 04 |
| 0:13:33.697540 | LOG | PUSH_ACK: 02 300f 01 |
| 0:13:33.699539 | LOG | PUSH_DATA: Protocol version = 02, Token = 300f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2740902517, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAYAIBQEFgu7Ao'}]} |
| 0:13:33.701538 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0260, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 60bbb028) |
| 0:13:33.702537 | LOG | Server <---------- DUT |
| 0:13:33.704536 | LOG | Repeated frame. It does not count |
| 0:13:36.375728 | LOG | PUSH_ACK: 02 3010 01 |
| 0:13:36.377726 | LOG | PUSH_DATA: Protocol version = 02, Token = 3010, Identifier = 00, JSON = {'rxpk': [{'tmst': 2743577381, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAYQIB89QtliKn'}]} |
| 0:13:36.378724 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0261, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2d9622a7) |
| 0:13:36.379743 | LOG | Server <---------- DUT |
| 0:13:36.380744 | LOG | Count = 28 |
| 0:13:38.694018 | LOG | PUSH_ACK: 02 3011 01 |
| 0:13:38.697017 | LOG | PUSH_DATA: Protocol version = 02, Token = 3011, Identifier = 00, JSON = {'rxpk': [{'tmst': 2745905461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAYQIB89QtliKn'}]} |
| 0:13:38.698016 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0261, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2d9622a7) |
| 0:13:38.700015 | LOG | Server <---------- DUT |
| 0:13:38.700989 | LOG | Repeated frame. It does not count |
| 0:13:41.373504 | LOG | PUSH_ACK: 02 3012 01 |
| 0:13:41.378503 | LOG | PUSH_DATA: Protocol version = 02, Token = 3012, Identifier = 00, JSON = {'rxpk': [{'tmst': 2748580341, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAYgIBRZf6lltI'}]} |
| 0:13:41.379500 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0262, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fa965b48) |
| 0:13:41.381501 | LOG | Server <---------- DUT |
| 0:13:41.384498 | LOG | Count = 29 |
| 0:13:41.597184 | LOG | PULL_DATA: 02 9785 02 3834383419003400 |
| 0:13:41.598186 | LOG | PULL_ACK: 02 9785 04 |
| 0:13:43.701996 | LOG | PUSH_ACK: 02 3014 01 |
| 0:13:43.704994 | LOG | PUSH_DATA: Protocol version = 02, Token = 3014, Identifier = 00, JSON = {'rxpk': [{'tmst': 2750908477, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAYgIBRZf6lltI'}]} |

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| 0:13:43.706993 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0262, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fa965b48) |
| 0:13:43.707992 | LOG | Server <---------- DUT |
| 0:13:43.709991 | LOG | Repeated frame. It does not count |
| 0:13:46.379484 | LOG | PUSH_ACK: 02 3015 01 |
| 0:13:46.381483 | LOG | PUSH_DATA: Protocol version = 02, Token = 3015, Identifier = 00, JSON = {'rxpk': [{'tmst': 2753584653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAYwIBx1Qt0gXd'}]} |
| 0:13:46.383482 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0263, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2dd205dd) |
| 0:13:46.384481 | LOG | Server <---------- DUT |
| 0:13:46.386479 | LOG | Count = 30 |
| 0:13:48.698418 | LOG | PUSH_ACK: 02 3016 01 |
| 0:13:48.700417 | LOG | PUSH_DATA: Protocol version = 02, Token = 3016, Identifier = 00, JSON = {'rxpk': [{'tmst': 2755912741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAYwIBx1Qt0gXd'}]} |
| 0:13:48.702418 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0263, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2dd205dd) |
| 0:13:48.704414 | LOG | Server <---------- DUT |
| 0:13:48.706413 | LOG | Repeated frame. It does not count |
| 0:13:51.377371 | LOG | PUSH_ACK: 02 3017 01 |
| 0:13:51.379370 | LOG | PUSH_DATA: Protocol version = 02, Token = 3017, Identifier = 00, JSON = {'rxpk': [{'tmst': 2758588957, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAZAIB5XKfLH1c'}]} |
| 0:13:51.380369 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0264, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9f2c7d5c) |
| 0:13:51.382368 | LOG | Server <---------- DUT |
| 0:13:51.383367 | LOG | Count = 31 |
| 0:13:51.686865 | LOG | PULL_DATA: 02 9c8a 02 3834383419003400 |
| 0:13:51.688864 | LOG | PULL_ACK: 02 9c8a 04 |
| 0:13:53.694201 | LOG | PUSH_ACK: 02 3018 01 |
| 0:13:53.696200 | LOG | PUSH_DATA: Protocol version = 02, Token = 3018, Identifier = 00, JSON = {'rxpk': [{'tmst': 2760918421, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAZAIB5XKfLH1c'}]} |
| 0:13:53.698199 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0264, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9f2c7d5c) |
| 0:13:53.700198 | LOG | Server <---------- DUT |
| 0:13:53.701197 | LOG | Repeated frame. It does not count |
| 0:13:56.370404 | LOG | PUSH_ACK: 02 3019 01 |
| 0:13:56.373402 | LOG | PUSH_DATA: Protocol version = 02, Token = 3019, Identifier = 00, JSON = {'rxpk': [{'tmst': 2763594653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAZQIBRsLyLtPg'}]} |
| 0:13:56.374401 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0265, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f22ed3e0) |
| 0:13:56.376401 | LOG | Server <---------- DUT |
| 0:13:56.377400 | LOG | Count = 32 |
| 0:13:58.790678 | LOG | PUSH_ACK: 02 301a 01 |
| 0:13:58.792677 | LOG | PUSH_DATA: Protocol version = 02, Token = 301a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2765996293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAZQIBRsLyLtPg'}]} |

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| 0:13:58.793676 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0265, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f22ed3e0) |
| 0:13:58.795675 | LOG | Server <---------- DUT |
| 0:13:58.796675 | LOG | Repeated frame. It does not count |
| 0:14:01.469399 | LOG | PUSH_ACK: 02 301b 01 |
| 0:14:01.471397 | LOG | PUSH_DATA: Protocol version = 02, Token = 301b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2768672517, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAZgIBT3H1t/tF'}]} |
| 0:14:01.473396 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0266, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f5b7fb45) |
| 0:14:01.474396 | LOG | Server <---------- DUT |
| 0:14:01.476395 | LOG | Count = 33 |
| 0:14:01.477411 | LOG | Waiting for the retransmissions |
| 0:14:01.767482 | LOG | PULL_DATA: 02 b967 02 3834383419003400 |
| 0:14:01.769481 | LOG | PULL_ACK: 02 b967 04 |
| 0:14:03.841872 | LOG | PUSH_ACK: 02 301d 01 |
| 0:14:03.843870 | LOG | PUSH_DATA: Protocol version = 02, Token = 301d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2771074173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAZgIBT3H1t/tF'}]} |
| 0:14:03.844870 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0266, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f5b7fb45) |
| 0:14:03.845872 | LOG | Server <---------- DUT |
| 0:14:03.863860 | LOG | Expected number of uplink messages have been received |
| 0:14:03.866858 | LOG | Test adaptive data rate control in frame header process starts |
| 0:14:06.468321 | LOG | PUSH_ACK: 02 301e 01 |
| 0:14:06.471319 | LOG | PUSH_DATA: Protocol version = 02, Token = 301e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2773676837, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAZwIBbaL9m4BA'}]} |
| 0:14:06.473318 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0267, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fd9b8040) |
| 0:14:06.474319 | LOG | Server <---------- DUT |
| 0:14:06.476317 | LOG | Count = 2 |
| 0:14:08.891493 | LOG | PUSH_ACK: 02 301f 01 |
| 0:14:08.893492 | LOG | PUSH_DATA: Protocol version = 02, Token = 301f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2776077125, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAZwIBbaL9m4BA'}]} |
| 0:14:08.895490 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0267, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fd9b8040) |
| 0:14:08.896489 | LOG | Server <---------- DUT |
| 0:14:08.898488 | LOG | Repeated frame. It does not count |
| 0:14:11.467738 | LOG | PUSH_ACK: 02 3020 01 |
| 0:14:11.471737 | LOG | PUSH_DATA: Protocol version = 02, Token = 3020, Identifier = 00, JSON = {'rxpk': [{'tmst': 2778679789, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAaAIBude0aSSF'}]} |
| 0:14:11.473735 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0268, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b4692485) |
| 0:14:11.474735 | LOG | Server <---------- DUT |
| 0:14:11.476734 | LOG | Count = 3 |
| 0:14:11.846616 | LOG | PULL_DATA: 02 a5a3 02 3834383419003400 |
| 0:14:11.848616 | LOG | PULL_ACK: 02 a5a3 04 |
| 0:14:13.896530 | LOG | PUSH_ACK: 02 3022 01 |

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| 0:14:13.898528 | LOG | PUSH_DATA: Protocol version = 02, Token = 3022, Identifier = 00, JSON = {'rxpk': [{'tmst': 2781080085, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAaAIBude0aSSF'}]} |
| 0:14:13.900528 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0268, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b4692485) |
| 0:14:13.902526 | LOG | Server <---------- DUT |
| 0:14:13.903527 | LOG | Repeated frame. It does not count |
| 0:14:16.475240 | LOG | PUSH_ACK: 02 3024 01 |
| 0:14:16.477239 | LOG | PUSH_DATA: Protocol version = 02, Token = 3024, Identifier = 00, JSON = {'rxpk': [{'tmst': 2783682741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAaQIBq6BKHB3b'}]} |
| 0:14:16.478240 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0269, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4a1c1ddb) |
| 0:14:16.480238 | LOG | Server <---------- DUT |
| 0:14:16.481254 | LOG | Count = 4 |
| 0:14:18.896636 | LOG | PUSH_ACK: 02 3025 01 |
| 0:14:18.899634 | LOG | PUSH_DATA: Protocol version = 02, Token = 3025, Identifier = 00, JSON = {'rxpk': [{'tmst': 2786083029, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAaQIBq6BKHB3b'}]} |
| 0:14:18.901633 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0269, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4a1c1ddb) |
| 0:14:18.902633 | LOG | Server <---------- DUT |
| 0:14:18.904632 | LOG | Repeated frame. It does not count |
| 0:14:21.473635 | LOG | PUSH_ACK: 02 3026 01 |
| 0:14:21.475632 | LOG | PUSH_DATA: Protocol version = 02, Token = 3026, Identifier = 00, JSON = {'rxpk': [{'tmst': 2788685685, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAagIBne7wP8pQ'}]} |
| 0:14:21.476633 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f03fca50) |
| 0:14:21.477633 | LOG | Server <---------- DUT |
| 0:14:21.478632 | LOG | Count = 5 |
| 0:14:21.926894 | LOG | PULL_DATA: 02 9546 02 3834383419003400 |
| 0:14:21.928895 | LOG | PULL_ACK: 02 9546 04 |
| 0:14:23.894179 | LOG | PUSH_ACK: 02 3027 01 |
| 0:14:23.896179 | LOG | PUSH_DATA: Protocol version = 02, Token = 3027, Identifier = 00, JSON = {'rxpk': [{'tmst': 2791085949, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAagIBne7wP8pQ'}]} |
| 0:14:23.898177 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f03fca50) |
| 0:14:23.899176 | LOG | Server <---------- DUT |
| 0:14:23.901175 | LOG | Repeated frame. It does not count |
| 0:14:26.470270 | LOG | PUSH_ACK: 02 3029 01 |
| 0:14:26.472269 | LOG | PUSH_DATA: Protocol version = 02, Token = 3029, Identifier = 00, JSON = {'rxpk': [{'tmst': 2793688637, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAawIB3gJtdeJy'}]} |
| 0:14:26.474267 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6d75e272) |
| 0:14:26.476266 | LOG | Server <---------- DUT |
| 0:14:26.477265 | LOG | Count = 6 |
| 0:14:28.889889 | LOG | PUSH_ACK: 02 302a 01 |

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| 0:14:28.891872 | LOG | PUSH_DATA: Protocol version = 02, Token = 302a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2796090293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAawIB3gJtdeJy'}]} |
| 0:14:28.892870 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6d75e272) |
| 0:14:28.893870 | LOG | Server <---------- DUT |
| 0:14:28.895869 | LOG | Repeated frame. It does not count |
| 0:14:31.464864 | LOG | PUSH_ACK: 02 302c 01 |
| 0:14:31.466863 | LOG | PUSH_DATA: Protocol version = 02, Token = 302c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2798694341, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAbAIBl1Nrms9v'}]} |
| 0:14:31.467862 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6b9acf6f) |
| 0:14:31.469861 | LOG | Server <---------- DUT |
| 0:14:31.471861 | LOG | Count = 7 |
| 0:14:32.006558 | LOG | PULL_DATA: 02 5c42 02 3834383419003400 |
| 0:14:32.008559 | LOG | PULL_ACK: 02 5c42 04 |
| 0:14:33.884028 | LOG | PUSH_ACK: 02 302d 01 |
| 0:14:33.886027 | LOG | PUSH_DATA: Protocol version = 02, Token = 302d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2801096005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAbAIBl1Nrms9v'}]} |
| 0:14:33.887027 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6b9acf6f) |
| 0:14:33.889026 | LOG | Server <---------- DUT |
| 0:14:33.890025 | LOG | Repeated frame. It does not count |
| 0:14:36.509289 | LOG | PUSH_ACK: 02 302e 01 |
| 0:14:36.511287 | LOG | PUSH_DATA: Protocol version = 02, Token = 302e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2803700053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAbQIBVeyyF1zW'}]} |
| 0:14:36.513288 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b2175cd6) |
| 0:14:36.514306 | LOG | Server <---------- DUT |
| 0:14:36.516286 | LOG | Count = 8 |
| 0:14:38.877950 | LOG | PUSH_ACK: 02 302f 01 |
| 0:14:38.878950 | LOG | PUSH_DATA: Protocol version = 02, Token = 302f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2806100349, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAbQIBVeyyF1zW'}]} |
| 0:14:38.880949 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b2175cd6) |
| 0:14:38.881948 | LOG | Server <---------- DUT |
| 0:14:38.883947 | LOG | Repeated frame. It does not count |
| 0:14:41.501427 | LOG | PUSH_ACK: 02 3030 01 |
| 0:14:41.505425 | LOG | PUSH_DATA: Protocol version = 02, Token = 3030, Identifier = 00, JSON = {'rxpk': [{'tmst': 2808703005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAbgIBGDA3N32J'}]} |
| 0:14:41.506425 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 37377d89) |
| 0:14:41.508424 | LOG | Server <---------- DUT |
| 0:14:41.510422 | LOG | Count = 9 |
| 0:14:42.087224 | LOG | PULL_DATA: 02 c7bb 02 3834383419003400 |

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| 0:14:42.089224 | LOG | PULL_ACK: 02 c7bb 04 |
| 0:14:43.886209 | LOG | PUSH_ACK: 02 3032 01 |
| 0:14:43.888208 | LOG | PUSH_DATA: Protocol version = 02, Token = 3032, Identifier = 00, JSON = {'rxpk': [{'tmst': 2811103293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAbgIBGDA3N32J'}]} |
| 0:14:43.890206 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 37377d89) |
| 0:14:43.891206 | LOG | Server <---------- DUT |
| 0:14:43.893178 | LOG | Repeated frame. It does not count |
| 0:14:46.511706 | LOG | PUSH_ACK: 02 3033 01 |
| 0:14:46.513703 | LOG | PUSH_DATA: Protocol version = 02, Token = 3033, Identifier = 00, JSON = {'rxpk': [{'tmst': 2813705957, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAbwIBoL9v6MdW'}]} |
| 0:14:46.514702 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6fe8c756) |
| 0:14:46.516702 | LOG | Server <---------- DUT |
| 0:14:46.517702 | LOG | Count = 10 |
| 0:14:48.882365 | LOG | PUSH_ACK: 02 3034 01 |
| 0:14:48.906352 | LOG | PUSH_DATA: Protocol version = 02, Token = 3034, Identifier = 00, JSON = {'rxpk': [{'tmst': 2816106253, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAbwIBoL9v6MdW'}]} |
| 0:14:48.907350 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 026f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6fe8c756) |
| 0:14:48.908350 | LOG | Server <---------- DUT |
| 0:14:48.910349 | LOG | Repeated frame. It does not count |
| 0:14:51.479897 | LOG | PUSH_ACK: 02 3035 01 |
| 0:14:51.485896 | LOG | PUSH_DATA: Protocol version = 02, Token = 3035, Identifier = 00, JSON = {'rxpk': [{'tmst': 2818708925, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAcAIBk2/A2lzR'}]} |
| 0:14:51.488892 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0270, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c0da5cd1) |
| 0:14:51.492890 | LOG | Server <---------- DUT |
| 0:14:51.497887 | LOG | Count = 11 |
| 0:14:52.166509 | LOG | PULL_DATA: 02 ecaf 02 3834383419003400 |
| 0:14:52.168509 | LOG | PULL_ACK: 02 ecaf 04 |
| 0:14:53.904755 | LOG | PUSH_ACK: 02 3036 01 |
| 0:14:53.905756 | LOG | PUSH_DATA: Protocol version = 02, Token = 3036, Identifier = 00, JSON = {'rxpk': [{'tmst': 2821109213, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAcAIBk2/A2lzR'}]} |
| 0:14:53.907755 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0270, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c0da5cd1) |
| 0:14:53.908753 | LOG | Server <---------- DUT |
| 0:14:53.910725 | LOG | Repeated frame. It does not count |
| 0:14:56.481400 | LOG | PUSH_ACK: 02 3038 01 |
| 0:14:56.483398 | LOG | PUSH_DATA: Protocol version = 02, Token = 3038, Identifier = 00, JSON = {'rxpk': [{'tmst': 2823711869, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAcQIBiYAZj9Yc'}]} |
| 0:14:56.485399 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0271, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 198fd61c) |
| 0:14:56.486397 | LOG | Server <---------- DUT |

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| 0:14:56.487398 | LOG | Count = 12 |
| 0:14:58.902763 | LOG | PUSH_ACK: 02 3039 01 |
| 0:14:58.904763 | LOG | PUSH_DATA: Protocol version = 02, Token = 3039, Identifier = 00, JSON = {'rxpk': [{'tmst': 2826112157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAcQIBiYAZj9Yc'}]} |
| 0:14:58.906761 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0271, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 198fd61c) |
| 0:14:58.907760 | LOG | Server <---------- DUT |
| 0:14:58.909759 | LOG | Repeated frame. It does not count |
| 0:15:01.529985 | LOG | PUSH_ACK: 02 303a 01 |
| 0:15:01.531983 | LOG | PUSH_DATA: Protocol version = 02, Token = 303a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2828716197, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAcgIB6lAq36L0'}]} |
| 0:15:01.532983 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0272, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2adfa2f4) |
| 0:15:01.534982 | LOG | Server <---------- DUT |
| 0:15:01.535982 | LOG | Count = 13 |
| 0:15:02.247250 | LOG | PULL_DATA: 02 0676 02 3834383419003400 |
| 0:15:02.248222 | LOG | PULL_ACK: 02 0676 04 |
| 0:15:03.900289 | LOG | PUSH_ACK: 02 303b 01 |
| 0:15:03.902316 | LOG | PUSH_DATA: Protocol version = 02, Token = 303b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2831117853, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAcgIB6lAq36L0'}]} |
| 0:15:03.904315 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0272, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2adfa2f4) |
| 0:15:03.905313 | LOG | Server <---------- DUT |
| 0:15:03.907312 | LOG | Repeated frame. It does not count |
| 0:15:06.529665 | LOG | PUSH_ACK: 02 303d 01 |
| 0:15:06.531664 | LOG | PUSH_DATA: Protocol version = 02, Token = 303d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2833721901, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAcwIBCLT6o88d'}]} |
| 0:15:06.533664 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0273, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: faa3cf1d) |
| 0:15:06.534664 | LOG | Server <---------- DUT |
| 0:15:06.536661 | LOG | Count = 14 |
| 0:15:08.898584 | LOG | PUSH_ACK: 02 303e 01 |
| 0:15:08.899582 | LOG | PUSH_DATA: Protocol version = 02, Token = 303e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2836122197, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAcwIBCLT6o88d'}]} |
| 0:15:08.901583 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0273, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: faa3cf1d) |
| 0:15:08.902583 | LOG | Server <---------- DUT |
| 0:15:08.903582 | LOG | Repeated frame. It does not count |
| 0:15:11.523049 | LOG | PUSH_ACK: 02 303f 01 |
| 0:15:11.527047 | LOG | PUSH_DATA: Protocol version = 02, Token = 303f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2838724853, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAdAIBde/Y9frv'}]} |
| 0:15:11.529046 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0274, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d8f5faef) |
| 0:15:11.531044 | LOG | Server <---------- DUT |

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| 0:15:11.532044 | LOG | Count = 15 |
| 0:15:12.327064 | LOG | PULL_DATA: 02 a3d8 02 3834383419003400 |
| 0:15:12.329062 | LOG | PULL_ACK: 02 a3d8 04 |
| 0:15:13.908290 | LOG | PUSH_ACK: 02 3041 01 |
| 0:15:13.909289 | LOG | PUSH_DATA: Protocol version = 02, Token = 3041, Identifier = 00, JSON = {'rxpk': [{'tmst': 2841125125, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAdAIBde/Y9frv'}]} |
| 0:15:13.910289 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0274, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d8f5faef) |
| 0:15:13.912288 | LOG | Server <---------- DUT |
| 0:15:13.914287 | LOG | Repeated frame. It does not count |
| 0:15:16.532807 | LOG | PUSH_ACK: 02 3042 01 |
| 0:15:16.534807 | LOG | PUSH_DATA: Protocol version = 02, Token = 3042, Identifier = 00, JSON = {'rxpk': [{'tmst': 2843727789, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAdQIBVcnTgA/M'}]} |
| 0:15:16.536805 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0275, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d3800fcc) |
| 0:15:16.537823 | LOG | Server <---------- DUT |
| 0:15:16.539805 | LOG | Count = 16 |
| 0:15:18.900648 | LOG | PUSH_ACK: 02 3043 01 |
| 0:15:18.903647 | LOG | PUSH_DATA: Protocol version = 02, Token = 3043, Identifier = 00, JSON = {'rxpk': [{'tmst': 2846128085, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAdQIBVcnTgA/M'}]} |
| 0:15:18.904646 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0275, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d3800fcc) |
| 0:15:18.905646 | LOG | Server <---------- DUT |
| 0:15:18.906645 | LOG | Repeated frame. It does not count |
| 0:15:21.526288 | LOG | PUSH_ACK: 02 3044 01 |
| 0:15:21.529287 | LOG | PUSH_DATA: Protocol version = 02, Token = 3044, Identifier = 00, JSON = {'rxpk': [{'tmst': 2848730741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAdgIB4VrNjiLb'}]} |
| 0:15:21.534283 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0276, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cd8e22db) |
| 0:15:21.536282 | LOG | Server <---------- DUT |
| 0:15:21.538281 | LOG | Count = 17 |
| 0:15:22.407134 | LOG | PULL_DATA: 02 04dd 02 3834383419003400 |
| 0:15:22.408133 | LOG | PULL_ACK: 02 04dd 04 |
| 0:15:23.945265 | LOG | PUSH_ACK: 02 3045 01 |
| 0:15:23.948265 | LOG | PUSH_DATA: Protocol version = 02, Token = 3045, Identifier = 00, JSON = {'rxpk': [{'tmst': 2851131053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAdgIB4VrNjiLb'}]} |
| 0:15:23.949263 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0276, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cd8e22db) |
| 0:15:23.951262 | LOG | Server <---------- DUT |
| 0:15:23.952261 | LOG | Repeated frame. It does not count |
| 0:15:26.518977 | LOG | PUSH_ACK: 02 3046 01 |
| 0:15:26.520976 | LOG | PUSH_DATA: Protocol version = 02, Token = 3046, Identifier = 00, JSON = {'rxpk': [{'tmst': 2853733693, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAdwIBNruQPEb9'}]} |

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| 0:15:26.522975 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0277, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 903c46fd) |
| 0:15:26.524975 | LOG | Server <---------- DUT |
| 0:15:26.525973 | LOG | Count = 18 |
| 0:15:28.938610 | LOG | PUSH_ACK: 02 3047 01 |
| 0:15:28.940609 | LOG | PUSH_DATA: Protocol version = 02, Token = 3047, Identifier = 00, JSON = {'rxpk': [{'tmst': 2856134005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAdwIBNruQPEb9'}]} |
| 0:15:28.941608 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0277, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 903c46fd) |
| 0:15:28.942608 | LOG | Server <---------- DUT |
| 0:15:28.944607 | LOG | Repeated frame. It does not count |
| 0:15:31.511639 | LOG | PUSH_ACK: 02 3048 01 |
| 0:15:31.512638 | LOG | PUSH_DATA: Protocol version = 02, Token = 3048, Identifier = 00, JSON = {'rxpk': [{'tmst': 2858736653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAeAIB3Ar+sCTh'}]} |
| 0:15:31.514638 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0278, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: feb024e1) |
| 0:15:31.515637 | LOG | Server <---------- DUT |
| 0:15:31.516636 | LOG | Count = 19 |
| 0:15:32.487140 | LOG | PULL_DATA: 02 5f4c 02 3834383419003400 |
| 0:15:32.488141 | LOG | PULL_ACK: 02 5f4c 04 |
| 0:15:33.929417 | LOG | PUSH_ACK: 02 3049 01 |
| 0:15:33.932415 | LOG | PUSH_DATA: Protocol version = 02, Token = 3049, Identifier = 00, JSON = {'rxpk': [{'tmst': 2861138301, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAeAIB3Ar+sCTh'}]} |
| 0:15:33.933415 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0278, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: feb024e1) |
| 0:15:33.935415 | LOG | Server <---------- DUT |
| 0:15:33.936413 | LOG | Repeated frame. It does not count |
| 0:15:36.555459 | LOG | PUSH_ACK: 02 304a 01 |
| 0:15:36.557458 | LOG | PUSH_DATA: Protocol version = 02, Token = 304a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2863740973, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAeQIB2cqOdvk2'}]} |
| 0:15:36.559457 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0279, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8e76f936) |
| 0:15:36.560457 | LOG | Server <---------- DUT |
| 0:15:36.561456 | LOG | Count = 20 |
| 0:15:38.923734 | LOG | PUSH_ACK: 02 304b 01 |
| 0:15:38.925734 | LOG | PUSH_DATA: Protocol version = 02, Token = 304b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2866141269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAeQIB2cqOdvk2'}]} |
| 0:15:38.926732 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0279, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8e76f936) |
| 0:15:38.928731 | LOG | Server <---------- DUT |
| 0:15:38.930731 | LOG | Repeated frame. It does not count |
| 0:15:41.548743 | LOG | PUSH_ACK: 02 304c 01 |
| 0:15:41.552740 | LOG | PUSH_DATA: Protocol version = 02, Token = 304c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2868743933, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAegIBQcp1lZc4'}]} |

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| 0:15:41.554741 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 75959738) |
| 0:15:41.555739 | LOG | Server <---------- DUT |
| 0:15:41.556740 | LOG | Count = 21 |
| 0:15:42.566827 | LOG | PULL_DATA: 02 79f4 02 3834383419003400 |
| 0:15:42.568826 | LOG | PULL_ACK: 02 79f4 04 |
| 0:15:43.927058 | LOG | PUSH_ACK: 02 304e 01 |
| 0:15:43.929057 | LOG | PUSH_DATA: Protocol version = 02, Token = 304e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2871144221, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAegIBQcp1lZc4'}]} |
| 0:15:43.930057 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 75959738) |
| 0:15:43.931057 | LOG | Server <---------- DUT |
| 0:15:43.933055 | LOG | Repeated frame. It does not count |
| 0:15:46.552039 | LOG | PUSH_ACK: 02 304f 01 |
| 0:15:46.555037 | LOG | PUSH_DATA: Protocol version = 02, Token = 304f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2873746869, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAewIB0EAak/km'}]} |
| 0:15:46.557036 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1a93f926) |
| 0:15:46.558036 | LOG | Server <---------- DUT |
| 0:15:46.559035 | LOG | Count = 22 |
| 0:15:48.921738 | LOG | PUSH_ACK: 02 3050 01 |
| 0:15:48.923737 | LOG | PUSH_DATA: Protocol version = 02, Token = 3050, Identifier = 00, JSON = {'rxpk': [{'tmst': 2876147149, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAewIB0EAak/km'}]} |
| 0:15:48.924737 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1a93f926) |
| 0:15:48.925736 | LOG | Server <---------- DUT |
| 0:15:48.927736 | LOG | Repeated frame. It does not count |
| 0:15:51.546747 | LOG | PUSH_ACK: 02 3051 01 |
| 0:15:51.548746 | LOG | PUSH_DATA: Protocol version = 02, Token = 3051, Identifier = 00, JSON = {'rxpk': [{'tmst': 2878749837, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAfAIBuDY7bZ1H'}]} |
| 0:15:51.550745 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 3b6d9d47) |
| 0:15:51.551744 | LOG | Server <---------- DUT |
| 0:15:51.553743 | LOG | Count = 23 |
| 0:15:52.646857 | LOG | PULL_DATA: 02 dd0f 02 3834383419003400 |
| 0:15:52.648856 | LOG | PULL_ACK: 02 dd0f 04 |
| 0:15:53.966858 | LOG | PUSH_ACK: 02 3052 01 |
| 0:15:53.968856 | LOG | PUSH_DATA: Protocol version = 02, Token = 3052, Identifier = 00, JSON = {'rxpk': [{'tmst': 2881150157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAfAIBuDY7bZ1H'}]} |
| 0:15:53.969855 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 3b6d9d47) |
| 0:15:53.970855 | LOG | Server <---------- DUT |
| 0:15:53.972853 | LOG | Repeated frame. It does not count |
| 0:15:56.540539 | LOG | PUSH_ACK: 02 3053 01 |
| 0:15:56.542539 | LOG | PUSH_DATA: Protocol version = 02, Token = 3053, Identifier = 00, JSON = {'rxpk': [{'tmst': 2883752781, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAfQIBZ4FL5Spg'}]} |
| 0:15:56.544537 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4be52a60) |
| 0:15:56.545537 | LOG | Server <---------- DUT |
| 0:15:56.547536 | LOG | Count = 24 |
| 0:15:58.960292 | LOG | PUSH_ACK: 02 3054 01 |
| 0:15:58.962292 | LOG | PUSH_DATA: Protocol version = 02, Token = 3054, Identifier = 00, JSON = {'rxpk': [{'tmst': 2886153085, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAfQIBZ4FL5Spg'}]} |
| 0:15:58.963291 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4be52a60) |
| 0:15:58.964290 | LOG | Server <---------- DUT |
| 0:15:58.965290 | LOG | Repeated frame. It does not count |
| 0:16:01.532839 | LOG | PUSH_ACK: 02 3055 01 |
| 0:16:01.534838 | LOG | PUSH_DATA: Protocol version = 02, Token = 3055, Identifier = 00, JSON = {'rxpk': [{'tmst': 2888755749, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAfgIBSg1Pt1aM'}]} |
| 0:16:01.536835 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4fb7568c) |
| 0:16:01.537835 | LOG | Server <---------- DUT |
| 0:16:01.538834 | LOG | Count = 25 |
| 0:16:02.726507 | LOG | PULL_DATA: 02 7e47 02 3834383419003400 |
| 0:16:02.728502 | LOG | PULL_ACK: 02 7e47 04 |
| 0:16:03.952809 | LOG | PUSH_ACK: 02 3056 01 |
| 0:16:03.954808 | LOG | PUSH_DATA: Protocol version = 02, Token = 3056, Identifier = 00, JSON = {'rxpk': [{'tmst': 2891157397, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAfgIBSg1Pt1aM'}]} |
| 0:16:03.956807 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4fb7568c) |
| 0:16:03.957806 | LOG | Server <---------- DUT |
| 0:16:03.959805 | LOG | Repeated frame. It does not count |
| 0:16:06.527441 | LOG | PUSH_ACK: 02 3057 01 |
| 0:16:06.529440 | LOG | PUSH_DATA: Protocol version = 02, Token = 3057, Identifier = 00, JSON = {'rxpk': [{'tmst': 2893761421, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAfwIBoouPNStr'}]} |
| 0:16:06.530439 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8f352b6b) |
| 0:16:06.532439 | LOG | Server <---------- DUT |
| 0:16:06.533440 | LOG | Count = 26 |
| 0:16:08.947407 | LOG | PUSH_ACK: 02 3058 01 |
| 0:16:08.949404 | LOG | PUSH_DATA: Protocol version = 02, Token = 3058, Identifier = 00, JSON = {'rxpk': [{'tmst': 2896163053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAfwIBoouPNStr'}]} |
| 0:16:08.951404 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 027f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8f352b6b) |
| 0:16:08.952403 | LOG | Server <---------- DUT |
| 0:16:08.954402 | LOG | Repeated frame. It does not count |
| 0:16:11.572897 | LOG | PUSH_ACK: 02 3059 01 |
| 0:16:11.575894 | LOG | PUSH_DATA: Protocol version = 02, Token = 3059, Identifier = 00, JSON = {'rxpk': [{'tmst': 2898767117, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAgAIBSjwjB3Q9'}]} |
| 0:16:11.577892 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0280, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2307743d) |
| 0:16:11.578894 | LOG | Server <---------- DUT |
| 0:16:11.580891 | LOG | Count = 27 |
| 0:16:12.807101 | LOG | PULL_DATA: 02 fc15 02 3834383419003400 |
| 0:16:12.809101 | LOG | PULL_ACK: 02 fc15 04 |
| 0:16:13.957837 | LOG | PUSH_ACK: 02 305b 01 |
| 0:16:13.959834 | LOG | PUSH_DATA: Protocol version = 02, Token = 305b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2901167381, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAgAIBSjwjB3Q9'}]} |
| 0:16:13.961833 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0280, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2307743d) |
| 0:16:13.963832 | LOG | Server <---------- DUT |
| 0:16:13.964831 | LOG | Repeated frame. It does not count |
| 0:16:16.583594 | LOG | PUSH_ACK: 02 305c 01 |
| 0:16:16.586593 | LOG | PUSH_DATA: Protocol version = 02, Token = 305c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2903770053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAgQIB2SwNUMxB'}]} |
| 0:16:16.588592 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0281, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0d50cc41) |
| 0:16:16.589591 | LOG | Server <---------- DUT |
| 0:16:16.591590 | LOG | Count = 28 |
| 0:16:18.951733 | LOG | PUSH_ACK: 02 305d 01 |
| 0:16:18.953733 | LOG | PUSH_DATA: Protocol version = 02, Token = 305d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2906170341, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAgQIB2SwNUMxB'}]} |
| 0:16:18.955731 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0281, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0d50cc41) |
| 0:16:18.957730 | LOG | Server <---------- DUT |
| 0:16:18.958729 | LOG | Repeated frame. It does not count |
| 0:16:21.576764 | LOG | PUSH_ACK: 02 305e 01 |
| 0:16:21.577763 | LOG | PUSH_DATA: Protocol version = 02, Token = 305e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2908772997, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAggIBQETPVdst'}]} |
| 0:16:21.579762 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0282, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cf55db2d) |
| 0:16:21.580762 | LOG | Server <---------- DUT |
| 0:16:21.582761 | LOG | Count = 29 |
| 0:16:22.887096 | LOG | PULL_DATA: 02 cd98 02 3834383419003400 |
| 0:16:22.891089 | LOG | PULL_ACK: 02 cd98 04 |
| 0:16:23.943493 | LOG | PUSH_ACK: 02 305f 01 |
| 0:16:23.945492 | LOG | PUSH_DATA: Protocol version = 02, Token = 305f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2911173293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAggIBQETPVdst'}]} |
| 0:16:23.947491 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0282, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cf55db2d) |
| 0:16:23.948491 | LOG | Server <---------- DUT |
| 0:16:23.950489 | LOG | Repeated frame. It does not count |
| 0:16:26.568835 | LOG | PUSH_ACK: 02 3060 01 |

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| 0:16:26.571833 | LOG | PUSH_DATA: Protocol version = 02, Token = 3060, Identifier = 00, JSON = {'rxpk': [{'tmst': 2913775957, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAgwIBSyuILm1v'}]} |
| 0:16:26.572832 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0283, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 882e6d6f) |
| 0:16:26.574831 | LOG | Server <---------- DUT |
| 0:16:26.575831 | LOG | Count = 30 |
| 0:16:28.988672 | LOG | PUSH_ACK: 02 3061 01 |
| 0:16:28.991670 | LOG | PUSH_DATA: Protocol version = 02, Token = 3061, Identifier = 00, JSON = {'rxpk': [{'tmst': 2916176245, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAgwIBSyuILm1v'}]} |
| 0:16:28.992670 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0283, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 882e6d6f) |
| 0:16:28.994669 | LOG | Server <---------- DUT |
| 0:16:28.996667 | LOG | Repeated frame. It does not count |
| 0:16:31.563217 | LOG | PUSH_ACK: 02 3062 01 |
| 0:16:31.565216 | LOG | PUSH_DATA: Protocol version = 02, Token = 3062, Identifier = 00, JSON = {'rxpk': [{'tmst': 2918778917, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAhAIBzkYZD/9s'}]} |
| 0:16:31.567215 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0284, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 190fff6c) |
| 0:16:31.568215 | LOG | Server <---------- DUT |
| 0:16:31.570213 | LOG | Count = 31 |
| 0:16:32.967227 | LOG | PULL_DATA: 02 9f86 02 3834383419003400 |
| 0:16:32.968226 | LOG | PULL_ACK: 02 9f86 04 |
| 0:16:33.982703 | LOG | PUSH_ACK: 02 3063 01 |
| 0:16:33.984701 | LOG | PUSH_DATA: Protocol version = 02, Token = 3063, Identifier = 00, JSON = {'rxpk': [{'tmst': 2921179205, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAhAIBzkYZD/9s'}]} |
| 0:16:33.986699 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0284, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 190fff6c) |
| 0:16:33.987699 | LOG | Server <---------- DUT |
| 0:16:33.989697 | LOG | Repeated frame. It does not count |
| 0:16:36.557247 | LOG | PUSH_ACK: 02 3064 01 |
| 0:16:36.559247 | LOG | PUSH_DATA: Protocol version = 02, Token = 3064, Identifier = 00, JSON = {'rxpk': [{'tmst': 2923781741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAhQIB+ncOEoqO'}]} |
| 0:16:36.560249 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0285, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0e128a8e) |
| 0:16:36.561245 | LOG | Server <---------- DUT |
| 0:16:36.563216 | LOG | Count = 32 |
| 0:16:39.130581 | LOG | PUSH_ACK: 02 3065 01 |
| 0:16:39.133580 | LOG | PUSH_DATA: Protocol version = 02, Token = 3065, Identifier = 00, JSON = {'rxpk': [{'tmst': 2926348253, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAhQIB+ncOEoqO'}]} |
| 0:16:39.134579 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0285, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0e128a8e) |
| 0:16:39.136579 | LOG | Server <---------- DUT |
| 0:16:39.137595 | LOG | Repeated frame. It does not count |
| 0:16:41.756551 | LOG | PUSH_ACK: 02 3066 01 |

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| 0:16:41.759548 | LOG | PUSH_DATA: Protocol version = 02, Token = 3066, Identifier = 00, JSON = {'rxpk': [{'tmst': 2928950829, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAhgIBb/jIrJ+u'}]} |
| 0:16:41.761548 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0286, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c8ac9fae) |
| 0:16:41.762547 | LOG | Server <---------- DUT |
| 0:16:41.763548 | LOG | Count = 33 |
| 0:16:41.765545 | LOG | Waiting for the retransmissions |
| 0:16:43.046978 | LOG | PULL_DATA: 02 ff44 02 3834383419003400 |
| 0:16:43.047977 | LOG | PULL_ACK: 02 ff44 04 |
| 0:16:44.297296 | LOG | PUSH_ACK: 02 3068 01 |
| 0:16:44.299294 | LOG | PUSH_DATA: Protocol version = 02, Token = 3068, Identifier = 00, JSON = {'rxpk': [{'tmst': 2931515973, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAhgIBb/jIrJ+u'}]} |
| 0:16:44.300311 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0286, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c8ac9fae) |
| 0:16:44.301295 | LOG | Server <---------- DUT |
| 0:16:44.318284 | LOG | Expected number of uplink messages have been received |
| 0:16:44.323282 | LOG | Test adaptive data rate control in frame header process starts |
| 0:16:51.751217 | LOG | PUSH_ACK: 02 3069 01 |
| 0:16:51.753217 | LOG | PUSH_DATA: Protocol version = 02, Token = 3069, Identifier = 00, JSON = {'rxpk': [{'tmst': 2938956765, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAhwIBv9LspoYc'}]} |
| 0:16:51.754216 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0287, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eca6861c) |
| 0:16:51.756215 | LOG | Server <---------- DUT |
| 0:16:51.757214 | LOG | Count = 2 |
| 0:16:53.126556 | LOG | PULL_DATA: 02 2994 02 3834383419003400 |
| 0:16:53.128537 | LOG | PULL_ACK: 02 2994 04 |
| 0:16:54.324862 | LOG | PUSH_ACK: 02 306a 01 |
| 0:16:54.326861 | LOG | PUSH_DATA: Protocol version = 02, Token = 306a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2941523301, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAhwIBv9LspoYc'}]} |
| 0:16:54.328859 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0287, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eca6861c) |
| 0:16:54.329860 | LOG | Server <---------- DUT |
| 0:16:54.331857 | LOG | Repeated frame. It does not count |
| 0:17:01.779522 | LOG | PUSH_ACK: 02 306b 01 |
| 0:17:01.781519 | LOG | PUSH_DATA: Protocol version = 02, Token = 306b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2948964061, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAiAIBXjkJFtg1'}]} |
| 0:17:01.782518 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0288, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0916d835) |
| 0:17:01.784519 | LOG | Server <---------- DUT |
| 0:17:01.785517 | LOG | Count = 3 |
| 0:17:03.206769 | LOG | PULL_DATA: 02 8a85 02 3834383419003400 |
| 0:17:03.208768 | LOG | PULL_ACK: 02 8a85 04 |
| 0:17:04.301151 | LOG | PUSH_ACK: 02 306c 01 |
| 0:17:04.303150 | LOG | PUSH_DATA: Protocol version = 02, Token = 306c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2951529213, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAiAIBXjkJFtg1'}]} |
| 0:17:04.305150 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0288, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0916d835) |
| 0:17:04.307149 | LOG | Server <---------- DUT |
| 0:17:04.308147 | LOG | Repeated frame. It does not count |
| 0:17:11.755561 | LOG | PUSH_ACK: 02 306d 01 |
| 0:17:11.757560 | LOG | PUSH_DATA: Protocol version = 02, Token = 306d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2958971333, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAiQIBWDVezZg3'}]} |
| 0:17:11.758560 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0289, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5ecd9837) |
| 0:17:11.759559 | LOG | Server <---------- DUT |
| 0:17:11.762557 | LOG | Count = 4 |
| 0:17:13.286487 | LOG | PULL_DATA: 02 d651 02 3834383419003400 |
| 0:17:13.288486 | LOG | PULL_ACK: 02 d651 04 |
| 0:17:14.338924 | LOG | PUSH_ACK: 02 306f 01 |
| 0:17:14.341924 | LOG | PUSH_DATA: Protocol version = 02, Token = 306f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2961536485, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAiQIBWDVezZg3'}]} |
| 0:17:14.342922 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0289, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5ecd9837) |
| 0:17:14.344922 | LOG | Server <---------- DUT |
| 0:17:14.346893 | LOG | Repeated frame. It does not count |
| 0:17:21.793712 | LOG | PUSH_ACK: 02 3070 01 |
| 0:17:21.796712 | LOG | PUSH_DATA: Protocol version = 02, Token = 3070, Identifier = 00, JSON = {'rxpk': [{'tmst': 2968977269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAigIBnKEm9QfM'}]} |
| 0:17:21.797711 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 26f507cc) |
| 0:17:21.799710 | LOG | Server <---------- DUT |
| 0:17:21.800709 | LOG | Count = 5 |
| 0:17:23.366862 | LOG | PULL_DATA: 02 40c3 02 3834383419003400 |
| 0:17:23.368861 | LOG | PULL_ACK: 02 40c3 04 |
| 0:17:24.316356 | LOG | PUSH_ACK: 02 3071 01 |
| 0:17:24.319355 | LOG | PUSH_DATA: Protocol version = 02, Token = 3071, Identifier = 00, JSON = {'rxpk': [{'tmst': 2971543781, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAigIBnKEm9QfM'}]} |
| 0:17:24.320354 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 26f507cc) |
| 0:17:24.322352 | LOG | Server <---------- DUT |
| 0:17:24.323352 | LOG | Repeated frame. It does not count |
| 0:17:31.771251 | LOG | PUSH_ACK: 02 3072 01 |
| 0:17:31.773250 | LOG | PUSH_DATA: Protocol version = 02, Token = 3072, Identifier = 00, JSON = {'rxpk': [{'tmst': 2978984557, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAiwIBtfsKtyeb'}]} |
| 0:17:31.774249 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0ab7279b) |
| 0:17:31.776248 | LOG | Server <---------- DUT |
| 0:17:31.777247 | LOG | Count = 6 |
| 0:17:33.446241 | LOG | PULL_DATA: 02 0046 02 3834383419003400 |

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| 0:17:33.448241 | LOG | PULL_ACK: 02 0046 04 |
| 0:17:34.344734 | LOG | PUSH_ACK: 02 3073 01 |
| 0:17:34.346735 | LOG | PUSH_DATA: Protocol version = 02, Token = 3073, Identifier = 00, JSON = {'rxpk': [{'tmst': 2981549717, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAiwIBtfsKtyeb'}]} |
| 0:17:34.348732 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0ab7279b) |
| 0:17:34.349731 | LOG | Server <---------- DUT |
| 0:17:34.351730 | LOG | Repeated frame. It does not count |
| 0:17:41.799252 | LOG | PUSH_ACK: 02 3074 01 |
| 0:17:41.803249 | LOG | PUSH_DATA: Protocol version = 02, Token = 3074, Identifier = 00, JSON = {'rxpk': [{'tmst': 2988991837, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAjAIB4zf5NVb1'}]} |
| 0:17:41.804249 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f93556f5) |
| 0:17:41.806248 | LOG | Server <---------- DUT |
| 0:17:41.807248 | LOG | Count = 7 |
| 0:17:43.526390 | LOG | PULL_DATA: 02 39a4 02 3834383419003400 |
| 0:17:43.528387 | LOG | PULL_ACK: 02 39a4 04 |
| 0:17:44.337931 | LOG | PUSH_ACK: 02 3076 01 |
| 0:17:44.340928 | LOG | PUSH_DATA: Protocol version = 02, Token = 3076, Identifier = 00, JSON = {'rxpk': [{'tmst': 2991557013, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAjAIB4zf5NVb1'}]} |
| 0:17:44.341928 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f93556f5) |
| 0:17:44.343927 | LOG | Server <---------- DUT |
| 0:17:44.344926 | LOG | Repeated frame. It does not count |
| 0:17:51.793160 | LOG | PUSH_ACK: 02 3077 01 |
| 0:17:51.795161 | LOG | PUSH_DATA: Protocol version = 02, Token = 3077, Identifier = 00, JSON = {'rxpk': [{'tmst': 2998997781, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAjQIBtQjORg2/'}]} |
| 0:17:51.797158 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ce460dbf) |
| 0:17:51.798157 | LOG | Server <---------- DUT |
| 0:17:51.799158 | LOG | Count = 8 |
| 0:17:53.616716 | LOG | PULL_DATA: 02 1f3d 02 3834383419003400 |
| 0:17:53.617717 | LOG | PULL_ACK: 02 1f3d 04 |
| 0:17:54.367329 | LOG | PUSH_ACK: 02 3078 01 |
| 0:17:54.369328 | LOG | PUSH_DATA: Protocol version = 02, Token = 3078, Identifier = 00, JSON = {'rxpk': [{'tmst': 3001564293, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAjQIBtQjORg2/'}]} |
| 0:17:54.370327 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ce460dbf) |
| 0:17:54.371327 | LOG | Server <---------- DUT |
| 0:17:54.372326 | LOG | Repeated frame. It does not count |
| 0:18:01.821350 | LOG | PUSH_ACK: 02 3079 01 |
| 0:18:01.825329 | LOG | PUSH_DATA: Protocol version = 02, Token = 3079, Identifier = 00, JSON = {'rxpk': [{'tmst': 3009005053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAjgIBP+Mdl6D5'}]} |

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| 0:18:01.826329 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1d97a0f9) |
| 0:18:01.828328 | LOG | Server <---------- DUT |
| 0:18:01.829327 | LOG | Count = 9 |
| 0:18:03.706724 | LOG | PULL_DATA: 02 817e 02 3834383419003400 |
| 0:18:03.707722 | LOG | PULL_ACK: 02 817e 04 |
| 0:18:04.345362 | LOG | PUSH_ACK: 02 307a 01 |
| 0:18:04.347362 | LOG | PUSH_DATA: Protocol version = 02, Token = 307a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3011570221, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAjgIBP+Mdl6D5'}]} |
| 0:18:04.348333 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1d97a0f9) |
| 0:18:04.349361 | LOG | Server <---------- DUT |
| 0:18:04.351360 | LOG | Repeated frame. It does not count |
| 0:18:11.799023 | LOG | PUSH_ACK: 02 307b 01 |
| 0:18:11.801022 | LOG | PUSH_DATA: Protocol version = 02, Token = 307b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3019012349, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAjwIBbaceARF8'}]} |
| 0:18:11.802021 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1e01117c) |
| 0:18:11.803020 | LOG | Server <---------- DUT |
| 0:18:11.804020 | LOG | Count = 10 |
| 0:18:13.786635 | LOG | PULL_DATA: 02 89fa 02 3834383419003400 |
| 0:18:13.790649 | LOG | PULL_ACK: 02 89fa 04 |
| 0:18:14.390466 | LOG | PUSH_ACK: 02 307d 01 |
| 0:18:14.392463 | LOG | PUSH_DATA: Protocol version = 02, Token = 307d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3021577493, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAjwIBbaceARF8'}]} |
| 0:18:14.393462 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 028f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1e01117c) |
| 0:18:14.395461 | LOG | Server <---------- DUT |
| 0:18:14.396463 | LOG | Repeated frame. It does not count |
| 0:18:21.792632 | LOG | PUSH_ACK: 02 307e 01 |
| 0:18:21.794632 | LOG | PUSH_DATA: Protocol version = 02, Token = 307e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3029018269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAkAIBrvD/JpIg'}]} |
| 0:18:21.796630 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0290, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ff269220) |
| 0:18:21.797629 | LOG | Server <---------- DUT |
| 0:18:21.798601 | LOG | Count = 11 |
| 0:18:23.866136 | LOG | PULL_DATA: 02 7266 02 3834383419003400 |
| 0:18:23.868154 | LOG | PULL_ACK: 02 7266 04 |
| 0:18:24.366872 | LOG | PUSH_ACK: 02 307f 01 |
| 0:18:24.368852 | LOG | PUSH_DATA: Protocol version = 02, Token = 307f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3031584781, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAkAIBrvD/JpIg'}]} |
| 0:18:24.369850 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0290, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ff269220) |
| 0:18:24.370850 | LOG | Server <---------- DUT |
| 0:18:24.372849 | LOG | Repeated frame. It does not count |
| 0:18:31.824386 | LOG | PUSH_ACK: 02 3082 01 |

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| 0:18:31.826380 | LOG | PUSH_DATA: Protocol version = 02, Token = 3082, Identifier = 00, JSON = {'rxpk': [{'tmst': 3039025573, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAkQIBmj8lPcPH'}]} |
| 0:18:31.828385 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0291, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 253dc3c7) |
| 0:18:31.829379 | LOG | Server <---------- DUT |
| 0:18:31.831378 | LOG | Count = 12 |
| 0:18:33.946554 | LOG | PULL_DATA: 02 0af0 02 3834383419003400 |
| 0:18:33.948553 | LOG | PULL_ACK: 02 0af0 04 |
| 0:18:34.397505 | LOG | PUSH_ACK: 02 3083 01 |
| 0:18:34.399503 | LOG | PUSH_DATA: Protocol version = 02, Token = 3083, Identifier = 00, JSON = {'rxpk': [{'tmst': 3041590725, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAkQIBmj8lPcPH'}]} |
| 0:18:34.401502 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0291, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 253dc3c7) |
| 0:18:34.403500 | LOG | Server <---------- DUT |
| 0:18:34.404500 | LOG | Repeated frame. It does not count |
| 0:18:41.850938 | LOG | PUSH_ACK: 02 3084 01 |
| 0:18:41.852938 | LOG | PUSH_DATA: Protocol version = 02, Token = 3084, Identifier = 00, JSON = {'rxpk': [{'tmst': 3049032853, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAkgIBif9x8vBc'}]} |
| 0:18:41.853938 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0292, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 71f2f05c) |
| 0:18:41.855936 | LOG | Server <---------- DUT |
| 0:18:41.857939 | LOG | Count = 13 |
| 0:18:44.026383 | LOG | PULL_DATA: 02 ae06 02 3834383419003400 |
| 0:18:44.029384 | LOG | PULL_ACK: 02 ae06 04 |
| 0:18:44.389871 | LOG | PUSH_ACK: 02 3086 01 |
| 0:18:44.392870 | LOG | PUSH_DATA: Protocol version = 02, Token = 3086, Identifier = 00, JSON = {'rxpk': [{'tmst': 3051597997, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAkgIBif9x8vBc'}]} |
| 0:18:44.393869 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0292, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 71f2f05c) |
| 0:18:44.395868 | LOG | Server <---------- DUT |
| 0:18:44.396867 | LOG | Repeated frame. It does not count |
| 0:18:51.844937 | LOG | PUSH_ACK: 02 3087 01 |
| 0:18:51.846936 | LOG | PUSH_DATA: Protocol version = 02, Token = 3087, Identifier = 00, JSON = {'rxpk': [{'tmst': 3059038789, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAkwIB7quuvs1l'}]} |
| 0:18:51.848935 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0293, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: aebecd65) |
| 0:18:51.849934 | LOG | Server <---------- DUT |
| 0:18:51.851933 | LOG | Count = 14 |
| 0:18:54.106324 | LOG | PULL_DATA: 02 057b 02 3834383419003400 |
| 0:18:54.108304 | LOG | PULL_ACK: 02 057b 04 |
| 0:18:54.419422 | LOG | PUSH_ACK: 02 3088 01 |
| 0:18:54.421420 | LOG | PUSH_DATA: Protocol version = 02, Token = 3088, Identifier = 00, JSON = {'rxpk': [{'tmst': 3061605301, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAkwIB7quuvs1l'}]} |

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| 0:18:54.423420 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0293, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: aebecd65) |
| 0:18:54.424419 | LOG | Server <---------- DUT |
| 0:18:54.426418 | LOG | Repeated frame. It does not count |
| 0:19:01.822068 | LOG | PUSH_ACK: 02 3089 01 |
| 0:19:01.824067 | LOG | PUSH_DATA: Protocol version = 02, Token = 3089, Identifier = 00, JSON = {'rxpk': [{'tmst': 3069046085, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAlAIB/1HgaZ9l'}]} |
| 0:19:01.826066 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0294, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e0699f65) |
| 0:19:01.827065 | LOG | Server <---------- DUT |
| 0:19:01.828065 | LOG | Count = 15 |
| 0:19:04.186843 | LOG | PULL_DATA: 02 9fa4 02 3834383419003400 |
| 0:19:04.188842 | LOG | PULL_ACK: 02 9fa4 04 |
| 0:19:04.395754 | LOG | PUSH_ACK: 02 308a 01 |
| 0:19:04.397753 | LOG | PUSH_DATA: Protocol version = 02, Token = 308a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3071611213, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAlAIB/1HgaZ9l'}]} |
| 0:19:04.399753 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0294, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e0699f65) |
| 0:19:04.400724 | LOG | Server <---------- DUT |
| 0:19:04.402723 | LOG | Repeated frame. It does not count |
| 0:19:11.849704 | LOG | PUSH_ACK: 02 308b 01 |
| 0:19:11.851704 | LOG | PUSH_DATA: Protocol version = 02, Token = 308b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3079053357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAlQIBt4YLJxDP'}]} |
| 0:19:11.852702 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0295, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0b2710cf) |
| 0:19:11.854701 | LOG | Server <---------- DUT |
| 0:19:11.855700 | LOG | Count = 16 |
| 0:19:14.266460 | LOG | PULL_DATA: 02 019e 02 3834383419003400 |
| 0:19:14.270457 | LOG | PULL_ACK: 02 019e 04 |
| 0:19:14.431367 | LOG | PUSH_ACK: 02 308d 01 |
| 0:19:14.438362 | LOG | PUSH_DATA: Protocol version = 02, Token = 308d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3081618509, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAlQIBt4YLJxDP'}]} |
| 0:19:14.442360 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0295, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 0b2710cf) |
| 0:19:14.446357 | LOG | Server <---------- DUT |
| 0:19:14.450355 | LOG | Repeated frame. It does not count |
| 0:19:21.838374 | LOG | PUSH_ACK: 02 308e 01 |
| 0:19:21.840373 | LOG | PUSH_DATA: Protocol version = 02, Token = 308e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3089059285, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAlgIBwjRgG3am'}]} |
| 0:19:21.842344 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0296, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 601b76a6) |
| 0:19:21.843372 | LOG | Server <---------- DUT |
| 0:19:21.845371 | LOG | Count = 17 |
| 0:19:24.345930 | LOG | PULL_DATA: 02 e82a 02 3834383419003400 |
| 0:19:24.347926 | LOG | PULL_ACK: 02 e82a 04 |
| 0:19:24.411888 | LOG | PUSH_ACK: 02 308f 01 |

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| 0:19:24.414888 | LOG | PUSH_DATA: Protocol version = 02, Token = 308f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3091625813, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAlgIBwjRgG3am'}]} |
| 0:19:24.415888 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0296, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 601b76a6) |
| 0:19:24.417860 | LOG | Server <---------- DUT |
| 0:19:24.418885 | LOG | Repeated frame. It does not count |
| 0:19:31.866654 | LOG | PUSH_ACK: 02 3090 01 |
| 0:19:31.868652 | LOG | PUSH_DATA: Protocol version = 02, Token = 3090, Identifier = 00, JSON = {'rxpk': [{'tmst': 3099066597, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAlwIB6QWINbZ3'}]} |
| 0:19:31.870651 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0297, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8835b677) |
| 0:19:31.871651 | LOG | Server <---------- DUT |
| 0:19:31.873650 | LOG | Count = 18 |
| 0:19:34.426264 | LOG | PULL_DATA: 02 3373 02 3834383419003400 |
| 0:19:34.428262 | LOG | PULL_ACK: 02 3373 04 |
| 0:19:34.441255 | LOG | PUSH_ACK: 02 3091 01 |
| 0:19:34.443254 | LOG | PUSH_DATA: Protocol version = 02, Token = 3091, Identifier = 00, JSON = {'rxpk': [{'tmst': 3101631765, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAlwIB6QWINbZ3'}]} |
| 0:19:34.444253 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0297, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8835b677) |
| 0:19:34.446253 | LOG | Server <---------- DUT |
| 0:19:34.447252 | LOG | Repeated frame. It does not count |
| 0:19:41.843592 | LOG | PUSH_ACK: 02 3092 01 |
| 0:19:41.846591 | LOG | PUSH_DATA: Protocol version = 02, Token = 3092, Identifier = 00, JSON = {'rxpk': [{'tmst': 3109073893, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAmAIB9ydat0b9'}]} |
| 0:19:41.847590 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0298, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5ab746fd) |
| 0:19:41.848590 | LOG | Server <---------- DUT |
| 0:19:41.850589 | LOG | Count = 19 |
| 0:19:44.430374 | LOG | PUSH_ACK: 02 3095 01 |
| 0:19:44.434365 | LOG | PUSH_DATA: Protocol version = 02, Token = 3095, Identifier = 00, JSON = {'rxpk': [{'tmst': 3111639045, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAmAIB9ydat0b9'}]} |
| 0:19:44.435367 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0298, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5ab746fd) |
| 0:19:44.437364 | LOG | Server <---------- DUT |
| 0:19:44.438366 | LOG | Repeated frame. It does not count |
| 0:19:44.505815 | LOG | PULL_DATA: 02 b009 02 3834383419003400 |
| 0:19:44.507814 | LOG | PULL_ACK: 02 b009 04 |
| 0:19:51.886358 | LOG | PUSH_ACK: 02 3096 01 |
| 0:19:51.889357 | LOG | PUSH_DATA: Protocol version = 02, Token = 3096, Identifier = 00, JSON = {'rxpk': [{'tmst': 3119079805, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAmQIBhDfs0dRX'}]} |
| 0:19:51.890356 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0299, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ecd1d457) |
| 0:19:51.891356 | LOG | Server <---------- DUT |

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| 0:19:51.893354 | LOG | Count = 20 |
| 0:19:54.460629 | LOG | PUSH_ACK: 02 3097 01 |
| 0:19:54.462629 | LOG | PUSH_DATA: Protocol version = 02, Token = 3097, Identifier = 00, JSON = {'rxpk': [{'tmst': 3121646301, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAmQIBhDfs0dRX'}]} |
| 0:19:54.464628 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0299, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ecd1d457) |
| 0:19:54.465645 | LOG | Server <---------- DUT |
| 0:19:54.467626 | LOG | Repeated frame. It does not count |
| 0:19:54.586558 | LOG | PULL_DATA: 02 c4f0 02 3834383419003400 |
| 0:19:54.587558 | LOG | PULL_ACK: 02 c4f0 04 |
| 0:20:01.864442 | LOG | PUSH_ACK: 02 3098 01 |
| 0:20:01.866441 | LOG | PUSH_DATA: Protocol version = 02, Token = 3098, Identifier = 00, JSON = {'rxpk': [{'tmst': 3129087101, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAmgIBjS1HJjnY'}]} |
| 0:20:01.867440 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 472639d8) |
| 0:20:01.869440 | LOG | Server <---------- DUT |
| 0:20:01.870439 | LOG | Count = 21 |
| 0:20:04.437990 | LOG | PUSH_ACK: 02 3099 01 |
| 0:20:04.439989 | LOG | PUSH_DATA: Protocol version = 02, Token = 3099, Identifier = 00, JSON = {'rxpk': [{'tmst': 3131652285, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAmgIBjS1HJjnY'}]} |
| 0:20:04.441988 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029a, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 472639d8) |
| 0:20:04.442991 | LOG | Server <---------- DUT |
| 0:20:04.443990 | LOG | Repeated frame. It does not count |
| 0:20:04.676168 | LOG | PULL_DATA: 02 ccc5 02 3834383419003400 |
| 0:20:04.678168 | LOG | PULL_ACK: 02 ccc5 04 |
| 0:20:11.892570 | LOG | PUSH_ACK: 02 309a 01 |
| 0:20:11.894569 | LOG | PUSH_DATA: Protocol version = 02, Token = 309a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3139094397, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAmwIBTKv6bEI/'}]} |
| 0:20:11.896570 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fa6c423f) |
| 0:20:11.898567 | LOG | Server <---------- DUT |
| 0:20:11.899568 | LOG | Count = 22 |
| 0:20:14.430329 | LOG | PUSH_ACK: 02 309c 01 |
| 0:20:14.432326 | LOG | PUSH_DATA: Protocol version = 02, Token = 309c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3141659565, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAmwIBTKv6bEI/'}]} |
| 0:20:14.433325 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029b, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fa6c423f) |
| 0:20:14.434327 | LOG | Server <---------- DUT |
| 0:20:14.436325 | LOG | Repeated frame. It does not count |
| 0:20:14.756547 | LOG | PULL_DATA: 02 3705 02 3834383419003400 |
| 0:20:14.766543 | LOG | PULL_ACK: 02 3705 04 |
| 0:20:21.886517 | LOG | PUSH_ACK: 02 309e 01 |
| 0:20:21.888518 | LOG | PUSH_DATA: Protocol version = 02, Token = 309e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3149100333, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAnAIB3KdUdFIC'}]} |
| 0:20:21.889516 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 54745202) |
| 0:20:21.891515 | LOG | Server <---------- DUT |
| 0:20:21.893514 | LOG | Count = 23 |
| 0:20:24.460358 | LOG | PUSH_ACK: 02 309f 01 |
| 0:20:24.462357 | LOG | PUSH_DATA: Protocol version = 02, Token = 309f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3151666853, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAnAIB3KdUdFIC'}]} |
| 0:20:24.463357 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029c, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 54745202) |
| 0:20:24.464356 | LOG | Server <---------- DUT |
| 0:20:24.466355 | LOG | Repeated frame. It does not count |
| 0:20:24.846408 | LOG | PULL_DATA: 02 6956 02 3834383419003400 |
| 0:20:24.847409 | LOG | PULL_ACK: 02 6956 04 |
| 0:20:31.914414 | LOG | PUSH_ACK: 02 30a0 01 |
| 0:20:31.916413 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3159107645, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAnQIBUI9u6Evk'}]} |
| 0:20:31.918412 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6ee84be4) |
| 0:20:31.919411 | LOG | Server <---------- DUT |
| 0:20:31.920412 | LOG | Count = 24 |
| 0:20:34.488471 | LOG | PUSH_ACK: 02 30a1 01 |
| 0:20:34.490470 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3161672805, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAnQIBUI9u6Evk'}]} |
| 0:20:34.492469 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029d, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6ee84be4) |
| 0:20:34.493468 | LOG | Server <---------- DUT |
| 0:20:34.494468 | LOG | Repeated frame. It does not count |
| 0:20:34.926426 | LOG | PULL_DATA: 02 42ea 02 3834383419003400 |
| 0:20:34.927427 | LOG | PULL_ACK: 02 42ea 04 |
| 0:20:41.891452 | LOG | PUSH_ACK: 02 30a2 01 |
| 0:20:41.893451 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3169114925, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAngIBUlvFLXZO'}]} |
| 0:20:41.895450 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c52d764e) |
| 0:20:41.896451 | LOG | Server <---------- DUT |
| 0:20:41.898449 | LOG | Count = 25 |
| 0:20:44.480120 | LOG | PUSH_ACK: 02 30a4 01 |
| 0:20:44.482119 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3171680085, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAngIBUlvFLXZO'}]} |
| 0:20:44.484118 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029e, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c52d764e) |
| 0:20:44.485117 | LOG | Server <---------- DUT |
| 0:20:44.487114 | LOG | Repeated frame. It does not count |
| 0:20:45.005822 | LOG | PULL_DATA: 02 d4cb 02 3834383419003400 |

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| 0:20:45.010818 | LOG | PULL_ACK: 02 d4cb 04 |
| 0:20:51.934072 | LOG | PUSH_ACK: 02 30a5 01 |
| 0:20:51.937070 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3179120853, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAnwIBalGeNtEM'}]} |
| 0:20:51.938071 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9e36d10c) |
| 0:20:51.939071 | LOG | Server <---------- DUT |
| 0:20:51.941069 | LOG | Count = 26 |
| 0:20:54.458120 | LOG | PUSH_ACK: 02 30a6 01 |
| 0:20:54.460120 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3181687373, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAnwIBalGeNtEM'}]} |
| 0:20:54.462118 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 029f, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9e36d10c) |
| 0:20:54.464116 | LOG | Server <---------- DUT |
| 0:20:54.465118 | LOG | Repeated frame. It does not count |
| 0:20:55.085766 | LOG | PULL_DATA: 02 e446 02 3834383419003400 |
| 0:20:55.087764 | LOG | PULL_ACK: 02 e446 04 |
| 0:21:01.914881 | LOG | PUSH_ACK: 02 30a7 01 |
| 0:21:01.916904 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3189128173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAoAIBq8aytuZp'}]} |
| 0:21:01.918903 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b2b6e669) |
| 0:21:01.919903 | LOG | Server <---------- DUT |
| 0:21:01.921902 | LOG | Count = 27 |
| 0:21:04.491542 | LOG | PUSH_ACK: 02 30a8 01 |
| 0:21:04.495534 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3191694709, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAoAIBq8aytuZp'}]} |
| 0:21:04.497532 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b2b6e669) |
| 0:21:04.498533 | LOG | Server <---------- DUT |
| 0:21:04.499533 | LOG | Repeated frame. It does not count |
| 0:21:05.166020 | LOG | PULL_DATA: 02 32ee 02 3834383419003400 |
| 0:21:05.168019 | LOG | PULL_ACK: 02 32ee 04 |
| 0:21:11.949187 | LOG | PUSH_ACK: 02 30a9 01 |
| 0:21:11.951186 | LOG | PUSH_DATA: Protocol version = 02, Token = 30a9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3199135437, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAoQIBhUwBZAJm'}]} |
| 0:21:11.952187 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 01640266) |
| 0:21:11.953187 | LOG | Server <---------- DUT |
| 0:21:11.955186 | LOG | Count = 28 |
| 0:21:14.481756 | LOG | PUSH_ACK: 02 30ab 01 |
| 0:21:14.483755 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ab, Identifier = 00, JSON = {'rxpk': [{'tmst': 3201700613, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAoQIBhUwBZAJm'}]} |

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| 0:21:14.485754 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 01640266) |
| 0:21:14.487753 | LOG | Server <---------- DUT |
| 0:21:14.488752 | LOG | Repeated frame. It does not count |
| 0:21:15.245738 | LOG | PULL_DATA: 02 37e0 02 3834383419003400 |
| 0:21:15.249736 | LOG | PULL_ACK: 02 37e0 04 |
| 0:21:21.938043 | LOG | PUSH_ACK: 02 30ac 01 |
| 0:21:21.940047 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ac, Identifier = 00, JSON = {'rxpk': [{'tmst': 3209141373, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAogIBhSTs1yIs'}]} |
| 0:21:21.942038 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ecd7222c) |
| 0:21:21.944037 | LOG | Server <---------- DUT |
| 0:21:21.945037 | LOG | Count = 29 |
| 0:21:24.514497 | LOG | PUSH_ACK: 02 30ad 01 |
| 0:21:24.516495 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ad, Identifier = 00, JSON = {'rxpk': [{'tmst': 3211707901, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAogIBhSTs1yIs'}]} |
| 0:21:24.518494 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ecd7222c) |
| 0:21:24.519493 | LOG | Server <---------- DUT |
| 0:21:24.521492 | LOG | Repeated frame. It does not count |
| 0:21:25.325710 | LOG | PULL_DATA: 02 f53c 02 3834383419003400 |
| 0:21:25.327710 | LOG | PULL_ACK: 02 f53c 04 |
| 0:21:31.920450 | LOG | PUSH_ACK: 02 30ae 01 |
| 0:21:31.922449 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ae, Identifier = 00, JSON = {'rxpk': [{'tmst': 3219148661, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAowIBtFXcmvXO'}]} |
| 0:21:31.923450 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: dc9af5ce) |
| 0:21:31.925447 | LOG | Server <---------- DUT |
| 0:21:31.926446 | LOG | Count = 30 |
| 0:21:34.496326 | LOG | PUSH_ACK: 02 30af 01 |
| 0:21:34.498326 | LOG | PUSH_DATA: Protocol version = 02, Token = 30af, Identifier = 00, JSON = {'rxpk': [{'tmst': 3221713805, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAowIBtFXcmvXO'}]} |
| 0:21:34.500324 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: dc9af5ce) |
| 0:21:34.501323 | LOG | Server <---------- DUT |
| 0:21:34.502322 | LOG | Repeated frame. It does not count |
| 0:21:35.405676 | LOG | PULL_DATA: 02 5b94 02 3834383419003400 |
| 0:21:35.407702 | LOG | PULL_ACK: 02 5b94 04 |
| 0:21:41.952522 | LOG | PUSH_ACK: 02 30b0 01 |
| 0:21:41.954519 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3229155741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDApAIBS/zmoDHB'}]} |
| 0:21:41.956519 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e6a031c1) |
| 0:21:41.957518 | LOG | Server <---------- DUT |
| 0:21:41.958517 | LOG | Count = 31 |
| 0:21:44.490210 | LOG | PUSH_ACK: 02 30b2 01 |

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| 0:21:44.492210 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3231720925, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDApAIBS/zmoDHB'}]} |
| 0:21:44.494207 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e6a031c1) |
| 0:21:44.495208 | LOG | Server <---------- DUT |
| 0:21:44.497207 | LOG | Repeated frame. It does not count |
| 0:21:45.485783 | LOG | PULL_DATA: 02 e15c 02 3834383419003400 |
| 0:21:45.490781 | LOG | PULL_ACK: 02 e15c 04 |
| 0:21:51.945134 | LOG | PUSH_ACK: 02 30b3 01 |
| 0:21:51.947132 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3239161677, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDApQIBmFUBl0ss'}]} |
| 0:21:51.949131 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 01974b2c) |
| 0:21:51.950131 | LOG | Server <---------- DUT |
| 0:21:51.951132 | LOG | Count = 32 |
| 0:21:54.880513 | LOG | PUSH_ACK: 02 30b4 01 |
| 0:21:54.882511 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3242056573, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDApQIBmFUBl0ss'}]} |
| 0:21:54.884510 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 01974b2c) |
| 0:21:54.885509 | LOG | Server <---------- DUT |
| 0:21:54.886509 | LOG | Repeated frame. It does not count |
| 0:21:55.566019 | LOG | PULL_DATA: 02 32c9 02 3834383419003400 |
| 0:21:55.568017 | LOG | PULL_ACK: 02 32c9 04 |
| 0:22:02.285221 | LOG | PUSH_ACK: 02 30b5 01 |
| 0:22:02.288220 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3249498669, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -19, 'size': 15, 'data': 'QCAgICDApgIBfgPlL3WY'}]} |
| 0:22:02.289221 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e52f7598) |
| 0:22:02.290221 | LOG | Server <---------- DUT |
| 0:22:02.292219 | LOG | Count = 33 |
| 0:22:02.294217 | LOG | Waiting for the retransmissions |
| 0:22:05.221562 | LOG | PUSH_ACK: 02 30b6 01 |
| 0:22:05.223561 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3252393525, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDApgIBfgPlL3WY'}]} |
| 0:22:05.224560 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e52f7598) |
| 0:22:05.225560 | LOG | Server <---------- DUT |
| 0:22:05.243550 | LOG | Expected number of uplink messages have been received |
| 0:22:05.247548 | LOG | Test adaptive data rate control in frame header process starts |
| 0:22:05.645627 | LOG | PULL_DATA: 02 8665 02 3834383419003400 |
| 0:22:05.647626 | LOG | PULL_ACK: 02 8665 04 |
| 0:22:12.317860 | LOG | PUSH_ACK: 02 30b7 01 |
| 0:22:12.319858 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3259504573, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDApwIBF+rtYOfl'}]} |
| 0:22:12.321878 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ed60e7e5) |
| 0:22:12.322885 | LOG | Server <---------- DUT |
| 0:22:12.324853 | LOG | Count = 2 |
| 0:22:15.211401 | LOG | PUSH_ACK: 02 30b9 01 |
| 0:22:15.213399 | LOG | PUSH_DATA: Protocol version = 02, Token = 30b9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3262399461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDApwIBF+rtYOfl'}]} |
| 0:22:15.215399 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ed60e7e5) |
| 0:22:15.216397 | LOG | Server <---------- DUT |
| 0:22:15.218396 | LOG | Repeated frame. It does not count |
| 0:22:15.726369 | LOG | PULL_DATA: 02 3c36 02 3834383419003400 |
| 0:22:15.729366 | LOG | PULL_ACK: 02 3c36 04 |
| 0:22:22.306650 | LOG | PUSH_ACK: 02 30ba 01 |
| 0:22:22.308648 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ba, Identifier = 00, JSON = {'rxpk': [{'tmst': 3269511845, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAqAIBb6b/yQ9T'}]} |
| 0:22:22.310621 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ffc90f53) |
| 0:22:22.311645 | LOG | Server <---------- DUT |
| 0:22:22.313645 | LOG | Count = 3 |
| 0:22:25.191002 | LOG | PUSH_ACK: 02 30bb 01 |
| 0:22:25.193017 | LOG | PUSH_DATA: Protocol version = 02, Token = 30bb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3272406701, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAqAIBb6b/yQ9T'}]} |
| 0:22:25.195016 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ffc90f53) |
| 0:22:25.196016 | LOG | Server <---------- DUT |
| 0:22:25.198015 | LOG | Repeated frame. It does not count |
| 0:22:25.805645 | LOG | PULL_DATA: 02 6f01 02 3834383419003400 |
| 0:22:25.807642 | LOG | PULL_ACK: 02 6f01 04 |
| 0:22:32.343975 | LOG | PUSH_ACK: 02 30bc 01 |
| 0:22:32.345975 | LOG | PUSH_DATA: Protocol version = 02, Token = 30bc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3279517741, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAqQIBvJlZVU9Q'}]} |
| 0:22:32.347973 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 59554f50) |
| 0:22:32.349972 | LOG | Server <---------- DUT |
| 0:22:32.350970 | LOG | Count = 4 |
| 0:22:35.228344 | LOG | PUSH_ACK: 02 30bd 01 |
| 0:22:35.230342 | LOG | PUSH_DATA: Protocol version = 02, Token = 30bd, Identifier = 00, JSON = {'rxpk': [{'tmst': 3282412613, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 14.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAqQIBvJlZVU9Q'}]} |
| 0:22:35.232343 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02a9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 59554f50) |
| 0:22:35.233342 | LOG | Server <---------- DUT |
| 0:22:35.235342 | LOG | Repeated frame. It does not count |
| 0:22:35.885983 | LOG | PULL_DATA: 02 273b 02 3834383419003400 |

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| 0:22:35.887982 | LOG | PULL_ACK: 02 273b 04 |
| 0:22:42.325343 | LOG | PUSH_ACK: 02 30be 01 |
| 0:22:42.327341 | LOG | PUSH_DATA: Protocol version = 02, Token = 30be, Identifier = 00, JSON = {'rxpk': [{'tmst': 3289523629, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAqgIB7/MjeyU5'}]} |
| 0:22:42.328341 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02aa, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 237b2539) |
| 0:22:42.330340 | LOG | Server <---------- DUT |
| 0:22:42.331339 | LOG | Count = 5 |
| 0:22:45.222705 | LOG | PUSH_ACK: 02 30c0 01 |
| 0:22:45.224704 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3292419861, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAqgIB7/MjeyU5'}]} |
| 0:22:45.226703 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02aa, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 237b2539) |
| 0:22:45.227702 | LOG | Server <---------- DUT |
| 0:22:45.228702 | LOG | Repeated frame. It does not count |
| 0:22:45.966038 | LOG | PULL_DATA: 02 c65e 02 3834383419003400 |
| 0:22:45.970036 | LOG | PULL_ACK: 02 c65e 04 |
| 0:22:52.318941 | LOG | PUSH_ACK: 02 30c1 01 |
| 0:22:52.320940 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3299532221, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAqwIBYVi/aB9G'}]} |
| 0:22:52.322939 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ab, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: bf681f46) |
| 0:22:52.324938 | LOG | Server <---------- DUT |
| 0:22:52.325937 | LOG | Count = 6 |
| 0:22:55.255322 | LOG | PUSH_ACK: 02 30c2 01 |
| 0:22:55.256322 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3302427077, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAqwIBYVi/aB9G'}]} |
| 0:22:55.258320 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ab, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: bf681f46) |
| 0:22:55.259320 | LOG | Server <---------- DUT |
| 0:22:55.261319 | LOG | Repeated frame. It does not count |
| 0:22:56.046082 | LOG | PULL_DATA: 02 412f 02 3834383419003400 |
| 0:22:56.048082 | LOG | PULL_ACK: 02 412f 04 |
| 0:23:02.351518 | LOG | PUSH_ACK: 02 30c3 01 |
| 0:23:02.353517 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3309538101, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDArAIBi2W2GOkw'}]} |
| 0:23:02.354516 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ac, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b618e930) |
| 0:23:02.356515 | LOG | Server <---------- DUT |
| 0:23:02.357515 | LOG | Count = 7 |
| 0:23:05.234284 | LOG | PUSH_ACK: 02 30c4 01 |
| 0:23:05.237284 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3312432989, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 15.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDArAIBi2W2GOkw'}]} |

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| 0:23:05.238282 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ac, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b618e930) |
| 0:23:05.239280 | LOG | Server <---------- DUT |
| 0:23:05.241278 | LOG | Repeated frame. It does not count |
| 0:23:06.125773 | LOG | PULL_DATA: 02 b483 02 3834383419003400 |
| 0:23:06.127778 | LOG | PULL_ACK: 02 b483 04 |
| 0:23:12.332270 | LOG | PUSH_ACK: 02 30c5 01 |
| 0:23:12.334269 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3319543981, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDArQIBHzLh75z4'}]} |
| 0:23:12.336268 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ad, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e1ef9cf8) |
| 0:23:12.337268 | LOG | Server <---------- DUT |
| 0:23:12.339266 | LOG | Count = 8 |
| 0:23:15.233211 | LOG | PUSH_ACK: 02 30c7 01 |
| 0:23:15.235207 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3322438869, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDArQIBHzLh75z4'}]} |
| 0:23:15.237206 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ad, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e1ef9cf8) |
| 0:23:15.238204 | LOG | Server <---------- DUT |
| 0:23:15.240203 | LOG | Repeated frame. It does not count |
| 0:23:16.205674 | LOG | PULL_DATA: 02 1988 02 3834383419003400 |
| 0:23:16.208657 | LOG | PULL_ACK: 02 1988 04 |
| 0:23:22.329195 | LOG | PUSH_ACK: 02 30c8 01 |
| 0:23:22.332193 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3329549869, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDArgIBJO45uUEe'}]} |
| 0:23:22.334193 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ae, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 39b9411e) |
| 0:23:22.335192 | LOG | Server <---------- DUT |
| 0:23:22.337191 | LOG | Count = 9 |
| 0:23:25.265461 | LOG | PUSH_ACK: 02 30c9 01 |
| 0:23:25.267459 | LOG | PUSH_DATA: Protocol version = 02, Token = 30c9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3332446117, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDArgIBJO45uUEe'}]} |
| 0:23:25.269457 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ae, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 39b9411e) |
| 0:23:25.271456 | LOG | Server <---------- DUT |
| 0:23:25.272456 | LOG | Repeated frame. It does not count |
| 0:23:26.286120 | LOG | PULL_DATA: 02 4ffd 02 3834383419003400 |
| 0:23:26.287118 | LOG | PULL_ACK: 02 4ffd 04 |
| 0:23:32.362684 | LOG | PUSH_ACK: 02 30ca 01 |
| 0:23:32.365682 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ca, Identifier = 00, JSON = {'rxpk': [{'tmst': 3339557133, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDArwIBCYigWXwP'}]} |
| 0:23:32.366681 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02af, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a0597c0f) |
| 0:23:32.368680 | LOG | Server <---------- DUT |
| 0:23:32.370680 | LOG | Count = 10 |
| 0:23:35.248173 | LOG | PUSH_ACK: 02 30cb 01 |

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| 0:23:35.250171 | LOG | PUSH_DATA: Protocol version = 02, Token = 30cb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3342452005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDArwIBCYigWXwP'}]} |
| 0:23:35.252172 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02af, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a0597c0f) |
| 0:23:35.254169 | LOG | Server <---------- DUT |
| 0:23:35.255169 | LOG | Repeated frame. It does not count |
| 0:23:36.365243 | LOG | PULL_DATA: 02 ce81 02 3834383419003400 |
| 0:23:36.367242 | LOG | PULL_ACK: 02 ce81 04 |
| 0:23:42.344863 | LOG | PUSH_ACK: 02 30cc 01 |
| 0:23:42.347861 | LOG | PUSH_DATA: Protocol version = 02, Token = 30cc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3349563037, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 14.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAsAIBiThuEKUL'}]} |
| 0:23:42.348861 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6e10a50b) |
| 0:23:42.349860 | LOG | Server <---------- DUT |
| 0:23:42.351859 | LOG | Count = 11 |
| 0:23:45.241530 | LOG | PUSH_ACK: 02 30ce 01 |
| 0:23:45.243529 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ce, Identifier = 00, JSON = {'rxpk': [{'tmst': 3352457941, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAsAIBiThuEKUL'}]} |
| 0:23:45.245528 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6e10a50b) |
| 0:23:45.246528 | LOG | Server <---------- DUT |
| 0:23:45.247527 | LOG | Repeated frame. It does not count |
| 0:23:46.445715 | LOG | PULL_DATA: 02 ec05 02 3834383419003400 |
| 0:23:46.449713 | LOG | PULL_ACK: 02 ec05 04 |
| 0:23:52.390921 | LOG | PUSH_ACK: 02 30cf 01 |
| 0:23:52.393921 | LOG | PUSH_DATA: Protocol version = 02, Token = 30cf, Identifier = 00, JSON = {'rxpk': [{'tmst': 3359568941, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAsQIBRZUX6ylB'}]} |
| 0:23:52.395919 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 17eb2941) |
| 0:23:52.396917 | LOG | Server <---------- DUT |
| 0:23:52.398916 | LOG | Count = 12 |
| 0:23:55.275678 | LOG | PUSH_ACK: 02 30d0 01 |
| 0:23:55.278676 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3362465181, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAsQIBRZUX6ylB'}]} |
| 0:23:55.279676 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 17eb2941) |
| 0:23:55.280693 | LOG | Server <---------- DUT |
| 0:23:55.282675 | LOG | Repeated frame. It does not count |
| 0:23:56.525139 | LOG | PULL_DATA: 02 61e1 02 3834383419003400 |
| 0:23:56.527139 | LOG | PULL_ACK: 02 61e1 04 |
| 0:24:02.373951 | LOG | PUSH_ACK: 02 30d1 01 |
| 0:24:02.375950 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3369577581, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAsgIBc0DuqIuI'}]} |

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| 0:24:02.377949 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eea88b88) |
| 0:24:02.379947 | LOG | Server <---------- DUT |
| 0:24:02.380947 | LOG | Count = 13 |
| 0:24:05.258351 | LOG | PUSH_ACK: 02 30d2 01 |
| 0:24:05.261350 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3372472461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAsgIBc0DuqIuI'}]} |
| 0:24:05.262349 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eea88b88) |
| 0:24:05.264349 | LOG | Server <---------- DUT |
| 0:24:05.266347 | LOG | Repeated frame. It does not count |
| 0:24:06.605522 | LOG | PULL_DATA: 02 42bc 02 3834383419003400 |
| 0:24:06.607521 | LOG | PULL_ACK: 02 42bc 04 |
| 0:24:12.406243 | LOG | PUSH_ACK: 02 30d3 01 |
| 0:24:12.408244 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3379583477, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAswIBZJOxgmM6'}]} |
| 0:24:12.410241 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b182633a) |
| 0:24:12.411241 | LOG | Server <---------- DUT |
| 0:24:12.413239 | LOG | Count = 14 |
| 0:24:15.302064 | LOG | PUSH_ACK: 02 30d5 01 |
| 0:24:15.305063 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3382478357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAswIBZJOxgmM6'}]} |
| 0:24:15.306062 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b182633a) |
| 0:24:15.308061 | LOG | Server <---------- DUT |
| 0:24:15.309060 | LOG | Repeated frame. It does not count |
| 0:24:16.685284 | LOG | PULL_DATA: 02 7523 02 3834383419003400 |
| 0:24:16.689282 | LOG | PULL_ACK: 02 7523 04 |
| 0:24:22.397053 | LOG | PUSH_ACK: 02 30d6 01 |
| 0:24:22.399052 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3389589349, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAtAIBfXHB1iRV'}]} |
| 0:24:22.401051 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c1d62455) |
| 0:24:22.402052 | LOG | Server <---------- DUT |
| 0:24:22.404051 | LOG | Count = 15 |
| 0:24:25.278911 | LOG | PUSH_ACK: 02 30d7 01 |
| 0:24:25.280910 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3392485597, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAtAIBfXHB1iRV'}]} |
| 0:24:25.281910 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c1d62455) |
| 0:24:25.283909 | LOG | Server <---------- DUT |
| 0:24:25.285907 | LOG | Repeated frame. It does not count |
| 0:24:26.765508 | LOG | PULL_DATA: 02 18a7 02 3834383419003400 |
| 0:24:26.767507 | LOG | PULL_ACK: 02 18a7 04 |
| 0:24:32.375338 | LOG | PUSH_ACK: 02 30d8 01 |

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| 0:24:32.377336 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3399598005, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAtQIBbAnD5S6W'}]} |
| 0:24:32.378337 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c3e52e96) |
| 0:24:32.380334 | LOG | Server <---------- DUT |
| 0:24:32.382333 | LOG | Count = 16 |
| 0:24:35.309867 | LOG | PUSH_ACK: 02 30d9 01 |
| 0:24:35.312866 | LOG | PUSH_DATA: Protocol version = 02, Token = 30d9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3402492909, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAtQIBbAnD5S6W'}]} |
| 0:24:35.314865 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c3e52e96) |
| 0:24:35.315864 | LOG | Server <---------- DUT |
| 0:24:35.317863 | LOG | Repeated frame. It does not count |
| 0:24:36.846182 | LOG | PULL_DATA: 02 ec9e 02 3834383419003400 |
| 0:24:36.848181 | LOG | PULL_ACK: 02 ec9e 04 |
| 0:24:42.407498 | LOG | PUSH_ACK: 02 30da 01 |
| 0:24:42.409499 | LOG | PUSH_DATA: Protocol version = 02, Token = 30da, Identifier = 00, JSON = {'rxpk': [{'tmst': 3409603909, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAtgIBYdJSCH3B'}]} |
| 0:24:42.411498 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 52087dc1) |
| 0:24:42.412496 | LOG | Server <---------- DUT |
| 0:24:42.413495 | LOG | Count = 17 |
| 0:24:45.303209 | LOG | PUSH_ACK: 02 30dc 01 |
| 0:24:45.306208 | LOG | PUSH_DATA: Protocol version = 02, Token = 30dc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3412498797, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 14.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAtgIBYdJSCH3B'}]} |
| 0:24:45.308206 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 52087dc1) |
| 0:24:45.309206 | LOG | Server <---------- DUT |
| 0:24:45.311205 | LOG | Repeated frame. It does not count |
| 0:24:46.925843 | LOG | PULL_DATA: 02 0d29 02 3834383419003400 |
| 0:24:46.928842 | LOG | PULL_ACK: 02 0d29 04 |
| 0:24:52.401369 | LOG | PUSH_ACK: 02 30dd 01 |
| 0:24:52.403367 | LOG | PUSH_DATA: Protocol version = 02, Token = 30dd, Identifier = 00, JSON = {'rxpk': [{'tmst': 3419609797, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAtwIBZIZiXS6x'}]} |
| 0:24:52.404366 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 625d2eb1) |
| 0:24:52.405366 | LOG | Server <---------- DUT |
| 0:24:52.407364 | LOG | Count = 18 |
| 0:24:55.284200 | LOG | PUSH_ACK: 02 30de 01 |
| 0:24:55.286200 | LOG | PUSH_DATA: Protocol version = 02, Token = 30de, Identifier = 00, JSON = {'rxpk': [{'tmst': 3422506037, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAtwIBZIZiXS6x'}]} |
| 0:24:55.288199 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 625d2eb1) |
| 0:24:55.289198 | LOG | Server <---------- DUT |

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| 0:24:55.290197 | LOG | Repeated frame. It does not count |
| 0:24:57.005443 | LOG | PULL_DATA: 02 d57c 02 3834383419003400 |
| 0:24:57.007441 | LOG | PULL_ACK: 02 d57c 04 |
| 0:25:02.432860 | LOG | PUSH_ACK: 02 30df 01 |
| 0:25:02.433858 | LOG | PUSH_DATA: Protocol version = 02, Token = 30df, Identifier = 00, JSON = {'rxpk': [{'tmst': 3429618429, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAuAIBCZvz/ioa'}]} |
| 0:25:02.435858 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f3fe2a1a) |
| 0:25:02.436857 | LOG | Server <---------- DUT |
| 0:25:02.438856 | LOG | Count = 19 |
| 0:25:05.316006 | LOG | PUSH_ACK: 02 30e0 01 |
| 0:25:05.318005 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3432513317, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAuAIBCZvz/ioa'}]} |
| 0:25:05.320004 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f3fe2a1a) |
| 0:25:05.321003 | LOG | Server <---------- DUT |
| 0:25:05.323002 | LOG | Repeated frame. It does not count |
| 0:25:07.085382 | LOG | PULL_DATA: 02 2afc 02 3834383419003400 |
| 0:25:07.087381 | LOG | PULL_ACK: 02 2afc 04 |
| 0:25:12.413780 | LOG | PUSH_ACK: 02 30e1 01 |
| 0:25:12.415782 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3439624325, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAuQIB2ffnfVyK'}]} |
| 0:25:12.416777 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e77d5c8a) |
| 0:25:12.417779 | LOG | Server <---------- DUT |
| 0:25:12.419776 | LOG | Count = 20 |
| 0:25:15.314139 | LOG | PUSH_ACK: 02 30e3 01 |
| 0:25:15.316140 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3442519237, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAuQIB2ffnfVyK'}]} |
| 0:25:15.317140 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02b9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e77d5c8a) |
| 0:25:15.319137 | LOG | Server <---------- DUT |
| 0:25:15.321136 | LOG | Repeated frame. It does not count |
| 0:25:17.165198 | LOG | PULL_DATA: 02 b7f0 02 3834383419003400 |
| 0:25:17.169195 | LOG | PULL_ACK: 02 b7f0 04 |
| 0:25:22.409857 | LOG | PUSH_ACK: 02 30e4 01 |
| 0:25:22.411856 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3449630221, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAugIBUM1Xn1fw'}]} |
| 0:25:22.413855 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ba, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 579f57f0) |
| 0:25:22.414855 | LOG | Server <---------- DUT |
| 0:25:22.416854 | LOG | Count = 21 |
| 0:25:25.345198 | LOG | PUSH_ACK: 02 30e5 01 |
| 0:25:25.347197 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3452525101, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAugIBUM1Xn1fw'}]} |
| 0:25:25.349196 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ba, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 579f57f0) |
| 0:25:25.350195 | LOG | Server <---------- DUT |
| 0:25:25.352194 | LOG | Repeated frame. It does not count |
| 0:25:27.245032 | LOG | PULL_DATA: 02 5af8 02 3834383419003400 |
| 0:25:27.247030 | LOG | PULL_ACK: 02 5af8 04 |
| 0:25:32.442277 | LOG | PUSH_ACK: 02 30e6 01 |
| 0:25:32.447274 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3459637493, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAuwIBb6Bo8px/'}]} |
| 0:25:32.451272 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 68f29c7f) |
| 0:25:32.455270 | LOG | Server <---------- DUT |
| 0:25:32.458268 | LOG | Count = 22 |
| 0:25:35.325324 | LOG | PUSH_ACK: 02 30e7 01 |
| 0:25:35.328323 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3462532381, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 14.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAuwIBb6Bo8px/'}]} |
| 0:25:35.330321 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 68f29c7f) |
| 0:25:35.331321 | LOG | Server <---------- DUT |
| 0:25:35.333320 | LOG | Repeated frame. It does not count |
| 0:25:37.325458 | LOG | PULL_DATA: 02 1f0e 02 3834383419003400 |
| 0:25:37.327457 | LOG | PULL_ACK: 02 1f0e 04 |
| 0:25:42.422577 | LOG | PUSH_ACK: 02 30e8 01 |
| 0:25:42.424576 | LOG | PUSH_DATA: Protocol version = 02, Token = 30e8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3469643389, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAvAIBcLl2vmKi'}]} |
| 0:25:42.426574 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 76be62a2) |
| 0:25:42.427575 | LOG | Server <---------- DUT |
| 0:25:42.429572 | LOG | Count = 23 |
| 0:25:45.322889 | LOG | PUSH_ACK: 02 30ea 01 |
| 0:25:45.325888 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ea, Identifier = 00, JSON = {'rxpk': [{'tmst': 3472538277, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAvAIBcLl2vmKi'}]} |
| 0:25:45.327887 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 76be62a2) |
| 0:25:45.328886 | LOG | Server <---------- DUT |
| 0:25:45.330885 | LOG | Repeated frame. It does not count |
| 0:25:47.405988 | LOG | PULL_DATA: 02 7c38 02 3834383419003400 |
| 0:25:47.409984 | LOG | PULL_ACK: 02 7c38 04 |
| 0:25:52.471124 | LOG | PUSH_ACK: 02 30eb 01 |
| 0:25:52.473095 | LOG | PUSH_DATA: Protocol version = 02, Token = 30eb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3479649277, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAvQIBoXuQCb1e'}]} |
| 0:25:52.475123 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9009bd5e) |
| 0:25:52.477121 | LOG | Server <---------- DUT |

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| 0:25:52.478121 | LOG | Count = 24 |
| 0:25:55.356369 | LOG | PUSH_ACK: 02 30ec 01 |
| 0:25:55.358368 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ec, Identifier = 00, JSON = {'rxpk': [{'tmst': 3482544149, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAvQIBoXuQCb1e'}]} |
| 0:25:55.360368 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9009bd5e) |
| 0:25:55.361368 | LOG | Server <---------- DUT |
| 0:25:55.362368 | LOG | Repeated frame. It does not count |
| 0:25:57.485223 | LOG | PULL_DATA: 02 96cb 02 3834383419003400 |
| 0:25:57.487221 | LOG | PULL_ACK: 02 96cb 04 |
| 0:26:02.453517 | LOG | PUSH_ACK: 02 30ed 01 |
| 0:26:02.456513 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ed, Identifier = 00, JSON = {'rxpk': [{'tmst': 3489655165, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAvgIB/p4GG2Dd'}]} |
| 0:26:02.458513 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02be, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 061b60dd) |
| 0:26:02.459483 | LOG | Server <---------- DUT |
| 0:26:02.460483 | LOG | Count = 25 |
| 0:26:05.338457 | LOG | PUSH_ACK: 02 30ee 01 |
| 0:26:05.340456 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ee, Identifier = 00, JSON = {'rxpk': [{'tmst': 3492550037, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAvgIB/p4GG2Dd'}]} |
| 0:26:05.341455 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02be, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 061b60dd) |
| 0:26:05.342455 | LOG | Server <---------- DUT |
| 0:26:05.344455 | LOG | Repeated frame. It does not count |
| 0:26:07.565134 | LOG | PULL_DATA: 02 3564 02 3834383419003400 |
| 0:26:07.568132 | LOG | PULL_ACK: 02 3564 04 |
| 0:26:12.486324 | LOG | PUSH_ACK: 02 30ef 01 |
| 0:26:12.488321 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ef, Identifier = 00, JSON = {'rxpk': [{'tmst': 3499661069, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 14.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAvwIBuRLOzbEx'}]} |
| 0:26:12.489320 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bf, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cecdb131) |
| 0:26:12.491319 | LOG | Server <---------- DUT |
| 0:26:12.493318 | LOG | Count = 26 |
| 0:26:15.335329 | LOG | PUSH_ACK: 02 30f1 01 |
| 0:26:15.337328 | LOG | PUSH_DATA: Protocol version = 02, Token = 30f1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3502555965, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAvwIBuRLOzbEx'}]} |
| 0:26:15.339327 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02bf, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cecdb131) |
| 0:26:15.341326 | LOG | Server <---------- DUT |
| 0:26:15.342325 | LOG | Repeated frame. It does not count |
| 0:26:17.645038 | LOG | PULL_DATA: 02 4c21 02 3834383419003400 |
| 0:26:17.650034 | LOG | PULL_ACK: 02 4c21 04 |
| 0:26:22.483302 | LOG | PUSH_ACK: 02 30f2 01 |
| 0:26:22.485301 | LOG | PUSH_DATA: Protocol version = 02, Token = 30f2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3509666973, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAwAIBAK7+qs5M'}]} |
| 0:26:22.487300 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: feaace4c) |
| 0:26:22.489298 | LOG | Server <---------- DUT |
| 0:26:22.490298 | LOG | Count = 27 |
| 0:26:25.368202 | LOG | PUSH_ACK: 02 30f3 01 |
| 0:26:25.369204 | LOG | PUSH_DATA: Protocol version = 02, Token = 30f3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3512561845, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAwAIBAK7+qs5M'}]} |
| 0:26:25.371198 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: feaace4c) |
| 0:26:25.372200 | LOG | Server <---------- DUT |
| 0:26:25.373199 | LOG | Repeated frame. It does not count |
| 0:26:27.725828 | LOG | PULL_DATA: 02 6aad 02 3834383419003400 |
| 0:26:27.727827 | LOG | PULL_ACK: 02 6aad 04 |
| 0:26:32.464150 | LOG | PUSH_ACK: 02 30f4 01 |
| 0:26:32.466150 | LOG | PUSH_DATA: Protocol version = 02, Token = 30f4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3519672885, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAwQIBQfOa3ZwK'}]} |
| 0:26:32.468148 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9add9c0a) |
| 0:26:32.469147 | LOG | Server <---------- DUT |
| 0:26:32.471146 | LOG | Count = 28 |
| 0:26:35.348950 | LOG | PUSH_ACK: 02 30f5 01 |
| 0:26:35.350948 | LOG | PUSH_DATA: Protocol version = 02, Token = 30f5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3522569109, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAwQIBQfOa3ZwK'}]} |
| 0:26:35.352947 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9add9c0a) |
| 0:26:35.353947 | LOG | Server <---------- DUT |
| 0:26:35.355945 | LOG | Repeated frame. It does not count |
| 0:26:37.815555 | LOG | PULL_DATA: 02 02ac 02 3834383419003400 |
| 0:26:37.817553 | LOG | PULL_ACK: 02 02ac 04 |
| 0:26:42.499907 | LOG | PUSH_ACK: 02 30f6 01 |
| 0:26:42.503904 | LOG | PUSH_DATA: Protocol version = 02, Token = 30f6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3529680157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAwgIBp+keRzQ+'}]} |
| 0:26:42.505903 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1e47343e) |
| 0:26:42.506903 | LOG | Server <---------- DUT |
| 0:26:42.507902 | LOG | Count = 29 |
| 0:26:45.394159 | LOG | PUSH_ACK: 02 30f8 01 |
| 0:26:45.396157 | LOG | PUSH_DATA: Protocol version = 02, Token = 30f8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3532574973, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAwgIBp+keRzQ+'}]} |
| 0:26:45.398156 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1e47343e) |
| 0:26:45.399156 | LOG | Server <---------- DUT |
| 0:26:45.400155 | LOG | Repeated frame. It does not count |
| 0:26:47.895212 | LOG | PULL_DATA: 02 6977 02 3834383419003400 |

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| 0:26:47.900211 | LOG | PULL_ACK: 02 6977 04 |
| 0:26:52.491990 | LOG | PUSH_ACK: 02 30fa 01 |
| 0:26:52.494988 | LOG | PUSH_DATA: Protocol version = 02, Token = 30fa, Identifier = 00, JSON = {'rxpk': [{'tmst': 3539686053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAwwIB4TZs21Kj'}]} |
| 0:26:52.495989 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6cdb52a3) |
| 0:26:52.496989 | LOG | Server <---------- DUT |
| 0:26:52.498986 | LOG | Count = 30 |
| 0:26:55.376113 | LOG | PUSH_ACK: 02 30fb 01 |
| 0:26:55.379111 | LOG | PUSH_DATA: Protocol version = 02, Token = 30fb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3542580933, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 14.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAwwIB4TZs21Kj'}]} |
| 0:26:55.380110 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6cdb52a3) |
| 0:26:55.381111 | LOG | Server <---------- DUT |
| 0:26:55.382111 | LOG | Repeated frame. It does not count |
| 0:26:57.974809 | LOG | PULL_DATA: 02 cf81 02 3834383419003400 |
| 0:26:57.976789 | LOG | PULL_ACK: 02 cf81 04 |
| 0:27:02.474281 | LOG | PUSH_ACK: 02 30fc 01 |
| 0:27:02.476281 | LOG | PUSH_DATA: Protocol version = 02, Token = 30fc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3549691949, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICDAxAIB4Mp/bIXR'}]} |
| 0:27:02.477282 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7f6c85d1) |
| 0:27:02.478281 | LOG | Server <---------- DUT |
| 0:27:02.480278 | LOG | Count = 31 |
| 0:27:05.409256 | LOG | PUSH_ACK: 02 30fd 01 |
| 0:27:05.411255 | LOG | PUSH_DATA: Protocol version = 02, Token = 30fd, Identifier = 00, JSON = {'rxpk': [{'tmst': 3552588205, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAxAIB4Mp/bIXR'}]} |
| 0:27:05.413254 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7f6c85d1) |
| 0:27:05.414254 | LOG | Server <---------- DUT |
| 0:27:05.416252 | LOG | Repeated frame. It does not count |
| 0:27:08.055420 | LOG | PULL_DATA: 02 1fbb 02 3834383419003400 |
| 0:27:08.057420 | LOG | PULL_ACK: 02 1fbb 04 |
| 0:27:12.507738 | LOG | PUSH_ACK: 02 30ff 01 |
| 0:27:12.509737 | LOG | PUSH_DATA: Protocol version = 02, Token = 30ff, Identifier = 00, JSON = {'rxpk': [{'tmst': 3559700605, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAxQIBpbBsw8tX'}]} |
| 0:27:12.510737 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6cc3cb57) |
| 0:27:12.511738 | LOG | Server <---------- DUT |
| 0:27:12.513735 | LOG | Count = 32 |
| 0:27:15.919726 | LOG | PUSH_ACK: 02 3101 01 |
| 0:27:15.922724 | LOG | PUSH_DATA: Protocol version = 02, Token = 3101, Identifier = 00, JSON = {'rxpk': [{'tmst': 3563091101, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAxQIBpbBsw8tX'}]} |

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| 0:27:15.924725 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6cc3cb57) |
| 0:27:15.925723 | LOG | Server <---------- DUT |
| 0:27:15.927721 | LOG | Repeated frame. It does not count |
| 0:27:18.134844 | LOG | PULL_DATA: 02 1f2c 02 3834383419003400 |
| 0:27:18.138841 | LOG | PULL_ACK: 02 1f2c 04 |
| 0:27:23.018085 | LOG | PUSH_ACK: 02 3102 01 |
| 0:27:23.023082 | LOG | PUSH_DATA: Protocol version = 02, Token = 3102, Identifier = 00, JSON = {'rxpk': [{'tmst': 3570202141, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAxgIB43yNl0M4'}]} |
| 0:27:23.026080 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8d974338) |
| 0:27:23.029079 | LOG | Server <---------- DUT |
| 0:27:23.033076 | LOG | Count = 33 |
| 0:27:23.036075 | LOG | Waiting for the retransmissions |
| 0:27:26.418907 | LOG | PUSH_ACK: 02 3103 01 |
| 0:27:26.420906 | LOG | PUSH_DATA: Protocol version = 02, Token = 3103, Identifier = 00, JSON = {'rxpk': [{'tmst': 3573592621, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAxgIB43yNl0M4'}]} |
| 0:27:26.423905 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8d974338) |
| 0:27:26.427902 | LOG | Server <---------- DUT |
| 0:27:26.442894 | LOG | Expected number of uplink messages have been received |
| 0:27:26.446892 | LOG | Test adaptive data rate control in frame header process starts |
| 0:27:28.214873 | LOG | PULL_DATA: 02 e4f4 02 3834383419003400 |
| 0:27:28.216871 | LOG | PULL_ACK: 02 e4f4 04 |
| 0:27:33.002332 | LOG | PUSH_ACK: 02 3104 01 |
| 0:27:33.004331 | LOG | PUSH_DATA: Protocol version = 02, Token = 3104, Identifier = 00, JSON = {'rxpk': [{'tmst': 3580208029, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAxwIBhYTuoUUv'}]} |
| 0:27:33.006330 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eea1452f) |
| 0:27:33.007329 | LOG | Server <---------- DUT |
| 0:27:33.008328 | LOG | Count = 2 |
| 0:27:36.399565 | LOG | PUSH_ACK: 02 3105 01 |
| 0:27:36.401565 | LOG | PUSH_DATA: Protocol version = 02, Token = 3105, Identifier = 00, JSON = {'rxpk': [{'tmst': 3583598525, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAxwIBhYTuoUUv'}]} |
| 0:27:36.403563 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: eea1452f) |
| 0:27:36.404563 | LOG | Server <---------- DUT |
| 0:27:36.405561 | LOG | Repeated frame. It does not count |
| 0:27:38.294728 | LOG | PULL_DATA: 02 a80e 02 3834383419003400 |
| 0:27:38.296726 | LOG | PULL_ACK: 02 a80e 04 |
| 0:27:43.033050 | LOG | PUSH_ACK: 02 3106 01 |
| 0:27:43.036047 | LOG | PUSH_DATA: Protocol version = 02, Token = 3106, Identifier = 00, JSON = {'rxpk': [{'tmst': 3590213909, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAyAIBXc+mJ8s+'}]} |
| 0:27:43.037046 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a627cb3e) |
| 0:27:43.039045 | LOG | Server <---------- DUT |

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| 0:27:43.041044 | LOG | Count = 3 |
| 0:27:46.443972 | LOG | PUSH_ACK: 02 3108 01 |
| 0:27:46.445969 | LOG | PUSH_DATA: Protocol version = 02, Token = 3108, Identifier = 00, JSON = {'rxpk': [{'tmst': 3593604429, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAyAIBXc+mJ8s+'}]} |
| 0:27:46.446968 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a627cb3e) |
| 0:27:46.447970 | LOG | Server <---------- DUT |
| 0:27:46.449967 | LOG | Repeated frame. It does not count |
| 0:27:48.375178 | LOG | PULL_DATA: 02 f05f 02 3834383419003400 |
| 0:27:48.380175 | LOG | PULL_ACK: 02 f05f 04 |
| 0:27:53.030547 | LOG | PUSH_ACK: 02 3109 01 |
| 0:27:53.032547 | LOG | PUSH_DATA: Protocol version = 02, Token = 3109, Identifier = 00, JSON = {'rxpk': [{'tmst': 3600221173, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAyQIBQvd7rl/n'}]} |
| 0:27:53.034546 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7bae5fe7) |
| 0:27:53.035545 | LOG | Server <---------- DUT |
| 0:27:53.037544 | LOG | Count = 4 |
| 0:27:56.426361 | LOG | PUSH_ACK: 02 310a 01 |
| 0:27:56.428360 | LOG | PUSH_DATA: Protocol version = 02, Token = 310a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3603611653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAyQIBQvd7rl/n'}]} |
| 0:27:56.430358 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02c9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 7bae5fe7) |
| 0:27:56.432358 | LOG | Server <---------- DUT |
| 0:27:56.433357 | LOG | Repeated frame. It does not count |
| 0:27:58.455438 | LOG | PULL_DATA: 02 fe4a 02 3834383419003400 |
| 0:27:58.457436 | LOG | PULL_ACK: 02 fe4a 04 |
| 0:28:03.058804 | LOG | PUSH_ACK: 02 310b 01 |
| 0:28:03.060803 | LOG | PUSH_DATA: Protocol version = 02, Token = 310b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3610227045, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAygIB+BGMmELv'}]} |
| 0:28:03.061802 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ca, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8c9842ef) |
| 0:28:03.063802 | LOG | Server <---------- DUT |
| 0:28:03.064801 | LOG | Count = 5 |
| 0:28:06.456620 | LOG | PUSH_ACK: 02 310c 01 |
| 0:28:06.458619 | LOG | PUSH_DATA: Protocol version = 02, Token = 310c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3613617541, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDAygIB+BGMmELv'}]} |
| 0:28:06.459618 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ca, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8c9842ef) |
| 0:28:06.461619 | LOG | Server <---------- DUT |
| 0:28:06.462617 | LOG | Repeated frame. It does not count |
| 0:28:08.534836 | LOG | PULL_DATA: 02 581d 02 3834383419003400 |
| 0:28:08.536818 | LOG | PULL_ACK: 02 581d 04 |
| 0:28:13.038273 | LOG | PUSH_ACK: 02 310d 01 |
| 0:28:13.040270 | LOG | PUSH_DATA: Protocol version = 02, Token = 310d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3620232925, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAywIBIbKiwsR+'}]} |
| 0:28:13.041269 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a2c2c47e) |
| 0:28:13.043268 | LOG | Server <---------- DUT |
| 0:28:13.044268 | LOG | Count = 6 |
| 0:28:16.453260 | LOG | PUSH_ACK: 02 310f 01 |
| 0:28:16.456258 | LOG | PUSH_DATA: Protocol version = 02, Token = 310f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3623624757, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAywIBIbKiwsR+'}]} |
| 0:28:16.458257 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a2c2c47e) |
| 0:28:16.460255 | LOG | Server <---------- DUT |
| 0:28:16.461254 | LOG | Repeated frame. It does not count |
| 0:28:18.614958 | LOG | PULL_DATA: 02 58d4 02 3834383419003400 |
| 0:28:18.620953 | LOG | PULL_ACK: 02 58d4 04 |
| 0:28:23.037426 | LOG | PUSH_ACK: 02 3110 01 |
| 0:28:23.039425 | LOG | PUSH_DATA: Protocol version = 02, Token = 3110, Identifier = 00, JSON = {'rxpk': [{'tmst': 3630240205, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAzAIBvzIxsELk'}]} |
| 0:28:23.041424 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 31b042e4) |
| 0:28:23.042423 | LOG | Server <---------- DUT |
| 0:28:23.044422 | LOG | Count = 7 |
| 0:28:26.434857 | LOG | PUSH_ACK: 02 3111 01 |
| 0:28:26.440836 | LOG | PUSH_DATA: Protocol version = 02, Token = 3111, Identifier = 00, JSON = {'rxpk': [{'tmst': 3633630685, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAzAIBvzIxsELk'}]} |
| 0:28:26.444833 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 31b042e4) |
| 0:28:26.448831 | LOG | Server <---------- DUT |
| 0:28:26.452828 | LOG | Repeated frame. It does not count |
| 0:28:28.694822 | LOG | PULL_DATA: 02 55ee 02 3834383419003400 |
| 0:28:28.696822 | LOG | PULL_ACK: 02 55ee 04 |
| 0:28:33.072348 | LOG | PUSH_ACK: 02 3112 01 |
| 0:28:33.074346 | LOG | PUSH_DATA: Protocol version = 02, Token = 3112, Identifier = 00, JSON = {'rxpk': [{'tmst': 3640246093, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAzQIBHk8csg3a'}]} |
| 0:28:33.076345 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1cb20dda) |
| 0:28:33.077345 | LOG | Server <---------- DUT |
| 0:28:33.079344 | LOG | Count = 8 |
| 0:28:36.470261 | LOG | PUSH_ACK: 02 3113 01 |
| 0:28:36.472260 | LOG | PUSH_DATA: Protocol version = 02, Token = 3113, Identifier = 00, JSON = {'rxpk': [{'tmst': 3643636589, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAzQIBHk8csg3a'}]} |
| 0:28:36.474259 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1cb20dda) |
| 0:28:36.475258 | LOG | Server <---------- DUT |
| 0:28:36.477257 | LOG | Repeated frame. It does not count |
| 0:28:38.775385 | LOG | PULL_DATA: 02 9f8b 02 3834383419003400 |

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| 0:28:38.776383 | LOG | PULL_ACK: 02 9f8b 04 |
| 0:28:43.053964 | LOG | PUSH_ACK: 02 3114 01 |
| 0:28:43.056964 | LOG | PUSH_DATA: Protocol version = 02, Token = 3114, Identifier = 00, JSON = {'rxpk': [{'tmst': 3650251989, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAzgIB2dDLBlc8'}]} |
| 0:28:43.057962 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ce, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cb06573c) |
| 0:28:43.059961 | LOG | Server <---------- DUT |
| 0:28:43.060960 | LOG | Count = 9 |
| 0:28:46.463510 | LOG | PUSH_ACK: 02 3116 01 |
| 0:28:46.465509 | LOG | PUSH_DATA: Protocol version = 02, Token = 3116, Identifier = 00, JSON = {'rxpk': [{'tmst': 3653643845, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAzgIB2dDLBlc8'}]} |
| 0:28:46.467508 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ce, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cb06573c) |
| 0:28:46.468508 | LOG | Server <---------- DUT |
| 0:28:46.470507 | LOG | Repeated frame. It does not count |
| 0:28:48.855078 | LOG | PULL_DATA: 02 53eb 02 3834383419003400 |
| 0:28:48.859075 | LOG | PULL_ACK: 02 53eb 04 |
| 0:28:53.097680 | LOG | PUSH_ACK: 02 3117 01 |
| 0:28:53.099678 | LOG | PUSH_DATA: Protocol version = 02, Token = 3117, Identifier = 00, JSON = {'rxpk': [{'tmst': 3660260613, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAzwIBhkYnNwu9'}]} |
| 0:28:53.101677 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cf, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 27370bbd) |
| 0:28:53.102676 | LOG | Server <---------- DUT |
| 0:28:53.104675 | LOG | Count = 10 |
| 0:28:56.442286 | LOG | PUSH_ACK: 02 3118 01 |
| 0:28:56.444283 | LOG | PUSH_DATA: Protocol version = 02, Token = 3118, Identifier = 00, JSON = {'rxpk': [{'tmst': 3663651101, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAzwIBhkYnNwu9'}]} |
| 0:28:56.445282 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02cf, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 27370bbd) |
| 0:28:56.446284 | LOG | Server <---------- DUT |
| 0:28:56.447283 | LOG | Repeated frame. It does not count |
| 0:28:58.935069 | LOG | PULL_DATA: 02 acbd 02 3834383419003400 |
| 0:28:58.937067 | LOG | PULL_ACK: 02 acbd 04 |
| 0:29:03.078189 | LOG | PUSH_ACK: 02 3119 01 |
| 0:29:03.083186 | LOG | PUSH_DATA: Protocol version = 02, Token = 3119, Identifier = 00, JSON = {'rxpk': [{'tmst': 3670266517, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA0AIB3524j4p8'}]} |
| 0:29:03.085185 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b88f8a7c) |
| 0:29:03.086184 | LOG | Server <---------- DUT |
| 0:29:03.088184 | LOG | Count = 11 |
| 0:29:06.477008 | LOG | PUSH_ACK: 02 311a 01 |
| 0:29:06.479007 | LOG | PUSH_DATA: Protocol version = 02, Token = 311a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3673657021, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA0AIB3524j4p8'}]} |

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| 0:29:06.481006 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b88f8a7c) |
| 0:29:06.483005 | LOG | Server <---------- DUT |
| 0:29:06.484004 | LOG | Repeated frame. It does not count |
| 0:29:09.014659 | LOG | PULL_DATA: 02 98af 02 3834383419003400 |
| 0:29:09.016658 | LOG | PULL_ACK: 02 98af 04 |
| 0:29:13.109345 | LOG | PUSH_ACK: 02 311b 01 |
| 0:29:13.111343 | LOG | PUSH_DATA: Protocol version = 02, Token = 311b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3680272389, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA0QIBYZqyv6L2'}], 'stat': {'time': '2021-10-09 07:03:48 GMT', 'rxnb': 6, 'rxok': 5, 'rxfw': 5, 'ackr': 83.3, 'dwnb': 0, 'txnb': 0}} |
| 0:29:13.113342 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b2bfa2f6) |
| 0:29:13.114341 | LOG | Server <---------- DUT |
| 0:29:13.116339 | LOG | Count = 12 |
| 0:29:16.455739 | LOG | PUSH_ACK: 02 311c 01 |
| 0:29:16.457736 | LOG | PUSH_DATA: Protocol version = 02, Token = 311c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3683664269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA0QIBYZqyv6L2'}]} |
| 0:29:16.458735 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b2bfa2f6) |
| 0:29:16.460735 | LOG | Server <---------- DUT |
| 0:29:16.461734 | LOG | Repeated frame. It does not count |
| 0:29:19.094514 | LOG | PULL_DATA: 02 6901 02 3834383419003400 |
| 0:29:19.098512 | LOG | PULL_ACK: 02 6901 04 |
| 0:29:23.088727 | LOG | PUSH_ACK: 02 311d 01 |
| 0:29:23.090727 | LOG | PUSH_DATA: Protocol version = 02, Token = 311d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3690279653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA0gIBlpytRhYy'}]} |
| 0:29:23.092726 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ad461632) |
| 0:29:23.093725 | LOG | Server <---------- DUT |
| 0:29:23.095725 | LOG | Count = 13 |
| 0:29:26.485014 | LOG | PUSH_ACK: 02 311e 01 |
| 0:29:26.487012 | LOG | PUSH_DATA: Protocol version = 02, Token = 311e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3693670149, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA0gIBlpytRhYy'}]} |
| 0:29:26.489014 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ad461632) |
| 0:29:26.490011 | LOG | Server <---------- DUT |
| 0:29:26.492010 | LOG | Repeated frame. It does not count |
| 0:29:29.174768 | LOG | PULL_DATA: 02 2638 02 3834383419003400 |
| 0:29:29.176763 | LOG | PULL_ACK: 02 2638 04 |
| 0:29:33.117944 | LOG | PUSH_ACK: 02 311f 01 |
| 0:29:33.119942 | LOG | PUSH_DATA: Protocol version = 02, Token = 311f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3700285557, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA0wIBbDimrhJj'}]} |
| 0:29:33.121941 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a6ae1263) |
| 0:29:33.122940 | LOG | Server <---------- DUT |
| 0:29:33.124939 | LOG | Count = 14 |

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| 0:29:36.514319 | LOG | PUSH_ACK: 02 3120 01 |
| 0:29:36.516318 | LOG | PUSH_DATA: Protocol version = 02, Token = 3120, Identifier = 00, JSON = {'rxpk': [{'tmst': 3703676061, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA0wIBbDimrhJj'}]} |
| 0:29:36.517318 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: a6ae1263) |
| 0:29:36.518317 | LOG | Server <---------- DUT |
| 0:29:36.519317 | LOG | Repeated frame. It does not count |
| 0:29:39.255193 | LOG | PULL_DATA: 02 8245 02 3834383419003400 |
| 0:29:39.257192 | LOG | PULL_ACK: 02 8245 04 |
| 0:29:43.095021 | LOG | PUSH_ACK: 02 3121 01 |
| 0:29:43.098019 | LOG | PUSH_DATA: Protocol version = 02, Token = 3121, Identifier = 00, JSON = {'rxpk': [{'tmst': 3710291421, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICDA1AIBznT5ko+W'}]} |
| 0:29:43.100018 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f9928f96) |
| 0:29:43.101017 | LOG | Server <---------- DUT |
| 0:29:43.103016 | LOG | Count = 15 |
| 0:29:46.503302 | LOG | PUSH_ACK: 02 3123 01 |
| 0:29:46.505301 | LOG | PUSH_DATA: Protocol version = 02, Token = 3123, Identifier = 00, JSON = {'rxpk': [{'tmst': 3713683269, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA1AIBznT5ko+W'}]} |
| 0:29:46.507299 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f9928f96) |
| 0:29:46.508301 | LOG | Server <---------- DUT |
| 0:29:46.509298 | LOG | Repeated frame. It does not count |
| 0:29:49.335255 | LOG | PULL_DATA: 02 f3a1 02 3834383419003400 |
| 0:29:49.339253 | LOG | PULL_ACK: 02 f3a1 04 |
| 0:29:53.136109 | LOG | PUSH_ACK: 02 3124 01 |
| 0:29:53.139105 | LOG | PUSH_DATA: Protocol version = 02, Token = 3124, Identifier = 00, JSON = {'rxpk': [{'tmst': 3720298661, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA1QIBiKMH9Dcb'}]} |
| 0:29:53.140104 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 07f4371b) |
| 0:29:53.142103 | LOG | Server <---------- DUT |
| 0:29:53.144102 | LOG | Count = 16 |
| 0:29:56.481215 | LOG | PUSH_ACK: 02 3125 01 |
| 0:29:56.483213 | LOG | PUSH_DATA: Protocol version = 02, Token = 3125, Identifier = 00, JSON = {'rxpk': [{'tmst': 3723689149, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA1QIBiKMH9Dcb'}]} |
| 0:29:56.485212 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 07f4371b) |
| 0:29:56.486211 | LOG | Server <---------- DUT |
| 0:29:56.488210 | LOG | Repeated frame. It does not count |
| 0:29:59.414426 | LOG | PULL_DATA: 02 71d8 02 3834383419003400 |
| 0:29:59.416424 | LOG | PULL_ACK: 02 71d8 04 |
| 0:30:03.113368 | LOG | PUSH_ACK: 02 3126 01 |
| 0:30:03.116366 | LOG | PUSH_DATA: Protocol version = 02, Token = 3126, Identifier = 00, JSON = {'rxpk': [{'tmst': 3730305917, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA1gIB3zoRd6f0'}]} |

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| 0:30:03.118365 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1177a7f4) |
| 0:30:03.120365 | LOG | Server <---------- DUT |
| 0:30:03.121364 | LOG | Count = 17 |
| 0:30:06.509647 | LOG | PUSH_ACK: 02 3127 01 |
| 0:30:06.511646 | LOG | PUSH_DATA: Protocol version = 02, Token = 3127, Identifier = 00, JSON = {'rxpk': [{'tmst': 3733696421, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA1gIB3zoRd6f0'}]} |
| 0:30:06.512647 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 1177a7f4) |
| 0:30:06.514646 | LOG | Server <---------- DUT |
| 0:30:06.515646 | LOG | Repeated frame. It does not count |
| 0:30:09.495278 | LOG | PULL_DATA: 02 9619 02 3834383419003400 |
| 0:30:09.496277 | LOG | PULL_ACK: 02 9619 04 |
| 0:30:13.142217 | LOG | PUSH_ACK: 02 3128 01 |
| 0:30:13.145214 | LOG | PUSH_DATA: Protocol version = 02, Token = 3128, Identifier = 00, JSON = {'rxpk': [{'tmst': 3740311813, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA1wIB7G1uQozq'}], 'stat': {'time': '2021-10-09 07:04:48 GMT', 'rxnb': 5, 'rxok': 5, 'rxfw': 5, 'ackr': 83.3, 'dwnb': 0, 'txnb': 0}} |
| 0:30:13.147213 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6e428cea) |
| 0:30:13.148212 | LOG | Server <---------- DUT |
| 0:30:13.150211 | LOG | Count = 18 |
| 0:30:16.539533 | LOG | PUSH_ACK: 02 3129 01 |
| 0:30:16.542532 | LOG | PUSH_DATA: Protocol version = 02, Token = 3129, Identifier = 00, JSON = {'rxpk': [{'tmst': 3743702317, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA1wIB7G1uQozq'}]} |
| 0:30:16.543529 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 6e428cea) |
| 0:30:16.545528 | LOG | Server <---------- DUT |
| 0:30:16.546527 | LOG | Repeated frame. It does not count |
| 0:30:19.574909 | LOG | PULL_DATA: 02 e686 02 3834383419003400 |
| 0:30:19.585904 | LOG | PULL_ACK: 02 e686 04 |
| 0:30:23.121021 | LOG | PUSH_ACK: 02 312a 01 |
| 0:30:23.123020 | LOG | PUSH_DATA: Protocol version = 02, Token = 312a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3750317725, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA2AIByeKwKrTH'}]} |
| 0:30:23.125020 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b02ab4c7) |
| 0:30:23.126018 | LOG | Server <---------- DUT |
| 0:30:23.128016 | LOG | Count = 19 |
| 0:30:26.517749 | LOG | PUSH_ACK: 02 312b 01 |
| 0:30:26.520748 | LOG | PUSH_DATA: Protocol version = 02, Token = 312b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3753708245, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA2AIByeKwKrTH'}]} |
| 0:30:26.521745 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: b02ab4c7) |
| 0:30:26.523744 | LOG | Server <---------- DUT |
| 0:30:26.524743 | LOG | Repeated frame. It does not count |
| 0:30:29.665201 | LOG | PULL_DATA: 02 79e5 02 3834383419003400 |
| 0:30:29.667171 | LOG | PULL_ACK: 02 79e5 04 |

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| 0:30:33.152227 | LOG | PUSH_ACK: 02 312c 01 |
| 0:30:33.154227 | LOG | PUSH_DATA: Protocol version = 02, Token = 312c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3760324989, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA2QIBeH70I2X0'}]} |
| 0:30:33.156227 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f42365f4) |
| 0:30:33.159226 | LOG | Server <---------- DUT |
| 0:30:33.161226 | LOG | Count = 20 |
| 0:30:36.549969 | LOG | PUSH_ACK: 02 312e 01 |
| 0:30:36.553967 | LOG | PUSH_DATA: Protocol version = 02, Token = 312e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3763715477, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA2QIBeH70I2X0'}]} |
| 0:30:36.554966 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02d9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: f42365f4) |
| 0:30:36.556965 | LOG | Server <---------- DUT |
| 0:30:36.557964 | LOG | Repeated frame. It does not count |
| 0:30:39.744692 | LOG | PULL_DATA: 02 d1d1 02 3834383419003400 |
| 0:30:39.746688 | LOG | PULL_ACK: 02 d1d1 04 |
| 0:30:43.132772 | LOG | PUSH_ACK: 02 312f 01 |
| 0:30:43.134770 | LOG | PUSH_DATA: Protocol version = 02, Token = 312f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3770330869, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA2gIBNUUXm0Ai'}], 'stat': {'time': '2021-10-09 07:05:18 GMT', 'rxnb': 7, 'rxok': 6, 'rxfw': 6, 'ackr': 100.0, 'dwnb': 0, 'txnb': 0}} |
| 0:30:43.136769 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02da, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 179b4022) |
| 0:30:43.137768 | LOG | Server <---------- DUT |
| 0:30:43.139767 | LOG | Count = 21 |
| 0:30:46.528402 | LOG | PUSH_ACK: 02 3130 01 |
| 0:30:46.530398 | LOG | PUSH_DATA: Protocol version = 02, Token = 3130, Identifier = 00, JSON = {'rxpk': [{'tmst': 3773721365, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA2gIBNUUXm0Ai'}]} |
| 0:30:46.532396 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02da, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 179b4022) |
| 0:30:46.533396 | LOG | Server <---------- DUT |
| 0:30:46.534395 | LOG | Repeated frame. It does not count |
| 0:30:49.824714 | LOG | PULL_DATA: 02 0229 02 3834383419003400 |
| 0:30:49.828711 | LOG | PULL_ACK: 02 0229 04 |
| 0:30:53.159829 | LOG | PUSH_ACK: 02 3131 01 |
| 0:30:53.162826 | LOG | PUSH_DATA: Protocol version = 02, Token = 3131, Identifier = 00, JSON = {'rxpk': [{'tmst': 3780336749, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA2wIBqtOrZU48'}]} |
| 0:30:53.163827 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02db, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ab654e3c) |
| 0:30:53.164827 | LOG | Server <---------- DUT |
| 0:30:53.166824 | LOG | Count = 22 |
| 0:30:56.555221 | LOG | PUSH_ACK: 02 3132 01 |
| 0:30:56.557220 | LOG | PUSH_DATA: Protocol version = 02, Token = 3132, Identifier = 00, JSON = {'rxpk': [{'tmst': 3783727229, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA2wIBqtOrZU48'}]} |

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| 0:30:56.559219 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02db, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ab654e3c) |
| 0:30:56.560219 | LOG | Server <---------- DUT |
| 0:30:56.562217 | LOG | Repeated frame. It does not count |
| 0:30:59.904519 | LOG | PULL_DATA: 02 a558 02 3834383419003400 |
| 0:30:59.906518 | LOG | PULL_ACK: 02 a558 04 |
| 0:31:03.135694 | LOG | PUSH_ACK: 02 3133 01 |
| 0:31:03.137691 | LOG | PUSH_DATA: Protocol version = 02, Token = 3133, Identifier = 00, JSON = {'rxpk': [{'tmst': 3790343997, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA3AIBQJEux2KB'}]} |
| 0:31:03.138690 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02dc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2ec76281) |
| 0:31:03.140689 | LOG | Server <---------- DUT |
| 0:31:03.141689 | LOG | Count = 23 |
| 0:31:06.531165 | LOG | PUSH_ACK: 02 3134 01 |
| 0:31:06.533162 | LOG | PUSH_DATA: Protocol version = 02, Token = 3134, Identifier = 00, JSON = {'rxpk': [{'tmst': 3793734461, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICDA3AIBQJEux2KB'}]} |
| 0:31:06.535161 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02dc, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2ec76281) |
| 0:31:06.536160 | LOG | Server <---------- DUT |
| 0:31:06.538159 | LOG | Repeated frame. It does not count |
| 0:31:09.984860 | LOG | PULL_DATA: 02 1844 02 3834383419003400 |
| 0:31:09.985858 | LOG | PULL_ACK: 02 1844 04 |
| 0:31:13.164062 | LOG | PUSH_ACK: 02 3135 01 |
| 0:31:13.166061 | LOG | PUSH_DATA: Protocol version = 02, Token = 3135, Identifier = 00, JSON = {'rxpk': [{'tmst': 3800349853, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA3QIB3HZIEPe/'}], 'stat': {'time': '2021-10-09 07:05:48 GMT', 'rxnb': 6, 'rxok': 6, 'rxfw': 6, 'ackr': 100.0, 'dwnb': 0, 'txnb': 0}} |
| 0:31:13.168058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02dd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4810f7bf) |
| 0:31:13.170058 | LOG | Server <---------- DUT |
| 0:31:13.172027 | LOG | Count = 24 |
| 0:31:16.560051 | LOG | PUSH_ACK: 02 3136 01 |
| 0:31:16.562050 | LOG | PUSH_DATA: Protocol version = 02, Token = 3136, Identifier = 00, JSON = {'rxpk': [{'tmst': 3803740357, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA3QIB3HZIEPe/'}]} |
| 0:31:16.564049 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02dd, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 4810f7bf) |
| 0:31:16.566047 | LOG | Server <---------- DUT |
| 0:31:16.567047 | LOG | Repeated frame. It does not count |
| 0:31:20.065110 | LOG | PULL_DATA: 02 e36b 02 3834383419003400 |
| 0:31:20.069106 | LOG | PULL_ACK: 02 e36b 04 |
| 0:31:23.192339 | LOG | PUSH_ACK: 02 3137 01 |
| 0:31:23.194338 | LOG | PUSH_DATA: Protocol version = 02, Token = 3137, Identifier = 00, JSON = {'rxpk': [{'tmst': 3810355733, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDA3gIBm8Fddxk6'}]} |
| 0:31:23.195339 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02de, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5d77193a) |
| 0:31:23.196339 | LOG | Server <---------- DUT |
| 0:31:23.198336 | LOG | Count = 25 |

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| 0:31:26.537605 | LOG | PUSH_ACK: 02 3138 01 |
| 0:31:26.539605 | LOG | PUSH_DATA: Protocol version = 02, Token = 3138, Identifier = 00, JSON = {'rxpk': [{'tmst': 3813747565, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA3gIBm8Fddxk6'}]} |
| 0:31:26.541604 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02de, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 5d77193a) |
| 0:31:26.542603 | LOG | Server <---------- DUT |
| 0:31:26.544602 | LOG | Repeated frame. It does not count |
| 0:31:30.144061 | LOG | PULL_DATA: 02 2f8f 02 3834383419003400 |
| 0:31:30.146060 | LOG | PULL_ACK: 02 2f8f 04 |
| 0:31:33.170350 | LOG | PUSH_ACK: 02 3139 01 |
| 0:31:33.172349 | LOG | PUSH_DATA: Protocol version = 02, Token = 3139, Identifier = 00, JSON = {'rxpk': [{'tmst': 3820364309, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA3wIBnT5FK9UF'}]} |
| 0:31:33.174348 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02df, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 452bd505) |
| 0:31:33.175347 | LOG | Server <---------- DUT |
| 0:31:33.177346 | LOG | Count = 26 |
| 0:31:36.566429 | LOG | PUSH_ACK: 02 313a 01 |
| 0:31:36.568428 | LOG | PUSH_DATA: Protocol version = 02, Token = 313a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3823754797, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA3wIBnT5FK9UF'}]} |
| 0:31:36.569428 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02df, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 452bd505) |
| 0:31:36.571427 | LOG | Server <---------- DUT |
| 0:31:36.573425 | LOG | Repeated frame. It does not count |
| 0:31:40.224360 | LOG | PULL_DATA: 02 28c7 02 3834383419003400 |
| 0:31:40.226359 | LOG | PULL_ACK: 02 28c7 04 |
| 0:31:43.265645 | LOG | PUSH_ACK: 02 313c 01 |
| 0:31:43.268641 | LOG | PUSH_DATA: Protocol version = 02, Token = 313c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3830370181, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA4AIBjBjOlsVG'}]} |
| 0:31:43.269639 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ce96c546) |
| 0:31:43.271638 | LOG | Server <---------- DUT |
| 0:31:43.272636 | LOG | Count = 27 |
| 0:31:46.558862 | LOG | PUSH_ACK: 02 313d 01 |
| 0:31:46.561861 | LOG | PUSH_DATA: Protocol version = 02, Token = 313d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3833760661, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA4AIBjBjOlsVG'}]} |
| 0:31:46.563859 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e0, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: ce96c546) |
| 0:31:46.564859 | LOG | Server <---------- DUT |
| 0:31:46.566858 | LOG | Repeated frame. It does not count |
| 0:31:50.304744 | LOG | PULL_DATA: 02 3e91 02 3834383419003400 |
| 0:31:50.308742 | LOG | PULL_ACK: 02 3e91 04 |
| 0:31:53.192112 | LOG | PUSH_ACK: 02 313e 01 |
| 0:31:53.194112 | LOG | PUSH_DATA: Protocol version = 02, Token = 313e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3840376045, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA4QIBlQD6pvxw'}]} |

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| 0:31:53.196110 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: faa6fc70) |
| 0:31:53.197110 | LOG | Server <---------- DUT |
| 0:31:53.198109 | LOG | Count = 28 |
| 0:31:56.588193 | LOG | PUSH_ACK: 02 313f 01 |
| 0:31:56.590192 | LOG | PUSH_DATA: Protocol version = 02, Token = 313f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3843767885, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA4QIBlQD6pvxw'}]} |
| 0:31:56.591189 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: faa6fc70) |
| 0:31:56.592188 | LOG | Server <---------- DUT |
| 0:31:56.594187 | LOG | Repeated frame. It does not count |
| 0:32:00.384621 | LOG | PULL_DATA: 02 c865 02 3834383419003400 |
| 0:32:00.386620 | LOG | PULL_ACK: 02 c865 04 |
| 0:32:03.220017 | LOG | PUSH_ACK: 02 3140 01 |
| 0:32:03.222017 | LOG | PUSH_DATA: Protocol version = 02, Token = 3140, Identifier = 00, JSON = {'rxpk': [{'tmst': 3850383301, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 14.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA4gIBFXKcHkhz'}]} |
| 0:32:03.224016 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9c1e4873) |
| 0:32:03.225014 | LOG | Server <---------- DUT |
| 0:32:03.226013 | LOG | Count = 29 |
| 0:32:06.564332 | LOG | PUSH_ACK: 02 3141 01 |
| 0:32:06.566332 | LOG | PUSH_DATA: Protocol version = 02, Token = 3141, Identifier = 00, JSON = {'rxpk': [{'tmst': 3853773773, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA4gIBFXKcHkhz'}]} |
| 0:32:06.567331 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e2, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9c1e4873) |
| 0:32:06.569330 | LOG | Server <---------- DUT |
| 0:32:06.571329 | LOG | Repeated frame. It does not count |
| 0:32:10.464190 | LOG | PULL_DATA: 02 c94a 02 3834383419003400 |
| 0:32:10.466189 | LOG | PULL_ACK: 02 c94a 04 |
| 0:32:13.266608 | LOG | PUSH_ACK: 02 3143 01 |
| 0:32:13.268605 | LOG | PUSH_DATA: Protocol version = 02, Token = 3143, Identifier = 00, JSON = {'rxpk': [{'tmst': 3860389157, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA4wIBDwLNSDAU'}]} |
| 0:32:13.269606 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cd483014) |
| 0:32:13.270606 | LOG | Server <---------- DUT |
| 0:32:13.272603 | LOG | Count = 30 |
| 0:32:16.609873 | LOG | PUSH_ACK: 02 3144 01 |
| 0:32:16.611871 | LOG | PUSH_DATA: Protocol version = 02, Token = 3144, Identifier = 00, JSON = {'rxpk': [{'tmst': 3863779653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA4wIBDwLNSDAU'}]} |
| 0:32:16.613870 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e3, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: cd483014) |
| 0:32:16.615869 | LOG | Server <---------- DUT |
| 0:32:16.616868 | LOG | Repeated frame. It does not count |
| 0:32:20.544734 | LOG | PULL_DATA: 02 aabc 02 3834383419003400 |
| 0:32:20.548732 | LOG | PULL_ACK: 02 aabc 04 |
| 0:32:23.191236 | LOG | PUSH_ACK: 02 3145 01 |

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| 0:32:23.193235 | LOG | PUSH_DATA: Protocol version = 02, Token = 3145, Identifier = 00, JSON = {'rxpk': [{'tmst': 3870395053, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICDA5AIB7OzBvU8W'}]} |
| 0:32:23.195234 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c1bd4f16) |
| 0:32:23.197233 | LOG | Server <---------- DUT |
| 0:32:23.198232 | LOG | Count = 31 |
| 0:32:26.587460 | LOG | PUSH_ACK: 02 3146 01 |
| 0:32:26.589458 | LOG | PUSH_DATA: Protocol version = 02, Token = 3146, Identifier = 00, JSON = {'rxpk': [{'tmst': 3873786885, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA5AIB7OzBvU8W'}]} |
| 0:32:26.591458 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e4, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: c1bd4f16) |
| 0:32:26.592457 | LOG | Server <---------- DUT |
| 0:32:26.594456 | LOG | Repeated frame. It does not count |
| 0:32:30.624176 | LOG | PULL_DATA: 02 eb1c 02 3834383419003400 |
| 0:32:30.626175 | LOG | PULL_ACK: 02 eb1c 04 |
| 0:32:33.219707 | LOG | PUSH_ACK: 02 3147 01 |
| 0:32:33.222706 | LOG | PUSH_DATA: Protocol version = 02, Token = 3147, Identifier = 00, JSON = {'rxpk': [{'tmst': 3880402397, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA5QIB57OeCmyk'}]} |
| 0:32:33.224706 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e5, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 9e0a6ca4) |
| 0:32:33.225705 | LOG | Server <---------- DUT |
| 0:32:33.227704 | LOG | Count = 32 |
| 0:32:38.208682 | LOG | PUSH_ACK: 02 3148 01 |
| 0:32:38.211681 | LOG | PUSH_DATA: Protocol version = 02, Token = 3148, Identifier = 00, JSON = {'rxpk': [{'tmst': 3885405245, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA5gIBnMouZOoX'}]} |
| 0:32:38.213680 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e6, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 2e64ea17) |
| 0:32:38.214679 | LOG | Server <---------- DUT |
| 0:32:38.216678 | LOG | Count = 33 |
| 0:32:38.217677 | LOG | Checked last FCnt Up. Last retransmission received inside bounds |
| 0:32:38.232669 | LOG | Expected number of uplink messages have been received |
| 0:32:38.236666 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:32:40.703961 | LOG | PULL_DATA: 02 9481 02 3834383419003400 |
| 0:32:40.705960 | LOG | PULL_ACK: 02 9481 04 |
| 0:32:43.266630 | LOG | PUSH_ACK: 02 314a 01 |
| 0:32:43.268624 | LOG | PUSH_DATA: Protocol version = 02, Token = 314a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3890408189, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICDA5wIB8hHg2bD4'}]} |
| 0:32:43.270623 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e7, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: e0d9b0f8) |
| 0:32:43.271622 | LOG | Server <---------- DUT |
| 0:32:43.275620 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:32:43.279619 | LOG | ADRACKReq bit is activated |
| 0:32:43.282617 | LOG | ADRACKReq bit from DUT tested successfully |
| 0:32:43.284615 | LOG | Check previous uplink data rate process starts |
| 0:32:43.290612 | LOG | Uplink received with expected Data Rate |
| 0:32:43.295609 | LOG | Check number of uplinks repetitions process starts |

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| 0:32:48.203490 | LOG | PUSH_ACK: 02 314b 01 |
| 0:32:48.205487 | LOG | PUSH_DATA: Protocol version = 02, Token = 314b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3895411109, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICDA6AIBx9CV2xzF'}]} |
| 0:32:48.207487 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e8, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 95db1cc5) |
| 0:32:48.208504 | LOG | Server <---------- DUT |
| 0:32:48.211484 | LOG | Expected repetitions of uplink message have been received |
| 0:32:48.215482 | LOG | Check number of uplinks repetitions process starts |
| 0:32:50.784197 | LOG | PULL_DATA: 02 357b 02 3834383419003400 |
| 0:32:50.789195 | LOG | PULL_ACK: 02 357b 04 |
| 0:32:53.242806 | LOG | PUSH_ACK: 02 314c 01 |
| 0:32:53.245804 | LOG | PUSH_DATA: Protocol version = 02, Token = 314c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3900414077, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICDA6QIBJHYB4j5v'}]} |
| 0:32:53.246804 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02e9, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 01e23e6f) |
| 0:32:53.247803 | LOG | Server <---------- DUT |
| 0:32:53.250801 | LOG | Expected repetitions of uplink message have been received |
| 0:32:53.255799 | LOG | Receive frame on specific channels process starts |
| 0:32:53.269791 | LOG | Attempt 1/20 |
| 0:32:58.231686 | LOG | PUSH_ACK: 02 314d 01 |
| 0:32:58.233685 | LOG | PUSH_DATA: Protocol version = 02, Token = 314d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3905418397, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDA6gIBocgxOdue'}]} |
| 0:32:58.235684 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ea, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 3139db9e) |
| 0:32:58.236684 | LOG | Server <---------- DUT |
| 0:32:58.238682 | LOG | Attempt 2/20 |
| 0:33:00.864237 | LOG | PULL_DATA: 02 08ae 02 3834383419003400 |
| 0:33:00.866237 | LOG | PULL_ACK: 02 08ae 04 |
| 0:33:03.219905 | LOG | PUSH_ACK: 02 314e 01 |
| 0:33:03.222903 | LOG | PUSH_DATA: Protocol version = 02, Token = 314e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3910422693, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -12, 'size': 15, 'data': 'QCAgICDA6wIB3zpn3w9P'}]} |
| 0:33:03.223904 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02eb, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 67df0f4f) |
| 0:33:03.225902 | LOG | Server <---------- DUT |
| 0:33:03.226901 | LOG | Attempt 3/20 |
| 0:33:08.260286 | LOG | PUSH_ACK: 02 314f 01 |
| 0:33:08.262287 | LOG | PUSH_DATA: Protocol version = 02, Token = 314f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3915425653, 'chan': 6, 'rfch': 0, 'freq': 867.7, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA7AIBdQiYn2LI'}]} |
| 0:33:08.263284 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ec, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 989f62c8) |
| 0:33:08.265284 | LOG | Server <---------- DUT |
| 0:33:08.266283 | LOG | Attempt 4/20 |
| 0:33:10.944767 | LOG | PULL_DATA: 02 60d9 02 3834383419003400 |
| 0:33:10.945766 | LOG | PULL_ACK: 02 60d9 04 |
| 0:33:13.266455 | LOG | PUSH_ACK: 02 3151 01 |

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| 0:33:13.268454 | LOG | PUSH_DATA: Protocol version = 02, Token = 3151, Identifier = 00, JSON = {'rxpk': [{'tmst': 3920428597, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICDA7QIBbrLWtNEt'}]} |
| 0:33:13.269452 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ed, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d6b4d12d) |
| 0:33:13.270452 | LOG | Server <---------- DUT |
| 0:33:13.272450 | LOG | Attempt 5/20 |
| 0:33:18.255471 | LOG | PUSH_ACK: 02 3152 01 |
| 0:33:18.257472 | LOG | PUSH_DATA: Protocol version = 02, Token = 3152, Identifier = 00, JSON = {'rxpk': [{'tmst': 3925431469, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICDA7gIB2uz9pPDW'}]} |
| 0:33:18.258470 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ee, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: fda4f0d6) |
| 0:33:18.259471 | LOG | Server <---------- DUT |
| 0:33:18.263467 | LOG | Receive frame on specific channels process tested successfully |
| 0:33:18.267465 | LOG | Send LinkADRReq process starts |
| 0:33:21.034526 | LOG | PULL_DATA: 02 7f62 02 3834383419003400 |
| 0:33:21.038524 | LOG | PULL_ACK: 02 7f62 04 |
| 0:33:23.243276 | LOG | PUSH_ACK: 02 3153 01 |
| 0:33:23.245276 | LOG | PUSH_DATA: Protocol version = 02, Token = 3153, Identifier = 00, JSON = {'rxpk': [{'tmst': 3930434437, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICDA7wIBP6mKC/rs'}]} |
| 0:33:23.247275 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 02ef, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: 8a0bfaec) |
| 0:33:23.248274 | LOG | Server <---------- DUT |
| 0:33:23.250273 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 018b, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: c00f289e) |
| 0:33:23.253271 | LOG | PULL_RESP: Protocol version = 02, Token = b004, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3932434437, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAiwEAFT+3h7LADyie'}} |
| 0:33:23.255270 | LOG | Server ----------> DUT |
| 0:33:23.259268 | LOG | TX_ACK: 02 b004 05 3834383419003400 |
| 0:33:27.135517 | LOG | PUSH_ACK: 02 3154 01 |
| 0:33:27.137516 | LOG | PUSH_DATA: Protocol version = 02, Token = 3154, Identifier = 00, JSON = {'rxpk': [{'tmst': 3934335249, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 17, 'data': 'QCAgICCC8AIDBwGF8aeI+KI='}]} |
| 0:33:27.139515 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 02f0, FOpts: 0307), FPort: 01, FRMPayload: 0053, MIC: a788f8a2) |
| 0:33:27.140514 | LOG | Server <---------- DUT |
| 0:33:27.142513 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:33:27.144512 | LOG | Command Answer: 0307 |
| 0:33:27.152508 | LOG | MAC command communication completed |
| 0:33:27.155506 | LOG | Check previous uplink data rate process starts |
| 0:33:27.159506 | LOG | Uplink received with expected Data Rate |
| 0:33:27.162504 | LOG | ADRACKReq bit is disabled |
| 0:33:27.166500 | LOG | ADRACKReq bit from DUT tested successfully |
| 0:33:27.170498 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:33:31.234265 | LOG | PULL_DATA: 02 0224 02 3834383419003400 |
| 0:33:31.236265 | LOG | PULL_ACK: 02 0224 04 |
| 0:33:32.123765 | LOG | PUSH_ACK: 02 3155 01 |

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| 0:33:32.126761 | LOG | PUSH_DATA: Protocol version = 02, Token = 3155, Identifier = 00, JSON = {'rxpk': [{'tmst': 3939333065, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA8QIB6BnWLHDe'}]} |
| 0:33:32.128761 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02f1, FOpts: ), FPort: 01, FRMPayload: 0053, MIC: d62c70de) |
| 0:33:32.130758 | LOG | Server <---------- DUT |
| 0:33:32.132756 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 018c, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: 7f235d58) |
| 0:33:32.135754 | LOG | Frame command sent to the DUT |
| 0:33:32.137753 | LOG | PULL_RESP: Protocol version = 02, Token = 651a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3941333065, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAjAHgO4J/I11Y'}} |
| 0:33:32.138752 | LOG | Server ----------> DUT |
| 0:33:32.143750 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:33:32.147747 | LOG | Send NewChannelReq process starts |
| 0:33:37.103874 | LOG | PUSH_ACK: 02 3156 01 |
| 0:33:37.105873 | LOG | PUSH_DATA: Protocol version = 02, Token = 3156, Identifier = 00, JSON = {'rxpk': [{'tmst': 3944335994, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA8gIBnqFb8c4A'}]} |
| 0:33:37.106872 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02f2, FOpts: ), FPort: 01, FRMPayload: 0054, MIC: 5bf1ce00) |
| 0:33:37.108871 | LOG | Server <---------- DUT |
| 0:33:37.109870 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 018d, FOpts: ), FPort: 00, FRMPayload: 070300000050), MIC: 538c6990) |
| 0:33:37.111869 | LOG | PULL_RESP: Protocol version = 02, Token = 9e1a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3946335994, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAjQEAdvQQg2mTU4xpkA=='}} |
| 0:33:37.113868 | LOG | Server ----------> DUT |
| 0:33:37.116867 | LOG | TX_ACK: 02 9e1a 05 3834383419003400 |
| 0:33:41.314013 | LOG | PULL_DATA: 02 ba1a 02 3834383419003400 |
| 0:33:41.314997 | LOG | PULL_ACK: 02 ba1a 04 |
| 0:33:42.115542 | LOG | PUSH_ACK: 02 3157 01 |
| 0:33:42.117541 | LOG | PUSH_DATA: Protocol version = 02, Token = 3157, Identifier = 00, JSON = {'rxpk': [{'tmst': 3949345460, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 17, 'data': 'QCAgICCC8wIHAwFQRNLrNA8='}]} |
| 0:33:42.119540 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 02f3, FOpts: 0703), FPort: 01, FRMPayload: 0054, MIC: d2eb340f) |
| 0:33:42.121539 | LOG | Server <---------- DUT |
| 0:33:42.123537 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:33:42.124537 | LOG | Command Answer: 0703 |
| 0:33:42.129534 | LOG | MAC command communication completed |
| 0:33:42.133532 | LOG | End Test Step: Data Rate Decay for all devices |
| 0:33:42.138529 | LOG | Partial Verdict: PASS |
| 0:33:42.143526 | LOG | ========== |
| 0:33:42.150522 | LOG | ========== |
| 0:33:42.153521 | LOG | Start Test Step: Data Rate Decay for optional data rates |
| 0:33:42.164514 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:33:51.394484 | LOG | PULL_DATA: 02 689d 02 3834383419003400 |
| 0:33:51.398481 | LOG | PULL_ACK: 02 689d 04 |
| 0:33:52.154011 | LOG | PUSH_ACK: 02 3159 01 |

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| 0:33:52.156010 | LOG | PUSH_DATA: Protocol version = 02, Token = 3159, Identifier = 00, JSON = {'rxpk': [{'tmst': 3959346228, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA9AIBz1BJVhMD'}]} |
| 0:33:52.158010 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02f4, FOpts: ), FPort: 01, FRMPayload: 0054, MIC: 49561303) |
| 0:33:52.160007 | LOG | Server <---------- DUT |
| 0:33:52.162006 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 018e, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: fdaf8c9e) |
| 0:33:52.164005 | LOG | Frame command sent to the DUT |
| 0:33:52.166005 | LOG | PULL_RESP: Protocol version = 02, Token = 483a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3961346228, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAjgHgKl79r4ye'}} |
| 0:33:52.168003 | LOG | Server ----------> DUT |
| 0:33:52.172001 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:33:52.175999 | LOG | Send NewChannelReq process starts |
| 0:33:57.118738 | LOG | PUSH_ACK: 02 315a 01 |
| 0:33:57.121736 | LOG | PUSH_DATA: Protocol version = 02, Token = 315a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3964350558, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA9QIBaeDma0qQ'}]} |
| 0:33:57.123734 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02f5, FOpts: ), FPort: 01, FRMPayload: 0055, MIC: e66b4a90) |
| 0:33:57.124736 | LOG | Server <---------- DUT |
| 0:33:57.126733 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 018f, FOpts: ), FPort: 00, FRMPayload: 070328768466), MIC: 2e053d22) |
| 0:33:57.129731 | LOG | PULL_RESP: Protocol version = 02, Token = 9476, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3966350558, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAjwEAzr/7MmdnLgU9Ig=='}} |
| 0:33:57.130732 | LOG | Server ----------> DUT |
| 0:33:57.134730 | LOG | TX_ACK: 02 9476 05 3834383419003400 |
| 0:34:01.543697 | LOG | PULL_DATA: 02 8597 02 3834383419003400 |
| 0:34:01.545698 | LOG | PULL_ACK: 02 8597 04 |
| 0:34:02.131936 | LOG | PUSH_ACK: 02 315b 01 |
| 0:34:02.133934 | LOG | PUSH_DATA: Protocol version = 02, Token = 315b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3969361376, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC9gIHAwHCtQzwRRs='}]} |
| 0:34:02.135934 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 02f6, FOpts: 0703), FPort: 01, FRMPayload: 0055, MIC: 0cf0451b) |
| 0:34:02.136933 | LOG | Server <---------- DUT |
| 0:34:02.138932 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:34:02.139931 | LOG | Command Answer: 0703 |
| 0:34:02.145928 | LOG | MAC command communication completed |
| 0:34:02.150925 | LOG | Send NewChannelReq process starts |
| 0:34:07.171085 | LOG | PUSH_ACK: 02 315c 01 |
| 0:34:07.177082 | LOG | PUSH_DATA: Protocol version = 02, Token = 315c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3974359200, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA9wIBHhSvU3hM'}]} |
| 0:34:07.180080 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02f7, FOpts: ), FPort: 01, FRMPayload: 0055, MIC: af53784c) |
| 0:34:07.183080 | LOG | Server <---------- DUT |

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| 0:34:07.188075 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0190, FOpts: ), FPort: 00, FRMPayload: 070428768477), MIC: 43f370bd) |
| 0:34:07.193072 | LOG | PULL_RESP: Protocol version = 02, Token = ef16, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3976359200, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAkAEAoQJwRS+UQ/NwvQ=='}} |
| 0:34:07.197071 | LOG | Server ----------> DUT |
| 0:34:07.202068 | LOG | TX_ACK: 02 ef16 05 3834383419003400 |
| 0:34:11.603367 | LOG | PULL_DATA: 02 2dad 02 3834383419003400 |
| 0:34:11.605366 | LOG | PULL_ACK: 02 2dad 04 |
| 0:34:12.140142 | LOG | PUSH_ACK: 02 315d 01 |
| 0:34:12.141141 | LOG | PUSH_DATA: Protocol version = 02, Token = 315d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3979367281, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCC+AIHAwF0hEowg5k='}]} |
| 0:34:12.143140 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 02f8, FOpts: 0703), FPort: 01, FRMPayload: 0055, MIC: 4a308399) |
| 0:34:12.145139 | LOG | Server <---------- DUT |
| 0:34:12.146138 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:34:12.148138 | LOG | Command Answer: 0703 |
| 0:34:12.153137 | LOG | MAC command communication completed |
| 0:34:12.160131 | LOG | Send LinkADRReq process starts |
| 0:34:17.139364 | LOG | PUSH_ACK: 02 315f 01 |
| 0:34:17.142364 | LOG | PUSH_DATA: Protocol version = 02, Token = 315f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3984365113, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA+QIB52Np/Yjo'}]} |
| 0:34:17.143361 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02f9, FOpts: ), FPort: 01, FRMPayload: 0055, MIC: 69fd88e8) |
| 0:34:17.145361 | LOG | Server <---------- DUT |
| 0:34:17.147360 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0191, FOpts: ), FPort: 00, FRMPayload: 0371180001), MIC: f6ca0ea0) |
| 0:34:17.150359 | LOG | PULL_RESP: Protocol version = 02, Token = 0d93, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3986365113, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAkQEAo3sy7WT2yg6g'}} |
| 0:34:17.151331 | LOG | Server ----------> DUT |
| 0:34:17.155354 | LOG | TX_ACK: 02 0d93 05 3834383419003400 |
| 0:34:21.774149 | LOG | PULL_DATA: 02 5e6b 02 3834383419003400 |
| 0:34:21.777147 | LOG | PULL_ACK: 02 5e6b 04 |
| 0:34:22.093968 | LOG | PUSH_ACK: 02 3160 01 |
| 0:34:22.096966 | LOG | PUSH_DATA: Protocol version = 02, Token = 3160, Identifier = 00, JSON = {'rxpk': [{'tmst': 3989327125, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCC+gIDBwFS40WGrxo='}]} |
| 0:34:22.097966 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 02fa, FOpts: 0307), FPort: 01, FRMPayload: 0055, MIC: 4586af1a) |
| 0:34:22.099965 | LOG | Server <---------- DUT |
| 0:34:22.101963 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:34:22.102963 | LOG | Command Answer: 0307 |
| 0:34:22.110958 | LOG | MAC command communication completed |
| 0:34:22.113957 | LOG | Check previous uplink data rate process starts |
| 0:34:22.118954 | LOG | Uplink received with expected Data Rate |
| 0:34:22.122952 | LOG | Sending an EchoPayloadReq CP command to restart the ADRACKCnt in DUT |
| 0:34:22.126949 | LOG | Send Test Command EchoPayloadReq process starts |

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| 0:34:27.134539 | LOG | PUSH_ACK: 02 3161 01 |
| 0:34:27.136537 | LOG | PUSH_DATA: Protocol version = 02, Token = 3161, Identifier = 00, JSON = {'rxpk': [{'tmst': 3994329747, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA+wIBMAuBQODR'}]} |
| 0:34:27.138535 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02fb, FOpts: ), FPort: 01, FRMPayload: 0055, MIC: 8140e0d1) |
| 0:34:27.139535 | LOG | Server <---------- DUT |
| 0:34:27.141533 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0192, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: 2c9f2a88) |
| 0:34:27.144533 | LOG | Frame command sent to the DUT |
| 0:34:27.146532 | LOG | PULL_RESP: Protocol version = 02, Token = 860a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3996329747, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAkgHgZAU93iyfKog='}} |
| 0:34:27.147531 | LOG | Server ----------> DUT |
| 0:34:27.151501 | LOG | TX_ACK: 02 860a 05 3834383419003400 |
| 0:34:31.973640 | LOG | PULL_DATA: 02 3e26 02 3834383419003400 |
| 0:34:31.975637 | LOG | PULL_ACK: 02 3e26 04 |
| 0:34:37.135692 | LOG | PUSH_ACK: 02 3162 01 |
| 0:34:37.137717 | LOG | PUSH_DATA: Protocol version = 02, Token = 3162, Identifier = 00, JSON = {'rxpk': [{'tmst': 4004337033, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA/QIBu/U845L/'}]} |
| 0:34:37.139717 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02fd, FOpts: ), FPort: 01, FRMPayload: 0056, MIC: 3ce392ff) |
| 0:34:37.141715 | LOG | Server <---------- DUT |
| 0:34:37.142714 | LOG | Packet received from unexpected FPort 01 |
| 0:34:42.053834 | LOG | PULL_DATA: 02 d007 02 3834383419003400 |
| 0:34:42.055835 | LOG | PULL_ACK: 02 d007 04 |
| 0:34:42.123795 | LOG | PUSH_ACK: 02 3163 01 |
| 0:34:42.125794 | LOG | PUSH_DATA: Protocol version = 02, Token = 3163, Identifier = 00, JSON = {'rxpk': [{'tmst': 4009339961, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA/gIBKixgAae4'}]} |
| 0:34:42.127793 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02fe, FOpts: ), FPort: 01, FRMPayload: 0056, MIC: 6001a7b8) |
| 0:34:42.129792 | LOG | Server <---------- DUT |
| 0:34:42.130791 | LOG | Resend the Frame command. May the DUT did not listen |
| 0:34:42.132790 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0193, FOpts: ), FPort: e0, FRMPayload: 080a0b0c), MIC: f07cd2f9) |
| 0:34:42.135789 | LOG | Frame command sent to the DUT |
| 0:34:42.137788 | LOG | PULL_RESP: Protocol version = 02, Token = 640b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4011339961, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAkwHgn+p9SfB80vk='}} |
| 0:34:42.138787 | LOG | Server ----------> DUT |
| 0:34:42.141785 | LOG | TX_ACK: 02 640b 05 3834383419003400 |
| 0:34:47.110274 | LOG | PUSH_ACK: 02 3165 01 |
| 0:34:47.112273 | LOG | PUSH_DATA: Protocol version = 02, Token = 3165, Identifier = 00, JSON = {'rxpk': [{'tmst': 4014346627, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 17, 'data': 'QCAgICCA/wLgJRd1cB/zBC0='}]} |
| 0:34:47.114272 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 02ff, FOpts: ), FPort: e0, FRMPayload: 080b0c0d, MIC: 1ff3042d) |
| 0:34:47.115271 | LOG | Server <---------- DUT |
| 0:34:47.117270 | LOG | Answer in payload: 0b0c0d |
| 0:34:47.119270 | LOG | Frame Command Payload in the Answer: 080b0c0d |
| 0:34:47.125266 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:34:47.129263 | LOG | Send Test Command EchoPayloadReq process completed |

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| 0:34:47.134261 | LOG | Test adaptive data rate control in frame header process starts |
| 0:34:52.150421 | LOG | PUSH_ACK: 02 3166 01 |
| 0:34:52.155419 | LOG | PUSH_DATA: Protocol version = 02, Token = 3166, Identifier = 00, JSON = {'rxpk': [{'tmst': 4019345866, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAAMBznzzaW6S'}]} |
| 0:34:52.157417 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0300, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: f3696e92) |
| 0:34:52.158417 | LOG | Server <---------- DUT |
| 0:34:52.160415 | LOG | Count = 2 |
| 0:34:52.223380 | LOG | PULL_DATA: 02 707b 02 3834383419003400 |
| 0:34:52.225378 | LOG | PULL_ACK: 02 707b 04 |
| 0:34:57.141884 | LOG | PUSH_ACK: 02 3167 01 |
| 0:34:57.143882 | LOG | PUSH_DATA: Protocol version = 02, Token = 3167, Identifier = 00, JSON = {'rxpk': [{'tmst': 4024350174, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAQMB8rwOphZq'}]} |
| 0:34:57.144884 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0301, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0ea6166a) |
| 0:34:57.146882 | LOG | Server <---------- DUT |
| 0:34:57.147881 | LOG | Count = 3 |
| 0:35:02.130224 | LOG | PUSH_ACK: 02 3168 01 |
| 0:35:02.132223 | LOG | PUSH_DATA: Protocol version = 02, Token = 3168, Identifier = 00, JSON = {'rxpk': [{'tmst': 4029354472, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAgMBMMGdxYMu'}]} |
| 0:35:02.134220 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0302, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 9dc5832e) |
| 0:35:02.135220 | LOG | Server <---------- DUT |
| 0:35:02.136219 | LOG | Count = 4 |
| 0:35:02.304216 | LOG | PULL_DATA: 02 c45c 02 3834383419003400 |
| 0:35:02.306215 | LOG | PULL_ACK: 02 c45c 04 |
| 0:35:07.119139 | LOG | PUSH_ACK: 02 316a 01 |
| 0:35:07.121137 | LOG | PUSH_DATA: Protocol version = 02, Token = 316a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4034357425, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAwMBjLPhJOQa'}]} |
| 0:35:07.123136 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0303, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e124e41a) |
| 0:35:07.125135 | LOG | Server <---------- DUT |
| 0:35:07.126134 | LOG | Count = 5 |
| 0:35:12.159728 | LOG | PUSH_ACK: 02 316b 01 |
| 0:35:12.161725 | LOG | PUSH_DATA: Protocol version = 02, Token = 316b, Identifier = 00, JSON = {'rxpk': [{'tmst': 4039360373, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABAMB0WNfdVHE'}]} |
| 0:35:12.163725 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0304, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 5f7551c4) |
| 0:35:12.164724 | LOG | Server <---------- DUT |
| 0:35:12.166723 | LOG | Count = 6 |
| 0:35:12.383904 | LOG | PULL_DATA: 02 9758 02 3834383419003400 |
| 0:35:12.385905 | LOG | PULL_ACK: 02 9758 04 |
| 0:35:17.160189 | LOG | PUSH_ACK: 02 316d 01 |
| 0:35:17.162159 | LOG | PUSH_DATA: Protocol version = 02, Token = 316d, Identifier = 00, JSON = {'rxpk': [{'tmst': 4044363300, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICCABQMBP59eKkxL'}]} |
| 0:35:17.163187 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0305, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 5e2a4c4b) |
| 0:35:17.165185 | LOG | Server <---------- DUT |
| 0:35:17.167184 | LOG | Count = 7 |
| 0:35:22.147528 | LOG | PUSH_ACK: 02 316e 01 |

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| 0:35:22.149525 | LOG | PUSH_DATA: Protocol version = 02, Token = 316e, Identifier = 00, JSON = {'rxpk': [{'tmst': 4049366267, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABgMBYgS6CCjL'}]} |
| 0:35:22.151524 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0306, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ba0828cb) |
| 0:35:22.152525 | LOG | Server <---------- DUT |
| 0:35:22.154522 | LOG | Count = 8 |
| 0:35:22.463318 | LOG | PULL_DATA: 02 ddcc 02 3834383419003400 |
| 0:35:22.467315 | LOG | PULL_ACK: 02 ddcc 04 |
| 0:35:27.135914 | LOG | PUSH_ACK: 02 316f 01 |
| 0:35:27.137913 | LOG | PUSH_DATA: Protocol version = 02, Token = 316f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4054369219, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABwMBegfotpAt'}]} |
| 0:35:27.139912 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0307, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e8b6902d) |
| 0:35:27.140912 | LOG | Server <---------- DUT |
| 0:35:27.141912 | LOG | Count = 9 |
| 0:35:32.176310 | LOG | PUSH_ACK: 02 3170 01 |
| 0:35:32.178309 | LOG | PUSH_DATA: Protocol version = 02, Token = 3170, Identifier = 00, JSON = {'rxpk': [{'tmst': 4059373546, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCACAMB+pKWv6rr'}]} |
| 0:35:32.180308 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0308, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 96bfaaeb) |
| 0:35:32.181308 | LOG | Server <---------- DUT |
| 0:35:32.182307 | LOG | Count = 10 |
| 0:35:32.544103 | LOG | PULL_DATA: 02 d3e5 02 3834383419003400 |
| 0:35:32.545131 | LOG | PULL_ACK: 02 d3e5 04 |
| 0:35:37.165505 | LOG | PUSH_ACK: 02 3171 01 |
| 0:35:37.167487 | LOG | PUSH_DATA: Protocol version = 02, Token = 3171, Identifier = 00, JSON = {'rxpk': [{'tmst': 4064376491, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCACQMB1+U0SKe/'}]} |
| 0:35:37.168487 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0309, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 3448a7bf) |
| 0:35:37.170487 | LOG | Server <---------- DUT |
| 0:35:37.171486 | LOG | Count = 11 |
| 0:35:42.153781 | LOG | PUSH_ACK: 02 3172 01 |
| 0:35:42.155781 | LOG | PUSH_DATA: Protocol version = 02, Token = 3172, Identifier = 00, JSON = {'rxpk': [{'tmst': 4069379455, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCACgMB1gqDl453'}]} |
| 0:35:42.157779 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 030a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 83978e77) |
| 0:35:42.158779 | LOG | Server <---------- DUT |
| 0:35:42.160777 | LOG | Count = 12 |
| 0:35:42.623516 | LOG | PULL_DATA: 02 7b33 02 3834383419003400 |
| 0:35:42.625515 | LOG | PULL_ACK: 02 7b33 04 |
| 0:35:47.159968 | LOG | PUSH_ACK: 02 3174 01 |
| 0:35:47.161948 | LOG | PUSH_DATA: Protocol version = 02, Token = 3174, Identifier = 00, JSON = {'rxpk': [{'tmst': 4074382401, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCACwMBXQVProgw'}]} |
| 0:35:47.163947 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 030b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 4fae8830) |
| 0:35:47.164947 | LOG | Server <---------- DUT |
| 0:35:47.166945 | LOG | Count = 13 |
| 0:35:52.147977 | LOG | PUSH_ACK: 02 3175 01 |

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| 0:35:52.149976 | LOG | PUSH_DATA: Protocol version = 02, Token = 3175, Identifier = 00, JSON = {'rxpk': [{'tmst': 4079385355, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCADAMBZGAcOF8L'}]} |
| 0:35:52.151975 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 030c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 1c385f0b) |
| 0:35:52.152974 | LOG | Server <---------- DUT |
| 0:35:52.154973 | LOG | Count = 14 |
| 0:35:52.703404 | LOG | PULL_DATA: 02 befa 02 3834383419003400 |
| 0:35:52.708401 | LOG | PULL_ACK: 02 befa 04 |
| 0:35:57.187867 | LOG | PUSH_ACK: 02 3176 01 |
| 0:35:57.190864 | LOG | PUSH_DATA: Protocol version = 02, Token = 3176, Identifier = 00, JSON = {'rxpk': [{'tmst': 4084388316, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCADQMBCSHGYe+O'}]} |
| 0:35:57.191863 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 030d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: c661ef8e) |
| 0:35:57.193863 | LOG | Server <---------- DUT |
| 0:35:57.195861 | LOG | Count = 15 |
| 0:36:02.177355 | LOG | PUSH_ACK: 02 3177 01 |
| 0:36:02.179354 | LOG | PUSH_DATA: Protocol version = 02, Token = 3177, Identifier = 00, JSON = {'rxpk': [{'tmst': 4089392648, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCADgMBTbZUeMmR'}]} |
| 0:36:02.180355 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 030e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 5478c991) |
| 0:36:02.182352 | LOG | Server <---------- DUT |
| 0:36:02.184351 | LOG | Count = 16 |
| 0:36:02.784005 | LOG | PULL_DATA: 02 96c1 02 3834383419003400 |
| 0:36:02.786004 | LOG | PULL_ACK: 02 96c1 04 |
| 0:36:07.165526 | LOG | PUSH_ACK: 02 3178 01 |
| 0:36:07.168525 | LOG | PUSH_DATA: Protocol version = 02, Token = 3178, Identifier = 00, JSON = {'rxpk': [{'tmst': 4094396968, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCADwMBHrBRTEjy'}]} |
| 0:36:07.170524 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 030f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 514c48f2) |
| 0:36:07.172523 | LOG | Server <---------- DUT |
| 0:36:07.173522 | LOG | Count = 17 |
| 0:36:12.205590 | LOG | PUSH_ACK: 02 3179 01 |
| 0:36:12.207589 | LOG | PUSH_DATA: Protocol version = 02, Token = 3179, Identifier = 00, JSON = {'rxpk': [{'tmst': 4099399940, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAEAMBROR0hw5F'}]} |
| 0:36:12.209588 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0310, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 74870e45) |
| 0:36:12.210587 | LOG | Server <---------- DUT |
| 0:36:12.212586 | LOG | Count = 18 |
| 0:36:12.863413 | LOG | PULL_DATA: 02 1f50 02 3834383419003400 |
| 0:36:12.865394 | LOG | PULL_ACK: 02 1f50 04 |
| 0:36:17.210936 | LOG | PUSH_ACK: 02 317b 01 |
| 0:36:17.213935 | LOG | PUSH_DATA: Protocol version = 02, Token = 317b, Identifier = 00, JSON = {'rxpk': [{'tmst': 4104402901, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAEQMBAIYPn5Ls'}]} |
| 0:36:17.215934 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0311, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0f9f92ec) |
| 0:36:17.216934 | LOG | Server <---------- DUT |
| 0:36:17.218932 | LOG | Count = 19 |
| 0:36:22.200074 | LOG | PUSH_ACK: 02 317c 01 |

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| 0:36:22.202072 | LOG | PUSH_DATA: Protocol version = 02, Token = 317c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4109405848, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAEgMBRpZCqCpE'}]} |
| 0:36:22.204071 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0312, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 42a82a44) |
| 0:36:22.206069 | LOG | Server <---------- DUT |
| 0:36:22.208069 | LOG | Count = 20 |
| 0:36:22.953777 | LOG | PULL_DATA: 02 db87 02 3834383419003400 |
| 0:36:22.957776 | LOG | PULL_ACK: 02 db87 04 |
| 0:36:27.190382 | LOG | PUSH_ACK: 02 317e 01 |
| 0:36:27.192380 | LOG | PUSH_DATA: Protocol version = 02, Token = 317e, Identifier = 00, JSON = {'rxpk': [{'tmst': 4114408789, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAEwMBo43M2c3E'}]} |
| 0:36:27.194379 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0313, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ccd9cdc4) |
| 0:36:27.195378 | LOG | Server <---------- DUT |
| 0:36:27.196377 | LOG | Count = 21 |
| 0:36:32.178560 | LOG | PUSH_ACK: 02 317f 01 |
| 0:36:32.181561 | LOG | PUSH_DATA: Protocol version = 02, Token = 317f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4119413122, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAFAMBEw0ArEAC'}]} |
| 0:36:32.182557 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0314, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 00ac4002) |
| 0:36:32.184556 | LOG | Server <---------- DUT |
| 0:36:32.186557 | LOG | Count = 22 |
| 0:36:33.033076 | LOG | PULL_DATA: 02 ee61 02 3834383419003400 |
| 0:36:33.035074 | LOG | PULL_ACK: 02 ee61 04 |
| 0:36:37.218707 | LOG | PUSH_ACK: 02 3180 01 |
| 0:36:37.220707 | LOG | PUSH_DATA: Protocol version = 02, Token = 3180, Identifier = 00, JSON = {'rxpk': [{'tmst': 4124417442, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAFQMBabTKNLt4'}]} |
| 0:36:37.222707 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0315, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ca34bb78) |
| 0:36:37.223723 | LOG | Server <---------- DUT |
| 0:36:37.225704 | LOG | Count = 23 |
| 0:36:42.206888 | LOG | PUSH_ACK: 02 3181 01 |
| 0:36:42.208887 | LOG | PUSH_DATA: Protocol version = 02, Token = 3181, Identifier = 00, JSON = {'rxpk': [{'tmst': 4129420400, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAFgMBEsYALDXj'}]} |
| 0:36:42.210886 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0316, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 002c35e3) |
| 0:36:42.211886 | LOG | Server <---------- DUT |
| 0:36:42.213884 | LOG | Count = 24 |
| 0:36:43.113470 | LOG | PULL_DATA: 02 1f1b 02 3834383419003400 |
| 0:36:43.115471 | LOG | PULL_ACK: 02 1f1b 04 |
| 0:36:47.210154 | LOG | PUSH_ACK: 02 3183 01 |
| 0:36:47.212152 | LOG | PUSH_DATA: Protocol version = 02, Token = 3183, Identifier = 00, JSON = {'rxpk': [{'tmst': 4134423358, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAFwMBc2HABWXa'}]} |
| 0:36:47.214151 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0317, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: c00565da) |
| 0:36:47.215150 | LOG | Server <---------- DUT |
| 0:36:47.217149 | LOG | Count = 25 |
| 0:36:52.198329 | LOG | PUSH_ACK: 02 3184 01 |

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| 0:36:52.200329 | LOG | PUSH_DATA: Protocol version = 02, Token = 3184, Identifier = 00, JSON = {'rxpk': [{'tmst': 4139426314, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAGAMB3FVxu294'}]} |
| 0:36:52.201328 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0318, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 71bb6f78) |
| 0:36:52.203326 | LOG | Server <---------- DUT |
| 0:36:52.205326 | LOG | Count = 26 |
| 0:36:53.193211 | LOG | PULL_DATA: 02 0e7d 02 3834383419003400 |
| 0:36:53.197211 | LOG | PULL_ACK: 02 0e7d 04 |
| 0:36:57.236923 | LOG | PUSH_ACK: 02 3185 01 |
| 0:36:57.238922 | LOG | PUSH_DATA: Protocol version = 02, Token = 3185, Identifier = 00, JSON = {'rxpk': [{'tmst': 4144429268, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAGQMBwppasei9'}]} |
| 0:36:57.240923 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0319, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 5ab1e8bd) |
| 0:36:57.241921 | LOG | Server <---------- DUT |
| 0:36:57.243921 | LOG | Count = 27 |
| 0:37:02.226050 | LOG | PUSH_ACK: 02 3186 01 |
| 0:37:02.228031 | LOG | PUSH_DATA: Protocol version = 02, Token = 3186, Identifier = 00, JSON = {'rxpk': [{'tmst': 4149432216, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAGgMBgAf387GZ'}]} |
| 0:37:02.229032 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 031a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: f7f3b199) |
| 0:37:02.231030 | LOG | Server <---------- DUT |
| 0:37:02.232029 | LOG | Count = 28 |
| 0:37:03.274127 | LOG | PULL_DATA: 02 864d 02 3834383419003400 |
| 0:37:03.275126 | LOG | PULL_ACK: 02 864d 04 |
| 0:37:07.213898 | LOG | PUSH_ACK: 02 3187 01 |
| 0:37:07.215897 | LOG | PUSH_DATA: Protocol version = 02, Token = 3187, Identifier = 00, JSON = {'rxpk': [{'tmst': 4154436561, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAGwMBRfaAPl7j'}]} |
| 0:37:07.217896 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 031b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 803e5ee3) |
| 0:37:07.218896 | LOG | Server <---------- DUT |
| 0:37:07.220895 | LOG | Count = 29 |
| 0:37:12.202868 | LOG | PUSH_ACK: 02 3188 01 |
| 0:37:12.204867 | LOG | PUSH_DATA: Protocol version = 02, Token = 3188, Identifier = 00, JSON = {'rxpk': [{'tmst': 4159439504, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAHAMB0VGD3fAR'}]} |
| 0:37:12.206865 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 031c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 83ddf011) |
| 0:37:12.208865 | LOG | Server <---------- DUT |
| 0:37:12.209864 | LOG | Count = 30 |
| 0:37:13.353974 | LOG | PULL_DATA: 02 a457 02 3834383419003400 |
| 0:37:13.354973 | LOG | PULL_ACK: 02 a457 04 |
| 0:37:17.253611 | LOG | PUSH_ACK: 02 318a 01 |
| 0:37:17.255622 | LOG | PUSH_DATA: Protocol version = 02, Token = 318a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4164442458, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAHQMBfgfljD04'}]} |
| 0:37:17.257620 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 031d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e58c3d38) |
| 0:37:17.259620 | LOG | Server <---------- DUT |
| 0:37:17.261619 | LOG | Count = 31 |
| 0:37:22.242125 | LOG | PUSH_ACK: 02 318b 01 |

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| 0:37:22.244124 | LOG | PUSH_DATA: Protocol version = 02, Token = 318b, Identifier = 00, JSON = {'rxpk': [{'tmst': 4169445415, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAHgMBwAPoxZXX'}]} |
| 0:37:22.245122 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 031e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e8c595d7) |
| 0:37:22.247120 | LOG | Server <---------- DUT |
| 0:37:22.248120 | LOG | Count = 32 |
| 0:37:23.432940 | LOG | PULL_DATA: 02 5414 02 3834383419003400 |
| 0:37:23.442935 | LOG | PULL_ACK: 02 5414 04 |
| 0:37:27.230792 | LOG | PUSH_ACK: 02 318c 01 |
| 0:37:27.232791 | LOG | PUSH_DATA: Protocol version = 02, Token = 318c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4174448380, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAHwMBOIjH3Qq8'}]} |
| 0:37:27.233790 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 031f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: c7dd0abc) |
| 0:37:27.235791 | LOG | Server <---------- DUT |
| 0:37:27.236789 | LOG | Count = 33 |
| 0:37:32.218628 | LOG | PUSH_ACK: 02 318d 01 |
| 0:37:32.220626 | LOG | PUSH_DATA: Protocol version = 02, Token = 318d, Identifier = 00, JSON = {'rxpk': [{'tmst': 4179451325, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAIAMBk0OZfUdE'}]} |
| 0:37:32.222625 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0320, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 997d4744) |
| 0:37:32.224624 | LOG | Server <---------- DUT |
| 0:37:32.226623 | LOG | Count = 34 |
| 0:37:33.523148 | LOG | PULL_DATA: 02 d218 02 3834383419003400 |
| 0:37:33.525128 | LOG | PULL_ACK: 02 d218 04 |
| 0:37:37.258016 | LOG | PUSH_ACK: 02 318e 01 |
| 0:37:37.260016 | LOG | PUSH_DATA: Protocol version = 02, Token = 318e, Identifier = 00, JSON = {'rxpk': [{'tmst': 4184455654, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAIQMBStNoJwbj'}]} |
| 0:37:37.262014 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0321, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 682706e3) |
| 0:37:37.263013 | LOG | Server <---------- DUT |
| 0:37:37.265012 | LOG | Count = 35 |
| 0:37:42.245564 | LOG | PUSH_ACK: 02 318f 01 |
| 0:37:42.248562 | LOG | PUSH_DATA: Protocol version = 02, Token = 318f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4189458603, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAIgMBofUIRQj5'}]} |
| 0:37:42.250561 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0322, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 084508f9) |
| 0:37:42.251560 | LOG | Server <---------- DUT |
| 0:37:42.253559 | LOG | Count = 36 |
| 0:37:43.603256 | LOG | PULL_DATA: 02 7069 02 3834383419003400 |
| 0:37:43.605251 | LOG | PULL_ACK: 02 7069 04 |
| 0:37:47.250217 | LOG | PUSH_ACK: 02 3191 01 |
| 0:37:47.252217 | LOG | PUSH_DATA: Protocol version = 02, Token = 3191, Identifier = 00, JSON = {'rxpk': [{'tmst': 4194461563, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAIwMB8MbNBI0h'}]} |
| 0:37:47.254188 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0323, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: cd048d21) |
| 0:37:47.255214 | LOG | Server <---------- DUT |
| 0:37:47.257186 | LOG | Count = 37 |
| 0:37:52.238204 | LOG | PUSH_ACK: 02 3192 01 |

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| 0:37:52.240203 | LOG | PUSH_DATA: Protocol version = 02, Token = 3192, Identifier = 00, JSON = {'rxpk': [{'tmst': 4199464503, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAJAMBi/sv1Dk7'}]} |
| 0:37:52.242202 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0324, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 2fd4393b) |
| 0:37:52.243202 | LOG | Server <---------- DUT |
| 0:37:52.244201 | LOG | Count = 38 |
| 0:37:53.683386 | LOG | PULL_DATA: 02 714e 02 3834383419003400 |
| 0:37:53.688384 | LOG | PULL_ACK: 02 714e 04 |
| 0:37:57.227829 | LOG | PUSH_ACK: 02 3193 01 |
| 0:37:57.229828 | LOG | PUSH_DATA: Protocol version = 02, Token = 3193, Identifier = 00, JSON = {'rxpk': [{'tmst': 4204467467, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAJQMBn8yJXevR'}]} |
| 0:37:57.231827 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0325, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 895debd1) |
| 0:37:57.232826 | LOG | Server <---------- DUT |
| 0:37:57.234825 | LOG | Count = 39 |
| 0:38:02.267978 | LOG | PUSH_ACK: 02 3194 01 |
| 0:38:02.269976 | LOG | PUSH_DATA: Protocol version = 02, Token = 3194, Identifier = 00, JSON = {'rxpk': [{'tmst': 4209470414, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAJgMBEOKy5LY0'}]} |
| 0:38:02.271975 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0326, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: b2e4b634) |
| 0:38:02.272975 | LOG | Server <---------- DUT |
| 0:38:02.274974 | LOG | Count = 40 |
| 0:38:03.773160 | LOG | PULL_DATA: 02 3544 02 3834383419003400 |
| 0:38:03.775158 | LOG | PULL_ACK: 02 3544 04 |
| 0:38:07.257069 | LOG | PUSH_ACK: 02 3195 01 |
| 0:38:07.259067 | LOG | PUSH_DATA: Protocol version = 02, Token = 3195, Identifier = 00, JSON = {'rxpk': [{'tmst': 4214474735, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAJwMBXqwaynPi'}]} |
| 0:38:07.260067 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0327, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 1aca73e2) |
| 0:38:07.262065 | LOG | Server <---------- DUT |
| 0:38:07.263065 | LOG | Count = 41 |
| 0:38:12.245407 | LOG | PUSH_ACK: 02 3196 01 |
| 0:38:12.247406 | LOG | PUSH_DATA: Protocol version = 02, Token = 3196, Identifier = 00, JSON = {'rxpk': [{'tmst': 4219479071, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAKAMBVBrnKvci'}]} |
| 0:38:12.249405 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0328, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e72af722) |
| 0:38:12.251403 | LOG | Server <---------- DUT |
| 0:38:12.252403 | LOG | Count = 42 |
| 0:38:13.852925 | LOG | PULL_DATA: 02 33b0 02 3834383419003400 |
| 0:38:13.854925 | LOG | PULL_ACK: 02 33b0 04 |
| 0:38:17.253002 | LOG | PUSH_ACK: 02 3199 01 |
| 0:38:17.255002 | LOG | PUSH_DATA: Protocol version = 02, Token = 3199, Identifier = 00, JSON = {'rxpk': [{'tmst': 4224482038, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAKQMBQgKE3yU8'}]} |
| 0:38:17.257000 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0329, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 84df253c) |
| 0:38:17.257999 | LOG | Server <---------- DUT |
| 0:38:17.259998 | LOG | Count = 43 |
| 0:38:22.296148 | LOG | PUSH_ACK: 02 319b 01 |

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| 0:38:22.298146 | LOG | PUSH_DATA: Protocol version = 02, Token = 319b, Identifier = 00, JSON = {'rxpk': [{'tmst': 4229484981, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAKgMBY7MJyyNF'}]} |
| 0:38:22.299146 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 032a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 09cb2345) |
| 0:38:22.301144 | LOG | Server <---------- DUT |
| 0:38:22.303145 | LOG | Count = 44 |
| 0:38:23.933796 | LOG | PULL_DATA: 02 78f2 02 3834383419003400 |
| 0:38:23.937824 | LOG | PULL_ACK: 02 78f2 04 |
| 0:38:27.283900 | LOG | PUSH_ACK: 02 319c 01 |
| 0:38:27.286898 | LOG | PUSH_DATA: Protocol version = 02, Token = 319c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4234487932, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAKwMBFDus3gOp'}]} |
| 0:38:27.287898 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 032b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: acde03a9) |
| 0:38:27.289896 | LOG | Server <---------- DUT |
| 0:38:27.290895 | LOG | Count = 45 |
| 0:38:32.273077 | LOG | PUSH_ACK: 02 319d 01 |
| 0:38:32.275076 | LOG | PUSH_DATA: Protocol version = 02, Token = 319d, Identifier = 00, JSON = {'rxpk': [{'tmst': 4239490886, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCALAMBdERKM5Vz'}]} |
| 0:38:32.277074 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 032c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 4a339573) |
| 0:38:32.279074 | LOG | Server <---------- DUT |
| 0:38:32.281072 | LOG | Count = 46 |
| 0:38:34.013619 | LOG | PULL_DATA: 02 ab0e 02 3834383419003400 |
| 0:38:34.015618 | LOG | PULL_ACK: 02 ab0e 04 |
| 0:38:37.261812 | LOG | PUSH_ACK: 02 319e 01 |
| 0:38:37.263810 | LOG | PUSH_DATA: Protocol version = 02, Token = 319e, Identifier = 00, JSON = {'rxpk': [{'tmst': 4244493823, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCALQMBuvGFb1h/'}]} |
| 0:38:37.265778 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 032d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 856f587f) |
| 0:38:37.267777 | LOG | Server <---------- DUT |
| 0:38:37.268795 | LOG | Count = 47 |
| 0:38:42.301669 | LOG | PUSH_ACK: 02 319f 01 |
| 0:38:42.303669 | LOG | PUSH_DATA: Protocol version = 02, Token = 319f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4249498149, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCALgMBE4anUO5u'}]} |
| 0:38:42.305669 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 032e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: a750ee6e) |
| 0:38:42.306667 | LOG | Server <---------- DUT |
| 0:38:42.307684 | LOG | Count = 48 |
| 0:38:44.092944 | LOG | PULL_DATA: 02 b3ca 02 3834383419003400 |
| 0:38:44.094925 | LOG | PULL_ACK: 02 b3ca 04 |
| 0:38:47.302548 | LOG | PUSH_ACK: 02 31a1 01 |
| 0:38:47.304549 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a1, Identifier = 00, JSON = {'rxpk': [{'tmst': 4254501097, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCALwMBCxIIaiQo'}]} |
| 0:38:47.306546 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 032f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 086a2428) |
| 0:38:47.307545 | LOG | Server <---------- DUT |
| 0:38:47.308545 | LOG | Count = 49 |
| 0:38:52.290934 | LOG | PUSH_ACK: 02 31a2 01 |

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| 0:38:52.293933 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a2, Identifier = 00, JSON = {'rxpk': [{'tmst': 4259504052, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAMAMBpg0KQEiC'}]} |
| 0:38:52.294932 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0330, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0a404882) |
| 0:38:52.296931 | LOG | Server <---------- DUT |
| 0:38:52.297931 | LOG | Count = 50 |
| 0:38:54.172901 | LOG | PULL_DATA: 02 5e8e 02 3834383419003400 |
| 0:38:54.177899 | LOG | PULL_ACK: 02 5e8e 04 |
| 0:38:57.280144 | LOG | PUSH_ACK: 02 31a3 01 |
| 0:38:57.282143 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a3, Identifier = 00, JSON = {'rxpk': [{'tmst': 4264506990, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAMQMBOF1BIx6c'}]} |
| 0:38:57.284141 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0331, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 41231e9c) |
| 0:38:57.285142 | LOG | Server <---------- DUT |
| 0:38:57.287139 | LOG | Count = 51 |
| 0:39:02.320378 | LOG | PUSH_ACK: 02 31a4 01 |
| 0:39:02.322377 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a4, Identifier = 00, JSON = {'rxpk': [{'tmst': 4269509957, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAMgMBpm6n8kTS'}]} |
| 0:39:02.324376 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0332, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: a7f244d2) |
| 0:39:02.326375 | LOG | Server <---------- DUT |
| 0:39:02.328373 | LOG | Count = 52 |
| 0:39:04.253272 | LOG | PULL_DATA: 02 514c 02 3834383419003400 |
| 0:39:04.255271 | LOG | PULL_ACK: 02 514c 04 |
| 0:39:07.308544 | LOG | PUSH_ACK: 02 31a5 01 |
| 0:39:07.310543 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a5, Identifier = 00, JSON = {'rxpk': [{'tmst': 4274512904, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAMwMBnrItkjdU'}]} |
| 0:39:07.312541 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0333, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 2d923754) |
| 0:39:07.313541 | LOG | Server <---------- DUT |
| 0:39:07.315540 | LOG | Count = 53 |
| 0:39:12.296766 | LOG | PUSH_ACK: 02 31a6 01 |
| 0:39:12.299765 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a6, Identifier = 00, JSON = {'rxpk': [{'tmst': 4279517231, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCANAMBkhK+TB+d'}]} |
| 0:39:12.300764 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0334, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: be4c1f9d) |
| 0:39:12.302763 | LOG | Server <---------- DUT |
| 0:39:12.304762 | LOG | Count = 54 |
| 0:39:14.332615 | LOG | PULL_DATA: 02 ef70 02 3834383419003400 |
| 0:39:14.334613 | LOG | PULL_ACK: 02 ef70 04 |
| 0:39:17.300934 | LOG | PUSH_ACK: 02 31a8 01 |
| 0:39:17.303933 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a8, Identifier = 00, JSON = {'rxpk': [{'tmst': 4284520171, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCANQMBjHAErsoE'}]} |
| 0:39:17.304935 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0335, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 04aeca04) |
| 0:39:17.306933 | LOG | Server <---------- DUT |
| 0:39:17.307931 | LOG | Count = 55 |
| 0:39:22.289794 | LOG | PUSH_ACK: 02 31a9 01 |

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| 0:39:22.291792 | LOG | PUSH_DATA: Protocol version = 02, Token = 31a9, Identifier = 00, JSON = {'rxpk': [{'tmst': 4289523121, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCANgMBhnNjUM0Q'}]} |
| 0:39:22.293791 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0336, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6350cd10) |
| 0:39:22.294791 | LOG | Server <---------- DUT |
| 0:39:22.296790 | LOG | Count = 56 |
| 0:39:24.413593 | LOG | PULL_DATA: 02 67fe 02 3834383419003400 |
| 0:39:24.421588 | LOG | PULL_ACK: 02 67fe 04 |
| 0:39:27.329061 | LOG | PUSH_ACK: 02 31aa 01 |
| 0:39:27.331059 | LOG | PUSH_DATA: Protocol version = 02, Token = 31aa, Identifier = 00, JSON = {'rxpk': [{'tmst': 4294526077, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCANwMB3XBxzvai'}]} |
| 0:39:27.333059 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0337, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 71cef6a2) |
| 0:39:27.335057 | LOG | Server <---------- DUT |
| 0:39:27.336057 | LOG | Count = 57 |
| 0:39:32.318240 | LOG | PUSH_ACK: 02 31ab 01 |
| 0:39:32.320236 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ab, Identifier = 00, JSON = {'rxpk': [{'tmst': 4561741, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAOAMBqTCAi6Th'}]} |
| 0:39:32.322237 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0338, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 808ba4e1) |
| 0:39:32.323235 | LOG | Server <---------- DUT |
| 0:39:32.325234 | LOG | Count = 58 |
| 0:39:34.503428 | LOG | PULL_DATA: 02 eeee 02 3834383419003400 |
| 0:39:34.505427 | LOG | PULL_ACK: 02 eeee 04 |
| 0:39:37.306841 | LOG | PUSH_ACK: 02 31ac 01 |
| 0:39:37.308841 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ac, Identifier = 00, JSON = {'rxpk': [{'tmst': 9564687, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAOQMBKFC6orms'}]} |
| 0:39:37.310840 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0339, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: baa2b9ac) |
| 0:39:37.311839 | LOG | Server <---------- DUT |
| 0:39:37.313838 | LOG | Count = 59 |
| 0:39:42.346972 | LOG | PUSH_ACK: 02 31ad 01 |
| 0:39:42.348969 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ad, Identifier = 00, JSON = {'rxpk': [{'tmst': 14569007, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAOgMBQNH+m3rS'}]} |
| 0:39:42.350968 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 033a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: fe9b7ad2) |
| 0:39:42.351969 | LOG | Server <---------- DUT |
| 0:39:42.353966 | LOG | Count = 60 |
| 0:39:44.582594 | LOG | PULL_DATA: 02 4b92 02 3834383419003400 |
| 0:39:44.584593 | LOG | PULL_ACK: 02 4b92 04 |
| 0:39:47.343693 | LOG | PUSH_ACK: 02 31af 01 |
| 0:39:47.345692 | LOG | PUSH_DATA: Protocol version = 02, Token = 31af, Identifier = 00, JSON = {'rxpk': [{'tmst': 19573316, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAOwMBMtRiuAWc'}]} |
| 0:39:47.346691 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 033b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 62b8059c) |
| 0:39:47.348690 | LOG | Server <---------- DUT |
| 0:39:47.349690 | LOG | Count = 61 |
| 0:39:52.331087 | LOG | PUSH_ACK: 02 31b0 01 |

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| 0:39:52.333086 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b0, Identifier = 00, JSON = {'rxpk': [{'tmst': 24576284, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAPAMBg0eB4au4'}]} |
| 0:39:52.335085 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 033c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 81e1abb8) |
| 0:39:52.336085 | LOG | Server <---------- DUT |
| 0:39:52.338083 | LOG | Count = 62 |
| 0:39:54.662767 | LOG | PULL_DATA: 02 459f 02 3834383419003400 |
| 0:39:54.666766 | LOG | PULL_ACK: 02 459f 04 |
| 0:39:57.319265 | LOG | PUSH_ACK: 02 31b1 01 |
| 0:39:57.321264 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b1, Identifier = 00, JSON = {'rxpk': [{'tmst': 29579249, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAPQMBnfkBJycm'}]} |
| 0:39:57.323262 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 033d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 01272726) |
| 0:39:57.324262 | LOG | Server <---------- DUT |
| 0:39:57.326261 | LOG | Count = 63 |
| 0:40:02.358415 | LOG | PUSH_ACK: 02 31b2 01 |
| 0:40:02.361413 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b2, Identifier = 00, JSON = {'rxpk': [{'tmst': 34582204, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAPgMBkVES41pO'}]} |
| 0:40:02.364413 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 033e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 12e35a4e) |
| 0:40:02.367409 | LOG | Server <---------- DUT |
| 0:40:02.371407 | LOG | Count = 64 |
| 0:40:02.385398 | LOG | Expected number of uplink messages have been received |
| 0:40:02.388397 | LOG | Test adaptive data rate control in frame header process starts |
| 0:40:04.742572 | LOG | PULL_DATA: 02 a617 02 3834383419003400 |
| 0:40:04.744570 | LOG | PULL_ACK: 02 a617 04 |
| 0:40:07.349125 | LOG | PUSH_ACK: 02 31b4 01 |
| 0:40:07.351124 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b4, Identifier = 00, JSON = {'rxpk': [{'tmst': 39585146, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAPwMByFTTUOnd'}]} |
| 0:40:07.353122 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 033f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: d350e9dd) |
| 0:40:07.354122 | LOG | Server <---------- DUT |
| 0:40:07.356121 | LOG | Count = 2 |
| 0:40:12.338683 | LOG | PUSH_ACK: 02 31b5 01 |
| 0:40:12.340681 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b5, Identifier = 00, JSON = {'rxpk': [{'tmst': 44588104, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAQAMBTfDBHv08'}]} |
| 0:40:12.342681 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0340, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: c11efd3c) |
| 0:40:12.343679 | LOG | Server <---------- DUT |
| 0:40:12.345679 | LOG | Count = 3 |
| 0:40:14.832636 | LOG | PULL_DATA: 02 b817 02 3834383419003400 |
| 0:40:14.834635 | LOG | PULL_ACK: 02 b817 04 |
| 0:40:17.343216 | LOG | PUSH_ACK: 02 31b7 01 |
| 0:40:17.345215 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b7, Identifier = 00, JSON = {'rxpk': [{'tmst': 49592421, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAQQMBrDcgN8Gg'}]} |
| 0:40:17.347214 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0341, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 2037c1a0) |
| 0:40:17.349213 | LOG | Server <---------- DUT |
| 0:40:17.351211 | LOG | Count = 4 |
| 0:40:22.331016 | LOG | PUSH_ACK: 02 31b8 01 |

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| 0:40:22.332015 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b8, Identifier = 00, JSON = {'rxpk': [{'tmst': 54595367, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAQgMBo2Sb34da'}]} |
| 0:40:22.334013 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0342, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 9bdf875a) |
| 0:40:22.335012 | LOG | Server <---------- DUT |
| 0:40:22.336013 | LOG | Count = 5 |
| 0:40:24.913209 | LOG | PULL_DATA: 02 8029 02 3834383419003400 |
| 0:40:24.916207 | LOG | PULL_ACK: 02 8029 04 |
| 0:40:27.369083 | LOG | PUSH_ACK: 02 31b9 01 |
| 0:40:27.372082 | LOG | PUSH_DATA: Protocol version = 02, Token = 31b9, Identifier = 00, JSON = {'rxpk': [{'tmst': 59598326, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAQwMB8odvq4rm'}]} |
| 0:40:27.373081 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0343, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6fab8ae6) |
| 0:40:27.374079 | LOG | Server <---------- DUT |
| 0:40:27.376079 | LOG | Count = 6 |
| 0:40:32.358304 | LOG | PUSH_ACK: 02 31ba 01 |
| 0:40:32.360302 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ba, Identifier = 00, JSON = {'rxpk': [{'tmst': 64601273, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDARAMBhS42K0q6'}]} |
| 0:40:32.362301 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0344, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 362b4aba) |
| 0:40:32.363300 | LOG | Server <---------- DUT |
| 0:40:32.365299 | LOG | Count = 7 |
| 0:40:34.992807 | LOG | PULL_DATA: 02 65b5 02 3834383419003400 |
| 0:40:34.994785 | LOG | PULL_ACK: 02 65b5 04 |
| 0:40:37.346485 | LOG | PUSH_ACK: 02 31bb 01 |
| 0:40:37.348486 | LOG | PUSH_DATA: Protocol version = 02, Token = 31bb, Identifier = 00, JSON = {'rxpk': [{'tmst': 69604222, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDARQMBHH2b7dcn'}]} |
| 0:40:37.350484 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0345, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 9bedd727) |
| 0:40:37.351482 | LOG | Server <---------- DUT |
| 0:40:37.352482 | LOG | Count = 8 |
| 0:40:42.386634 | LOG | PUSH_ACK: 02 31bc 01 |
| 0:40:42.388607 | LOG | PUSH_DATA: Protocol version = 02, Token = 31bc, Identifier = 00, JSON = {'rxpk': [{'tmst': 74608535, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDARgMBL0PK4FEE'}]} |
| 0:40:42.390633 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0346, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: cae05104) |
| 0:40:42.391632 | LOG | Server <---------- DUT |
| 0:40:42.393630 | LOG | Count = 9 |
| 0:40:45.072613 | LOG | PULL_DATA: 02 6d98 02 3834383419003400 |
| 0:40:45.074612 | LOG | PULL_ACK: 02 6d98 04 |
| 0:40:47.385304 | LOG | PUSH_ACK: 02 31be 01 |
| 0:40:47.387303 | LOG | PUSH_DATA: Protocol version = 02, Token = 31be, Identifier = 00, JSON = {'rxpk': [{'tmst': 79611514, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDARwMBIDuiPnHb'}]} |
| 0:40:47.389302 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0347, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: a23e71db) |
| 0:40:47.391301 | LOG | Server <---------- DUT |
| 0:40:47.392301 | LOG | Count = 10 |
| 0:40:52.373528 | LOG | PUSH_ACK: 02 31bf 01 |

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| 0:40:52.375527 | LOG | PUSH_DATA: Protocol version = 02, Token = 31bf, Identifier = 00, JSON = {'rxpk': [{'tmst': 84614456, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDASAMBgx2uQOas'}]} |
| 0:40:52.377527 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0348, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ae40e6ac) |
| 0:40:52.378526 | LOG | Server <---------- DUT |
| 0:40:52.379525 | LOG | Count = 11 |
| 0:40:55.152583 | LOG | PULL_DATA: 02 66e5 02 3834383419003400 |
| 0:40:55.155582 | LOG | PULL_ACK: 02 66e5 04 |
| 0:40:57.362333 | LOG | PUSH_ACK: 02 31c0 01 |
| 0:40:57.364332 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c0, Identifier = 00, JSON = {'rxpk': [{'tmst': 89617397, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDASQMB6XSR8uyg'}]} |
| 0:40:57.366332 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0349, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 91f2eca0) |
| 0:40:57.368330 | LOG | Server <---------- DUT |
| 0:40:57.369329 | LOG | Count = 12 |
| 0:41:02.351317 | LOG | PUSH_ACK: 02 31c1 01 |
| 0:41:02.353315 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c1, Identifier = 00, JSON = {'rxpk': [{'tmst': 94620352, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDASgMBicd5HYio'}]} |
| 0:41:02.354314 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 034a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 791d88a8) |
| 0:41:02.356313 | LOG | Server <---------- DUT |
| 0:41:02.357312 | LOG | Count = 13 |
| 0:41:05.232720 | LOG | PULL_DATA: 02 8a11 02 3834383419003400 |
| 0:41:05.234720 | LOG | PULL_ACK: 02 8a11 04 |
| 0:41:07.390500 | LOG | PUSH_ACK: 02 31c2 01 |
| 0:41:07.392498 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c2, Identifier = 00, JSON = {'rxpk': [{'tmst': 99623316, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDASwMBld55rUOY'}]} |
| 0:41:07.394498 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 034b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 79ad4398) |
| 0:41:07.395497 | LOG | Server <---------- DUT |
| 0:41:07.397496 | LOG | Count = 14 |
| 0:41:12.379677 | LOG | PUSH_ACK: 02 31c3 01 |
| 0:41:12.381676 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c3, Identifier = 00, JSON = {'rxpk': [{'tmst': 104626271, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDATAMBSMoKq0hL'}]} |
| 0:41:12.383675 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 034c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0aab484b) |
| 0:41:12.384694 | LOG | Server <---------- DUT |
| 0:41:12.386673 | LOG | Count = 15 |
| 0:41:15.312397 | LOG | PULL_DATA: 02 f33d 02 3834383419003400 |
| 0:41:15.314396 | LOG | PULL_ACK: 02 f33d 04 |
| 0:41:17.384225 | LOG | PUSH_ACK: 02 31c5 01 |
| 0:41:17.386224 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c5, Identifier = 00, JSON = {'rxpk': [{'tmst': 109630613, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDATQMBbcRBzUvg'}]} |
| 0:41:17.388223 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 034d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 41cd4be0) |
| 0:41:17.389224 | LOG | Server <---------- DUT |
| 0:41:17.391221 | LOG | Count = 16 |
| 0:41:22.373402 | LOG | PUSH_ACK: 02 31c6 01 |

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| 0:41:22.375401 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c6, Identifier = 00, JSON = {'rxpk': [{'tmst': 114634932, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDATgMBxqZzIUIN'}]} |
| 0:41:22.376400 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 034e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 7321420d) |
| 0:41:22.378399 | LOG | Server <---------- DUT |
| 0:41:22.379399 | LOG | Count = 17 |
| 0:41:25.392618 | LOG | PULL_DATA: 02 db52 02 3834383419003400 |
| 0:41:25.397614 | LOG | PULL_ACK: 02 db52 04 |
| 0:41:27.414044 | LOG | PUSH_ACK: 02 31c7 01 |
| 0:41:27.417042 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c7, Identifier = 00, JSON = {'rxpk': [{'tmst': 119637886, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDATwMBD0hxgOmZ'}]} |
| 0:41:27.419042 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 034f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 7180e999) |
| 0:41:27.420041 | LOG | Server <---------- DUT |
| 0:41:27.422040 | LOG | Count = 18 |
| 0:41:32.403185 | LOG | PUSH_ACK: 02 31c8 01 |
| 0:41:32.405184 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c8, Identifier = 00, JSON = {'rxpk': [{'tmst': 124640839, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAUAMBpfePNA7y'}]} |
| 0:41:32.406183 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0350, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 8f340ef2) |
| 0:41:32.407183 | LOG | Server <---------- DUT |
| 0:41:32.408182 | LOG | Count = 19 |
| 0:41:35.473092 | LOG | PULL_DATA: 02 cc2c 02 3834383419003400 |
| 0:41:35.475091 | LOG | PULL_ACK: 02 cc2c 04 |
| 0:41:37.393008 | LOG | PUSH_ACK: 02 31c9 01 |
| 0:41:37.395005 | LOG | PUSH_DATA: Protocol version = 02, Token = 31c9, Identifier = 00, JSON = {'rxpk': [{'tmst': 129643792, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAUQMBhDeN2kFS'}]} |
| 0:41:37.397004 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0351, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 8dda4152) |
| 0:41:37.398004 | LOG | Server <---------- DUT |
| 0:41:37.400002 | LOG | Count = 20 |
| 0:41:42.381489 | LOG | PUSH_ACK: 02 31ca 01 |
| 0:41:42.383488 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ca, Identifier = 00, JSON = {'rxpk': [{'tmst': 134646742, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAUgMB18K0Auv3'}]} |
| 0:41:42.385487 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0352, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: b402ebf7) |
| 0:41:42.387486 | LOG | Server <---------- DUT |
| 0:41:42.388485 | LOG | Count = 21 |
| 0:41:45.552865 | LOG | PULL_DATA: 02 9ebb 02 3834383419003400 |
| 0:41:45.554864 | LOG | PULL_ACK: 02 9ebb 04 |
| 0:41:47.384828 | LOG | PUSH_ACK: 02 31cc 01 |
| 0:41:47.386827 | LOG | PUSH_DATA: Protocol version = 02, Token = 31cc, Identifier = 00, JSON = {'rxpk': [{'tmst': 139651069, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAUwMBa0kJB/sq'}]} |
| 0:41:47.388826 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0353, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0907fb2a) |
| 0:41:47.389826 | LOG | Server <---------- DUT |
| 0:41:47.391824 | LOG | Count = 22 |
| 0:41:52.424302 | LOG | PUSH_ACK: 02 31cd 01 |

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| 0:41:52.426300 | LOG | PUSH_DATA: Protocol version = 02, Token = 31cd, Identifier = 00, JSON = {'rxpk': [{'tmst': 144655393, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAVAMBHYg+Gjvf'}]} |
| 0:41:52.428299 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0354, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 3e1a3bdf) |
| 0:41:52.430299 | LOG | Server <---------- DUT |
| 0:41:52.431297 | LOG | Count = 23 |
| 0:41:55.632566 | LOG | PULL_DATA: 02 9d06 02 3834383419003400 |
| 0:41:55.635566 | LOG | PULL_ACK: 02 9d06 04 |
| 0:41:57.412559 | LOG | PUSH_ACK: 02 31ce 01 |
| 0:41:57.414558 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ce, Identifier = 00, JSON = {'rxpk': [{'tmst': 149658357, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAVQMBgz6eGCdy'}]} |
| 0:41:57.415557 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0355, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 9e182772) |
| 0:41:57.417555 | LOG | Server <---------- DUT |
| 0:41:57.419554 | LOG | Count = 24 |
| 0:42:02.401223 | LOG | PUSH_ACK: 02 31cf 01 |
| 0:42:02.403203 | LOG | PUSH_DATA: Protocol version = 02, Token = 31cf, Identifier = 00, JSON = {'rxpk': [{'tmst': 154661312, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAVgMBciqPpqWO'}]} |
| 0:42:02.405202 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0356, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 8fa6a58e) |
| 0:42:02.407201 | LOG | Server <---------- DUT |
| 0:42:02.408200 | LOG | Count = 25 |
| 0:42:05.713029 | LOG | PULL_DATA: 02 b98b 02 3834383419003400 |
| 0:42:05.715055 | LOG | PULL_ACK: 02 b98b 04 |
| 0:42:07.441078 | LOG | PUSH_ACK: 02 31d0 01 |
| 0:42:07.443077 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d0, Identifier = 00, JSON = {'rxpk': [{'tmst': 159664254, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAVwMBQhwFROIF'}]} |
| 0:42:07.444076 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0357, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0544e205) |
| 0:42:07.445077 | LOG | Server <---------- DUT |
| 0:42:07.447076 | LOG | Count = 26 |
| 0:42:12.428023 | LOG | PUSH_ACK: 02 31d1 01 |
| 0:42:12.430022 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d1, Identifier = 00, JSON = {'rxpk': [{'tmst': 164667216, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAWAMB/NXPD8De'}]} |
| 0:42:12.432021 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0358, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: cf0fc0de) |
| 0:42:12.433020 | LOG | Server <---------- DUT |
| 0:42:12.435019 | LOG | Count = 27 |
| 0:42:15.792293 | LOG | PULL_DATA: 02 f404 02 3834383419003400 |
| 0:42:15.794295 | LOG | PULL_ACK: 02 f404 04 |
| 0:42:17.425370 | LOG | PUSH_ACK: 02 31d3 01 |
| 0:42:17.427369 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d3, Identifier = 00, JSON = {'rxpk': [{'tmst': 169670171, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAWQMB/4YkJ5Oz'}]} |
| 0:42:17.428368 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0359, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 242793b3) |
| 0:42:17.429368 | LOG | Server <---------- DUT |
| 0:42:17.431367 | LOG | Count = 28 |
| 0:42:22.412700 | LOG | PUSH_ACK: 02 31d4 01 |

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| 0:42:22.414699 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d4, Identifier = 00, JSON = {'rxpk': [{'tmst': 174674495, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAWgMB4IPXZMRs'}]} |
| 0:42:22.416699 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 035a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: d764c46c) |
| 0:42:22.418698 | LOG | Server <---------- DUT |
| 0:42:22.419697 | LOG | Count = 29 |
| 0:42:25.882772 | LOG | PULL_DATA: 02 1d39 02 3834383419003400 |
| 0:42:25.886769 | LOG | PULL_ACK: 02 1d39 04 |
| 0:42:27.452883 | LOG | PUSH_ACK: 02 31d5 01 |
| 0:42:27.454884 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d5, Identifier = 00, JSON = {'rxpk': [{'tmst': 179677454, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAWwMBZvw1b2MY'}]} |
| 0:42:27.455882 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 035b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 356f6318) |
| 0:42:27.456881 | LOG | Server <---------- DUT |
| 0:42:27.458880 | LOG | Count = 30 |
| 0:42:32.440061 | LOG | PUSH_ACK: 02 31d6 01 |
| 0:42:32.442059 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d6, Identifier = 00, JSON = {'rxpk': [{'tmst': 184680409, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAXAMB4QKZbZIZ'}]} |
| 0:42:32.444058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 035c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 996d9219) |
| 0:42:32.446057 | LOG | Server <---------- DUT |
| 0:42:32.447057 | LOG | Count = 31 |
| 0:42:35.961906 | LOG | PULL_DATA: 02 a4c3 02 3834383419003400 |
| 0:42:35.963904 | LOG | PULL_ACK: 02 a4c3 04 |
| 0:42:37.429077 | LOG | PUSH_ACK: 02 31d7 01 |
| 0:42:37.431074 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d7, Identifier = 00, JSON = {'rxpk': [{'tmst': 189683359, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAXQMB0MRrsI4f'}]} |
| 0:42:37.432073 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 035d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6bb08e1f) |
| 0:42:37.434073 | LOG | Server <---------- DUT |
| 0:42:37.435072 | LOG | Count = 32 |
| 0:42:42.417236 | LOG | PUSH_ACK: 02 31d8 01 |
| 0:42:42.420235 | LOG | PUSH_DATA: Protocol version = 02, Token = 31d8, Identifier = 00, JSON = {'rxpk': [{'tmst': 194686342, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAXgMB9JSPyciM'}]} |
| 0:42:42.421234 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 035e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 8fc9c88c) |
| 0:42:42.423233 | LOG | Server <---------- DUT |
| 0:42:42.425232 | LOG | Count = 33 |
| 0:42:46.042184 | LOG | PULL_DATA: 02 505c 02 3834383419003400 |
| 0:42:46.044184 | LOG | PULL_ACK: 02 505c 04 |
| 0:42:47.467380 | LOG | PUSH_ACK: 02 31da 01 |
| 0:42:47.469377 | LOG | PUSH_DATA: Protocol version = 02, Token = 31da, Identifier = 00, JSON = {'rxpk': [{'tmst': 199689288, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAXwMBUTeqFZpj'}]} |
| 0:42:47.471376 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 035f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: aa159a63) |
| 0:42:47.472375 | LOG | Server <---------- DUT |
| 0:42:47.474374 | LOG | Count = 34 |
| 0:42:52.456231 | LOG | PUSH_ACK: 02 31db 01 |

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| 0:42:52.457229 | LOG | PUSH_DATA: Protocol version = 02, Token = 31db, Identifier = 00, JSON = {'rxpk': [{'tmst': 204693609, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAYAMB+ZJIqLsY'}]} |
| 0:42:52.459228 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0360, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 48a8bb18) |
| 0:42:52.461227 | LOG | Server <---------- DUT |
| 0:42:52.462228 | LOG | Count = 35 |
| 0:42:56.122331 | LOG | PULL_DATA: 02 dad0 02 3834383419003400 |
| 0:42:56.126329 | LOG | PULL_ACK: 02 dad0 04 |
| 0:42:57.443584 | LOG | PUSH_ACK: 02 31dc 01 |
| 0:42:57.445583 | LOG | PUSH_DATA: Protocol version = 02, Token = 31dc, Identifier = 00, JSON = {'rxpk': [{'tmst': 209696552, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAYQMBKtpBmNgO'}]} |
| 0:42:57.447582 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0361, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 4198d80e) |
| 0:42:57.448581 | LOG | Server <---------- DUT |
| 0:42:57.450580 | LOG | Count = 36 |
| 0:43:02.431995 | LOG | PUSH_ACK: 02 31dd 01 |
| 0:43:02.433994 | LOG | PUSH_DATA: Protocol version = 02, Token = 31dd, Identifier = 00, JSON = {'rxpk': [{'tmst': 214699508, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAYgMByyA33/3H'}]} |
| 0:43:02.435967 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0362, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 37dffdc7) |
| 0:43:02.437992 | LOG | Server <---------- DUT |
| 0:43:02.438991 | LOG | Count = 37 |
| 0:43:06.201860 | LOG | PULL_DATA: 02 853f 02 3834383419003400 |
| 0:43:06.203860 | LOG | PULL_ACK: 02 853f 04 |
| 0:43:07.472142 | LOG | PUSH_ACK: 02 31de 01 |
| 0:43:07.474142 | LOG | PUSH_DATA: Protocol version = 02, Token = 31de, Identifier = 00, JSON = {'rxpk': [{'tmst': 219702464, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAYwMBwUH85euE'}]} |
| 0:43:07.476141 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0363, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: fce5eb84) |
| 0:43:07.477138 | LOG | Server <---------- DUT |
| 0:43:07.478138 | LOG | Count = 38 |
| 0:43:12.460683 | LOG | PUSH_ACK: 02 31df 01 |
| 0:43:12.462683 | LOG | PUSH_DATA: Protocol version = 02, Token = 31df, Identifier = 00, JSON = {'rxpk': [{'tmst': 224705408, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAZAMBpEKgsdyC'}]} |
| 0:43:12.463682 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0364, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: a0b1dc82) |
| 0:43:12.465681 | LOG | Server <---------- DUT |
| 0:43:12.466680 | LOG | Count = 39 |
| 0:43:16.281809 | LOG | PULL_DATA: 02 85f2 02 3834383419003400 |
| 0:43:16.283788 | LOG | PULL_ACK: 02 85f2 04 |
| 0:43:17.465120 | LOG | PUSH_ACK: 02 31e1 01 |
| 0:43:17.467119 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e1, Identifier = 00, JSON = {'rxpk': [{'tmst': 229708353, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAZQMBxOhUHHDh'}]} |
| 0:43:17.468118 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0365, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 541c70e1) |
| 0:43:17.470117 | LOG | Server <---------- DUT |
| 0:43:17.471117 | LOG | Count = 40 |
| 0:43:22.453021 | LOG | PUSH_ACK: 02 31e2 01 |

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| 0:43:22.455020 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e2, Identifier = 00, JSON = {'rxpk': [{'tmst': 234712687, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAZgMB1iStd8yv'}]} |
| 0:43:22.457018 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0366, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ad77ccaf) |
| 0:43:22.458017 | LOG | Server <---------- DUT |
| 0:43:22.460016 | LOG | Count = 41 |
| 0:43:26.362808 | LOG | PULL_DATA: 02 d8eb 02 3834383419003400 |
| 0:43:26.365806 | LOG | PULL_ACK: 02 d8eb 04 |
| 0:43:27.492540 | LOG | PUSH_ACK: 02 31e3 01 |
| 0:43:27.494539 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e3, Identifier = 00, JSON = {'rxpk': [{'tmst': 239717006, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAZwMBVNpUm/9c'}]} |
| 0:43:27.496538 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0367, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 549bff5c) |
| 0:43:27.498537 | LOG | Server <---------- DUT |
| 0:43:27.499536 | LOG | Count = 42 |
| 0:43:32.480945 | LOG | PUSH_ACK: 02 31e4 01 |
| 0:43:32.482944 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e4, Identifier = 00, JSON = {'rxpk': [{'tmst': 244719956, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAaAMBkPOE2agX'}]} |
| 0:43:32.484943 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0368, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 84d9a817) |
| 0:43:32.485943 | LOG | Server <---------- DUT |
| 0:43:32.487941 | LOG | Count = 43 |
| 0:43:36.442177 | LOG | PULL_DATA: 02 d862 02 3834383419003400 |
| 0:43:36.447174 | LOG | PULL_ACK: 02 d862 04 |
| 0:43:37.468627 | LOG | PUSH_ACK: 02 31e5 01 |
| 0:43:37.470626 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e5, Identifier = 00, JSON = {'rxpk': [{'tmst': 249722915, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAaQMBz5dRE7du'}]} |
| 0:43:37.472626 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0369, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 5113b76e) |
| 0:43:37.474625 | LOG | Server <---------- DUT |
| 0:43:37.475624 | LOG | Count = 44 |
| 0:43:42.456898 | LOG | PUSH_ACK: 02 31e6 01 |
| 0:43:42.459898 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e6, Identifier = 00, JSON = {'rxpk': [{'tmst': 254725854, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAagMBLfXjBkWm'}]} |
| 0:43:42.461896 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 036a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e30645a6) |
| 0:43:42.462895 | LOG | Server <---------- DUT |
| 0:43:42.464894 | LOG | Count = 45 |
| 0:43:46.522776 | LOG | PULL_DATA: 02 fccb 02 3834383419003400 |
| 0:43:46.523775 | LOG | PULL_ACK: 02 fccb 04 |
| 0:43:47.455248 | LOG | PUSH_ACK: 02 31e8 01 |
| 0:43:47.457247 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e8, Identifier = 00, JSON = {'rxpk': [{'tmst': 259728797, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAawMBhMcYTkrk'}]} |
| 0:43:47.459246 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 036b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 184e4ae4) |
| 0:43:47.460245 | LOG | Server <---------- DUT |
| 0:43:47.462244 | LOG | Count = 46 |
| 0:43:52.494584 | LOG | PUSH_ACK: 02 31e9 01 |

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| 0:43:52.496582 | LOG | PUSH_DATA: Protocol version = 02, Token = 31e9, Identifier = 00, JSON = {'rxpk': [{'tmst': 264731744, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAbAMBPWRTr0dY'}]} |
| 0:43:52.498581 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 036c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 53af4758) |
| 0:43:52.500581 | LOG | Server <---------- DUT |
| 0:43:52.501582 | LOG | Count = 47 |
| 0:43:56.602437 | LOG | PULL_DATA: 02 a0d7 02 3834383419003400 |
| 0:43:56.606434 | LOG | PULL_ACK: 02 a0d7 04 |
| 0:43:57.482938 | LOG | PUSH_ACK: 02 31ea 01 |
| 0:43:57.485937 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ea, Identifier = 00, JSON = {'rxpk': [{'tmst': 269736071, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAbQMBRnEK2n5W'}]} |
| 0:43:57.486936 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 036d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0ada7e56) |
| 0:43:57.488936 | LOG | Server <---------- DUT |
| 0:43:57.489934 | LOG | Count = 48 |
| 0:44:02.474908 | LOG | PUSH_ACK: 02 31ec 01 |
| 0:44:02.476910 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ec, Identifier = 00, JSON = {'rxpk': [{'tmst': 274739019, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAbgMBuaPWbsAi'}]} |
| 0:44:02.478906 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 036e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: d66ec022) |
| 0:44:02.479907 | LOG | Server <---------- DUT |
| 0:44:02.480905 | LOG | Count = 49 |
| 0:44:06.682209 | LOG | PULL_DATA: 02 1d6c 02 3834383419003400 |
| 0:44:06.684208 | LOG | PULL_ACK: 02 1d6c 04 |
| 0:44:07.514738 | LOG | PUSH_ACK: 02 31ed 01 |
| 0:44:07.516737 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ed, Identifier = 00, JSON = {'rxpk': [{'tmst': 279741977, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAbwMBHB5OgEaR'}]} |
| 0:44:07.517736 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 036f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 4e804691) |
| 0:44:07.519735 | LOG | Server <---------- DUT |
| 0:44:07.520734 | LOG | Count = 50 |
| 0:44:12.502764 | LOG | PUSH_ACK: 02 31ee 01 |
| 0:44:12.504763 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ee, Identifier = 00, JSON = {'rxpk': [{'tmst': 284744930, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAcAMBnW5kk/gU'}]} |
| 0:44:12.506762 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0370, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6493f814) |
| 0:44:12.507761 | LOG | Server <---------- DUT |
| 0:44:12.509760 | LOG | Count = 51 |
| 0:44:16.762353 | LOG | PULL_DATA: 02 04bc 02 3834383419003400 |
| 0:44:16.764352 | LOG | PULL_ACK: 02 04bc 04 |
| 0:44:17.506963 | LOG | PUSH_ACK: 02 31f0 01 |
| 0:44:17.508960 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f0, Identifier = 00, JSON = {'rxpk': [{'tmst': 289747888, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAcQMBWFnOXQzk'}]} |
| 0:44:17.510959 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0371, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ce5d0ce4) |
| 0:44:17.512959 | LOG | Server <---------- DUT |
| 0:44:17.513958 | LOG | Count = 52 |
| 0:44:22.495150 | LOG | PUSH_ACK: 02 31f1 01 |

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| 0:44:22.498149 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f1, Identifier = 00, JSON = {'rxpk': [{'tmst': 294750824, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAcgMBVYhGu93t'}]} |
| 0:44:22.499150 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0372, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 46bbdded) |
| 0:44:22.500149 | LOG | Server <---------- DUT |
| 0:44:22.502147 | LOG | Count = 53 |
| 0:44:26.841961 | LOG | PULL_DATA: 02 27a1 02 3834383419003400 |
| 0:44:26.845956 | LOG | PULL_ACK: 02 27a1 04 |
| 0:44:27.484594 | LOG | PUSH_ACK: 02 31f2 01 |
| 0:44:27.486595 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f2, Identifier = 00, JSON = {'rxpk': [{'tmst': 299755149, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAcwMBawZsMe5+'}]} |
| 0:44:27.488592 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0373, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6c31ee7e) |
| 0:44:27.489592 | LOG | Server <---------- DUT |
| 0:44:27.491593 | LOG | Count = 54 |
| 0:44:32.523849 | LOG | PUSH_ACK: 02 31f3 01 |
| 0:44:32.526847 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f3, Identifier = 00, JSON = {'rxpk': [{'tmst': 304758096, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAdAMB7nzHCdum'}]} |
| 0:44:32.527850 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0374, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: c709dba6) |
| 0:44:32.528851 | LOG | Server <---------- DUT |
| 0:44:32.530845 | LOG | Count = 55 |
| 0:44:36.922509 | LOG | PULL_DATA: 02 c2e1 02 3834383419003400 |
| 0:44:36.923507 | LOG | PULL_ACK: 02 c2e1 04 |
| 0:44:37.513173 | LOG | PUSH_ACK: 02 31f4 01 |
| 0:44:37.515172 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f4, Identifier = 00, JSON = {'rxpk': [{'tmst': 309761047, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAdQMBROOEk1Xi'}]} |
| 0:44:37.516171 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0375, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 849355e2) |
| 0:44:37.518170 | LOG | Server <---------- DUT |
| 0:44:37.519169 | LOG | Count = 56 |
| 0:44:42.501590 | LOG | PUSH_ACK: 02 31f5 01 |
| 0:44:42.503617 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f5, Identifier = 00, JSON = {'rxpk': [{'tmst': 314763996, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAdgMB0KE6LMvr'}]} |
| 0:44:42.504616 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0376, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 3a2ccbeb) |
| 0:44:42.506615 | LOG | Server <---------- DUT |
| 0:44:42.507615 | LOG | Count = 57 |
| 0:44:47.012273 | LOG | PULL_DATA: 02 2cb6 02 3834383419003400 |
| 0:44:47.013275 | LOG | PULL_ACK: 02 2cb6 04 |
| 0:44:47.505994 | LOG | PUSH_ACK: 02 31f7 01 |
| 0:44:47.507993 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f7, Identifier = 00, JSON = {'rxpk': [{'tmst': 319766956, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAdwMBXB8TN8Ul'}]} |
| 0:44:47.509992 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0377, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 1337c525) |
| 0:44:47.511991 | LOG | Server <---------- DUT |
| 0:44:47.512990 | LOG | Count = 58 |
| 0:44:52.546020 | LOG | PUSH_ACK: 02 31f8 01 |

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| 0:44:52.548019 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f8, Identifier = 00, JSON = {'rxpk': [{'tmst': 324769766, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAeAMBXpPqCTMO'}]} |
| 0:44:52.550018 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0378, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ea09330e) |
| 0:44:52.551017 | LOG | Server <---------- DUT |
| 0:44:52.553016 | LOG | Count = 59 |
| 0:44:57.091827 | LOG | PULL_DATA: 02 e549 02 3834383419003400 |
| 0:44:57.096825 | LOG | PULL_ACK: 02 e549 04 |
| 0:44:57.534577 | LOG | PUSH_ACK: 02 31f9 01 |
| 0:44:57.537575 | LOG | PUSH_DATA: Protocol version = 02, Token = 31f9, Identifier = 00, JSON = {'rxpk': [{'tmst': 329772725, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAeQMBzL5uQBl9'}]} |
| 0:44:57.539574 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0379, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6e40197d) |
| 0:44:57.540574 | LOG | Server <---------- DUT |
| 0:44:57.541573 | LOG | Count = 60 |
| 0:45:02.523920 | LOG | PUSH_ACK: 02 31fa 01 |
| 0:45:02.525919 | LOG | PUSH_DATA: Protocol version = 02, Token = 31fa, Identifier = 00, JSON = {'rxpk': [{'tmst': 334777042, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAegMBlOzjdTKN'}]} |
| 0:45:02.527919 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 037a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e375328d) |
| 0:45:02.528917 | LOG | Server <---------- DUT |
| 0:45:02.530916 | LOG | Count = 61 |
| 0:45:07.172177 | LOG | PULL_DATA: 02 ef89 02 3834383419003400 |
| 0:45:07.174175 | LOG | PULL_ACK: 02 ef89 04 |
| 0:45:07.511985 | LOG | PUSH_ACK: 02 31fb 01 |
| 0:45:07.513983 | LOG | PUSH_DATA: Protocol version = 02, Token = 31fb, Identifier = 00, JSON = {'rxpk': [{'tmst': 339779984, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAewMB5VOnp1JY'}]} |
| 0:45:07.515983 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 037b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: a7a75258) |
| 0:45:07.516982 | LOG | Server <---------- DUT |
| 0:45:07.517981 | LOG | Count = 62 |
| 0:45:12.551568 | LOG | PUSH_ACK: 02 31fc 01 |
| 0:45:12.553568 | LOG | PUSH_DATA: Protocol version = 02, Token = 31fc, Identifier = 00, JSON = {'rxpk': [{'tmst': 344782915, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAfAMB2z7gQxSW'}]} |
| 0:45:12.555566 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 037c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: e0431496) |
| 0:45:12.557565 | LOG | Server <---------- DUT |
| 0:45:12.558564 | LOG | Count = 63 |
| 0:45:17.251909 | LOG | PULL_DATA: 02 0c3f 02 3834383419003400 |
| 0:45:17.253907 | LOG | PULL_ACK: 02 0c3f 04 |
| 0:45:17.557757 | LOG | PUSH_ACK: 02 31fe 01 |
| 0:45:17.560751 | LOG | PUSH_DATA: Protocol version = 02, Token = 31fe, Identifier = 00, JSON = {'rxpk': [{'tmst': 349785854, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAfQMB6RZ3hefD'}]} |
| 0:45:17.562752 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 037d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 7785e7c3) |
| 0:45:17.563762 | LOG | Server <---------- DUT |
| 0:45:17.565748 | LOG | Count = 64 |
| 0:45:22.547227 | LOG | PUSH_ACK: 02 31ff 01 |

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| 0:45:22.549226 | LOG | PUSH_DATA: Protocol version = 02, Token = 31ff, Identifier = 00, JSON = {'rxpk': [{'tmst': 354788803, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICDAfgMBwHWpox+f'}]} |
| 0:45:22.550225 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 037e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: a9a31f9f) |
| 0:45:22.551225 | LOG | Server <---------- DUT |
| 0:45:22.553224 | LOG | Count = 65 |
| 0:45:27.332405 | LOG | PULL_DATA: 02 e5e7 02 3834383419003400 |
| 0:45:27.337402 | LOG | PULL_ACK: 02 e5e7 04 |
| 0:45:27.586261 | LOG | PUSH_ACK: 02 3200 01 |
| 0:45:27.588260 | LOG | PUSH_DATA: Protocol version = 02, Token = 3200, Identifier = 00, JSON = {'rxpk': [{'tmst': 359811221, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAfwMBf/BuH8Un'}]} |
| 0:45:27.590259 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 037f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6e1fc527) |
| 0:45:27.591258 | LOG | Server <---------- DUT |
| 0:45:27.592258 | LOG | Count = 66 |
| 0:45:27.607250 | LOG | Expected number of uplink messages have been received |
| 0:45:27.612249 | LOG | Test adaptive data rate control in frame header process starts |
| 0:45:32.575149 | LOG | PUSH_ACK: 02 3201 01 |
| 0:45:32.577149 | LOG | PUSH_DATA: Protocol version = 02, Token = 3201, Identifier = 00, JSON = {'rxpk': [{'tmst': 364814161, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAgAMBUqJu7Xhe'}]} |
| 0:45:32.579148 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0380, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6eed785e) |
| 0:45:32.580148 | LOG | Server <---------- DUT |
| 0:45:32.582146 | LOG | Count = 2 |
| 0:45:37.412411 | LOG | PULL_DATA: 02 0f6a 02 3834383419003400 |
| 0:45:37.414410 | LOG | PULL_ACK: 02 0f6a 04 |
| 0:45:37.564325 | LOG | PUSH_ACK: 02 3202 01 |
| 0:45:37.567323 | LOG | PUSH_DATA: Protocol version = 02, Token = 3202, Identifier = 00, JSON = {'rxpk': [{'tmst': 369817113, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAgQMBi7YU5BV1'}]} |
| 0:45:37.569322 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0381, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 14e41575) |
| 0:45:37.570321 | LOG | Server <---------- DUT |
| 0:45:37.571321 | LOG | Count = 3 |
| 0:45:42.553181 | LOG | PUSH_ACK: 02 3203 01 |
| 0:45:42.555181 | LOG | PUSH_DATA: Protocol version = 02, Token = 3203, Identifier = 00, JSON = {'rxpk': [{'tmst': 374820053, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAggMBgNq2XGjf'}]} |
| 0:45:42.557199 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0382, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: b65c68df) |
| 0:45:42.559180 | LOG | Server <---------- DUT |
| 0:45:42.560178 | LOG | Count = 4 |
| 0:45:47.492114 | LOG | PULL_DATA: 02 2694 02 3834383419003400 |
| 0:45:47.494114 | LOG | PULL_ACK: 02 2694 04 |
| 0:45:47.558076 | LOG | PUSH_ACK: 02 3205 01 |
| 0:45:47.560075 | LOG | PUSH_DATA: Protocol version = 02, Token = 3205, Identifier = 00, JSON = {'rxpk': [{'tmst': 379824361, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAgwMBOSz3Jrzp'}]} |

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| 0:45:47.562076 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0383, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: f726bce9) |
| 0:45:47.563074 | LOG | Server <---------- DUT |
| 0:45:47.565072 | LOG | Count = 5 |
| 0:45:52.598563 | LOG | PUSH_ACK: 02 3206 01 |
| 0:45:52.600535 | LOG | PUSH_DATA: Protocol version = 02, Token = 3206, Identifier = 00, JSON = {'rxpk': [{'tmst': 384828681, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAhAMBSSYDH78e'}]} |
| 0:45:52.602560 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0384, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 031fbf1e) |
| 0:45:52.603560 | LOG | Server <---------- DUT |
| 0:45:52.605558 | LOG | Count = 6 |
| 0:45:57.572295 | LOG | PULL_DATA: 02 5dfe 02 3834383419003400 |
| 0:45:57.576293 | LOG | PULL_ACK: 02 5dfe 04 |
| 0:45:57.587287 | LOG | PUSH_ACK: 02 3207 01 |
| 0:45:57.589286 | LOG | PUSH_DATA: Protocol version = 02, Token = 3207, Identifier = 00, JSON = {'rxpk': [{'tmst': 389831621, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAhQMBaDogzqvJ'}]} |
| 0:45:57.591285 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0385, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 20ceabc9) |
| 0:45:57.593283 | LOG | Server <---------- DUT |
| 0:45:57.594283 | LOG | Count = 7 |
| 0:46:02.575431 | LOG | PUSH_ACK: 02 3208 01 |
| 0:46:02.577401 | LOG | PUSH_DATA: Protocol version = 02, Token = 3208, Identifier = 00, JSON = {'rxpk': [{'tmst': 394834549, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAhgMBWTgq+UbM'}]} |
| 0:46:02.579426 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0386, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 2af946cc) |
| 0:46:02.581428 | LOG | Server <---------- DUT |
| 0:46:02.583427 | LOG | Count = 8 |
| 0:46:07.564605 | LOG | PUSH_ACK: 02 3209 01 |
| 0:46:07.566604 | LOG | PUSH_DATA: Protocol version = 02, Token = 3209, Identifier = 00, JSON = {'rxpk': [{'tmst': 399837501, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAhwMB+j33nb2t'}]} |
| 0:46:07.568601 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0387, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: f79dbdad) |
| 0:46:07.569601 | LOG | Server <---------- DUT |
| 0:46:07.571599 | LOG | Count = 9 |
| 0:46:07.651542 | LOG | PULL_DATA: 02 8035 02 3834383419003400 |
| 0:46:07.653524 | LOG | PULL_ACK: 02 8035 04 |
| 0:46:12.604557 | LOG | PUSH_ACK: 02 320a 01 |
| 0:46:12.606556 | LOG | PUSH_DATA: Protocol version = 02, Token = 320a, Identifier = 00, JSON = {'rxpk': [{'tmst': 404840437, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAiAMB3UJ4eVf+'}]} |
| 0:46:12.608555 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0388, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 787957fe) |
| 0:46:12.609556 | LOG | Server <---------- DUT |
| 0:46:12.610555 | LOG | Count = 10 |
| 0:46:17.609700 | LOG | PUSH_ACK: 02 320c 01 |
| 0:46:17.611699 | LOG | PUSH_DATA: Protocol version = 02, Token = 320c, Identifier = 00, JSON = {'rxpk': [{'tmst': 409843353, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAiQMBXcStsQDt'}]} |
| 0:46:17.613699 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0389, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: adb100ed) |
| 0:46:17.614699 | LOG | Server <---------- DUT |
| 0:46:17.616696 | LOG | Count = 11 |
| 0:46:17.731912 | LOG | PULL_DATA: 02 617c 02 3834383419003400 |
| 0:46:17.733911 | LOG | PULL_ACK: 02 617c 04 |
| 0:46:22.597772 | LOG | PUSH_ACK: 02 320d 01 |
| 0:46:22.599770 | LOG | PUSH_DATA: Protocol version = 02, Token = 320d, Identifier = 00, JSON = {'rxpk': [{'tmst': 414847681, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAigMBPtakgdZQ'}]} |
| 0:46:22.600769 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 038a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: a481d650) |
| 0:46:22.601768 | LOG | Server <---------- DUT |
| 0:46:22.603769 | LOG | Count = 12 |
| 0:46:27.585047 | LOG | PUSH_ACK: 02 320e 01 |
| 0:46:27.590043 | LOG | PUSH_DATA: Protocol version = 02, Token = 320e, Identifier = 00, JSON = {'rxpk': [{'tmst': 419851997, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAiwMBHxmVN7Oc'}]} |
| 0:46:27.592042 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 038b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 9537b39c) |
| 0:46:27.593041 | LOG | Server <---------- DUT |
| 0:46:27.595041 | LOG | Count = 13 |
| 0:46:27.821699 | LOG | PULL_DATA: 02 0001 02 3834383419003400 |
| 0:46:27.823698 | LOG | PULL_ACK: 02 0001 04 |
| 0:46:32.627820 | LOG | PUSH_ACK: 02 320f 01 |
| 0:46:32.629818 | LOG | PUSH_DATA: Protocol version = 02, Token = 320f, Identifier = 00, JSON = {'rxpk': [{'tmst': 424854937, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAjAMBjk6sAQdh'}]} |
| 0:46:32.631817 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 038c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ac010761) |
| 0:46:32.632816 | LOG | Server <---------- DUT |
| 0:46:32.633816 | LOG | Count = 14 |
| 0:46:37.615996 | LOG | PUSH_ACK: 02 3210 01 |
| 0:46:37.618994 | LOG | PUSH_DATA: Protocol version = 02, Token = 3210, Identifier = 00, JSON = {'rxpk': [{'tmst': 429857873, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAjQMBPR+7BnnD'}]} |
| 0:46:37.620993 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 038d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: bb0679c3) |
| 0:46:37.621992 | LOG | Server <---------- DUT |
| 0:46:37.623991 | LOG | Count = 15 |
| 0:46:37.902212 | LOG | PULL_DATA: 02 541e 02 3834383419003400 |
| 0:46:37.903211 | LOG | PULL_ACK: 02 541e 04 |
| 0:46:42.604551 | LOG | PUSH_ACK: 02 3211 01 |
| 0:46:42.606552 | LOG | PUSH_DATA: Protocol version = 02, Token = 3211, Identifier = 00, JSON = {'rxpk': [{'tmst': 434860825, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAjgMBo5t7nGXM'}]} |
| 0:46:42.607550 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 038e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 7b9c65cc) |
| 0:46:42.608549 | LOG | Server <---------- DUT |

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| 0:46:42.610548 | LOG | Count = 16 |
| 0:46:47.609720 | LOG | PUSH_ACK: 02 3213 01 |
| 0:46:47.611718 | LOG | PUSH_DATA: Protocol version = 02, Token = 3213, Identifier = 00, JSON = {'rxpk': [{'tmst': 439863773, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAjwMBEOOGVWXG'}]} |
| 0:46:47.612717 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 038f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 865565c6) |
| 0:46:47.614716 | LOG | Server <---------- DUT |
| 0:46:47.615715 | LOG | Count = 17 |
| 0:46:47.982156 | LOG | PULL_DATA: 02 6d58 02 3834383419003400 |
| 0:46:47.983172 | LOG | PULL_ACK: 02 6d58 04 |
| 0:46:52.596544 | LOG | PUSH_ACK: 02 3214 01 |
| 0:46:52.598542 | LOG | PUSH_DATA: Protocol version = 02, Token = 3214, Identifier = 00, JSON = {'rxpk': [{'tmst': 444868061, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAkAMBSneKkuV2'}]} |
| 0:46:52.600543 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0390, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 8a92e576) |
| 0:46:52.602540 | LOG | Server <---------- DUT |
| 0:46:52.604539 | LOG | Count = 18 |
| 0:46:57.636595 | LOG | PUSH_ACK: 02 3215 01 |
| 0:46:57.640591 | LOG | PUSH_DATA: Protocol version = 02, Token = 3215, Identifier = 00, JSON = {'rxpk': [{'tmst': 449872385, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAkQMBFL8r2DZt'}]} |
| 0:46:57.642590 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0391, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 2bd8366d) |
| 0:46:57.644589 | LOG | Server <---------- DUT |
| 0:46:57.645590 | LOG | Count = 19 |
| 0:46:58.061203 | LOG | PULL_DATA: 02 da94 02 3834383419003400 |
| 0:46:58.063228 | LOG | PULL_ACK: 02 da94 04 |
| 0:47:02.626654 | LOG | PUSH_ACK: 02 3216 01 |
| 0:47:02.628644 | LOG | PUSH_DATA: Protocol version = 02, Token = 3216, Identifier = 00, JSON = {'rxpk': [{'tmst': 454875337, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAkgMBNHYNMSq3'}]} |
| 0:47:02.630643 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0392, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 0d312ab7) |
| 0:47:02.631642 | LOG | Server <---------- DUT |
| 0:47:02.632641 | LOG | Count = 20 |
| 0:47:07.615885 | LOG | PUSH_ACK: 02 3217 01 |
| 0:47:07.617882 | LOG | PUSH_DATA: Protocol version = 02, Token = 3217, Identifier = 00, JSON = {'rxpk': [{'tmst': 459878293, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAkwMBdK1H4kT+'}]} |
| 0:47:07.618883 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0393, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 47e244fe) |
| 0:47:07.619883 | LOG | Server <---------- DUT |
| 0:47:07.621881 | LOG | Count = 21 |
| 0:47:08.141644 | LOG | PULL_DATA: 02 f99c 02 3834383419003400 |
| 0:47:08.143644 | LOG | PULL_ACK: 02 f99c 04 |
| 0:47:12.654090 | LOG | PUSH_ACK: 02 3218 01 |
| 0:47:12.656091 | LOG | PUSH_DATA: Protocol version = 02, Token = 3218, Identifier = 00, JSON = {'rxpk': [{'tmst': 464881221, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAlAMBjJ94lHXY'}]} |
| 0:47:12.658089 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0394, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 789475d8) |
| 0:47:12.659106 | LOG | Server <---------- DUT |
| 0:47:12.661087 | LOG | Count = 22 |
| 0:47:17.660257 | LOG | PUSH_ACK: 02 321a 01 |
| 0:47:17.663255 | LOG | PUSH_DATA: Protocol version = 02, Token = 321a, Identifier = 00, JSON = {'rxpk': [{'tmst': 469884169, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAlQMB+AVF0Tii'}]} |
| 0:47:17.664256 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0395, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 45d138a2) |
| 0:47:17.666254 | LOG | Server <---------- DUT |
| 0:47:17.667253 | LOG | Count = 23 |
| 0:47:18.221417 | LOG | PULL_DATA: 02 7525 02 3834383419003400 |
| 0:47:18.223415 | LOG | PULL_ACK: 02 7525 04 |
| 0:47:22.648909 | LOG | PUSH_ACK: 02 321b 01 |
| 0:47:22.650909 | LOG | PUSH_DATA: Protocol version = 02, Token = 321b, Identifier = 00, JSON = {'rxpk': [{'tmst': 474888461, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAlgMBS1xiC5l1'}]} |
| 0:47:22.652909 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0396, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 620b9975) |
| 0:47:22.653908 | LOG | Server <---------- DUT |
| 0:47:22.654906 | LOG | Count = 24 |
| 0:47:27.636217 | LOG | PUSH_ACK: 02 321c 01 |
| 0:47:27.639216 | LOG | PUSH_DATA: Protocol version = 02, Token = 321c, Identifier = 00, JSON = {'rxpk': [{'tmst': 479892765, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAlwMBtZTJ+bf/'}]} |
| 0:47:27.640217 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0397, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: c9f9b7ff) |
| 0:47:27.642214 | LOG | Server <---------- DUT |
| 0:47:27.643214 | LOG | Count = 25 |
| 0:47:28.301740 | LOG | PULL_DATA: 02 525b 02 3834383419003400 |
| 0:47:28.304737 | LOG | PULL_ACK: 02 525b 04 |
| 0:47:32.625292 | LOG | PUSH_ACK: 02 321d 01 |
| 0:47:32.627291 | LOG | PUSH_DATA: Protocol version = 02, Token = 321d, Identifier = 00, JSON = {'rxpk': [{'tmst': 484895725, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAmAMBu5jLTaAX'}]} |
| 0:47:32.628291 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0398, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: cb4da017) |
| 0:47:32.630262 | LOG | Server <---------- DUT |
| 0:47:32.631288 | LOG | Count = 26 |
| 0:47:37.665438 | LOG | PUSH_ACK: 02 321e 01 |
| 0:47:37.667444 | LOG | PUSH_DATA: Protocol version = 02, Token = 321e, Identifier = 00, JSON = {'rxpk': [{'tmst': 489898681, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAmQMBvHw7D/ok'}]} |
| 0:47:37.669436 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 0399, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 3b0ffa24) |
| 0:47:37.670436 | LOG | Server <---------- DUT |
| 0:47:37.672435 | LOG | Count = 27 |
| 0:47:38.381446 | LOG | PULL_DATA: 02 6e41 02 3834383419003400 |

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| 0:47:38.383446 | LOG | PULL_ACK: 02 6e41 04 |
| 0:47:42.654027 | LOG | PUSH_ACK: 02 321f 01 |
| 0:47:42.655027 | LOG | PUSH_DATA: Protocol version = 02, Token = 321f, Identifier = 00, JSON = {'rxpk': [{'tmst': 494901625, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAmgMB0k/vOdAI'}]} |
| 0:47:42.657026 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 039a, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: ef39d008) |
| 0:47:42.658026 | LOG | Server <---------- DUT |
| 0:47:42.660024 | LOG | Count = 28 |
| 0:47:47.649114 | LOG | PUSH_ACK: 02 3221 01 |
| 0:47:47.651093 | LOG | PUSH_DATA: Protocol version = 02, Token = 3221, Identifier = 00, JSON = {'rxpk': [{'tmst': 499904573, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAmwMBpClHR+gh'}]} |
| 0:47:47.653092 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 039b, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 4747e821) |
| 0:47:47.654092 | LOG | Server <---------- DUT |
| 0:47:47.656091 | LOG | Count = 29 |
| 0:47:48.461107 | LOG | PULL_DATA: 02 e47a 02 3834383419003400 |
| 0:47:48.463107 | LOG | PULL_ACK: 02 e47a 04 |
| 0:47:52.637670 | LOG | PUSH_ACK: 02 3222 01 |
| 0:47:52.640669 | LOG | PUSH_DATA: Protocol version = 02, Token = 3222, Identifier = 00, JSON = {'rxpk': [{'tmst': 504907537, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAnAMBchjNlrwx'}]} |
| 0:47:52.641668 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 039c, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: cd96bc31) |
| 0:47:52.643667 | LOG | Server <---------- DUT |
| 0:47:52.645666 | LOG | Count = 30 |
| 0:47:57.678679 | LOG | PUSH_ACK: 02 3223 01 |
| 0:47:57.680677 | LOG | PUSH_DATA: Protocol version = 02, Token = 3223, Identifier = 00, JSON = {'rxpk': [{'tmst': 509911845, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAnQMBH8qQXSk7'}]} |
| 0:47:57.682676 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 039d, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 905d293b) |
| 0:47:57.683677 | LOG | Server <---------- DUT |
| 0:47:57.685674 | LOG | Count = 31 |
| 0:47:58.540940 | LOG | PULL_DATA: 02 80ca 02 3834383419003400 |
| 0:47:58.545939 | LOG | PULL_ACK: 02 80ca 04 |
| 0:48:02.668605 | LOG | PUSH_ACK: 02 3225 01 |
| 0:48:02.670602 | LOG | PUSH_DATA: Protocol version = 02, Token = 3225, Identifier = 00, JSON = {'rxpk': [{'tmst': 514916253, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 15, 'data': 'QCAgICDAngMB1kJnng3/'}]} |
| 0:48:02.672602 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 039e, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 679e0dff) |
| 0:48:02.673601 | LOG | Server <---------- DUT |
| 0:48:02.675601 | LOG | Count = 32 |
| 0:48:07.707948 | LOG | PUSH_ACK: 02 3226 01 |
| 0:48:07.709946 | LOG | PUSH_DATA: Protocol version = 02, Token = 3226, Identifier = 00, JSON = {'rxpk': [{'tmst': 519945027, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAnwMBzoZvtYL4'}]} |

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| 0:48:07.711946 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 039f, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6fb582f8) |
| 0:48:07.712945 | LOG | Server <---------- DUT |
| 0:48:07.713946 | LOG | Count = 33 |
| 0:48:07.723941 | LOG | Expected number of uplink messages have been received |
| 0:48:07.726938 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:48:08.621467 | LOG | PULL_DATA: 02 618f 02 3834383419003400 |
| 0:48:08.623464 | LOG | PULL_ACK: 02 618f 04 |
| 0:48:12.698127 | LOG | PUSH_ACK: 02 3228 01 |
| 0:48:12.701127 | LOG | PUSH_DATA: Protocol version = 02, Token = 3228, Identifier = 00, JSON = {'rxpk': [{'tmst': 524947987, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICDAoAMBTd4iuLTt'}]} |
| 0:48:12.702145 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 03a0, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 22b8b4ed) |
| 0:48:12.703129 | LOG | Server <---------- DUT |
| 0:48:12.706142 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:48:12.709121 | LOG | ADRACKReq bit is activated |
| 0:48:12.713120 | LOG | ADRACKReq bit from DUT tested successfully |
| 0:48:12.716117 | LOG | Check previous uplink data rate process starts |
| 0:48:12.719117 | LOG | Uplink received with expected Data Rate |
| 0:48:12.722133 | LOG | Receive frame on specific channels process starts |
| 0:48:12.736107 | LOG | Attempt 1/15 |
| 0:48:17.700797 | LOG | PUSH_ACK: 02 322a 01 |
| 0:48:17.702796 | LOG | PUSH_DATA: Protocol version = 02, Token = 322a, Identifier = 00, JSON = {'rxpk': [{'tmst': 529950931, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICDAoQMBMe2He8fx'}]} |
| 0:48:17.704795 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 03a1, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 877bc7f1) |
| 0:48:17.706794 | LOG | Server <---------- DUT |
| 0:48:17.707794 | LOG | Attempt 2/15 |
| 0:48:18.701262 | LOG | PULL_DATA: 02 3488 02 3834383419003400 |
| 0:48:18.703260 | LOG | PULL_ACK: 02 3488 04 |
| 0:48:22.688400 | LOG | PUSH_ACK: 02 322b 01 |
| 0:48:22.690399 | LOG | PUSH_DATA: Protocol version = 02, Token = 322b, Identifier = 00, JSON = {'rxpk': [{'tmst': 534953891, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDAogMBo30Iw/HU'}]} |
| 0:48:22.692398 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 03a2, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 08c3f1d4) |
| 0:48:22.693398 | LOG | Server <---------- DUT |
| 0:48:22.695399 | LOG | Attempt 3/15 |
| 0:48:27.728489 | LOG | PUSH_ACK: 02 322c 01 |
| 0:48:27.731489 | LOG | PUSH_DATA: Protocol version = 02, Token = 322c, Identifier = 00, JSON = {'rxpk': [{'tmst': 539956827, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICDAowMBHeptd2q2'}]} |
| 0:48:27.732486 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 03a3, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 6d776ab6) |
| 0:48:27.733487 | LOG | Server <---------- DUT |
| 0:48:27.735485 | LOG | Attempt 4/15 |
| 0:48:28.782059 | LOG | PULL_DATA: 02 2391 02 3834383419003400 |
| 0:48:28.790055 | LOG | PULL_ACK: 02 2391 04 |
| 0:48:32.717676 | LOG | PUSH_ACK: 02 322d 01 |

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| 0:48:32.718675 | LOG | PUSH_DATA: Protocol version = 02, Token = 322d, Identifier = 00, JSON = {'rxpk': [{'tmst': 544961163, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICDApAMBptdHgpCd'}]} |
| 0:48:32.720675 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 03a4, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 4782909d) |
| 0:48:32.721674 | LOG | Server <---------- DUT |
| 0:48:32.724673 | LOG | Receive frame on specific channels process tested successfully |
| 0:48:32.728670 | LOG | Send LinkADRReq process starts |
| 0:48:37.707139 | LOG | PUSH_ACK: 02 322e 01 |
| 0:48:37.711123 | LOG | PUSH_DATA: Protocol version = 02, Token = 322e, Identifier = 00, JSON = {'rxpk': [{'tmst': 549964099, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICDApQMBKAaZTc2J'}]} |
| 0:48:37.715117 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: c0, FCnt: 03a5, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 994dcd89) |
| 0:48:37.718115 | LOG | Server <---------- DUT |
| 0:48:37.720116 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0194, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: c7c8377b) |
| 0:48:37.722116 | LOG | PULL_RESP: Protocol version = 02, Token = 6569, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 551964099, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAlAEASxj1o3THyDd7'}} |
| 0:48:37.724113 | LOG | Server ----------> DUT |
| 0:48:37.726131 | LOG | TX_ACK: 02 6569 05 3834383419003400 |
| 0:48:38.981432 | LOG | PULL_DATA: 02 86a3 02 3834383419003400 |
| 0:48:38.983429 | LOG | PULL_ACK: 02 86a3 04 |
| 0:48:42.710321 | LOG | PUSH_ACK: 02 322f 01 |
| 0:48:42.712321 | LOG | PUSH_DATA: Protocol version = 02, Token = 322f, Identifier = 00, JSON = {'rxpk': [{'tmst': 554974933, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCpgMDBwHV30JRZWs='}]} |
| 0:48:42.714317 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 03a6, FOpts: 0307), FPort: 01, FRMPayload: 0057, MIC: 4251656b) |
| 0:48:42.716316 | LOG | Server <---------- DUT |
| 0:48:42.717319 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:48:42.719314 | LOG | Command Answer: 0307 |
| 0:48:42.726314 | LOG | MAC command communication completed |
| 0:48:42.729279 | LOG | Check previous uplink data rate process starts |
| 0:48:42.733276 | LOG | Uplink received with expected Data Rate |
| 0:48:42.737274 | LOG | ADRACKReq bit is disabled |
| 0:48:42.739274 | LOG | ADRACKReq bit from DUT tested successfully |
| 0:48:42.742273 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:48:47.710775 | LOG | PUSH_ACK: 02 3231 01 |
| 0:48:47.713773 | LOG | PUSH_DATA: Protocol version = 02, Token = 3231, Identifier = 00, JSON = {'rxpk': [{'tmst': 559972749, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCApwMBfx11Ut7D'}]} |
| 0:48:47.714772 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03a7, FOpts: ), FPort: 01, FRMPayload: 0057, MIC: 7552dec3) |
| 0:48:47.716771 | LOG | Server <---------- DUT |
| 0:48:47.718771 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0195, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: 9b49efb0) |
| 0:48:47.720769 | LOG | Frame command sent to the DUT |

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| 0:48:47.722768 | LOG | PULL_RESP: Protocol version = 02, Token = 712e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 561972749, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAlQHgujObSe+w'}} |
| 0:48:47.723767 | LOG | Server ----------> DUT |
| 0:48:47.727765 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:48:47.731763 | LOG | Send NewChannelReq process starts |
| 0:48:49.191019 | LOG | PULL_DATA: 02 c6e7 02 3834383419003400 |
| 0:48:49.192990 | LOG | PULL_ACK: 02 c6e7 04 |
| 0:48:52.708997 | LOG | PUSH_ACK: 02 3232 01 |
| 0:48:52.710995 | LOG | PUSH_DATA: Protocol version = 02, Token = 3232, Identifier = 00, JSON = {'rxpk': [{'tmst': 564975663, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAqAMBKHghI1EE'}]} |
| 0:48:52.712995 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03a8, FOpts: ), FPort: 01, FRMPayload: 0058, MIC: 21235104) |
| 0:48:52.713995 | LOG | Server <---------- DUT |
| 0:48:52.715992 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0196, FOpts: ), FPort: 00, FRMPayload: 070300000050), MIC: 4c418878) |
| 0:48:52.718991 | LOG | PULL_RESP: Protocol version = 02, Token = 521d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 566975663, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAlgEAhwLoghALTEGIeA=='}} |
| 0:48:52.720010 | LOG | Server ----------> DUT |
| 0:48:52.723988 | LOG | TX_ACK: 02 521d 05 3834383419003400 |
| 0:48:57.721605 | LOG | PUSH_ACK: 02 3233 01 |
| 0:48:57.723603 | LOG | PUSH_DATA: Protocol version = 02, Token = 3233, Identifier = 00, JSON = {'rxpk': [{'tmst': 569983738, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCqQMHAwG1Vj9aVmY='}]} |
| 0:48:57.725602 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 03a9, FOpts: 0703), FPort: 01, FRMPayload: 0058, MIC: 3f5a5666) |
| 0:48:57.726604 | LOG | Server <---------- DUT |
| 0:48:57.727601 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:48:57.729600 | LOG | Command Answer: 0703 |
| 0:48:57.735596 | LOG | MAC command communication completed |
| 0:48:57.740593 | LOG | Send NewChannelReq process starts |
| 0:48:59.231139 | LOG | PULL_DATA: 02 20c7 02 3834383419003400 |
| 0:48:59.238135 | LOG | PULL_ACK: 02 20c7 04 |
| 0:49:07.746319 | LOG | PUSH_ACK: 02 3235 01 |
| 0:49:07.748318 | LOG | PUSH_DATA: Protocol version = 02, Token = 3235, Identifier = 00, JSON = {'rxpk': [{'tmst': 579984522, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAqgMBGLv/YFZv'}]} |
| 0:49:07.750316 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03aa, FOpts: ), FPort: 01, FRMPayload: 0058, MIC: ff60566f) |
| 0:49:07.751317 | LOG | Server <---------- DUT |
| 0:49:07.753315 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0197, FOpts: ), FPort: 00, FRMPayload: 070400000050), MIC: 28eb6bb9) |
| 0:49:07.756313 | LOG | PULL_RESP: Protocol version = 02, Token = 1a64, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 581984522, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAlwEAFQE2FNkOKOtruQ=='}} |
| 0:49:07.757314 | LOG | Server ----------> DUT |
| 0:49:07.762310 | LOG | TX_ACK: 02 1a64 05 3834383419003400 |

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| 0:49:09.440934 | LOG | PULL_DATA: 02 e874 02 3834383419003400 |
| 0:49:09.442914 | LOG | PULL_ACK: 02 e874 04 |
| 0:49:12.729053 | LOG | PUSH_ACK: 02 3236 01 |
| 0:49:12.732052 | LOG | PUSH_DATA: Protocol version = 02, Token = 3236, Identifier = 00, JSON = {'rxpk': [{'tmst': 584996699, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCqwMHAwEJGjCe6NU='}]} |
| 0:49:12.733052 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 03ab, FOpts: 0703), FPort: 01, FRMPayload: 0058, MIC: 309ee8d5) |
| 0:49:12.734051 | LOG | Server <---------- DUT |
| 0:49:12.735050 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:49:12.737049 | LOG | Command Answer: 0703 |
| 0:49:12.742046 | LOG | MAC command communication completed |
| 0:49:12.745045 | LOG | End Test Step: Data Rate Decay for optional data rates |
| 0:49:12.749042 | LOG | Partial Verdict: PASS |
| 0:49:12.754040 | LOG | ========== |
| 0:49:12.759037 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_012_B |
| 0:49:12.761036 | LOG | Final Verdict: PASS |

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| **Test Case** | TP_A_EU868_ED_MAC_104_BV_013 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 21:13:15 | |
| **Comments** | DutyCycleReq MAC Command | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.099041 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_013 |
| 0:00:00.131022 | LOG | ========== |
| 0:00:00.134020 | LOG | Start Test Step: Device activation |
| 0:00:00.194005 | LOG | Activation process has finished successfully |
| 0:00:00.195988 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.197985 | LOG | DevAddr: 20202020 |
| 0:00:00.200983 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.203981 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.206997 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.209978 | LOG | End Test Step: Device activation |
| 0:00:00.212976 | LOG | Partial Verdict: PASS |
| 0:00:00.215974 | LOG | ========== |
| 0:00:00.222970 | LOG | ========== |
| 0:00:00.224970 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.235963 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.239960 | LOG | DUT Pre-condition activation completed |
| 0:00:00.242959 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.246957 | LOG | Partial Verdict: PASS |
| 0:00:00.251954 | LOG | ========== |
| 0:00:00.259949 | LOG | ========== |
| 0:00:00.261948 | LOG | Start Test Step: Test DutyCycleReq MAC Command |

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| 0:00:00.270943 | LOG | Send LinkADRReq process starts |
| 0:00:02.840488 | LOG | PULL_DATA: 02 e555 02 3834383419003400 |
| 0:00:02.842487 | LOG | PULL_ACK: 02 e555 04 |
| 0:00:02.843487 | LOG | First PULL_DATA received |
| 0:00:06.077656 | LOG | PUSH_ACK: 02 3238 01 |
| 0:00:06.080654 | LOG | PUSH_DATA: Protocol version = 02, Token = 3238, Identifier = 00, JSON = {'rxpk': [{'tmst': 594997459, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCArAMB+qWFAwxZ'}]} |
| 0:00:06.082653 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03ac, FOpts: ), FPort: 01, FRMPayload: 0058, MIC: 85030c59) |
| 0:00:06.084652 | LOG | Server <---------- DUT |
| 0:00:06.087650 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0198, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 3b11a7b7) |
| 0:00:06.090649 | LOG | PULL_RESP: Protocol version = 02, Token = 6b59, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 596997459, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAmAEAW7rwU4g7Eae3'}} |
| 0:00:06.091648 | LOG | Server ----------> DUT |
| 0:00:06.095645 | LOG | TX_ACK: 02 6b59 05 3834383419003400 |
| 0:00:11.061834 | LOG | PUSH_ACK: 02 3239 01 |
| 0:00:11.063833 | LOG | PUSH_DATA: Protocol version = 02, Token = 3239, Identifier = 00, JSON = {'rxpk': [{'tmst': 600005539, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCrQMDBwFBfDeqYvw='}]} |
| 0:00:11.065832 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 03ad, FOpts: 0307), FPort: 01, FRMPayload: 0058, MIC: 37aa62fc) |
| 0:00:11.066831 | LOG | Server <---------- DUT |
| 0:00:11.067831 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:11.069830 | LOG | Command Answer: 0307 |
| 0:00:11.076828 | LOG | MAC command communication completed |
| 0:00:11.081823 | LOG | Send DutyCycleReq process starts |
| 0:00:13.019725 | LOG | PULL_DATA: 02 ccbf 02 3834383419003400 |
| 0:00:13.021725 | LOG | PULL_ACK: 02 ccbf 04 |
| 0:00:21.085160 | LOG | PUSH_ACK: 02 323a 01 |
| 0:00:21.088158 | LOG | PUSH_DATA: Protocol version = 02, Token = 323a, Identifier = 00, JSON = {'rxpk': [{'tmst': 610006315, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCArgMBQAL6gztX'}]} |
| 0:00:21.089158 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03ae, FOpts: ), FPort: 01, FRMPayload: 0058, MIC: fa833b57) |
| 0:00:21.091157 | LOG | Server <---------- DUT |
| 0:00:21.093157 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0199, FOpts: ), FPort: 00, FRMPayload: 0407), MIC: 4b66a10f) |
| 0:00:21.105148 | LOG | PULL_RESP: Protocol version = 02, Token = f13f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 612006315, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAmQEAHZBLZqEP'}} |
| 0:00:21.107148 | LOG | Server ----------> DUT |
| 0:00:21.111145 | LOG | TX_ACK: 02 f13f 05 3834383419003400 |
| 0:00:23.209957 | LOG | PULL_DATA: 02 eac5 02 3834383419003400 |
| 0:00:23.211956 | LOG | PULL_ACK: 02 eac5 04 |
| 0:00:26.112314 | LOG | PUSH_ACK: 02 323b 01 |
| 0:00:26.114313 | LOG | PUSH_DATA: Protocol version = 02, Token = 323b, Identifier = 00, JSON = {'rxpk': [{'tmst': 615015757, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 16, 'data': 'QCAgICCBrwMEAdIowpg21g=='}]} |
| 0:00:26.116312 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 03af, FOpts: 04), FPort: 01, FRMPayload: 0058, MIC: c29836d6) |
| 0:00:26.117312 | LOG | Server <---------- DUT |
| 0:00:26.119310 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:26.121310 | LOG | Command Answer: 04 |
| 0:00:26.125326 | LOG | MAC command communication completed |
| 0:00:26.131303 | LOG | Calculated Time on air for previous uplink (in seconds): 0.051456 |
| 0:00:26.132302 | LOG | Calculated Toff for previous uplink (in seconds): 6.535 |
| 0:00:26.137300 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:00:33.290255 | LOG | PULL_DATA: 02 5b5f 02 3834383419003400 |
| 0:00:33.293251 | LOG | PULL_ACK: 02 5b5f 04 |
| 0:00:36.096662 | LOG | PUSH_ACK: 02 323d 01 |
| 0:00:36.098661 | LOG | PUSH_DATA: Protocol version = 02, Token = 323d, Identifier = 00, JSON = {'rxpk': [{'tmst': 625016533, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAsAMBa/WGpwL+'}]} |
| 0:00:36.100659 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03b0, FOpts: ), FPort: 01, FRMPayload: 0058, MIC: 86a702fe) |
| 0:00:36.102658 | LOG | Server <---------- DUT |
| 0:00:36.106656 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:00:36.112655 | LOG | Calculated Time on air for previous uplink (in seconds): 0.046335999999999995 |
| 0:00:36.114653 | LOG | Calculated Toff for previous uplink (in seconds): 5.885 |
| 0:00:36.121647 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:43.370544 | LOG | PULL_DATA: 02 eaad 02 3834383419003400 |
| 0:00:43.372543 | LOG | PULL_ACK: 02 eaad 04 |
| 0:00:46.068016 | LOG | PUSH_ACK: 02 323e 01 |
| 0:00:46.071016 | LOG | PUSH_DATA: Protocol version = 02, Token = 323e, Identifier = 00, JSON = {'rxpk': [{'tmst': 635022397, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAsQMBU+gdg9kM'}]} |
| 0:00:46.072016 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03b1, FOpts: ), FPort: 01, FRMPayload: 0058, MIC: 1d83d90c) |
| 0:00:46.073016 | LOG | Server <---------- DUT |
| 0:00:46.075015 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 019a, FOpts: ), FPort: e0, FRMPayload: 0801010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e8c981b4) |
| 0:00:46.078011 | LOG | Frame command sent to the DUT |
| 0:00:46.079012 | LOG | PULL_RESP: Protocol version = 02, Token = 6e8f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 637022397, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 53, 'data': 'YCAgICAAmgHgzQbYEpRfU/p8OvtNMaegXBOxTK6QkHk9HTwJEejnF02dv6nZp9Th/ujJgbQ='}} |
| 0:00:46.080012 | LOG | Server ----------> DUT |
| 0:00:46.084007 | LOG | TX_ACK: 02 6e8f 05 3834383419003400 |
| 0:00:53.429850 | LOG | PULL_DATA: 02 ba58 02 3834383419003400 |
| 0:00:53.431848 | LOG | PULL_ACK: 02 ba58 04 |
| 0:00:56.189287 | LOG | PUSH_ACK: 02 323f 01 |
| 0:00:56.192285 | LOG | PUSH_DATA: Protocol version = 02, Token = 323f, Identifier = 00, JSON = {'rxpk': [{'tmst': 645097832, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 53, 'data': |

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|---|---|---|
| | | 'QCAgICCAsgPggPTR0lGnd5bdj9six0bVQngha3C3dzLVGTrw1yONSz44iKRPYL2hhv5+1gs='}]} |
| 0:00:56.194284 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03b2, FOpts: ), FPort: e0, FRMPayload: 08020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: fe7ed60b) |
| 0:00:56.195284 | LOG | Server <---------- DUT |
| 0:00:56.197283 | LOG | Answer in payload: 02020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:56.198282 | LOG | Frame Command Payload in the Answer: 08020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:56.203279 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:56.207277 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:56.214273 | LOG | Calculated Time on air for previous uplink (in seconds): 0.10265600000000001 |
| 0:00:56.215272 | LOG | Calculated Toff for previous uplink (in seconds): 13.037 |
| 0:00:56.222268 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:01:03.510142 | LOG | PULL_DATA: 02 ee9f 02 3834383419003400 |
| 0:01:03.513143 | LOG | PULL_ACK: 02 ee9f 04 |
| 0:01:11.108841 | LOG | PUSH_ACK: 02 3241 01 |
| 0:01:11.111839 | LOG | PUSH_DATA: Protocol version = 02, Token = 3241, Identifier = 00, JSON = {'rxpk': [{'tmst': 660038496, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAswMB96zrtJGt'}]} |
| 0:01:11.113838 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03b3, FOpts: ), FPort: 01, FRMPayload: 0059, MIC: ebb491ad) |
| 0:01:11.114838 | LOG | Server <---------- DUT |
| 0:01:11.117838 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:01:11.125832 | LOG | End Test Step: Test DutyCycleReq MAC Command |
| 0:01:11.128830 | LOG | Partial Verdict: PASS |
| 0:01:11.131828 | LOG | ========== |
| 0:01:11.138824 | LOG | ========== |
| 0:01:11.142822 | LOG | Start Test Step: Restore default DutyCycle |
| 0:01:11.162810 | LOG | Send DutyCycleReq process starts |
| 0:01:13.589454 | LOG | PULL_DATA: 02 d26e 02 3834383419003400 |
| 0:01:13.591453 | LOG | PULL_ACK: 02 d26e 04 |
| 0:01:21.132166 | LOG | PUSH_ACK: 02 3242 01 |
| 0:01:21.134165 | LOG | PUSH_DATA: Protocol version = 02, Token = 3242, Identifier = 00, JSON = {'rxpk': [{'tmst': 670044392, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAtAMBfGlbaAL+'}]} |
| 0:01:21.136164 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03b4, FOpts: ), FPort: 01, FRMPayload: 0059, MIC: 5b6802fe) |
| 0:01:21.138163 | LOG | Server <---------- DUT |
| 0:01:21.140162 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 019b, FOpts: ), FPort: 00, FRMPayload: 0400), MIC: 34a4764c) |
| 0:01:21.142161 | LOG | PULL_RESP: Protocol version = 02, Token = 72fa, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 672044392, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAmwEAHyQ0pHZM'}} |
| 0:01:21.144160 | LOG | Server ----------> DUT |
| 0:01:21.148157 | LOG | TX_ACK: 02 72fa 05 3834383419003400 |
| 0:01:23.659736 | LOG | PULL_DATA: 02 6934 02 3834383419003400 |
| 0:01:23.663733 | LOG | PULL_ACK: 02 6934 04 |
| 0:01:31.143499 | LOG | PUSH_ACK: 02 3244 01 |

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|---|---|---|
| 0:01:31.145498 | LOG | PUSH_DATA: Protocol version = 02, Token = 3244, Identifier = 00, JSON = {'rxpk': [{'tmst': 680055458, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 16, 'data': 'QCAgICCBtQMEAS713vedog=='}]} |
| 0:01:31.146497 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 03b5, FOpts: 04), FPort: 01, FRMPayload: 0059, MIC: def79da2) |
| 0:01:31.147499 | LOG | Server <---------- DUT |
| 0:01:31.149496 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:31.151495 | LOG | Command Answer: 04 |
| 0:01:31.155492 | LOG | MAC command communication completed |
| 0:01:31.159491 | LOG | End Test Step: Restore default DutyCycle |
| 0:01:31.164489 | LOG | Partial Verdict: PASS |
| 0:01:31.168487 | LOG | ========== |
| 0:01:31.173482 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_013 |
| 0:01:31.176480 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_014 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 21:14:49 | |
| **Comments** | DeviceTimeReq MAC Command | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.012777 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_014 |
| 0:00:00.045756 | LOG | ========== |
| 0:00:00.047757 | LOG | Start Test Step: Device activation |
| 0:00:00.103724 | LOG | Activation process has finished successfully |
| 0:00:00.105723 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.108721 | LOG | DevAddr: 20202020 |
| 0:00:00.111719 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.114719 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.117716 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.119715 | LOG | End Test Step: Device activation |
| 0:00:00.122713 | LOG | Partial Verdict: PASS |
| 0:00:00.126711 | LOG | ========== |
| 0:00:00.131710 | LOG | ========== |
| 0:00:00.161692 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.172685 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.176683 | LOG | DUT Pre-condition activation completed |
| 0:00:00.180680 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.185679 | LOG | Partial Verdict: PASS |
| 0:00:00.188675 | LOG | ========== |
| 0:00:00.194672 | LOG | ========== |
| 0:00:00.198670 | LOG | Start Test Step: Test DeviceTimeReq MAC Command |
| 0:00:00.210664 | LOG | Send Test Command DeviceTimeReq process starts |
| 0:00:06.725006 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:09.425449 | LOG | PULL_DATA: 02 bc20 02 3834383419003400 |

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|---|---|---|
| 0:00:09.428475 | LOG | PULL_ACK: 02 bc20 04 |
| 0:00:09.429474 | LOG | First PULL_DATA received |
| 0:00:11.718179 | LOG | PUSH_ACK: 02 3246 01 |
| 0:00:11.721178 | LOG | PUSH_DATA: Protocol version = 02, Token = 3246, Identifier = 00, JSON = {'rxpk': [{'tmst': 695059170, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAtwMBVITszANW'}]} |
| 0:00:11.722177 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 03b7, FOpts: ), FPort: 01, FRMPayload: 0059, MIC: eccc0356) |
| 0:00:11.724175 | LOG | Server <---------- DUT |
| 0:00:11.726174 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 019c, FOpts: ), FPort: e0, FRMPayload: 21), MIC: 240cc56f) |
| 0:00:11.729173 | LOG | Frame command sent to the DUT |
| 0:00:11.731172 | LOG | PULL_RESP: Protocol version = 02, Token = 85ee, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 697059170, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAnAHgVSQMxW8='}} |
| 0:00:11.732170 | LOG | Server ----------> DUT |
| 0:00:11.737173 | LOG | Send Test Command DeviceTimeReq process completed |
| 0:00:11.740136 | LOG | Wait a MAC command from the DUT process starts |
| 0:00:16.771318 | LOG | PUSH_ACK: 02 3247 01 |
| 0:00:16.773318 | LOG | PUSH_DATA: Protocol version = 02, Token = 3247, Identifier = 00, JSON = {'rxpk': [{'tmst': 700068607, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 16, 'data': 'QCAgICCBuAMNAXmZvzDgkA=='}]} |
| 0:00:16.776316 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 03b8, FOpts: 0d), FPort: 01, FRMPayload: 005a, MIC: bf30e090) |
| 0:00:16.779314 | LOG | Server <---------- DUT |
| 0:00:16.781315 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:16.783284 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 019d, FOpts: ), FPort: 00, FRMPayload: 0d87d61200e3), MIC: 1f0a4f5e) |
| 0:00:16.786282 | LOG | PULL_RESP: Protocol version = 02, Token = 3655, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 702068607, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAnQEANXlILtEsHwpPXg=='}} |
| 0:00:16.788309 | LOG | Server ----------> DUT |
| 0:00:16.794308 | LOG | Wait a MAC command from the DUT process completed |
| 0:00:16.799304 | LOG | End Test Step: Test DeviceTimeReq MAC Command |
| 0:00:16.804299 | LOG | Partial Verdict: PASS |
| 0:00:16.809269 | LOG | ========== |
| 0:00:16.816293 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_014 |
| 0:00:16.818293 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_015_A | |
| **Verdict** | PASS | |
| **Date** | 2021-10-10 00:27:32 | |
| **Comments** | RX1 Window Test (Part 1) | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | SF7BW250 Frequency | 868.100 |

| | | |
|---|---|---|
| | FSK Frequency | 868.100 |
| | Data Rates to be measured | SF12BW125 |
| | Conformance | False |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.015434 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_015_A |
| 0:00:00.044399 | LOG | WARN:TEST CASE CONFIGURATION NON CONFORMANCE |
| 0:00:00.050394 | LOG | ========== |
| 0:00:00.052393 | LOG | Start Test Step: Device activation |
| 0:00:00.063389 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:00:09.124230 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:09.482027 | LOG | PULL_DATA: 01 7441 02 fffeb827eb59d368 |
| 0:00:09.484025 | LOG | PULL_ACK: 01 7441 04 fffeb827eb59d368 |
| 0:00:16.852837 | LOG | PUSH_ACK: 01 213d 01 fffeb827eb59d368 |
| 0:00:16.860833 | LOG | PUSH_DATA: Protocol version = 01, Token = 213d, Identifier = 00, JSON = {'rxpk': [{'tmst': 111383188, 'time': '2021-09-29T16:30:13.590267Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -27, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBICABFezD8='}]} |
| 0:00:16.861833 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0002),MIC: 115ecc3f) |
| 0:00:16.863829 | LOG | Server <---------- DUT |
| 0:00:16.864827 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:16.865827 | LOG | Previous DevNonce: 0 |
| 0:00:16.867823 | LOG | Actual DevNonce: 2 |
| 0:00:16.870824 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 010000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 4435ff08) |
| 0:00:16.873822 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 117383188, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IJSRzzIPlSjAiL6aGo72f1I='}} |
| 0:00:16.874819 | LOG | Server ----------> DUT |
| 0:00:19.671229 | LOG | PULL_DATA: 01 dc87 02 fffeb827eb59d368 |
| 0:00:19.673227 | LOG | PULL_ACK: 01 dc87 04 fffeb827eb59d368 |
| 0:00:25.210076 | LOG | PUSH_ACK: 01 70e9 01 fffeb827eb59d368 |
| 0:00:25.213074 | LOG | PUSH_DATA: Protocol version = 01, Token = 70e9, Identifier = 00, JSON = {'rxpk': [{'tmst': 119746244, 'time': '2021-09-29T16:30:21.946815Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAAAABAygJs+a6'}]} |
| 0:00:25.215073 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: 09b3e6ba) |
| 0:00:25.217072 | LOG | Server <---------- DUT |
| 0:00:25.223068 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:00:25.226066 | LOG | Activation process has finished successfully |
| 0:00:25.228066 | LOG | Data stored in the DUT after Activation: |
| 0:00:25.230064 | LOG | DevAddr: 20202020 |
| 0:00:25.233063 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:25.237063 | LOG | NwkSKey: d48e676904b7cc9a59ca03263478dfc8 |
| 0:00:25.240059 | LOG | AppSKey: f4468a9629d3307fa278886010ff5804 |
| 0:00:25.243057 | LOG | End Test Step: Device activation |
| 0:00:25.246056 | LOG | Partial Verdict: PASS |
| 0:00:25.251053 | LOG | ========== |
| 0:00:25.259047 | LOG | ========== |
| 0:00:25.261047 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:25.271040 | LOG | DUT Pre-condition activation process starts |

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| 0:00:25.275039 | LOG | Check FCntUp after reset process starts |
| 0:00:25.279037 | LOG | Check FCntUp after reset process complete |
| 0:00:25.298026 | LOG | Send Test Command DutResetReq process starts |
| 0:00:25.301025 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0001, FOpts: ), FPort: e0, FRMPayload: 01), MIC: fa8bddc2) |
| 0:00:25.303026 | LOG | Frame command sent to the DUT |
| 0:00:25.305023 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 121746244, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAAQDgwfqL3cI='}} |
| 0:00:25.306023 | LOG | Server ----------> DUT |
| 0:00:25.309021 | LOG | Send Test Command DutResetReq process completed |
| 0:00:25.319013 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:00:29.701519 | LOG | PULL_DATA: 01 3ea1 02 fffeb827eb59d368 |
| 0:00:29.707517 | LOG | PULL_ACK: 01 3ea1 04 fffeb827eb59d368 |
| 0:00:38.029780 | LOG | PUSH_ACK: 01 fc67 01 fffeb827eb59d368 |
| 0:00:38.032779 | LOG | PUSH_DATA: Protocol version = 01, Token = fc67, Identifier = 00, JSON = {'rxpk': [{'tmst': 132562340, 'time': '2021-09-29T16:30:34.767258Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -21, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIDAO7oGBU='}]} |
| 0:00:38.034777 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0003),MIC: eee81815) |
| 0:00:38.036777 | LOG | Server <---------- DUT |
| 0:00:38.037775 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:38.039774 | LOG | Previous DevNonce: 2 |
| 0:00:38.040792 | LOG | Actual DevNonce: 3 |
| 0:00:38.043773 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 020000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: c4632611) |
| 0:00:38.046770 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 137562340, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IBJVOZCuXTyX4MJJ3H3tY0Q='}} |
| 0:00:38.048769 | LOG | Server ----------> DUT |
| 0:00:39.851744 | LOG | PULL_DATA: 01 3e01 02 fffeb827eb59d368 |
| 0:00:39.853743 | LOG | PULL_ACK: 01 3e01 04 fffeb827eb59d368 |
| 0:00:45.394609 | LOG | PUSH_ACK: 01 7e97 01 fffeb827eb59d368 |
| 0:00:45.397607 | LOG | PUSH_DATA: Protocol version = 01, Token = 7e97, Identifier = 00, JSON = {'rxpk': [{'tmst': 139925404, 'time': '2021-09-29T16:30:42.131883Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAAAABKh32QD9c'}]} |
| 0:00:45.399606 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: f6403f5c) |
| 0:00:45.400605 | LOG | Server <---------- DUT |
| 0:00:45.407601 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:00:45.411599 | LOG | Activation process has finished successfully |
| 0:00:45.416597 | LOG | Data stored in the DUT after Activation: |
| 0:00:45.429589 | LOG | DevAddr: 20202020 |
| 0:00:45.434586 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:45.439583 | LOG | NwkSKey: e1fd270065a9f0aa5a564cfb823c800a |
| 0:00:45.444580 | LOG | AppSKey: f5daca433769fa91d94cb415a713359b |
| 0:00:45.456573 | LOG | Check FCntUp after reset process starts |
| 0:00:45.461571 | LOG | Check FCntUp after reset process complete |
| 0:00:45.472564 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:00:45.475562 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0002, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 589bd86d) |

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| 0:00:45.477561 | LOG | Frame command sent to the DUT |
| 0:00:45.479560 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 141925404, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAAgDgTPhYm9ht'}} |
| 0:00:45.480559 | LOG | Server ----------> DUT |
| 0:00:45.483558 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:00:45.487555 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:49.882057 | LOG | PULL_DATA: 01 eadc 02 fffeb827eb59d368 |
| 0:00:49.886053 | LOG | PULL_ACK: 01 eadc 04 fffeb827eb59d368 |
| 0:00:54.755282 | LOG | PUSH_ACK: 01 6b96 01 fffeb827eb59d368 |
| 0:00:54.756281 | LOG | PUSH_DATA: Protocol version = 01, Token = 6b96, Identifier = 00, JSON = {'rxpk': [{'tmst': 149292740, 'time': '2021-09-29T16:30:51.492109Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAAQABw7wZfe/+'}]} |
| 0:00:54.758279 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0001, MIC: 197deffe) |
| 0:00:54.759279 | LOG | Server <---------- DUT |
| 0:00:54.761278 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0003, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 778b935c) |
| 0:00:54.763277 | LOG | Frame command sent to the DUT |
| 0:00:54.765275 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 151292740, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAAwDgeIV3i5Nc'}} |
| 0:00:54.766275 | LOG | Server ----------> DUT |
| 0:00:54.770273 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:54.774271 | LOG | Check ADR bit process starts |
| 0:00:59.766399 | LOG | PUSH_ACK: 01 8f38 01 fffeb827eb59d368 |
| 0:00:59.771398 | LOG | PUSH_DATA: Protocol version = 01, Token = 8f38, Identifier = 00, JSON = {'rxpk': [{'tmst': 154297092, 'time': '2021-09-29T16:30:56.503615Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAAgABICpgyD7t'}]} |
| 0:00:59.772395 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 60c83eed) |
| 0:00:59.773396 | LOG | Server <---------- DUT |
| 0:00:59.775393 | LOG | ADR bit in FCtrl field is set |
| 0:00:59.780390 | LOG | Send LinkADRReq process starts |
| 0:00:59.961288 | LOG | PULL_DATA: 01 5c2a 02 fffeb827eb59d368 |
| 0:00:59.963286 | LOG | PULL_ACK: 01 5c2a 04 fffeb827eb59d368 |
| 0:01:04.765553 | LOG | PUSH_ACK: 01 ecb0 01 fffeb827eb59d368 |
| 0:01:04.767552 | LOG | PUSH_DATA: Protocol version = 01, Token = ecb0, Identifier = 00, JSON = {'rxpk': [{'tmst': 159301468, 'time': '2021-09-29T16:31:01.502732Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAAwABkZHwyvdb'}]} |
| 0:01:04.769551 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: f0caf75b) |
| 0:01:04.770550 | LOG | Server <---------- DUT |
| 0:01:04.771550 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0004, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 60925fc4) |
| 0:01:04.774548 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 161301468, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAABAAAMTH6Qr1gkl/E'}} |
| 0:01:04.775550 | LOG | Server ----------> DUT |
| 0:01:08.642224 | LOG | PUSH_ACK: 01 3bfb 01 fffeb827eb59d368 |

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| 0:01:08.644225 | LOG | PUSH_DATA: Protocol version = 01, Token = 3bfb, Identifier = 00, JSON = {'rxpk': [{'tmst': 163200979, 'time': '2021-09-29T16:31:05.379670Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -5, 'size': 17, 'data': 'QCAgICCCBAADBwH81jcEIHw='}]} |
| 0:01:08.645224 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 0002, MIC: 3704207c) |
| 0:01:08.647223 | LOG | Server <---------- DUT |
| 0:01:08.648220 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:08.650220 | LOG | Command Answer: 0307 |
| 0:01:08.659215 | LOG | MAC command communication completed |
| 0:01:08.666211 | LOG | Send Test Command DutVersionsReq process starts |
| 0:01:09.971468 | LOG | PULL_DATA: 01 32af 02 fffeb827eb59d368 |
| 0:01:09.973466 | LOG | PULL_ACK: 01 32af 04 fffeb827eb59d368 |
| 0:01:13.638380 | LOG | PUSH_ACK: 01 ec18 01 fffeb827eb59d368 |
| 0:01:13.640381 | LOG | PUSH_DATA: Protocol version = 01, Token = ec18, Identifier = 00, JSON = {'rxpk': [{'tmst': 168198859, 'time': '2021-09-29T16:31:10.375547Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -7, 'size': 15, 'data': 'QCAgICCABQABbjSDEHEq'}]} |
| 0:01:13.642378 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 8310712a) |
| 0:01:13.643380 | LOG | Server <---------- DUT |
| 0:01:13.646376 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0005, FOpts: ), FPort: e0, FRMPayload: 7f), MIC: 6419a666) |
| 0:01:13.648377 | LOG | Frame command sent to the DUT |
| 0:01:13.650375 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 170198859, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAABQDg12QZpmY='}} |
| 0:01:13.652372 | LOG | Server ----------> DUT |
| 0:01:18.666524 | LOG | PUSH_ACK: 01 db5c 01 fffeb827eb59d368 |
| 0:01:18.668518 | LOG | PUSH_DATA: Protocol version = 01, Token = db5c, Identifier = 00, JSON = {'rxpk': [{'tmst': 173223459, 'time': '2021-09-29T16:31:15.403107Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -5, 'size': 23, 'data': 'QCAgICCABgDgj055eJ75buGpvQM79eY='}]} |
| 0:01:18.669517 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 7f010004010004010004, MIC: 033bf5e6) |
| 0:01:18.671516 | LOG | Server <---------- DUT |
| 0:01:18.672515 | LOG | Answer in payload: 010004010004010004 |
| 0:01:18.673515 | LOG | Frame Command Payload in the Answer: 7f010004010004010004 |
| 0:01:18.677513 | LOG | DUT Version received: 010004010004010004 |
| 0:01:18.679514 | LOG | Send Test Command DutVersionsReq completed |
| 0:01:18.682510 | LOG | DUT Pre-condition activation completed |
| 0:01:18.686507 | LOG | End Test Step: DUT Pre-condition settings |
| 0:01:18.690507 | LOG | Partial Verdict: PASS |
| 0:01:18.695503 | LOG | ========== |
| 0:01:18.703498 | LOG | ========== |
| 0:01:18.707496 | LOG | Start Test Step: Initial settings for the test |
| 0:01:18.722488 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:20.051731 | LOG | PULL_DATA: 01 021a 02 fffeb827eb59d368 |
| 0:01:20.053729 | LOG | PULL_ACK: 01 021a 04 fffeb827eb59d368 |
| 0:01:24.786038 | LOG | PUSH_ACK: 01 fe43 01 fffeb827eb59d368 |
| 0:01:24.788035 | LOG | PUSH_DATA: Protocol version = 01, Token = fe43, Identifier = 00, JSON = {'rxpk': [{'tmst': 179316220, 'time': '2021-09-29T16:31:21.523071Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -2, 'size': 15, 'data': 'QCAgICCABwABuBFnIOLR'}]} |

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| 0:01:24.789035 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0007, FOpts: ), FPort: 01, FRMPayload: 0003, MIC: 6720e2d1) |
| 0:01:24.791034 | LOG | Server <---------- DUT |
| 0:01:24.793032 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 644bb7af) |
| 0:01:24.796030 | LOG | Frame command sent to the DUT |
| 0:01:24.798029 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 181316220, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABgDgSexkS7ev'}} |
| 0:01:24.799029 | LOG | Server ----------> DUT |
| 0:01:24.805025 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:24.810023 | LOG | End Test Step: Initial settings for the test |
| 0:01:24.815020 | LOG | Partial Verdict: PASS |
| 0:01:24.826013 | LOG | ========== |
| 0:01:24.833010 | LOG | ========== |
| 0:01:24.837009 | LOG | Start Test Step: Test packet error rate for SF12BW125 using RX1 window |
| 0:01:24.851999 | LOG | Send LinkADRReq process starts |
| 0:01:29.783192 | LOG | PUSH_ACK: 01 fbfa 01 fffeb827eb59d368 |
| 0:01:29.788189 | LOG | PUSH_DATA: Protocol version = 01, Token = fbfa, Identifier = 00, JSON = {'rxpk': [{'tmst': 184320588, 'time': '2021-09-29T16:31:26.521075Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCACAAB/GbpUd1o'}]} |
| 0:01:29.790188 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0008, FOpts: ), FPort: 01, FRMPayload: 0004, MIC: e951dd68) |
| 0:01:29.791190 | LOG | Server <---------- DUT |
| 0:01:29.793188 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0007, FOpts: ), FPort: 00, FRMPayload: 0300070001), MIC: f6ad08af) |
| 0:01:29.795185 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 186320588, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAABwAArRWD2+D2rQiv'}} |
| 0:01:29.797185 | LOG | Server ----------> DUT |
| 0:01:30.200955 | LOG | PULL_DATA: 01 aa3a 02 fffeb827eb59d368 |
| 0:01:30.202953 | LOG | PULL_ACK: 01 aa3a 04 fffeb827eb59d368 |
| 0:01:34.960246 | LOG | PUSH_ACK: 01 fb29 01 fffeb827eb59d368 |
| 0:01:34.962245 | LOG | PUSH_DATA: Protocol version = 01, Token = fb29, Identifier = 00, JSON = {'rxpk': [{'tmst': 189488780, 'time': '2021-09-29T16:31:31.697484Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -3, 'size': 17, 'data': 'QCAgICCCCQADBwHtzjgFcOw='}]} |
| 0:01:34.964244 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0009, FOpts: 0307), FPort: 01, FRMPayload: 0004, MIC: 380570ec) |
| 0:01:34.965243 | LOG | Server <---------- DUT |
| 0:01:34.968241 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:34.969242 | LOG | Command Answer: 0307 |
| 0:01:34.976238 | LOG | MAC command communication completed |
| 0:01:34.980234 | LOG | Send RXParamSetupReq process starts |
| 0:01:39.793494 | LOG | PUSH_ACK: 01 d1e6 01 fffeb827eb59d368 |
| 0:01:39.795494 | LOG | PUSH_DATA: Protocol version = 01, Token = d1e6, Identifier = 00, JSON = {'rxpk': [{'tmst': 194329428, 'time': '2021-09-29T16:31:36.531383Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCACgABuKzzx+E+'}]} |
| 0:01:39.797493 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000a, FOpts: ), FPort: 01, FRMPayload: 0004, MIC: f3c7e13e) |
| 0:01:39.798493 | LOG | Server <---------- DUT |

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| 0:01:39.800492 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0008, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: ed5a118e) |
| 0:01:39.803490 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 196329428, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAACAAAkov77aDtWhGO'}} |
| 0:01:39.805488 | LOG | Server ----------> DUT |
| 0:01:40.401149 | LOG | PULL_DATA: 01 053c 02 fffeb827eb59d368 |
| 0:01:40.403148 | LOG | PULL_ACK: 01 053c 04 fffeb827eb59d368 |
| 0:01:44.967552 | LOG | PUSH_ACK: 01 7c94 01 fffeb827eb59d368 |
| 0:01:44.969549 | LOG | PUSH_DATA: Protocol version = 01, Token = 7c94, Identifier = 00, JSON = {'rxpk': [{'tmst': 199497636, 'time': '2021-09-29T16:31:41.704766Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -3, 'size': 17, 'data': 'QCAgICCCCwAFBwH47vDV1+M='}]} |
| 0:01:44.971549 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 000b, FOpts: 0507), FPort: 01, FRMPayload: 0004, MIC: f0d5d7e3) |
| 0:01:44.972550 | LOG | Server <---------- DUT |
| 0:01:44.974547 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:44.975546 | LOG | Command Answer: 0507 |
| 0:01:44.997534 | LOG | MAC command communication completed |
| 0:01:45.006528 | LOG | Send Test Command RxAppCntReq process starts |
| 0:01:49.967705 | LOG | PUSH_ACK: 01 75d8 01 fffeb827eb59d368 |
| 0:01:49.970704 | LOG | PUSH_DATA: Protocol version = 01, Token = 75d8, Identifier = 00, JSON = {'rxpk': [{'tmst': 204500644, 'time': '2021-09-29T16:31:46.705519Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -5, 'size': 17, 'data': 'QCAgICCCDAAFBwE2EgpGMbw='}]} |
| 0:01:49.971704 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 000c, FOpts: 0507), FPort: 01, FRMPayload: 0004, MIC: 0a4631bc) |
| 0:01:49.972702 | LOG | Server <---------- DUT |
| 0:01:49.974701 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0009, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 2487a596) |
| 0:01:49.977699 | LOG | Frame command sent to the DUT |
| 0:01:49.978700 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 206500644, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAACQDgSCSHpZY='}} |
| 0:01:49.979698 | LOG | Server ----------> DUT |
| 0:01:50.581356 | LOG | PULL_DATA: 01 be61 02 fffeb827eb59d368 |
| 0:01:50.583354 | LOG | PULL_ACK: 01 be61 04 fffeb827eb59d368 |
| 0:01:54.975855 | LOG | PUSH_ACK: 01 89f9 01 fffeb827eb59d368 |
| 0:01:54.977854 | LOG | PUSH_DATA: Protocol version = 01, Token = 89f9, Identifier = 00, JSON = {'rxpk': [{'tmst': 209508196, 'time': '2021-09-29T16:31:51.713617Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -3, 'size': 16, 'data': 'QCAgICCADQDgOcNj2l4FsA=='}]} |
| 0:01:54.979852 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000d, FOpts: ), FPort: e0, FRMPayload: 090500, MIC: da5e05b0) |
| 0:01:54.981852 | LOG | Server <---------- DUT |
| 0:01:54.983850 | LOG | Answer in payload: 0500 |
| 0:01:54.986849 | LOG | Frame Command Payload in the Answer: 090500 |
| 0:01:54.993845 | LOG | RX Count received by DUT: 5 |
| 0:01:54.996843 | LOG | Send Test Command RxAppCntReq process completed |
| 0:01:55.000841 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:01:59.811102 | LOG | PUSH_ACK: 01 5cbb 01 fffeb827eb59d368 |
| 0:01:59.815101 | LOG | PUSH_DATA: Protocol version = 01, Token = 5cbb, Identifier = 00, JSON = {'rxpk': [{'tmst': 214344180, 'time': '2021-09-29T16:31:56.549070Z', 'chan': 1, |

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| | | 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCADgABPBSN7HEv'}]} |
| 0:01:59.816100 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000e, FOpts: ), FPort: 01, FRMPayload: 0005, MIC: 8dec712f) |
| 0:01:59.818099 | LOG | Server <---------- DUT |
| 0:01:59.820098 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000a, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: ce4c9795) |
| 0:01:59.822097 | LOG | Frame command sent to the DUT |
| 0:01:59.823096 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 216344180, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACgDgmfrOTJeV'}} |
| 0:01:59.825095 | LOG | Server ----------> DUT |
| 0:01:59.828093 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:01:59.832091 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:00.621643 | LOG | PULL_DATA: 01 a899 02 fffeb827eb59d368 |
| 0:02:00.622641 | LOG | PULL_ACK: 01 a899 04 fffeb827eb59d368 |
| 0:02:04.819254 | LOG | PUSH_ACK: 01 0f95 01 fffeb827eb59d368 |
| 0:02:04.821252 | LOG | PUSH_DATA: Protocol version = 01, Token = 0f95, Identifier = 00, JSON = {'rxpk': [{'tmst': 219348540, 'time': '2021-09-29T16:32:01.556277Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCADwABerxg/mNe'}]} |
| 0:02:04.822251 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000f, FOpts: ), FPort: 01, FRMPayload: 0006, MIC: 60fe635e) |
| 0:02:04.824250 | LOG | Server <---------- DUT |
| 0:02:04.825249 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000b, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 25d408b1) |
| 0:02:04.827250 | LOG | Frame command sent to the DUT |
| 0:02:04.829247 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 220348540, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACwDgggwl1Aix'}} |
| 0:02:04.831246 | LOG | Server ----------> DUT |
| 0:02:04.834244 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:04.837242 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:09.815411 | LOG | PUSH_ACK: 01 b1eb 01 fffeb827eb59d368 |
| 0:02:09.818408 | LOG | PUSH_DATA: Protocol version = 01, Token = b1eb, Identifier = 00, JSON = {'rxpk': [{'tmst': 224352876, 'time': '2021-09-29T16:32:06.552651Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAEAABuj9k7wMU'}]} |
| 0:02:09.819407 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0010, FOpts: ), FPort: 01, FRMPayload: 0007, MIC: 64ef0314) |
| 0:02:09.821406 | LOG | Server <---------- DUT |
| 0:02:09.823406 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 482927bb) |
| 0:02:09.825404 | LOG | Frame command sent to the DUT |
| 0:02:09.826403 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 225352876, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAADADgcI5IKSe7'}} |
| 0:02:09.827402 | LOG | Server ----------> DUT |
| 0:02:09.830402 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:09.835398 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:10.630945 | LOG | PULL_DATA: 01 f1b3 02 fffeb827eb59d368 |
| 0:02:10.632944 | LOG | PULL_ACK: 01 f1b3 04 fffeb827eb59d368 |
| 0:02:14.823559 | LOG | PUSH_ACK: 01 05ef 01 fffeb827eb59d368 |

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| 0:02:14.825559 | LOG | PUSH_DATA: Protocol version = 01, Token = 05ef, Identifier = 00, JSON = {'rxpk': [{'tmst': 229357236, 'time': '2021-09-29T16:32:11.561332Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAEQABDVFVVcUu'}]} |
| 0:02:14.827557 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0011, FOpts: ), FPort: 01, FRMPayload: 0008, MIC: 5555c52e) |
| 0:02:14.828558 | LOG | Server <---------- DUT |
| 0:02:14.830557 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000d, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: e1a34c4b) |
| 0:02:14.833554 | LOG | Frame command sent to the DUT |
| 0:02:14.835553 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 230357236, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAADQDgVpXho0xL'}} |
| 0:02:14.837551 | LOG | Server ----------> DUT |
| 0:02:14.842548 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:14.847546 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:19.828711 | LOG | PUSH_ACK: 01 f700 01 fffeb827eb59d368 |
| 0:02:19.830709 | LOG | PUSH_DATA: Protocol version = 01, Token = f700, Identifier = 00, JSON = {'rxpk': [{'tmst': 234360212, 'time': '2021-09-29T16:32:16.566824Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAEgABXCgvKllb'}]} |
| 0:02:19.832708 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0012, FOpts: ), FPort: 01, FRMPayload: 0009, MIC: 2f2a595b) |
| 0:02:19.833707 | LOG | Server <---------- DUT |
| 0:02:19.835707 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000e, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: d01b5aa3) |
| 0:02:19.838705 | LOG | Frame command sent to the DUT |
| 0:02:19.839704 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 235360212, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAADgDg367QG1qj'}} |
| 0:02:19.840706 | LOG | Server ----------> DUT |
| 0:02:19.843703 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:19.854696 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:20.641249 | LOG | PULL_DATA: 01 e9a1 02 fffeb827eb59d368 |
| 0:02:20.643248 | LOG | PULL_ACK: 01 e9a1 04 fffeb827eb59d368 |
| 0:02:24.827866 | LOG | PUSH_ACK: 01 3ae5 01 fffeb827eb59d368 |
| 0:02:24.829864 | LOG | PUSH_DATA: Protocol version = 01, Token = 3ae5, Identifier = 00, JSON = {'rxpk': [{'tmst': 239363204, 'time': '2021-09-29T16:32:21.565216Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAEwABDKKZb5Nm'}]} |
| 0:02:24.830865 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0013, FOpts: ), FPort: 01, FRMPayload: 000a, MIC: 996f9366) |
| 0:02:24.831865 | LOG | Server <---------- DUT |
| 0:02:24.833864 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000f, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 8b1b3141) |
| 0:02:24.836861 | LOG | Frame command sent to the DUT |
| 0:02:24.839859 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 240363204, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'oCAgICAADwDgoIkXMiannpjfGp9a9gEg6TypPwQLDdVVHp6kcdE+UsSsqp2GKbnCBkGxWeiXewoT4caaixsxQQ=='}} |
| 0:02:24.840858 | LOG | Server ----------> DUT |

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| 0:02:24.845856 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:24.849855 | LOG | Check previous uplink data rate process starts |
| 0:02:24.852851 | LOG | Uplink received with expected Data Rate |
| 0:02:24.857848 | LOG | Check ACK bit in next uplink starts |
| 0:02:29.844011 | LOG | PUSH_ACK: 01 ca0b 01 fffeb827eb59d368 |
| 0:02:29.850007 | LOG | PUSH_DATA: Protocol version = 01, Token = ca0b, Identifier = 00, JSON = {'rxpk': [{'tmst': 244381476, 'time': '2021-09-29T16:32:26.581772Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCgFAABAv9otYbC'}]} |
| 0:02:29.851007 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 0014, FOpts: ), FPort: 01, FRMPayload: 000b, MIC: 68b586c2) |
| 0:02:29.853005 | LOG | Server <---------- DUT |
| 0:02:29.857005 | LOG | Check ACK bit in next uplink tested successfully |
| 0:02:29.863002 | LOG | Send Test Command RxAppCntReq process starts |
| 0:02:30.841443 | LOG | PULL_DATA: 01 cbd0 02 fffeb827eb59d368 |
| 0:02:30.843442 | LOG | PULL_ACK: 01 cbd0 04 fffeb827eb59d368 |
| 0:02:34.855159 | LOG | PUSH_ACK: 01 4847 01 fffeb827eb59d368 |
| 0:02:34.856158 | LOG | PUSH_DATA: Protocol version = 01, Token = 4847, Identifier = 00, JSON = {'rxpk': [{'tmst': 249384484, 'time': '2021-09-29T16:32:31.592364Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAFQABxpHG0Hmj'}]} |
| 0:02:34.858157 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0015, FOpts: ), FPort: 01, FRMPayload: 000b, MIC: c6d079a3) |
| 0:02:34.859157 | LOG | Server <---------- DUT |
| 0:02:34.861156 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0010, FOpts: ), FPort: e0, FRMPayload: 09), MIC: a51c2965) |
| 0:02:34.863155 | LOG | Frame command sent to the DUT |
| 0:02:34.864154 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 251384484, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAEADg2qUcKWU='}} |
| 0:02:34.865153 | LOG | Server ----------> DUT |
| 0:02:40.022218 | LOG | PUSH_ACK: 01 64bd 01 fffeb827eb59d368 |
| 0:02:40.025216 | LOG | PUSH_DATA: Protocol version = 01, Token = 64bd, Identifier = 00, JSON = {'rxpk': [{'tmst': 254554468, 'time': '2021-09-29T16:32:36.760082Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -4, 'size': 16, 'data': 'QCAgICCAFgDgUOmRPDRj9g=='}]} |
| 0:02:40.027216 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0016, FOpts: ), FPort: e0, FRMPayload: 090c00, MIC: 3c3463f6) |
| 0:02:40.028217 | LOG | Server <---------- DUT |
| 0:02:40.030214 | LOG | Answer in payload: 0c00 |
| 0:02:40.031217 | LOG | Frame Command Payload in the Answer: 090c00 |
| 0:02:40.036211 | LOG | RX Count received by DUT: 12 |
| 0:02:40.039208 | LOG | Send Test Command RxAppCntReq process completed |
| 0:02:40.046208 | LOG | Send RXParamSetupReq process starts |
| 0:02:40.860741 | LOG | PULL_DATA: 01 1f23 02 fffeb827eb59d368 |
| 0:02:40.862740 | LOG | PULL_ACK: 01 1f23 04 fffeb827eb59d368 |
| 0:02:44.855468 | LOG | PUSH_ACK: 01 1ea8 01 fffeb827eb59d368 |
| 0:02:44.857466 | LOG | PUSH_DATA: Protocol version = 01, Token = 1ea8, Identifier = 00, JSON = {'rxpk': [{'tmst': 259390476, 'time': '2021-09-29T16:32:41.593306Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAFwABaooNqS79'}]} |
| 0:02:44.858468 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0017, FOpts: ), FPort: 01, FRMPayload: 000c, MIC: 0da92efd) |
| 0:02:44.859465 | LOG | Server <---------- DUT |

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| 0:02:44.861464 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0011, FOpts: ), FPort: 00, FRMPayload: 0510d2ad84), MIC: fe1fb038) |
| 0:02:44.863463 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 261390476, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAEQAA+9Pk/vH+H7A4'}} |
| 0:02:44.865462 | LOG | Server ----------> DUT |
| 0:02:50.018531 | LOG | PUSH_ACK: 01 1c7b 01 fffeb827eb59d368 |
| 0:02:50.020528 | LOG | PUSH_DATA: Protocol version = 01, Token = 1c7b, Identifier = 00, JSON = {'rxpk': [{'tmst': 264557364, 'time': '2021-09-29T16:32:46.755993Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -5, 'size': 17, 'data': 'QCAgICCCGAAFBwG9c95jV4c='}]} |
| 0:02:50.022527 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0018, FOpts: 0507), FPort: 01, FRMPayload: 000c, MIC: de635787) |
| 0:02:50.023528 | LOG | Server <---------- DUT |
| 0:02:50.025525 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:50.027524 | LOG | Command Answer: 0507 |
| 0:02:50.039517 | LOG | MAC command communication completed |
| 0:02:50.042515 | LOG | Send Test Command RxAppCntReq process starts |
| 0:02:51.060937 | LOG | PULL_DATA: 01 64c5 02 fffeb827eb59d368 |
| 0:02:51.062935 | LOG | PULL_ACK: 01 64c5 04 fffeb827eb59d368 |
| 0:02:55.025680 | LOG | PUSH_ACK: 01 1473 01 fffeb827eb59d368 |
| 0:02:55.027678 | LOG | PUSH_DATA: Protocol version = 01, Token = 1473, Identifier = 00, JSON = {'rxpk': [{'tmst': 269560380, 'time': '2021-09-29T16:32:51.762966Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -2, 'size': 17, 'data': 'QCAgICCCGQAFBwFTKuLEcN4='}]} |
| 0:02:55.029678 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0019, FOpts: 0507), FPort: 01, FRMPayload: 000c, MIC: e2c470de) |
| 0:02:55.030677 | LOG | Server <---------- DUT |
| 0:02:55.032676 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0012, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 5786fc05) |
| 0:02:55.034675 | LOG | Frame command sent to the DUT |
| 0:02:55.035676 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 271560380, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAEgDgm1eG/AU='}} |
| 0:02:55.037673 | LOG | Server ----------> DUT |
| 0:03:00.031831 | LOG | PUSH_ACK: 01 5ac5 01 fffeb827eb59d368 |
| 0:03:00.036827 | LOG | PUSH_DATA: Protocol version = 01, Token = 5ac5, Identifier = 00, JSON = {'rxpk': [{'tmst': 274567940, 'time': '2021-09-29T16:32:56.769640Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -4, 'size': 16, 'data': 'QCAgICCAGgDg/LKfr5dqFw=='}]} |
| 0:03:00.037829 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001a, FOpts: ), FPort: e0, FRMPayload: 090d00, MIC: af976a17) |
| 0:03:00.039826 | LOG | Server <---------- DUT |
| 0:03:00.040825 | LOG | Answer in payload: 0d00 |
| 0:03:00.042825 | LOG | Frame Command Payload in the Answer: 090d00 |
| 0:03:00.046824 | LOG | RX Count received by DUT: 13 |
| 0:03:00.049822 | LOG | Send Test Command RxAppCntReq process completed |
| 0:03:00.052819 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:03:01.241142 | LOG | PULL_DATA: 01 5e4b 02 fffeb827eb59d368 |
| 0:03:01.242142 | LOG | PULL_ACK: 01 5e4b 04 fffeb827eb59d368 |
| 0:03:04.867080 | LOG | PUSH_ACK: 01 7963 01 fffeb827eb59d368 |
| 0:03:04.869079 | LOG | PUSH_DATA: Protocol version = 01, Token = 7963, Identifier = 00, JSON = {'rxpk': [{'tmst': 279403956, 'time': '2021-09-29T16:33:01.604783Z', 'chan': 0, |

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| | | 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAGwABmG5m6ZOC'}]} |
| 0:03:04.870077 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001b, FOpts: ), FPort: 01, FRMPayload: 000d, MIC: 66e99382) |
| 0:03:04.872077 | LOG | Server <---------- DUT |
| 0:03:04.873075 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0013, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: dd43fc5a) |
| 0:03:04.876076 | LOG | Frame command sent to the DUT |
| 0:03:04.878074 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 281403956, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAEwDgUrTdQ/xa'}} |
| 0:03:04.879074 | LOG | Server ----------> DUT |
| 0:03:04.883071 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:03:04.891065 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:09.872231 | LOG | PUSH_ACK: 01 3b70 01 fffeb827eb59d368 |
| 0:03:09.874229 | LOG | PUSH_DATA: Protocol version = 01, Token = 3b70, Identifier = 00, JSON = {'rxpk': [{'tmst': 284408348, 'time': '2021-09-29T16:33:06.610643Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAHAABebrGDJB3'}]} |
| 0:03:09.876228 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001c, FOpts: ), FPort: 01, FRMPayload: 000e, MIC: c60c9077) |
| 0:03:09.877229 | LOG | Server <---------- DUT |
| 0:03:09.879227 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0014, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 3411613d) |
| 0:03:09.881225 | LOG | Frame command sent to the DUT |
| 0:03:09.882226 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 285408348, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAFADgAd80EWE9'}} |
| 0:03:09.884223 | LOG | Server ----------> DUT |
| 0:03:09.888222 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:09.893218 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:11.281428 | LOG | PULL_DATA: 01 6424 02 fffeb827eb59d368 |
| 0:03:11.283427 | LOG | PULL_ACK: 01 6424 04 fffeb827eb59d368 |
| 0:03:14.880381 | LOG | PUSH_ACK: 01 09dc 01 fffeb827eb59d368 |
| 0:03:14.882379 | LOG | PUSH_DATA: Protocol version = 01, Token = 09dc, Identifier = 00, JSON = {'rxpk': [{'tmst': 289411292, 'time': '2021-09-29T16:33:11.618193Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAHQABnQlS3Hvt'}]} |
| 0:03:14.884378 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001d, FOpts: ), FPort: 01, FRMPayload: 000f, MIC: 52dc7bed) |
| 0:03:14.885377 | LOG | Server <---------- DUT |
| 0:03:14.888376 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0015, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 29956e56) |
| 0:03:14.890376 | LOG | Frame command sent to the DUT |
| 0:03:14.892375 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 290411292, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAFQDg6MAplW5W'}} |
| 0:03:14.893373 | LOG | Server ----------> DUT |
| 0:03:14.895373 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:14.899369 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:19.882534 | LOG | PUSH_ACK: 01 aad4 01 fffeb827eb59d368 |
| 0:03:19.884532 | LOG | PUSH_DATA: Protocol version = 01, Token = aad4, Identifier = 00, JSON = {'rxpk': [{'tmst': 294414292, 'time': '2021-09-29T16:33:16.620845Z', 'chan': 0, |

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| | | 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAHgABZb4T09r9'}]} |
| 0:03:19.886532 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001e, FOpts: ), FPort: 01, FRMPayload: 0010, MIC: 13d3dafd) |
| 0:03:19.887530 | LOG | Server <---------- DUT |
| 0:03:19.889529 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0016, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: cca65d32) |
| 0:03:19.891530 | LOG | Frame command sent to the DUT |
| 0:03:19.893527 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 295414292, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAFgDgFqrMpl0y'}} |
| 0:03:19.894528 | LOG | Server ----------> DUT |
| 0:03:19.898524 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:19.902522 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:21.290750 | LOG | PULL_DATA: 01 acf2 02 fffeb827eb59d368 |
| 0:03:21.292732 | LOG | PULL_ACK: 01 acf2 04 fffeb827eb59d368 |
| 0:03:24.886685 | LOG | PUSH_ACK: 01 1b10 01 fffeb827eb59d368 |
| 0:03:24.888685 | LOG | PUSH_DATA: Protocol version = 01, Token = 1b10, Identifier = 00, JSON = {'rxpk': [{'tmst': 299417284, 'time': '2021-09-29T16:33:21.624356Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAHwABY+iV6ReB'}]} |
| 0:03:24.890683 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001f, FOpts: ), FPort: 01, FRMPayload: 0011, MIC: 95e91781) |
| 0:03:24.891684 | LOG | Server <---------- DUT |
| 0:03:24.893681 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0017, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 2938bfaf) |
| 0:03:24.895682 | LOG | Frame command sent to the DUT |
| 0:03:24.896682 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 300417284, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAFwDgLikpOL+v'}} |
| 0:03:24.898678 | LOG | Server ----------> DUT |
| 0:03:24.901679 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:24.913672 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:29.882842 | LOG | PUSH_ACK: 01 af3b 01 fffeb827eb59d368 |
| 0:03:29.884841 | LOG | PUSH_DATA: Protocol version = 01, Token = af3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 304421636, 'time': '2021-09-29T16:33:26.621089Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAIAABatuncg0z'}]} |
| 0:03:29.886840 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0020, FOpts: ), FPort: 01, FRMPayload: 0012, MIC: a7720d33) |
| 0:03:29.887839 | LOG | Server <---------- DUT |
| 0:03:29.889840 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0018, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 0281c793) |
| 0:03:29.891837 | LOG | Frame command sent to the DUT |
| 0:03:29.893836 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 305421636, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'oCAgICAAGADgcmWeMEkEbwFF0Bc/HzVN1ov0XVfq+ozqPqmy+AEYryXGQOP1JXabFhmA7oKXv/gcYmfwAoHHkw==''}} |
| 0:03:29.894835 | LOG | Server ----------> DUT |
| 0:03:29.898833 | LOG | Send Test Command TxFramesCtrlReq process completed |

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| 0:03:29.902830 | LOG | Check previous uplink data rate process starts |
| 0:03:29.907828 | LOG | Uplink received with expected Data Rate |
| 0:03:29.912825 | LOG | Check ACK bit in next uplink starts |
| 0:03:31.490926 | LOG | PULL_DATA: 01 33cd 02 fffeb827eb59d368 |
| 0:03:31.494925 | LOG | PULL_ACK: 01 33cd 04 fffeb827eb59d368 |
| 0:03:34.909982 | LOG | PUSH_ACK: 01 e350 01 fffeb827eb59d368 |
| 0:03:34.911979 | LOG | PUSH_DATA: Protocol version = 01, Token = e350, Identifier = 00, JSON = {'rxpk': [{'tmst': 309439884, 'time': '2021-09-29T16:33:31.647962Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCgIQABC7pZuq1/'}]} |
| 0:03:34.912979 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 0021, FOpts: ), FPort: 01, FRMPayload: 0013, MIC: 59baad7f) |
| 0:03:34.913979 | LOG | Server <---------- DUT |
| 0:03:34.917977 | LOG | Check ACK bit in next uplink tested successfully |
| 0:03:34.925972 | LOG | Send Test Command RxAppCntReq process starts |
| 0:03:39.905138 | LOG | PUSH_ACK: 01 4847 01 fffeb827eb59d368 |
| 0:03:39.907137 | LOG | PUSH_DATA: Protocol version = 01, Token = 4847, Identifier = 00, JSON = {'rxpk': [{'tmst': 314442884, 'time': '2021-09-29T16:33:36.643265Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAIgABSRKq5xRX'}]} |
| 0:03:39.909136 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0022, FOpts: ), FPort: 01, FRMPayload: 0013, MIC: aae71457) |
| 0:03:39.910135 | LOG | Server <---------- DUT |
| 0:03:39.912134 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0019, FOpts: ), FPort: e0, FRMPayload: 09), MIC: afaaa916) |
| 0:03:39.915133 | LOG | Frame command sent to the DUT |
| 0:03:39.917131 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 316442884, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAGQDgS6+qqRY='}} |
| 0:03:39.919130 | LOG | Server ----------> DUT |
| 0:03:41.521218 | LOG | PULL_DATA: 01 155c 02 fffeb827eb59d368 |
| 0:03:41.523217 | LOG | PULL_ACK: 01 155c 04 fffeb827eb59d368 |
| 0:03:45.080193 | LOG | PUSH_ACK: 01 bb6f 01 fffeb827eb59d368 |
| 0:03:45.083191 | LOG | PUSH_DATA: Protocol version = 01, Token = bb6f, Identifier = 00, JSON = {'rxpk': [{'tmst': 319614260, 'time': '2021-09-29T16:33:41.818243Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -3, 'size': 16, 'data': 'QCAgICCAIwDgWE8puMemQw=='}]} |
| 0:03:45.084190 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0023, FOpts: ), FPort: e0, FRMPayload: 091400, MIC: b8c7a643) |
| 0:03:45.085192 | LOG | Server <---------- DUT |
| 0:03:45.087189 | LOG | Answer in payload: 1400 |
| 0:03:45.089189 | LOG | Frame Command Payload in the Answer: 091400 |
| 0:03:45.094185 | LOG | RX Count received by DUT: 20 |
| 0:03:45.097183 | LOG | Send Test Command RxAppCntReq process completed |
| 0:03:45.103180 | LOG | Send RXParamSetupReq process starts |
| 0:03:49.922437 | LOG | PUSH_ACK: 01 2219 01 fffeb827eb59d368 |
| 0:03:49.924436 | LOG | PUSH_DATA: Protocol version = 01, Token = 2219, Identifier = 00, JSON = {'rxpk': [{'tmst': 324451628, 'time': '2021-09-29T16:33:46.660346Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAJAABDZvwD/n+'}]} |
| 0:03:49.925435 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0024, FOpts: ), FPort: 01, FRMPayload: 0014, MIC: f00ff9fe) |
| 0:03:49.927436 | LOG | Server <---------- DUT |
| 0:03:49.929433 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001a, FOpts: ), FPort: 00, FRMPayload: 0520d2ad84), MIC: 53138fec) |

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| 0:03:49.932431 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 326451628, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAGgAA+waizvdTE4/s'}} |
| 0:03:49.933431 | LOG | Server ----------> DUT |
| 0:03:51.530553 | LOG | PULL_DATA: 01 ba9b 02 fffeb827eb59d368 |
| 0:03:51.532553 | LOG | PULL_ACK: 01 ba9b 04 fffeb827eb59d368 |
| 0:03:55.083499 | LOG | PUSH_ACK: 01 7df5 01 fffeb827eb59d368 |
| 0:03:55.086498 | LOG | PUSH_DATA: Protocol version = 01, Token = 7df5, Identifier = 00, JSON = {'rxpk': [{'tmst': 329618484, 'time': '2021-09-29T16:33:51.821671Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -3, 'size': 17, 'data': 'QCAgICCCJQAFBwFkYjfYNR8='}]} |
| 0:03:55.088497 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0025, FOpts: 0507), FPort: 01, FRMPayload: 0014, MIC: 37d8351f) |
| 0:03:55.089496 | LOG | Server <---------- DUT |
| 0:03:55.091495 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:55.093494 | LOG | Command Answer: 0507 |
| 0:03:55.115481 | LOG | MAC command communication completed |
| 0:03:55.120478 | LOG | Send Test Command RxAppCntReq process starts |
| 0:04:00.090649 | LOG | PUSH_ACK: 01 0be1 01 fffeb827eb59d368 |
| 0:04:00.092648 | LOG | PUSH_DATA: Protocol version = 01, Token = 0be1, Identifier = 00, JSON = {'rxpk': [{'tmst': 334622868, 'time': '2021-09-29T16:33:56.828817Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -5, 'size': 17, 'data': 'QCAgICCCJgAFBwF4fQSw2UU='}]} |
| 0:04:00.094647 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0026, FOpts: 0507), FPort: 01, FRMPayload: 0014, MIC: 04b0d945) |
| 0:04:00.096646 | LOG | Server <---------- DUT |
| 0:04:00.098645 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001b, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 5a8efca6) |
| 0:04:00.100643 | LOG | Frame command sent to the DUT |
| 0:04:00.102642 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 336622868, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAGwDgX1qO/KY='}} |
| 0:04:00.104642 | LOG | Server ----------> DUT |
| 0:04:01.700732 | LOG | PULL_DATA: 01 1a1c 02 fffeb827eb59d368 |
| 0:04:01.704730 | LOG | PULL_ACK: 01 1a1c 04 fffeb827eb59d368 |
| 0:04:05.099800 | LOG | PUSH_ACK: 01 7f23 01 fffeb827eb59d368 |
| 0:04:05.101798 | LOG | PUSH_DATA: Protocol version = 01, Token = 7f23, Identifier = 00, JSON = {'rxpk': [{'tmst': 339630380, 'time': '2021-09-29T16:34:01.837798Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -3, 'size': 16, 'data': 'QCAgICCAJwDgpnxttMSsRA=='}]} |
| 0:04:05.102796 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0027, FOpts: ), FPort: e0, FRMPayload: 091500, MIC: b4c4ac44) |
| 0:04:05.103795 | LOG | Server <---------- DUT |
| 0:04:05.105795 | LOG | Answer in payload: 1500 |
| 0:04:05.107794 | LOG | Frame Command Payload in the Answer: 091500 |
| 0:04:05.110792 | LOG | RX Count received by DUT: 21 |
| 0:04:05.113792 | LOG | Send Test Command RxAppCntReq process completed |
| 0:04:05.115791 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:04:09.931577 | LOG | PUSH_ACK: 01 f829 01 fffeb827eb59d368 |
| 0:04:09.934576 | LOG | PUSH_DATA: Protocol version = 01, Token = f829, Identifier = 00, JSON = {'rxpk': [{'tmst': 344466396, 'time': '2021-09-29T16:34:06.669874Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAKAABsJm9Z+wv'}]} |

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| 0:04:09.936576 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0028, FOpts: ), FPort: 01, FRMPayload: 0015, MIC: bd67ec2f) |
| 0:04:09.937575 | LOG | Server <---------- DUT |
| 0:04:09.939574 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001c, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 0e37d948) |
| 0:04:09.942574 | LOG | Frame command sent to the DUT |
| 0:04:09.943572 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 346466396, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAHADgM5AON9lI'}} |
| 0:04:09.944570 | LOG | Server ----------> DUT |
| 0:04:09.948568 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:04:09.955565 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:11.740548 | LOG | PULL_DATA: 01 f8a4 02 fffeb827eb59d368 |
| 0:04:11.742547 | LOG | PULL_ACK: 01 f8a4 04 fffeb827eb59d368 |
| 0:04:14.932731 | LOG | PUSH_ACK: 01 1b13 01 fffeb827eb59d368 |
| 0:04:14.934731 | LOG | PUSH_DATA: Protocol version = 01, Token = 1b13, Identifier = 00, JSON = {'rxpk': [{'tmst': 349469396, 'time': '2021-09-29T16:34:11.670770Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAKQAB+vGNkrt8'}]} |
| 0:04:14.935729 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0029, FOpts: ), FPort: 01, FRMPayload: 0016, MIC: 8d92bb7c) |
| 0:04:14.937728 | LOG | Server <---------- DUT |
| 0:04:14.938727 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001d, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: b6218af1) |
| 0:04:14.941727 | LOG | Frame command sent to the DUT |
| 0:04:14.942743 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 350469396, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAHQDgQve2IYrx'}} |
| 0:04:14.944744 | LOG | Server ----------> DUT |
| 0:04:14.948722 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:14.952719 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:19.933884 | LOG | PUSH_ACK: 01 b5ca 01 fffeb827eb59d368 |
| 0:04:19.935883 | LOG | PUSH_DATA: Protocol version = 01, Token = b5ca, Identifier = 00, JSON = {'rxpk': [{'tmst': 354472428, 'time': '2021-09-29T16:34:16.671500Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAKgABMv7whQek'}]} |
| 0:04:19.936882 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002a, FOpts: ), FPort: 01, FRMPayload: 0017, MIC: f08507a4) |
| 0:04:19.938881 | LOG | Server <---------- DUT |
| 0:04:19.940880 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001e, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 204dbfd5) |
| 0:04:19.943879 | LOG | Frame command sent to the DUT |
| 0:04:19.945877 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 355472428, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAHgDgY6EgTb/V'}} |
| 0:04:19.946877 | LOG | Server ----------> DUT |
| 0:04:19.950874 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:19.954872 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:21.750851 | LOG | PULL_DATA: 01 4ee8 02 fffeb827eb59d368 |
| 0:04:21.752849 | LOG | PULL_ACK: 01 4ee8 04 fffeb827eb59d368 |
| 0:04:24.943033 | LOG | PUSH_ACK: 01 9832 01 fffeb827eb59d368 |
| 0:04:24.946032 | LOG | PUSH_DATA: Protocol version = 01, Token = 9832, Identifier = 00, JSON = {'rxpk': [{'tmst': 359475428, 'time': '2021-09-29T16:34:21.681023Z', 'chan': 2, |

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| | | 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAKwAB7Gql82er'}]} |
| 0:04:24.948030 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002b, FOpts: ), FPort: 01, FRMPayload: 0018, MIC: a5f367ab) |
| 0:04:24.950029 | LOG | Server <---------- DUT |
| 0:04:24.952027 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001f, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 5250a7b9) |
| 0:04:24.954027 | LOG | Frame command sent to the DUT |
| 0:04:24.956026 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 360475428, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAHwDgQoRSUKe5'}} |
| 0:04:24.958024 | LOG | Server ----------> DUT |
| 0:04:24.962022 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:24.968020 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:29.948008 | LOG | PUSH_ACK: 01 38e0 01 fffeb827eb59d368 |
| 0:04:29.951006 | LOG | PUSH_DATA: Protocol version = 01, Token = 38e0, Identifier = 00, JSON = {'rxpk': [{'tmst': 364479820, 'time': '2021-09-29T16:34:26.686458Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCALAABRCFd+8p9'}]} |
| 0:04:29.952005 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002c, FOpts: ), FPort: 01, FRMPayload: 0019, MIC: 5dfbca7d) |
| 0:04:29.953004 | LOG | Server <---------- DUT |
| 0:04:29.955004 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0020, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 91a18729) |
| 0:04:29.957002 | LOG | Frame command sent to the DUT |
| 0:04:29.959002 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 365479820, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAIADg72uRoYcp'}} |
| 0:04:29.960001 | LOG | Server ----------> DUT |
| 0:04:29.963999 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:29.974992 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:31.760976 | LOG | PULL_DATA: 01 794d 02 fffeb827eb59d368 |
| 0:04:31.764973 | LOG | PULL_ACK: 01 794d 04 fffeb827eb59d368 |
| 0:04:34.948161 | LOG | PUSH_ACK: 01 3d34 01 fffeb827eb59d368 |
| 0:04:34.950161 | LOG | PUSH_DATA: Protocol version = 01, Token = 3d34, Identifier = 00, JSON = {'rxpk': [{'tmst': 369484212, 'time': '2021-09-29T16:34:31.686387Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCALQAByFJuqA7g'}]} |
| 0:04:34.951159 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002d, FOpts: ), FPort: 01, FRMPayload: 001a, MIC: 6ea80ee0) |
| 0:04:34.952159 | LOG | Server <---------- DUT |
| 0:04:34.954158 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0021, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f69c51d7) |
| 0:04:34.956160 | LOG | Frame command sent to the DUT |
| 0:04:34.960155 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 370484212, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'oCAgICAAIQDgmzCBU3N7bycI6piB39cLqeK63QTj7VwBcHUZlQhqyxRZDPhj4bOZoc2E2f9GXo5pihQB9pxR1w=='}} |
| 0:04:34.962153 | LOG | Server ----------> DUT |
| 0:04:34.969150 | LOG | Send Test Command TxFramesCtrlReq process completed |

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| 0:04:34.974146 | LOG | Check previous uplink data rate process starts |
| 0:04:34.983142 | LOG | Uplink received with expected Data Rate |
| 0:04:34.985140 | LOG | Check ACK bit in next uplink starts |
| 0:04:39.964595 | LOG | PUSH_ACK: 01 bc5f 01 fffeb827eb59d368 |
| 0:04:39.966593 | LOG | PUSH_DATA: Protocol version = 01, Token = bc5f, Identifier = 00, JSON = {'rxpk': [{'tmst': 374502468, 'time': '2021-09-29T16:34:36.702264Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCgLgAB8umK8cXp'}]} |
| 0:04:39.967593 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 002e, FOpts: ), FPort: 01, FRMPayload: 001b, MIC: 8af1c5e9) |
| 0:04:39.968593 | LOG | Server <---------- DUT |
| 0:04:39.972590 | LOG | Check ACK bit in next uplink tested successfully |
| 0:04:39.978587 | LOG | Send Test Command RxAppCntReq process starts |
| 0:04:41.960458 | LOG | PULL_DATA: 01 4e77 02 fffeb827eb59d368 |
| 0:04:41.962458 | LOG | PULL_ACK: 01 4e77 04 fffeb827eb59d368 |
| 0:04:44.971744 | LOG | PUSH_ACK: 01 facb 01 fffeb827eb59d368 |
| 0:04:44.973743 | LOG | PUSH_DATA: Protocol version = 01, Token = facb, Identifier = 00, JSON = {'rxpk': [{'tmst': 379505508, 'time': '2021-09-29T16:34:41.709699Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCALwAByFsEHyw0'}]} |
| 0:04:44.974744 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002f, FOpts: ), FPort: 01, FRMPayload: 001b, MIC: 041f2c34) |
| 0:04:44.976742 | LOG | Server <---------- DUT |
| 0:04:44.978740 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0022, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 379b50a8) |
| 0:04:44.981739 | LOG | Frame command sent to the DUT |
| 0:04:44.982738 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 381505508, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAIgDgPDebUKg='}} |
| 0:04:44.983740 | LOG | Server ----------> DUT |
| 0:04:50.137908 | LOG | PUSH_ACK: 01 6c05 01 fffeb827eb59d368 |
| 0:04:50.140907 | LOG | PUSH_DATA: Protocol version = 01, Token = 6c05, Identifier = 00, JSON = {'rxpk': [{'tmst': 384675588, 'time': '2021-09-29T16:34:46.876392Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -3, 'size': 16, 'data': 'QCAgICCAMADgUWp1D/ZVfA=='}]} |
| 0:04:50.141906 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0030, FOpts: ), FPort: e0, FRMPayload: 091c00, MIC: 0ff6557c) |
| 0:04:50.142906 | LOG | Server <---------- DUT |
| 0:04:50.143905 | LOG | Answer in payload: 1c00 |
| 0:04:50.145904 | LOG | Frame Command Payload in the Answer: 091c00 |
| 0:04:50.151900 | LOG | RX Count received by DUT: 28 |
| 0:04:50.153899 | LOG | Send Test Command RxAppCntReq process completed |
| 0:04:50.163893 | LOG | Send RXParamSetupReq process starts |
| 0:04:51.980859 | LOG | PULL_DATA: 01 ac86 02 fffeb827eb59d368 |
| 0:04:51.982858 | LOG | PULL_ACK: 01 ac86 04 fffeb827eb59d368 |
| 0:04:54.974156 | LOG | PUSH_ACK: 01 212b 01 fffeb827eb59d368 |
| 0:04:54.975155 | LOG | PUSH_DATA: Protocol version = 01, Token = 212b, Identifier = 00, JSON = {'rxpk': [{'tmst': 389512988, 'time': '2021-09-29T16:34:51.712093Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAMQABu5SsYQ8U'}]} |
| 0:04:54.977154 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0031, FOpts: ), FPort: 01, FRMPayload: 001c, MIC: ac610f14) |
| 0:04:54.978153 | LOG | Server <---------- DUT |
| 0:04:54.979152 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0023, FOpts: ), FPort: 00, FRMPayload: 0530d2ad84), MIC: 14ae5d33) |

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| 0:04:54.982151 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 391512988, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAIwAA5PBfVT8Url0z'}} |
| 0:04:54.983150 | LOG | Server ----------> DUT |
| 0:05:00.143213 | LOG | PUSH_ACK: 01 aa1a 01 fffeb827eb59d368 |
| 0:05:00.145212 | LOG | PUSH_DATA: Protocol version = 01, Token = aa1a, Identifier = 00, JSON = {'rxpk': [{'tmst': 394681252, 'time': '2021-09-29T16:34:56.881216Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -4, 'size': 17, 'data': 'QCAgICCCMgAFBwFndrabizk='}]} |
| 0:05:00.146212 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0032, FOpts: 0507), FPort: 01, FRMPayload: 001c, MIC: b69b8b39) |
| 0:05:00.148210 | LOG | Server <---------- DUT |
| 0:05:00.149210 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:00.151209 | LOG | Command Answer: 0507 |
| 0:05:00.165202 | LOG | MAC command communication completed |
| 0:05:00.168199 | LOG | Send Test Command RxAppCntReq process starts |
| 0:05:02.181053 | LOG | PULL_DATA: 01 55a2 02 fffeb827eb59d368 |
| 0:05:02.184051 | LOG | PULL_ACK: 01 55a2 04 fffeb827eb59d368 |
| 0:05:05.148364 | LOG | PUSH_ACK: 01 be70 01 fffeb827eb59d368 |
| 0:05:05.151362 | LOG | PUSH_DATA: Protocol version = 01, Token = be70, Identifier = 00, JSON = {'rxpk': [{'tmst': 399685604, 'time': '2021-09-29T16:35:01.886958Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -3, 'size': 17, 'data': 'QCAgICCCMwAFBwHE0wLrdHQ='}]} |
| 0:05:05.152362 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0033, FOpts: 0507), FPort: 01, FRMPayload: 001c, MIC: 02eb7474) |
| 0:05:05.153361 | LOG | Server <---------- DUT |
| 0:05:05.155380 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0024, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 01b293ae) |
| 0:05:05.158359 | LOG | Frame command sent to the DUT |
| 0:05:05.160358 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 401685604, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAJADgpgGyk64='}} |
| 0:05:05.161357 | LOG | Server ----------> DUT |
| 0:05:10.158151 | LOG | PUSH_ACK: 01 b573 01 fffeb827eb59d368 |
| 0:05:10.160151 | LOG | PUSH_DATA: Protocol version = 01, Token = b573, Identifier = 00, JSON = {'rxpk': [{'tmst': 404691764, 'time': '2021-09-29T16:35:06.896776Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -5, 'size': 16, 'data': 'QCAgICCANADgEapnH5sfrQ=='}]} |
| 0:05:10.161149 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0034, FOpts: ), FPort: e0, FRMPayload: 091d00, MIC: 1f9b1fad) |
| 0:05:10.162148 | LOG | Server <---------- DUT |
| 0:05:10.163148 | LOG | Answer in payload: 1d00 |
| 0:05:10.165148 | LOG | Frame Command Payload in the Answer: 091d00 |
| 0:05:10.168145 | LOG | RX Count received by DUT: 29 |
| 0:05:10.170144 | LOG | Send Test Command RxAppCntReq process completed |
| 0:05:10.173142 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:05:12.360896 | LOG | PULL_DATA: 01 3b04 02 fffeb827eb59d368 |
| 0:05:12.362895 | LOG | PULL_ACK: 01 3b04 04 fffeb827eb59d368 |
| 0:05:14.995397 | LOG | PUSH_ACK: 01 5cd3 01 fffeb827eb59d368 |
| 0:05:14.996396 | LOG | PUSH_DATA: Protocol version = 01, Token = 5cd3, Identifier = 00, JSON = {'rxpk': [{'tmst': 409527764, 'time': '2021-09-29T16:35:11.733362Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCANQAB2kCbosm0'}]} |

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| 0:05:14.998394 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0035, FOpts: ), FPort: 01, FRMPayload: 001d, MIC: 9ba2c9b4) |
| 0:05:15.000393 | LOG | Server <---------- DUT |
| 0:05:15.001393 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0025, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 93a6ec34) |
| 0:05:15.004391 | LOG | Frame command sent to the DUT |
| 0:05:15.006390 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 411527764, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAJQDg2bKTpuw0'}} |
| 0:05:15.008389 | LOG | Server ----------> DUT |
| 0:05:15.011389 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:05:15.017385 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:19.993552 | LOG | PUSH_ACK: 01 3694 01 fffeb827eb59d368 |
| 0:05:19.995551 | LOG | PUSH_DATA: Protocol version = 01, Token = 3694, Identifier = 00, JSON = {'rxpk': [{'tmst': 414530764, 'time': '2021-09-29T16:35:16.732101Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCANgAB7Vg+9+9s'}]} |
| 0:05:19.997549 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0036, FOpts: ), FPort: 01, FRMPayload: 001e, MIC: 3ef7ef6c) |
| 0:05:19.998548 | LOG | Server <---------- DUT |
| 0:05:20.000547 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0026, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: e27cfdcb) |
| 0:05:20.003546 | LOG | Frame command sent to the DUT |
| 0:05:20.005546 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 415530764, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAJgDgVuPifP3L'}} |
| 0:05:20.006544 | LOG | Server ----------> DUT |
| 0:05:20.011541 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:20.015539 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:22.410177 | LOG | PULL_DATA: 01 b3af 02 fffeb827eb59d368 |
| 0:05:22.412175 | LOG | PULL_ACK: 01 b3af 04 fffeb827eb59d368 |
| 0:05:25.000701 | LOG | PUSH_ACK: 01 e2f0 01 fffeb827eb59d368 |
| 0:05:25.003700 | LOG | PUSH_DATA: Protocol version = 01, Token = e2f0, Identifier = 00, JSON = {'rxpk': [{'tmst': 419533764, 'time': '2021-09-29T16:35:21.739295Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCANwAB/HIj5FlV'}]} |
| 0:05:25.004699 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0037, FOpts: ), FPort: 01, FRMPayload: 001f, MIC: 23e45955) |
| 0:05:25.005698 | LOG | Server <---------- DUT |
| 0:05:25.007697 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0027, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: ec1c8627) |
| 0:05:25.010696 | LOG | Frame command sent to the DUT |
| 0:05:25.012694 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 420533764, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAJwDgQyzsHIYn'}} |
| 0:05:25.013694 | LOG | Server ----------> DUT |
| 0:05:25.017692 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:25.021689 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:29.999733 | LOG | PUSH_ACK: 01 e49e 01 fffeb827eb59d368 |
| 0:05:30.001731 | LOG | PUSH_DATA: Protocol version = 01, Token = e49e, Identifier = 00, JSON = {'rxpk': [{'tmst': 424538132, 'time': '2021-09-29T16:35:26.737877Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAOAABJQ+cU6or'}]} |

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| 0:05:30.002732 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0038, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: 9c53aa2b) |
| 0:05:30.003731 | LOG | Server <---------- DUT |
| 0:05:30.005729 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0028, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 7ea62abf) |
| 0:05:30.008727 | LOG | Frame command sent to the DUT |
| 0:05:30.010726 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 425538132, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAKADgeHZ+piq/'}} |
| 0:05:30.011725 | LOG | Server ----------> DUT |
| 0:05:30.015723 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:30.017741 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:32.611247 | LOG | PULL_DATA: 01 4f32 02 fffeb827eb59d368 |
| 0:05:32.614244 | LOG | PULL_ACK: 01 4f32 04 fffeb827eb59d368 |
| 0:05:35.009880 | LOG | PUSH_ACK: 01 1549 01 fffeb827eb59d368 |
| 0:05:35.011879 | LOG | PUSH_DATA: Protocol version = 01, Token = 1549, Identifier = 00, JSON = {'rxpk': [{'tmst': 429541148, 'time': '2021-09-29T16:35:31.747610Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAOQABROUZC95A'}]} |
| 0:05:35.012878 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0039, FOpts: ), FPort: 01, FRMPayload: 0021, MIC: 190bde40) |
| 0:05:35.014877 | LOG | Server <---------- DUT |
| 0:05:35.016877 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0029, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: fede0005) |
| 0:05:35.018875 | LOG | Frame command sent to the DUT |
| 0:05:35.020874 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 430541148, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAKQDggbn+3gAF'}} |
| 0:05:35.052856 | LOG | Server ----------> DUT |
| 0:05:35.054855 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:35.063849 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:40.009036 | LOG | PUSH_ACK: 01 fd82 01 fffeb827eb59d368 |
| 0:05:40.011034 | LOG | PUSH_DATA: Protocol version = 01, Token = fd82, Identifier = 00, JSON = {'rxpk': [{'tmst': 434544180, 'time': '2021-09-29T16:35:36.747586Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAOgABedldBTGw'}]} |
| 0:05:40.013033 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003a, FOpts: ), FPort: 01, FRMPayload: 0022, MIC: 5d0531b0) |
| 0:05:40.014034 | LOG | Server <---------- DUT |
| 0:05:40.016031 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5c7e78e7) |
| 0:05:40.019029 | LOG | Frame command sent to the DUT |
| 0:05:40.021028 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 435544180, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'oCAgICAAKgDgXEyIQNrChDhRy/RqpQADDeNtIXqShVM9KWIk1PWCdtMX833KOV8WWJgwOLxpx5BNpdCcXH545w=='}} |
| 0:05:40.022027 | LOG | Server ----------> DUT |
| 0:05:40.026025 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:40.030023 | LOG | Check previous uplink data rate process starts |
| 0:05:40.034022 | LOG | Uplink received with expected Data Rate |

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| 0:05:40.037039 | LOG | Check ACK bit in next uplink starts |
| 0:05:42.620337 | LOG | PULL_DATA: 01 4ea9 02 fffeb827eb59d368 |
| 0:05:42.622335 | LOG | PULL_ACK: 01 4ea9 04 fffeb827eb59d368 |
| 0:05:45.027966 | LOG | PUSH_ACK: 01 0870 01 fffeb827eb59d368 |
| 0:05:45.029965 | LOG | PUSH_DATA: Protocol version = 01, Token = 0870, Identifier = 00, JSON = {'rxpk': [{'tmst': 439562468, 'time': '2021-09-29T16:35:41.766055Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCgOwABtrEs83Q9'}]} |
| 0:05:45.031963 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 003b, FOpts: ), FPort: 01, FRMPayload: 0023, MIC: 2cf3743d) |
| 0:05:45.032963 | LOG | Server <---------- DUT |
| 0:05:45.035961 | LOG | Check ACK bit in next uplink tested successfully |
| 0:05:45.039959 | LOG | Send Test Command RxAppCntReq process starts |
| 0:05:50.033675 | LOG | PUSH_ACK: 01 d4b2 01 fffeb827eb59d368 |
| 0:05:50.035674 | LOG | PUSH_DATA: Protocol version = 01, Token = d4b2, Identifier = 00, JSON = {'rxpk': [{'tmst': 444566844, 'time': '2021-09-29T16:35:46.772579Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAPAABe0fHdyxk'}]} |
| 0:05:50.037672 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003c, FOpts: ), FPort: 01, FRMPayload: 0023, MIC: c7772c64) |
| 0:05:50.038692 | LOG | Server <---------- DUT |
| 0:05:50.040672 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002b, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 2d1e1147) |
| 0:05:50.043669 | LOG | Frame command sent to the DUT |
| 0:05:50.045668 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 446566844, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAKwDg1C0eEUc='}} |
| 0:05:50.047667 | LOG | Server ----------> DUT |
| 0:05:52.650750 | LOG | PULL_DATA: 01 8a29 02 fffeb827eb59d368 |
| 0:05:52.654748 | LOG | PULL_ACK: 01 8a29 04 fffeb827eb59d368 |
| 0:05:55.206402 | LOG | PUSH_ACK: 01 5448 01 fffeb827eb59d368 |
| 0:05:55.208403 | LOG | PUSH_DATA: Protocol version = 01, Token = 5448, Identifier = 00, JSON = {'rxpk': [{'tmst': 449738204, 'time': '2021-09-29T16:35:51.944761Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -3, 'size': 16, 'data': 'QCAgICCAPQDgdLH9hGZWpg=='}]} |
| 0:05:55.210402 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003d, FOpts: ), FPort: e0, FRMPayload: 092400, MIC: 846656a6) |
| 0:05:55.211401 | LOG | Server <---------- DUT |
| 0:05:55.213399 | LOG | Answer in payload: 2400 |
| 0:05:55.214398 | LOG | Frame Command Payload in the Answer: 092400 |
| 0:05:55.219396 | LOG | RX Count received by DUT: 36 |
| 0:05:55.222393 | LOG | Send Test Command RxAppCntReq process completed |
| 0:05:55.230389 | LOG | Send RXParamSetupReq process starts |
| 0:06:00.040653 | LOG | PUSH_ACK: 01 9a0a 01 fffeb827eb59d368 |
| 0:06:00.043651 | LOG | PUSH_DATA: Protocol version = 01, Token = 9a0a, Identifier = 00, JSON = {'rxpk': [{'tmst': 454574212, 'time': '2021-09-29T16:35:56.779049Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAPgABfeMH7+9v'}]} |
| 0:06:00.044650 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003e, FOpts: ), FPort: 01, FRMPayload: 0024, MIC: 07efef6f) |
| 0:06:00.046647 | LOG | Server <---------- DUT |
| 0:06:00.048646 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002c, FOpts: ), FPort: 00, FRMPayload: 0540d2ad84), MIC: 054fa5d9) |
| 0:06:00.051646 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 456574212, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAALAAAtcpRY40FT6XZ'}} |
| 0:06:00.053645 | LOG | Server ----------> DUT |
| 0:06:02.850052 | LOG | PULL_DATA: 01 bcd5 02 fffeb827eb59d368 |
| 0:06:02.855049 | LOG | PULL_ACK: 01 bcd5 04 fffeb827eb59d368 |
| 0:06:05.201713 | LOG | PUSH_ACK: 01 0e18 01 fffeb827eb59d368 |
| 0:06:05.204712 | LOG | PUSH_DATA: Protocol version = 01, Token = 0e18, Identifier = 00, JSON = {'rxpk': [{'tmst': 459741036, 'time': '2021-09-29T16:36:01.940684Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -2, 'size': 17, 'data': 'QCAgICCCPwAFBwF5SCHBT3U='}]} |
| 0:06:05.205714 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 003f, FOpts: 0507), FPort: 01, FRMPayload: 0024, MIC: 21c14f75) |
| 0:06:05.207685 | LOG | Server <---------- DUT |
| 0:06:05.209683 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:05.211709 | LOG | Command Answer: 0507 |
| 0:06:05.228669 | LOG | MAC command communication completed |
| 0:06:05.232666 | LOG | Send Test Command RxAppCntReq process starts |
| 0:06:10.208864 | LOG | PUSH_ACK: 01 ac5b 01 fffeb827eb59d368 |
| 0:06:10.210862 | LOG | PUSH_DATA: Protocol version = 01, Token = ac5b, Identifier = 00, JSON = {'rxpk': [{'tmst': 464744036, 'time': '2021-09-29T16:36:06.946982Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -4, 'size': 17, 'data': 'QCAgICCCQAAFBwFCIXzpRUs='}]} |
| 0:06:10.211861 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0040, FOpts: 0507), FPort: 01, FRMPayload: 0024, MIC: 7ce9454b) |
| 0:06:10.213860 | LOG | Server <---------- DUT |
| 0:06:10.215859 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002d, FOpts: ), FPort: e0, FRMPayload: 09), MIC: daa7f9b3) |
| 0:06:10.218859 | LOG | Frame command sent to the DUT |
| 0:06:10.219857 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 466744036, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAALQDg/9qn+bM='}} |
| 0:06:10.221856 | LOG | Server ----------> DUT |
| 0:06:13.020601 | LOG | PULL_DATA: 01 f38e 02 fffeb827eb59d368 |
| 0:06:13.021601 | LOG | PULL_ACK: 01 f38e 04 fffeb827eb59d368 |
| 0:06:15.216352 | LOG | PUSH_ACK: 01 4cd7 01 fffeb827eb59d368 |
| 0:06:15.218351 | LOG | PUSH_DATA: Protocol version = 01, Token = 4cd7, Identifier = 00, JSON = {'rxpk': [{'tmst': 469751524, 'time': '2021-09-29T16:36:11.954824Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -3, 'size': 16, 'data': 'QCAgICCAQQDgEzIYQZ9/hQ=='}]} |
| 0:06:15.220349 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0041, FOpts: ), FPort: e0, FRMPayload: 092500, MIC: 419f7f85) |
| 0:06:15.222349 | LOG | Server <---------- DUT |
| 0:06:15.223348 | LOG | Answer in payload: 2500 |
| 0:06:15.225347 | LOG | Frame Command Payload in the Answer: 092500 |
| 0:06:15.230344 | LOG | RX Count received by DUT: 37 |
| 0:06:15.233343 | LOG | Send Test Command RxAppCntReq process completed |
| 0:06:15.236340 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:06:20.049655 | LOG | PUSH_ACK: 01 2d9b 01 fffeb827eb59d368 |
| 0:06:20.051654 | LOG | PUSH_DATA: Protocol version = 01, Token = 2d9b, Identifier = 00, JSON = {'rxpk': [{'tmst': 474588884, 'time': '2021-09-29T16:36:16.788404Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAQgAB9lneoO4P'}]} |
| 0:06:20.053653 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0042, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: dea0ee0f) |

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| 0:06:20.054653 | LOG | Server <---------- DUT |
| 0:06:20.055652 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002e, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 500515c6) |
| 0:06:20.057653 | LOG | Frame command sent to the DUT |
| 0:06:20.059650 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 476588884, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAALgDgr5BQBRXG'}} |
| 0:06:20.061648 | LOG | Server ----------> DUT |
| 0:06:20.066645 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:06:20.073641 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:23.059941 | LOG | PULL_DATA: 01 0942 02 fffeb827eb59d368 |
| 0:06:23.061940 | LOG | PULL_ACK: 01 0942 04 fffeb827eb59d368 |
| 0:06:25.056805 | LOG | PUSH_ACK: 01 e506 01 fffeb827eb59d368 |
| 0:06:25.059803 | LOG | PUSH_DATA: Protocol version = 01, Token = e506, Identifier = 00, JSON = {'rxpk': [{'tmst': 479591868, 'time': '2021-09-29T16:36:21.795623Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAQwAB1SZ1zxD2'}]} |
| 0:06:25.060803 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0043, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: 75cf10f6) |
| 0:06:25.062802 | LOG | Server <---------- DUT |
| 0:06:25.063802 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002f, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 2e631326) |
| 0:06:25.066799 | LOG | Frame command sent to the DUT |
| 0:06:25.067801 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 480591868, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAALwDggxcuYxMm'}} |
| 0:06:25.069798 | LOG | Server ----------> DUT |
| 0:06:25.072798 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:25.074814 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:30.064650 | LOG | PUSH_ACK: 01 c433 01 fffeb827eb59d368 |
| 0:06:30.066650 | LOG | PUSH_DATA: Protocol version = 01, Token = c433, Identifier = 00, JSON = {'rxpk': [{'tmst': 484596236, 'time': '2021-09-29T16:36:26.803267Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -5, 'size': 15, 'data': 'QCAgICCARAAB2W29ZC0d'}]} |
| 0:06:30.068647 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0044, FOpts: ), FPort: 01, FRMPayload: 0027, MIC: bd642d1d) |
| 0:06:30.069665 | LOG | Server <---------- DUT |
| 0:06:30.071646 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0030, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: d16a149c) |
| 0:06:30.072645 | LOG | Frame command sent to the DUT |
| 0:06:30.074645 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 485596236, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAMADgzlzRahSc'}} |
| 0:06:30.075644 | LOG | Server ----------> DUT |
| 0:06:30.079641 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:30.083638 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:33.080684 | LOG | PULL_DATA: 01 afcd 02 fffeb827eb59d368 |
| 0:06:33.083681 | LOG | PULL_ACK: 01 afcd 04 fffeb827eb59d368 |
| 0:06:35.065570 | LOG | PUSH_ACK: 01 a384 01 fffeb827eb59d368 |
| 0:06:35.067552 | LOG | PUSH_DATA: Protocol version = 01, Token = a384, Identifier = 00, JSON = {'rxpk': [{'tmst': 489599220, 'time': '2021-09-29T16:36:31.803713Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCARQABqF0SL4M8'}]} |

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| 0:06:35.068553 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0045, FOpts: ), FPort: 01, FRMPayload: 0028, MIC: 122f833c) |
| 0:06:35.069552 | LOG | Server <---------- DUT |
| 0:06:35.071549 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0031, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 94cb6c7e) |
| 0:06:35.073548 | LOG | Frame command sent to the DUT |
| 0:06:35.074547 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 490599220, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAMQDgeryUy2x+'}} |
| 0:06:35.076547 | LOG | Server ----------> DUT |
| 0:06:35.081544 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:35.084542 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:40.072932 | LOG | PUSH_ACK: 01 7f2d 01 fffeb827eb59d368 |
| 0:06:40.074931 | LOG | PUSH_DATA: Protocol version = 01, Token = 7f2d, Identifier = 00, JSON = {'rxpk': [{'tmst': 494603572, 'time': '2021-09-29T16:36:36.811091Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -7, 'size': 15, 'data': 'QCAgICCARgABI0wYBDtB'}]} |
| 0:06:40.076930 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0046, FOpts: ), FPort: 01, FRMPayload: 0029, MIC: 18043b41) |
| 0:06:40.078930 | LOG | Server <---------- DUT |
| 0:06:40.080929 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0032, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 9e36798f) |
| 0:06:40.082927 | LOG | Frame command sent to the DUT |
| 0:06:40.084925 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 495603572, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAMgDgx26eNnmP'}} |
| 0:06:40.085924 | LOG | Server ----------> DUT |
| 0:06:40.097890 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:40.148861 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:43.090836 | LOG | PULL_DATA: 01 add4 02 fffeb827eb59d368 |
| 0:06:43.092835 | LOG | PULL_ACK: 01 add4 04 fffeb827eb59d368 |
| 0:06:45.072708 | LOG | PUSH_ACK: 01 7647 01 fffeb827eb59d368 |
| 0:06:45.075706 | LOG | PUSH_DATA: Protocol version = 01, Token = 7647, Identifier = 00, JSON = {'rxpk': [{'tmst': 499606572, 'time': '2021-09-29T16:36:41.811569Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCARwABmJEI6+CL'}]} |
| 0:06:45.076706 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0047, FOpts: ), FPort: 01, FRMPayload: 002a, MIC: 08ebe08b) |
| 0:06:45.078705 | LOG | Server <---------- DUT |
| 0:06:45.080703 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0033, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 094cb63d) |
| 0:06:45.083702 | LOG | Frame command sent to the DUT |
| 0:06:45.084701 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 500606572, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'oCAgICAAMwDgcURICQvsKHLRsd2EwM9LZiGktz7OQs4SChLo0O43klAw7NXup2If/DErff+HiqzpDcgnCUy2PQ==''}} |
| 0:06:45.086700 | LOG | Server ----------> DUT |
| 0:06:45.089698 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:45.092697 | LOG | Check previous uplink data rate process starts |
| 0:06:45.098695 | LOG | Uplink received with expected Data Rate |

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| 0:06:45.101693 | LOG | Check ACK bit in next uplink starts |
| 0:06:50.095313 | LOG | PUSH_ACK: 01 de32 01 fffeb827eb59d368 |
| 0:06:50.097310 | LOG | PUSH_DATA: Protocol version = 01, Token = de32, Identifier = 00, JSON = {'rxpk': [{'tmst': 504624852, 'time': '2021-09-29T16:36:46.833343Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCgSAAB6puaWCNr'}]} |
| 0:06:50.099309 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 0048, FOpts: ), FPort: 01, FRMPayload: 002b, MIC: 9a58236b) |
| 0:06:50.100308 | LOG | Server <---------- DUT |
| 0:06:50.103308 | LOG | Check ACK bit in next uplink tested successfully |
| 0:06:50.109303 | LOG | Send Test Command RxAppCntReq process starts |
| 0:06:53.289957 | LOG | PULL_DATA: 01 1cec 02 fffeb827eb59d368 |
| 0:06:53.291957 | LOG | PULL_ACK: 01 1cec 04 fffeb827eb59d368 |
| 0:06:55.094930 | LOG | PUSH_ACK: 01 4ac4 01 fffeb827eb59d368 |
| 0:06:55.096929 | LOG | PUSH_DATA: Protocol version = 01, Token = 4ac4, Identifier = 00, JSON = {'rxpk': [{'tmst': 509629260, 'time': '2021-09-29T16:36:51.833507Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCASQABpvgwLhZj'}]} |
| 0:06:55.098928 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0049, FOpts: ), FPort: 01, FRMPayload: 002b, MIC: 302e1663) |
| 0:06:55.099929 | LOG | Server <---------- DUT |
| 0:06:55.101927 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0034, FOpts: ), FPort: e0, FRMPayload: 09), MIC: ac33fad1) |
| 0:06:55.103926 | LOG | Frame command sent to the DUT |
| 0:06:55.105925 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 511629260, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAANADggqwz+tE='}} |
| 0:06:55.107924 | LOG | Server ----------> DUT |
| 0:07:00.264345 | LOG | PUSH_ACK: 01 30f6 01 fffeb827eb59d368 |
| 0:07:00.266345 | LOG | PUSH_DATA: Protocol version = 01, Token = 30f6, Identifier = 00, JSON = {'rxpk': [{'tmst': 514800636, 'time': '2021-09-29T16:36:57.003107Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -4, 'size': 16, 'data': 'QCAgICCASgDgI3UmmuaKOA=='}]} |
| 0:07:00.267344 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004a, FOpts: ), FPort: e0, FRMPayload: 092c00, MIC: 9ae68a38) |
| 0:07:00.269341 | LOG | Server <---------- DUT |
| 0:07:00.270316 | LOG | Answer in payload: 2c00 |
| 0:07:00.271342 | LOG | Frame Command Payload in the Answer: 092c00 |
| 0:07:00.277339 | LOG | RX Count received by DUT: 44 |
| 0:07:00.281305 | LOG | Send Test Command RxAppCntReq process completed |
| 0:07:00.287303 | LOG | Send RXParamSetupReq process starts |
| 0:07:03.310596 | LOG | PULL_DATA: 01 2023 02 fffeb827eb59d368 |
| 0:07:03.314594 | LOG | PULL_ACK: 01 2023 04 fffeb827eb59d368 |
| 0:07:05.097581 | LOG | PUSH_ACK: 01 856c 01 fffeb827eb59d368 |
| 0:07:05.099578 | LOG | PUSH_DATA: Protocol version = 01, Token = 856c, Identifier = 00, JSON = {'rxpk': [{'tmst': 519636660, 'time': '2021-09-29T16:37:01.835869Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCASwABmJmzyZ/2'}]} |
| 0:07:05.100577 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004b, FOpts: ), FPort: 01, FRMPayload: 002c, MIC: b3c99ff6) |
| 0:07:05.101577 | LOG | Server <---------- DUT |
| 0:07:05.103576 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0035, FOpts: ), FPort: 00, FRMPayload: 0550d2ad84), MIC: 85949c1e) |
| 0:07:05.105575 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 521636660, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAANQAAxYyqzvOFlJwe'}} |
| 0:07:05.107575 | LOG | Server ----------> DUT |
| 0:07:10.268834 | LOG | PUSH_ACK: 01 fbb2 01 fffeb827eb59d368 |
| 0:07:10.271832 | LOG | PUSH_DATA: Protocol version = 01, Token = fbb2, Identifier = 00, JSON = {'rxpk': [{'tmst': 524804868, 'time': '2021-09-29T16:37:07.007527Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -7, 'size': 17, 'data': 'QCAgICCCTAAFBwEr/nQiwSE='}]} |
| 0:07:10.272832 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 004c, FOpts: 0507), FPort: 01, FRMPayload: 002c, MIC: 7422c121) |
| 0:07:10.273831 | LOG | Server <---------- DUT |
| 0:07:10.274830 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:10.276830 | LOG | Command Answer: 0507 |
| 0:07:10.296818 | LOG | MAC command communication completed |
| 0:07:10.299816 | LOG | Send Test Command RxAppCntReq process starts |
| 0:07:13.509990 | LOG | PULL_DATA: 01 0704 02 fffeb827eb59d368 |
| 0:07:13.511988 | LOG | PULL_ACK: 01 0704 04 fffeb827eb59d368 |
| 0:07:15.276983 | LOG | PUSH_ACK: 01 f4ec 01 fffeb827eb59d368 |
| 0:07:15.279982 | LOG | PUSH_DATA: Protocol version = 01, Token = f4ec, Identifier = 00, JSON = {'rxpk': [{'tmst': 529807860, 'time': '2021-09-29T16:37:12.015841Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -3, 'size': 17, 'data': 'QCAgICCCTQAFBwGX3lAxGU0='}]} |
| 0:07:15.280981 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 004d, FOpts: 0507), FPort: 01, FRMPayload: 002c, MIC: 5031194d) |
| 0:07:15.282980 | LOG | Server <---------- DUT |
| 0:07:15.284979 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0036, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 8b636ebc) |
| 0:07:15.287977 | LOG | Frame command sent to the DUT |
| 0:07:15.289976 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 531807860, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAANgDgHotjbrw='}} |
| 0:07:15.290975 | LOG | Server ----------> DUT |
| 0:07:20.274139 | LOG | PUSH_ACK: 01 0bb9 01 fffeb827eb59d368 |
| 0:07:20.277139 | LOG | PUSH_DATA: Protocol version = 01, Token = 0bb9, Identifier = 00, JSON = {'rxpk': [{'tmst': 534814004, 'time': '2021-09-29T16:37:17.012569Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -4, 'size': 16, 'data': 'QCAgICCATgDgBSpiZnlU5g=='}]} |
| 0:07:20.278137 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004e, FOpts: ), FPort: e0, FRMPayload: 092d00, MIC: 667954e6) |
| 0:07:20.279136 | LOG | Server <---------- DUT |
| 0:07:20.281135 | LOG | Answer in payload: 2d00 |
| 0:07:20.282135 | LOG | Frame Command Payload in the Answer: 092d00 |
| 0:07:20.287132 | LOG | RX Count received by DUT: 45 |
| 0:07:20.290130 | LOG | Send Test Command RxAppCntReq process completed |
| 0:07:20.292129 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:07:23.690491 | LOG | PULL_DATA: 01 86c3 02 fffeb827eb59d368 |
| 0:07:23.691491 | LOG | PULL_ACK: 01 86c3 04 fffeb827eb59d368 |
| 0:07:25.118680 | LOG | PUSH_ACK: 01 3e05 01 fffeb827eb59d368 |
| 0:07:25.121677 | LOG | PUSH_DATA: Protocol version = 01, Token = 3e05, Identifier = 00, JSON = {'rxpk': [{'tmst': 539649988, 'time': '2021-09-29T16:37:21.857501Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCATwABvU58r9XN'}]} |
| 0:07:25.122678 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004f, FOpts: ), FPort: 01, FRMPayload: 002d, MIC: 7cafd5cd) |

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| 0:07:25.124675 | LOG | Server <---------- DUT |
| 0:07:25.126674 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0037, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 4bca1e9a) |
| 0:07:25.129672 | LOG | Frame command sent to the DUT |
| 0:07:25.131671 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 541649988, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAANwDgov5Lyh6a'}} |
| 0:07:25.133670 | LOG | Server ----------> DUT |
| 0:07:25.136670 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:07:25.143664 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:30.115244 | LOG | PUSH_ACK: 01 f1ec 01 fffeb827eb59d368 |
| 0:07:30.118243 | LOG | PUSH_DATA: Protocol version = 01, Token = f1ec, Identifier = 00, JSON = {'rxpk': [{'tmst': 544654340, 'time': '2021-09-29T16:37:26.854369Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAUAABywO03XyP'}]} |
| 0:07:30.119242 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0050, FOpts: ), FPort: 01, FRMPayload: 002e, MIC: b4dd7c8f) |
| 0:07:30.120241 | LOG | Server <---------- DUT |
| 0:07:30.122241 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0038, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: e180b551) |
| 0:07:30.124239 | LOG | Frame command sent to the DUT |
| 0:07:30.125239 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 545654340, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAOADgiTPhgLVR'}} |
| 0:07:30.127237 | LOG | Server ----------> DUT |
| 0:07:30.132235 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:30.135233 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:33.730025 | LOG | PULL_DATA: 01 d967 02 fffeb827eb59d368 |
| 0:07:33.734023 | LOG | PULL_ACK: 01 d967 04 fffeb827eb59d368 |
| 0:07:35.124283 | LOG | PUSH_ACK: 01 33b7 01 fffeb827eb59d368 |
| 0:07:35.126283 | LOG | PUSH_DATA: Protocol version = 01, Token = 33b7, Identifier = 00, JSON = {'rxpk': [{'tmst': 549658724, 'time': '2021-09-29T16:37:31.862748Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAUQAB9g6+2jt1'}]} |
| 0:07:35.127282 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0051, FOpts: ), FPort: 01, FRMPayload: 002f, MIC: beda3b75) |
| 0:07:35.129279 | LOG | Server <---------- DUT |
| 0:07:35.131279 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0039, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 0a3a6591) |
| 0:07:35.133277 | LOG | Frame command sent to the DUT |
| 0:07:35.135276 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 550658724, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAOQDgxDIKOmWR'}} |
| 0:07:35.136276 | LOG | Server ----------> DUT |
| 0:07:35.140275 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:35.144271 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:40.131501 | LOG | PUSH_ACK: 01 9950 01 fffeb827eb59d368 |
| 0:07:40.134499 | LOG | PUSH_DATA: Protocol version = 01, Token = 9950, Identifier = 00, JSON = {'rxpk': [{'tmst': 554663092, 'time': '2021-09-29T16:37:36.870384Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAUgABjM/2/60O'}]} |
| 0:07:40.135499 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0052, FOpts: ), FPort: 01, FRMPayload: 0030, MIC: f6ffad0e) |

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| 0:07:40.137498 | LOG | Server <---------- DUT |
| 0:07:40.139497 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003a, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: b6bd5b45) |
| 0:07:40.141496 | LOG | Frame command sent to the DUT |
| 0:07:40.143496 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 555663092, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAOgDg4TO2vVtF'}} |
| 0:07:40.144496 | LOG | Server ----------> DUT |
| 0:07:40.149491 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:40.153490 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:43.740253 | LOG | PULL_DATA: 01 a3e3 02 fffeb827eb59d368 |
| 0:07:43.742252 | LOG | PULL_ACK: 01 a3e3 04 fffeb827eb59d368 |
| 0:07:45.128840 | LOG | PUSH_ACK: 01 14d3 01 fffeb827eb59d368 |
| 0:07:45.130840 | LOG | PUSH_DATA: Protocol version = 01, Token = 14d3, Identifier = 00, JSON = {'rxpk': [{'tmst': 559666076, 'time': '2021-09-29T16:37:41.867167Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCAUwABZ7onktmD'}]} |
| 0:07:45.132839 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0053, FOpts: ), FPort: 01, FRMPayload: 0031, MIC: 2792d983) |
| 0:07:45.134837 | LOG | Server <---------- DUT |
| 0:07:45.136840 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003b, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 17112e73) |
| 0:07:45.139835 | LOG | Frame command sent to the DUT |
| 0:07:45.141833 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 560666076, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAOwDgdxYXES5z'}} |
| 0:07:45.142836 | LOG | Server ----------> DUT |
| 0:07:45.147831 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:45.165790 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:50.135542 | LOG | PUSH_ACK: 01 d934 01 fffeb827eb59d368 |
| 0:07:50.138539 | LOG | PUSH_DATA: Protocol version = 01, Token = d934, Identifier = 00, JSON = {'rxpk': [{'tmst': 564669076, 'time': '2021-09-29T16:37:46.874490Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAVAABj+Zq+6uJ'}]} |
| 0:07:50.139538 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0054, FOpts: ), FPort: 01, FRMPayload: 0032, MIC: 6afbab89) |
| 0:07:50.140538 | LOG | Server <---------- DUT |
| 0:07:50.142538 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003c, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e87068c1) |
| 0:07:50.144536 | LOG | Frame command sent to the DUT |
| 0:07:50.146507 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 565669076, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'oCAgICAAPADgZc4ppf8tVTce6ZMrutpLSRS5acP+qKjH2hiF1jcABlzMPux5729HkE1b00WDy9kYIJkX6HBowQ=='}} |
| 0:07:50.148534 | LOG | Server ----------> DUT |
| 0:07:50.152532 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:50.155530 | LOG | Check previous uplink data rate process starts |
| 0:07:50.161526 | LOG | Uplink received with expected Data Rate |
| 0:07:50.166523 | LOG | Check ACK bit in next uplink starts |
| 0:07:53.750617 | LOG | PULL_DATA: 01 f75e 02 fffeb827eb59d368 |

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| 0:07:53.751615 | LOG | PULL_ACK: 01 f75e 04 fffeb827eb59d368 |
| 0:07:55.155815 | LOG | PUSH_ACK: 01 a0f2 01 fffeb827eb59d368 |
| 0:07:55.157816 | LOG | PUSH_DATA: Protocol version = 01, Token = a0f2, Identifier = 00, JSON = {'rxpk': [{'tmst': 569687324, 'time': '2021-09-29T16:37:51.894448Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -2, 'size': 15, 'data': 'QCAgICCgVQABWZSoZ8vN'}]} |
| 0:07:55.158814 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: a0, FCnt: 0055, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: a867cbcd) |
| 0:07:55.159814 | LOG | Server <---------- DUT |
| 0:07:55.163811 | LOG | Check ACK bit in next uplink tested successfully |
| 0:07:55.170807 | LOG | Send Test Command RxAppCntReq process starts |
| 0:08:00.152044 | LOG | PUSH_ACK: 01 10a8 01 fffeb827eb59d368 |
| 0:08:00.154043 | LOG | PUSH_DATA: Protocol version = 01, Token = 10a8, Identifier = 00, JSON = {'rxpk': [{'tmst': 574690316, 'time': '2021-09-29T16:37:56.890635Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAVgABfsKTmjWL'}]} |
| 0:08:00.155042 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0056, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: 939a358b) |
| 0:08:00.156044 | LOG | Server <---------- DUT |
| 0:08:00.158042 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003d, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 7ef94060) |
| 0:08:00.161039 | LOG | Frame command sent to the DUT |
| 0:08:00.163038 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 576690316, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAPQDgV375QGA='}} |
| 0:08:00.165037 | LOG | Server ----------> DUT |
| 0:08:03.759991 | LOG | PULL_DATA: 01 f605 02 fffeb827eb59d368 |
| 0:08:03.762989 | LOG | PULL_ACK: 01 f605 04 fffeb827eb59d368 |
| 0:08:05.321249 | LOG | PUSH_ACK: 01 9401 01 fffeb827eb59d368 |
| 0:08:05.323250 | LOG | PUSH_DATA: Protocol version = 01, Token = 9401, Identifier = 00, JSON = {'rxpk': [{'tmst': 579860308, 'time': '2021-09-29T16:38:02.060152Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -3, 'size': 16, 'data': 'QCAgICCAVwDgylwjpL4pFw=='}]} |
| 0:08:05.324249 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0057, FOpts: ), FPort: e0, FRMPayload: 093400, MIC: a4be2917) |
| 0:08:05.325249 | LOG | Server <---------- DUT |
| 0:08:05.327246 | LOG | Answer in payload: 3400 |
| 0:08:05.329245 | LOG | Frame Command Payload in the Answer: 093400 |
| 0:08:05.334242 | LOG | RX Count received by DUT: 52 |
| 0:08:05.337240 | LOG | Send Test Command RxAppCntReq process completed |
| 0:08:05.342238 | LOG | End Test Step: Test packet error rate for SF12BW125 using RX1 window |
| 0:08:05.346235 | LOG | Partial Verdict: PASS |
| 0:08:05.352231 | LOG | ========== |
| 0:08:05.358228 | LOG | ========== |
| 0:08:05.360227 | LOG | Start Test Step: Test packet error rate for SF11BW125 using RX1 window |
| 0:08:05.373220 | LOG | End Test Step: Test packet error rate for SF11BW125 using RX1 window |
| 0:08:05.376218 | LOG | TEST STEP NOT APPLICABLE |
| 0:08:05.379219 | LOG | ========== |
| 0:08:05.384215 | LOG | ========== |
| 0:08:05.387211 | LOG | Start Test Step: Test packet error rate for SF10BW125 using RX1 window |
| 0:08:05.404203 | LOG | End Test Step: Test packet error rate for SF10BW125 using RX1 window |
| 0:08:05.407201 | LOG | TEST STEP NOT APPLICABLE |
| 0:08:05.410198 | LOG | ========== |
| 0:08:05.415197 | LOG | ========== |
| 0:08:05.417195 | LOG | Start Test Step: Test packet error rate for SF9BW125 using RX1 window |

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| 0:08:05.435185 | LOG | End Test Step: Test packet error rate for SF9BW125 using RX1 window |
| 0:08:05.438183 | LOG | TEST STEP NOT APPLICABLE |
| 0:08:05.441181 | LOG | ========== |
| 0:08:05.445178 | LOG | ========== |
| 0:08:05.447178 | LOG | Start Test Step: Test packet error rate for SF8BW125 using RX1 window |
| 0:08:05.460171 | LOG | End Test Step: Test packet error rate for SF8BW125 using RX1 window |
| 0:08:05.463169 | LOG | TEST STEP NOT APPLICABLE |
| 0:08:05.468166 | LOG | ========== |
| 0:08:05.474162 | LOG | ========== |
| 0:08:05.476162 | LOG | Start Test Step: Test packet error rate for SF7BW125 using RX1 window |
| 0:08:05.490153 | LOG | End Test Step: Test packet error rate for SF7BW125 using RX1 window |
| 0:08:05.493151 | LOG | TEST STEP NOT APPLICABLE |
| 0:08:05.497149 | LOG | ========== |
| 0:08:05.504164 | LOG | ========== |
| 0:08:05.507143 | LOG | Start Test Step: Test packet error rate for SF7BW250 using RX1 window |
| 0:08:05.523134 | LOG | End Test Step: Test packet error rate for SF7BW250 using RX1 window |
| 0:08:05.527134 | LOG | TEST STEP NOT APPLICABLE |
| 0:08:05.531130 | LOG | ========== |
| 0:08:05.538127 | LOG | ========== |
| 0:08:05.574106 | LOG | Start Test Step: Test packet error rate for FSK50 using RX1 window |
| 0:08:05.590096 | LOG | End Test Step: Test packet error rate for FSK50 using RX1 window |
| 0:08:05.593095 | LOG | TEST STEP NOT APPLICABLE |
| 0:08:05.598093 | LOG | ========== |
| 0:08:05.603089 | LOG | ========== |
| 0:08:05.605088 | LOG | Start Test Step: Restore default settings |
| 0:08:05.619099 | LOG | Send LinkADRReq process starts |
| 0:08:10.165254 | LOG | PUSH_ACK: 01 beb4 01 fffeb827eb59d368 |
| 0:08:10.167253 | LOG | PUSH_DATA: Protocol version = 01, Token = beb4, Identifier = 00, JSON = {'rxpk': [{'tmst': 584696308, 'time': '2021-09-29T16:38:06.904124Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAWAABNpPxYjnD'}]} |
| 0:08:10.169253 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0058, FOpts: ), FPort: 01, FRMPayload: 0034, MIC: f16239c3) |
| 0:08:10.170253 | LOG | Server <---------- DUT |
| 0:08:10.171253 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003e, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 09b64e34) |
| 0:08:10.174250 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 586696308, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAPgAAyTnmtXMJtk40'}} |
| 0:08:10.176249 | LOG | Server ----------> DUT |
| 0:08:13.780593 | LOG | PULL_DATA: 01 bc44 02 fffeb827eb59d368 |
| 0:08:13.781593 | LOG | PULL_ACK: 01 bc44 04 fffeb827eb59d368 |
| 0:08:14.029450 | LOG | PUSH_ACK: 01 78fa 01 fffeb827eb59d368 |
| 0:08:14.031449 | LOG | PUSH_DATA: Protocol version = 01, Token = 78fa, Identifier = 00, JSON = {'rxpk': [{'tmst': 588595795, 'time': '2021-09-29T16:38:10.768440Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -5, 'size': 17, 'data': 'QCAgICCCWQADBwGMlSI9ejE='}]} |
| 0:08:14.032448 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0059, FOpts: 0307), FPort: 01, FRMPayload: 0034, MIC: 223d7a31) |
| 0:08:14.034447 | LOG | Server <---------- DUT |
| 0:08:14.035446 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:14.036446 | LOG | Command Answer: 0307 |
| 0:08:14.042444 | LOG | MAC command communication completed |

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| 0:08:14.047439 | LOG | Send RXParamSetupReq process starts |
| 0:08:19.035811 | LOG | PUSH_ACK: 01 4969 01 fffeb827eb59d368 |
| 0:08:19.038810 | LOG | PUSH_DATA: Protocol version = 01, Token = 4969, Identifier = 00, JSON = {'rxpk': [{'tmst': 593595051, 'time': '2021-09-29T16:38:15.774943Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAWgABPV7UDWuE'}]} |
| 0:08:19.039808 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 005a, FOpts: ), FPort: 01, FRMPayload: 0034, MIC: d40d6b84) |
| 0:08:19.041809 | LOG | Server <---------- DUT |
| 0:08:19.042806 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003f, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: ebea6c24) |
| 0:08:19.044805 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 595595051, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAPwAAjqhD9Kjr6mwk'}} |
| 0:08:19.046805 | LOG | Server ----------> DUT |
| 0:08:23.850783 | LOG | PULL_DATA: 01 e623 02 fffeb827eb59d368 |
| 0:08:23.851782 | LOG | PULL_ACK: 01 e623 04 fffeb827eb59d368 |
| 0:08:24.044673 | LOG | PUSH_ACK: 01 d01a 01 fffeb827eb59d368 |
| 0:08:24.046671 | LOG | PUSH_DATA: Protocol version = 01, Token = d01a, Identifier = 00, JSON = {'rxpk': [{'tmst': 598604523, 'time': '2021-09-29T16:38:20.783243Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -7, 'size': 17, 'data': 'QCAgICCCWwAFBwFFVU3UZyo='}]} |
| 0:08:24.048670 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 005b, FOpts: 0507), FPort: 01, FRMPayload: 0034, MIC: 4dd4672a) |
| 0:08:24.049670 | LOG | Server <---------- DUT |
| 0:08:24.051669 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:24.052668 | LOG | Command Answer: 0507 |
| 0:08:24.066660 | LOG | MAC command communication completed |
| 0:08:24.069658 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:08:29.040662 | LOG | PUSH_ACK: 01 da69 01 fffeb827eb59d368 |
| 0:08:29.042662 | LOG | PUSH_DATA: Protocol version = 01, Token = da69, Identifier = 00, JSON = {'rxpk': [{'tmst': 603607523, 'time': '2021-09-29T16:38:25.779810Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -4, 'size': 17, 'data': 'QCAgICCCXAAFBwFm0pIBHew='}]} |
| 0:08:29.044661 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 005c, FOpts: 0507), FPort: 01, FRMPayload: 0034, MIC: 92011dec) |
| 0:08:29.045660 | LOG | Server <---------- DUT |
| 0:08:29.047659 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0040, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: a7636c5b) |
| 0:08:29.049658 | LOG | Frame command sent to the DUT |
| 0:08:29.051657 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 605607523, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAQADgxNSnY2xb'}} |
| 0:08:29.053656 | LOG | Server ----------> DUT |
| 0:08:29.056654 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:08:29.059652 | LOG | End Test Step: Restore default settings |
| 0:08:29.062651 | LOG | Partial Verdict: PASS |
| 0:08:29.066648 | LOG | ========== |
| 0:08:29.075643 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_015_A |
| 0:08:29.077642 | LOG | Final Verdict: PASS |

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| **Test Case** | TP_A_EU868_ED_MAC_104_BV_015_B |
| **Verdict** | PASS |

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| **Date** | 2021-10-10 00:46:44 | |
| **Comments** | RX1 Window Test (Part 2) | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | SF7BW250 Frequency | 868.100 |
| | FSK Frequency | 868.100 |
| | Data Rates to be measured | SF10BW125 |
| | Conformance | False |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.015148 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_015_B |
| 0:00:00.049129 | LOG | WARN:TEST CASE CONFIGURATION NON CONFORMANCE |
| 0:00:00.055126 | LOG | ========== |
| 0:00:00.058124 | LOG | Start Test Step: Device activation |
| 0:00:00.068119 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:00:07.731273 | LOG | PULL_DATA: 01 0dbe 02 fffeb827eb59d368 |
| 0:00:07.735271 | LOG | PULL_ACK: 01 0dbe 04 fffeb827eb59d368 |
| 0:00:08.030103 | LOG | PUSH_ACK: 01 9bbf 01 fffeb827eb59d368 |
| 0:00:08.034101 | LOG | PUSH_DATA: Protocol version = 01, Token = 9bbf, Identifier = 00, JSON = {'rxpk': [{'tmst': 1255254556, 'time': '2021-09-29T16:49:17.458254Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIBAFQf6Gs='}]} |
| 0:00:08.036100 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0001),MIC: 541fe86b) |
| 0:00:08.037099 | LOG | Server <---------- DUT |
| 0:00:08.038099 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:08.040098 | LOG | Previous DevNonce: 0 |
| 0:00:08.041097 | LOG | Actual DevNonce: 1 |
| 0:00:08.043096 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 010000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 4435ff08) |
| 0:00:08.045095 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1261254556, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IJSRzzIPlSjAiL6aGo72f1I='}} |
| 0:00:08.047094 | LOG | Server ----------> DUT |
| 0:00:16.395767 | LOG | PUSH_ACK: 01 ab0e 01 fffeb827eb59d368 |
| 0:00:16.397765 | LOG | PUSH_DATA: Protocol version = 01, Token = ab0e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1263617604, 'time': '2021-09-29T16:49:25.823477Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAAAABSczPDLHi'}]} |
| 0:00:16.399765 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: cf0cb1e2) |
| 0:00:16.400765 | LOG | Server <---------- DUT |
| 0:00:16.404779 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:00:16.406779 | LOG | Activation process has finished successfully |
| 0:00:16.408777 | LOG | Data stored in the DUT after Activation: |
| 0:00:16.410776 | LOG | DevAddr: 20202020 |
| 0:00:16.412756 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:16.415755 | LOG | NwkSKey: 3bdf9cf21f1e001b2c6c1b5dffb03d7f |

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| 0:00:16.417753 | LOG | AppSKey: a2c624d1710f3e6c6bd015a06ef6002d |
| 0:00:16.421751 | LOG | End Test Step: Device activation |
| 0:00:16.424751 | LOG | Partial Verdict: PASS |
| 0:00:16.427750 | LOG | ========== |
| 0:00:16.434744 | LOG | ========== |
| 0:00:16.436744 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:16.450735 | LOG | DUT Pre-condition activation process starts |
| 0:00:16.456731 | LOG | Check FCntUp after reset process starts |
| 0:00:16.460751 | LOG | Check FCntUp after reset process complete |
| 0:00:16.465746 | LOG | Send Test Command DutResetReq process starts |
| 0:00:16.468744 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0001, FOpts: ), FPort: e0, FRMPayload: 01), MIC: b5ba488c) |
| 0:00:16.471744 | LOG | Frame command sent to the DUT |
| 0:00:16.473722 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1265617604, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAAQDgN7W6SIw='}} |
| 0:00:16.474722 | LOG | Server ----------> DUT |
| 0:00:16.477720 | LOG | Send Test Command DutResetReq process completed |
| 0:00:16.488733 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:00:17.870926 | LOG | PULL_DATA: 01 d598 02 fffeb827eb59d368 |
| 0:00:17.872927 | LOG | PULL_ACK: 01 d598 04 fffeb827eb59d368 |
| 0:00:28.071125 | LOG | PULL_DATA: 01 01d6 02 fffeb827eb59d368 |
| 0:00:28.072120 | LOG | PULL_ACK: 01 01d6 04 fffeb827eb59d368 |
| 0:00:29.208471 | LOG | PUSH_ACK: 01 e5f2 01 fffeb827eb59d368 |
| 0:00:29.210472 | LOG | PUSH_DATA: Protocol version = 01, Token = e5f2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1276433820, 'time': '2021-09-29T16:49:38.636674Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -11, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBICABFezD8='}]} |
| 0:00:29.211472 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0002),MIC: 115ecc3f) |
| 0:00:29.213469 | LOG | Server <---------- DUT |
| 0:00:29.215469 | LOG | DevNonce is greater than the previous in Join Request |
| 0:00:29.216469 | LOG | Previous DevNonce: 1 |
| 0:00:29.217468 | LOG | Actual DevNonce: 2 |
| 0:00:29.220465 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 020000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: c4632611) |
| 0:00:29.222466 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1281433820, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IBJVOZCuXTyX4MJJ3H3tY0Q='}} |
| 0:00:29.223465 | LOG | Server ----------> DUT |
| 0:00:36.572279 | LOG | PUSH_ACK: 01 d6f6 01 fffeb827eb59d368 |
| 0:00:36.576277 | LOG | PUSH_DATA: Protocol version = 01, Token = d6f6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1283796884, 'time': '2021-09-29T16:49:46.000779Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAAAABrELIrUE6'}]} |
| 0:00:36.578277 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: c8ad413a) |
| 0:00:36.579277 | LOG | Server <---------- DUT |
| 0:00:36.585272 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:00:36.588271 | LOG | Activation process has finished successfully |
| 0:00:36.591270 | LOG | Data stored in the DUT after Activation: |
| 0:00:36.594268 | LOG | DevAddr: 20202020 |
| 0:00:36.598265 | LOG | AppEUI: abcdabcdabcdabcd |

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| 0:00:36.601262 | LOG | NwkSKey: e17362e00c1d56af9fc3dabf717ed85a |
| 0:00:36.604262 | LOG | AppSKey: 37df364be125e48b2f22bf858ea0b0e2 |
| 0:00:36.618254 | LOG | Check FCntUp after reset process starts |
| 0:00:36.624249 | LOG | Check FCntUp after reset process complete |
| 0:00:36.637242 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:00:36.641240 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0002, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: a2a519ea) |
| 0:00:36.644238 | LOG | Frame command sent to the DUT |
| 0:00:36.645238 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1285796884, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAAgDg08CipRnq'}} |
| 0:00:36.647236 | LOG | Server ----------> DUT |
| 0:00:36.651234 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:00:36.656232 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:38.251324 | LOG | PULL_DATA: 01 7d3e 02 fffeb827eb59d368 |
| 0:00:38.252324 | LOG | PULL_ACK: 01 7d3e 04 fffeb827eb59d368 |
| 0:00:45.934948 | LOG | PUSH_ACK: 01 8e21 01 fffeb827eb59d368 |
| 0:00:45.936950 | LOG | PUSH_DATA: Protocol version = 01, Token = 8e21, Identifier = 00, JSON = {'rxpk': [{'tmst': 1293164188, 'time': '2021-09-29T16:49:55.363456Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAAQAByzhiwxzt'}]} |
| 0:00:45.938948 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0001, MIC: 62c31ced) |
| 0:00:45.939948 | LOG | Server <---------- DUT |
| 0:00:45.941945 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0003, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: bac24ef1) |
| 0:00:45.943946 | LOG | Frame command sent to the DUT |
| 0:00:45.944945 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1295164188, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAAwDgJhK6wk7x'}} |
| 0:00:45.946943 | LOG | Server ----------> DUT |
| 0:00:45.949940 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:45.954937 | LOG | Check ADR bit process starts |
| 0:00:48.350574 | LOG | PULL_DATA: 01 2e2d 02 fffeb827eb59d368 |
| 0:00:48.352574 | LOG | PULL_ACK: 01 2e2d 04 fffeb827eb59d368 |
| 0:00:50.937101 | LOG | PUSH_ACK: 01 af02 01 fffeb827eb59d368 |
| 0:00:50.939102 | LOG | PUSH_DATA: Protocol version = 01, Token = af02, Identifier = 00, JSON = {'rxpk': [{'tmst': 1298167204, 'time': '2021-09-29T16:50:00.364548Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAAgABYiW9TRHd'}]} |
| 0:00:50.941099 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: bd4d11dd) |
| 0:00:50.942098 | LOG | Server <---------- DUT |
| 0:00:50.946096 | LOG | ADR bit in FCtrl field is set |
| 0:00:50.953092 | LOG | Send LinkADRReq process starts |
| 0:00:55.943251 | LOG | PUSH_ACK: 01 c6b9 01 fffeb827eb59d368 |
| 0:00:55.945250 | LOG | PUSH_DATA: Protocol version = 01, Token = c6b9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1303171588, 'time': '2021-09-29T16:50:05.371214Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAAwABILSDXaT7'}]} |
| 0:00:55.946251 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 835da4fb) |
| 0:00:55.948250 | LOG | Server <---------- DUT |

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| 0:00:55.950249 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0004, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: c0e0c6cc) |
| 0:00:55.953246 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1305171588, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAABAAAV3d0R3vA4MbM'}} |
| 0:00:55.955245 | LOG | Server ----------> DUT |
| 0:00:58.550841 | LOG | PULL_DATA: 01 63c9 02 fffeb827eb59d368 |
| 0:00:58.552841 | LOG | PULL_ACK: 01 63c9 04 fffeb827eb59d368 |
| 0:00:59.816121 | LOG | PUSH_ACK: 01 8a1f 01 fffeb827eb59d368 |
| 0:00:59.818123 | LOG | PUSH_DATA: Protocol version = 01, Token = 8a1f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1307071123, 'time': '2021-09-29T16:50:09.244320Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -5, 'size': 17, 'data': 'QCAgICCCBAADBwH13rmRam0='}]} |
| 0:00:59.820120 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0004, FOpts: 0307), FPort: 01, FRMPayload: 0002, MIC: b9916a6d) |
| 0:00:59.846104 | LOG | Server <---------- DUT |
| 0:00:59.848103 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:59.849105 | LOG | Command Answer: 0307 |
| 0:00:59.857098 | LOG | MAC command communication completed |
| 0:00:59.864094 | LOG | Send Test Command DutVersionsReq process starts |
| 0:01:04.812277 | LOG | PUSH_ACK: 01 7097 01 fffeb827eb59d368 |
| 0:01:04.814276 | LOG | PUSH_DATA: Protocol version = 01, Token = 7097, Identifier = 00, JSON = {'rxpk': [{'tmst': 1312068971, 'time': '2021-09-29T16:50:14.240361Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCABQABWIrwRmv9'}]} |
| 0:01:04.815275 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0005, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: f0466bfd) |
| 0:01:04.817274 | LOG | Server <---------- DUT |
| 0:01:04.819273 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0005, FOpts: ), FPort: e0, FRMPayload: 7f), MIC: 65395016) |
| 0:01:04.821272 | LOG | Frame command sent to the DUT |
| 0:01:04.823270 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1314068971, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAABQDg8GU5UBY='}} |
| 0:01:04.824270 | LOG | Server ----------> DUT |
| 0:01:08.621108 | LOG | PULL_DATA: 01 5689 02 fffeb827eb59d368 |
| 0:01:08.625106 | LOG | PULL_ACK: 01 5689 04 fffeb827eb59d368 |
| 0:01:09.840414 | LOG | PUSH_ACK: 01 1a2b 01 fffeb827eb59d368 |
| 0:01:09.841414 | LOG | PUSH_DATA: Protocol version = 01, Token = 1a2b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1317093563, 'time': '2021-09-29T16:50:19.268200Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -7, 'size': 23, 'data': 'QCAgICCABgDgcxke3sIwxkx6aEBh91M='}]} |
| 0:01:09.843413 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 7f010004010004010004, MIC: 4061f753) |
| 0:01:09.844412 | LOG | Server <---------- DUT |
| 0:01:09.845413 | LOG | Answer in payload: 010004010004010004 |
| 0:01:09.846411 | LOG | Frame Command Payload in the Answer: 7f010004010004010004 |
| 0:01:09.852408 | LOG | DUT Version received: 010004010004010004 |
| 0:01:09.855406 | LOG | Send Test Command DutVersionsReq completed |
| 0:01:09.858404 | LOG | DUT Pre-condition activation completed |
| 0:01:09.862401 | LOG | End Test Step: DUT Pre-condition settings |
| 0:01:09.865400 | LOG | Partial Verdict: PASS |
| 0:01:09.871396 | LOG | ========== |

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| 0:01:09.878393 | LOG | ========== |
| 0:01:09.881391 | LOG | Start Test Step: Initial settings for the test |
| 0:01:09.893402 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:01:15.958932 | LOG | PUSH_ACK: 01 211b 01 fffeb827eb59d368 |
| 0:01:15.961929 | LOG | PUSH_DATA: Protocol version = 01, Token = 211b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1323186300, 'time': '2021-09-29T16:50:25.387486Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCABwABHVCIQfmB'}]} |
| 0:01:15.962928 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0007, FOpts: ), FPort: 01, FRMPayload: 0003, MIC: 8841f981) |
| 0:01:15.964928 | LOG | Server <---------- DUT |
| 0:01:15.966926 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0006, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: e013dcdd) |
| 0:01:15.969925 | LOG | Frame command sent to the DUT |
| 0:01:15.970924 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1325186300, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABgDggdLgE9zd'}} |
| 0:01:15.972923 | LOG | Server ----------> DUT |
| 0:01:15.974923 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:01:15.977922 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:18.770348 | LOG | PULL_DATA: 01 0107 02 fffeb827eb59d368 |
| 0:01:18.772348 | LOG | PULL_ACK: 01 0107 04 fffeb827eb59d368 |
| 0:01:20.966098 | LOG | PUSH_ACK: 01 0dd8 01 fffeb827eb59d368 |
| 0:01:20.968079 | LOG | PUSH_DATA: Protocol version = 01, Token = 0dd8, Identifier = 00, JSON = {'rxpk': [{'tmst': 1328190676, 'time': '2021-09-29T16:50:30.393765Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCACAABAvb/yf5u'}]} |
| 0:01:20.969078 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0008, FOpts: ), FPort: 01, FRMPayload: 0004, MIC: ffc9fe6e) |
| 0:01:20.971078 | LOG | Server <---------- DUT |
| 0:01:20.973076 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0007, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: fca58b6a) |
| 0:01:20.976076 | LOG | Frame command sent to the DUT |
| 0:01:20.977074 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1330190676, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABwDgu4b8pYtq'}} |
| 0:01:20.978076 | LOG | Server ----------> DUT |
| 0:01:20.981072 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:20.986069 | LOG | End Test Step: Initial settings for the test |
| 0:01:20.992068 | LOG | Partial Verdict: PASS |
| 0:01:20.998062 | LOG | ========== |
| 0:01:21.006057 | LOG | ========== |
| 0:01:21.009056 | LOG | Start Test Step: Test packet error rate for SF7BW125 using RX1 window |
| 0:01:21.021051 | LOG | End Test Step: Test packet error rate for SF7BW125 using RX1 window |
| 0:01:21.024047 | LOG | TEST STEP NOT APPLICABLE |
| 0:01:21.027047 | LOG | ========== |
| 0:01:21.033042 | LOG | ========== |
| 0:01:21.036041 | LOG | Start Test Step: Test packet error rate for SF8BW125 using RX1 window |
| 0:01:21.053031 | LOG | End Test Step: Test packet error rate for SF8BW125 using RX1 window |
| 0:01:21.057028 | LOG | TEST STEP NOT APPLICABLE |
| 0:01:21.061027 | LOG | ========== |
| 0:01:21.065026 | LOG | ========== |
| 0:01:21.067024 | LOG | Start Test Step: Test packet error rate for SF9BW125 using RX1 window |
| 0:01:21.080018 | LOG | End Test Step: Test packet error rate for SF9BW125 using RX1 window |

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| 0:01:21.084014 | LOG | TEST STEP NOT APPLICABLE |
| 0:01:21.088013 | LOG | ========== |
| 0:01:21.093010 | LOG | ========== |
| 0:01:21.095009 | LOG | Start Test Step: Test packet error rate for SF10BW125 using RX1 window |
| 0:01:21.106000 | LOG | Send LinkADRReq process starts |
| 0:01:25.973230 | LOG | PUSH_ACK: 01 fd8b 01 fffeb827eb59d368 |
| 0:01:25.976228 | LOG | PUSH_DATA: Protocol version = 01, Token = fd8b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1333195044, 'time': '2021-09-29T16:50:35.401207Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -2, 'size': 15, 'data': 'QCAgICCACQABfhNrN5pd'}]} |
| 0:01:25.978227 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0009, FOpts: ), FPort: 01, FRMPayload: 0005, MIC: 6b379a5d) |
| 0:01:25.979228 | LOG | Server <---------- DUT |
| 0:01:25.981225 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0008, FOpts: ), FPort: 00, FRMPayload: 0320070001), MIC: 33d9911b) |
| 0:01:25.985223 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1335195044, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAACAAAS1YKsiUz2ZEb'}} |
| 0:01:25.987222 | LOG | Server ----------> DUT |
| 0:01:28.790627 | LOG | PULL_DATA: 01 16c2 02 fffeb827eb59d368 |
| 0:01:28.792625 | LOG | PULL_ACK: 01 16c2 04 fffeb827eb59d368 |
| 0:01:30.122867 | LOG | PUSH_ACK: 01 a1a4 01 fffeb827eb59d368 |
| 0:01:30.125865 | LOG | PUSH_DATA: Protocol version = 01, Token = a1a4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1337374252, 'time': '2021-09-29T16:50:39.551249Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -5, 'size': 17, 'data': 'QCAgICCCCgADBwEjYeA9jas='}]} |
| 0:01:30.126865 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 000a, FOpts: 0307), FPort: 01, FRMPayload: 0005, MIC: e03d8dab) |
| 0:01:30.128864 | LOG | Server <---------- DUT |
| 0:01:30.129863 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:30.131863 | LOG | Command Answer: 0307 |
| 0:01:30.140857 | LOG | MAC command communication completed |
| 0:01:30.145854 | LOG | Send RXParamSetupReq process starts |
| 0:01:35.130016 | LOG | PUSH_ACK: 01 e3cf 01 fffeb827eb59d368 |
| 0:01:35.132015 | LOG | PUSH_DATA: Protocol version = 01, Token = e3cf, Identifier = 00, JSON = {'rxpk': [{'tmst': 1342377244, 'time': '2021-09-29T16:50:44.558026Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCACwABl3dCBa5C'}]} |
| 0:01:35.134015 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000b, FOpts: ), FPort: 01, FRMPayload: 0005, MIC: 4205ae42) |
| 0:01:35.135014 | LOG | Server <---------- DUT |
| 0:01:35.137013 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0009, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: 9cf1cecb) |
| 0:01:35.140011 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1344377244, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAACQAAKFyAP5ac8c7L'}} |
| 0:01:35.142010 | LOG | Server ----------> DUT |
| 0:01:38.940847 | LOG | PULL_DATA: 01 d292 02 fffeb827eb59d368 |
| 0:01:38.945844 | LOG | PULL_ACK: 01 d292 04 fffeb827eb59d368 |
| 0:01:40.137168 | LOG | PUSH_ACK: 01 d298 01 fffeb827eb59d368 |
| 0:01:40.139166 | LOG | PUSH_DATA: Protocol version = 01, Token = d298, Identifier = 00, JSON = {'rxpk': [{'tmst': 1347381596, 'time': '2021-09-29T16:50:49.565129Z', 'chan': 0, |

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| | | 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -4, 'size': 17, 'data': 'QCAgICCCDAAFBwG3jGyKpWA='}]} |
| 0:01:40.140164 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 000c, FOpts: 0507), FPort: 01, FRMPayload: 0005, MIC: 6c8aa560) |
| 0:01:40.141166 | LOG | Server <---------- DUT |
| 0:01:40.143163 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:40.144162 | LOG | Command Answer: 0507 |
| 0:01:40.158154 | LOG | MAC command communication completed |
| 0:01:40.170147 | LOG | Send Test Command RxAppCntReq process starts |
| 0:01:45.132962 | LOG | PUSH_ACK: 01 4b35 01 fffeb827eb59d368 |
| 0:01:45.135960 | LOG | PUSH_DATA: Protocol version = 01, Token = 4b35, Identifier = 00, JSON = {'rxpk': [{'tmst': 1352384572, 'time': '2021-09-29T16:50:54.560625Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -4, 'size': 17, 'data': 'QCAgICCCDQAFBwHnPqRebNM='}]} |
| 0:01:45.137958 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 000d, FOpts: 0507), FPort: 01, FRMPayload: 0005, MIC: a45e6cd3) |
| 0:01:45.139957 | LOG | Server <---------- DUT |
| 0:01:45.141957 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000a, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 20be6427) |
| 0:01:45.144954 | LOG | Frame command sent to the DUT |
| 0:01:45.146953 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1353384572, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAACgDggiC+ZCc='}} |
| 0:01:45.148953 | LOG | Server ----------> DUT |
| 0:01:48.950788 | LOG | PULL_DATA: 01 61d5 02 fffeb827eb59d368 |
| 0:01:48.952787 | LOG | PULL_ACK: 01 61d5 04 fffeb827eb59d368 |
| 0:01:50.143111 | LOG | PUSH_ACK: 01 55d1 01 fffeb827eb59d368 |
| 0:01:50.145109 | LOG | PUSH_DATA: Protocol version = 01, Token = 55d1, Identifier = 00, JSON = {'rxpk': [{'tmst': 1357390708, 'time': '2021-09-29T16:50:59.571224Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -5, 'size': 16, 'data': 'QCAgICCADgDgKwZX5RgX9g=='}]} |
| 0:01:50.146109 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000e, FOpts: ), FPort: e0, FRMPayload: 090600, MIC: e51817f6) |
| 0:01:50.147108 | LOG | Server <---------- DUT |
| 0:01:50.148108 | LOG | Answer in payload: 0600 |
| 0:01:50.150105 | LOG | Frame Command Payload in the Answer: 090600 |
| 0:01:50.156101 | LOG | RX Count received by DUT: 6 |
| 0:01:50.158100 | LOG | Send Test Command RxAppCntReq process completed |
| 0:01:50.161099 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:55.139265 | LOG | PUSH_ACK: 01 6c33 01 fffeb827eb59d368 |
| 0:01:55.142264 | LOG | PUSH_DATA: Protocol version = 01, Token = 6c33, Identifier = 00, JSON = {'rxpk': [{'tmst': 1362390532, 'time': '2021-09-29T16:51:04.567328Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCADwABUSNYUMy6'}]} |
| 0:01:55.143264 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 000f, FOpts: ), FPort: 01, FRMPayload: 0006, MIC: 5850ccba) |
| 0:01:55.144262 | LOG | Server <---------- DUT |
| 0:01:55.146261 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000b, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9c723ec5) |
| 0:01:55.148259 | LOG | Frame command sent to the DUT |
| 0:01:55.150259 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1363390532, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAACwDgd9knWqbY4Vr5ofojv2dOKINbhHMwCSILQHwRWdw+PXV3Ltnj3XdaIVUbzqcK0ts4i/OXnHI+xQ=='}} |
| 0:01:55.152257 | LOG | Server ----------> DUT |
| 0:01:55.156255 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:55.161252 | LOG | Check previous uplink data rate process starts |
| 0:01:55.169247 | LOG | Uplink received with expected Data Rate |
| 0:01:55.177243 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:59.150981 | LOG | PULL_DATA: 01 ddc2 02 fffeb827eb59d368 |
| 0:01:59.151980 | LOG | PULL_ACK: 01 ddc2 04 fffeb827eb59d368 |
| 0:02:00.147414 | LOG | PUSH_ACK: 01 bcf7 01 fffeb827eb59d368 |
| 0:02:00.149412 | LOG | PUSH_DATA: Protocol version = 01, Token = bcf7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1367396252, 'time': '2021-09-29T16:51:09.575531Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAEAABLIpmBLWD'}]} |
| 0:02:00.150411 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0010, FOpts: ), FPort: 01, FRMPayload: 0007, MIC: 6604b583) |
| 0:02:00.151411 | LOG | Server <---------- DUT |
| 0:02:00.153410 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 789fb7bf) |
| 0:02:00.155409 | LOG | Frame command sent to the DUT |
| 0:02:00.157408 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1368396252, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADADgyft7B+cPVMHgHP0qrkAoJOSRvHG6GQnqnd7KWaPyLRXORXD/pF9hmGOgTcNlG3kud8ZqeJ+3vw=='}} |
| 0:02:00.158407 | LOG | Server ----------> DUT |
| 0:02:00.162405 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:00.164404 | LOG | Check previous uplink data rate process starts |
| 0:02:00.168403 | LOG | Uplink received with expected Data Rate |
| 0:02:00.173398 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:05.153563 | LOG | PUSH_ACK: 01 edde 01 fffeb827eb59d368 |
| 0:02:05.155562 | LOG | PUSH_DATA: Protocol version = 01, Token = edde, Identifier = 00, JSON = {'rxpk': [{'tmst': 1372399244, 'time': '2021-09-29T16:51:14.582024Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAEQABwcqfeciQ'}]} |
| 0:02:05.156561 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0011, FOpts: ), FPort: 01, FRMPayload: 0008, MIC: 9f79c890) |
| 0:02:05.157561 | LOG | Server <---------- DUT |
| 0:02:05.159559 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5b536fee) |
| 0:02:05.161560 | LOG | Frame command sent to the DUT |
| 0:02:05.163557 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1373399244, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADQDg4AedGTO21HJ3qckTrwSygIIlIYLanoepIXeZQEJtGATjxT11bQ1f3gDHbwdFJAkfeS5bW1Nv7g=='}} |
| 0:02:05.164557 | LOG | Server ----------> DUT |
| 0:02:05.167556 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:05.171553 | LOG | Check previous uplink data rate process starts |

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| 0:02:05.176552 | LOG | Uplink received with expected Data Rate |
| 0:02:05.180548 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:09.161137 | LOG | PULL_DATA: 01 13ef 02 fffeb827eb59d368 |
| 0:02:09.165134 | LOG | PULL_ACK: 01 13ef 04 fffeb827eb59d368 |
| 0:02:10.150573 | LOG | PUSH_ACK: 01 e520 01 fffeb827eb59d368 |
| 0:02:10.152572 | LOG | PUSH_DATA: Protocol version = 01, Token = e520, Identifier = 00, JSON = {'rxpk': [{'tmst': 1377402220, 'time': '2021-09-29T16:51:19.578725Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAEgAB/uJtJYhc'}]} |
| 0:02:10.155570 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0012, FOpts: ), FPort: 01, FRMPayload: 0009, MIC: 6d25885c) |
| 0:02:10.157569 | LOG | Server <---------- DUT |
| 0:02:10.158571 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: cfae89be) |
| 0:02:10.161569 | LOG | Frame command sent to the DUT |
| 0:02:10.162568 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1378402220, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADgDg0BENlsMrJ5r5SIqzxoSIYWwbkpk+upLHmn3vQ5gVZKxS4LAFy8p+r12eXFrCW8Khqgq9z66Jvg=='}} |
| 0:02:10.163566 | LOG | Server ----------> DUT |
| 0:02:10.166565 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:10.170562 | LOG | Check previous uplink data rate process starts |
| 0:02:10.181555 | LOG | Uplink received with expected Data Rate |
| 0:02:10.187552 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:15.156723 | LOG | PUSH_ACK: 01 c7e2 01 fffeb827eb59d368 |
| 0:02:15.159721 | LOG | PUSH_DATA: Protocol version = 01, Token = c7e2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1382405196, 'time': '2021-09-29T16:51:24.585046Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAEwABSLZcdRMa'}]} |
| 0:02:15.161721 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0013, FOpts: ), FPort: 01, FRMPayload: 000a, MIC: 5c75131a) |
| 0:02:15.162720 | LOG | Server <---------- DUT |
| 0:02:15.164719 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 000f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 83de4781) |
| 0:02:15.167717 | LOG | Frame command sent to the DUT |
| 0:02:15.169715 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1383405196, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADwDgR1W5ik/HaA/qRr+2YuknP8p9d99Iz+WAYP0avTtqe8+Fg1HxPJ9aDYSlfRAFKJZKc/IGg95HgQ=='}} |
| 0:02:15.171715 | LOG | Server ----------> DUT |
| 0:02:15.174713 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:15.176712 | LOG | Check previous uplink data rate process starts |
| 0:02:15.180710 | LOG | Uplink received with expected Data Rate |
| 0:02:15.183708 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:19.170393 | LOG | PULL_DATA: 01 abdd 02 fffeb827eb59d368 |
| 0:02:19.172417 | LOG | PULL_ACK: 01 abdd 04 fffeb827eb59d368 |
| 0:02:20.163852 | LOG | PUSH_ACK: 01 a44d 01 fffeb827eb59d368 |

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| 0:02:20.166852 | LOG | PUSH_DATA: Protocol version = 01, Token = a44d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1387408188, 'time': '2021-09-29T16:51:29.592318Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAFAAB8Lkk7m8s'}]} |
| 0:02:20.168853 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0014, FOpts: ), FPort: 01, FRMPayload: 000b, MIC: 24ee6f2c) |
| 0:02:20.169824 | LOG | Server <---------- DUT |
| 0:02:20.171851 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0010, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4242bbe7) |
| 0:02:20.174818 | LOG | Frame command sent to the DUT |
| 0:02:20.175818 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1388408188, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEADgwGkEdyP32FgnQ/kM6MghoGpw6zzWwyp9otR8rlyAMDA5zrEIGmIVvd55yyLWGA/AiEOIQkK75w=='}} |
| 0:02:20.176815 | LOG | Server ----------> DUT |
| 0:02:20.180813 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:20.182814 | LOG | Check previous uplink data rate process starts |
| 0:02:20.187810 | LOG | Uplink received with expected Data Rate |
| 0:02:20.192807 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:25.160009 | LOG | PUSH_ACK: 01 8188 01 fffeb827eb59d368 |
| 0:02:25.162981 | LOG | PUSH_DATA: Protocol version = 01, Token = 8188, Identifier = 00, JSON = {'rxpk': [{'tmst': 1392411204, 'time': '2021-09-29T16:51:34.588589Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAFQAB5ioViwmj'}]} |
| 0:02:25.164008 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0015, FOpts: ), FPort: 01, FRMPayload: 000c, MIC: 158b09a3) |
| 0:02:25.166006 | LOG | Server <---------- DUT |
| 0:02:25.168005 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0011, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 116f2e71) |
| 0:02:25.171003 | LOG | Frame command sent to the DUT |
| 0:02:25.173002 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1393411204, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEQDgLhh/W/hXBF9fb4NQy27fLFcmUohYRq9Yg+z+r6H2bJBoGtUv/Fs645XhJ2QmqM6CV5mBEW8ucQ=='}} |
| 0:02:25.174973 | LOG | Server ----------> DUT |
| 0:02:25.176999 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:25.179998 | LOG | Check previous uplink data rate process starts |
| 0:02:25.184964 | LOG | Uplink received with expected Data Rate |
| 0:02:25.188962 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:29.370611 | LOG | PULL_DATA: 01 1c53 02 fffeb827eb59d368 |
| 0:02:29.372610 | LOG | PULL_ACK: 01 1c53 04 fffeb827eb59d368 |
| 0:02:30.166724 | LOG | PUSH_ACK: 01 1aee 01 fffeb827eb59d368 |
| 0:02:30.168751 | LOG | PUSH_DATA: Protocol version = 01, Token = 1aee, Identifier = 00, JSON = {'rxpk': [{'tmst': 1397416924, 'time': '2021-09-29T16:51:39.595333Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAFgABT+6jGSZW'}]} |
| 0:02:30.170721 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0016, FOpts: ), FPort: 01, FRMPayload: 000d, MIC: a3192656) |
| 0:02:30.171721 | LOG | Server <---------- DUT |

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| 0:02:30.174748 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0012, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ca5cf4cf) |
| 0:02:30.176747 | LOG | Frame command sent to the DUT |
| 0:02:30.177746 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1398416924, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEgDgie6HMdPFaOHTlUVsXh/axATA6NcFZqj9KTO9g7jTsUnWcX1fdBf58pnux2pweadsrYG1ylz0zw==''}} |
| 0:02:30.178717 | LOG | Server ----------> DUT |
| 0:02:30.182742 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:30.186740 | LOG | Check previous uplink data rate process starts |
| 0:02:30.191709 | LOG | Uplink received with expected Data Rate |
| 0:02:30.195704 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:35.172890 | LOG | PUSH_ACK: 01 eb66 01 fffeb827eb59d368 |
| 0:02:35.175872 | LOG | PUSH_DATA: Protocol version = 01, Token = eb66, Identifier = 00, JSON = {'rxpk': [{'tmst': 1402421292, 'time': '2021-09-29T16:51:44.601463Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAFwABTnTHjvIO''}]} |
| 0:02:35.176898 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0017, FOpts: ), FPort: 01, FRMPayload: 000e, MIC: c78ef20e) |
| 0:02:35.178897 | LOG | Server <---------- DUT |
| 0:02:35.180897 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0013, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 876fa3a3) |
| 0:02:35.182868 | LOG | Frame command sent to the DUT |
| 0:02:35.184867 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1403421292, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEwDgf0xYxsnKYhZy5fC1KpaQyzRQj0DtM6+yJS3IZwRPUuLPFBRp8elqzknH1OXZTKnOp9Q5h2+jow==''}} |
| 0:02:35.186865 | LOG | Server ----------> DUT |
| 0:02:35.189892 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:35.192889 | LOG | Check previous uplink data rate process starts |
| 0:02:35.195888 | LOG | Uplink received with expected Data Rate |
| 0:02:35.200885 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:39.390491 | LOG | PULL_DATA: 01 244c 02 fffeb827eb59d368 |
| 0:02:39.394498 | LOG | PULL_ACK: 01 244c 04 fffeb827eb59d368 |
| 0:02:40.178052 | LOG | PUSH_ACK: 01 3b79 01 fffeb827eb59d368 |
| 0:02:40.180050 | LOG | PUSH_DATA: Protocol version = 01, Token = 3b79, Identifier = 00, JSON = {'rxpk': [{'tmst': 1407424308, 'time': '2021-09-29T16:51:49.606232Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAGAABvnaakjIN''}]} |
| 0:02:40.182049 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0018, FOpts: ), FPort: 01, FRMPayload: 000f, MIC: 9a92320d) |
| 0:02:40.183050 | LOG | Server <---------- DUT |
| 0:02:40.185050 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0014, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f8fa365e) |
| 0:02:40.188047 | LOG | Frame command sent to the DUT |
| 0:02:40.190046 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1408424308, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFADggWjwnienDUv476T9K0ww5I0X3q99kkadKjpFOWmK7X71bvRoJEp7DINQqFLM+J7sKJgV+Po2Xg=='}} |
| 0:02:40.191044 | LOG | Server ----------> DUT |
| 0:02:40.195014 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:40.199037 | LOG | Check previous uplink data rate process starts |
| 0:02:40.204038 | LOG | Uplink received with expected Data Rate |
| 0:02:40.208007 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:45.182175 | LOG | PUSH_ACK: 01 1ea8 01 fffeb827eb59d368 |
| 0:02:45.184202 | LOG | PUSH_DATA: Protocol version = 01, Token = 1ea8, Identifier = 00, JSON = {'rxpk': [{'tmst': 1412427316, 'time': '2021-09-29T16:51:54.610518Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAGQABd2G169LQ'}]} |
| 0:02:45.186173 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0019, FOpts: ), FPort: 01, FRMPayload: 0010, MIC: b5ebd2d0) |
| 0:02:45.187172 | LOG | Server <---------- DUT |
| 0:02:45.189199 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0015, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: bc3296b9) |
| 0:02:45.192196 | LOG | Frame command sent to the DUT |
| 0:02:45.193169 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1413427316, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFQDgKx75kaNe4/nB3WVCgm6AKUdgI037eU7JIOKCvPjmprQ6h0+Y109p4L20umFKoXFWzc7/vDKWuQ=='}} |
| 0:02:45.194197 | LOG | Server ----------> DUT |
| 0:02:45.197166 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:45.199192 | LOG | Check previous uplink data rate process starts |
| 0:02:45.205162 | LOG | Uplink received with expected Data Rate |
| 0:02:45.210189 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:49.590662 | LOG | PULL_DATA: 01 acfb 02 fffeb827eb59d368 |
| 0:02:49.591661 | LOG | PULL_ACK: 01 acfb 04 fffeb827eb59d368 |
| 0:02:50.178359 | LOG | PUSH_ACK: 01 6a68 01 fffeb827eb59d368 |
| 0:02:50.180358 | LOG | PUSH_DATA: Protocol version = 01, Token = 6a68, Identifier = 00, JSON = {'rxpk': [{'tmst': 1417430300, 'time': '2021-09-29T16:51:59.606043Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAGgABVyDb6Cjl'}]} |
| 0:02:50.182328 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001a, FOpts: ), FPort: 01, FRMPayload: 0011, MIC: dbe828e5) |
| 0:02:50.183328 | LOG | Server <---------- DUT |
| 0:02:50.186353 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0016, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 70bc7355) |
| 0:02:50.188354 | LOG | Frame command sent to the DUT |
| 0:02:50.190351 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1418430300, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFgDg81Z0Zq+b3o7d5Jcga/KU02jtQ3qupETAYZHS1XzYhzQE0NzsUw7sNVHsZRTT5uWNiA9ScLxzVQ=='}} |
| 0:02:50.192323 | LOG | Server ----------> DUT |
| 0:02:50.195348 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:50.198319 | LOG | Check previous uplink data rate process starts |

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| 0:02:50.201347 | LOG | Uplink received with expected Data Rate |
| 0:02:50.205312 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:55.183510 | LOG | PUSH_ACK: 01 f358 01 fffeb827eb59d368 |
| 0:02:55.186480 | LOG | PUSH_DATA: Protocol version = 01, Token = f358, Identifier = 00, JSON = {'rxpk': [{'tmst': 1422433292, 'time': '2021-09-29T16:52:04.612192Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAGwABjltni0pP'}]} |
| 0:02:55.187506 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001b, FOpts: ), FPort: 01, FRMPayload: 0012, MIC: 678b4a4f) |
| 0:02:55.189504 | LOG | Server <---------- DUT |
| 0:02:55.191506 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0017, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 608222c6) |
| 0:02:55.194502 | LOG | Frame command sent to the DUT |
| 0:02:55.195503 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1423433292, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFwDgcreiSg6qvxozQpedzEpftDQ5jOc/vXU73zr+G0T/BsrDmklP37MxHdE1FOummUhzXfqGYIIixg=='}} |
| 0:02:55.196503 | LOG | Server ----------> DUT |
| 0:02:55.199499 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:55.203498 | LOG | Check previous uplink data rate process starts |
| 0:02:55.209466 | LOG | Uplink received with expected Data Rate |
| 0:02:55.212493 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:59.600798 | LOG | PULL_DATA: 01 4606 02 fffeb827eb59d368 |
| 0:02:59.602797 | LOG | PULL_ACK: 01 4606 04 fffeb827eb59d368 |
| 0:03:00.190463 | LOG | PUSH_ACK: 01 472b 01 fffeb827eb59d368 |
| 0:03:00.193461 | LOG | PUSH_DATA: Protocol version = 01, Token = 472b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1427439012, 'time': '2021-09-29T16:52:09.619147Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAHAAB0N8uDelO'}]} |
| 0:03:00.194460 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001c, FOpts: ), FPort: 01, FRMPayload: 0013, MIC: 2e0de94e) |
| 0:03:00.195460 | LOG | Server <---------- DUT |
| 0:03:00.198459 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0018, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 1969d8aa) |
| 0:03:00.200457 | LOG | Frame command sent to the DUT |
| 0:03:00.202456 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1428439012, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAGADg5K2okBsWVjCDL8wvNp14679/bRSPEBR7nEjn1sQQh6REhKHwq95GvCsG/dnG5GD8xPF8GWnYqg=='}} |
| 0:03:00.204455 | LOG | Server ----------> DUT |
| 0:03:00.208452 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:00.212450 | LOG | Check previous uplink data rate process starts |
| 0:03:00.216448 | LOG | Uplink received with expected Data Rate |
| 0:03:00.221445 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:05.197612 | LOG | PUSH_ACK: 01 260e 01 fffeb827eb59d368 |
| 0:03:05.200610 | LOG | PUSH_DATA: Protocol version = 01, Token = 260e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1432444724, 'time': '2021-09-29T16:52:14.626179Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAHQABr8LNrbAA'}]} |

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| 0:03:05.201610 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001d, FOpts: ), FPort: 01, FRMPayload: 0014, MIC: cdadb000) |
| 0:03:05.203609 | LOG | Server <---------- DUT |
| 0:03:05.205608 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0019, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 197fd57b) |
| 0:03:05.207606 | LOG | Frame command sent to the DUT |
| 0:03:05.209605 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1433444724, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAGQDgpPPw2jeMHSAYHP9e4CdE2OG1U53zbqrrbVcqVtj+Tg8Sfke+NEejjs252iJxFBTYf3ZCGX/Vew=='}} |
| 0:03:05.211604 | LOG | Server ----------> DUT |
| 0:03:05.214602 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:05.219600 | LOG | Check previous uplink data rate process starts |
| 0:03:05.225596 | LOG | Uplink received with expected Data Rate |
| 0:03:05.230594 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:09.610101 | LOG | PULL_DATA: 01 0dd2 02 fffeb827eb59d368 |
| 0:03:09.614098 | LOG | PULL_ACK: 01 0dd2 04 fffeb827eb59d368 |
| 0:03:10.195768 | LOG | PUSH_ACK: 01 ebb2 01 fffeb827eb59d368 |
| 0:03:10.196767 | LOG | PUSH_DATA: Protocol version = 01, Token = ebb2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1437447708, 'time': '2021-09-29T16:52:19.623872Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAHgAB+oNKOS6O'}]} |
| 0:03:10.198765 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001e, FOpts: ), FPort: 01, FRMPayload: 0015, MIC: 4a392e8e) |
| 0:03:10.199765 | LOG | Server <---------- DUT |
| 0:03:10.201763 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: bd64fb4d) |
| 0:03:10.204761 | LOG | Frame command sent to the DUT |
| 0:03:10.206761 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1438447708, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAGgDgGxXUcBF8uSAuGZeSYHH61bXuMtleQBnyVJVe/4GLsjOub6Oy9Bz0jnDbj1bcT7UKHgwrvWT7TQ=='}} |
| 0:03:10.207778 | LOG | Server ----------> DUT |
| 0:03:10.211760 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:10.214756 | LOG | Check previous uplink data rate process starts |
| 0:03:10.218753 | LOG | Uplink received with expected Data Rate |
| 0:03:10.221752 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:15.205914 | LOG | PUSH_ACK: 01 3a3b 01 fffeb827eb59d368 |
| 0:03:15.207913 | LOG | PUSH_DATA: Protocol version = 01, Token = 3a3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1442450716, 'time': '2021-09-29T16:52:24.634254Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAHwABclpV3V0I'}]} |
| 0:03:15.208912 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 001f, FOpts: ), FPort: 01, FRMPayload: 0016, MIC: 55dd5d08) |
| 0:03:15.210911 | LOG | Server <---------- DUT |
| 0:03:15.211911 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001b, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b98b4f2b) |

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| 0:03:15.213910 | LOG | Frame command sent to the DUT |
| 0:03:15.215908 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1443450716, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAGwDgOTYguX1AWJv3lF8tDTYvJ1Gjv5ukaaqOa9sZML5/M7A9G4aonsHuArU7XsLwlCFrNzcCuYtPKw=='}} |
| 0:03:15.216908 | LOG | Server ----------> DUT |
| 0:03:15.220906 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:15.224904 | LOG | Check previous uplink data rate process starts |
| 0:03:15.228901 | LOG | Uplink received with expected Data Rate |
| 0:03:15.231899 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:19.619872 | LOG | PULL_DATA: 01 2aab 02 fffeb827eb59d368 |
| 0:03:19.621869 | LOG | PULL_ACK: 01 2aab 04 fffeb827eb59d368 |
| 0:03:20.202538 | LOG | PUSH_ACK: 01 ba4e 01 fffeb827eb59d368 |
| 0:03:20.204538 | LOG | PUSH_DATA: Protocol version = 01, Token = ba4e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1447453684, 'time': '2021-09-29T16:52:29.631447Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAIAABwg5Cakv4'}]} |
| 0:03:20.206537 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0020, FOpts: ), FPort: 01, FRMPayload: 0017, MIC: 426a4bf8) |
| 0:03:20.207538 | LOG | Server <---------- DUT |
| 0:03:20.209535 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 520510db) |
| 0:03:20.211534 | LOG | Frame command sent to the DUT |
| 0:03:20.213534 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1448453684, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHADgTyj2xkb+9a6Q3scO5ipOpFqWKbHDRbVt9rlpp3x6CpAR5docrom77fa3s5IM58g22KPMUgUQ2w=='}} |
| 0:03:20.214533 | LOG | Server ----------> DUT |
| 0:03:20.216532 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:20.220528 | LOG | Check previous uplink data rate process starts |
| 0:03:20.224526 | LOG | Uplink received with expected Data Rate |
| 0:03:20.228524 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:25.204389 | LOG | PUSH_ACK: 01 f8f6 01 fffeb827eb59d368 |
| 0:03:25.206386 | LOG | PUSH_DATA: Protocol version = 01, Token = f8f6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1452456676, 'time': '2021-09-29T16:52:34.632637Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAIQAB6KH+ORuz'}]} |
| 0:03:25.207385 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0021, FOpts: ), FPort: 01, FRMPayload: 0018, MIC: fe391bb3) |
| 0:03:25.209385 | LOG | Server <---------- DUT |
| 0:03:25.211383 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5ab64ddc) |
| 0:03:25.213382 | LOG | Frame command sent to the DUT |
| 0:03:25.215381 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1453456676, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHQDgpNXkggPFartb3EhlRpZYJsGeSQ9hiZ+7FpzGOe6hdNjYbJXLd0QuzzozA8FyV/R1MFoIWrZN3A=='}} |

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| 0:03:25.216382 | LOG | Server ----------> DUT |
| 0:03:25.220378 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:25.222377 | LOG | Check previous uplink data rate process starts |
| 0:03:25.226376 | LOG | Uplink received with expected Data Rate |
| 0:03:25.230374 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:29.820524 | LOG | PULL_DATA: 01 c716 02 fffeb827eb59d368 |
| 0:03:29.824522 | LOG | PULL_ACK: 01 c716 04 fffeb827eb59d368 |
| 0:03:30.213300 | LOG | PUSH_ACK: 01 9e73 01 fffeb827eb59d368 |
| 0:03:30.216298 | LOG | PUSH_DATA: Protocol version = 01, Token = 9e73, Identifier = 00, JSON = {'rxpk': [{'tmst': 1457459644, 'time': '2021-09-29T16:52:39.642001Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAIgABHZNY8v5q'}]} |
| 0:03:30.218297 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0022, FOpts: ), FPort: 01, FRMPayload: 0019, MIC: 58f2fe6a) |
| 0:03:30.219298 | LOG | Server <---------- DUT |
| 0:03:30.221296 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001e, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9b34c64f) |
| 0:03:30.224294 | LOG | Frame command sent to the DUT |
| 0:03:30.226293 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1458459644, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHgDgI1yGZLntVogWoD0UqrktoqoNnkwNuX1RSAkIjyzUtaK/clqL3+GYzkwZ3aDwt6ahjDOgmzTGTw=='}} |
| 0:03:30.228294 | LOG | Server ----------> DUT |
| 0:03:30.231290 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:30.234288 | LOG | Check previous uplink data rate process starts |
| 0:03:30.238286 | LOG | Uplink received with expected Data Rate |
| 0:03:30.240303 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:35.219450 | LOG | PUSH_ACK: 01 1108 01 fffeb827eb59d368 |
| 0:03:35.222448 | LOG | PUSH_DATA: Protocol version = 01, Token = 1108, Identifier = 00, JSON = {'rxpk': [{'tmst': 1462465372, 'time': '2021-09-29T16:52:44.648409Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAIwABqVtmbyQ/'}]} |
| 0:03:35.223448 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0023, FOpts: ), FPort: 01, FRMPayload: 001a, MIC: 666f243f) |
| 0:03:35.225447 | LOG | Server <---------- DUT |
| 0:03:35.227446 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 001f, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: dd692b21) |
| 0:03:35.229444 | LOG | Frame command sent to the DUT |
| 0:03:35.231445 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1463465372, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHwDguihXCyErFPj0YazZ3s4SMNtcxG2YVxWFROaL0qGkVEAuaczRRS9kF432v76JTh1x82ks3WkrIQ=='}} |
| 0:03:35.233442 | LOG | Server ----------> DUT |
| 0:03:35.236440 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:35.239438 | LOG | Check previous uplink data rate process starts |
| 0:03:35.245435 | LOG | Uplink received with expected Data Rate |
| 0:03:35.249435 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:39.830547 | LOG | PULL_DATA: 01 db04 02 fffeb827eb59d368 |

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| 0:03:39.834544 | LOG | PULL_ACK: 01 db04 04 fffeb827eb59d368 |
| 0:03:40.218353 | LOG | PUSH_ACK: 01 6022 01 fffeb827eb59d368 |
| 0:03:40.220354 | LOG | PUSH_DATA: Protocol version = 01, Token = 6022, Identifier = 00, JSON = {'rxpk': [{'tmst': 1467468340, 'time': '2021-09-29T16:52:49.646648Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAJAABBDy6oz2Z'}]} |
| 0:03:40.221353 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0024, FOpts: ), FPort: 01, FRMPayload: 001b, MIC: baa33d99) |
| 0:03:40.223350 | LOG | Server <---------- DUT |
| 0:03:40.225350 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0020, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 79cd334f) |
| 0:03:40.227350 | LOG | Frame command sent to the DUT |
| 0:03:40.229320 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1468468340, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAIADgHSgba4T+5psUXdKuXMiYTST+YT35eObCStjFQySOFVlSQwwJEayA077qRiz4MGbFhEmPec0zTw=='}} |
| 0:03:40.231348 | LOG | Server ----------> DUT |
| 0:03:40.235344 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:40.238342 | LOG | Check previous uplink data rate process starts |
| 0:03:40.243341 | LOG | Uplink received with expected Data Rate |
| 0:03:40.249309 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:45.225473 | LOG | PUSH_ACK: 01 0aa7 01 fffeb827eb59d368 |
| 0:03:45.227472 | LOG | PUSH_DATA: Protocol version = 01, Token = 0aa7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1472471332, 'time': '2021-09-29T16:52:54.654312Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAJQABZv2lzPaj'}]} |
| 0:03:45.229472 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0025, FOpts: ), FPort: 01, FRMPayload: 001c, MIC: a5ccf6a3) |
| 0:03:45.230470 | LOG | Server <---------- DUT |
| 0:03:45.231469 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0021, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 70e3b180) |
| 0:03:45.234468 | LOG | Frame command sent to the DUT |
| 0:03:45.235468 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1473471332, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAIQDgYWmZxWW9RYXlGi8+Tsql0jREm65R2Qwu8JZ17w3o/XP2pJjfP7g4azTdkYX+cGXdtfVXcOOxgA=='}} |
| 0:03:45.236467 | LOG | Server ----------> DUT |
| 0:03:45.240464 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:45.244462 | LOG | Check previous uplink data rate process starts |
| 0:03:45.249459 | LOG | Uplink received with expected Data Rate |
| 0:03:45.254457 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:49.839877 | LOG | PULL_DATA: 01 4d31 02 fffeb827eb59d368 |
| 0:03:49.841875 | LOG | PULL_ACK: 01 4d31 04 fffeb827eb59d368 |
| 0:03:50.225656 | LOG | PUSH_ACK: 01 b55b 01 fffeb827eb59d368 |
| 0:03:50.227628 | LOG | PUSH_DATA: Protocol version = 01, Token = b55b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1477474316, 'time': '2021-09-29T16:52:59.654447Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAJgAB/RA85Ef1'}]} |

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| 0:03:50.229655 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0026, FOpts: ), FPort: 01, FRMPayload: 001d, MIC: 3ce447f5) |
| 0:03:50.230635 | LOG | Server <---------- DUT |
| 0:03:50.232652 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0022, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7711e6c8) |
| 0:03:50.235652 | LOG | Frame command sent to the DUT |
| 0:03:50.237650 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1478474316, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAIgDgYMGWFoMAWketj+4xgAzT7e49KLb6RklAqWDcgAMhyXfKrDq+7K3f03dM73W47DWxYMFwdxHmyA=='}} |
| 0:03:50.239649 | LOG | Server ----------> DUT |
| 0:03:50.243647 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:50.247645 | LOG | Check previous uplink data rate process starts |
| 0:03:50.252614 | LOG | Uplink received with expected Data Rate |
| 0:03:50.257638 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:55.231806 | LOG | PUSH_ACK: 01 03a0 01 fffeb827eb59d368 |
| 0:03:55.238802 | LOG | PUSH_DATA: Protocol version = 01, Token = 03a0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1482477300, 'time': '2021-09-29T16:53:04.659735Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAJwABPc0XGgZC'}]} |
| 0:03:55.241802 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0027, FOpts: ), FPort: 01, FRMPayload: 001e, MIC: 171a0642) |
| 0:03:55.244770 | LOG | Server <---------- DUT |
| 0:03:55.245773 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0023, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ea828c5d) |
| 0:03:55.247786 | LOG | Frame command sent to the DUT |
| 0:03:55.249768 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1483477300, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAIwDgxQ1ytWvq+2pM+nC7h2iyOJtbEOut7pI0HWYTclmja5xfubz1gO1SNkJv32gC842VIfjD6oKMXQ=='}} |
| 0:03:55.250767 | LOG | Server ----------> DUT |
| 0:03:55.254763 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:55.257761 | LOG | Check previous uplink data rate process starts |
| 0:03:55.262758 | LOG | Uplink received with expected Data Rate |
| 0:03:55.265758 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:59.850178 | LOG | PULL_DATA: 01 0d22 02 fffeb827eb59d368 |
| 0:03:59.852176 | LOG | PULL_ACK: 01 0d22 04 fffeb827eb59d368 |
| 0:04:00.233960 | LOG | PUSH_ACK: 01 0d47 01 fffeb827eb59d368 |
| 0:04:00.236958 | LOG | PUSH_DATA: Protocol version = 01, Token = 0d47, Identifier = 00, JSON = {'rxpk': [{'tmst': 1487480292, 'time': '2021-09-29T16:53:09.662630Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAKAABrPkrfOz4'}]} |
| 0:04:00.237958 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0028, FOpts: ), FPort: 01, FRMPayload: 001f, MIC: 2b7cecf8) |
| 0:04:00.239957 | LOG | Server <---------- DUT |
| 0:04:00.241955 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0024, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 82e0541c) |

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| 0:04:00.244952 | LOG | Frame command sent to the DUT |
| 0:04:00.245953 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1488480292, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAJADgkgoVZQcCO909doSZNsF7aHtrzP7NcjI+SWl4LQ98wG9I5lQIKXJz+qpUBCeJlGZp9WJXguBUHA=='}} |
| 0:04:00.247950 | LOG | Server ----------> DUT |
| 0:04:00.253947 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:00.257946 | LOG | Check previous uplink data rate process starts |
| 0:04:00.260916 | LOG | Uplink received with expected Data Rate |
| 0:04:00.263942 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:05.241266 | LOG | PUSH_ACK: 01 5dcd 01 fffeb827eb59d368 |
| 0:04:05.244265 | LOG | PUSH_DATA: Protocol version = 01, Token = 5dcd, Identifier = 00, JSON = {'rxpk': [{'tmst': 1492486004, 'time': '2021-09-29T16:53:14.669868Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAKQABcxzAyp6D'}]} |
| 0:04:05.245263 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0029, FOpts: ), FPort: 01, FRMPayload: 0020, MIC: c0ca9e83) |
| 0:04:05.248262 | LOG | Server <---------- DUT |
| 0:04:05.250261 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0025, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 45e82a68) |
| 0:04:05.253259 | LOG | Frame command sent to the DUT |
| 0:04:05.255258 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1493486004, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAJQDgAmck1M53rGatMdcKwF6R24D1s7ZVfYUtYTUN6cCqQyrso9lhg0LBHGfhLwqfbmyvtNx9RegqaA=='}} |
| 0:04:05.257257 | LOG | Server ----------> DUT |
| 0:04:05.261254 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:05.266251 | LOG | Check previous uplink data rate process starts |
| 0:04:05.276246 | LOG | Uplink received with expected Data Rate |
| 0:04:05.281243 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:09.860603 | LOG | PULL_DATA: 01 9b87 02 fffeb827eb59d368 |
| 0:04:09.864602 | LOG | PULL_ACK: 01 9b87 04 fffeb827eb59d368 |
| 0:04:10.236389 | LOG | PUSH_ACK: 01 7856 01 fffeb827eb59d368 |
| 0:04:10.238388 | LOG | PUSH_DATA: Protocol version = 01, Token = 7856, Identifier = 00, JSON = {'rxpk': [{'tmst': 1497490396, 'time': '2021-09-29T16:53:19.664990Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAKgABOWFZtgKA'}]} |
| 0:04:10.239389 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002a, FOpts: ), FPort: 01, FRMPayload: 0021, MIC: 59b60280) |
| 0:04:10.241387 | LOG | Server <---------- DUT |
| 0:04:10.242385 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0026, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b5ddd743) |
| 0:04:10.245384 | LOG | Frame command sent to the DUT |
| 0:04:10.247382 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1498490396, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAJgDgN1TOYEBwoeOqFc2jK1sNYaiKS3I8xCf7r7Jn6a7ctJ5tF/tPNikeaFv9QXl6utnfIN5ytd3XQw=='}} |

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| 0:04:10.248382 | LOG | Server ----------> DUT |
| 0:04:10.253379 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:10.258377 | LOG | Check previous uplink data rate process starts |
| 0:04:10.264374 | LOG | Uplink received with expected Data Rate |
| 0:04:10.275366 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:15.241123 | LOG | PUSH_ACK: 01 d570 01 fffeb827eb59d368 |
| 0:04:15.243095 | LOG | PUSH_DATA: Protocol version = 01, Token = d570, Identifier = 00, JSON = {'rxpk': [{'tmst': 1502493372, 'time': '2021-09-29T16:53:24.669410Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAKwABJAd6KnfV'}]} |
| 0:04:15.245120 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002b, FOpts: ), FPort: 01, FRMPayload: 0022, MIC: 7a2a77d5) |
| 0:04:15.246118 | LOG | Server <---------- DUT |
| 0:04:15.248118 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0027, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 3c28fc85) |
| 0:04:15.251113 | LOG | Frame command sent to the DUT |
| 0:04:15.253117 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1503493372, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAJwDgXbs9UOUdHzlgX3AVCVeeKxO4G63sQpUBe1LydB+YhvGb6Ji9pHbcC3AMB3CqzeDIRs8qPCj8hQ=='}} |
| 0:04:15.255084 | LOG | Server ----------> DUT |
| 0:04:15.258082 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:15.261080 | LOG | Check previous uplink data rate process starts |
| 0:04:15.267077 | LOG | Uplink received with expected Data Rate |
| 0:04:15.271075 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:20.049713 | LOG | PULL_DATA: 01 4c9c 02 fffeb827eb59d368 |
| 0:04:20.051712 | LOG | PULL_ACK: 01 4c9c 04 fffeb827eb59d368 |
| 0:04:20.250599 | LOG | PUSH_ACK: 01 86ea 01 fffeb827eb59d368 |
| 0:04:20.251598 | LOG | PUSH_DATA: Protocol version = 01, Token = 86ea, Identifier = 00, JSON = {'rxpk': [{'tmst': 1507496356, 'time': '2021-09-29T16:53:29.678872Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -5, 'size': 15, 'data': 'QCAgICCALAAB+0PDYmEo'}]} |
| 0:04:20.253597 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002c, FOpts: ), FPort: 01, FRMPayload: 0023, MIC: c3626128) |
| 0:04:20.254596 | LOG | Server <---------- DUT |
| 0:04:20.256596 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0028, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c0b4896d) |
| 0:04:20.258594 | LOG | Frame command sent to the DUT |
| 0:04:20.259594 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1508496356, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKADgKru9IUfz3H4E3W8cvl/QsBtemdv6PlqEyWQcQS9ITpuT4mCIFMadUGbxBJIkx+945yOhwLSJbQ=='}} |
| 0:04:20.260593 | LOG | Server ----------> DUT |
| 0:04:20.263591 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:20.266590 | LOG | Check previous uplink data rate process starts |
| 0:04:20.269605 | LOG | Uplink received with expected Data Rate |
| 0:04:20.272586 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:25.246936 | LOG | PUSH_ACK: 01 f2eb 01 fffeb827eb59d368 |

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| 0:04:25.248935 | LOG | PUSH_DATA: Protocol version = 01, Token = f2eb, Identifier = 00, JSON = {'rxpk': [{'tmst': 1512499348, 'time': '2021-09-29T16:53:34.675452Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCALQAB35KySSF1'}]} |
| 0:04:25.250934 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002d, FOpts: ), FPort: 01, FRMPayload: 0024, MIC: b2492175) |
| 0:04:25.252933 | LOG | Server <---------- DUT |
| 0:04:25.254932 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0029, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b8b1b2a2) |
| 0:04:25.257930 | LOG | Frame command sent to the DUT |
| 0:04:25.259929 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1513499348, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKQDgOQMZpOpFLhD/yqUy4Ltk5UrAed2WDe+Y1VotIgBv+iRFAXtX/EXFwrmK3pUwCbtTNRP4uLGyog=='}} |
| 0:04:25.260928 | LOG | Server ----------> DUT |
| 0:04:25.266925 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:25.275920 | LOG | Check previous uplink data rate process starts |
| 0:04:25.282916 | LOG | Uplink received with expected Data Rate |
| 0:04:25.294909 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:30.059828 | LOG | PULL_DATA: 01 9c53 02 fffeb827eb59d368 |
| 0:04:30.061827 | LOG | PULL_ACK: 01 9c53 04 fffeb827eb59d368 |
| 0:04:30.253719 | LOG | PUSH_ACK: 01 0da7 01 fffeb827eb59d368 |
| 0:04:30.255716 | LOG | PUSH_DATA: Protocol version = 01, Token = 0da7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1517502324, 'time': '2021-09-29T16:53:39.682397Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -5, 'size': 15, 'data': 'QCAgICCALgABa+Dic5s6'}]} |
| 0:04:30.256716 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002e, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: e2739b3a) |
| 0:04:30.257715 | LOG | Server <---------- DUT |
| 0:04:30.259715 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7bd34505) |
| 0:04:30.262713 | LOG | Frame command sent to the DUT |
| 0:04:30.263712 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1518502324, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKgDgclHTflX7VgLTwABT71Up9tXl1umDmZwmjZyOwetUi/pdYA/KcbOnWyg0UvEeNPgDXBZXe9NFBQ=='}} |
| 0:04:30.265713 | LOG | Server ----------> DUT |
| 0:04:30.267710 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:30.270710 | LOG | Check previous uplink data rate process starts |
| 0:04:30.273708 | LOG | Uplink received with expected Data Rate |
| 0:04:30.277704 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:35.258982 | LOG | PUSH_ACK: 01 fa5a 01 fffeb827eb59d368 |
| 0:04:35.260980 | LOG | PUSH_DATA: Protocol version = 01, Token = fa5a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1522506692, 'time': '2021-09-29T16:53:44.687950Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCALwABaqN7LttG'}]} |
| 0:04:35.261981 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 002f, FOpts: ), FPort: 01, FRMPayload: 0025, MIC: 7b2edb46) |
| 0:04:35.263978 | LOG | Server <---------- DUT |

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| 0:04:35.265979 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 214dd518) |
| 0:04:35.267978 | LOG | Frame command sent to the DUT |
| 0:04:35.268976 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1523506692, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKwDgNsw+u+1q9uiEgK4LozZE1inz2QER4RA8t62b9WuDXQ5lXP5+loNVuUg5lt6h7dPnThyiIU3VGA=='}} |
| 0:04:35.270974 | LOG | Server ----------> DUT |
| 0:04:35.274972 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:35.278970 | LOG | Check previous uplink data rate process starts |
| 0:04:35.306954 | LOG | Uplink received with expected Data Rate |
| 0:04:35.311951 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:40.070582 | LOG | PULL_DATA: 01 d8b0 02 fffeb827eb59d368 |
| 0:04:40.074579 | LOG | PULL_ACK: 01 d8b0 04 fffeb827eb59d368 |
| 0:04:40.261493 | LOG | PUSH_ACK: 01 b5db 01 fffeb827eb59d368 |
| 0:04:40.264492 | LOG | PUSH_DATA: Protocol version = 01, Token = b5db, Identifier = 00, JSON = {'rxpk': [{'tmst': 1527512404, 'time': '2021-09-29T16:53:49.690208Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAMAABHbg7OBW7'}]} |
| 0:04:40.265490 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0030, FOpts: ), FPort: 01, FRMPayload: 0026, MIC: 3b3815bb) |
| 0:04:40.267502 | LOG | Server <---------- DUT |
| 0:04:40.269487 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: cc84cfea) |
| 0:04:40.272487 | LOG | Frame command sent to the DUT |
| 0:04:40.274484 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1528512404, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALADgKelFphtMUz5vaBLbHyHu8pAnksSQbRbrkt325wf5vjvo36kGKjA3kBRAwBI2xMeIBzGQzITP6g=='}} |
| 0:04:40.275496 | LOG | Server ----------> DUT |
| 0:04:40.280493 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:40.284490 | LOG | Check previous uplink data rate process starts |
| 0:04:40.296483 | LOG | Uplink received with expected Data Rate |
| 0:04:40.300482 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:45.267790 | LOG | PUSH_ACK: 01 50c2 01 fffeb827eb59d368 |
| 0:04:45.271787 | LOG | PUSH_DATA: Protocol version = 01, Token = 50c2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1532515388, 'time': '2021-09-29T16:53:54.696905Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAMQABVpvkKWa+'}]} |
| 0:04:45.273787 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0031, FOpts: ), FPort: 01, FRMPayload: 0027, MIC: e42966be) |
| 0:04:45.274785 | LOG | Server <---------- DUT |
| 0:04:45.277786 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c8aa8e8a) |
| 0:04:45.279783 | LOG | Frame command sent to the DUT |
| 0:04:45.282782 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1533515388, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALQDggGwEZ8cz9QeNm797anCVTEnSoZg6pB28MMDKSkNpZfiOSu401PP8GT/qXbkOVI1fnDKzyKqOig=='}} |
| 0:04:45.283783 | LOG | Server ----------> DUT |
| 0:04:45.296774 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:45.302771 | LOG | Check previous uplink data rate process starts |
| 0:04:45.328756 | LOG | Uplink received with expected Data Rate |
| 0:04:45.333754 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:50.080066 | LOG | PULL_DATA: 01 fd5d 02 fffeb827eb59d368 |
| 0:04:50.084066 | LOG | PULL_ACK: 01 fd5d 04 fffeb827eb59d368 |
| 0:04:50.268955 | LOG | PUSH_ACK: 01 095a 01 fffeb827eb59d368 |
| 0:04:50.271954 | LOG | PUSH_DATA: Protocol version = 01, Token = 095a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1537518372, 'time': '2021-09-29T16:53:59.697876Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAMgABUHAnINwk'}]} |
| 0:04:50.273952 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0032, FOpts: ), FPort: 01, FRMPayload: 0028, MIC: 2720dc24) |
| 0:04:50.274952 | LOG | Server <---------- DUT |
| 0:04:50.276950 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002e, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a673e940) |
| 0:04:50.279949 | LOG | Frame command sent to the DUT |
| 0:04:50.281948 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1538518372, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALgDg7k0I4nZwrRCiibVExDPxBLzGZzjsyrqT9fjIUlGGHpSGaKuwRaulWK/v0l1M8MzNqEK3pnPpQA=='}} |
| 0:04:50.282947 | LOG | Server ----------> DUT |
| 0:04:50.292942 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:50.298938 | LOG | Check previous uplink data rate process starts |
| 0:04:50.306933 | LOG | Uplink received with expected Data Rate |
| 0:04:50.319926 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:55.276934 | LOG | PUSH_ACK: 01 2aa5 01 fffeb827eb59d368 |
| 0:04:55.278932 | LOG | PUSH_DATA: Protocol version = 01, Token = 2aa5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1542521372, 'time': '2021-09-29T16:54:04.705175Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAMwABc8EFF2+J'}]} |
| 0:04:55.280931 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0033, FOpts: ), FPort: 01, FRMPayload: 0029, MIC: 05176f89) |
| 0:04:55.282929 | LOG | Server <---------- DUT |
| 0:04:55.284928 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 002f, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 1655550b) |
| 0:04:55.286927 | LOG | Frame command sent to the DUT |
| 0:04:55.289926 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1543521372, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALwDgyi8i0mVuc/Hzu9K8yYEXul7aSDDaCyDpBlIXEQUeR0x7qs9oFKtydY67Eo/+auDVMFUeFlVVCw=='}} |
| 0:04:55.291925 | LOG | Server ----------> DUT |
| 0:04:55.295922 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:55.299920 | LOG | Check previous uplink data rate process starts |

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| 0:04:55.305887 | LOG | Uplink received with expected Data Rate |
| 0:04:55.308884 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:00.090268 | LOG | PULL_DATA: 01 e2a3 02 fffeb827eb59d368 |
| 0:05:00.092267 | LOG | PULL_ACK: 01 e2a3 04 fffeb827eb59d368 |
| 0:05:00.278131 | LOG | PUSH_ACK: 01 fbb7 01 fffeb827eb59d368 |
| 0:05:00.280130 | LOG | PUSH_DATA: Protocol version = 01, Token = fbb7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1547524364, 'time': '2021-09-29T16:54:09.707335Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCANAABwfRrXdNU'}]} |
| 0:05:00.281128 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0034, FOpts: ), FPort: 01, FRMPayload: 002a, MIC: 6b5dd354) |
| 0:05:00.283127 | LOG | Server <---------- DUT |
| 0:05:00.284127 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0030, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 31968518) |
| 0:05:00.286125 | LOG | Frame command sent to the DUT |
| 0:05:00.288125 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1548524364, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMADgIpwGaMLBwj1WZ5I1FQv3F2VwLDKE+uIUHNHe3hn/boLeX1D3QgyGloatbz31+4bykbA0MZaFGA=='}} |
| 0:05:00.290124 | LOG | Server ----------> DUT |
| 0:05:00.294122 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:00.297120 | LOG | Check previous uplink data rate process starts |
| 0:05:00.300118 | LOG | Uplink received with expected Data Rate |
| 0:05:00.303117 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:05.274561 | LOG | PUSH_ACK: 01 1347 01 fffeb827eb59d368 |
| 0:05:05.277562 | LOG | PUSH_DATA: Protocol version = 01, Token = 1347, Identifier = 00, JSON = {'rxpk': [{'tmst': 1552527348, 'time': '2021-09-29T16:54:14.703363Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCANQABJMQLEMq1'}]} |
| 0:05:05.278561 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0035, FOpts: ), FPort: 01, FRMPayload: 002b, MIC: 0b10cab5) |
| 0:05:05.280559 | LOG | Server <---------- DUT |
| 0:05:05.282557 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0031, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a40e7c4d) |
| 0:05:05.285556 | LOG | Frame command sent to the DUT |
| 0:05:05.286555 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1553527348, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMQDgO3wZcvnKEVDC6V9flEKjYeLtF+Gk4uwIxB+V/zOhu+pT2Sm6Ci1z+P9PdR+P9QdP1J7vpA58TQ=='}} |
| 0:05:05.288554 | LOG | Server ----------> DUT |
| 0:05:05.297548 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:05.301546 | LOG | Check previous uplink data rate process starts |
| 0:05:05.312540 | LOG | Uplink received with expected Data Rate |
| 0:05:05.318537 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:10.284769 | LOG | PUSH_ACK: 01 549a 01 fffeb827eb59d368 |
| 0:05:10.288767 | LOG | PUSH_DATA: Protocol version = 01, Token = 549a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1557533084, 'time': '2021-09-29T16:54:19.713418Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCANgABpyjZ+eT4'}]} |

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| 0:05:10.290769 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0036, FOpts: ), FPort: 01, FRMPayload: 002c, MIC: d9f9e4f8) |
| 0:05:10.292765 | LOG | Server <---------- DUT |
| 0:05:10.294764 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0032, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 38a0e657) |
| 0:05:10.297762 | LOG | Frame command sent to the DUT |
| 0:05:10.299761 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1558533084, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMgDgW21gizcKdJ/GoQr5lzl1wk0RQMH+1fjeboulUq+rF04ajwG84vf2vD0sx+gBtW2h1xIJOKDmVw==''}} |
| 0:05:10.302762 | LOG | Server ----------> DUT |
| 0:05:10.306757 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:10.309755 | LOG | Check previous uplink data rate process starts |
| 0:05:10.313753 | LOG | Uplink received with expected Data Rate |
| 0:05:10.316751 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:15.282702 | LOG | PUSH_ACK: 01 3223 01 fffeb827eb59d368 |
| 0:05:15.285669 | LOG | PUSH_DATA: Protocol version = 01, Token = 3223, Identifier = 00, JSON = {'rxpk': [{'tmst': 1562536092, 'time': '2021-09-29T16:54:24.711910Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCANwABFvKplmPr''}]} |
| 0:05:15.286670 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0037, FOpts: ), FPort: 01, FRMPayload: 002d, MIC: a99663eb) |
| 0:05:15.288667 | LOG | Server <---------- DUT |
| 0:05:15.290667 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0033, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 608aeb10) |
| 0:05:15.292665 | LOG | Frame command sent to the DUT |
| 0:05:15.294664 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1563536092, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMwDgMTSrT5qWuRr6rYfmsrNKL5Q1c+AIzjVooTDrS+6+f7yp9wm+K/4slosINcc5MDTSDNmmYIrrEA==''}} |
| 0:05:15.295663 | LOG | Server ----------> DUT |
| 0:05:15.298662 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:15.301660 | LOG | Check previous uplink data rate process starts |
| 0:05:15.307657 | LOG | Uplink received with expected Data Rate |
| 0:05:15.310656 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:20.291044 | LOG | PUSH_ACK: 01 4ece 01 fffeb827eb59d368 |
| 0:05:20.294043 | LOG | PUSH_DATA: Protocol version = 01, Token = 4ece, Identifier = 00, JSON = {'rxpk': [{'tmst': 1567539044, 'time': '2021-09-29T16:54:29.720216Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAOAABo3C6t1Yy''}]} |
| 0:05:20.296042 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0038, FOpts: ), FPort: 01, FRMPayload: 002e, MIC: bab75632) |
| 0:05:20.298041 | LOG | Server <---------- DUT |
| 0:05:20.300039 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0034, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: db7f6379) |
| 0:05:20.302038 | LOG | Frame command sent to the DUT |

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| 0:05:20.304037 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1568539044, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANADgUF20PVslb98anGUG3eT0sNFsEMbNsN7KGwa2AtrMTKycE8J0aZCiqvZefwaTZzCuG3y2239jeQ=='}} |
| 0:05:20.306036 | LOG | Server ----------> DUT |
| 0:05:20.310034 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:20.314032 | LOG | Check previous uplink data rate process starts |
| 0:05:20.321027 | LOG | Uplink received with expected Data Rate |
| 0:05:20.328023 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:25.297503 | LOG | PUSH_ACK: 01 7571 01 fffeb827eb59d368 |
| 0:05:25.300501 | LOG | PUSH_DATA: Protocol version = 01, Token = 7571, Identifier = 00, JSON = {'rxpk': [{'tmst': 1572542044, 'time': '2021-09-29T16:54:34.726198Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAOQABybeaqpZo'}]} |
| 0:05:25.302501 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0039, FOpts: ), FPort: 01, FRMPayload: 002f, MIC: 9aaa9668) |
| 0:05:25.303499 | LOG | Server <---------- DUT |
| 0:05:25.305470 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0035, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 8a9de392) |
| 0:05:25.307467 | LOG | Frame command sent to the DUT |
| 0:05:25.310465 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1573542044, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANQDg6jaGdckYFZ702yK5cutVqkpcaRBcoXvhBlZCqyo8GdUY6rvwBPyx7O5KWxpXxSjJqn3Eip3jkg=='}} |
| 0:05:25.311464 | LOG | Server ----------> DUT |
| 0:05:25.314464 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:25.317461 | LOG | Check previous uplink data rate process starts |
| 0:05:25.320460 | LOG | Uplink received with expected Data Rate |
| 0:05:25.322459 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:30.293460 | LOG | PUSH_ACK: 01 b64d 01 fffeb827eb59d368 |
| 0:05:30.296459 | LOG | PUSH_DATA: Protocol version = 01, Token = b64d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1577545052, 'time': '2021-09-29T16:54:39.722337Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAOgAB2ERnZeT9'}]} |
| 0:05:30.297458 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003a, FOpts: ), FPort: 01, FRMPayload: 0030, MIC: 6765e4fd) |
| 0:05:30.299456 | LOG | Server <---------- DUT |
| 0:05:30.301453 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0036, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2afc4e86) |
| 0:05:30.304455 | LOG | Frame command sent to the DUT |
| 0:05:30.307452 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1578545052, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANgDgIyrFgsL1gNX4s80BR+tZ7fRaHv15+omYR35R6KSX6YouN9l7nAEwxNu44bHGecwFrXXFKvxOhg=='}} |
| 0:05:30.309451 | LOG | Server ----------> DUT |
| 0:05:30.315415 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:30.318414 | LOG | Check previous uplink data rate process starts |

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| 0:05:30.322411 | LOG | Uplink received with expected Data Rate |
| 0:05:30.325409 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:40.300341 | LOG | PUSH_ACK: 01 2e25 01 fffeb827eb59d368 |
| 0:05:40.305337 | LOG | PUSH_DATA: Protocol version = 01, Token = 2e25, Identifier = 00, JSON = {'rxpk': [{'tmst': 1587552380, 'time': '2021-09-29T16:54:49.728710Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAPAABBDBlWF4d'}]} |
| 0:05:40.307335 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003c, FOpts: ), FPort: 01, FRMPayload: 0031, MIC: 65585e1d) |
| 0:05:40.308334 | LOG | Server <---------- DUT |
| 0:05:40.310335 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0037, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b5b56e53) |
| 0:05:40.313333 | LOG | Frame command sent to the DUT |
| 0:05:40.314331 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1588552380, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANwDgu07edncsm5vasx1SXdABGDahZRyh9renQz0rPldkADn3PxWU7ua6D27mBZmXoDXS+2pVtbVuUw==''}} |
| 0:05:40.316330 | LOG | Server ----------> DUT |
| 0:05:40.321327 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:40.330301 | LOG | Check previous uplink data rate process starts |
| 0:05:40.337288 | LOG | Uplink received with expected Data Rate |
| 0:05:40.343284 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:45.309746 | LOG | PUSH_ACK: 01 80f9 01 fffeb827eb59d368 |
| 0:05:45.311745 | LOG | PUSH_DATA: Protocol version = 01, Token = 80f9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1592558100, 'time': '2021-09-29T16:54:54.738330Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAPQABc7qgDlTf'}]} |
| 0:05:45.313744 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003d, FOpts: ), FPort: 01, FRMPayload: 0032, MIC: a00e54df) |
| 0:05:45.314743 | LOG | Server <---------- DUT |
| 0:05:45.316742 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0038, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7b46097f) |
| 0:05:45.318741 | LOG | Frame command sent to the DUT |
| 0:05:45.320740 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1593558100, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOADg2bOHdp0+EaLD7u1ij63Q3903Gt00ELfADIN8WuASqhimDWEBhjiy+y3sAegYi6aJzXrie0YJfw==''}} |
| 0:05:45.321740 | LOG | Server ----------> DUT |
| 0:05:45.325737 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:45.330734 | LOG | Check previous uplink data rate process starts |
| 0:05:45.334732 | LOG | Uplink received with expected Data Rate |
| 0:05:45.337730 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:50.519689 | LOG | PULL_DATA: 01 9cd7 02 fffeb827eb59d368 |
| 0:05:50.521689 | LOG | PULL_ACK: 01 9cd7 04 fffeb827eb59d368 |
| 0:05:55.312961 | LOG | PUSH_ACK: 01 19b0 01 fffeb827eb59d368 |
| 0:05:55.314959 | LOG | PUSH_DATA: Protocol version = 01, Token = 19b0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1602565428, 'time': '2021-09-29T16:55:04.741608Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAPwABuFflBjvJ'}]} |

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| 0:05:55.316958 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 003f, FOpts: ), FPort: 01, FRMPayload: 0033, MIC: e5063bc9) |
| 0:05:55.318957 | LOG | Server <---------- DUT |
| 0:05:55.320955 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0039, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 205ce022) |
| 0:05:55.322955 | LOG | Frame command sent to the DUT |
| 0:05:55.325952 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1603565428, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOQDgDGtNBmVuSIgEkJlN15n90vpgmkTxu2LsCKYwiKVzSseUw3yi3YM6eHiSA7AM1HgbPx/hIFzgIg==''}} |
| 0:05:55.326953 | LOG | Server ----------> DUT |
| 0:05:55.330950 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:55.333948 | LOG | Check previous uplink data rate process starts |
| 0:05:55.336947 | LOG | Uplink received with expected Data Rate |
| 0:05:55.341944 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:00.323205 | LOG | PUSH_ACK: 01 1e6d 01 fffeb827eb59d368 |
| 0:06:00.325204 | LOG | PUSH_DATA: Protocol version = 01, Token = 1e6d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1607568420, 'time': '2021-09-29T16:55:09.751355Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAQAABM5KxbzeW'}]} |
| 0:06:00.327203 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0040, FOpts: ), FPort: 01, FRMPayload: 0034, MIC: b16f3796) |
| 0:06:00.328202 | LOG | Server <---------- DUT |
| 0:06:00.330201 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e6759d58) |
| 0:06:00.333199 | LOG | Frame command sent to the DUT |
| 0:06:00.335198 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1608568420, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOgDg0Z0V1UjfnV9in7RA6T89ezg57JBQAkfSghLSlgcDNkoxizDgg12OZ5cE90dRiinFXW5P5nWdWA==''}} |
| 0:06:00.336197 | LOG | Server ----------> DUT |
| 0:06:00.344193 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:00.348190 | LOG | Check previous uplink data rate process starts |
| 0:06:00.363182 | LOG | Uplink received with expected Data Rate |
| 0:06:00.367180 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:00.539759 | LOG | PULL_DATA: 01 4a4f 02 fffeb827eb59d368 |
| 0:06:00.541759 | LOG | PULL_ACK: 01 4a4f 04 fffeb827eb59d368 |
| 0:06:05.319742 | LOG | PUSH_ACK: 01 d17c 01 fffeb827eb59d368 |
| 0:06:05.322741 | LOG | PUSH_DATA: Protocol version = 01, Token = d17c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1612571412, 'time': '2021-09-29T16:55:14.748918Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAQQABCZzGC5OQ'}]} |
| 0:06:05.324740 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0041, FOpts: ), FPort: 01, FRMPayload: 0035, MIC: c60b9390) |
| 0:06:05.325739 | LOG | Server <---------- DUT |
| 0:06:05.327738 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003b, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fa5175c6) |

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| 0:06:05.330736 | LOG | Frame command sent to the DUT |
| 0:06:05.331735 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1613571412, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOwDgWUd9ZXNizdSSr5IRCdA9FzE3hFzp4QYvcQ+o4Vnrd+Frvfkq3PsCKhRgUJ1Tndf/EXYs+lF1xg=='}} |
| 0:06:05.333734 | LOG | Server ----------> DUT |
| 0:06:05.337732 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:05.345728 | LOG | Check previous uplink data rate process starts |
| 0:06:05.357721 | LOG | Uplink received with expected Data Rate |
| 0:06:05.364717 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:10.326924 | LOG | PUSH_ACK: 01 731f 01 fffeb827eb59d368 |
| 0:06:10.331921 | LOG | PUSH_DATA: Protocol version = 01, Token = 731f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1617575748, 'time': '2021-09-29T16:55:19.756102Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -3, 'size': 15, 'data': 'QCAgICCAQgAB5EADMbJj'}]} |
| 0:06:10.333920 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0042, FOpts: ), FPort: 01, FRMPayload: 0036, MIC: 0331b263) |
| 0:06:10.335918 | LOG | Server <---------- DUT |
| 0:06:10.337918 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003c, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f8d7fe0f) |
| 0:06:10.339916 | LOG | Frame command sent to the DUT |
| 0:06:10.342915 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1618575748, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPADgsQ93AvScmEggA3VG2suKKkbgL/KvdqjcgUMzEJRXt1l44kFmLcg+vHBu3YRkWpWY031x+Nf+Dw=='}} |
| 0:06:10.343914 | LOG | Server ----------> DUT |
| 0:06:10.348911 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:10.352909 | LOG | Check previous uplink data rate process starts |
| 0:06:10.363903 | LOG | Uplink received with expected Data Rate |
| 0:06:10.366901 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:10.739762 | LOG | PULL_DATA: 01 4ae9 02 fffeb827eb59d368 |
| 0:06:10.741762 | LOG | PULL_ACK: 01 4ae9 04 fffeb827eb59d368 |
| 0:06:15.327152 | LOG | PUSH_ACK: 01 7bc0 01 fffeb827eb59d368 |
| 0:06:15.329150 | LOG | PUSH_DATA: Protocol version = 01, Token = 7bc0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1622580100, 'time': '2021-09-29T16:55:24.756109Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCAQwABpa5mlH+2'}]} |
| 0:06:15.331148 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0043, FOpts: ), FPort: 01, FRMPayload: 0037, MIC: 66947fb6) |
| 0:06:15.332148 | LOG | Server <---------- DUT |
| 0:06:15.334147 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003d, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2ffdae6c) |
| 0:06:15.336146 | LOG | Frame command sent to the DUT |
| 0:06:15.337145 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1623580100, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPQDgtoV1h5IIOeNvHZQtxN2xPA7wPoWUJ5w1r8TeruvCR1lxE4kcugzvxer9YkWxAI1FKOyML/2ubA=='}} |

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| 0:06:15.339146 | LOG | Server ----------> DUT |
| 0:06:15.342142 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:15.345141 | LOG | Check previous uplink data rate process starts |
| 0:06:15.349139 | LOG | Uplink received with expected Data Rate |
| 0:06:15.353136 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:20.335182 | LOG | PUSH_ACK: 01 5a31 01 fffeb827eb59d368 |
| 0:06:20.337181 | LOG | PUSH_DATA: Protocol version = 01, Token = 5a31, Identifier = 00, JSON = {'rxpk': [{'tmst': 1627583100, 'time': '2021-09-29T16:55:29.763585Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -5, 'size': 15, 'data': 'QCAgICCARAAB+5ghtoxI'}]} |
| 0:06:20.339179 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0044, FOpts: ), FPort: 01, FRMPayload: 0038, MIC: 21b68c48) |
| 0:06:20.340179 | LOG | Server <---------- DUT |
| 0:06:20.343177 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 048e49af) |
| 0:06:20.346176 | LOG | Frame command sent to the DUT |
| 0:06:20.347175 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1628583100, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPgDgNYS4z79PXhfiIRs7+BxNRzvjhW4qVyi1noLLZ0fsZHpv52TM3g9zkaIJ9umMa9N71z7JBI5Jrw=='}} |
| 0:06:20.349174 | LOG | Server ----------> DUT |
| 0:06:20.355170 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:20.364167 | LOG | Check previous uplink data rate process starts |
| 0:06:20.370162 | LOG | Uplink received with expected Data Rate |
| 0:06:20.374160 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:20.750156 | LOG | PULL_DATA: 01 0d7b 02 fffeb827eb59d368 |
| 0:06:20.751155 | LOG | PULL_ACK: 01 0d7b 04 fffeb827eb59d368 |
| 0:06:25.341595 | LOG | PUSH_ACK: 01 9c36 01 fffeb827eb59d368 |
| 0:06:25.343594 | LOG | PUSH_DATA: Protocol version = 01, Token = 9c36, Identifier = 00, JSON = {'rxpk': [{'tmst': 1632586092, 'time': '2021-09-29T16:55:34.770036Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCARQAB6gGaKQUK'}]} |
| 0:06:25.344595 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0045, FOpts: ), FPort: 01, FRMPayload: 0039, MIC: 9a29050a) |
| 0:06:25.345595 | LOG | Server <---------- DUT |
| 0:06:25.347593 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 003f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c95ec42e) |
| 0:06:25.349590 | LOG | Frame command sent to the DUT |
| 0:06:25.351590 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1633586092, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPwDg6RZcoyodLkDEw8hxn5mbS2rtp5ijP4ig1lYqUqnj84AlDyOj5bKEg3J9F93Kl+9WBOxUyV7ELg=='}} |
| 0:06:25.352591 | LOG | Server ----------> DUT |
| 0:06:25.355587 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:25.358587 | LOG | Check previous uplink data rate process starts |
| 0:06:25.362583 | LOG | Uplink received with expected Data Rate |
| 0:06:25.365583 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:30.341084 | LOG | PUSH_ACK: 01 edca 01 fffeb827eb59d368 |

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| 0:06:30.343083 | LOG | PUSH_DATA: Protocol version = 01, Token = edca, Identifier = 00, JSON = {'rxpk': [{'tmst': 1637589076, 'time': '2021-09-29T16:55:39.769393Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCARgABQGGjb3zi'}]} |
| 0:06:30.344082 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0046, FOpts: ), FPort: 01, FRMPayload: 003a, MIC: a36f7ce2) |
| 0:06:30.346081 | LOG | Server <---------- DUT |
| 0:06:30.348080 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0040, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 0ffabdc8) |
| 0:06:30.350078 | LOG | Frame command sent to the DUT |
| 0:06:30.352077 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1638589076, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQADgUdzPUUIAALFgTXgGi5kEorZ7Wvj4acUak7/t/IfsnvEKNUmVtsbRp/MbwVpKreWSkNtxD/q9yA=='}} |
| 0:06:30.353077 | LOG | Server ----------> DUT |
| 0:06:30.356075 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:30.359075 | LOG | Check previous uplink data rate process starts |
| 0:06:30.362073 | LOG | Uplink received with expected Data Rate |
| 0:06:30.365072 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:30.949652 | LOG | PULL_DATA: 01 5bbc 02 fffeb827eb59d368 |
| 0:06:30.951652 | LOG | PULL_ACK: 01 5bbc 04 fffeb827eb59d368 |
| 0:06:35.341457 | LOG | PUSH_ACK: 01 02db 01 fffeb827eb59d368 |
| 0:06:35.343455 | LOG | PUSH_DATA: Protocol version = 01, Token = 02db, Identifier = 00, JSON = {'rxpk': [{'tmst': 1642592076, 'time': '2021-09-29T16:55:44.770635Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -4, 'size': 15, 'data': 'QCAgICCARwABZrx5Zm1G'}]} |
| 0:06:35.344455 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0047, FOpts: ), FPort: 01, FRMPayload: 003b, MIC: 79666d46) |
| 0:06:35.345456 | LOG | Server <---------- DUT |
| 0:06:35.347453 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0041, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fd2db662) |
| 0:06:35.349452 | LOG | Frame command sent to the DUT |
| 0:06:35.351452 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1643592076, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQQDgUqhCptspxY0trGf96ofMqE4UowfqYworqStibxmPyjw64z1OsBb2wYe75livllzvBq/a/S22Yg=='}} |
| 0:06:35.353452 | LOG | Server ----------> DUT |
| 0:06:35.356448 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:35.360446 | LOG | Check previous uplink data rate process starts |
| 0:06:35.365443 | LOG | Uplink received with expected Data Rate |
| 0:06:35.370442 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:40.340637 | LOG | PUSH_ACK: 01 b5de 01 fffeb827eb59d368 |
| 0:06:40.345634 | LOG | PUSH_DATA: Protocol version = 01, Token = b5de, Identifier = 00, JSON = {'rxpk': [{'tmst': 1647595076, 'time': '2021-09-29T16:55:49.769077Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -5, 'size': 15, 'data': 'QCAgICCASAABnDlEWLkJ'}]} |
| 0:06:40.348632 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0048, FOpts: ), FPort: 01, FRMPayload: 003c, MIC: 4458b909) |
| 0:06:40.352630 | LOG | Server <---------- DUT |

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| 0:06:40.357627 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0042, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fcbcb6dc) |
| 0:06:40.364623 | LOG | Frame command sent to the DUT |
| 0:06:40.365622 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1648595076, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQgDgxFKs6XjSD2t6yS/rLHxe7c2AUKGR51+BUtins2uDsv85318Yc0FvqCIl/Ira723oyb5T/Ly23A=='}} |
| 0:06:40.367622 | LOG | Server ----------> DUT |
| 0:06:40.370620 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:40.373618 | LOG | Check previous uplink data rate process starts |
| 0:06:40.379615 | LOG | Uplink received with expected Data Rate |
| 0:06:40.382613 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:40.969806 | LOG | PULL_DATA: 01 3d52 02 fffeb827eb59d368 |
| 0:06:40.971805 | LOG | PULL_ACK: 01 3d52 04 fffeb827eb59d368 |
| 0:06:45.351311 | LOG | PUSH_ACK: 01 b657 01 fffeb827eb59d368 |
| 0:06:45.354310 | LOG | PUSH_DATA: Protocol version = 01, Token = b657, Identifier = 00, JSON = {'rxpk': [{'tmst': 1652600804, 'time': '2021-09-29T16:55:54.780878Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -4, 'size': 15, 'data': 'QCAgICCASQABWiEjcxqS'}]} |
| 0:06:45.356309 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0049, FOpts: ), FPort: 01, FRMPayload: 003d, MIC: 23731a92) |
| 0:06:45.357308 | LOG | Server <---------- DUT |
| 0:06:45.360307 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0043, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 0de5ec02) |
| 0:06:45.394287 | LOG | Frame command sent to the DUT |
| 0:06:45.396286 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1653600804, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQwDg2Jg4lyWD8EcpjmKoAJxlwi3ioiymWWbEXC+0EgekjxMax7ueqOxlpou01rbNyQrV378SDeXsAg=='}} |
| 0:06:45.398285 | LOG | Server ----------> DUT |
| 0:06:45.402282 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:45.405281 | LOG | Check previous uplink data rate process starts |
| 0:06:45.409278 | LOG | Uplink received with expected Data Rate |
| 0:06:45.412276 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:50.348351 | LOG | PUSH_ACK: 01 02d4 01 fffeb827eb59d368 |
| 0:06:50.351332 | LOG | PUSH_DATA: Protocol version = 01, Token = 02d4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1657603796, 'time': '2021-09-29T16:55:59.777883Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCASgAB9YBRRWcz'}]} |
| 0:06:50.352330 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004a, FOpts: ), FPort: 01, FRMPayload: 003e, MIC: 51456733) |
| 0:06:50.353332 | LOG | Server <---------- DUT |
| 0:06:50.354331 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0044, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: cd2c83fb) |
| 0:06:50.356328 | LOG | Frame command sent to the DUT |
| 0:06:50.358327 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1658603796, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF10BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARADgvl/t50M1cVLKxV4EptTU9JNImB81/ut0mHocLytybjjCP/qYt4MZkWf6X2wp60OTiewZzSyD+w=='}} |
| 0:06:50.360325 | LOG | Server ----------> DUT |
| 0:06:50.364323 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:50.368322 | LOG | Check previous uplink data rate process starts |
| 0:06:50.372318 | LOG | Uplink received with expected Data Rate |
| 0:06:50.374318 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:51.159525 | LOG | PULL_DATA: 01 c44c 02 fffeb827eb59d368 |
| 0:06:51.163524 | LOG | PULL_ACK: 01 c44c 04 fffeb827eb59d368 |
| 0:06:55.359137 | LOG | PUSH_ACK: 01 2495 01 fffeb827eb59d368 |
| 0:06:55.364134 | LOG | PUSH_DATA: Protocol version = 01, Token = 2495, Identifier = 00, JSON = {'rxpk': [{'tmst': 1662606780, 'time': '2021-09-29T16:56:04.786815Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -3, 'size': 15, 'data': 'QCAgICCASwAB4QsyfltS'}]} |
| 0:06:55.366131 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004b, FOpts: ), FPort: 01, FRMPayload: 003f, MIC: 327e5b52) |
| 0:06:55.367131 | LOG | Server <---------- DUT |
| 0:06:55.369130 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0045, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d1038837) |
| 0:06:55.372128 | LOG | Frame command sent to the DUT |
| 0:06:55.373127 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1663606780, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARQDgoOxn4cWIi6Sa2eYnw6nZrsFWMkSyzhflgm/glFdyBVcJceNGe7OQ4S5mnDHy9xTtcLbY0QOINw=='}} |
| 0:06:55.375126 | LOG | Server ----------> DUT |
| 0:06:55.379124 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:55.383122 | LOG | Check previous uplink data rate process starts |
| 0:06:55.388119 | LOG | Uplink received with expected Data Rate |
| 0:06:55.391117 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:00.358254 | LOG | PUSH_ACK: 01 c897 01 fffeb827eb59d368 |
| 0:07:00.360253 | LOG | PUSH_DATA: Protocol version = 01, Token = c897, Identifier = 00, JSON = {'rxpk': [{'tmst': 1667609764, 'time': '2021-09-29T16:56:09.787141Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -5, 'size': 15, 'data': 'QCAgICCATAAB3Pn4rwqB'}]} |
| 0:07:00.361253 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004c, FOpts: ), FPort: 01, FRMPayload: 0040, MIC: f8af0a81) |
| 0:07:00.363251 | LOG | Server <---------- DUT |
| 0:07:00.364249 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0046, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 95d4d388) |
| 0:07:00.366250 | LOG | Frame command sent to the DUT |
| 0:07:00.367249 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1668609764, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARgDgR+ighQrsIZOOH1f/WTAgqugOE/hTSaSKkaN1c2ZeuuryhkWfsK2EM+JXhE3F/KlSaS1UldTTiA=='}} |
| 0:07:00.369246 | LOG | Server ----------> DUT |
| 0:07:00.372245 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:00.375243 | LOG | Check previous uplink data rate process starts |

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| 0:07:00.380240 | LOG | Uplink received with expected Data Rate |
| 0:07:00.384238 | LOG | Send Test Command RxAppCntReq process starts |
| 0:07:01.169078 | LOG | PULL_DATA: 01 b512 02 fffeb827eb59d368 |
| 0:07:01.171076 | LOG | PULL_ACK: 01 b512 04 fffeb827eb59d368 |
| 0:07:05.360692 | LOG | PUSH_ACK: 01 8030 01 fffeb827eb59d368 |
| 0:07:05.362690 | LOG | PUSH_DATA: Protocol version = 01, Token = 8030, Identifier = 00, JSON = {'rxpk': [{'tmst': 1672612748, 'time': '2021-09-29T16:56:14.790045Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -4, 'size': 15, 'data': 'QCAgICCATQABmRD8Skpo'}]} |
| 0:07:05.364689 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004d, FOpts: ), FPort: 01, FRMPayload: 0041, MIC: fc4a4a68) |
| 0:07:05.365688 | LOG | Server <---------- DUT |
| 0:07:05.367687 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0047, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 3ae83abc) |
| 0:07:05.369686 | LOG | Frame command sent to the DUT |
| 0:07:05.371685 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1673612748, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAARwDgtDroOrw='}} |
| 0:07:05.372684 | LOG | Server ----------> DUT |
| 0:07:10.368000 | LOG | PUSH_ACK: 01 d2db 01 fffeb827eb59d368 |
| 0:07:10.371981 | LOG | PUSH_DATA: Protocol version = 01, Token = d2db, Identifier = 00, JSON = {'rxpk': [{'tmst': 1677618916, 'time': '2021-09-29T16:56:19.797607Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -5, 'size': 16, 'data': 'QCAgICCATgDgnKS/RNOd1g=='}]} |
| 0:07:10.373979 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004e, FOpts: ), FPort: e0, FRMPayload: 094200, MIC: 44d39dd6) |
| 0:07:10.374978 | LOG | Server <---------- DUT |
| 0:07:10.375976 | LOG | Answer in payload: 4200 |
| 0:07:10.377976 | LOG | Frame Command Payload in the Answer: 094200 |
| 0:07:10.381973 | LOG | RX Count received by DUT: 66 |
| 0:07:10.384971 | LOG | Send Test Command RxAppCntReq process completed |
| 0:07:10.397965 | LOG | End Test Step: Test packet error rate for SF10BW125 using RX1 window |
| 0:07:10.401961 | LOG | Partial Verdict: PASS |
| 0:07:10.405958 | LOG | ========== |
| 0:07:10.410956 | LOG | ========== |
| 0:07:10.413954 | LOG | Start Test Step: Test packet error rate for SF11BW125 using RX1 window |
| 0:07:10.429945 | LOG | End Test Step: Test packet error rate for SF11BW125 using RX1 window |
| 0:07:10.433942 | LOG | TEST STEP NOT APPLICABLE |
| 0:07:10.436941 | LOG | ========== |
| 0:07:10.442938 | LOG | ========== |
| 0:07:10.445936 | LOG | Start Test Step: Test packet error rate for SF12BW125 using RX1 window |
| 0:07:10.459929 | LOG | End Test Step: Test packet error rate for SF12BW125 using RX1 window |
| 0:07:10.462927 | LOG | TEST STEP NOT APPLICABLE |
| 0:07:10.465925 | LOG | ========== |
| 0:07:10.470922 | LOG | ========== |
| 0:07:10.472920 | LOG | Start Test Step: Test packet error rate for SF7BW250 using RX1 window |
| 0:07:10.486915 | LOG | End Test Step: Test packet error rate for SF7BW250 using RX1 window |
| 0:07:10.489913 | LOG | TEST STEP NOT APPLICABLE |
| 0:07:10.493909 | LOG | ========== |
| 0:07:10.500904 | LOG | ========== |
| 0:07:10.503904 | LOG | Start Test Step: Test packet error rate for FSK50 using RX1 window |
| 0:07:10.520893 | LOG | End Test Step: Test packet error rate for FSK50 using RX1 window |
| 0:07:10.523892 | LOG | TEST STEP NOT APPLICABLE |
| 0:07:10.526890 | LOG | ========== |

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| 0:07:10.530888 | LOG | ========== |
| 0:07:10.532888 | LOG | Start Test Step: Restore default settings |
| 0:07:10.546879 | LOG | Send LinkADRReq process starts |
| 0:07:11.370176 | LOG | PULL_DATA: 01 61e0 02 fffeb827eb59d368 |
| 0:07:11.372175 | LOG | PULL_ACK: 01 61e0 04 fffeb827eb59d368 |
| 0:07:15.366731 | LOG | PUSH_ACK: 01 56fd 01 fffeb827eb59d368 |
| 0:07:15.368729 | LOG | PUSH_DATA: Protocol version = 01, Token = 56fd, Identifier = 00, JSON = {'rxpk': [{'tmst': 1682618756, 'time': '2021-09-29T16:56:24.795937Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -3, 'size': 15, 'data': 'QCAgICCATwABat/j67vv'}]} |
| 0:07:15.369730 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 004f, FOpts: ), FPort: 01, FRMPayload: 0042, MIC: e3ebbbef) |
| 0:07:15.370729 | LOG | Server <---------- DUT |
| 0:07:15.373726 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0048, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 969175cd) |
| 0:07:15.376725 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1684618756, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAASAAAvbYTMWqWkXXN'}} |
| 0:07:15.378726 | LOG | Server ----------> DUT |
| 0:07:20.089041 | LOG | PUSH_ACK: 01 1643 01 fffeb827eb59d368 |
| 0:07:20.092040 | LOG | PUSH_DATA: Protocol version = 01, Token = 1643, Identifier = 00, JSON = {'rxpk': [{'tmst': 1687344971, 'time': '2021-09-29T16:56:29.518282Z', 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -4, 'size': 17, 'data': 'QCAgICCCUAADBwFgHdEmTrE='}]} |
| 0:07:20.094038 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0050, FOpts: 0307), FPort: 01, FRMPayload: 0042, MIC: d1264eb1) |
| 0:07:20.095038 | LOG | Server <---------- DUT |
| 0:07:20.097037 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:20.098036 | LOG | Command Answer: 0307 |
| 0:07:20.107031 | LOG | MAC command communication completed |
| 0:07:20.114027 | LOG | Send RXParamSetupReq process starts |
| 0:07:21.379451 | LOG | PULL_DATA: 01 c871 02 fffeb827eb59d368 |
| 0:07:21.382449 | LOG | PULL_ACK: 01 c871 04 fffeb827eb59d368 |
| 0:07:25.088339 | LOG | PUSH_ACK: 01 ffca 01 fffeb827eb59d368 |
| 0:07:25.094339 | LOG | PUSH_DATA: Protocol version = 01, Token = ffca, Identifier = 00, JSON = {'rxpk': [{'tmst': 1692342843, 'time': '2021-09-29T16:56:34.516820Z', 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -5, 'size': 15, 'data': 'QCAgICCAUQABATi26umQ'}]} |
| 0:07:25.095353 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0051, FOpts: ), FPort: 01, FRMPayload: 0042, MIC: b6eae990) |
| 0:07:25.097352 | LOG | Server <---------- DUT |
| 0:07:25.099334 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0049, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: 0c55bc7a) |
| 0:07:25.102331 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1694342843, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAASQAANvLfnncMVbx6'}} |
| 0:07:25.103331 | LOG | Server ----------> DUT |
| 0:07:30.101015 | LOG | PUSH_ACK: 01 4db5 01 fffeb827eb59d368 |
| 0:07:30.103013 | LOG | PUSH_DATA: Protocol version = 01, Token = 4db5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1697352347, 'time': '2021-09-29T16:56:39.530219Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -7, 'size': 17, 'data': 'QCAgICCCUgAFBwGZq+FMP1w='}]} |

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| 0:07:30.105014 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0052, FOpts: 0507), FPort: 01, FRMPayload: 0042, MIC: e14c3f5c) |
| 0:07:30.106014 | LOG | Server <---------- DUT |
| 0:07:30.107013 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:30.109010 | LOG | Command Answer: 0507 |
| 0:07:30.123003 | LOG | MAC command communication completed |
| 0:07:30.126000 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:07:31.499228 | LOG | PULL_DATA: 01 a88a 02 fffeb827eb59d368 |
| 0:07:31.501227 | LOG | PULL_ACK: 01 a88a 04 fffeb827eb59d368 |
| 0:07:35.097181 | LOG | PUSH_ACK: 01 075e 01 fffeb827eb59d368 |
| 0:07:35.100178 | LOG | PUSH_DATA: Protocol version = 01, Token = 075e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1702356699, 'time': '2021-09-29T16:56:44.526790Z', 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -7, 'size': 17, 'data': 'QCAgICCCUwAFBwH3p9eMqUY='}]} |
| 0:07:35.101179 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0053, FOpts: 0507), FPort: 01, FRMPayload: 0042, MIC: d78ca946) |
| 0:07:35.102179 | LOG | Server <---------- DUT |
| 0:07:35.104177 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 004a, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: e57a6c5b) |
| 0:07:35.106175 | LOG | Frame command sent to the DUT |
| 0:07:35.107174 | LOG | PULL_RESP: Protocol version = 01, Token = 0000, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1704356699, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAASgDg9l3lemxb'}} |
| 0:07:35.109174 | LOG | Server ----------> DUT |
| 0:07:35.113171 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:07:35.117168 | LOG | End Test Step: Restore default settings |
| 0:07:35.120169 | LOG | Partial Verdict: PASS |
| 0:07:35.125164 | LOG | ========== |
| 0:07:35.132160 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_015_B |
| 0:07:35.135177 | LOG | Final Verdict: PASS |

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| **Test Case** | TP_A_EU868_ED_MAC_104_BV_016 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 23:01:02 | |
| **Comments** | RX2 Receive Window Test | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Data Rates to be measured | ALL |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.010578 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_016 |
| 0:00:00.043558 | LOG | ========== |
| 0:00:00.045558 | LOG | Start Test Step: Device activation |
| 0:00:00.104525 | LOG | Activation process has finished successfully |
| 0:00:00.107521 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.109520 | LOG | DevAddr: 20202020 |
| 0:00:00.112518 | LOG | AppEUI: abcdabcdabcdabcd |

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| 0:00:00.129509 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.132525 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.135524 | LOG | End Test Step: Device activation |
| 0:00:00.138506 | LOG | Partial Verdict: PASS |
| 0:00:00.141503 | LOG | ========== |
| 0:00:00.148498 | LOG | ========== |
| 0:00:00.181498 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.190474 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.193473 | LOG | DUT Pre-condition activation completed |
| 0:00:00.196472 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.199470 | LOG | Partial Verdict: PASS |
| 0:00:00.203467 | LOG | ========== |
| 0:00:00.208464 | LOG | ========== |
| 0:00:00.211463 | LOG | Start Test Step: Initial settings for the test |
| 0:00:00.225454 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:00:03.717469 | LOG | PULL_DATA: 02 edc8 02 3834383419003400 |
| 0:00:03.719468 | LOG | PULL_ACK: 02 edc8 04 |
| 0:00:03.721467 | LOG | First PULL_DATA received |
| 0:00:04.674943 | LOG | PUSH_ACK: 02 37b6 01 |
| 0:00:04.676924 | LOG | PUSH_DATA: Protocol version = 02, Token = 37b6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2765261441, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAGAgBTxdKC2Om'}]} |
| 0:00:04.678923 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0818, FOpts: ), FPort: 01, FRMPayload: 035b, MIC: 4a0b63a6) |
| 0:00:04.679922 | LOG | Server <---------- DUT |
| 0:00:04.680922 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0507, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 1e762295) |
| 0:00:04.682921 | LOG | Frame command sent to the DUT |
| 0:00:04.684919 | LOG | PULL_RESP: Protocol version = 02, Token = fe46, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2767261441, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABwXgkC0ediKV'}} |
| 0:00:04.685919 | LOG | Server ----------> DUT |
| 0:00:04.689917 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:00:04.693915 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:09.637105 | LOG | PUSH_ACK: 02 37b7 01 |
| 0:00:09.639104 | LOG | PUSH_DATA: Protocol version = 02, Token = 37b7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2770264378, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAGQgB++pKpBh9'}]} |
| 0:00:09.640103 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0819, FOpts: ), FPort: 01, FRMPayload: 035c, MIC: 4aa4187d) |
| 0:00:09.641103 | LOG | Server <---------- DUT |
| 0:00:09.643102 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0508, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: bcda0dc2) |
| 0:00:09.730053 | LOG | Frame command sent to the DUT |
| 0:00:09.734052 | LOG | PULL_RESP: Protocol version = 02, Token = 129e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2772264378, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACAXgzhe82g3C'}} |
| 0:00:09.739050 | LOG | Server ----------> DUT |
| 0:00:09.746045 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:09.749043 | LOG | End Test Step: Initial settings for the test |
| 0:00:09.753041 | LOG | Partial Verdict: PASS |
| 0:00:09.759036 | LOG | ========== |

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| 0:00:09.767032 | LOG | ========== |
| 0:00:09.770030 | LOG | Start Test Step: Test packet error rate for SF12BW125 using RX2 window |
| 0:00:09.786021 | LOG | Send RXParamSetupReq process starts |
| 0:00:13.736776 | LOG | PULL_DATA: 02 7bfe 02 3834383419003400 |
| 0:00:13.738775 | LOG | PULL_ACK: 02 7bfe 04 |
| 0:00:14.639263 | LOG | PUSH_ACK: 02 37b9 01 |
| 0:00:14.640263 | LOG | PUSH_DATA: Protocol version = 02, Token = 37b9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2775267347, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAGggB20n/OlvS'}]} |
| 0:00:14.642263 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 081a, FOpts: ), FPort: 01, FRMPayload: 035d, MIC: ff3a5bd2) |
| 0:00:14.643281 | LOG | Server <---------- DUT |
| 0:00:14.645261 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0509, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: 5485f239) |
| 0:00:14.648257 | LOG | PULL_RESP: Protocol version = 02, Token = dee7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2777267347, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAACQUAwGuw2LlUhfI5'}} |
| 0:00:14.649259 | LOG | Server ----------> DUT |
| 0:00:14.654256 | LOG | TX_ACK: 02 dee7 05 3834383419003400 |
| 0:00:19.652169 | LOG | PUSH_ACK: 02 37ba 01 |
| 0:00:19.654167 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ba, Identifier = 00, JSON = {'rxpk': [{'tmst': 2780275412, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCGwgFBwFa0QR1WPY='}]} |
| 0:00:19.655167 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 081b, FOpts: 0507), FPort: 01, FRMPayload: 035d, MIC: 047558f6) |
| 0:00:19.657166 | LOG | Server <---------- DUT |
| 0:00:19.658165 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:19.661164 | LOG | Command Answer: 0507 |
| 0:00:19.677154 | LOG | MAC command communication completed |
| 0:00:19.688148 | LOG | Send Test Command RxAppCntReq process starts |
| 0:00:23.886763 | LOG | PULL_DATA: 02 6285 02 3834383419003400 |
| 0:00:23.888761 | LOG | PULL_ACK: 02 6285 04 |
| 0:00:24.693303 | LOG | PUSH_ACK: 02 37bb 01 |
| 0:00:24.695302 | LOG | PUSH_DATA: Protocol version = 02, Token = 37bb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2785278340, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCHAgFBwH/eFVsiE0='}]} |
| 0:00:24.697301 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 081c, FOpts: 0507), FPort: 01, FRMPayload: 035d, MIC: 556c884d) |
| 0:00:24.698301 | LOG | Server <---------- DUT |
| 0:00:24.700300 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 050a, FOpts: ), FPort: e0, FRMPayload: 09), MIC: e5c35d70) |
| 0:00:24.702298 | LOG | Frame command sent to the DUT |
| 0:00:24.703298 | LOG | PULL_RESP: Protocol version = 02, Token = b7fc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2787278340, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAACgXgxOXDXXA='}} |
| 0:00:24.705297 | LOG | Server ----------> DUT |
| 0:00:24.708295 | LOG | TX_ACK: 02 b7fc 05 3834383419003400 |
| 0:00:29.653484 | LOG | PUSH_ACK: 02 37bc 01 |
| 0:00:29.657482 | LOG | PUSH_DATA: Protocol version = 02, Token = 37bc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2790284439, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 16, 'data': 'QCAgICCAHQjg00xk1iohIg=='}]} |
| 0:00:29.658482 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 081d, FOpts: ), FPort: e0, FRMPayload: 095e03, MIC: d62a2122) |
| 0:00:29.660481 | LOG | Server <---------- DUT |
| 0:00:29.661480 | LOG | Answer in payload: 5e03 |
| 0:00:29.663480 | LOG | Frame Command Payload in the Answer: 095e03 |
| 0:00:29.667495 | LOG | RX Count received by DUT: 862 |
| 0:00:29.670475 | LOG | Send Test Command RxAppCntReq process completed |
| 0:00:29.673474 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:33.946526 | LOG | PULL_DATA: 02 3b76 02 3834383419003400 |
| 0:00:33.948524 | LOG | PULL_ACK: 02 3b76 04 |
| 0:00:34.645130 | LOG | PUSH_ACK: 02 37bd 01 |
| 0:00:34.647129 | LOG | PUSH_DATA: Protocol version = 02, Token = 37bd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2795279071, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAHggBvBAzT4Uo'}]} |
| 0:00:34.648126 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 081e, FOpts: ), FPort: 01, FRMPayload: 035e, MIC: 334f8528) |
| 0:00:34.649128 | LOG | Server <---------- DUT |
| 0:00:34.651125 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 050b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9bac45fe) |
| 0:00:34.653124 | LOG | Frame command sent to the DUT |
| 0:00:34.655123 | LOG | PULL_RESP: Protocol version = 02, Token = 7f49, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2797279071, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAACwXgHw5l4RCZAl3GGB9cviP83qgS3tc48q0HQPHRJdmOkIoVHsBWuKBn2do0naEo0JDnLC+rm6xF/g=='}} |
| 0:00:34.657123 | LOG | Server ----------> DUT |
| 0:00:34.660120 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:34.665117 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:39.697330 | LOG | PUSH_ACK: 02 37be 01 |
| 0:00:39.700330 | LOG | PUSH_DATA: Protocol version = 02, Token = 37be, Identifier = 00, JSON = {'rxpk': [{'tmst': 2800282042, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAHwgBfRmskfyC'}]} |
| 0:00:39.701328 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 081f, FOpts: ), FPort: 01, FRMPayload: 035f, MIC: ac91fc82) |
| 0:00:39.702329 | LOG | Server <---------- DUT |
| 0:00:39.704328 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 050c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9603922a) |
| 0:00:39.706328 | LOG | Frame command sent to the DUT |
| 0:00:39.707326 | LOG | PULL_RESP: Protocol version = 02, Token = 6de5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2802282042, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADAXg2maE3c6WWkSnc91O6QC5Wds93fChR9BaDijlBJ31c3eSjkXi1NpPDA4p4T6+Xe6dB/K7lgOSKg=='}} |
| 0:00:39.708326 | LOG | Server ----------> DUT |
| 0:00:39.714321 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:39.747302 | LOG | Send Test Command TxFramesCtrlReq process starts |

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| 0:00:44.116820 | LOG | PULL_DATA: 02 87c7 02 3834383419003400 |
| 0:00:44.118818 | LOG | PULL_ACK: 02 87c7 04 |
| 0:00:44.700489 | LOG | PUSH_ACK: 02 37c0 01 |
| 0:00:44.702487 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2805286377, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAIAgBDd/OOLc7'}]} |
| 0:00:44.704485 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0820, FOpts: ), FPort: 01, FRMPayload: 0360, MIC: ce38b73b) |
| 0:00:44.705484 | LOG | Server <---------- DUT |
| 0:00:44.707483 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 050d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 8488294a) |
| 0:00:44.710482 | LOG | Frame command sent to the DUT |
| 0:00:44.712481 | LOG | PULL_RESP: Protocol version = 02, Token = 304b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2807286377, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADQXgRoALuxCNtVYt1hfSoddWnLDJpPMlf6XJZbXseIdRFX1XX+ZjDXqWgRmdnGjLx+RvOtEchIgpSg=='}} |
| 0:00:44.714479 | LOG | Server ----------> DUT |
| 0:00:44.718478 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:44.721477 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:49.653672 | LOG | PUSH_ACK: 02 37c1 01 |
| 0:00:49.655673 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2810289325, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAIQgBBJiY+ldt'}]} |
| 0:00:49.657671 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0821, FOpts: ), FPort: 01, FRMPayload: 0361, MIC: 98fa576d) |
| 0:00:49.658670 | LOG | Server <---------- DUT |
| 0:00:49.661669 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 050e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 346c81af) |
| 0:00:49.663668 | LOG | Frame command sent to the DUT |
| 0:00:49.664668 | LOG | PULL_RESP: Protocol version = 02, Token = 9ccd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2812289325, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADgXgMs6uNtyBC/rjMjfZxAwoovO+GNPhCvq6OeoDQIuZg1Q+dG1S5Z4tCVQTs2MqfwulD2QgNGyBrw=='}} |
| 0:00:49.665667 | LOG | Server ----------> DUT |
| 0:00:49.669663 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:49.671662 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:54.287039 | LOG | PULL_DATA: 02 2f98 02 3834383419003400 |
| 0:00:54.289039 | LOG | PULL_ACK: 02 2f98 04 |
| 0:00:54.708631 | LOG | PUSH_ACK: 02 37c2 01 |
| 0:00:54.713633 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2815293695, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAIggB4wMKxciV'}]} |
| 0:00:54.716627 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0822, FOpts: ), FPort: 01, FRMPayload: 0362, MIC: 0ac5c895) |
| 0:00:54.719625 | LOG | Server <---------- DUT |

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| 0:00:54.723623 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 050f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ef474f25) |
| 0:00:54.727619 | LOG | Frame command sent to the DUT |
| 0:00:54.729618 | LOG | PULL_RESP: Protocol version = 02, Token = 5e6a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2817293695, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAADwXgtXDjIDIZydQYXG5XPNGsVJzKUXMqa1dy85g+JOzNup1rXU3dO1QFboSVdVmRaZ65QYN870dPJQ==''}} |
| 0:00:54.730619 | LOG | Server ----------> DUT |
| 0:00:54.733618 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:54.736616 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:59.662845 | LOG | PUSH_ACK: 02 37c3 01 |
| 0:00:59.666844 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2820298038, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAIwgB2LP/cfZm''}]} |
| 0:00:59.668842 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0823, FOpts: ), FPort: 01, FRMPayload: 0363, MIC: ff71f666) |
| 0:00:59.669842 | LOG | Server <---------- DUT |
| 0:00:59.671839 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0510, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ae01cf71) |
| 0:00:59.673838 | LOG | Frame command sent to the DUT |
| 0:00:59.675839 | LOG | PULL_RESP: Protocol version = 02, Token = f16d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2822298038, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEAXgUGZgsJkItuSLb2M0KOrSAV43tnfccPyXDHdOFpDfCjgREu2fIze/Y4h3K16VFgHgQPiUrgHPcQ==''}} |
| 0:00:59.677839 | LOG | Server ----------> DUT |
| 0:00:59.681834 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:59.685832 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:04.297212 | LOG | PULL_DATA: 02 05bc 02 3834383419003400 |
| 0:01:04.298211 | LOG | PULL_ACK: 02 05bc 04 |
| 0:01:04.665971 | LOG | PUSH_ACK: 02 37c4 01 |
| 0:01:04.667990 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2825300971, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAJAgBI22fQtWL''}]} |
| 0:01:04.669986 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0824, FOpts: ), FPort: 01, FRMPayload: 0364, MIC: 9f42d58b) |
| 0:01:04.671988 | LOG | Server <---------- DUT |
| 0:01:04.673986 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0511, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7cbaaab7) |
| 0:01:04.675985 | LOG | Frame command sent to the DUT |
| 0:01:04.677984 | LOG | PULL_RESP: Protocol version = 02, Token = eef1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2827300971, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEQXgf+zObmH/MV/tCLU+uIs1K+D7Q9h9+l1OGQPOnUF6ybnoDC6xJz5Q8MbNRkwzwxgKy/bPfLqqtw==''}} |

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| 0:01:04.679967 | LOG | Server ----------> DUT |
| 0:01:04.683992 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:04.687990 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:09.668146 | LOG | PUSH_ACK: 02 37c5 01 |
| 0:01:09.670146 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2830303918, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAJQgBSCbL10y+'}]} |
| 0:01:09.672127 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0825, FOpts: ), FPort: 01, FRMPayload: 0365, MIC: cbd74cbe) |
| 0:01:09.674155 | LOG | Server <---------- DUT |
| 0:01:09.676155 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0512, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b1bc66b8) |
| 0:01:09.679152 | LOG | Frame command sent to the DUT |
| 0:01:09.681139 | LOG | PULL_RESP: Protocol version = 02, Token = 2eb8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2832303918, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEgXgeYyXTD1WYK5TyRqFJtYPK7PjGnEhq2sazts4Uzgbq3uPBVH06mRtEKgt1za1DBhTKcGTsbxmuA=='}} |
| 0:01:09.683121 | LOG | Server ----------> DUT |
| 0:01:09.686137 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:09.690135 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:14.306523 | LOG | PULL_DATA: 02 f339 02 3834383419003400 |
| 0:01:14.308521 | LOG | PULL_ACK: 02 f339 04 |
| 0:01:14.722287 | LOG | PUSH_ACK: 02 37c7 01 |
| 0:01:14.724285 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2835308231, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAJggBNRk4QH91'}]} |
| 0:01:14.726287 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0826, FOpts: ), FPort: 01, FRMPayload: 0366, MIC: 38407f75) |
| 0:01:14.727287 | LOG | Server <---------- DUT |
| 0:01:14.729283 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0513, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a204b15b) |
| 0:01:14.732282 | LOG | Frame command sent to the DUT |
| 0:01:14.734282 | LOG | PULL_RESP: Protocol version = 02, Token = 6312, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2837308231, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAEwXg1JJwKjHC1DKH3aZP4KkseVv8Tvao3W079qlD99sgRAQss0fHvkTVlVb9gNSrNQIZwgPZogSxWw=='}} |
| 0:01:14.735288 | LOG | Server ----------> DUT |
| 0:01:14.740279 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:14.749272 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:19.727443 | LOG | PUSH_ACK: 02 37c8 01 |
| 0:01:19.729440 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2840312552, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAJwgB4h0kG095'}]} |
| 0:01:19.730440 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0827, FOpts: ), FPort: 01, FRMPayload: 0367, MIC: 241b4f79) |
| 0:01:19.732439 | LOG | Server <---------- DUT |

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| 0:01:19.734437 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0514, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 93492eb2) |
| 0:01:19.736438 | LOG | Frame command sent to the DUT |
| 0:01:19.737436 | LOG | PULL_RESP: Protocol version = 02, Token = a502, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2842312552, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFAXgn9IWQfhbdGi7JdLB20Z8Zh/JkuAtb+K/WRbobXGtmUJmlGKVkF5NI/WiHvTBPM8x3Vzck0kusg=='}} |
| 0:01:19.738435 | LOG | Server ----------> DUT |
| 0:01:19.741435 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:19.745408 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:24.356811 | LOG | PULL_DATA: 02 e3cb 02 3834383419003400 |
| 0:01:24.358810 | LOG | PULL_ACK: 02 e3cb 04 |
| 0:01:24.730599 | LOG | PUSH_ACK: 02 37c9 01 |
| 0:01:24.732597 | LOG | PUSH_DATA: Protocol version = 02, Token = 37c9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2845315523, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAKAgB8WDt++VG'}]} |
| 0:01:24.733569 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0828, FOpts: ), FPort: 01, FRMPayload: 0368, MIC: edfbe546) |
| 0:01:24.735596 | LOG | Server <---------- DUT |
| 0:01:24.737596 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0515, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9b6a2f47) |
| 0:01:24.740593 | LOG | Frame command sent to the DUT |
| 0:01:24.742592 | LOG | PULL_RESP: Protocol version = 02, Token = 6ea8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2847315523, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFQXgSWlWvU0/+YZzyvi1tBY9SdfrErrrtVQfMfdzufLvNeg0SP1fJGyb+Pq/FE8iLh3ky09nm2ovRw=='}} |
| 0:01:24.743563 | LOG | Server ----------> DUT |
| 0:01:24.748587 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:24.752587 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:29.734755 | LOG | PUSH_ACK: 02 37ca 01 |
| 0:01:29.739753 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ca, Identifier = 00, JSON = {'rxpk': [{'tmst': 2850319837, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAKQgBHXTRIoC3'}]} |
| 0:01:29.740751 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0829, FOpts: ), FPort: 01, FRMPayload: 0369, MIC: d12280b7) |
| 0:01:29.742751 | LOG | Server <---------- DUT |
| 0:01:29.743722 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0516, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b21bd642) |
| 0:01:29.746749 | LOG | Frame command sent to the DUT |
| 0:01:29.748748 | LOG | PULL_RESP: Protocol version = 02, Token = 9d89, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2852319837, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFgXg97RINj9FFkeiB1oeV4MNMMj+BSW7uzfI5ViXkSSmc8DRTJvGlpoQmQXZJNly1yO7iN04shvWQg=='}} |

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| 0:01:29.749747 | LOG | Server ----------> DUT |
| 0:01:29.752744 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:29.755743 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:34.366333 | LOG | PULL_DATA: 02 2e61 02 3834383419003400 |
| 0:01:34.368332 | LOG | PULL_ACK: 02 2e61 04 |
| 0:01:34.688151 | LOG | PUSH_ACK: 02 37cb 01 |
| 0:01:34.690150 | LOG | PUSH_DATA: Protocol version = 02, Token = 37cb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2855322821, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAKggBMfgFl49e'}]} |
| 0:01:34.691148 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 082a, FOpts: ), FPort: 01, FRMPayload: 036a, MIC: 05978f5e) |
| 0:01:34.693148 | LOG | Server <---------- DUT |
| 0:01:34.695147 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0517, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 48e20b4c) |
| 0:01:34.698145 | LOG | Frame command sent to the DUT |
| 0:01:34.700144 | LOG | PULL_RESP: Protocol version = 02, Token = c9ed, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2857322821, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAFwXgD+GdDM/FtisrfaXFFJ/hpxEq9sv1WgGSLg1CUuPYJ9psjk3DpZhG5uJGM/5hlmGfUkHFSOILTA=='}} |
| 0:01:34.702143 | LOG | Server ----------> DUT |
| 0:01:34.706141 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:34.709139 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:39.689389 | LOG | PUSH_ACK: 02 37cc 01 |
| 0:01:39.691375 | LOG | PUSH_DATA: Protocol version = 02, Token = 37cc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2860325767, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAKwgBwy0zuazv'}]} |
| 0:01:39.693374 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 082b, FOpts: ), FPort: 01, FRMPayload: 036b, MIC: 33b9acef) |
| 0:01:39.694376 | LOG | Server <---------- DUT |
| 0:01:39.696385 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0518, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 481bcee8) |
| 0:01:39.699385 | LOG | Frame command sent to the DUT |
| 0:01:39.701383 | LOG | PULL_RESP: Protocol version = 02, Token = 36e8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2862325767, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAGAXgyYmgeSgC4U1pwgCujoq2aMuyDSV1sS8y8Z3iGRrkWInXODF/g/QDuFpFhtlV0Tmj71DiSBvO6A=='}} |
| 0:01:39.702386 | LOG | Server ----------> DUT |
| 0:01:39.706380 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:39.711376 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:44.536603 | LOG | PULL_DATA: 02 d852 02 3834383419003400 |
| 0:01:44.538602 | LOG | PULL_ACK: 02 d852 04 |
| 0:01:44.744517 | LOG | PUSH_ACK: 02 37ce 01 |
| 0:01:44.746515 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ce, Identifier = 00, JSON = {'rxpk': [{'tmst': 2865330050, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCALAgBmGbFoOu7'}]} |

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| 0:01:44.748515 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 082c, FOpts: ), FPort: 01, FRMPayload: 036c, MIC: c5a0ebbb) |
| 0:01:44.749513 | LOG | Server <---------- DUT |
| 0:01:44.751511 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0519, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a427cc6d) |
| 0:01:44.753511 | LOG | Frame command sent to the DUT |
| 0:01:44.755509 | LOG | PULL_RESP: Protocol version = 02, Token = 760e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2867330050, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAGQXg976HtrivOX7XIMsLIMSAgBf/nJ1oARSH65obh7RJ8CVz4sBI6QkFPOgbsG9t5h72mqRKpCfMbQ==''}} |
| 0:01:44.756509 | LOG | Server ----------> DUT |
| 0:01:44.760508 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:44.765505 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:49.749672 | LOG | PUSH_ACK: 02 37cf 01 |
| 0:01:49.751670 | LOG | PUSH_DATA: Protocol version = 02, Token = 37cf, Identifier = 00, JSON = {'rxpk': [{'tmst': 2870334396, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCALQgBt2ZFpoz/''}]} |
| 0:01:49.753669 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 082d, FOpts: ), FPort: 01, FRMPayload: 036d, MIC: 45a68cff) |
| 0:01:49.754670 | LOG | Server <---------- DUT |
| 0:01:49.756667 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 051a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 3735ae0f) |
| 0:01:49.758667 | LOG | Frame command sent to the DUT |
| 0:01:49.760665 | LOG | PULL_RESP: Protocol version = 02, Token = 6e89, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2872334396, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAGgXgN/FKehMxojNcBXnYSt9wZtFYvy2GOam1Q5kEvlp3/Ag5+LDst1NhnNlupCm4JdtNOtW9NzWuDw==''}} |
| 0:01:49.762664 | LOG | Server ----------> DUT |
| 0:01:49.766663 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:49.770661 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:54.596887 | LOG | PULL_DATA: 02 8a8a 02 3834383419003400 |
| 0:01:54.597887 | LOG | PULL_ACK: 02 8a8a 04 |
| 0:01:54.701858 | LOG | PUSH_ACK: 02 37d0 01 |
| 0:01:54.703857 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2875337351, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCALggBwDnml+lg''}]} |
| 0:01:54.705856 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 082e, FOpts: ), FPort: 01, FRMPayload: 036e, MIC: e697e960) |
| 0:01:54.706855 | LOG | Server <---------- DUT |
| 0:01:54.708853 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 051b, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f6e3f201) |
| 0:01:54.711852 | LOG | Frame command sent to the DUT |
| 0:01:54.713852 | LOG | PULL_RESP: Protocol version = 02, Token = b406, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2877337351, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, |

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| | | 'size': 64, 'data': 'YCAgICAAGwXgLoB66TvO6G+40oDgz1iz2mC7ESBb3nQhrbAhZmYxRXBgpUd/oMPBWG5o8LQiP/pcglb59uPyAQ==''}} |
| 0:01:54.714849 | LOG | Server ----------> DUT |
| 0:01:54.732840 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:54.741837 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:59.706014 | LOG | PUSH_ACK: 02 37d1 01 |
| 0:01:59.709011 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2880341657, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCALwgBJy91XmT8'}]} |
| 0:01:59.710012 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 082f, FOpts: ), FPort: 01, FRMPayload: 036f, MIC: 755e64fc) |
| 0:01:59.712016 | LOG | Server <---------- DUT |
| 0:01:59.714009 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 051c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a876ba88) |
| 0:01:59.716007 | LOG | Frame command sent to the DUT |
| 0:01:59.717006 | LOG | PULL_RESP: Protocol version = 02, Token = fba8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2882341657, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHAXglcWNsFBH1whhJ77gdVTJUnslrtNCqNqfjyYqToen5Vpp3HOuVyEImNr+pRLJDgCdWgQuqHa6iA==''}} |
| 0:01:59.719005 | LOG | Server ----------> DUT |
| 0:01:59.722004 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:59.725003 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:04.756839 | LOG | PULL_DATA: 02 877b 02 3834383419003400 |
| 0:02:04.760837 | LOG | PULL_ACK: 02 877b 04 |
| 0:02:04.763837 | LOG | PUSH_ACK: 02 37d2 01 |
| 0:02:04.765834 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2885345987, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAMAgBLo1DTvmT'}]} |
| 0:02:04.766833 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0830, FOpts: ), FPort: 01, FRMPayload: 0370, MIC: 434ef993) |
| 0:02:04.767833 | LOG | Server <---------- DUT |
| 0:02:04.769832 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 051d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: cb032c3c) |
| 0:02:04.771831 | LOG | Frame command sent to the DUT |
| 0:02:04.772832 | LOG | PULL_RESP: Protocol version = 02, Token = 2c50, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2887345987, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHQXg5/wx7LSFzZYzQlfXxHBdnzwqjtmCSti08WxM/VxmZYdktz8nYskEg/+mUifoEU/FAM03ywMsPA==''}} |
| 0:02:04.774831 | LOG | Server ----------> DUT |
| 0:02:04.779827 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:04.783824 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:09.713023 | LOG | PUSH_ACK: 02 37d3 01 |
| 0:02:09.715022 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2890348931, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAMQgBKfFlICbB'}]} |

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| 0:02:09.716021 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0831, FOpts: ), FPort: 01, FRMPayload: 0371, MIC: 652026c1) |
| 0:02:09.718020 | LOG | Server <---------- DUT |
| 0:02:09.720019 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 051e, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a0dcd717) |
| 0:02:09.723017 | LOG | Frame command sent to the DUT |
| 0:02:09.724016 | LOG | PULL_RESP: Protocol version = 02, Token = 6cff, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2892348931, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHgXg3veLo2xefFZ66mapyfJ4+POv+AXrLLU/Cm2n9SGQLGQpgelmcPIC5nQQGAxJQjYBJY3ioNzXFw==''}} |
| 0:02:09.725016 | LOG | Server ----------> DUT |
| 0:02:09.730013 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:09.734011 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:14.715180 | LOG | PUSH_ACK: 02 37d5 01 |
| 0:02:14.717179 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2895351884, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAMggBN/oqG6q0'}]} |
| 0:02:14.719178 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0832, FOpts: ), FPort: 01, FRMPayload: 0372, MIC: 2a1baab4) |
| 0:02:14.720177 | LOG | Server <---------- DUT |
| 0:02:14.722176 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 051f, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 598a8e30) |
| 0:02:14.725174 | LOG | Frame command sent to the DUT |
| 0:02:14.726174 | LOG | PULL_RESP: Protocol version = 02, Token = c446, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2897351884, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAHwXg+FX+v6aNYj/sw0+B6sbjKtUY7o3SO6B9AarptYoPAYOWbDWAnD9eQL8RNY0N1Ph1IpkPWYqOMA==''}} |
| 0:02:14.728173 | LOG | Server ----------> DUT |
| 0:02:14.732172 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:14.736169 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:14.936072 | LOG | PULL_DATA: 02 8e7a 02 3834383419003400 |
| 0:02:14.940052 | LOG | PULL_ACK: 02 8e7a 04 |
| 0:02:19.770307 | LOG | PUSH_ACK: 02 37d6 01 |
| 0:02:19.772306 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2900356182, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAMwgBPl9djAXe'}]} |
| 0:02:19.773305 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0833, FOpts: ), FPort: 01, FRMPayload: 0373, MIC: 5d8c05de) |
| 0:02:19.775304 | LOG | Server <---------- DUT |
| 0:02:19.777303 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0520, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ea7afe38) |
| 0:02:19.780303 | LOG | Frame command sent to the DUT |
| 0:02:19.783300 | LOG | PULL_RESP: Protocol version = 02, Token = f345, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2902356182, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, |

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| | | 'size': 64, 'data': 'YCAgICAAIAXgw3rsKYMDxMnE5AddPqqmPrAOaemWRvUXyJLUAMkPHfsT6Z+g0FDA35e3g2XXSpaakAv26nr+OA=='}} |
| 0:02:19.785298 | LOG | Server ----------> DUT |
| 0:02:19.789296 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:19.792294 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:24.774463 | LOG | PUSH_ACK: 02 37d7 01 |
| 0:02:24.776462 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2905359134, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCANAgBBfXyZz6m'}]} |
| 0:02:24.778461 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0834, FOpts: ), FPort: 01, FRMPayload: 0374, MIC: f2673ea6) |
| 0:02:24.780460 | LOG | Server <---------- DUT |
| 0:02:24.782458 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0521, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4426bd8b) |
| 0:02:24.785457 | LOG | Frame command sent to the DUT |
| 0:02:24.787457 | LOG | PULL_RESP: Protocol version = 02, Token = d9cf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2907359134, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAIQXgHMkAaf8HExOXOKkIz5Ta4zjWHdtSYxXH4fo7IqcnfSDqR/tytxfFaWUg2uV/h89D7oRRRCa9iw=='}} |
| 0:02:24.789455 | LOG | Server ----------> DUT |
| 0:02:24.793452 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:24.797450 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:24.996339 | LOG | PULL_DATA: 02 9c7f 02 3834383419003400 |
| 0:02:24.997336 | LOG | PULL_ACK: 02 9c7f 04 |
| 0:02:29.777620 | LOG | PUSH_ACK: 02 37d8 01 |
| 0:02:29.779619 | LOG | PUSH_DATA: Protocol version = 02, Token = 37d8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2910363489, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCANQgBy3su4w/l'}]} |
| 0:02:29.781619 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0835, FOpts: ), FPort: 01, FRMPayload: 0375, MIC: 2ee30fe5) |
| 0:02:29.782617 | LOG | Server <---------- DUT |
| 0:02:29.785616 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0522, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a5bd9eb3) |
| 0:02:29.787614 | LOG | Frame command sent to the DUT |
| 0:02:29.789613 | LOG | PULL_RESP: Protocol version = 02, Token = 447c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2912363489, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAIgXg3ZYKz2qfKi5+7FC78XQTeQ0WNz/4GdZo4xQdrA8bE6TYuKM7MfJvIWG4z7F4rKHVH6j5pb2esw=='}} |
| 0:02:29.790612 | LOG | Server ----------> DUT |
| 0:02:29.794611 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:29.797608 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:34.782107 | LOG | PUSH_ACK: 02 37da 01 |
| 0:02:34.787104 | LOG | PUSH_DATA: Protocol version = 02, Token = 37da, Identifier = 00, JSON = {'rxpk': [{'tmst': 2915367843, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCANggBA1NJzEVI'}]} |

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| 0:02:34.789103 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0836, FOpts: ), FPort: 01, FRMPayload: 0376, MIC: 49cc4548) |
| 0:02:34.791103 | LOG | Server <---------- DUT |
| 0:02:34.793101 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0523, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 3fcc0b22) |
| 0:02:34.795100 | LOG | Frame command sent to the DUT |
| 0:02:34.797099 | LOG | PULL_RESP: Protocol version = 02, Token = cf56, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2917367843, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAIwXgSABCP7O9h/1nkejRe2M0CxnODdTlQMuJSriieChSM0rsTEvU27v+gT3ojszpxALKnZlCP8wLIg==''}} |
| 0:02:34.799097 | LOG | Server ----------> DUT |
| 0:02:34.803095 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:34.807093 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:35.005979 | LOG | PULL_DATA: 02 4f89 02 3834383419003400 |
| 0:02:35.007979 | LOG | PULL_ACK: 02 4f89 04 |
| 0:02:39.785264 | LOG | PUSH_ACK: 02 37db 01 |
| 0:02:39.787263 | LOG | PUSH_DATA: Protocol version = 02, Token = 37db, Identifier = 00, JSON = {'rxpk': [{'tmst': 2920370852, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCANwgB5arf5NmM'}]} |
| 0:02:39.788262 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0837, FOpts: ), FPort: 01, FRMPayload: 0377, MIC: dfe4d98c) |
| 0:02:39.790261 | LOG | Server <---------- DUT |
| 0:02:39.792260 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0524, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4e80298c) |
| 0:02:39.795258 | LOG | Frame command sent to the DUT |
| 0:02:39.797257 | LOG | PULL_RESP: Protocol version = 02, Token = e6e7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2922370852, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAJAXg2A6bBsLBeyHSAC4Mbdg9wDxpuIydspIcc2773cM5sVJHpLrgU9rgRwmzWjv214XJj0aCToApjA==''}} |
| 0:02:39.798256 | LOG | Server ----------> DUT |
| 0:02:39.803253 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:39.808250 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:44.788420 | LOG | PUSH_ACK: 02 37dd 01 |
| 0:02:44.790419 | LOG | PUSH_DATA: Protocol version = 02, Token = 37dd, Identifier = 00, JSON = {'rxpk': [{'tmst': 2925373858, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAOAgBge/kTUsO'}]} |
| 0:02:44.792418 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0838, FOpts: ), FPort: 01, FRMPayload: 0378, MIC: e44d4b0e) |
| 0:02:44.794417 | LOG | Server <---------- DUT |
| 0:02:44.796416 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0525, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7af0d0e9) |
| 0:02:44.798415 | LOG | Frame command sent to the DUT |
| 0:02:44.800413 | LOG | PULL_RESP: Protocol version = 02, Token = fe51, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2927373858, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, |

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| | | 'size': 64, 'data': 'YCAgICAAJQXgqAbECZ5rv1lVOfLo9j8kqRu96ynQPjQYn4XPjDbrTUtoFI2Tf1mtHVD67JuEJsr/dtejevDQ6Q=='}} |
| 0:02:44.802414 | LOG | Server ----------> DUT |
| 0:02:44.805411 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:44.809409 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:45.016291 | LOG | PULL_DATA: 02 47ca 02 3834383419003400 |
| 0:02:45.017290 | LOG | PULL_ACK: 02 47ca 04 |
| 0:02:49.792577 | LOG | PUSH_ACK: 02 37de 01 |
| 0:02:49.794576 | LOG | PUSH_DATA: Protocol version = 02, Token = 37de, Identifier = 00, JSON = {'rxpk': [{'tmst': 2930378196, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAOQgBAMqMB44c'}]} |
| 0:02:49.795575 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0839, FOpts: ), FPort: 01, FRMPayload: 0379, MIC: 8c078e1c) |
| 0:02:49.797574 | LOG | Server <---------- DUT |
| 0:02:49.799572 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0526, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 95cb6a35) |
| 0:02:49.802571 | LOG | Frame command sent to the DUT |
| 0:02:49.804570 | LOG | PULL_RESP: Protocol version = 02, Token = 5d68, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2932378196, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAJgXgO62YIUeOjnzAoMzCSN7DRv1QH/Rd8FfQ4s1+AvWUvFdii2KaMMG9W88gT8Ndb/UiUwnklctqNQ=='}} |
| 0:02:49.806569 | LOG | Server ----------> DUT |
| 0:02:49.809567 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:49.813565 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:54.796734 | LOG | PUSH_ACK: 02 37df 01 |
| 0:02:54.799731 | LOG | PUSH_DATA: Protocol version = 02, Token = 37df, Identifier = 00, JSON = {'rxpk': [{'tmst': 2935382598, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAOggB/YVVAR0B'}]} |
| 0:02:54.800732 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 083a, FOpts: ), FPort: 01, FRMPayload: 037a, MIC: 55011d01) |
| 0:02:54.802729 | LOG | Server <---------- DUT |
| 0:02:54.803729 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0527, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2084a835) |
| 0:02:54.806727 | LOG | Frame command sent to the DUT |
| 0:02:54.808726 | LOG | PULL_RESP: Protocol version = 02, Token = 8509, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2937382598, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAJwXgL5l8UDdYOago2xZxck1CQBS3CAqkyZ2vzDaps5rVOflBC083nFvJCZA8vcQ8/oxbkC8tIISoNQ=='}} |
| 0:02:54.810725 | LOG | Server ----------> DUT |
| 0:02:54.814723 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:54.819721 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:55.225841 | LOG | PULL_DATA: 02 88a9 02 3834383419003400 |
| 0:02:55.227822 | LOG | PULL_ACK: 02 88a9 04 |
| 0:02:59.800224 | LOG | PUSH_ACK: 02 37e0 01 |
| 0:02:59.803222 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2940386982, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAOwgBJC5rkxGs'}]} |
| 0:02:59.804221 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 083b, FOpts: ), FPort: 01, FRMPayload: 037b, MIC: 6b9311ac) |
| 0:02:59.806220 | LOG | Server <---------- DUT |
| 0:02:59.808219 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0528, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e492d7d8) |
| 0:02:59.811217 | LOG | Frame command sent to the DUT |
| 0:02:59.812217 | LOG | PULL_RESP: Protocol version = 02, Token = 0a5c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2942386982, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKAXgPHygVL3puDfAKOS76qQ6wMdaN5EVeJUBqoymC+vKaTPB7dCMyQyXF84CxSDI0WDej+ms5JLX2A=='}} |
| 0:02:59.814216 | LOG | Server ----------> DUT |
| 0:02:59.820212 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:59.825209 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:04.805379 | LOG | PUSH_ACK: 02 37e1 01 |
| 0:03:04.809377 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2945391377, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAPAgBLLWoFRa5'}]} |
| 0:03:04.810376 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 083c, FOpts: ), FPort: 01, FRMPayload: 037c, MIC: a81516b9) |
| 0:03:04.812375 | LOG | Server <---------- DUT |
| 0:03:04.813375 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0529, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 383dc34e) |
| 0:03:04.816373 | LOG | Frame command sent to the DUT |
| 0:03:04.818372 | LOG | PULL_RESP: Protocol version = 02, Token = f05d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2947391377, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKQXgU7JQ3q/VW/rWzW3vFpgNdn4MH2h8dcuSNTsY8fIB+Na2vHbXDSsyoZyiT+r5bkJ1t/ESOD3DTg=='}} |
| 0:03:04.820371 | LOG | Server ----------> DUT |
| 0:03:04.824368 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:04.828366 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:05.236134 | LOG | PULL_DATA: 02 4fc3 02 3834383419003400 |
| 0:03:05.238134 | LOG | PULL_ACK: 02 4fc3 04 |
| 0:03:09.758565 | LOG | PUSH_ACK: 02 37e2 01 |
| 0:03:09.760563 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2950394355, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAPQgBi3OeVGJ3'}]} |
| 0:03:09.761562 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 083d, FOpts: ), FPort: 01, FRMPayload: 037d, MIC: 9e546277) |
| 0:03:09.762562 | LOG | Server <---------- DUT |
| 0:03:09.765560 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 052a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 85787fa1) |
| 0:03:09.767559 | LOG | Frame command sent to the DUT |

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| 0:03:09.768558 | LOG | PULL_RESP: Protocol version = 02, Token = 9f85, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2952394355, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKgXgSP/NNWErxUiU/Af/KepgZo0VDNlEWkVGNfrlhSXrdOLLwiT/3/PvZ8DkN9UWiNB1hABxhXh/oQ=='}} |
| 0:03:09.770557 | LOG | Server ----------> DUT |
| 0:03:09.774555 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:09.778554 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:14.761723 | LOG | PUSH_ACK: 02 37e4 01 |
| 0:03:14.763720 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2955397404, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAPggBIHLU/W4+'}]} |
| 0:03:14.764719 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 083e, FOpts: ), FPort: 01, FRMPayload: 037e, MIC: d4fd6e3e) |
| 0:03:14.766718 | LOG | Server <---------- DUT |
| 0:03:14.768717 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 052b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d70acbd8) |
| 0:03:14.770716 | LOG | Frame command sent to the DUT |
| 0:03:14.772715 | LOG | PULL_RESP: Protocol version = 02, Token = 6860, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2957397404, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAKwXg1FkvMoJqBRs0JPFvMuj5OePQnAXFF2h6GoKdCYrTj1/Pfwf4+dD7RiCUVfOSZKOKVwuH1wrL2A=='}} |
| 0:03:14.773714 | LOG | Server ----------> DUT |
| 0:03:14.777712 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:14.782709 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:15.405518 | LOG | PULL_DATA: 02 1fd6 02 3834383419003400 |
| 0:03:15.408516 | LOG | PULL_ACK: 02 1fd6 04 |
| 0:03:19.815012 | LOG | PUSH_ACK: 02 37e5 01 |
| 0:03:19.817010 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2960401764, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAPwgBOLr9vaOt'}]} |
| 0:03:19.819010 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 083f, FOpts: ), FPort: 01, FRMPayload: 037f, MIC: fdbda3ad) |
| 0:03:19.820009 | LOG | Server <---------- DUT |
| 0:03:19.821008 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 052c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b19bff29) |
| 0:03:19.824007 | LOG | Frame command sent to the DUT |
| 0:03:19.825006 | LOG | PULL_RESP: Protocol version = 02, Token = 3ce7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2962401764, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALAXgPADxaXg2p5xf+LIIYbqC41zeR9jL1AVVYsDEecAtNPIp2CJ70piw3gQ+vX3SpgkMc1sYsZv/KQ=='}} |
| 0:03:19.827007 | LOG | Server ----------> DUT |
| 0:03:19.831003 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:19.836000 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:24.820169 | LOG | PUSH_ACK: 02 37e6 01 |

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| 0:03:24.822166 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2965406168, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAQAgB04pCqytY'}]} |
| 0:03:24.823165 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0840, FOpts: ), FPort: 01, FRMPayload: 0380, MIC: 42ab2b58) |
| 0:03:24.824166 | LOG | Server <---------- DUT |
| 0:03:24.826164 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 052d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 960bcb95) |
| 0:03:24.829162 | LOG | Frame command sent to the DUT |
| 0:03:24.830162 | LOG | PULL_RESP: Protocol version = 02, Token = 0a2d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2967406168, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALQXgw1NjjLfIAOdF7vXOHrNumYS1/xYRSqO58zwXqRU/zQw8FlcxkrCpFCPBtAOCgAMKuyMXlgvLlQ=='}} |
| 0:03:24.832161 | LOG | Server ----------> DUT |
| 0:03:24.836158 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:24.840156 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:25.465800 | LOG | PULL_DATA: 02 8a4e 02 3834383419003400 |
| 0:03:25.467799 | LOG | PULL_ACK: 02 8a4e 04 |
| 0:03:29.773353 | LOG | PUSH_ACK: 02 37e7 01 |
| 0:03:29.775351 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2970409194, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAQQgBG26Woepz'}]} |
| 0:03:29.777350 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0841, FOpts: ), FPort: 01, FRMPayload: 0381, MIC: 96a1ea73) |
| 0:03:29.778349 | LOG | Server <---------- DUT |
| 0:03:29.780348 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 052e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d0fafe52) |
| 0:03:29.783347 | LOG | Frame command sent to the DUT |
| 0:03:29.785346 | LOG | PULL_RESP: Protocol version = 02, Token = 5cff, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2972409194, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALgXgyk0lQYAsQnZ6kQydvn+OulX/zXW5lCIRF6GosRbwH2lQBvpGhJU3/QxfT6eDXs3o5/110Pr+Ug=='}} |
| 0:03:29.787345 | LOG | Server ----------> DUT |
| 0:03:29.792342 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:29.796340 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:34.827480 | LOG | PUSH_ACK: 02 37e8 01 |
| 0:03:34.831478 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2975413589, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAQggB20LHLP6z'}]} |
| 0:03:34.833477 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0842, FOpts: ), FPort: 01, FRMPayload: 0382, MIC: c72cfeb3) |
| 0:03:34.834476 | LOG | Server <---------- DUT |
| 0:03:34.836475 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 052f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f2643340) |

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| 0:03:34.838474 | LOG | Frame command sent to the DUT |
| 0:03:34.840472 | LOG | PULL_RESP: Protocol version = 02, Token = d135, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2977413589, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAALwXgA2LH7TiEp+lgmCZfB710lU0YEXUZYBhqzbwZQZnCwW7ibp876v3Z/y4pvU+mb7pBJFMW8mQzQA=='}} |
| 0:03:34.842472 | LOG | Server ----------> DUT |
| 0:03:34.846469 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:34.853465 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:35.476111 | LOG | PULL_DATA: 02 6e8f 02 3834383419003400 |
| 0:03:35.480109 | LOG | PULL_ACK: 02 6e8f 04 |
| 0:03:39.831635 | LOG | PUSH_ACK: 02 37e9 01 |
| 0:03:39.833635 | LOG | PUSH_DATA: Protocol version = 02, Token = 37e9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2980417959, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAQwgBwaRkEi6A'}]} |
| 0:03:39.834634 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0843, FOpts: ), FPort: 01, FRMPayload: 0383, MIC: 64122e80) |
| 0:03:39.836634 | LOG | Server <---------- DUT |
| 0:03:39.837634 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0530, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7cd03b1d) |
| 0:03:39.839631 | LOG | Frame command sent to the DUT |
| 0:03:39.841630 | LOG | PULL_RESP: Protocol version = 02, Token = 6819, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2982417959, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMAXg+UmGikdbbk0cgvq/MDcVpVoJ4MCJDjDkzyJRePrqqyqP7rWUEgcqpOpulYby1aLrGty/fNA7HQ=='}} |
| 0:03:39.843629 | LOG | Server ----------> DUT |
| 0:03:39.847627 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:39.851626 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:44.783649 | LOG | PUSH_ACK: 02 37ec 01 |
| 0:03:44.785670 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ec, Identifier = 00, JSON = {'rxpk': [{'tmst': 2985420976, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCARAgBYjbZQ8CV'}]} |
| 0:03:44.787669 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0844, FOpts: ), FPort: 01, FRMPayload: 0384, MIC: d943c095) |
| 0:03:44.788668 | LOG | Server <---------- DUT |
| 0:03:44.789640 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0531, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 945c991d) |
| 0:03:44.792666 | LOG | Frame command sent to the DUT |
| 0:03:44.794664 | LOG | PULL_RESP: Protocol version = 02, Token = ce45, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2987420976, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMQXgeM/FveJQ0WeeMOSSBcoACglrI9oAHYrzz+/y+4ZoN2fVb/wZjUO76tjs3j9OzxPUOf3glFyZHQ=='}} |
| 0:03:44.795637 | LOG | Server ----------> DUT |
| 0:03:44.799662 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:44.804632 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:45.635623 | LOG | PULL_DATA: 02 0b61 02 3834383419003400 |

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| 0:03:45.637622 | LOG | PULL_ACK: 02 0b61 04 |
| 0:03:49.787263 | LOG | PUSH_ACK: 02 37ed 01 |
| 0:03:49.789263 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ed, Identifier = 00, JSON = {'rxpk': [{'tmst': 2990423985, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCARQgBEwpSQTrq'}]} |
| 0:03:49.791261 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0845, FOpts: ), FPort: 01, FRMPayload: 0385, MIC: 52413aea) |
| 0:03:49.792261 | LOG | Server <---------- DUT |
| 0:03:49.793260 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0532, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e8fd0621) |
| 0:03:49.796259 | LOG | Frame command sent to the DUT |
| 0:03:49.797258 | LOG | PULL_RESP: Protocol version = 02, Token = 0d0a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2992423985, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMgXgA1mtGW/XvPlBsvz/H2mFBO7tLAIYAl6VVr1E5zAmNzEK6hIyW4WTbRG7vPd8obr06u136P0GIQ==''}} |
| 0:03:49.799257 | LOG | Server ----------> DUT |
| 0:03:49.804254 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:49.808252 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:54.843396 | LOG | PUSH_ACK: 02 37ee 01 |
| 0:03:54.848387 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ee, Identifier = 00, JSON = {'rxpk': [{'tmst': 2995428353, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCARggBUD3KEV81'}]} |
| 0:03:54.849387 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0846, FOpts: ), FPort: 01, FRMPayload: 0386, MIC: ca115f35) |
| 0:03:54.850388 | LOG | Server <---------- DUT |
| 0:03:54.852387 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0533, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: bcb8f5fc) |
| 0:03:54.854385 | LOG | Frame command sent to the DUT |
| 0:03:54.855386 | LOG | PULL_RESP: Protocol version = 02, Token = 989d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2997428353, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAMwXgBe4baRMcaALQr1Idzfh+rBEO6Pc95f8fqv3/kruCmwQmTmGGGnFtIPiAHOSUzoZAkdIrvLj1/A==''}} |
| 0:03:54.857382 | LOG | Server ----------> DUT |
| 0:03:54.860383 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:54.863379 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:55.696209 | LOG | PULL_DATA: 02 c9ee 02 3834383419003400 |
| 0:03:55.698208 | LOG | PULL_ACK: 02 c9ee 04 |
| 0:03:59.795880 | LOG | PUSH_ACK: 02 37ef 01 |
| 0:03:59.796879 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ef, Identifier = 00, JSON = {'rxpk': [{'tmst': 3000431371, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCARwgB/B1eaECL'}]} |
| 0:03:59.797879 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0847, FOpts: ), FPort: 01, FRMPayload: 0387, MIC: 5e68408b) |
| 0:03:59.799880 | LOG | Server <---------- DUT |
| 0:03:59.801877 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0534, FOpts: ), FPort: e0, FRMPayload: |

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| | | 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 18c3a655) |
| 0:03:59.803876 | LOG | Frame command sent to the DUT |
| 0:03:59.804876 | LOG | PULL_RESP: Protocol version = 02, Token = 6431, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3002431371, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANAXgiDZdNAmswccYrY7doBQXQ916zY2oEAMOFeyPMPoPnX7foZtIps6adZgLtarScPSn3dmCGMOmVQ=='}} |
| 0:03:59.806874 | LOG | Server ----------> DUT |
| 0:03:59.809873 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:59.812871 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:04.850863 | LOG | PUSH_ACK: 02 37f0 01 |
| 0:04:04.855859 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3005435751, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCASAgBWs5AXhXe'}]} |
| 0:04:04.857862 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0848, FOpts: ), FPort: 01, FRMPayload: 0388, MIC: 405e15de) |
| 0:04:04.858860 | LOG | Server <---------- DUT |
| 0:04:04.860859 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0535, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d518bf4a) |
| 0:04:04.863856 | LOG | Frame command sent to the DUT |
| 0:04:04.865856 | LOG | PULL_RESP: Protocol version = 02, Token = 9363, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3007435751, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANQXgIExXLMgJrIwZJLr2TOh4CD8eyokOfe1VbOUEPuljuPQrEhH1yLhUI66OHqgz6GRqJUFL1Ri/Sg=='}} |
| 0:04:04.866856 | LOG | Server ----------> DUT |
| 0:04:04.870821 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:04.874819 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:05.705566 | LOG | PULL_DATA: 02 2df7 02 3834383419003400 |
| 0:04:05.707565 | LOG | PULL_ACK: 02 2df7 04 |
| 0:04:09.854208 | LOG | PUSH_ACK: 02 37f1 01 |
| 0:04:09.855207 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3010440168, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCASQgBM7n6+3XT'}]} |
| 0:04:09.857206 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0849, FOpts: ), FPort: 01, FRMPayload: 0389, MIC: fafb75d3) |
| 0:04:09.858205 | LOG | Server <---------- DUT |
| 0:04:09.860204 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0536, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ef8fae7f) |
| 0:04:09.863203 | LOG | Frame command sent to the DUT |
| 0:04:09.865202 | LOG | PULL_RESP: Protocol version = 02, Token = 7880, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3012440168, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANgXgQbM0IOWc8QNx5oWWilWnNxvQE1rY6odY84euftWYw8Q67wu2DiZVW0TPCr/9HGutI6xJ74+ufw=='}} |
| 0:04:09.866201 | LOG | Server ----------> DUT |
| 0:04:09.871200 | LOG | Send Test Command TxFramesCtrlReq process completed |

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| 0:04:09.874197 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:14.807061 | LOG | PUSH_ACK: 02 37f3 01 |
| 0:04:14.809060 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3015443210, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCASggBRYJ5IX2Z'}]} |
| 0:04:14.811058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 084a, FOpts: ), FPort: 01, FRMPayload: 038a, MIC: 79217d99) |
| 0:04:14.812058 | LOG | Server <---------- DUT |
| 0:04:14.814059 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0537, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 19d3e6d2) |
| 0:04:14.817056 | LOG | Frame command sent to the DUT |
| 0:04:14.819055 | LOG | PULL_RESP: Protocol version = 02, Token = 629c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3017443210, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAANwXgYDCZTFNOmPPfA5JrF3mXRJuKbFWjaUHn9I3PO3dNCxTvtpOqx95DN1pW+xFR8vWas7tJGdPm0g=='}} |
| 0:04:14.821054 | LOG | Server ----------> DUT |
| 0:04:14.824052 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:14.827052 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:15.865460 | LOG | PULL_DATA: 02 5005 02 3834383419003400 |
| 0:04:15.867458 | LOG | PULL_ACK: 02 5005 04 |
| 0:04:19.810218 | LOG | PUSH_ACK: 02 37f4 01 |
| 0:04:19.812216 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3020446261, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCASwgBIiV1knym'}]} |
| 0:04:19.814217 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 084b, FOpts: ), FPort: 01, FRMPayload: 038b, MIC: 75927ca6) |
| 0:04:19.815215 | LOG | Server <---------- DUT |
| 0:04:19.817214 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0538, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 03d32d84) |
| 0:04:19.821212 | LOG | Frame command sent to the DUT |
| 0:04:19.822212 | LOG | PULL_RESP: Protocol version = 02, Token = a6b3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3022446261, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOAXgYYQSyjfwDCdTBrpn7EGnaQWYnrX0zsF2am/p17rGdROenM7okBUnh/LlcKmGRVlwxaZkA9MthA=='}} |
| 0:04:19.824210 | LOG | Server ----------> DUT |
| 0:04:19.828207 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:19.832205 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:24.864274 | LOG | PUSH_ACK: 02 37f5 01 |
| 0:04:24.866273 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3025450622, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCATAgBRUfsQwDr'}]} |
| 0:04:24.868271 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 084c, FOpts: ), FPort: 01, FRMPayload: 038c, MIC: ec4300eb) |
| 0:04:24.869271 | LOG | Server <---------- DUT |
| 0:04:24.872269 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0539, FOpts: ), FPort: e0, FRMPayload: |

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| | | 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ebec213b) |
| 0:04:24.873269 | LOG | Frame command sent to the DUT |
| 0:04:24.875267 | LOG | PULL_RESP: Protocol version = 02, Token = acdc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3027450622, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOQXgD5Q/aZmD42TvHkAAtOHLsjJR/MGyqKYR4g5uNP5KBWRLI0N0IsG5OqPguqIK5azxGv6R6+whOw==''}} |
| 0:04:24.876267 | LOG | Server ----------> DUT |
| 0:04:24.878266 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:24.881264 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:25.925989 | LOG | PULL_DATA: 02 49da 02 3834383419003400 |
| 0:04:25.927988 | LOG | PULL_ACK: 02 49da 04 |
| 0:04:29.868750 | LOG | PUSH_ACK: 02 37f6 01 |
| 0:04:29.870747 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3030455006, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCATQgBNJoCYg1S''}]} |
| 0:04:29.871746 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 084d, FOpts: ), FPort: 01, FRMPayload: 038d, MIC: 02620d52) |
| 0:04:29.873746 | LOG | Server <---------- DUT |
| 0:04:29.874745 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 053a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2fa5e2ad) |
| 0:04:29.877744 | LOG | Frame command sent to the DUT |
| 0:04:29.879742 | LOG | PULL_RESP: Protocol version = 02, Token = 5edc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3032455006, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOgXgqUAIXzxPCe+OhZdlMw/PrgVgkZsBKSuS9WM5ZuAyPLgdtjycIzx8oej5KDJDE3vZxxOVL6XirQ==''}} |
| 0:04:29.881741 | LOG | Server ----------> DUT |
| 0:04:29.886738 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:29.890737 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:34.821900 | LOG | PUSH_ACK: 02 37f7 01 |
| 0:04:34.823898 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3035457976, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCATggB1Yagc51x''}]} |
| 0:04:34.824899 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 084e, FOpts: ), FPort: 01, FRMPayload: 038e, MIC: a0739d71) |
| 0:04:34.826897 | LOG | Server <---------- DUT |
| 0:04:34.828896 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 053b, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4a297c77) |
| 0:04:34.830894 | LOG | Frame command sent to the DUT |
| 0:04:34.832895 | LOG | PULL_RESP: Protocol version = 02, Token = a0e4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3037457976, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAOwXgf0hJ7zhZ5GxgxHt2PSEGWMbgxH+TA984xv3+t9lABlKePMZhxC1YQQI4QcSWIVKEPlCbSil8dw==''}} |
| 0:04:34.834894 | LOG | Server ----------> DUT |
| 0:04:34.838891 | LOG | Send Test Command TxFramesCtrlReq process completed |

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| 0:04:34.841890 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:36.096300 | LOG | PULL_DATA: 02 8fd1 02 3834383419003400 |
| 0:04:36.102294 | LOG | PULL_ACK: 02 8fd1 04 |
| 0:04:39.876149 | LOG | PUSH_ACK: 02 37f8 01 |
| 0:04:39.878148 | LOG | PUSH_DATA: Protocol version = 02, Token = 37f8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3040462348, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCATwgBlDS4KiqL'}]} |
| 0:04:39.880147 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 084f, FOpts: ), FPort: 01, FRMPayload: 038f, MIC: b82a2a8b) |
| 0:04:39.881146 | LOG | Server <---------- DUT |
| 0:04:39.883146 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 053c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c02ccdb8) |
| 0:04:39.886144 | LOG | Frame command sent to the DUT |
| 0:04:39.887143 | LOG | PULL_RESP: Protocol version = 02, Token = 5931, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3042462348, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPAXg9SZrWWT/z6FiWjjdo0T9wLz1jtCq8jyP3NBVAphi5CUkngxFIcTWA95P/GKzZEQAlZChwCzNuA=='}} |
| 0:04:39.889142 | LOG | Server ----------> DUT |
| 0:04:39.892141 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:39.896138 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:44.829494 | LOG | PUSH_ACK: 02 37fa 01 |
| 0:04:44.831492 | LOG | PUSH_DATA: Protocol version = 02, Token = 37fa, Identifier = 00, JSON = {'rxpk': [{'tmst': 3045465351, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAUAgBtn8v/QOe'}]} |
| 0:04:44.832491 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0850, FOpts: ), FPort: 01, FRMPayload: 0390, MIC: 2ffd039e) |
| 0:04:44.834491 | LOG | Server <---------- DUT |
| 0:04:44.836491 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 053d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2d6957f1) |
| 0:04:44.838488 | LOG | Frame command sent to the DUT |
| 0:04:44.840487 | LOG | PULL_RESP: Protocol version = 02, Token = 6929, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3047465351, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPQXgyE6LWOkwbtSXrHZaCroOFQYo8JlJIQHKlxHaNByRonsqWDe4pBYSJhuvypCI5WdmpZ7SLWlX8Q=='}} |
| 0:04:44.842486 | LOG | Server ----------> DUT |
| 0:04:44.845485 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:44.849482 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:46.105657 | LOG | PULL_DATA: 02 551d 02 3834383419003400 |
| 0:04:46.107656 | LOG | PULL_ACK: 02 551d 04 |
| 0:04:49.882511 | LOG | PUSH_ACK: 02 37fb 01 |
| 0:04:49.884510 | LOG | PUSH_DATA: Protocol version = 02, Token = 37fb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3050468363, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAUQgBF+u8eaYG'}]} |
| 0:04:49.886509 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0851, FOpts: ), FPort: 01, FRMPayload: 0391, MIC: bc79a606) |
| 0:04:49.888508 | LOG | Server <---------- DUT |

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| 0:04:49.890507 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 053e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c50ef421) |
| 0:04:49.893505 | LOG | Frame command sent to the DUT |
| 0:04:49.894504 | LOG | PULL_RESP: Protocol version = 02, Token = ab50, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3052468363, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPgXgDhqAn0lYeuhRvh5sBjMw8eSxKaVHb9ekhHRmZmhq9FGWYAu7zoLKNDOPnoI+nolvDR80xQ70IQ=='}} |
| 0:04:49.896503 | LOG | Server ----------> DUT |
| 0:04:49.899503 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:49.904498 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:54.834809 | LOG | PUSH_ACK: 02 37fc 01 |
| 0:04:54.836808 | LOG | PUSH_DATA: Protocol version = 02, Token = 37fc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3055471384, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAUggBdpDSfzYN'}]} |
| 0:04:54.837809 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0852, FOpts: ), FPort: 01, FRMPayload: 0392, MIC: d27f360d) |
| 0:04:54.839807 | LOG | Server <---------- DUT |
| 0:04:54.841806 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 053f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f0638907) |
| 0:04:54.843804 | LOG | Frame command sent to the DUT |
| 0:04:54.845803 | LOG | PULL_RESP: Protocol version = 02, Token = 4c28, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3057471384, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAPwXgivhRAq1JKGMhPeuOjghni7qRiWaajtAfblxm+7p6ZPZKEBkqVLAsn1Nnq4Pk4bqjYMf98GOJBw=='}} |
| 0:04:54.846802 | LOG | Server ----------> DUT |
| 0:04:54.850800 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:54.853798 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:56.314970 | LOG | PULL_DATA: 02 4bf1 02 3834383419003400 |
| 0:04:56.316967 | LOG | PULL_ACK: 02 4bf1 04 |
| 0:04:59.838965 | LOG | PUSH_ACK: 02 37fd 01 |
| 0:04:59.840964 | LOG | PUSH_DATA: Protocol version = 02, Token = 37fd, Identifier = 00, JSON = {'rxpk': [{'tmst': 3060475760, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAUwgBwphP74sw'}]} |
| 0:04:59.842964 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0853, FOpts: ), FPort: 01, FRMPayload: 0393, MIC: 4fef8b30) |
| 0:04:59.843965 | LOG | Server <---------- DUT |
| 0:04:59.845961 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0540, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4bfbb1ed) |
| 0:04:59.847961 | LOG | Frame command sent to the DUT |
| 0:04:59.848962 | LOG | PULL_RESP: Protocol version = 02, Token = 8e67, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3062475760, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQAXgeOoQpdMtP4yhCXAYAs5+vnUxpU9yxvjkMcNbEF/BmvFHYeIqR1yrDv5X7aantg5xCFvJS/ux7Q=='}} |

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| 0:04:59.850959 | LOG | Server ----------> DUT |
| 0:04:59.854956 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:04:59.858954 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:04.842939 | LOG | PUSH_ACK: 02 37fe 01 |
| 0:05:04.844939 | LOG | PUSH_DATA: Protocol version = 02, Token = 37fe, Identifier = 00, JSON = {'rxpk': [{'tmst': 3065478793, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAVAgBh5PascT/'}]} |
| 0:05:04.845937 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0854, FOpts: ), FPort: 01, FRMPayload: 0394, MIC: dab1c4ff) |
| 0:05:04.847938 | LOG | Server <---------- DUT |
| 0:05:04.848936 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0541, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: cd5d68f2) |
| 0:05:04.850935 | LOG | Frame command sent to the DUT |
| 0:05:04.853934 | LOG | PULL_RESP: Protocol version = 02, Token = 746e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3067478793, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQQXgUltoBHA7e2QoRSNpga1gPeJIMvRZ6z+h+QUMR0o8mJHtI31efxmQe1V9R2/aB7+uQ9B5zV1o8g=='}} |
| 0:05:04.857931 | LOG | Server ----------> DUT |
| 0:05:04.864927 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:04.869924 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:06.324730 | LOG | PULL_DATA: 02 9c9a 02 3834383419003400 |
| 0:05:06.328727 | LOG | PULL_ACK: 02 9c9a 04 |
| 0:05:09.896700 | LOG | PUSH_ACK: 02 37ff 01 |
| 0:05:09.898699 | LOG | PUSH_DATA: Protocol version = 02, Token = 37ff, Identifier = 00, JSON = {'rxpk': [{'tmst': 3070483196, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAVQgBMlEn0DDC'}]} |
| 0:05:09.900670 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0855, FOpts: ), FPort: 01, FRMPayload: 0395, MIC: 27d030c2) |
| 0:05:09.902671 | LOG | Server <---------- DUT |
| 0:05:09.904697 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0542, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e9302e84) |
| 0:05:09.906693 | LOG | Frame command sent to the DUT |
| 0:05:09.908663 | LOG | PULL_RESP: Protocol version = 02, Token = 8b75, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3072483196, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQgXgiIAioZ9BsNDdRXCzkdHAx7vSSTGnNuAcsppP2vGs3pj0pMgEtU04toyt3dzJ1znV9hcc6TAuhA=='}} |
| 0:05:09.910662 | LOG | Server ----------> DUT |
| 0:05:09.913660 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:09.916677 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:14.848382 | LOG | PUSH_ACK: 02 3801 01 |
| 0:05:14.850379 | LOG | PUSH_DATA: Protocol version = 02, Token = 3801, Identifier = 00, JSON = {'rxpk': [{'tmst': 3075486167, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAVggBQ2FDbHZ/'}]} |
| 0:05:14.852378 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0856, FOpts: ), FPort: 01, FRMPayload: 0396, MIC: 436c767f) |
| 0:05:14.853380 | LOG | Server <---------- DUT |

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| 0:05:14.855376 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0543, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fb6ce57a) |
| 0:05:14.858375 | LOG | Frame command sent to the DUT |
| 0:05:14.860374 | LOG | PULL_RESP: Protocol version = 02, Token = ce32, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3077486167, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQwXg1oBKdTEfUxaAF7WndB8pQiRx4a6JZfYRZ4CE0R3AtO8G1sVfOJ7Rq42bsTzF/t2uITQh+2zleg==''}} |
| 0:05:14.861373 | LOG | Server ----------> DUT |
| 0:05:14.865372 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:14.868369 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:16.335536 | LOG | PULL_DATA: 02 7be3 02 3834383419003400 |
| 0:05:16.337534 | LOG | PULL_ACK: 02 7be3 04 |
| 0:05:19.852613 | LOG | PUSH_ACK: 02 3802 01 |
| 0:05:19.854612 | LOG | PUSH_DATA: Protocol version = 02, Token = 3802, Identifier = 00, JSON = {'rxpk': [{'tmst': 3080489216, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVwgBelSfsYWn''}]} |
| 0:05:19.856610 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0857, FOpts: ), FPort: 01, FRMPayload: 0397, MIC: 9fb185a7) |
| 0:05:19.857610 | LOG | Server <---------- DUT |
| 0:05:19.859609 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0544, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9776fd7c) |
| 0:05:19.861607 | LOG | Frame command sent to the DUT |
| 0:05:19.863607 | LOG | PULL_RESP: Protocol version = 02, Token = 9f47, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3082489216, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARAXgeegogySHyUB3alRud1lhKJUBmsbnvOE/J4Wep5GUAH8cqIDmNTEt1+Rn+kT5TbbUQbBKl3b9fA==''}} |
| 0:05:19.864606 | LOG | Server ----------> DUT |
| 0:05:19.868606 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:19.871604 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:24.907106 | LOG | PUSH_ACK: 02 3803 01 |
| 0:05:24.909104 | LOG | PUSH_DATA: Protocol version = 02, Token = 3803, Identifier = 00, JSON = {'rxpk': [{'tmst': 3085493601, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAWAgBpgMNLPIy''}]} |
| 0:05:24.910104 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0858, FOpts: ), FPort: 01, FRMPayload: 0398, MIC: 0d2cf232) |
| 0:05:24.912102 | LOG | Server <---------- DUT |
| 0:05:24.914102 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0545, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 6aa00601) |
| 0:05:24.916100 | LOG | Frame command sent to the DUT |
| 0:05:24.918099 | LOG | PULL_RESP: Protocol version = 02, Token = 1023, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3087493601, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARQXgLl6aJbTKCCgEzZm73qSwQ24XqjzOx0vQ2po83Tm4PJEMLophWJhKGeDwwjA7zoiZQCwBaqAGAQ==''}} |

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| 0:05:24.920098 | LOG | Server ----------> DUT |
| 0:05:24.925095 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:24.928093 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:26.395395 | LOG | PULL_DATA: 02 6403 02 3834383419003400 |
| 0:05:26.396397 | LOG | PULL_ACK: 02 6403 04 |
| 0:05:29.911396 | LOG | PUSH_ACK: 02 3804 01 |
| 0:05:29.914395 | LOG | PUSH_DATA: Protocol version = 02, Token = 3804, Identifier = 00, JSON = {'rxpk': [{'tmst': 3090498003, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAWQgB53higy/9'}]} |
| 0:05:29.915394 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0859, FOpts: ), FPort: 01, FRMPayload: 0399, MIC: 62832ffd) |
| 0:05:29.916394 | LOG | Server <---------- DUT |
| 0:05:29.918393 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0546, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 81c0c604) |
| 0:05:29.921391 | LOG | Frame command sent to the DUT |
| 0:05:29.923391 | LOG | PULL_RESP: Protocol version = 02, Token = e41a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3092498003, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARgXgrVBneDJB7osnW7HJVMh0rJ0mzy9ya557w97RAtSKnLQc2wx56B7euDeMRIIyqfbC7/vXgcDGBA=='}} |
| 0:05:29.924389 | LOG | Server ----------> DUT |
| 0:05:29.928387 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:29.931385 | LOG | Send Test Command RxAppCntReq process starts |
| 0:05:34.915570 | LOG | PUSH_ACK: 02 3805 01 |
| 0:05:34.917551 | LOG | PUSH_DATA: Protocol version = 02, Token = 3805, Identifier = 00, JSON = {'rxpk': [{'tmst': 3095501046, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAWggBWvt2jOPa'}]} |
| 0:05:34.918552 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 085a, FOpts: ), FPort: 01, FRMPayload: 039a, MIC: 768ce3da) |
| 0:05:34.919550 | LOG | Server <---------- DUT |
| 0:05:34.921550 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0547, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 677d29ce) |
| 0:05:34.923548 | LOG | Frame command sent to the DUT |
| 0:05:34.925547 | LOG | PULL_RESP: Protocol version = 02, Token = 4189, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3097501046, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAARwXg6md9Kc4='}} |
| 0:05:34.926548 | LOG | Server ----------> DUT |
| 0:05:34.930544 | LOG | TX_ACK: 02 4189 05 3834383419003400 |
| 0:05:36.604478 | LOG | PULL_DATA: 02 8db3 02 3834383419003400 |
| 0:05:36.608476 | LOG | PULL_ACK: 02 8db3 04 |
| 0:05:39.923028 | LOG | PUSH_ACK: 02 3806 01 |
| 0:05:39.926024 | LOG | PUSH_DATA: Protocol version = 02, Token = 3806, Identifier = 00, JSON = {'rxpk': [{'tmst': 3100513656, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 16, 'data': 'QCAgICCAWwjg2Wzqdq93nw=='}]} |
| 0:05:39.928023 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 085b, FOpts: ), FPort: e0, FRMPayload: 099b03, MIC: 76af779f) |
| 0:05:39.929023 | LOG | Server <---------- DUT |
| 0:05:39.931021 | LOG | Answer in payload: 9b03 |
| 0:05:39.932021 | LOG | Frame Command Payload in the Answer: 099b03 |

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| 0:05:39.938017 | LOG | RX Count received by DUT: 923 |
| 0:05:39.941017 | LOG | Send Test Command RxAppCntReq process completed |
| 0:05:39.950011 | LOG | End Test Step: Test packet error rate for SF12BW125 using RX2 window |
| 0:05:39.953009 | LOG | Partial Verdict: PASS |
| 0:05:39.957007 | LOG | ========== |
| 0:05:39.963005 | LOG | ========== |
| 0:05:39.966003 | LOG | Start Test Step: Test packet error rate for SF11BW125 using RX2 window |
| 0:05:39.980993 | LOG | Send RXParamSetupReq process starts |
| 0:05:44.878447 | LOG | PUSH_ACK: 02 3808 01 |
| 0:05:44.880446 | LOG | PUSH_DATA: Protocol version = 02, Token = 3808, Identifier = 00, JSON = {'rxpk': [{'tmst': 3105508344, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAXAgBVQKNypHT'}]} |
| 0:05:44.881445 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 085c, FOpts: ), FPort: 01, FRMPayload: 039b, MIC: 8dca91d3) |
| 0:05:44.883444 | LOG | Server <---------- DUT |
| 0:05:44.885443 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0548, FOpts: ), FPort: 00, FRMPayload: 0501d2ad84), MIC: 58ebdbb8) |
| 0:05:44.888442 | LOG | PULL_RESP: Protocol version = 02, Token = d8f3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3107508344, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAASAUAf2oR5TNY69u4'}} |
| 0:05:44.889442 | LOG | Server ----------> DUT |
| 0:05:44.893440 | LOG | TX_ACK: 02 d8f3 05 3834383419003400 |
| 0:05:46.775124 | LOG | PULL_DATA: 02 c6ac 02 3834383419003400 |
| 0:05:46.776123 | LOG | PULL_ACK: 02 c6ac 04 |
| 0:05:49.889819 | LOG | PUSH_ACK: 02 3809 01 |
| 0:05:49.892818 | LOG | PUSH_DATA: Protocol version = 02, Token = 3809, Identifier = 00, JSON = {'rxpk': [{'tmst': 3110516450, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCXQgFBwEhCDQIok8='}]} |
| 0:05:49.893819 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 085d, FOpts: 0507), FPort: 01, FRMPayload: 039b, MIC: 3408a24f) |
| 0:05:49.895816 | LOG | Server <---------- DUT |
| 0:05:49.896816 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:49.898814 | LOG | Command Answer: 0507 |
| 0:05:49.916804 | LOG | MAC command communication completed |
| 0:05:49.928798 | LOG | Send Test Command RxAppCntReq process starts |
| 0:05:54.930700 | LOG | PUSH_ACK: 02 380a 01 |
| 0:05:54.932699 | LOG | PUSH_DATA: Protocol version = 02, Token = 380a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3115519378, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCXggFBwHpHa1mFlA='}]} |
| 0:05:54.934699 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 085e, FOpts: 0507), FPort: 01, FRMPayload: 039b, MIC: ad661650) |
| 0:05:54.935697 | LOG | Server <---------- DUT |
| 0:05:54.938665 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0549, FOpts: ), FPort: e0, FRMPayload: 09), MIC: cff816d5) |
| 0:05:54.940664 | LOG | Frame command sent to the DUT |
| 0:05:54.942663 | LOG | PULL_RESP: Protocol version = 02, Token = 13bb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3117519378, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAASQXg9M/4FtU='}} |
| 0:05:54.944662 | LOG | Server ----------> DUT |
| 0:05:54.947660 | LOG | TX_ACK: 02 13bb 05 3834383419003400 |

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| 0:05:56.834618 | LOG | PULL_DATA: 02 8951 02 3834383419003400 |
| 0:05:56.836617 | LOG | PULL_ACK: 02 8951 04 |
| 0:05:59.930859 | LOG | PUSH_ACK: 02 380b 01 |
| 0:05:59.932857 | LOG | PUSH_DATA: Protocol version = 02, Token = 380b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3120525539, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 16, 'data': 'QCAgICCAXwjg9WoKmts+LQ=='}]} |
| 0:05:59.934855 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 085f, FOpts: ), FPort: e0, FRMPayload: 099c03, MIC: 9adb3e2d) |
| 0:05:59.935855 | LOG | Server <---------- DUT |
| 0:05:59.937853 | LOG | Answer in payload: 9c03 |
| 0:05:59.939852 | LOG | Frame Command Payload in the Answer: 099c03 |
| 0:05:59.944849 | LOG | RX Count received by DUT: 924 |
| 0:05:59.946848 | LOG | Send Test Command RxAppCntReq process completed |
| 0:05:59.949818 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:04.919345 | LOG | PUSH_ACK: 02 380c 01 |
| 0:06:04.924343 | LOG | PUSH_DATA: Protocol version = 02, Token = 380c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3125520243, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAYAgBMn7Hdt6o'}]} |
| 0:06:04.927340 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0860, FOpts: ), FPort: 01, FRMPayload: 039c, MIC: c776dea8) |
| 0:06:04.929340 | LOG | Server <---------- DUT |
| 0:06:04.931339 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 054a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5a3abdab) |
| 0:06:04.933338 | LOG | Frame command sent to the DUT |
| 0:06:04.934337 | LOG | PULL_RESP: Protocol version = 02, Token = 82f1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3127520243, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAASgXgeGgrrl/BiuGl8aKNsC9Bj2Czza5FGQJZb0Y+GxcCOeLN4AJVNGlUic0bSVxR3yQ6ZSfpWjq9qw=='}} |
| 0:06:04.935337 | LOG | Server ----------> DUT |
| 0:06:04.940332 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:04.944330 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:07.035382 | LOG | PULL_DATA: 02 fbf7 02 3834383419003400 |
| 0:06:07.039380 | LOG | PULL_ACK: 02 fbf7 04 |
| 0:06:09.906750 | LOG | PUSH_ACK: 02 380d 01 |
| 0:06:09.908749 | LOG | PUSH_DATA: Protocol version = 02, Token = 380d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3130523245, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAYQgBonWdh5GG'}]} |
| 0:06:09.910748 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0861, FOpts: ), FPort: 01, FRMPayload: 039d, MIC: 9d879186) |
| 0:06:09.911747 | LOG | Server <---------- DUT |
| 0:06:09.913746 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 054b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 555074df) |
| 0:06:09.916744 | LOG | Frame command sent to the DUT |
| 0:06:09.918743 | LOG | PULL_RESP: Protocol version = 02, Token = fe4e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3132523245, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': |

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| | | 'YCAgICAASwXgFuVh3eFY+dXgArfinzIdSpQ6OI7SLk+3I/Gg3JJiwKi0I7+S5+JhvBJ96hJ3WgHBYcGOVVB03w=='}} |
| 0:06:09.919743 | LOG | Server ----------> DUT |
| 0:06:09.924740 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:09.963717 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:14.908907 | LOG | PUSH_ACK: 02 380f 01 |
| 0:06:14.911905 | LOG | PUSH_DATA: Protocol version = 02, Token = 380f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3135527567, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAYggBOc1g88cJ'}]} |
| 0:06:14.912904 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0862, FOpts: ), FPort: 01, FRMPayload: 039e, MIC: 60f3c709) |
| 0:06:14.914903 | LOG | Server <---------- DUT |
| 0:06:14.916902 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 054c, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 3770b073) |
| 0:06:14.919900 | LOG | Frame command sent to the DUT |
| 0:06:14.921900 | LOG | PULL_RESP: Protocol version = 02, Token = 7211, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3137527567, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAATAXgB+urvMzgGbR0GUEoLdT3zB/rvEudPWtdDDiFkgAJnKoBysn4Z0FyBKgOm1qrVFF2RzQMN3Cwcw=='}} |
| 0:06:14.923899 | LOG | Server ----------> DUT |
| 0:06:14.927896 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:14.930896 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:17.234542 | LOG | PULL_DATA: 02 e006 02 3834383419003400 |
| 0:06:17.236542 | LOG | PULL_ACK: 02 e006 04 |
| 0:06:19.915020 | LOG | PUSH_ACK: 02 3810 01 |
| 0:06:19.917019 | LOG | PUSH_DATA: Protocol version = 02, Token = 3810, Identifier = 00, JSON = {'rxpk': [{'tmst': 3140530566, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAYwgBB2Qwgkef'}]} |
| 0:06:19.918017 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0863, FOpts: ), FPort: 01, FRMPayload: 039f, MIC: 3082479f) |
| 0:06:19.919017 | LOG | Server <---------- DUT |
| 0:06:19.922015 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 054d, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 58bbca2f) |
| 0:06:19.925013 | LOG | Frame command sent to the DUT |
| 0:06:19.926013 | LOG | PULL_RESP: Protocol version = 02, Token = 3e01, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3142530566, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAATQXgKvQLxZzjCe0nTxX0GhQ62A8z4Szc6LM/SPBpC4NhqFaHwzdVCl0/gy+/hgk/ZkcebdEzWLvKLw=='}} |
| 0:06:19.928012 | LOG | Server ----------> DUT |
| 0:06:19.931012 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:19.935009 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:24.917425 | LOG | PUSH_ACK: 02 3811 01 |
| 0:06:24.920423 | LOG | PUSH_DATA: Protocol version = 02, Token = 3811, Identifier = 00, JSON = {'rxpk': [{'tmst': 3145533602, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAZAgBb9R643rl'}]} |

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| 0:06:24.921423 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0864, FOpts: ), FPort: 01, FRMPayload: 03a0, MIC: 7ae37ae5) |
| 0:06:24.923422 | LOG | Server <---------- DUT |
| 0:06:24.924421 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 054e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a3c42749) |
| 0:06:24.926420 | LOG | Frame command sent to the DUT |
| 0:06:24.928419 | LOG | PULL_RESP: Protocol version = 02, Token = 74ff, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3147533602, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAATgXgqNrDuz3QnE9Xh8Jy4LTiGRicixOeSqqTI/tX8XxZ4+ZmWx41KsQRbRibOJCglAIY5Pcro8QnSQ=='}} |
| 0:06:24.930417 | LOG | Server ----------> DUT |
| 0:06:24.933416 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:24.937415 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:27.245102 | LOG | PULL_DATA: 02 59a9 02 3834383419003400 |
| 0:06:27.247100 | LOG | PULL_ACK: 02 59a9 04 |
| 0:06:29.920581 | LOG | PUSH_ACK: 02 3812 01 |
| 0:06:29.922580 | LOG | PUSH_DATA: Protocol version = 02, Token = 3812, Identifier = 00, JSON = {'rxpk': [{'tmst': 3150536595, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAZQgBSg/6OgE+'}]} |
| 0:06:29.923581 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0865, FOpts: ), FPort: 01, FRMPayload: 03a1, MIC: fa3a013e) |
| 0:06:29.924581 | LOG | Server <---------- DUT |
| 0:06:29.926578 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 054f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5702bbed) |
| 0:06:29.928577 | LOG | Frame command sent to the DUT |
| 0:06:29.930576 | LOG | PULL_RESP: Protocol version = 02, Token = 74a1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3152536595, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAATwXgSzbx9nn0z9gs/oAYrWrjnWUa5doxcbO/sfDqsGyNBGSHuwOXtgNkBaf+E2VnEZSvum9QVwK77Q=='}} |
| 0:06:29.931575 | LOG | Server ----------> DUT |
| 0:06:29.935572 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:29.941569 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:34.923680 | LOG | PUSH_ACK: 02 3813 01 |
| 0:06:34.925679 | LOG | PUSH_DATA: Protocol version = 02, Token = 3813, Identifier = 00, JSON = {'rxpk': [{'tmst': 3155540995, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAZggBoPordrqe'}]} |
| 0:06:34.926678 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0866, FOpts: ), FPort: 01, FRMPayload: 03a2, MIC: 2b76ba9e) |
| 0:06:34.928677 | LOG | Server <---------- DUT |
| 0:06:34.929676 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0550, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c636543c) |
| 0:06:34.931674 | LOG | Frame command sent to the DUT |
| 0:06:34.933675 | LOG | PULL_RESP: Protocol version = 02, Token = 72e0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3157540995, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, |

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| | | 'size': 64, 'data': 'YCAgICAAUAXgkKyIuJWdq0GNsxvcaDKFXAMS2u8gBbZ/dxZQzwwgocd8+VYTaLkEnLqXllir6tZvUBwhxjZUPA=='}} |
| 0:06:34.934673 | LOG | Server ----------> DUT |
| 0:06:34.937665 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:34.942667 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:37.455252 | LOG | PULL_DATA: 02 f486 02 3834383419003400 |
| 0:06:37.459250 | LOG | PULL_ACK: 02 f486 04 |
| 0:06:39.927848 | LOG | PUSH_ACK: 02 3814 01 |
| 0:06:39.929846 | LOG | PUSH_DATA: Protocol version = 02, Token = 3814, Identifier = 00, JSON = {'rxpk': [{'tmst': 3160546749, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAZwgBLevgbVMz'}]} |
| 0:06:39.930845 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0867, FOpts: ), FPort: 01, FRMPayload: 03a3, MIC: e06d5333) |
| 0:06:39.932845 | LOG | Server <---------- DUT |
| 0:06:39.934843 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0551, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 6e4397c0) |
| 0:06:39.936842 | LOG | Frame command sent to the DUT |
| 0:06:39.938840 | LOG | PULL_RESP: Protocol version = 02, Token = 2c3d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3162546749, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAUQXgBuoLUVNiaKG/cVk5pd9M8lfDordVfs0gWe77BGvGQDpd6WKp7+Q5sGm294ZTyMJHpwJVbkOXwA=='}} |
| 0:06:39.940840 | LOG | Server ----------> DUT |
| 0:06:39.944837 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:39.948835 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:44.933598 | LOG | PUSH_ACK: 02 3816 01 |
| 0:06:44.936597 | LOG | PUSH_DATA: Protocol version = 02, Token = 3816, Identifier = 00, JSON = {'rxpk': [{'tmst': 3165551127, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAaAgBW51rmzDb'}]} |
| 0:06:44.937596 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0868, FOpts: ), FPort: 01, FRMPayload: 03a4, MIC: 6b9b30db) |
| 0:06:44.939595 | LOG | Server <---------- DUT |
| 0:06:44.941594 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0552, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2b24d821) |
| 0:06:44.943593 | LOG | Frame command sent to the DUT |
| 0:06:44.945592 | LOG | PULL_RESP: Protocol version = 02, Token = eb5d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3167551127, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAUgXg4hb6qI0Oq+KL2MXYjOtPA/jgTk+XflktyrmXxrYdB3rCPhUBZzuwxoVX+hrbEQb9PgpHKyTYIQ=='}} |
| 0:06:44.946591 | LOG | Server ----------> DUT |
| 0:06:44.949589 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:44.952587 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:47.465127 | LOG | PULL_DATA: 02 a144 02 3834383419003400 |
| 0:06:47.467126 | LOG | PULL_ACK: 02 a144 04 |
| 0:06:49.937804 | LOG | PUSH_ACK: 02 3817 01 |
| 0:06:49.940802 | LOG | PUSH_DATA: Protocol version = 02, Token = 3817, Identifier = 00, JSON = {'rxpk': [{'tmst': 3170554145, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAaQgBq7x3o4xK'}]} |
| 0:06:49.941802 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0869, FOpts: ), FPort: 01, FRMPayload: 03a5, MIC: 77a38c4a) |
| 0:06:49.942801 | LOG | Server <---------- DUT |
| 0:06:49.944800 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0553, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 8c4c3e8a) |
| 0:06:49.947798 | LOG | Frame command sent to the DUT |
| 0:06:49.949798 | LOG | PULL_RESP: Protocol version = 02, Token = 01eb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3172554145, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAUwXgxKSbmhfEdxMBBsdWUOrQM3WaF2MNynpAJTFkinGjslwpXXkgjBdzyr656JbFr4BfSCB7jEw+ig=='}} |
| 0:06:49.950796 | LOG | Server ----------> DUT |
| 0:06:49.954794 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:49.958792 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:54.940904 | LOG | PUSH_ACK: 02 3818 01 |
| 0:06:54.942904 | LOG | PUSH_DATA: Protocol version = 02, Token = 3818, Identifier = 00, JSON = {'rxpk': [{'tmst': 3175557154, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAaggBCNsBP3rC'}]} |
| 0:06:54.944903 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 086a, FOpts: ), FPort: 01, FRMPayload: 03a6, MIC: 013f7ac2) |
| 0:06:54.945902 | LOG | Server <---------- DUT |
| 0:06:54.947900 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0554, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7a341522) |
| 0:06:54.950900 | LOG | Frame command sent to the DUT |
| 0:06:54.951899 | LOG | PULL_RESP: Protocol version = 02, Token = 8c56, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3177557154, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAVAXgpZOmQ/P/uwWEh6dPILxbUwqeS2wjOfbO40fa0GHxmMP0qNJzcLktwtjUOES1/L/MSQD5ejQVIg=='}} |
| 0:06:54.953896 | LOG | Server ----------> DUT |
| 0:06:54.958893 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:54.962892 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:57.474445 | LOG | PULL_DATA: 02 8bea 02 3834383419003400 |
| 0:06:57.476444 | LOG | PULL_ACK: 02 8bea 04 |
| 0:06:59.944042 | LOG | PUSH_ACK: 02 381a 01 |
| 0:06:59.946041 | LOG | PUSH_DATA: Protocol version = 02, Token = 381a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3180560133, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAawgBnEq66r8e'}]} |
| 0:06:59.948040 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 086b, FOpts: ), FPort: 01, FRMPayload: 03a7, MIC: baeabf1e) |
| 0:06:59.949039 | LOG | Server <---------- DUT |
| 0:06:59.950038 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0555, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 799949c7) |
| 0:06:59.952037 | LOG | Frame command sent to the DUT |

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| 0:06:59.954037 | LOG | PULL_RESP: Protocol version = 02, Token = f666, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3182560133, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAVQXg4lFg2WNplWpqoxZdLm+6M5JCrFYctsBH7GzwpxwpkzUhxU1+yfmfoRGwWn46SaLB6xWOeZlJxw==''}} |
| 0:06:59.956035 | LOG | Server ----------> DUT |
| 0:06:59.960033 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:59.964048 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:04.947350 | LOG | PUSH_ACK: 02 381b 01 |
| 0:07:04.949349 | LOG | PUSH_DATA: Protocol version = 02, Token = 381b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3185564496, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAbAgBhkOXhAuP'}]} |
| 0:07:04.951348 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 086c, FOpts: ), FPort: 01, FRMPayload: 03a8, MIC: 97840b8f) |
| 0:07:04.953347 | LOG | Server <---------- DUT |
| 0:07:04.955346 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0556, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 47bf3113) |
| 0:07:04.957344 | LOG | Frame command sent to the DUT |
| 0:07:04.959343 | LOG | PULL_RESP: Protocol version = 02, Token = 005d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3187564496, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAVgXggnr8S9DDHbIQ5im8nK7rjvwxnS5VPcUQe719/rPOfvScLFn+oI4clwq+849h/gZaD4TtR78xEw==''}} |
| 0:07:04.961342 | LOG | Server ----------> DUT |
| 0:07:04.964341 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:04.967339 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:07.484348 | LOG | PULL_DATA: 02 1f1a 02 3834383419003400 |
| 0:07:07.489347 | LOG | PULL_ACK: 02 1f1a 04 |
| 0:07:09.950944 | LOG | PUSH_ACK: 02 381c 01 |
| 0:07:09.952943 | LOG | PUSH_DATA: Protocol version = 02, Token = 381c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3190568874, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAbQgBHrwJCTWF'}]} |
| 0:07:09.953944 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 086d, FOpts: ), FPort: 01, FRMPayload: 03a9, MIC: 09093585) |
| 0:07:09.955916 | LOG | Server <---------- DUT |
| 0:07:09.992822 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0557, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 80002abf) |
| 0:07:09.995822 | LOG | Frame command sent to the DUT |
| 0:07:09.996820 | LOG | PULL_RESP: Protocol version = 02, Token = 2d12, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3192568874, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAVwXg9g1SIMLVaEta3qek3+Dqo6AAJkZiAIbKDFjo8+cS8UxvmxQniGtbIepGhbcD6S4aUWbFgAAqvw==''}} |
| 0:07:09.997820 | LOG | Server ----------> DUT |
| 0:07:10.001787 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:10.004784 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:14.954589 | LOG | PUSH_ACK: 02 381e 01 |

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| 0:07:14.956586 | LOG | PUSH_DATA: Protocol version = 02, Token = 381e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3195573214, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAbggBEveKSxgw'}]} |
| 0:07:14.958588 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 086e, FOpts: ), FPort: 01, FRMPayload: 03aa, MIC: 8a4b1830) |
| 0:07:14.959585 | LOG | Server <---------- DUT |
| 0:07:14.961583 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0558, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: df200ad4) |
| 0:07:14.964582 | LOG | Frame command sent to the DUT |
| 0:07:14.965581 | LOG | PULL_RESP: Protocol version = 02, Token = 2dab, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3197573214, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAWAXgL7T0ZqdRUGHK2swkCYYZfI4kjWSvfy3GHicUZNPmZyL5HONHN0mrRMn2aZUv5/m2WHyO3yAK1A==''}} |
| 0:07:14.967582 | LOG | Server ----------> DUT |
| 0:07:14.972578 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:14.977575 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:17.694198 | LOG | PULL_DATA: 02 bb74 02 3834383419003400 |
| 0:07:17.696197 | LOG | PULL_ACK: 02 bb74 04 |
| 0:07:19.959914 | LOG | PUSH_ACK: 02 381f 01 |
| 0:07:19.961911 | LOG | PUSH_DATA: Protocol version = 02, Token = 381f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3200576207, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAbwgB6c2zHsiM'}]} |
| 0:07:19.962915 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 086f, FOpts: ), FPort: 01, FRMPayload: 03ab, MIC: b31ec88c) |
| 0:07:19.963909 | LOG | Server <---------- DUT |
| 0:07:19.965913 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0559, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 47618e79) |
| 0:07:19.966912 | LOG | Frame command sent to the DUT |
| 0:07:19.968907 | LOG | PULL_RESP: Protocol version = 02, Token = 2eaf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3202576207, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAWQXgONWqgUAptketlIXQVP7yOTSFi6XHBHTVQsSklGMl8NQutTw95tFNd+uIJxk3kOABZtviR2GOeQ==''}} |
| 0:07:19.969935 | LOG | Server ----------> DUT |
| 0:07:19.973905 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:19.983899 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:24.963249 | LOG | PUSH_ACK: 02 3820 01 |
| 0:07:24.965249 | LOG | PUSH_DATA: Protocol version = 02, Token = 3820, Identifier = 00, JSON = {'rxpk': [{'tmst': 3205579130, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAcAgBIv69Wfpi'}]} |
| 0:07:24.966249 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0870, FOpts: ), FPort: 01, FRMPayload: 03ac, MIC: bd59fa62) |
| 0:07:24.968246 | LOG | Server <---------- DUT |
| 0:07:24.970245 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 055a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 76c3036b) |

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| 0:07:24.972244 | LOG | Frame command sent to the DUT |
| 0:07:24.974243 | LOG | PULL_RESP: Protocol version = 02, Token = ea27, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3207579130, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAWgXgG6/WCho3NzNog9dL+8vckP6N6Vno6lXwSn4590Rzyx+qqWWYjkaCs4dkXoye5tNE7IDzdsMDaw=='}} |
| 0:07:24.976242 | LOG | Server ----------> DUT |
| 0:07:24.980239 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:24.983240 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:27.704319 | LOG | PULL_DATA: 02 3706 02 3834383419003400 |
| 0:07:27.706318 | LOG | PULL_ACK: 02 3706 04 |
| 0:07:29.966002 | LOG | PUSH_ACK: 02 3821 01 |
| 0:07:29.969001 | LOG | PUSH_DATA: Protocol version = 02, Token = 3821, Identifier = 00, JSON = {'rxpk': [{'tmst': 3210582093, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAcQgBZGYKYKml'}]} |
| 0:07:29.971000 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0871, FOpts: ), FPort: 01, FRMPayload: 03ad, MIC: 0a60a9a5) |
| 0:07:29.973000 | LOG | Server <---------- DUT |
| 0:07:29.976996 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 055b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 45e9d88f) |
| 0:07:29.979994 | LOG | Frame command sent to the DUT |
| 0:07:29.981994 | LOG | PULL_RESP: Protocol version = 02, Token = cb40, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3212582093, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAWwXg+/Q8tfNntNvI22sFTq+w+rd7He96l4cWgvuzS9LNL0JTYzIunpfNBJS7Lt+eeMZKnR29RenYjw=='}} |
| 0:07:29.983992 | LOG | Server ----------> DUT |
| 0:07:29.987989 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:29.993987 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:34.968997 | LOG | PUSH_ACK: 02 3822 01 |
| 0:07:34.970996 | LOG | PUSH_DATA: Protocol version = 02, Token = 3822, Identifier = 00, JSON = {'rxpk': [{'tmst': 3215586446, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAcggB7xOeEFQY'}]} |
| 0:07:34.972994 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0872, FOpts: ), FPort: 01, FRMPayload: 03ae, MIC: 9e105418) |
| 0:07:34.973994 | LOG | Server <---------- DUT |
| 0:07:34.975993 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 055c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 81fbb0dd) |
| 0:07:34.978991 | LOG | Frame command sent to the DUT |
| 0:07:34.980990 | LOG | PULL_RESP: Protocol version = 02, Token = 49d6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3217586446, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAXAXglLiBAC1k8t4r9HWFZEB49tR+QJZGtjL9UI4+Lq2ECGlk9F8SlLIVha7JMWLwc8eHbRkCgfuw3Q=='}} |
| 0:07:34.982988 | LOG | Server ----------> DUT |
| 0:07:34.985987 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:34.988985 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:37.714024 | LOG | PULL_DATA: 02 66d3 02 3834383419003400 |

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| 0:07:37.719022 | LOG | PULL_ACK: 02 66d3 04 |
| 0:07:39.972741 | LOG | PUSH_ACK: 02 3823 01 |
| 0:07:39.975739 | LOG | PUSH_DATA: Protocol version = 02, Token = 3823, Identifier = 00, JSON = {'rxpk': [{'tmst': 3220590776, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAcwgBVNMmu1Rg'}]} |
| 0:07:39.976739 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0873, FOpts: ), FPort: 01, FRMPayload: 03af, MIC: 26bb5460) |
| 0:07:39.978738 | LOG | Server <---------- DUT |
| 0:07:39.980736 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 055d, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 94c93634) |
| 0:07:39.982735 | LOG | Frame command sent to the DUT |
| 0:07:39.984735 | LOG | PULL_RESP: Protocol version = 02, Token = e947, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3222590776, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAXQXg6d+rL+QbKJjm60Pkp74Kp9La77nCaVWoR5RV53U9II/584HdG9vegyzs3mC56Z+bw0kJlMk2NA==''}} |
| 0:07:39.986733 | LOG | Server ----------> DUT |
| 0:07:39.990731 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:39.995728 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:44.976996 | LOG | PUSH_ACK: 02 3825 01 |
| 0:07:44.978993 | LOG | PUSH_DATA: Protocol version = 02, Token = 3825, Identifier = 00, JSON = {'rxpk': [{'tmst': 3225595106, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAdAgBkocWNiB3'}]} |
| 0:07:44.980994 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0874, FOpts: ), FPort: 01, FRMPayload: 03b0, MIC: 16362077) |
| 0:07:44.981992 | LOG | Server <---------- DUT |
| 0:07:44.983993 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 055e, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 065759dd) |
| 0:07:44.986990 | LOG | Frame command sent to the DUT |
| 0:07:44.988963 | LOG | PULL_RESP: Protocol version = 02, Token = eecb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3227595106, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAXgXgCd4keMr08U5zct6fNkvQoQMEv4e74h5rkFqas0371kC4m0WQ8J+OSvfm0+sD1FxINm/IBldZ3Q==''}} |
| 0:07:44.989988 | LOG | Server ----------> DUT |
| 0:07:44.994985 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:44.998984 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:47.724435 | LOG | PULL_DATA: 02 a0e1 02 3834383419003400 |
| 0:07:47.726432 | LOG | PULL_ACK: 02 a0e1 04 |
| 0:07:49.981150 | LOG | PUSH_ACK: 02 3826 01 |
| 0:07:49.983151 | LOG | PUSH_DATA: Protocol version = 02, Token = 3826, Identifier = 00, JSON = {'rxpk': [{'tmst': 3230599412, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAdQgBLUr9abBH'}]} |
| 0:07:49.985150 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0875, FOpts: ), FPort: 01, FRMPayload: 03b1, MIC: fd69b047) |
| 0:07:49.986148 | LOG | Server <---------- DUT |
| 0:07:49.988148 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 055f, FOpts: ), FPort: e0, FRMPayload: |

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| | | 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5ff74ba0) |
| 0:07:49.991119 | LOG | Frame command sent to the DUT |
| 0:07:49.993118 | LOG | PULL_RESP: Protocol version = 02, Token = 140a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3232599412, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAXwXg2jtzgZtGC+l2Uly4u/HZU6rZsvAT9Wc7hnB5mwqTzUFc7RIpPz8SUm9Odfsf9kBELm5dX/dLoA=='}} |
| 0:07:49.994144 | LOG | Server ----------> DUT |
| 0:07:49.998141 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:50.001141 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:54.985555 | LOG | PUSH_ACK: 02 3827 01 |
| 0:07:54.987554 | LOG | PUSH_DATA: Protocol version = 02, Token = 3827, Identifier = 00, JSON = {'rxpk': [{'tmst': 3235602381, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAdggBYE+MfoM5'}]} |
| 0:07:54.989553 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0876, FOpts: ), FPort: 01, FRMPayload: 03b2, MIC: 8c7e8339) |
| 0:07:54.990552 | LOG | Server <---------- DUT |
| 0:07:54.992551 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0560, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 60f8e6a9) |
| 0:07:54.994550 | LOG | Frame command sent to the DUT |
| 0:07:54.996549 | LOG | PULL_RESP: Protocol version = 02, Token = b131, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3237602381, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAYAXg8H+x1jrAOp/N5I2N1Ctpcoh40qqpSKAmVvcfsFsXre8hEIe5IrQKiRCKbGPo2BJX971MYPjmqQ=='}} |
| 0:07:54.997548 | LOG | Server ----------> DUT |
| 0:07:55.000546 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:55.004545 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:57.934566 | LOG | PULL_DATA: 02 b604 02 3834383419003400 |
| 0:07:57.935566 | LOG | PULL_ACK: 02 b604 04 |
| 0:07:59.989399 | LOG | PUSH_ACK: 02 3828 01 |
| 0:07:59.991417 | LOG | PUSH_DATA: Protocol version = 02, Token = 3828, Identifier = 00, JSON = {'rxpk': [{'tmst': 3240605368, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAdwgB/78BxTZy'}]} |
| 0:07:59.993414 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0877, FOpts: ), FPort: 01, FRMPayload: 03b3, MIC: 01c53672) |
| 0:07:59.994414 | LOG | Server <---------- DUT |
| 0:07:59.996413 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0561, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 19f74013) |
| 0:07:59.998412 | LOG | Frame command sent to the DUT |
| 0:08:00.000410 | LOG | PULL_RESP: Protocol version = 02, Token = 053b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3242605368, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAYQXg95CUz2UgDyP36C78ZLrr+tT8PIQ2eylyZYR7tPzA1t8D4/ECPn7rS9lTGpegdyhMYmjWGfdAEw=='}} |
| 0:08:00.001411 | LOG | Server ----------> DUT |
| 0:08:00.006408 | LOG | Send Test Command TxFramesCtrlReq process completed |

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| 0:08:00.011417 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:04.992585 | LOG | PUSH_ACK: 02 3829 01 |
| 0:08:04.995583 | LOG | PUSH_DATA: Protocol version = 02, Token = 3829, Identifier = 00, JSON = {'rxpk': [{'tmst': 3245608393, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAeAgBXhsf88AC'}]} |
| 0:08:04.996585 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0878, FOpts: ), FPort: 01, FRMPayload: 03b4, MIC: 1ff3c002) |
| 0:08:04.998581 | LOG | Server <---------- DUT |
| 0:08:05.000553 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0562, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a024761a) |
| 0:08:05.002581 | LOG | Frame command sent to the DUT |
| 0:08:05.004579 | LOG | PULL_RESP: Protocol version = 02, Token = 1c36, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3247608393, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAYgXgBfPnfs4T24EIcu4ipmWiGVc759uiJGiwk18mvvPqNur+eB05u70bVfcxsrTO7yCpzDv4oCR2Gg==\'}} |
| 0:08:05.006578 | LOG | Server ----------> DUT |
| 0:08:05.011574 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:05.015574 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:07.944340 | LOG | PULL_DATA: 02 e443 02 3834383419003400 |
| 0:08:07.955332 | LOG | PULL_ACK: 02 e443 04 |
| 0:08:09.995574 | LOG | PUSH_ACK: 02 382a 01 |
| 0:08:09.997572 | LOG | PUSH_DATA: Protocol version = 02, Token = 382a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3250612795, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAeQgBmsLXWCGr'}]} |
| 0:08:09.998572 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0879, FOpts: ), FPort: 01, FRMPayload: 03b5, MIC: d75821ab) |
| 0:08:10.000571 | LOG | Server <---------- DUT |
| 0:08:10.002570 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0563, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 669f1db4) |
| 0:08:10.004569 | LOG | Frame command sent to the DUT |
| 0:08:10.006567 | LOG | PULL_RESP: Protocol version = 02, Token = 10c8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3252612795, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAYwXgcg3fiF+9J5IcksD8tvCrRVdsFbQRDkM1x6HuPleZ/I8UhavZXA+UxQdOTakFExtIr1g0Zp8dtA==\'}} |
| 0:08:10.008566 | LOG | Server ----------> DUT |
| 0:08:10.011564 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:10.014563 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:14.999017 | LOG | PUSH_ACK: 02 382c 01 |
| 0:08:15.001016 | LOG | PUSH_DATA: Protocol version = 02, Token = 382c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3255617166, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAeggBYR5HgfNe'}]} |
| 0:08:15.002015 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 087a, FOpts: ), FPort: 01, FRMPayload: 03b6, MIC: 4781f35e) |
| 0:08:15.003015 | LOG | Server <---------- DUT |
| 0:08:15.005014 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0564, FOpts: ), FPort: e0, FRMPayload: |

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| | | 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 442b0926) |
| 0:08:15.007012 | LOG | Frame command sent to the DUT |
| 0:08:15.008012 | LOG | PULL_RESP: Protocol version = 02, Token = 5994, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3257617166, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAZAXg+dXWtpcRnuwjXuyRcsc0fn7t7vgq8PpifKLVS2OhaZ6DFDd8f5e53Vio0Wr18mF82/tVRCsJJg=='}} |
| 0:08:15.010010 | LOG | Server ----------> DUT |
| 0:08:15.014010 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:15.017007 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:17.954089 | LOG | PULL_DATA: 02 b7aa 02 3834383419003400 |
| 0:08:17.956089 | LOG | PULL_ACK: 02 b7aa 04 |
| 0:08:20.004923 | LOG | PUSH_ACK: 02 382d 01 |
| 0:08:20.006922 | LOG | PUSH_DATA: Protocol version = 02, Token = 382d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3260621575, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAewgBohKM5sQE'}]} |
| 0:08:20.008921 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 087b, FOpts: ), FPort: 01, FRMPayload: 03b7, MIC: 8ce6c404) |
| 0:08:20.009922 | LOG | Server <---------- DUT |
| 0:08:20.011919 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0565, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 45371e4c) |
| 0:08:20.013917 | LOG | Frame command sent to the DUT |
| 0:08:20.015917 | LOG | PULL_RESP: Protocol version = 02, Token = b031, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3262621575, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAZQXgQkvBGw5GnWa9qQFma7BQ9P+RKNQa/k5RsgeKZg5Mtt0nf9A1jbsdKIzsADYxcxEEfLklRTceTA=='}} |
| 0:08:20.017916 | LOG | Server ----------> DUT |
| 0:08:20.020915 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:20.024912 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:25.009079 | LOG | PUSH_ACK: 02 382f 01 |
| 0:08:25.011078 | LOG | PUSH_DATA: Protocol version = 02, Token = 382f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3265624600, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAfAgB1Sg03JRU'}]} |
| 0:08:25.013076 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 087c, FOpts: ), FPort: 01, FRMPayload: 03b8, MIC: 34dc9454) |
| 0:08:25.014078 | LOG | Server <---------- DUT |
| 0:08:25.016075 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0566, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4d09069c) |
| 0:08:25.018074 | LOG | Frame command sent to the DUT |
| 0:08:25.020072 | LOG | PULL_RESP: Protocol version = 02, Token = 5ff1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3267624600, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAZgXgJu8FxMK+8B7SwNuLfxyCOF71QSfDSR+H2mI1mZZi/9PEUfgij86KB5m57TBIV8OiO0RPTQkGnA=='}} |
| 0:08:25.022071 | LOG | Server ----------> DUT |
| 0:08:25.026069 | LOG | Send Test Command TxFramesCtrlReq process completed |

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| 0:08:25.030067 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:27.964308 | LOG | PULL_DATA: 02 f040 02 3834383419003400 |
| 0:08:27.966307 | LOG | PULL_ACK: 02 f040 04 |
| 0:08:30.013255 | LOG | PUSH_ACK: 02 3830 01 |
| 0:08:30.015254 | LOG | PUSH_DATA: Protocol version = 02, Token = 3830, Identifier = 00, JSON = {'rxpk': [{'tmst': 3270627587, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAfQgBtpS3fuVR'}]} |
| 0:08:30.016253 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 087d, FOpts: ), FPort: 01, FRMPayload: 03b9, MIC: b77ee551) |
| 0:08:30.018252 | LOG | Server <---------- DUT |
| 0:08:30.020251 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0567, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c5e55d68) |
| 0:08:30.022250 | LOG | Frame command sent to the DUT |
| 0:08:30.024249 | LOG | PULL_RESP: Protocol version = 02, Token = e183, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3272627587, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAZwXgQYnbmRuEc08pcjvONifsFRXN7uf27uGuP7gsIQCpxqxIwjMD5JEIBLPKlCiBcv2oI/uKxeVdaA=='}} |
| 0:08:30.026248 | LOG | Server ----------> DUT |
| 0:08:30.030246 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:30.034243 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:35.014976 | LOG | PUSH_ACK: 02 3831 01 |
| 0:08:35.016975 | LOG | PUSH_DATA: Protocol version = 02, Token = 3831, Identifier = 00, JSON = {'rxpk': [{'tmst': 3275630606, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAfggBIvugDstH'}]} |
| 0:08:35.018975 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 087e, FOpts: ), FPort: 01, FRMPayload: 03ba, MIC: a00ecb47) |
| 0:08:35.019973 | LOG | Server <---------- DUT |
| 0:08:35.021972 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0568, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 122f3152) |
| 0:08:35.024970 | LOG | Frame command sent to the DUT |
| 0:08:35.026969 | LOG | PULL_RESP: Protocol version = 02, Token = 49df, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3277630606, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAaAXgPh/Us3CJOmXYcHoPOTkPayGPCdofUFLlYA/25VysZ5MejhZA9fn/8YQjU0Y3q9Xln6j/Ei8xUg=='}} |
| 0:08:35.027968 | LOG | Server ----------> DUT |
| 0:08:35.031966 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:35.035963 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:38.174291 | LOG | PULL_DATA: 02 fbeb 02 3834383419003400 |
| 0:08:38.178285 | LOG | PULL_ACK: 02 fbeb 04 |
| 0:08:40.018240 | LOG | PUSH_ACK: 02 3832 01 |
| 0:08:40.020243 | LOG | PUSH_DATA: Protocol version = 02, Token = 3832, Identifier = 00, JSON = {'rxpk': [{'tmst': 3280633641, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAfwgBEg126BcC'}]} |
| 0:08:40.021237 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 087f, FOpts: ), FPort: 01, FRMPayload: 03bb, MIC: 76e81702) |
| 0:08:40.023241 | LOG | Server <---------- DUT |

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| 0:08:40.025235 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0569, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fd3eeb04) |
| 0:08:40.027234 | LOG | Frame command sent to the DUT |
| 0:08:40.029234 | LOG | PULL_RESP: Protocol version = 02, Token = 6c35, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3282633641, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAaQXgk2mkG9fF7XhgKkAajuslgN5fXgb3iYc8Tg1yBxRwCYD5U/Sl6mqy6PTuOAuJLl/KruZz/T7rBA=='}} |
| 0:08:40.031232 | LOG | Server ----------> DUT |
| 0:08:40.034247 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:40.037245 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:45.018662 | LOG | PUSH_ACK: 02 3834 01 |
| 0:08:45.020661 | LOG | PUSH_DATA: Protocol version = 02, Token = 3834, Identifier = 00, JSON = {'rxpk': [{'tmst': 3285638010, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAgAgByEu3X66V'}]} |
| 0:08:45.021659 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0880, FOpts: ), FPort: 01, FRMPayload: 03bc, MIC: b75fae95) |
| 0:08:45.023658 | LOG | Server <---------- DUT |
| 0:08:45.024658 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 056a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 91b9820a) |
| 0:08:45.027656 | LOG | Frame command sent to the DUT |
| 0:08:45.028656 | LOG | PULL_RESP: Protocol version = 02, Token = 8cad, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3287638010, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAagXgpwKymOidlKedA8E2uxL/CfVSbez2qLB3ZKLa7jl1S2DyqYajEEKay9XdWncnuDbbDrx8kbmCCg=='}} |
| 0:08:45.029655 | LOG | Server ----------> DUT |
| 0:08:45.033652 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:45.035651 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:48.184444 | LOG | PULL_DATA: 02 38dc 02 3834383419003400 |
| 0:08:48.187447 | LOG | PULL_ACK: 02 38dc 04 |
| 0:08:50.025396 | LOG | PUSH_ACK: 02 3835 01 |
| 0:08:50.028395 | LOG | PUSH_DATA: Protocol version = 02, Token = 3835, Identifier = 00, JSON = {'rxpk': [{'tmst': 3290641002, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAgQgB4KxMGNIr'}]} |
| 0:08:50.029396 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0881, FOpts: ), FPort: 01, FRMPayload: 03bd, MIC: 4c18d22b) |
| 0:08:50.030396 | LOG | Server <---------- DUT |
| 0:08:50.032393 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 056b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 30d4bdd0) |
| 0:08:50.034393 | LOG | Frame command sent to the DUT |
| 0:08:50.036390 | LOG | PULL_RESP: Protocol version = 02, Token = ecc6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3292641002, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAawXgdz2KSwj6siPHVu5kJ2Q83W1GUKxZGJArlJbw5ItJbA5JSzARM6x5PaIoh1IN2u//vt/mMNS90A=='}} |

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| 0:08:50.037390 | LOG | Server ----------> DUT |
| 0:08:50.041388 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:50.045385 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:55.027257 | LOG | PUSH_ACK: 02 3836 01 |
| 0:08:55.030255 | LOG | PUSH_DATA: Protocol version = 02, Token = 3836, Identifier = 00, JSON = {'rxpk': [{'tmst': 3295644003, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAgggBfr6qS4h5'}]} |
| 0:08:55.031254 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0882, FOpts: ), FPort: 01, FRMPayload: 03be, MIC: aa4b8879) |
| 0:08:55.032254 | LOG | Server <---------- DUT |
| 0:08:55.034254 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 056c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b09072e9) |
| 0:08:55.036252 | LOG | Frame command sent to the DUT |
| 0:08:55.038251 | LOG | PULL_RESP: Protocol version = 02, Token = 0339, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3297644003, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAbAXgKjQzu3JAFHczUeWG9kZ4Tdz0wtKjE9LrVr4PVu3PWGhVvwlVe25896z9ZHZXIZ0Ffpr8sJBy6Q=='}} |
| 0:08:55.039250 | LOG | Server ----------> DUT |
| 0:08:55.043248 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:08:55.047245 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:08:58.193856 | LOG | PULL_DATA: 02 f191 02 3834383419003400 |
| 0:08:58.194856 | LOG | PULL_ACK: 02 f191 04 |
| 0:09:00.030492 | LOG | PUSH_ACK: 02 3837 01 |
| 0:09:00.035490 | LOG | PUSH_DATA: Protocol version = 02, Token = 3837, Identifier = 00, JSON = {'rxpk': [{'tmst': 3300647003, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAgwgBwBXZkuO2'}]} |
| 0:09:00.038490 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0883, FOpts: ), FPort: 01, FRMPayload: 03bf, MIC: d992e3b6) |
| 0:09:00.040487 | LOG | Server <---------- DUT |
| 0:09:00.042486 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 056d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: ad286f2c) |
| 0:09:00.044489 | LOG | Frame command sent to the DUT |
| 0:09:00.046484 | LOG | PULL_RESP: Protocol version = 02, Token = f5f6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3302647003, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAbQXgQH7Kw7lochXaiiaXETotsDA5v1DNOk2j+4DCc7AIaThFwutsMxgWoN0ewnQV4/JLzDMirShvLA=='}} |
| 0:09:00.047485 | LOG | Server ----------> DUT |
| 0:09:00.051482 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:00.056478 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:05.033226 | LOG | PUSH_ACK: 02 3838 01 |
| 0:09:05.035223 | LOG | PUSH_DATA: Protocol version = 02, Token = 3838, Identifier = 00, JSON = {'rxpk': [{'tmst': 3305650006, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAhAgBRK9DiPvH'}]} |
| 0:09:05.037222 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0884, FOpts: ), FPort: 01, FRMPayload: 03c0, MIC: 4388fbc7) |
| 0:09:05.038222 | LOG | Server <---------- DUT |

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| 0:09:05.040222 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 056e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c3b00a40) |
| 0:09:05.042219 | LOG | Frame command sent to the DUT |
| 0:09:05.043219 | LOG | PULL_RESP: Protocol version = 02, Token = 3b38, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3307650006, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAbgXghtzQz1xYCi/dwBLaRnhN9HCfZY/xOkzzTAtFhA+Mn3XLcBiWgZosBG0zIfyBMuGrcQYvw7AKQA==''}} |
| 0:09:05.044220 | LOG | Server ----------> DUT |
| 0:09:05.048217 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:05.051215 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:08.404308 | LOG | PULL_DATA: 02 85e5 02 3834383419003400 |
| 0:09:08.410303 | LOG | PULL_ACK: 02 85e5 04 |
| 0:09:10.036379 | LOG | PUSH_ACK: 02 383a 01 |
| 0:09:10.038378 | LOG | PUSH_DATA: Protocol version = 02, Token = 383a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3310653024, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAhQgBIQflznMn'}]} |
| 0:09:10.040377 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0885, FOpts: ), FPort: 01, FRMPayload: 03c1, MIC: e5ce7327) |
| 0:09:10.041376 | LOG | Server <---------- DUT |
| 0:09:10.043375 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 056f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9cfffb5d) |
| 0:09:10.046373 | LOG | Frame command sent to the DUT |
| 0:09:10.048372 | LOG | PULL_RESP: Protocol version = 02, Token = df25, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3312653024, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAbwXgLnMfi3UdSIamDhFua6TtMCQg/yYMVJ3Yv95yQXcd9S8k81mMWPa6uHkMmtDold5ujrginP/7XQ==''}} |
| 0:09:10.049371 | LOG | Server ----------> DUT |
| 0:09:10.053369 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:10.057367 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:15.038535 | LOG | PUSH_ACK: 02 383c 01 |
| 0:09:15.040535 | LOG | PUSH_DATA: Protocol version = 02, Token = 383c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3315657410, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAhggBF+YsrRTM'}]} |
| 0:09:15.042534 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0886, FOpts: ), FPort: 01, FRMPayload: 03c2, MIC: 2cad14cc) |
| 0:09:15.043533 | LOG | Server <---------- DUT |
| 0:09:15.045533 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0570, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 10790d96) |
| 0:09:15.047530 | LOG | Frame command sent to the DUT |
| 0:09:15.049529 | LOG | PULL_RESP: Protocol version = 02, Token = f3b0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3317657410, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAcAXgj2m5Po8feenYNOXxn0pjI/BjTr5ktD3ZtcKWwqWwLLoHV+sJDP+OevsQ0GpZ3iqdX4QwEHkNlg==''}} |

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| 0:09:15.050529 | LOG | Server ----------> DUT |
| 0:09:15.054526 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:15.058526 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:18.413442 | LOG | PULL_DATA: 02 1726 02 3834383419003400 |
| 0:09:18.415441 | LOG | PULL_ACK: 02 1726 04 |
| 0:09:20.044687 | LOG | PUSH_ACK: 02 383d 01 |
| 0:09:20.046686 | LOG | PUSH_DATA: Protocol version = 02, Token = 383d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3320661764, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAhwgBtkjdxaBt'}]} |
| 0:09:20.048686 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0887, FOpts: ), FPort: 01, FRMPayload: 03c3, MIC: ddc5a06d) |
| 0:09:20.049684 | LOG | Server <---------- DUT |
| 0:09:20.051684 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0571, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5582bd49) |
| 0:09:20.053683 | LOG | Frame command sent to the DUT |
| 0:09:20.054683 | LOG | PULL_RESP: Protocol version = 02, Token = c031, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3322661764, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAcQXgt4A1a8mQ+zo+LsE7PREa4CXiw1R8V0hPRbrVnmBizQJO+yiVciHFQoHlMnIjaqde3BA9VYK9SQ=='}} |
| 0:09:20.056680 | LOG | Server ----------> DUT |
| 0:09:20.063677 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:20.067675 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:25.048659 | LOG | PUSH_ACK: 02 383e 01 |
| 0:09:25.050658 | LOG | PUSH_DATA: Protocol version = 02, Token = 383e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3325666126, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAiAgBJkxcQnnU'}]} |
| 0:09:25.051657 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0888, FOpts: ), FPort: 01, FRMPayload: 03c4, MIC: 5c4279d4) |
| 0:09:25.053656 | LOG | Server <---------- DUT |
| 0:09:25.054655 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0572, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 758e4769) |
| 0:09:25.057655 | LOG | Frame command sent to the DUT |
| 0:09:25.058655 | LOG | PULL_RESP: Protocol version = 02, Token = aeef, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3327666126, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAcgXgholl9y2Djh/qffETNgio4Ns/iuZXIknE0RuSFiMEC59BComgs62/C66sgbM8+ZWzgCRodY5HaQ=='}} |
| 0:09:25.060652 | LOG | Server ----------> DUT |
| 0:09:25.063650 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:25.067649 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:28.423545 | LOG | PULL_DATA: 02 2aa2 02 3834383419003400 |
| 0:09:28.426542 | LOG | PULL_ACK: 02 2aa2 04 |
| 0:09:30.054617 | LOG | PUSH_ACK: 02 383f 01 |
| 0:09:30.056616 | LOG | PUSH_DATA: Protocol version = 02, Token = 383f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3330669152, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiQgBJ1O+WRAR'}]} |

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| 0:09:30.057617 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0889, FOpts: ), FPort: 01, FRMPayload: 03c5, MIC: be591011) |
| 0:09:30.059614 | LOG | Server <---------- DUT |
| 0:09:30.061615 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0573, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d3e5df3a) |
| 0:09:30.063612 | LOG | Frame command sent to the DUT |
| 0:09:30.064611 | LOG | PULL_RESP: Protocol version = 02, Token = bccf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3332669152, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAcwXgaMTUgGMQIh0dJp03nhq9Gq3zoEyvhdw/l9HEuqpH71BRHZNJ6MiRsZ/ESYhF5F39KqpK0+XfOg==''}} |
| 0:09:30.065613 | LOG | Server ----------> DUT |
| 0:09:30.069608 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:30.073606 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:35.055352 | LOG | PUSH_ACK: 02 3840 01 |
| 0:09:35.057351 | LOG | PUSH_DATA: Protocol version = 02, Token = 3840, Identifier = 00, JSON = {'rxpk': [{'tmst': 3335672167, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAiggBe+Jl/yfA'}]} |
| 0:09:35.059350 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 088a, FOpts: ), FPort: 01, FRMPayload: 03c6, MIC: 65ff27c0) |
| 0:09:35.060349 | LOG | Server <---------- DUT |
| 0:09:35.062348 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0574, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 282ed6d5) |
| 0:09:35.065346 | LOG | Frame command sent to the DUT |
| 0:09:35.066346 | LOG | PULL_RESP: Protocol version = 02, Token = e305, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3337672167, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAdAXg2UTwnSRhDxtfgeU1ik6KN3IXKB4N/Ydc6c2cfHR2Fj+sxvXjEDgVz4e+WCohP7lJPxKrKC7W1Q==''}} |
| 0:09:35.068345 | LOG | Server ----------> DUT |
| 0:09:35.072342 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:35.075341 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:38.433432 | LOG | PULL_DATA: 02 1149 02 3834383419003400 |
| 0:09:38.438429 | LOG | PULL_ACK: 02 1149 04 |
| 0:09:40.058523 | LOG | PUSH_ACK: 02 3841 01 |
| 0:09:40.060522 | LOG | PUSH_DATA: Protocol version = 02, Token = 3841, Identifier = 00, JSON = {'rxpk': [{'tmst': 3340675137, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiwgBuSRAAaqf'}]} |
| 0:09:40.062521 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 088b, FOpts: ), FPort: 01, FRMPayload: 03c7, MIC: 4001aa9f) |
| 0:09:40.063520 | LOG | Server <---------- DUT |
| 0:09:40.065520 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0575, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d08243c5) |
| 0:09:40.068518 | LOG | Frame command sent to the DUT |
| 0:09:40.069517 | LOG | PULL_RESP: Protocol version = 02, Token = ce4a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3342675137, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, |

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| | | 'size': 64, 'data': 'YCAgICAAdQXgTSd3mQLp+CBqmw4eLvDdSsKW5TZacEGGE9FDYfd40ad8DUydzn8ZCiu7QXxjIpVZ2Fkp0IJDxQ=='}} |
| 0:09:40.070517 | LOG | Server ----------> DUT |
| 0:09:40.074518 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:40.080511 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:45.061650 | LOG | PUSH_ACK: 02 3843 01 |
| 0:09:45.063649 | LOG | PUSH_DATA: Protocol version = 02, Token = 3843, Identifier = 00, JSON = {'rxpk': [{'tmst': 3345679500, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAjAgB7aJ07ofj'}]} |
| 0:09:45.065648 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 088c, FOpts: ), FPort: 01, FRMPayload: 03c8, MIC: 74ee87e3) |
| 0:09:45.066647 | LOG | Server <---------- DUT |
| 0:09:45.068646 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0576, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 790b45d2) |
| 0:09:45.071644 | LOG | Frame command sent to the DUT |
| 0:09:45.073643 | LOG | PULL_RESP: Protocol version = 02, Token = 0f3f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3347679500, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAdgXgFVynaVSgWcrwc2LOt2cOJZeQmeDzKqmOe6HkUPku6w1f+gS6O9m0QG4M2du9WQ1lDgOxeQtF0g=='}} |
| 0:09:45.074642 | LOG | Server ----------> DUT |
| 0:09:45.078640 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:45.082638 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:48.643599 | LOG | PULL_DATA: 02 bccc 02 3834383419003400 |
| 0:09:48.645598 | LOG | PULL_ACK: 02 bccc 04 |
| 0:09:50.065792 | LOG | PUSH_ACK: 02 3844 01 |
| 0:09:50.066791 | LOG | PUSH_DATA: Protocol version = 02, Token = 3844, Identifier = 00, JSON = {'rxpk': [{'tmst': 3350682503, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAjQgBY1dUMLGo'}]} |
| 0:09:50.068791 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 088d, FOpts: ), FPort: 01, FRMPayload: 03c9, MIC: 5430b1a8) |
| 0:09:50.069789 | LOG | Server <---------- DUT |
| 0:09:50.071789 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0577, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 6633b948) |
| 0:09:50.074786 | LOG | Frame command sent to the DUT |
| 0:09:50.076785 | LOG | PULL_RESP: Protocol version = 02, Token = 9005, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3352682503, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAdwXgNMgIrX/nzVkBBSPvkkvYe0Zb5YKS+vF+cKqFUAfSuVN8KjfOSFFH5Fxq0AyR0Fcdug1NZjO5SA=='}} |
| 0:09:50.077784 | LOG | Server ----------> DUT |
| 0:09:50.080784 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:50.084780 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:55.069427 | LOG | PUSH_ACK: 02 3846 01 |
| 0:09:55.071425 | LOG | PUSH_DATA: Protocol version = 02, Token = 3846, Identifier = 00, JSON = {'rxpk': [{'tmst': 3355686874, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAjggBaxRCN6DO'}]} |

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| 0:09:55.073425 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 088e, FOpts: ), FPort: 01, FRMPayload: 03ca, MIC: 4237a0ce) |
| 0:09:55.074424 | LOG | Server <---------- DUT |
| 0:09:55.076423 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0578, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b2040f2b) |
| 0:09:55.079422 | LOG | Frame command sent to the DUT |
| 0:09:55.080421 | LOG | PULL_RESP: Protocol version = 02, Token = 8edf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3357686874, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAeAXgFjWD5i3Bfw9MHvKLTXjasuIVxlcG4bdYbvhbbZLYvu2+Y892pdS0FKbRSYjiCMiGIyM+sgQPKw=='}} |
| 0:09:55.081420 | LOG | Server ----------> DUT |
| 0:09:55.084418 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:09:55.087417 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:09:58.653178 | LOG | PULL_DATA: 02 bdf3 02 3834383419003400 |
| 0:09:58.655178 | LOG | PULL_ACK: 02 bdf3 04 |
| 0:10:00.072758 | LOG | PUSH_ACK: 02 3848 01 |
| 0:10:00.074757 | LOG | PUSH_DATA: Protocol version = 02, Token = 3848, Identifier = 00, JSON = {'rxpk': [{'tmst': 3360689899, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAjwgBETR7KAHc'}]} |
| 0:10:00.076756 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 088f, FOpts: ), FPort: 01, FRMPayload: 03cb, MIC: 7b2801dc) |
| 0:10:00.077756 | LOG | Server <---------- DUT |
| 0:10:00.079754 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0579, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 599c309e) |
| 0:10:00.082752 | LOG | Frame command sent to the DUT |
| 0:10:00.083752 | LOG | PULL_RESP: Protocol version = 02, Token = a8c6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3362689899, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAeQXgvEQBgk1XxXNIDEz9nq1vGcqjC6iuxdhXDIkgIp2lsZ6XqNTaCGCWBMzODBG8Lm+WFuZlWZwwng=='}} |
| 0:10:00.084751 | LOG | Server ----------> DUT |
| 0:10:00.088749 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:00.093747 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:05.075819 | LOG | PUSH_ACK: 02 3849 01 |
| 0:10:05.077816 | LOG | PUSH_DATA: Protocol version = 02, Token = 3849, Identifier = 00, JSON = {'rxpk': [{'tmst': 3365692917, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAkAgB7F2n+TJ1'}]} |
| 0:10:05.078817 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0890, FOpts: ), FPort: 01, FRMPayload: 03cc, MIC: a7f93275) |
| 0:10:05.080815 | LOG | Server <---------- DUT |
| 0:10:05.081815 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 057a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c4e37906) |
| 0:10:05.083785 | LOG | Frame command sent to the DUT |
| 0:10:05.085813 | LOG | PULL_RESP: Protocol version = 02, Token = 7cc0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3367692917, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, |

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| | | 'size': 64, 'data': 'YCAgICAAegXgciPKfpH2uzUB/KHM8f+MX5Tgi3/6Dbcl0cfgzxE60U2TnWmajEhNXSjVHDdiZtOQbbnTxON5Bg=='}} |
| 0:10:05.087812 | LOG | Server ----------> DUT |
| 0:10:05.090781 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:05.094808 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:08.863244 | LOG | PULL_DATA: 02 d323 02 3834383419003400 |
| 0:10:08.868239 | LOG | PULL_ACK: 02 d323 04 |
| 0:10:10.078551 | LOG | PUSH_ACK: 02 384a 01 |
| 0:10:10.080550 | LOG | PUSH_DATA: Protocol version = 02, Token = 384a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3370695909, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAkQgB0GdUOKyR'}]} |
| 0:10:10.082551 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0891, FOpts: ), FPort: 01, FRMPayload: 03cd, MIC: 5438ac91) |
| 0:10:10.083548 | LOG | Server <---------- DUT |
| 0:10:10.085549 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 057b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5de0fd57) |
| 0:10:10.087546 | LOG | Frame command sent to the DUT |
| 0:10:10.089545 | LOG | PULL_RESP: Protocol version = 02, Token = 20d9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3372695909, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAewXg/V4paTmwct09wwOxb3YbrpPRA4s6ItBtdH7P1FjxmFljm7pkXtKPpyvVDGgc0SFMhBfWXeD9Vw=='}} |
| 0:10:10.091545 | LOG | Server ----------> DUT |
| 0:10:10.094543 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:10.102539 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:15.080618 | LOG | PUSH_ACK: 02 384c 01 |
| 0:10:15.082616 | LOG | PUSH_DATA: Protocol version = 02, Token = 384c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3375700272, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAkggB6uU3ZZjT'}]} |
| 0:10:15.083615 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0892, FOpts: ), FPort: 01, FRMPayload: 03ce, MIC: 376598d3) |
| 0:10:15.085614 | LOG | Server <---------- DUT |
| 0:10:15.087614 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 057c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: abdd1547) |
| 0:10:15.089612 | LOG | Frame command sent to the DUT |
| 0:10:15.091611 | LOG | PULL_RESP: Protocol version = 02, Token = 5c2f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3377700272, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAfAXgpp1LNpRHKrkLLIX4HgJh/HjBq1I6MynLNO3/eZZyPam6MLjRby9iIdKcQYuiiqIhigmhq90VRw=='}} |
| 0:10:15.092610 | LOG | Server ----------> DUT |
| 0:10:15.096608 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:15.099609 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:18.873461 | LOG | PULL_DATA: 02 c673 02 3834383419003400 |
| 0:10:18.874461 | LOG | PULL_ACK: 02 c673 04 |
| 0:10:20.084773 | LOG | PUSH_ACK: 02 384d 01 |
| 0:10:20.086772 | LOG | PUSH_DATA: Protocol version = 02, Token = 384d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3380704626, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAkwgB7+Lh63ec'}]} |
| 0:10:20.088770 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0893, FOpts: ), FPort: 01, FRMPayload: 03cf, MIC: e1eb779c) |
| 0:10:20.090769 | LOG | Server <---------- DUT |
| 0:10:20.092769 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 057d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f4a10116) |
| 0:10:20.095767 | LOG | Frame command sent to the DUT |
| 0:10:20.097768 | LOG | PULL_RESP: Protocol version = 02, Token = a91b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3382704626, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAfQXgjBSHGcHzWZxnlNXlvzom0WCiwt8FLH+CZ9XCjVPhXnvigUPwUhNKou5MJMOvCaDcI7SP9KEBFg==''}} |
| 0:10:20.098765 | LOG | Server ----------> DUT |
| 0:10:20.101764 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:20.105761 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:25.091012 | LOG | PUSH_ACK: 02 384e 01 |
| 0:10:25.096009 | LOG | PUSH_DATA: Protocol version = 02, Token = 384e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3385708980, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAlAgBOiPWVgw7'}]} |
| 0:10:25.099008 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0894, FOpts: ), FPort: 01, FRMPayload: 03d0, MIC: d6560c3b) |
| 0:10:25.103006 | LOG | Server <---------- DUT |
| 0:10:25.109002 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 057e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 3725c926) |
| 0:10:25.114999 | LOG | Frame command sent to the DUT |
| 0:10:25.119997 | LOG | PULL_RESP: Protocol version = 02, Token = ee4e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3387708980, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAfgXg/xehPqF8AXSuyHAGtoWekqjrNdCKAP/Bo7r5aN5eY55yLZjB8H066gu/5B0O3JOB5OpCNyXJJg==''}} |
| 0:10:25.120996 | LOG | Server ----------> DUT |
| 0:10:25.124993 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:25.128991 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:28.903290 | LOG | PULL_DATA: 02 047c 02 3834383419003400 |
| 0:10:28.906288 | LOG | PULL_ACK: 02 047c 04 |
| 0:10:30.094614 | LOG | PUSH_ACK: 02 384f 01 |
| 0:10:30.096611 | LOG | PUSH_DATA: Protocol version = 02, Token = 384f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3390711965, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAlQgBQWTtUibl'}]} |
| 0:10:30.098610 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0895, FOpts: ), FPort: 01, FRMPayload: 03d1, MIC: ed5226e5) |
| 0:10:30.099609 | LOG | Server <---------- DUT |
| 0:10:30.101609 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 057f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 65a1eeac) |
| 0:10:30.104607 | LOG | Frame command sent to the DUT |

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| 0:10:30.105606 | LOG | PULL_RESP: Protocol version = 02, Token = 5f94, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3392711965, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAfwXgojtbgwI5lcy0l8weNqeWXXOIL7UA+kPgWaDm6DTyMnTwcVfX4x32n1/21wU7Iaqv7UR9ZaHurA=='}} |
| 0:10:30.107605 | LOG | Server ----------> DUT |
| 0:10:30.111603 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:30.115600 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:38.923663 | LOG | PULL_DATA: 02 78e8 02 3834383419003400 |
| 0:10:38.928660 | LOG | PULL_ACK: 02 78e8 04 |
| 0:10:40.083004 | LOG | PUSH_ACK: 02 3851 01 |
| 0:10:40.085003 | LOG | PUSH_DATA: Protocol version = 02, Token = 3851, Identifier = 00, JSON = {'rxpk': [{'tmst': 3400717998, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAlwgBODBAY4qw'}]} |
| 0:10:40.087001 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0897, FOpts: ), FPort: 01, FRMPayload: 03d2, MIC: 40638ab0) |
| 0:10:40.088001 | LOG | Server <---------- DUT |
| 0:10:40.090001 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0580, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 89e97f74) |
| 0:10:40.092998 | LOG | Frame command sent to the DUT |
| 0:10:40.094997 | LOG | PULL_RESP: Protocol version = 02, Token = 0036, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3402717998, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAgAXgQltEwDT17iaJU29zT+JyXXnALATaM72jazMP3ZCoYPpFbl1V6XHfrJnQoC+ok19P/7cdiel/dA=='}} |
| 0:10:40.095996 | LOG | Server ----------> DUT |
| 0:10:40.099995 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:40.103992 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:45.103991 | LOG | PUSH_ACK: 02 3853 01 |
| 0:10:45.105989 | LOG | PUSH_DATA: Protocol version = 02, Token = 3853, Identifier = 00, JSON = {'rxpk': [{'tmst': 3405721014, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAmAgBe1rgxl81'}]} |
| 0:10:45.106988 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0898, FOpts: ), FPort: 01, FRMPayload: 03d3, MIC: e0c65f35) |
| 0:10:45.107987 | LOG | Server <---------- DUT |
| 0:10:45.109986 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0581, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: bf4f57a6) |
| 0:10:45.111985 | LOG | Frame command sent to the DUT |
| 0:10:45.113984 | LOG | PULL_RESP: Protocol version = 02, Token = c04d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3407721014, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAgQXgbfDa/+iyKCvecdGO72GbCAdBgPVCGGBeBgFy0Y/lMJP2d8rQb8UduSJUBL8sFWyxk9fjv09Xpg=='}} |
| 0:10:45.114983 | LOG | Server ----------> DUT |
| 0:10:45.117981 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:45.121980 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:49.103716 | LOG | PULL_DATA: 02 c02f 02 3834383419003400 |
| 0:10:49.105715 | LOG | PULL_ACK: 02 c02f 04 |

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| 0:10:50.107010 | LOG | PUSH_ACK: 02 3854 01 |
| 0:10:50.109007 | LOG | PUSH_DATA: Protocol version = 02, Token = 3854, Identifier = 00, JSON = {'rxpk': [{'tmst': 3410724023, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAmQgBPbKJ7rhb'}]} |
| 0:10:50.110006 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0899, FOpts: ), FPort: 01, FRMPayload: 03d4, MIC: 89eeb85b) |
| 0:10:50.112005 | LOG | Server <---------- DUT |
| 0:10:50.114004 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0582, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: cbcf25f5) |
| 0:10:50.116003 | LOG | Frame command sent to the DUT |
| 0:10:50.118002 | LOG | PULL_RESP: Protocol version = 02, Token = 2565, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3412724023, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAggXgsgvF6W14ZLj0O1MldVUA6Bl51U8MrvPOdQPKT4sbpvB5pSejR2uJz6mK59gn+RtDBfedy88l9Q=='}} |
| 0:10:50.120002 | LOG | Server ----------> DUT |
| 0:10:50.123001 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:50.125997 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:55.110093 | LOG | PUSH_ACK: 02 3855 01 |
| 0:10:55.112092 | LOG | PUSH_DATA: Protocol version = 02, Token = 3855, Identifier = 00, JSON = {'rxpk': [{'tmst': 3415728425, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAmggBHnMhFQgX'}]} |
| 0:10:55.114091 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 089a, FOpts: ), FPort: 01, FRMPayload: 03d5, MIC: 21150817) |
| 0:10:55.115090 | LOG | Server <---------- DUT |
| 0:10:55.117089 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0583, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2fbf808f) |
| 0:10:55.120087 | LOG | Frame command sent to the DUT |
| 0:10:55.121087 | LOG | PULL_RESP: Protocol version = 02, Token = e405, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3417728425, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAgwXgxYHcl7jF5ENhLDn3BpmafU2vq1iOCnwIJSprAI3STNwlmMWAe6dn0bSzvRWIyIWg4NmgL7+Ajw=='}} |
| 0:10:55.123086 | LOG | Server ----------> DUT |
| 0:10:55.127083 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:10:55.132081 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:10:59.113645 | LOG | PULL_DATA: 02 93b0 02 3834383419003400 |
| 0:10:59.115643 | LOG | PULL_ACK: 02 93b0 04 |
| 0:11:00.114052 | LOG | PUSH_ACK: 02 3856 01 |
| 0:11:00.115077 | LOG | PUSH_DATA: Protocol version = 02, Token = 3856, Identifier = 00, JSON = {'rxpk': [{'tmst': 3420732778, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAmwgBlgEA37U6'}]} |
| 0:11:00.117047 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 089b, FOpts: ), FPort: 01, FRMPayload: 03d6, MIC: 00dfb53a) |
| 0:11:00.119074 | LOG | Server <---------- DUT |
| 0:11:00.121045 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0584, FOpts: ), FPort: e0, FRMPayload: |

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| | | 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 78974d96) |
| 0:11:00.123071 | LOG | Frame command sent to the DUT |
| 0:11:00.125070 | LOG | PULL_RESP: Protocol version = 02, Token = b832, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3422732778, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAhAXg5OzjQicC11SC7sAwlaaEsIJ6++0wt3JfVeO7wNecR9xoJkm87jlyTlIUImqR6PSqme1weJdNlg=='}} |
| 0:11:00.126070 | LOG | Server ----------> DUT |
| 0:11:00.130037 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:11:00.134034 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:11:05.118287 | LOG | PUSH_ACK: 02 3857 01 |
| 0:11:05.120286 | LOG | PUSH_DATA: Protocol version = 02, Token = 3857, Identifier = 00, JSON = {'rxpk': [{'tmst': 3425735740, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAnAgBg0fEzi3D'}]} |
| 0:11:05.122285 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 089c, FOpts: ), FPort: 01, FRMPayload: 03d7, MIC: c4ce2dc3) |
| 0:11:05.124284 | LOG | Server <---------- DUT |
| 0:11:05.126283 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0585, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4e161dbb) |
| 0:11:05.128281 | LOG | Frame command sent to the DUT |
| 0:11:05.130280 | LOG | PULL_RESP: Protocol version = 02, Token = 7c54, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3427735740, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAhQXg5a/mBUWONM+nVsO8+IddU+WNELFTp0GNYrBBt8iYx4uZqkJEiC5YIqi81VNmafkPcjJ9ThYduw=='}} |
| 0:11:05.132279 | LOG | Server ----------> DUT |
| 0:11:05.135277 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:11:05.139275 | LOG | Send Test Command RxAppCntReq process starts |
| 0:11:09.123653 | LOG | PULL_DATA: 02 708e 02 3834383419003400 |
| 0:11:09.126651 | LOG | PULL_ACK: 02 708e 04 |
| 0:11:10.121289 | LOG | PUSH_ACK: 02 3858 01 |
| 0:11:10.123288 | LOG | PUSH_DATA: Protocol version = 02, Token = 3858, Identifier = 00, JSON = {'rxpk': [{'tmst': 3430738735, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAnQgBIaai5EeR'}]} |
| 0:11:10.125258 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 089d, FOpts: ), FPort: 01, FRMPayload: 03d8, MIC: a2e44791) |
| 0:11:10.126288 | LOG | Server <---------- DUT |
| 0:11:10.129284 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0586, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 7ad1e7ce) |
| 0:11:10.131255 | LOG | Frame command sent to the DUT |
| 0:11:10.133283 | LOG | PULL_RESP: Protocol version = 02, Token = 3877, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3432738735, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAhgXg13rR584='}} |
| 0:11:10.134282 | LOG | Server ----------> DUT |
| 0:11:10.137279 | LOG | TX_ACK: 02 3877 05 3834383419003400 |
| 0:11:15.147104 | LOG | PUSH_ACK: 02 385a 01 |
| 0:11:15.149103 | LOG | PUSH_DATA: Protocol version = 02, Token = 385a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3435750000, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 16, 'data': 'QCAgICCAngjgi5np+zsLyw=='}]} |
| 0:11:15.151102 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 089e, FOpts: ), FPort: e0, FRMPayload: 09d903, MIC: fb3b0bcb) |
| 0:11:15.152101 | LOG | Server <---------- DUT |
| 0:11:15.153101 | LOG | Answer in payload: d903 |
| 0:11:15.155099 | LOG | Frame Command Payload in the Answer: 09d903 |
| 0:11:15.160097 | LOG | RX Count received by DUT: 985 |
| 0:11:15.162096 | LOG | Send Test Command RxAppCntReq process completed |
| 0:11:15.173108 | LOG | End Test Step: Test packet error rate for SF11BW125 using RX2 window |
| 0:11:15.176106 | LOG | Partial Verdict: PASS |
| 0:11:15.180088 | LOG | ========== |
| 0:11:15.188081 | LOG | ========== |
| 0:11:15.190080 | LOG | Start Test Step: Test packet error rate for SF10BW125 using RX2 window |
| 0:11:15.200073 | LOG | Send RXParamSetupReq process starts |
| 0:11:19.163666 | LOG | PULL_DATA: 02 9ba8 02 3834383419003400 |
| 0:11:19.164666 | LOG | PULL_ACK: 02 9ba8 04 |
| 0:11:20.136113 | LOG | PUSH_ACK: 02 385b 01 |
| 0:11:20.138112 | LOG | PUSH_DATA: Protocol version = 02, Token = 385b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3440744712, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAnwgBRzLPh8p6'}]} |
| 0:11:20.140111 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 089f, FOpts: ), FPort: 01, FRMPayload: 03d9, MIC: cf87ca7a) |
| 0:11:20.141110 | LOG | Server <---------- DUT |
| 0:11:20.143109 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0587, FOpts: ), FPort: 00, FRMPayload: 0502d2ad84), MIC: 0e7f755d) |
| 0:11:20.145108 | LOG | PULL_RESP: Protocol version = 02, Token = ae33, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3442744712, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAhwUAKAaX41AOf3Vd'}} |
| 0:11:20.146108 | LOG | Server ----------> DUT |
| 0:11:20.150106 | LOG | TX_ACK: 02 ae33 05 3834383419003400 |
| 0:11:25.133541 | LOG | PUSH_ACK: 02 385c 01 |
| 0:11:25.135539 | LOG | PUSH_DATA: Protocol version = 02, Token = 385c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3445755529, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCoAgFBwE7AIrHdsE='}]} |
| 0:11:25.137538 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 08a0, FOpts: 0507), FPort: 01, FRMPayload: 03d9, MIC: 8ac776c1) |
| 0:11:25.138538 | LOG | Server <---------- DUT |
| 0:11:25.140536 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:11:25.142535 | LOG | Command Answer: 0507 |
| 0:11:25.157526 | LOG | MAC command communication completed |
| 0:11:25.166521 | LOG | Send Test Command RxAppCntReq process starts |
| 0:11:29.173450 | LOG | PULL_DATA: 02 6a8c 02 3834383419003400 |
| 0:11:29.175449 | LOG | PULL_ACK: 02 6a8c 04 |
| 0:11:30.121885 | LOG | PUSH_ACK: 02 385d 01 |
| 0:11:30.123883 | LOG | PUSH_DATA: Protocol version = 02, Token = 385d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3450758561, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCoQgFBwGOystr7LA='}]} |
| 0:11:30.125882 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 08a1, FOpts: 0507), FPort: 01, FRMPayload: 03d9, MIC: cb6becb0) |
| 0:11:30.126881 | LOG | Server <---------- DUT |

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| 0:11:30.128880 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0588, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 6c95783f) |
| 0:11:30.131878 | LOG | Frame command sent to the DUT |
| 0:11:30.133878 | LOG | PULL_RESP: Protocol version = 02, Token = 84b3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3452758561, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAiAXgB2yVeD8='}} |
| 0:11:30.134896 | LOG | Server ----------> DUT |
| 0:11:30.138873 | LOG | TX_ACK: 02 84b3 05 3834383419003400 |
| 0:11:35.136328 | LOG | PUSH_ACK: 02 385e 01 |
| 0:11:35.138327 | LOG | PUSH_DATA: Protocol version = 02, Token = 385e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3455765902, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -15, 'size': 16, 'data': 'QCAgICCAogjg6b/XwBwoew==='}]} |
| 0:11:35.139327 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a2, FOpts: ), FPort: e0, FRMPayload: 09da03, MIC: c01c287b) |
| 0:11:35.141326 | LOG | Server <---------- DUT |
| 0:11:35.142325 | LOG | Answer in payload: da03 |
| 0:11:35.144324 | LOG | Frame Command Payload in the Answer: 09da03 |
| 0:11:35.150321 | LOG | RX Count received by DUT: 986 |
| 0:11:35.153319 | LOG | Send Test Command RxAppCntReq process completed |
| 0:11:35.157317 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:11:39.372963 | LOG | PULL_DATA: 02 39f0 02 3834383419003400 |
| 0:11:39.377941 | LOG | PULL_ACK: 02 39f0 04 |
| 0:11:40.123517 | LOG | PUSH_ACK: 02 385f 01 |
| 0:11:40.125517 | LOG | PUSH_DATA: Protocol version = 02, Token = 385f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3460760630, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAowgBRIh6ODwj'}]} |
| 0:11:40.127515 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a3, FOpts: ), FPort: 01, FRMPayload: 03da, MIC: 7a383c23) |
| 0:11:40.128517 | LOG | Server <---------- DUT |
| 0:11:40.131513 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0589, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: bb15cb6b) |
| 0:11:40.133512 | LOG | Frame command sent to the DUT |
| 0:11:40.134511 | LOG | PULL_RESP: Protocol version = 02, Token = cdd3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3462760630, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAiQXgWGaYMUb9cvQZHm8cnhJ6dUMUnrvtcwY4mS/UDBIBaJGO6J+ED1StQHwJdKWW1F4L1ZDBuxXLaw=='}} |
| 0:11:40.135511 | LOG | Server ----------> DUT |
| 0:11:40.139509 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:11:40.144506 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:11:45.135613 | LOG | PUSH_ACK: 02 3861 01 |
| 0:11:45.137612 | LOG | PUSH_DATA: Protocol version = 02, Token = 3861, Identifier = 00, JSON = {'rxpk': [{'tmst': 3465763639, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCApAgBS9cCivyI'}]} |
| 0:11:45.139610 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a4, FOpts: ), FPort: 01, FRMPayload: 03db, MIC: 028afc88) |
| 0:11:45.141610 | LOG | Server <---------- DUT |
| 0:11:45.142609 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 058a, FOpts: ), FPort: e0, FRMPayload: |

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| | | 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 07015be9) |
| 0:11:45.145607 | LOG | Frame command sent to the DUT |
| 0:11:45.147606 | LOG | PULL_RESP: Protocol version = 02, Token = 6b98, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3467763639, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAigXgFW25LynyEzEUK9E4cu4BaukihCPjEBZa1NW/d0yJYiwv7Aycpm/7xazO2ZG32jqviCCdBwFb6Q=='}} |
| 0:11:45.148605 | LOG | Server ----------> DUT |
| 0:11:45.152603 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:11:45.156602 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:11:49.563080 | LOG | PULL_DATA: 02 7150 02 3834383419003400 |
| 0:11:49.565079 | LOG | PULL_ACK: 02 7150 04 |
| 0:11:50.138753 | LOG | PUSH_ACK: 02 3862 01 |
| 0:11:50.141752 | LOG | PUSH_DATA: Protocol version = 02, Token = 3862, Identifier = 00, JSON = {'rxpk': [{'tmst': 3470766649, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCApQgBl6DHfXMk'}]} |
| 0:11:50.142753 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a5, FOpts: ), FPort: 01, FRMPayload: 03dc, MIC: c77d7324) |
| 0:11:50.143753 | LOG | Server <---------- DUT |
| 0:11:50.145749 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 058b, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 6473a80a) |
| 0:11:50.148748 | LOG | Frame command sent to the DUT |
| 0:11:50.149747 | LOG | PULL_RESP: Protocol version = 02, Token = 52d3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3472766649, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAiwXgqfjvXGUB2iQvu7wGvMaSELuj8oRKwNBUpOnoeVtg8CAdhqlRL6+QzamjU6PYKPntk3mFZHOoCg=='}} |
| 0:11:50.151746 | LOG | Server ----------> DUT |
| 0:11:50.156743 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:11:50.160741 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:11:55.142289 | LOG | PUSH_ACK: 02 3863 01 |
| 0:11:55.144289 | LOG | PUSH_DATA: Protocol version = 02, Token = 3863, Identifier = 00, JSON = {'rxpk': [{'tmst': 3475769649, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCApggBzyS4izUp'}]} |
| 0:11:55.146287 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a6, FOpts: ), FPort: 01, FRMPayload: 03dd, MIC: b88b3529) |
| 0:11:55.147286 | LOG | Server <---------- DUT |
| 0:11:55.150284 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 058c, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 112b66e5) |
| 0:11:55.152283 | LOG | Frame command sent to the DUT |
| 0:11:55.154282 | LOG | PULL_RESP: Protocol version = 02, Token = 4fe2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3477769649, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAjAXgaW3+vTzrfz8l/Uu1CDd9B7EvpMH1RMVO0qfcM8SJYQinlKbu9cumoJOSzw/AQh+Qjvj0EStm5Q=='}} |
| 0:11:55.155282 | LOG | Server ----------> DUT |
| 0:11:55.159279 | LOG | Send Test Command TxFramesCtrlReq process completed |

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| 0:11:55.163277 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:11:59.772535 | LOG | PULL_DATA: 02 169b 02 3834383419003400 |
| 0:11:59.774534 | LOG | PULL_ACK: 02 169b 04 |
| 0:12:00.145322 | LOG | PUSH_ACK: 02 3864 01 |
| 0:12:00.146321 | LOG | PUSH_DATA: Protocol version = 02, Token = 3864, Identifier = 00, JSON = {'rxpk': [{'tmst': 3480775395, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCApwgBbWCf+LAp'}]} |
| 0:12:00.148321 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a7, FOpts: ), FPort: 01, FRMPayload: 03de, MIC: 9ff8b029) |
| 0:12:00.149321 | LOG | Server <---------- DUT |
| 0:12:00.151319 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 058d, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b04931a2) |
| 0:12:00.153318 | LOG | Frame command sent to the DUT |
| 0:12:00.155317 | LOG | PULL_RESP: Protocol version = 02, Token = 2285, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3482775395, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAjQXgGph4XPwoymML1efJU8eHu8288v+/Es4sm2s8n8pxkrFsZfhJZb70l7kHlrW/tojeMPlOsEkxog=='}} |
| 0:12:00.156316 | LOG | Server ----------> DUT |
| 0:12:00.159315 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:00.164312 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:05.151274 | LOG | PUSH_ACK: 02 3865 01 |
| 0:12:05.153274 | LOG | PUSH_DATA: Protocol version = 02, Token = 3865, Identifier = 00, JSON = {'rxpk': [{'tmst': 3485779780, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAqAgBPkA7+AiQ'}]} |
| 0:12:05.155273 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a8, FOpts: ), FPort: 01, FRMPayload: 03df, MIC: 3bf80890) |
| 0:12:05.156271 | LOG | Server <---------- DUT |
| 0:12:05.158270 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 058e, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 325bb4ea) |
| 0:12:05.160268 | LOG | Frame command sent to the DUT |
| 0:12:05.162267 | LOG | PULL_RESP: Protocol version = 02, Token = 1e39, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3487779780, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAjgXgR5eyowinntFCp+bAUwSq+45zmznEWlR88YltoI/1SOQe9IPwYiKv39eFVl7dr8e6thXlMlu06g=='}} |
| 0:12:05.164266 | LOG | Server ----------> DUT |
| 0:12:05.167264 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:05.171262 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:09.783081 | LOG | PULL_DATA: 02 f227 02 3834383419003400 |
| 0:12:09.786080 | LOG | PULL_ACK: 02 f227 04 |
| 0:12:10.155034 | LOG | PUSH_ACK: 02 3866 01 |
| 0:12:10.157034 | LOG | PUSH_DATA: Protocol version = 02, Token = 3866, Identifier = 00, JSON = {'rxpk': [{'tmst': 3490782758, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAqQgBQZWCEAiP'}]} |
| 0:12:10.159033 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08a9, FOpts: ), FPort: 01, FRMPayload: 03e0, MIC: 8210088f) |
| 0:12:10.161032 | LOG | Server <---------- DUT |

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| 0:12:10.163030 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 058f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5394e3f9) |
| 0:12:10.165029 | LOG | Frame command sent to the DUT |
| 0:12:10.167028 | LOG | PULL_RESP: Protocol version = 02, Token = 9927, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3492782758, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAjwXg6Yv/ad58/MuBTPCjxfGTla9VOVLxM4KIs9WrpQxvapuKNzBZFzhX9OHfb2KMJv8xs0F4U5Tj+Q=='}} |
| 0:12:10.169027 | LOG | Server ----------> DUT |
| 0:12:10.173024 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:10.176023 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:15.157302 | LOG | PUSH_ACK: 02 3868 01 |
| 0:12:15.159301 | LOG | PUSH_DATA: Protocol version = 02, Token = 3868, Identifier = 00, JSON = {'rxpk': [{'tmst': 3495785791, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAqggBLFUgZM11'}]} |
| 0:12:15.163301 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08aa, FOpts: ), FPort: 01, FRMPayload: 03e1, MIC: 2064cd75) |
| 0:12:15.166297 | LOG | Server <---------- DUT |
| 0:12:15.171295 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0590, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 98457ec6) |
| 0:12:15.177291 | LOG | Frame command sent to the DUT |
| 0:12:15.180290 | LOG | PULL_RESP: Protocol version = 02, Token = c89e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3497785791, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAkAXgn8YZuhONZ+XMlD8TeSr435ZSLjC5LODaMc7rtQBr+XUwls3cFcsPC73fEGjEYSHD2u4dmEV+xg=='}} |
| 0:12:15.183287 | LOG | Server ----------> DUT |
| 0:12:15.190283 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:15.193282 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:19.802533 | LOG | PULL_DATA: 02 e4ae 02 3834383419003400 |
| 0:12:19.805529 | LOG | PULL_ACK: 02 e4ae 04 |
| 0:12:20.161327 | LOG | PUSH_ACK: 02 3869 01 |
| 0:12:20.163326 | LOG | PUSH_DATA: Protocol version = 02, Token = 3869, Identifier = 00, JSON = {'rxpk': [{'tmst': 3500788750, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAqwgBGDapZ1Q0'}]} |
| 0:12:20.165325 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ab, FOpts: ), FPort: 01, FRMPayload: 03e2, MIC: a9675434) |
| 0:12:20.167323 | LOG | Server <---------- DUT |
| 0:12:20.169322 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0591, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a04df212) |
| 0:12:20.171321 | LOG | Frame command sent to the DUT |
| 0:12:20.173320 | LOG | PULL_RESP: Protocol version = 02, Token = e17b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3502788750, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAkQXghFkpHeZ/0K0ykxWtEHRerCVBLgnLWXfltz/jxPJ//F+9hBKo9TFyxFKt8b9kFYr3I63OoE3yEg=='}} |

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| 0:12:20.175319 | LOG | Server ----------> DUT |
| 0:12:20.178317 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:20.182315 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:25.164120 | LOG | PUSH_ACK: 02 386a 01 |
| 0:12:25.166118 | LOG | PUSH_DATA: Protocol version = 02, Token = 386a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3505791761, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCArAgBTXmHFwBC'}]} |
| 0:12:25.168117 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ac, FOpts: ), FPort: 01, FRMPayload: 03e3, MIC: 87170042) |
| 0:12:25.169117 | LOG | Server <---------- DUT |
| 0:12:25.172115 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0592, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 3a4cf2b8) |
| 0:12:25.174114 | LOG | Frame command sent to the DUT |
| 0:12:25.176113 | LOG | PULL_RESP: Protocol version = 02, Token = 3bfb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3507791761, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAkgXgi2zxGRygTQ0VYwbgjbwjk+y036lU8c8PPOQEC3xnyhEqkC1sFaTwt0eyys5j6bXMV2krOkzyuA=='}} |
| 0:12:25.177112 | LOG | Server ----------> DUT |
| 0:12:25.181110 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:25.184108 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:30.002349 | LOG | PULL_DATA: 02 f4a2 02 3834383419003400 |
| 0:12:30.004349 | LOG | PULL_ACK: 02 f4a2 04 |
| 0:12:30.167372 | LOG | PUSH_ACK: 02 386b 01 |
| 0:12:30.169371 | LOG | PUSH_DATA: Protocol version = 02, Token = 386b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3510797483, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCArQgBtPYsw+sU'}]} |
| 0:12:30.170370 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ad, FOpts: ), FPort: 01, FRMPayload: 03e4, MIC: 2cc3eb14) |
| 0:12:30.172369 | LOG | Server <---------- DUT |
| 0:12:30.174368 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0593, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4ffdb71a) |
| 0:12:30.201352 | LOG | Frame command sent to the DUT |
| 0:12:30.203352 | LOG | PULL_RESP: Protocol version = 02, Token = 8b2a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3512797483, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAkwXgkW+L3FywyZ3isd5s90v9Hr5rNt01tx42QDSFB9h9J5KAhW0ibBgaNaVTMGa4bPWr9JyJT/23Gg=='}} |
| 0:12:30.205351 | LOG | Server ----------> DUT |
| 0:12:30.209348 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:30.213346 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:35.172798 | LOG | PUSH_ACK: 02 386c 01 |
| 0:12:35.174820 | LOG | PUSH_DATA: Protocol version = 02, Token = 386c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3515803199, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCArggB34Zh856D'}]} |
| 0:12:35.176819 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ae, FOpts: ), FPort: 01, FRMPayload: 03e5, MIC: 61f39e83) |
| 0:12:35.177818 | LOG | Server <---------- DUT |

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| 0:12:35.179816 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0594, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2c5852a8) |
| 0:12:35.181788 | LOG | Frame command sent to the DUT |
| 0:12:35.184815 | LOG | PULL_RESP: Protocol version = 02, Token = cca1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3517803199, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAlAXgDb4zRDKQ6hzuffoZLzQB+vlAFUUPAWCEzFmGDG5qm6ZpmPeJD88NANAotbmyZWWLJJBaLFhSqA=='}} |
| 0:12:35.185815 | LOG | Server ----------> DUT |
| 0:12:35.189815 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:35.192809 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:40.012606 | LOG | PULL_DATA: 02 a1c7 02 3834383419003400 |
| 0:12:40.015603 | LOG | PULL_ACK: 02 a1c7 04 |
| 0:12:40.179509 | LOG | PUSH_ACK: 02 386d 01 |
| 0:12:40.181509 | LOG | PUSH_DATA: Protocol version = 02, Token = 386d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3520806207, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCArwgBPZVLJf3V'}]} |
| 0:12:40.182508 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08af, FOpts: ), FPort: 01, FRMPayload: 03e6, MIC: 4b25fdd5) |
| 0:12:40.184508 | LOG | Server <---------- DUT |
| 0:12:40.186507 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0595, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 241abba3) |
| 0:12:40.188506 | LOG | Frame command sent to the DUT |
| 0:12:40.190504 | LOG | PULL_RESP: Protocol version = 02, Token = 8c77, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3522806207, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAlQXgscKReJ3parJ4rqW3uS2w2xBHyKd/+fZzDnZgqOnoteUZABvT99GI/pOD2r6dIo2EV3TYJBq7ow=='}} |
| 0:12:40.191503 | LOG | Server ----------> DUT |
| 0:12:40.195501 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:40.202497 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:45.180877 | LOG | PUSH_ACK: 02 386f 01 |
| 0:12:45.182877 | LOG | PUSH_DATA: Protocol version = 02, Token = 386f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3525809192, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAsAgBRIbCIKgo'}]} |
| 0:12:45.183875 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b0, FOpts: ), FPort: 01, FRMPayload: 03e7, MIC: c220a828) |
| 0:12:45.185875 | LOG | Server <---------- DUT |
| 0:12:45.186873 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0596, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b1780071) |
| 0:12:45.188873 | LOG | Frame command sent to the DUT |
| 0:12:45.189873 | LOG | PULL_RESP: Protocol version = 02, Token = 7a6d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3527809192, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAlgXg8mdBgn2rFTXU0sDu4SL6KXkOjE6vxV0IRZXTSsfEBb6/9COA3irkUr1WZwPV56WJy0Y6sXgAcQ=='}} |

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| 0:12:45.191845 | LOG | Server ----------> DUT |
| 0:12:45.194869 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:45.199867 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:50.022792 | LOG | PULL_DATA: 02 c567 02 3834383419003400 |
| 0:12:50.024791 | LOG | PULL_ACK: 02 c567 04 |
| 0:12:50.184450 | LOG | PUSH_ACK: 02 3870 01 |
| 0:12:50.186450 | LOG | PUSH_DATA: Protocol version = 02, Token = 3870, Identifier = 00, JSON = {'rxpk': [{'tmst': 3530812187, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAsQgBJadHBVHO'}]} |
| 0:12:50.188449 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b1, FOpts: ), FPort: 01, FRMPayload: 03e8, MIC: 470551ce) |
| 0:12:50.189447 | LOG | Server <---------- DUT |
| 0:12:50.191447 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0597, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b3d34ca8) |
| 0:12:50.193445 | LOG | Frame command sent to the DUT |
| 0:12:50.194444 | LOG | PULL_RESP: Protocol version = 02, Token = 3437, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3532812187, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAlwXgH9WIOv0TNfDXSGfb5V+L30YwfWqx47dWT+ltcfNbCeLljzACuyaQy+6sfIuUMOktHpvLs9NMqA=='}} |
| 0:12:50.196444 | LOG | Server ----------> DUT |
| 0:12:50.200411 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:50.204409 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:12:55.187620 | LOG | PUSH_ACK: 02 3871 01 |
| 0:12:55.190619 | LOG | PUSH_DATA: Protocol version = 02, Token = 3871, Identifier = 00, JSON = {'rxpk': [{'tmst': 3535815205, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAsggBP4K7heIi'}]} |
| 0:12:55.191620 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b2, FOpts: ), FPort: 01, FRMPayload: 03e9, MIC: bb85e222) |
| 0:12:55.192620 | LOG | Server <---------- DUT |
| 0:12:55.195616 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0598, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 1a609856) |
| 0:12:55.197615 | LOG | Frame command sent to the DUT |
| 0:12:55.199614 | LOG | PULL_RESP: Protocol version = 02, Token = ac6b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3537815205, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAmAXgCIzVfyXb4kLRqRPJtQmVE7cUYGhx10ukJ9kjrEDyrWjYHQmFssCtwPxx8z3gqreC5T+kGmCYVg=='}} |
| 0:12:55.200613 | LOG | Server ----------> DUT |
| 0:12:55.204611 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:12:55.209608 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:00.032463 | LOG | PULL_DATA: 02 3aca 02 3834383419003400 |
| 0:13:00.034461 | LOG | PULL_ACK: 02 3aca 04 |
| 0:13:00.192224 | LOG | PUSH_ACK: 02 3873 01 |
| 0:13:00.194223 | LOG | PUSH_DATA: Protocol version = 02, Token = 3873, Identifier = 00, JSON = {'rxpk': [{'tmst': 3540819510, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAswgBaZP2LtYg'}]} |

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| 0:13:00.196222 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b3, FOpts: ), FPort: 01, FRMPayload: 03ea, MIC: f62ed620) |
| 0:13:00.197221 | LOG | Server <---------- DUT |
| 0:13:00.199222 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0599, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fc53a589) |
| 0:13:00.202219 | LOG | Frame command sent to the DUT |
| 0:13:00.203218 | LOG | PULL_RESP: Protocol version = 02, Token = fdbf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3542819510, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAmQXgeXSyLyndS2BGUFzhqb3iDdjOlL48IulL+iYtg5IA5fDqgokZx/2RShGHN/wa5Vf0UrvO/FOliQ=='}} |
| 0:13:00.205219 | LOG | Server ----------> DUT |
| 0:13:00.208215 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:00.212213 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:05.195121 | LOG | PUSH_ACK: 02 3874 01 |
| 0:13:05.197118 | LOG | PUSH_DATA: Protocol version = 02, Token = 3874, Identifier = 00, JSON = {'rxpk': [{'tmst': 3545825254, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAtAgBkNw+6dBL'}]} |
| 0:13:05.199120 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b4, FOpts: ), FPort: 01, FRMPayload: 03eb, MIC: 3ee9d04b) |
| 0:13:05.200120 | LOG | Server <---------- DUT |
| 0:13:05.202117 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 059a, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 3f31227c) |
| 0:13:05.205116 | LOG | Frame command sent to the DUT |
| 0:13:05.206113 | LOG | PULL_RESP: Protocol version = 02, Token = 40fb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3547825254, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAmgXgOJUC593ErInr9YfbTC5v5bdV5XSWG4WubhH/Dq98yNaxz5g8yiHoHUx6JuUQYgsLJehuPzEifA=='}} |
| 0:13:05.208112 | LOG | Server ----------> DUT |
| 0:13:05.211111 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:05.216082 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:10.042751 | LOG | PULL_DATA: 02 e3b2 02 3834383419003400 |
| 0:13:10.046768 | LOG | PULL_ACK: 02 e3b2 04 |
| 0:13:10.200475 | LOG | PUSH_ACK: 02 3875 01 |
| 0:13:10.202473 | LOG | PUSH_DATA: Protocol version = 02, Token = 3875, Identifier = 00, JSON = {'rxpk': [{'tmst': 3550828203, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAtQgBV+PV+pNd'}]} |
| 0:13:10.204472 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b5, FOpts: ), FPort: 01, FRMPayload: 03ec, MIC: d5fa935d) |
| 0:13:10.206471 | LOG | Server <---------- DUT |
| 0:13:10.208470 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 059b, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 06202041) |
| 0:13:10.210469 | LOG | Frame command sent to the DUT |
| 0:13:10.212467 | LOG | PULL_RESP: Protocol version = 02, Token = 2151, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3552828203, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, |

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| | | 'size': 64, 'data': 'YCAgICAAmwXgIPsAKX0L+gnhGObOUievfu9AIlx4DACFV6vfrN15HJbXt5f9RJb32xnwCWDDtW+qo58IBiAgQQ==''}} |
| 0:13:10.213467 | LOG | Server ----------> DUT |
| 0:13:10.217465 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:10.220463 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:15.203960 | LOG | PUSH_ACK: 02 3877 01 |
| 0:13:15.205959 | LOG | PUSH_DATA: Protocol version = 02, Token = 3877, Identifier = 00, JSON = {'rxpk': [{'tmst': 3555831162, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAtggBmtlRVwY+'}]} |
| 0:13:15.207959 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b6, FOpts: ), FPort: 01, FRMPayload: 03ed, MIC: 5157063e) |
| 0:13:15.208957 | LOG | Server <---------- DUT |
| 0:13:15.209956 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 059c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 1ebc9297) |
| 0:13:15.212954 | LOG | Frame command sent to the DUT |
| 0:13:15.214953 | LOG | PULL_RESP: Protocol version = 02, Token = 0910, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3557831162, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAnAXgdfcxPUAEibbSfincxzjwhyfx8Ah7T+bNJwyvviqENpCWZCT9+K5SyG8wLAF6G22vcSNGHrySlw==''}} |
| 0:13:15.215953 | LOG | Server ----------> DUT |
| 0:13:15.219950 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:15.222948 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:20.208443 | LOG | PUSH_ACK: 02 3878 01 |
| 0:13:20.210442 | LOG | PUSH_DATA: Protocol version = 02, Token = 3878, Identifier = 00, JSON = {'rxpk': [{'tmst': 3560834165, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAtwgBOOmejatP'}]} |
| 0:13:20.211412 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b7, FOpts: ), FPort: 01, FRMPayload: 03ee, MIC: 9e8dab4f) |
| 0:13:20.213439 | LOG | Server <---------- DUT |
| 0:13:20.215438 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 059d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 530e3137) |
| 0:13:20.217439 | LOG | Frame command sent to the DUT |
| 0:13:20.219436 | LOG | PULL_RESP: Protocol version = 02, Token = e801, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3562834165, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAnQXgsIKLWlDnDkKePbriHk6+OQxhrQUlz4x7cJ25seSdZBVgfgBC3d1iEreYvQf8jpmL4p+8Uw4xNw==''}} |
| 0:13:20.221434 | LOG | Server ----------> DUT |
| 0:13:20.224434 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:20.230428 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:25.209469 | LOG | PUSH_ACK: 02 3879 01 |
| 0:13:25.212467 | LOG | PUSH_DATA: Protocol version = 02, Token = 3879, Identifier = 00, JSON = {'rxpk': [{'tmst': 3565837168, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAuAgBNLGNPxmE'}]} |
| 0:13:25.214466 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b8, FOpts: ), FPort: 01, FRMPayload: 03ef, MIC: 8d3f1984) |

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| 0:13:25.216465 | LOG | Server <---------- DUT |
| 0:13:25.218464 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 059e, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9e94dc6f) |
| 0:13:25.220463 | LOG | Frame command sent to the DUT |
| 0:13:25.221462 | LOG | PULL_RESP: Protocol version = 02, Token = 3aa1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3567837168, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAngXg1OspAv/6CjWTlQKzfFwaLZB4y8UbUScn3oG47EkzND7i5aEy+FM75GhhGzDXCugzARNKnpTcbw=='}} |
| 0:13:25.222461 | LOG | Server ----------> DUT |
| 0:13:25.226459 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:25.230457 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:30.212646 | LOG | PUSH_ACK: 02 387a 01 |
| 0:13:30.214646 | LOG | PUSH_DATA: Protocol version = 02, Token = 387a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3570840160, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAuQgBIJFuLOEf'}]} |
| 0:13:30.216644 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08b9, FOpts: ), FPort: 01, FRMPayload: 03f0, MIC: 6e2ce11f) |
| 0:13:30.218644 | LOG | Server <---------- DUT |
| 0:13:30.220643 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 059f, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 694fee34) |
| 0:13:30.222641 | LOG | Frame command sent to the DUT |
| 0:13:30.224640 | LOG | PULL_RESP: Protocol version = 02, Token = 0b4f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3572840160, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAnwXgzVYM4PsI/4mcCaGayDyrL9hO6F/Y03tpopN5wZHbEn2FqyTQRn5Ig/i16ZwjNwskuPZ1aU/uNA=='}} |
| 0:13:30.225639 | LOG | Server ----------> DUT |
| 0:13:30.230636 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:30.234634 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:35.214345 | LOG | PUSH_ACK: 02 387b 01 |
| 0:13:35.217343 | LOG | PUSH_DATA: Protocol version = 02, Token = 387b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3575845865, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAuggBzj88RMJK'}]} |
| 0:13:35.219342 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ba, FOpts: ), FPort: 01, FRMPayload: 03f1, MIC: 3c44c24a) |
| 0:13:35.220342 | LOG | Server <---------- DUT |
| 0:13:35.222341 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a0, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4fc036cb) |
| 0:13:35.225339 | LOG | Frame command sent to the DUT |
| 0:13:35.226338 | LOG | PULL_RESP: Protocol version = 02, Token = fef2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3577845865, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAoAXgVZtVlSZMhp20Vebvh14PzySPojPioLtuIb2cTnixHFOR94XPFGaUuwsJ7LJ1WY0TyQsvT8A2yw=='}} |
| 0:13:35.227340 | LOG | Server ----------> DUT |

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| 0:13:35.231335 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:35.233335 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:40.220848 | LOG | PUSH_ACK: 02 387c 01 |
| 0:13:40.224844 | LOG | PUSH_DATA: Protocol version = 02, Token = 387c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3580850193, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAuwgBJrTpdEoK'}]} |
| 0:13:40.225841 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08bb, FOpts: ), FPort: 01, FRMPayload: 03f2, MIC: e9744a0a) |
| 0:13:40.226840 | LOG | Server <---------- DUT |
| 0:13:40.228843 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a1, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d148da20) |
| 0:13:40.230841 | LOG | Frame command sent to the DUT |
| 0:13:40.231837 | LOG | PULL_RESP: Protocol version = 02, Token = d370, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3582850193, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAoQXguMMJ11ITCkN7feYz9d1+gLxwfMD8ZrxpX8Q8oHFLobDC1WB4hPsSs1+yn1uCY8+xWSJ40UjaIA=='}} |
| 0:13:40.232836 | LOG | Server ----------> DUT |
| 0:13:40.236807 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:40.242833 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:45.224575 | LOG | PUSH_ACK: 02 387f 01 |
| 0:13:45.226574 | LOG | PUSH_DATA: Protocol version = 02, Token = 387f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3585853139, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAvAgBY+HJfRv5'}]} |
| 0:13:45.228572 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08bc, FOpts: ), FPort: 01, FRMPayload: 03f3, MIC: c97d1bf9) |
| 0:13:45.229573 | LOG | Server <---------- DUT |
| 0:13:45.231571 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a2, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9ca5bcbd) |
| 0:13:45.233569 | LOG | Frame command sent to the DUT |
| 0:13:45.235568 | LOG | PULL_RESP: Protocol version = 02, Token = 5f6d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3587853139, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAogXgV8TL2dvBYtNitdKiOfWwrByD5uFPve2SwYE7V8saUPaiVLzn8lEC9+vK5QzkH8ELYTSqnKW8vQ=='}} |
| 0:13:45.236567 | LOG | Server ----------> DUT |
| 0:13:45.240565 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:45.243564 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:50.227588 | LOG | PUSH_ACK: 02 3880 01 |
| 0:13:50.229588 | LOG | PUSH_DATA: Protocol version = 02, Token = 3880, Identifier = 00, JSON = {'rxpk': [{'tmst': 3590856134, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAvQgBwOMGDTKZ'}]} |
| 0:13:50.231587 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08bd, FOpts: ), FPort: 01, FRMPayload: 03f4, MIC: 060d3299) |
| 0:13:50.232586 | LOG | Server <---------- DUT |
| 0:13:50.234585 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a3, FOpts: ), FPort: e0, FRMPayload: |

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| | | 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 6200eb35) |
| 0:13:50.236584 | LOG | Frame command sent to the DUT |
| 0:13:50.238582 | LOG | PULL_RESP: Protocol version = 02, Token = 4ce8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3592856134, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAowXg5oywDQSkf7Cxhg5rO7quQ/MNCBq2KhCLt2XaRmhgursj9sXbaOyPkdDFMnUc/JmWagd0YgDrNQ=='}} |
| 0:13:50.239582 | LOG | Server ----------> DUT |
| 0:13:50.243580 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:50.246579 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:13:55.231922 | LOG | PUSH_ACK: 02 3881 01 |
| 0:13:55.233949 | LOG | PUSH_DATA: Protocol version = 02, Token = 3881, Identifier = 00, JSON = {'rxpk': [{'tmst': 3595859144, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAvggBEO2jKrRg'}]} |
| 0:13:55.235948 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08be, FOpts: ), FPort: 01, FRMPayload: 03f5, MIC: a32ab460) |
| 0:13:55.236946 | LOG | Server <---------- DUT |
| 0:13:55.238945 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a4, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 000ec973) |
| 0:13:55.240944 | LOG | Frame command sent to the DUT |
| 0:13:55.242942 | LOG | PULL_RESP: Protocol version = 02, Token = 33ce, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3597859144, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAApAXg8vfevBRKvFWhHBQ7p7uT/pTPeMtunqQK1Omy3YFIuLCS30nYYPtGkJVc7sa9woAc/TrEAA7Jcw=='}} |
| 0:13:55.243915 | LOG | Server ----------> DUT |
| 0:13:55.247941 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:13:55.252937 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:00.234194 | LOG | PUSH_ACK: 02 3882 01 |
| 0:14:00.236194 | LOG | PUSH_DATA: Protocol version = 02, Token = 3882, Identifier = 00, JSON = {'rxpk': [{'tmst': 3600862177, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAvwgByl8oAPKj'}]} |
| 0:14:00.237197 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08bf, FOpts: ), FPort: 01, FRMPayload: 03f6, MIC: 2800f2a3) |
| 0:14:00.239196 | LOG | Server <---------- DUT |
| 0:14:00.240192 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a5, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: f996389d) |
| 0:14:00.242189 | LOG | Frame command sent to the DUT |
| 0:14:00.243189 | LOG | PULL_RESP: Protocol version = 02, Token = 4d3a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3602862177, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAApQXgCamajTprAYp4JDKpsH7d/rGPpS9ELtvfy6tT2yRqW9srx1+xa3A2csDh4uHNe6VNoanT+ZY4nQ=='}} |
| 0:14:00.244189 | LOG | Server ----------> DUT |
| 0:14:00.249186 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:00.253182 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:05.237443 | LOG | PUSH_ACK: 02 3883 01 |

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| 0:14:05.239436 | LOG | PUSH_DATA: Protocol version = 02, Token = 3883, Identifier = 00, JSON = {'rxpk': [{'tmst': 3605867924, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAwAgB8ck5Q+dK'}]} |
| 0:14:05.240435 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c0, FOpts: ), FPort: 01, FRMPayload: 03f7, MIC: 3943e74a) |
| 0:14:05.241437 | LOG | Server <---------- DUT |
| 0:14:05.243436 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a6, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 516595a1) |
| 0:14:05.245435 | LOG | Frame command sent to the DUT |
| 0:14:05.247432 | LOG | PULL_RESP: Protocol version = 02, Token = b62e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3607867924, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAApgXgfUfKQ4WiN/LDM70/QMZa8uLNtG0pnuwuwSQ+ZlXFXQmTYFKznOFVtAHW2NYu1sK7yUpKUWWVoQ==''}} |
| 0:14:05.248434 | LOG | Server ----------> DUT |
| 0:14:05.253432 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:05.257426 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:10.243595 | LOG | PUSH_ACK: 02 3884 01 |
| 0:14:10.247593 | LOG | PUSH_DATA: Protocol version = 02, Token = 3884, Identifier = 00, JSON = {'rxpk': [{'tmst': 3610872260, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAwQgB1CgCnK/L'}], 'stat': {'time': '2021-10-09 09:25:49 GMT', 'rxnb': 6, 'rxok': 5, 'rxfw': 5, 'ackr': 83.3, 'dwnb': 5, 'txnb': 6}} |
| 0:14:10.249591 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c1, FOpts: ), FPort: 01, FRMPayload: 03f8, MIC: 029cafcb) |
| 0:14:10.250591 | LOG | Server <---------- DUT |
| 0:14:10.253559 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e85449f5) |
| 0:14:10.255589 | LOG | Frame command sent to the DUT |
| 0:14:10.257588 | LOG | PULL_RESP: Protocol version = 02, Token = fd72, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3612872260, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAApwXgNBpK/Bkuvzb/eLmmqlEQ8KmnFO5hCGgETOEwZFjEzE+tD3AMvcXqFMxZlCCxU6RdFTjy6FRJ9Q==''}} |
| 0:14:10.259586 | LOG | Server ----------> DUT |
| 0:14:10.263583 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:10.267582 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:15.247675 | LOG | PUSH_ACK: 02 3885 01 |
| 0:14:15.250671 | LOG | PUSH_DATA: Protocol version = 02, Token = 3885, Identifier = 00, JSON = {'rxpk': [{'tmst': 3615875214, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAwggB+mIbBFhs'}]} |
| 0:14:15.251670 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c2, FOpts: ), FPort: 01, FRMPayload: 03f9, MIC: 1b04586c) |
| 0:14:15.253670 | LOG | Server <---------- DUT |
| 0:14:15.254670 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a8, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: adb767a8) |
| 0:14:15.256668 | LOG | Frame command sent to the DUT |

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| 0:14:15.257668 | LOG | PULL_RESP: Protocol version = 02, Token = 9c95, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3617875214, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAqAXgeYwRqXWtJiCoUQ8jW74peXxPcPzrMobfsjbNN/MzNzAmQeOr1FuY7QvGVIKfpMqi/ONerbdnqA=='}} |
| 0:14:15.259666 | LOG | Server ----------> DUT |
| 0:14:15.262665 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:15.266662 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:20.250574 | LOG | PUSH_ACK: 02 3886 01 |
| 0:14:20.252571 | LOG | PUSH_DATA: Protocol version = 02, Token = 3886, Identifier = 00, JSON = {'rxpk': [{'tmst': 3620878177, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAwwgBNTE6v0FU'}]} |
| 0:14:20.253571 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c3, FOpts: ), FPort: 01, FRMPayload: 03fa, MIC: 3abf4154) |
| 0:14:20.254570 | LOG | Server <---------- DUT |
| 0:14:20.256569 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05a9, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7841b427) |
| 0:14:20.258568 | LOG | Frame command sent to the DUT |
| 0:14:20.260568 | LOG | PULL_RESP: Protocol version = 02, Token = 16f3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3622878177, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAqQXg3P+UkqB4ydSMgM0dRfcotNuA/i9jt6KuQt5h5W4PqzSiHFz9yKA+ULeR6f0doZC8ub/4eEG0Jw=='}} |
| 0:14:20.262566 | LOG | Server ----------> DUT |
| 0:14:20.266564 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:20.270562 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:25.252109 | LOG | PUSH_ACK: 02 3887 01 |
| 0:14:25.254108 | LOG | PUSH_DATA: Protocol version = 02, Token = 3887, Identifier = 00, JSON = {'rxpk': [{'tmst': 3625881107, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAxAgBsNnuDDsQ'}]} |
| 0:14:25.256107 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c4, FOpts: ), FPort: 01, FRMPayload: 03fb, MIC: ee0c3b10) |
| 0:14:25.257106 | LOG | Server <---------- DUT |
| 0:14:25.259107 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05aa, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e4d75638) |
| 0:14:25.261106 | LOG | Frame command sent to the DUT |
| 0:14:25.262105 | LOG | PULL_RESP: Protocol version = 02, Token = e15f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3627881107, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAqgXgPrr9glt4L3L2Z/6nYUUITtdz8jYfdkSp+3THAqmA6Z7QnJPcnCuEUA+lo0lhb81sOvL75NdWOA=='}} |
| 0:14:25.263103 | LOG | Server ----------> DUT |
| 0:14:25.266103 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:25.269100 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:30.255581 | LOG | PUSH_ACK: 02 3888 01 |
| 0:14:30.257579 | LOG | PUSH_DATA: Protocol version = 02, Token = 3888, Identifier = 00, JSON = {'rxpk': [{'tmst': 3630884116, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAxQgBO+pO6bZA'}]} |
| 0:14:30.258578 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c5, FOpts: ), FPort: 01, FRMPayload: 03fc, MIC: 4ee9b640) |
| 0:14:30.259578 | LOG | Server <---------- DUT |
| 0:14:30.261577 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ab, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: abf8c777) |
| 0:14:30.263576 | LOG | Frame command sent to the DUT |
| 0:14:30.264575 | LOG | PULL_RESP: Protocol version = 02, Token = 2ca6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3632884116, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAqwXg0gG+5TC3b6RM03T8UEBJjG00cEq0I2Te/xmQBwbRTDv3kOkaMsqQb/mtp1CdGdW2/NySq/jHdw=='}} |
| 0:14:30.265575 | LOG | Server ----------> DUT |
| 0:14:30.268573 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:30.272571 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:35.260387 | LOG | PUSH_ACK: 02 3889 01 |
| 0:14:35.262387 | LOG | PUSH_DATA: Protocol version = 02, Token = 3889, Identifier = 00, JSON = {'rxpk': [{'tmst': 3635887143, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAxggB0O5CdLca'}]} |
| 0:14:35.263387 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c6, FOpts: ), FPort: 01, FRMPayload: 03fd, MIC: 4274b71a) |
| 0:14:35.264385 | LOG | Server <---------- DUT |
| 0:14:35.266384 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ac, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fbcc231d) |
| 0:14:35.268383 | LOG | Frame command sent to the DUT |
| 0:14:35.269383 | LOG | PULL_RESP: Protocol version = 02, Token = ee31, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3637887143, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAArAXglauHQN3HAGIrDLNO7DEJK/f/B4OTr6oLceVD/dP+2fB+MX5TUTvE5TM3QjzTtWgiRF3++8wjHQ=='}} |
| 0:14:35.270382 | LOG | Server ----------> DUT |
| 0:14:35.273382 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:35.277378 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:40.262005 | LOG | PUSH_ACK: 02 388a 01 |
| 0:14:40.272000 | LOG | PUSH_DATA: Protocol version = 02, Token = 388a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3640892881, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAxwgBp435qm0y'}], 'stat': {'time': '2021-10-09 09:26:19 GMT', 'rxnb': 6, 'rxok': 6, 'rxfw': 6, 'ackr': 100.0, 'dwnb': 6, 'txnb': 6}} |
| 0:14:40.272999 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c7, FOpts: ), FPort: 01, FRMPayload: 03fe, MIC: f9aa6d32) |
| 0:14:40.273999 | LOG | Server <---------- DUT |
| 0:14:40.275997 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ad, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7dd0085e) |
| 0:14:40.278996 | LOG | Frame command sent to the DUT |
| 0:14:40.280995 | LOG | PULL_RESP: Protocol version = 02, Token = 867c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3642892881, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAArQXgcKeuIC1fyg0ZicoK4zJa5OvHd/TvtK169j5Ef9OcthQD/77/eGpkjMuicYnRN26+920GfdAIXg=='}} |
| 0:14:40.281994 | LOG | Server ----------> DUT |
| 0:14:40.284993 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:40.288990 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:45.267554 | LOG | PUSH_ACK: 02 388b 01 |
| 0:14:45.268570 | LOG | PUSH_DATA: Protocol version = 02, Token = 388b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3645895915, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAyAgBFooWxjw7'}]} |
| 0:14:45.270552 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c8, FOpts: ), FPort: 01, FRMPayload: 03ff, MIC: 16c63c3b) |
| 0:14:45.271551 | LOG | Server <---------- DUT |
| 0:14:45.272568 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ae, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 15c2ab4c) |
| 0:14:45.274549 | LOG | Frame command sent to the DUT |
| 0:14:45.276549 | LOG | PULL_RESP: Protocol version = 02, Token = 46ed, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3647895915, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAArgXgD2n+MMOgKVj7iJKJ5bJVEdypeeYHtfvLB7XrmbinnBNj4WrN1oDT3rl37snGbOiTBbxMFcKrTA=='}} |
| 0:14:45.277549 | LOG | Server ----------> DUT |
| 0:14:45.280545 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:45.283544 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:50.271245 | LOG | PUSH_ACK: 02 388c 01 |
| 0:14:50.273244 | LOG | PUSH_DATA: Protocol version = 02, Token = 388c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3650898987, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAyQgBWTuL4vUv'}]} |
| 0:14:50.274245 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08c9, FOpts: ), FPort: 01, FRMPayload: 0400, MIC: 8be2f52f) |
| 0:14:50.276242 | LOG | Server <---------- DUT |
| 0:14:50.277243 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05af, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 413b70bf) |
| 0:14:50.280242 | LOG | Frame command sent to the DUT |
| 0:14:50.282239 | LOG | PULL_RESP: Protocol version = 02, Token = 6fcf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3652898987, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAArwXgWtKl08+WvjEikS/SoSF1nDB8WNJTzFksWkLrjGP60AhzkFapGakbnPCKhn2w9r7opg1UQTtwvw=='}} |
| 0:14:50.283238 | LOG | Server ----------> DUT |
| 0:14:50.288236 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:50.292233 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:14:55.273075 | LOG | PUSH_ACK: 02 388d 01 |
| 0:14:55.275075 | LOG | PUSH_DATA: Protocol version = 02, Token = 388d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3655902015, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAyggBZ7luqKMX'}]} |

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| 0:14:55.276075 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ca, FOpts: ), FPort: 01, FRMPayload: 0401, MIC: 6ea8a317) |
| 0:14:55.277073 | LOG | Server <---------- DUT |
| 0:14:55.279072 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b0, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e8c22acd) |
| 0:14:55.282071 | LOG | Frame command sent to the DUT |
| 0:14:55.284069 | LOG | PULL_RESP: Protocol version = 02, Token = e657, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3657902015, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAsAXgG14s9YgohxWRA5/+ENiviRUmPi14zmt2oSZYh9DS89PMBlWMhksv4ZXbN+qqWbCPAMh/6MIqzQ==''}} |
| 0:14:55.285069 | LOG | Server ----------> DUT |
| 0:14:55.288067 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:14:55.292065 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:00.276920 | LOG | PUSH_ACK: 02 388e 01 |
| 0:15:00.278920 | LOG | PUSH_DATA: Protocol version = 02, Token = 388e, Identifier = 00, JSON = {'rxpk': [{'tmst': 3660905033, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAywgBOMYYlb9e''}]} |
| 0:15:00.280920 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08cb, FOpts: ), FPort: 01, FRMPayload: 0402, MIC: 1895bf5e) |
| 0:15:00.281919 | LOG | Server <---------- DUT |
| 0:15:00.284917 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b1, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e5c4088c) |
| 0:15:00.286915 | LOG | Frame command sent to the DUT |
| 0:15:00.288914 | LOG | PULL_RESP: Protocol version = 02, Token = 2b75, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3662905033, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAsQXgt+cZsgKsRvi64M4R7PORQdgbEHKDhi6zqeTBJpWGrtrkjywlU2GQoK0obR8Yb92nlZiW5cQIjA==''}} |
| 0:15:00.290913 | LOG | Server ----------> DUT |
| 0:15:00.293912 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:00.297909 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:05.278972 | LOG | PUSH_ACK: 02 388f 01 |
| 0:15:05.280971 | LOG | PUSH_DATA: Protocol version = 02, Token = 388f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3665909411, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAzAgBBh5IuOMR''}]} |
| 0:15:05.282970 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08cc, FOpts: ), FPort: 01, FRMPayload: 0403, MIC: 48b8e311) |
| 0:15:05.284970 | LOG | Server <---------- DUT |
| 0:15:05.286968 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b2, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 70da1e8f) |
| 0:15:05.289966 | LOG | Frame command sent to the DUT |
| 0:15:05.290965 | LOG | PULL_RESP: Protocol version = 02, Token = affd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3667909411, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': |

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| | | 'YCAgICAAsgXg2AmaoBiJ8EZZYcjB1I2mvr58wlp16mX2RJmhi+fqtAyJuwfTTeyNx7iEYiX5HVBm4WGDcNoejw=='}} |
| 0:15:05.292964 | LOG | Server ----------> DUT |
| 0:15:05.295962 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:05.298961 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:10.285628 | LOG | PUSH_ACK: 02 3891 01 |
| 0:15:10.290626 | LOG | PUSH_DATA: Protocol version = 02, Token = 3891, Identifier = 00, JSON = {'rxpk': [{'tmst': 3670915182, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAzQgB+DgbkGsW'}], 'stat': {'time': '2021-10-09 09:26:49 GMT', 'rxnb': 7, 'rxok': 6, 'rxfw': 6, 'ackr': 100.0, 'dwnb': 6, 'txnb': 6}} |
| 0:15:10.291625 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08cd, FOpts: ), FPort: 01, FRMPayload: 0404, MIC: 1b906b16) |
| 0:15:10.293624 | LOG | Server <---------- DUT |
| 0:15:10.295623 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b3, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 30fd8363) |
| 0:15:10.297622 | LOG | Frame command sent to the DUT |
| 0:15:10.299621 | LOG | PULL_RESP: Protocol version = 02, Token = e898, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3672915182, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAswXgHn/TX4vdGpxzXnJTNPQluxo5P1TfFQktu8BYHKw1BXlSl/cZtzF5cR6kPzzuF+DRL0JdMP2DYw=='}} |
| 0:15:10.301589 | LOG | Server ----------> DUT |
| 0:15:10.304587 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:10.309584 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:15.291137 | LOG | PUSH_ACK: 02 3892 01 |
| 0:15:15.294108 | LOG | PUSH_DATA: Protocol version = 02, Token = 3892, Identifier = 00, JSON = {'rxpk': [{'tmst': 3675919543, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAzggBBrRnRzJ0'}]} |
| 0:15:15.295132 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ce, FOpts: ), FPort: 01, FRMPayload: 0405, MIC: 67473274) |
| 0:15:15.296133 | LOG | Server <---------- DUT |
| 0:15:15.298131 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b4, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fa93286b) |
| 0:15:15.301130 | LOG | Frame command sent to the DUT |
| 0:15:15.302130 | LOG | PULL_RESP: Protocol version = 02, Token = 206f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3677919543, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAtAXg57xj29sOkIc9bU0oT9i0V0k+FQu4WXxo5zi1qV3cXfimvMhQLO3et6tzlazFqUQpMyOO+pMoaw=='}} |
| 0:15:15.304130 | LOG | Server ----------> DUT |
| 0:15:15.309100 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:15.313097 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:20.293847 | LOG | PUSH_ACK: 02 3893 01 |
| 0:15:20.295846 | LOG | PUSH_DATA: Protocol version = 02, Token = 3893, Identifier = 00, JSON = {'rxpk': [{'tmst': 3680922539, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzwgBN2Ab7mE4'}]} |
| 0:15:20.296845 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08cf, FOpts: ), FPort: 01, FRMPayload: 0406, MIC: 1bee6138) |

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| 0:15:20.298844 | LOG | Server <---------- DUT |
| 0:15:20.300843 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b5, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: eaced4e5) |
| 0:15:20.302842 | LOG | Frame command sent to the DUT |
| 0:15:20.304841 | LOG | PULL_RESP: Protocol version = 02, Token = e2dc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3682922539, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAtQXgM1Vi4s1cS1m2WuaCcTt4EjKlFUr2oP2Pwfv3ft6R1Bib7TwKEMS4JDiKPLpda3DpIn556s7U5Q=='}} |
| 0:15:20.306839 | LOG | Server ----------> DUT |
| 0:15:20.309838 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:20.313836 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:25.297083 | LOG | PUSH_ACK: 02 3894 01 |
| 0:15:25.299082 | LOG | PUSH_DATA: Protocol version = 02, Token = 3894, Identifier = 00, JSON = {'rxpk': [{'tmst': 3685925580, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA0AgBmn/ppGiJ'}]} |
| 0:15:25.301081 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d0, FOpts: ), FPort: 01, FRMPayload: 0407, MIC: e9a46889) |
| 0:15:25.303080 | LOG | Server <---------- DUT |
| 0:15:25.305079 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b6, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 687855ff) |
| 0:15:25.308077 | LOG | Frame command sent to the DUT |
| 0:15:25.310078 | LOG | PULL_RESP: Protocol version = 02, Token = 22f3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3687925580, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAtgXgMb95l/zcenveTSin/yw/x0RktVoVFyQ75Yv1wCdnInyVduLKnE3mXEqcBBwAlgp8JReuaHhV/w=='}} |
| 0:15:25.311076 | LOG | Server ----------> DUT |
| 0:15:25.314073 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:25.318072 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:30.300240 | LOG | PUSH_ACK: 02 3895 01 |
| 0:15:30.303237 | LOG | PUSH_DATA: Protocol version = 02, Token = 3895, Identifier = 00, JSON = {'rxpk': [{'tmst': 3690928598, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA0QgBOsAUbcDT'}]} |
| 0:15:30.304237 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d1, FOpts: ), FPort: 01, FRMPayload: 0408, MIC: 146dc0d3) |
| 0:15:30.306236 | LOG | Server <---------- DUT |
| 0:15:30.308235 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 18e7cd8b) |
| 0:15:30.310234 | LOG | Frame command sent to the DUT |
| 0:15:30.312232 | LOG | PULL_RESP: Protocol version = 02, Token = 8487, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3692928598, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAtwXgZT5LMF6C02h208r9OM59FF3eLYhNGLA3B26Vi5RlNbx7FJ1P2WksoY5xbzki99eL3rHxGOfNiw=='}} |
| 0:15:30.314231 | LOG | Server ----------> DUT |

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| 0:15:30.317230 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:30.321227 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:35.302395 | LOG | PUSH_ACK: 02 3896 01 |
| 0:15:35.305393 | LOG | PUSH_DATA: Protocol version = 02, Token = 3896, Identifier = 00, JSON = {'rxpk': [{'tmst': 3695931624, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA0ggBep5HaKqj'}]} |
| 0:15:35.306393 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d2, FOpts: ), FPort: 01, FRMPayload: 0409, MIC: 4768aaa3) |
| 0:15:35.308393 | LOG | Server <---------- DUT |
| 0:15:35.310391 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b8, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d388ff83) |
| 0:15:35.313389 | LOG | Frame command sent to the DUT |
| 0:15:35.315388 | LOG | PULL_RESP: Protocol version = 02, Token = 4f2f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3697931624, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAuAXgF+plR6pJYz2vnhv/yGFp8e0PTk2QAAN2AZV7p3hLXIYSvy4DdPpzlmdvo8KuNN2pqsPq04j/gw=='}} |
| 0:15:35.316387 | LOG | Server ----------> DUT |
| 0:15:35.320385 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:35.324383 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:40.351700 | LOG | PULL_DATA: 02 9d0e 02 3834383419003400 |
| 0:15:40.356698 | LOG | PULL_ACK: 02 9d0e 04 |
| 0:15:40.373690 | LOG | PUSH_ACK: 02 3898 01 |
| 0:15:40.375687 | LOG | PUSH_DATA: Protocol version = 02, Token = 3898, Identifier = 00, JSON = {'rxpk': [{'tmst': 3700937395, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 6.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA0wgBVqf+O4nC'}]} |
| 0:15:40.377686 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d3, FOpts: ), FPort: 01, FRMPayload: 040a, MIC: fe3b89c2) |
| 0:15:40.378688 | LOG | Server <---------- DUT |
| 0:15:40.380686 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05b9, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: bb961ed1) |
| 0:15:40.382683 | LOG | Frame command sent to the DUT |
| 0:15:40.383683 | LOG | PULL_RESP: Protocol version = 02, Token = f1e6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3702937395, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAuQXgOOmnyeQ4Q3n2DQ1R1VfOFwjUsImdN45yjSAnE8X2RkPNFir01n8VpG4vKbQFA0gWMTDFu5Ye0Q=='}} |
| 0:15:40.384684 | LOG | Server ----------> DUT |
| 0:15:40.387681 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:40.390680 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:45.311880 | LOG | PUSH_ACK: 02 3899 01 |
| 0:15:45.314879 | LOG | PUSH_DATA: Protocol version = 02, Token = 3899, Identifier = 00, JSON = {'rxpk': [{'tmst': 3705941780, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA1AgB4xTAEXBz'}]} |
| 0:15:45.315878 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d4, FOpts: ), FPort: 01, FRMPayload: 040b, MIC: c0117073) |
| 0:15:45.317878 | LOG | Server <---------- DUT |

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| 0:15:45.319876 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ba, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e031d54b) |
| 0:15:45.321875 | LOG | Frame command sent to the DUT |
| 0:15:45.323874 | LOG | PULL_RESP: Protocol version = 02, Token = 3872, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3707941780, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAugXg2/CiZ6R6UXb+Bct3MKV0p8GgJaMjpXnUbspVRcCd57TF2pfSaN6XMgCVJDg3ju7u83Z+4DHVSw=='}} |
| 0:15:45.324875 | LOG | Server ----------> DUT |
| 0:15:45.328871 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:45.331871 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:50.315901 | LOG | PUSH_ACK: 02 389a 01 |
| 0:15:50.318899 | LOG | PUSH_DATA: Protocol version = 02, Token = 389a, Identifier = 00, JSON = {'rxpk': [{'tmst': 3710944759, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA1QgBqsbdV9Dm'}]} |
| 0:15:50.320898 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d5, FOpts: ), FPort: 01, FRMPayload: 040c, MIC: dd57d0e6) |
| 0:15:50.322897 | LOG | Server <---------- DUT |
| 0:15:50.324896 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05bb, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: eb7eab20) |
| 0:15:50.326895 | LOG | Frame command sent to the DUT |
| 0:15:50.328894 | LOG | PULL_RESP: Protocol version = 02, Token = 42ed, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3712944759, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAuwXg/B4GaO/ILscp9eSK514wnQazO6zHgH9pgfutzrwD0OpcDNhtokOCklu02dQCHVDR8Klw636rIA=='}} |
| 0:15:50.329893 | LOG | Server ----------> DUT |
| 0:15:50.334890 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:50.351881 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:15:50.541917 | LOG | PULL_DATA: 02 1450 02 3834383419003400 |
| 0:15:50.542917 | LOG | PULL_ACK: 02 1450 04 |
| 0:15:55.319151 | LOG | PUSH_ACK: 02 389b 01 |
| 0:15:55.321150 | LOG | PUSH_DATA: Protocol version = 02, Token = 389b, Identifier = 00, JSON = {'rxpk': [{'tmst': 3715947784, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA1ggB8eL1RFK6'}]} |
| 0:15:55.323150 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d6, FOpts: ), FPort: 01, FRMPayload: 040d, MIC: f54452ba) |
| 0:15:55.324149 | LOG | Server <---------- DUT |
| 0:15:55.327147 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05bc, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 32854088) |
| 0:15:55.329146 | LOG | Frame command sent to the DUT |
| 0:15:55.331145 | LOG | PULL_RESP: Protocol version = 02, Token = 18f8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3717947784, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAvAXgIvTk/A87a5Ap1jJfOQnPJcK3ylauBau2m/XWWaYqE4+/eUbXjh8/gidpf24ODytLS1lMMoVAiA=='}} |

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| 0:15:55.332144 | LOG | Server ----------> DUT |
| 0:15:55.335142 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:15:55.338141 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:00.323306 | LOG | PUSH_ACK: 02 389c 01 |
| 0:16:00.325306 | LOG | PUSH_DATA: Protocol version = 02, Token = 389c, Identifier = 00, JSON = {'rxpk': [{'tmst': 3720950824, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA1wgBblVhfcrJ'}]} |
| 0:16:00.327304 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d7, FOpts: ), FPort: 01, FRMPayload: 040e, MIC: 617dcac9) |
| 0:16:00.328303 | LOG | Server <---------- DUT |
| 0:16:00.330303 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05bd, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: b7364b32) |
| 0:16:00.333301 | LOG | Frame command sent to the DUT |
| 0:16:00.334300 | LOG | PULL_RESP: Protocol version = 02, Token = d3ef, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3722950824, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAvQXgBr7/Xo3EBpI1Lr9yzZOwz7igq66oTk/dAzVT8CFsURhJYM2Hn/jJk+KuAu9WKFiwXb5rtzZLMg==''}} |
| 0:16:00.336299 | LOG | Server ----------> DUT |
| 0:16:00.339298 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:00.343297 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:00.751273 | LOG | PULL_DATA: 02 b2f6 02 3834383419003400 |
| 0:16:00.753271 | LOG | PULL_ACK: 02 b2f6 04 |
| 0:16:05.325671 | LOG | PUSH_ACK: 02 389d 01 |
| 0:16:05.328670 | LOG | PUSH_DATA: Protocol version = 02, Token = 389d, Identifier = 00, JSON = {'rxpk': [{'tmst': 3725953857, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA2AgBUkqP8+Zs'}]} |
| 0:16:05.329670 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d8, FOpts: ), FPort: 01, FRMPayload: 040f, MIC: 8ff3e66c) |
| 0:16:05.330669 | LOG | Server <---------- DUT |
| 0:16:05.332667 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05be, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 6654b799) |
| 0:16:05.334667 | LOG | Frame command sent to the DUT |
| 0:16:05.335666 | LOG | PULL_RESP: Protocol version = 02, Token = 655d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3727953857, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAvgXg1asoxUih0Q8M1Qd8Aj9HgRiViWU1GQWde5QPlIsq89qCpERLY4kMZwqjIsrdagSlowhZZlS3mQ==''}} |
| 0:16:05.336666 | LOG | Server ----------> DUT |
| 0:16:05.340663 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:05.344661 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:10.393213 | LOG | PUSH_ACK: 02 389f 01 |
| 0:16:10.396211 | LOG | PUSH_DATA: Protocol version = 02, Token = 389f, Identifier = 00, JSON = {'rxpk': [{'tmst': 3730959618, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA2QgBNR9KtPVN'}]} |
| 0:16:10.398210 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08d9, FOpts: ), FPort: 01, FRMPayload: 0410, MIC: 4ab4f54d) |
| 0:16:10.399209 | LOG | Server <---------- DUT |

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| 0:16:10.401209 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05bf, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a98010d8) |
| 0:16:10.403207 | LOG | Frame command sent to the DUT |
| 0:16:10.405206 | LOG | PULL_RESP: Protocol version = 02, Token = b532, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3732959618, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAvwXgbSYBXaz7U/q0b0AyDpfjPnDU9OGTtbmmPqa9Slswqe5AIrZ9i6c2uhqfDASt6IS4aaJGqYAQ2A=='}} |
| 0:16:10.407205 | LOG | Server ----------> DUT |
| 0:16:10.410205 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:10.415200 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:10.831964 | LOG | PULL_DATA: 02 9505 02 3834383419003400 |
| 0:16:10.833962 | LOG | PULL_ACK: 02 9505 04 |
| 0:16:15.333403 | LOG | PUSH_ACK: 02 38a0 01 |
| 0:16:15.335403 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a0, Identifier = 00, JSON = {'rxpk': [{'tmst': 3735965378, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA2ggBpAeTak2D'}]} |
| 0:16:15.336402 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08da, FOpts: ), FPort: 01, FRMPayload: 0411, MIC: 936a4d83) |
| 0:16:15.337402 | LOG | Server <---------- DUT |
| 0:16:15.339401 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c0, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 2c25f455) |
| 0:16:15.342399 | LOG | Frame command sent to the DUT |
| 0:16:15.343398 | LOG | PULL_RESP: Protocol version = 02, Token = 8911, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3737965378, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAwAXgPtrNuVTdcZfOJsafNZjMXUcl+l204s3wq65u/VxBlbAx3qeEvH8IHVR4Dpt0b5/U5NGRLCX0VQ=='}} |
| 0:16:15.344398 | LOG | Server ----------> DUT |
| 0:16:15.347396 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:15.350394 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:20.340226 | LOG | PUSH_ACK: 02 38a1 01 |
| 0:16:20.342197 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3740968416, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA2wgBWtZXfXOU'}]} |
| 0:16:20.344226 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08db, FOpts: ), FPort: 01, FRMPayload: 0412, MIC: 577d7394) |
| 0:16:20.345222 | LOG | Server <---------- DUT |
| 0:16:20.347222 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c1, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 6b4ae71d) |
| 0:16:20.350219 | LOG | Frame command sent to the DUT |
| 0:16:20.352222 | LOG | PULL_RESP: Protocol version = 02, Token = 2e35, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3742968416, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAwQXgjndlO6+p9t8GSO/ue2RwItEixVqwDiDlsGaC79uVQ9yg0FVuXdJa/3ThLDX37a0+zF00a0rnHQ=='}} |

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| 0:16:20.353218 | LOG | Server ----------> DUT |
| 0:16:20.357188 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:20.361217 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:20.981277 | LOG | PULL_DATA: 02 4869 02 3834383419003400 |
| 0:16:20.983274 | LOG | PULL_ACK: 02 4869 04 |
| 0:16:25.342393 | LOG | PUSH_ACK: 02 38a2 01 |
| 0:16:25.344392 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a2, Identifier = 00, JSON = {'rxpk': [{'tmst': 3745971460, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA3AgBMzPIqLee'}]} |
| 0:16:25.346391 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08dc, FOpts: ), FPort: 01, FRMPayload: 0413, MIC: c8a8b79e) |
| 0:16:25.347390 | LOG | Server <---------- DUT |
| 0:16:25.349389 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c2, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a0105430) |
| 0:16:25.352387 | LOG | Frame command sent to the DUT |
| 0:16:25.354386 | LOG | PULL_RESP: Protocol version = 02, Token = 6efe, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3747971460, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAwgXguWIt33j/wqrc1/q5VYOMGlQ+wSiTIFr/PPF/qi6a64MYuy2DRErVWOAwLAXb41C+S4vjoBBUMA=='}} |
| 0:16:25.355385 | LOG | Server ----------> DUT |
| 0:16:25.359384 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:25.361401 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:30.345725 | LOG | PUSH_ACK: 02 38a3 01 |
| 0:16:30.347723 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3750974485, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA3QgBk18/4gju'}]} |
| 0:16:30.349722 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08dd, FOpts: ), FPort: 01, FRMPayload: 0414, MIC: 3fe208ee) |
| 0:16:30.350722 | LOG | Server <---------- DUT |
| 0:16:30.352720 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c3, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: db8e16d9) |
| 0:16:30.355719 | LOG | Frame command sent to the DUT |
| 0:16:30.356718 | LOG | PULL_RESP: Protocol version = 02, Token = d536, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3752974485, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAwwXgfvs7SpUD9ADXz0JtL9hyWdeNkKARiegj1T4Vy2Ydi2/aXW1CHYwNwuc7wVoeQxI61J3q244W2Q=='}} |
| 0:16:30.358717 | LOG | Server ----------> DUT |
| 0:16:30.362715 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:30.365713 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:16:30.991624 | LOG | PULL_DATA: 02 f442 02 3834383419003400 |
| 0:16:30.993623 | LOG | PULL_ACK: 02 f442 04 |
| 0:16:35.348148 | LOG | PUSH_ACK: 02 38a4 01 |
| 0:16:35.351145 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a4, Identifier = 00, JSON = {'rxpk': [{'tmst': 3755977495, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA3ggB+WwmxkzG'}]} |

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| 0:16:35.352145 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08de, FOpts: ), FPort: 01, FRMPayload: 0415, MIC: 26c64cc6) |
| 0:16:35.354144 | LOG | Server <---------- DUT |
| 0:16:35.356143 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c4, FOpts: ), FPort: e0, FRMPayload: 070001010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 45f6f8c1) |
| 0:16:35.359141 | LOG | Frame command sent to the DUT |
| 0:16:35.360140 | LOG | PULL_RESP: Protocol version = 02, Token = 1936, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3757977495, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAxAXg34WAFICqiA1ntPK9jBXVNVZs3BhygPxhi49tcgZeSCGu2dDXu9SGPKEvJERZXZg9/GluRfb4wQ=='}} |
| 0:16:35.362139 | LOG | Server ----------> DUT |
| 0:16:35.364138 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:16:35.368138 | LOG | Send Test Command RxAppCntReq process starts |
| 0:16:40.413991 | LOG | PUSH_ACK: 02 38a6 01 |
| 0:16:40.418988 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3760981891, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA3wgBqx6YT8++'}]} |
| 0:16:40.420987 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08df, FOpts: ), FPort: 01, FRMPayload: 0416, MIC: 984fcfbe) |
| 0:16:40.421986 | LOG | Server <---------- DUT |
| 0:16:40.423985 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c5, FOpts: ), FPort: e0, FRMPayload: 09), MIC: a856528c) |
| 0:16:40.425984 | LOG | Frame command sent to the DUT |
| 0:16:40.427983 | LOG | PULL_RESP: Protocol version = 02, Token = 5da2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3762981891, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAxQXg4KhWUow='}} |
| 0:16:40.428982 | LOG | Server ----------> DUT |
| 0:16:40.431980 | LOG | TX_ACK: 02 5da2 05 3834383419003400 |
| 0:16:41.061623 | LOG | PULL_DATA: 02 a86e 02 3834383419003400 |
| 0:16:41.064621 | LOG | PULL_ACK: 02 a86e 04 |
| 0:16:45.357669 | LOG | PUSH_ACK: 02 38a7 01 |
| 0:16:45.359666 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3765994580, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 16, 'data': 'QCAgICCA4AjgShqtqI6BoA=='}]} |
| 0:16:45.361665 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08e0, FOpts: ), FPort: e0, FRMPayload: 091704, MIC: a88e81a0) |
| 0:16:45.362666 | LOG | Server <---------- DUT |
| 0:16:45.364665 | LOG | Answer in payload: 1704 |
| 0:16:45.365664 | LOG | Frame Command Payload in the Answer: 091704 |
| 0:16:45.370660 | LOG | RX Count received by DUT: 1047 |
| 0:16:45.373659 | LOG | Send Test Command RxAppCntReq process completed |
| 0:16:45.382653 | LOG | End Test Step: Test packet error rate for SF10BW125 using RX2 window |
| 0:16:45.386651 | LOG | Partial Verdict: PASS |
| 0:16:45.391649 | LOG | ========== |
| 0:16:45.396647 | LOG | ========== |
| 0:16:45.398645 | LOG | Start Test Step: Test packet error rate for SF9BW125 using RX2 window |
| 0:16:45.410639 | LOG | Send RXParamSetupReq process starts |
| 0:16:50.396803 | LOG | PUSH_ACK: 02 38a8 01 |

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| 0:16:50.399801 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3770989340, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA4QgB6wnonpCa'}]} |
| 0:16:50.400800 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08e1, FOpts: ), FPort: 01, FRMPayload: 0417, MIC: e89e909a) |
| 0:16:50.402801 | LOG | Server <---------- DUT |
| 0:16:50.404798 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c6, FOpts: ), FPort: 00, FRMPayload: 0503d2ad84), MIC: 96da5658) |
| 0:16:50.406797 | LOG | PULL_RESP: Protocol version = 02, Token = 4bea, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3772989340, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAxgUAaySUFp2W2lZY'}} |
| 0:16:50.408796 | LOG | Server ----------> DUT |
| 0:16:50.411794 | LOG | TX_ACK: 02 4bea 05 3834383419003400 |
| 0:16:51.251317 | LOG | PULL_DATA: 02 75d6 02 3834383419003400 |
| 0:16:51.252316 | LOG | PULL_ACK: 02 75d6 04 |
| 0:16:55.405955 | LOG | PUSH_ACK: 02 38a9 01 |
| 0:16:55.407954 | LOG | PUSH_DATA: Protocol version = 02, Token = 38a9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3775998895, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 17, 'data': 'QCAgICCC4ggFBwGowIehPGg='}]} |
| 0:16:55.408953 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 08e2, FOpts: 0507), FPort: 01, FRMPayload: 0417, MIC: 87a13c68) |
| 0:16:55.409953 | LOG | Server <---------- DUT |
| 0:16:55.411952 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:16:55.412951 | LOG | Command Answer: 0507 |
| 0:16:55.430941 | LOG | MAC command communication completed |
| 0:16:55.445932 | LOG | Send Test Command RxAppCntReq process starts |
| 0:17:00.394119 | LOG | PUSH_ACK: 02 38aa 01 |
| 0:17:00.396119 | LOG | PUSH_DATA: Protocol version = 02, Token = 38aa, Identifier = 00, JSON = {'rxpk': [{'tmst': 3781001935, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC4wgFBwEVQiQxN+M='}]} |
| 0:17:00.398117 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 08e3, FOpts: 0507), FPort: 01, FRMPayload: 0417, MIC: 243137e3) |
| 0:17:00.399116 | LOG | Server <---------- DUT |
| 0:17:00.401115 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c7, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 09241694) |
| 0:17:00.404113 | LOG | Frame command sent to the DUT |
| 0:17:00.406113 | LOG | PULL_RESP: Protocol version = 02, Token = 9ffd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3783001935, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAxwXgDQkkFpQ='}} |
| 0:17:00.408111 | LOG | Server ----------> DUT |
| 0:17:00.411109 | LOG | TX_ACK: 02 9ffd 05 3834383419003400 |
| 0:17:01.460417 | LOG | PULL_DATA: 02 5af8 02 3834383419003400 |
| 0:17:01.462416 | LOG | PULL_ACK: 02 5af8 04 |
| 0:17:05.387184 | LOG | PUSH_ACK: 02 38ab 01 |
| 0:17:05.390182 | LOG | PUSH_DATA: Protocol version = 02, Token = 38ab, Identifier = 00, JSON = {'rxpk': [{'tmst': 3786008072, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 16, 'data': 'QCAgICCA5AjgtZa4C52zWA=='}]} |
| 0:17:05.391181 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08e4, FOpts: ), FPort: e0, FRMPayload: 091804, MIC: 0b9db358) |

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| 0:17:05.393181 | LOG | Server <---------- DUT |
| 0:17:05.394180 | LOG | Answer in payload: 1804 |
| 0:17:05.396179 | LOG | Frame Command Payload in the Answer: 091804 |
| 0:17:05.401176 | LOG | RX Count received by DUT: 1048 |
| 0:17:05.403174 | LOG | Send Test Command RxAppCntReq process completed |
| 0:17:05.406172 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:17:10.393446 | LOG | PUSH_ACK: 02 38ad 01 |
| 0:17:10.395445 | LOG | PUSH_DATA: Protocol version = 02, Token = 38ad, Identifier = 00, JSON = {'rxpk': [{'tmst': 3791002840, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5QgB6BJJmA0E'}]} |
| 0:17:10.396445 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08e5, FOpts: ), FPort: 01, FRMPayload: 0418, MIC: 49980d04) |
| 0:17:10.397418 | LOG | Server <---------- DUT |
| 0:17:10.399444 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05c8, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:17:15.428587 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:17:20.410753 | LOG | PUSH_ACK: 02 38af 01 |
| 0:17:20.412750 | LOG | PUSH_DATA: Protocol version = 02, Token = 38af, Identifier = 00, JSON = {'rxpk': [{'tmst': 3801011620, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA5wgB6+g0EvTM'}]} |
| 0:17:20.414749 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08e7, FOpts: ), FPort: 01, FRMPayload: 041a, MIC: 3412f4cc) |
| 0:17:20.415748 | LOG | Server <---------- DUT |
| 0:17:20.417748 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ca, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA6QgBPkXdR9Td'}]} |
| 0:17:30.423058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08e9, FOpts: ), FPort: 01, FRMPayload: 041c, MIC: dd47d4dd) |
| 0:17:30.425058 | LOG | Server <---------- DUT |
| 0:17:30.427031 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05cc, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:17:40.440442 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ce, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 83081294) |
| 0:17:50.442883 | LOG | Frame command sent to the DUT |
| 0:17:50.444882 | LOG | PULL_RESP: Protocol version = 02, Token = e911, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3833032509, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 128, 'data': 'YCAgICAA0AXgHgmJ0CiREwl8+nvGwi/ucfGNaHpi+XVnTWxV9loKlYY41Hy7fz/cdsofm7O8kMG6ABL6BpuKjFnsPobAbXoRUH/lgGf7wtIUjAvq49LQVhZQbUhiG9yFCqbqoOu0+3oRkS/74Fgx5vTKwHVmSP65dd0Wu4MIEpQ='}} |
| 0:17:50.445881 | LOG | Server ----------> DUT |
| 0:17:50.449879 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:17:50.454876 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:17:51.710706 | LOG | PULL_DATA: 02 5410 02 3834383419003400 |
| 0:17:51.712706 | LOG | PULL_ACK: 02 5410 04 |
| 0:17:55.435589 | LOG | PUSH_ACK: 02 38b7 01 |
| 0:17:55.438588 | LOG | PUSH_DATA: Protocol version = 02, Token = 38b7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3836036887, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA7ggBg1usSdUp'}]} |
| 0:17:55.439587 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ee, FOpts: ), FPort: 01, FRMPayload: 0421, MIC: ac49d529) |
| 0:17:55.441586 | LOG | Server <---------- DUT |
| 0:17:55.443585 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05d1, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101

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| | | 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 128, 'data': 'YCAgICAA0gXgf1n2f7LPCqApwLA6Rp4dK2r5rhCgEEQzR0egXgmJ8yXHoQ414dieoi9R0Lr9eZxqcbFwVyXfr25V1QNw5PMpxViwHbcQqdrqwQrYhy7Y+T9jBeCSRyffsH6fDqzWwMQAycu8lyILW6+ZVLLnUCkMBNiAAn4hlCc='}} |
| 0:18:00.487275 | LOG | Server ----------> DUT |
| 0:18:00.490273 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:18:00.494271 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:18:01.750810 | LOG | PULL_DATA: 02 2f7f 02 3834383419003400 |
| 0:18:01.752810 | LOG | PULL_ACK: 02 2f7f 04 |
| 0:18:05.442743 | LOG | PUSH_ACK: 02 38b9 01 |
| 0:18:05.444742 | LOG | PUSH_DATA: Protocol version = 02, Token = 38b9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3846042868, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA8AgBb57dzJ0o'}]} |
| 0:18:05.446740 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08f0, FOpts: ), FPort: 01, FRMPayload: 0423, MIC: ddcc9d28) |
| 0:18:05.447738 | LOG | Server <---------- DUT |
| 0:18:05.450738 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05d3, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:18:10.425910 | LOG | Server ----------> DUT |
| 0:18:10.428907 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:18:10.432906 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:18:11.890285 | LOG | PULL_DATA: 02 72cd 02 3834383419003400 |
| 0:18:11.895282 | LOG | PULL_ACK: 02 72cd 04 |
| 0:18:15.448296 | LOG | PUSH_ACK: 02 38bc 01 |
| 0:18:15.451292 | LOG | PUSH_DATA: Protocol version = 02, Token = 38bc, Identifier = 00, JSON = {'rxpk': [{'tmst': 3856048951, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA8ggBfW/C+lwB'}]} |
| 0:18:15.452293 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08f2, FOpts: ), FPort: 01, FRMPayload: 0425, MIC: c2fa5c01) |
| 0:18:15.454292 | LOG | Server <---------- DUT |
| 0:18:15.456290 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05d5, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:18:25.459080 | LOG | PUSH_ACK: 02 38be 01 |
| 0:18:25.461079 | LOG | PUSH_DATA: Protocol version = 02, Token = 38be, Identifier = 00, JSON = {'rxpk': [{'tmst': 3866057660, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA9AgBmMtFkmZb'}]} |
| 0:18:25.462079 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08f4, FOpts: ), FPort: 01, FRMPayload: 0427, MIC: 4592665b) |
| 0:18:25.464078 | LOG | Server <---------- DUT |
| 0:18:25.466075 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05d7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:18:35.469862 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08f6, FOpts: ), FPort: 01, FRMPayload: 0429, MIC: 3007f3f4) |
| 0:18:35.470879 | LOG | Server <---------- DUT |
| 0:18:35.472860 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05d9, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:18:55.491899 | LOG | PULL_RESP: Protocol version = 02, Token = c6aa, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3898081247, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 128, 'data': 'YCAgICAA3QXgpXVk06BKB72XG4W3XZ1ugYO+K+Q3KWIdMduo3CGQEK6POzGTH9vpPZiMKJdMbor5geMn2CXBDI3of7JfIhFUQX/CE9BnFGs0rismYr8KBWciCh0wXugvRJ0prAzLg12R73i0y8yEtJ8iPgk0UjM3BypTf2u4jpg='}} |
| 0:18:55.492898 | LOG | Server ----------> DUT |
| 0:18:55.495896 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:18:55.498895 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:19:00.484393 | LOG | PUSH_ACK: 02 38c6 01 |
| 0:19:00.486392 | LOG | PUSH_DATA: Protocol version = 02, Token = 38c6, Identifier = 00, JSON = {'rxpk': [{'tmst': 3901085568, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA+wgBR4giHMZY'}]} |
| 0:19:00.488393 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08fb, FOpts: ), FPort: 01, FRMPayload: 042e, MIC: 221cc658) |
| 0:19:00.490390 | LOG | Server <---------- DUT |
| 0:19:00.491389 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05de, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| | | FSDsV9U2v+obgam48crZcGU/wA9TFyNCuWIop4GLbzfOv6cXddNVoH89BhCdpft2JBAXv5DPw55HUlqfQnsL0EXRa0eS365cUytZ+iFV8EI9n3A='}} |
| 0:19:05.504541 | LOG | Server ----------> DUT |
| 0:19:05.507537 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:19:05.510536 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:19:10.454971 | LOG | PUSH_ACK: 02 38c9 01 |
| 0:19:10.456970 | LOG | PUSH_DATA: Protocol version = 02, Token = 38c9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3911091576, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA/QgBsJ6KoKBb'}]} |
| 0:19:10.457970 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08fd, FOpts: ), FPort: 01, FRMPayload: 0430, MIC: 8aa0a05b) |
| 0:19:10.458969 | LOG | Server <---------- DUT |
| 0:19:10.459969 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05e0, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:19:20.497661 | LOG | PUSH_ACK: 02 38cb 01 |
| 0:19:20.500659 | LOG | PUSH_DATA: Protocol version = 02, Token = 38cb, Identifier = 00, JSON = {'rxpk': [{'tmst': 3921099013, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA/wgB8AHTSpGc'}]} |
| 0:19:20.501659 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 08ff, FOpts: ), FPort: 01, FRMPayload: 0431, MIC: d34a919c) |
| 0:19:20.503658 | LOG | Server <---------- DUT |
| 0:19:20.505657 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05e2, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:19:30.510592 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0901, FOpts: ), FPort: 01, FRMPayload: 0432, MIC: 1017dea7) |
| 0:19:30.512593 | LOG | Server <---------- DUT |
| 0:19:30.514591 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05e4, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:19:50.533884 | LOG | PULL_RESP: Protocol version = 02, Token = 5f63, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3953119874, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 128, 'data': 'YCAgICAA6AXgsm/3XVSEez9q3r3hd0BxZ7ea9RrQmdD66ctGtOkYD7Yna9TPw25CdyCyK5Fu7ssRZGoszxCtpJdNTkjxq98zwOQEvX5aBn8/RPNlC+1bpBYlc0sgk8EnkBe/pdvhE/v2sNLhVhEBMQL5GSKIgkNtUS6Vlq+BNgE='}} |
| 0:19:50.535881 | LOG | Server ----------> DUT |
| 0:19:50.538879 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:19:50.541879 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:19:52.850553 | LOG | PULL_DATA: 02 e4e3 02 3834383419003400 |
| 0:19:52.852551 | LOG | PULL_ACK: 02 e4e3 04 |
| 0:19:55.524033 | LOG | PUSH_ACK: 02 38d3 01 |
| 0:19:55.527031 | LOG | PUSH_DATA: Protocol version = 02, Token = 38d3, Identifier = 00, JSON = {'rxpk': [{'tmst': 3956124258, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCABgkBAQ2jxPwz'}]} |
| 0:19:55.528030 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0906, FOpts: ), FPort: 01, FRMPayload: 0437, MIC: a3c4fc33) |
| 0:19:55.529030 | LOG | Server <---------- DUT |
| 0:19:55.532029 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05e9, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | Neve7ODezttCns8maOlUgigZAv+SdPbT9IKyRenOMpkiG6dJNffmOUhmIsVm7WnX8yEaNyWCijH8pzqP44ZgHzwBHEUGMUr7kTHJ4uBmUcjVgiaQDc='}} |
| 0:20:00.542058 | LOG | Server ----------> DUT |
| 0:20:00.548055 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:20:00.552053 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:20:03.060456 | LOG | PULL_DATA: 02 3e32 02 3834383419003400 |
| 0:20:03.061456 | LOG | PULL_ACK: 02 3e32 04 |
| 0:20:05.533052 | LOG | PUSH_ACK: 02 38d5 01 |
| 0:20:05.535049 | LOG | PUSH_DATA: Protocol version = 02, Token = 38d5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3966131688, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCACAkBN3bZW7NP'}]} |
| 0:20:05.537048 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0908, FOpts: ), FPort: 01, FRMPayload: 0439, MIC: d95bb34f) |
| 0:20:05.538050 | LOG | Server <---------- DUT |
| 0:20:05.540047 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05eb, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:20:13.250077 | LOG | PULL_DATA: 02 7426 02 3834383419003400 |
| 0:20:13.253077 | LOG | PULL_ACK: 02 7426 04 |
| 0:20:15.538775 | LOG | PUSH_ACK: 02 38d8 01 |
| 0:20:15.541774 | LOG | PUSH_DATA: Protocol version = 02, Token = 38d8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3976137717, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCACgkBG1wpkf8J'}]} |
| 0:20:15.542775 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 090a, FOpts: ), FPort: 01, FRMPayload: 043b, MIC: 2991ff09) |
| 0:20:15.544772 | LOG | Server <---------- DUT |
| 0:20:15.546772 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ed, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCADAkBfrHTBYV9'}]} |
| 0:20:25.548403 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 090c, FOpts: ), FPort: 01, FRMPayload: 043d, MIC: d305857d) |
| 0:20:25.550404 | LOG | Server <---------- DUT |
| 0:20:25.552402 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05ef, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:20:35.562723 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05f1, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 38c73b81) |
| 0:20:45.570174 | LOG | Frame command sent to the DUT |
| 0:20:45.572175 | LOG | PULL_RESP: Protocol version = 02, Token = 42b3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4008161335, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 128, 'data': 'YCAgICAA8wXg8wrOZ8+hMGXfrsFvAfdF5lpWQ/ocFloroz/2ThPZSkgPL6Jvo8bWz7dSei1N8SqQ5a3vHWzQKv8SFT+btKsJYRZtO8TsR4Fs4imv75+HBZmRjl47nn6cExc/5oPzA4Di4nypBh9yySeYpGcZ+An+YBoxHDjHO4E='}} |
| 0:20:45.573173 | LOG | Server ----------> DUT |
| 0:20:45.577171 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:20:45.582167 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:20:50.563366 | LOG | PUSH_ACK: 02 38e0 01 |
| 0:20:50.566365 | LOG | PUSH_DATA: Protocol version = 02, Token = 38e0, Identifier = 00, JSON = {'rxpk': [{'tmst': 4011164338, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAEQkBnk/Uin8o'}]} |
| 0:20:50.567363 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0911, FOpts: ), FPort: 01, FRMPayload: 0442, MIC: d48a7f28) |
| 0:20:50.569363 | LOG | Server <---------- DUT |
| 0:20:50.571362 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05f4, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101

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| | | 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 128, 'data': 'YCAgICAA9QXgNLbm5t8VLp/NNpEUzDllWLG7gq9Jy7jbf+ZLMRkAZvcM4GhBePED5KdQmakbVUZWPLyVYhuJ8r5Ybt4d5jkKnWabHIwZN/fER+4BFn68K4xmXXSs1PhP6mq0kTRTn3t/ZnEbBMpygmtsGhR2156aM5HeJYWkM5E='}} |
| 0:20:55.582419 | LOG | Server ----------> DUT |
| 0:20:55.586445 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:20:55.589444 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:21:00.570872 | LOG | PUSH_ACK: 02 38e2 01 |
| 0:21:00.573869 | LOG | PUSH_DATA: Protocol version = 02, Token = 38e2, Identifier = 00, JSON = {'rxpk': [{'tmst': 4021173120, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAEwkBkm++2Yzl'}]} |
| 0:21:00.574870 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0913, FOpts: ), FPort: 01, FRMPayload: 0444, MIC: bed98ce5) |
| 0:21:00.576869 | LOG | Server <---------- DUT |
| 0:21:00.578866 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05f6, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:21:05.589057 | LOG | Server ----------> DUT |
| 0:21:05.592055 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:21:05.595024 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:21:10.543882 | LOG | PUSH_ACK: 02 38e5 01 |
| 0:21:10.545881 | LOG | PUSH_DATA: Protocol version = 02, Token = 38e5, Identifier = 00, JSON = {'rxpk': [{'tmst': 4031180451, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAFQkBkxSg2Z9I'}]} |
| 0:21:10.546880 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0915, FOpts: ), FPort: 01, FRMPayload: 0446, MIC: a0d99f48) |
| 0:21:10.548880 | LOG | Server <---------- DUT |
| 0:21:10.550878 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05f8, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:21:20.587388 | LOG | PUSH_DATA: Protocol version = 02, Token = 38e8, Identifier = 00, JSON = {'rxpk': [{'tmst': 4041186471, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAFwkBA0wXNZZ9'}]} |
| 0:21:20.589386 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0917, FOpts: ), FPort: 01, FRMPayload: 0448, MIC: 1735967d) |
| 0:21:20.590386 | LOG | Server <---------- DUT |
| 0:21:20.593387 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05fa, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:21:30.596725 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0919, FOpts: ), FPort: 01, FRMPayload: 044a, MIC: d92429ef) |
| 0:21:30.597724 | LOG | Server <---------- DUT |
| 0:21:30.600723 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 05fc, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:21:50.616617 | LOG | PULL_RESP: Protocol version = 02, Token = 6867, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4073207143, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 128, 'data': 'YCAgICAAAAbgppXY4ZEscKBLEK4k9kcGXd/+BKSk9HjEcOqhJpK3J9t0eFFydvB4nBj21mcmsLyaTiX/JvumvinzGpOqrxHzrx1oDC4VZm39b8UwRMlIfB94B7bJ8BI0ICwsguW2J+cdF/pnHR69GpnfhV3Da7iCZqrbkQ4KskY='}} |
| 0:21:50.618614 | LOG | Server ----------> DUT |
| 0:21:50.621614 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:21:50.624611 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:21:54.189057 | LOG | PULL_DATA: 02 3a3d 02 3834383419003400 |
| 0:21:54.191059 | LOG | PULL_ACK: 02 3a3d 04 |
| 0:21:55.609280 | LOG | PUSH_ACK: 02 38f0 01 |
| 0:21:55.611281 | LOG | PUSH_DATA: Protocol version = 02, Token = 38f0, Identifier = 00, JSON = {'rxpk': [{'tmst': 4076210155, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAHgkBItnDFwf4'}]} |
| 0:21:55.613253 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 091e, FOpts: ), FPort: 01, FRMPayload: 044f, MIC: c31707f8) |
| 0:21:55.614277 | LOG | Server <---------- DUT |
| 0:21:55.616251 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0601, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | TANOMBlj661ofpPHsXgkEnL18E5LJG4lPe1+woqMKJpFUEJOruvrkMLQpqkPxQx+JzngopmFDAcApkkyUlPDPNSEGpPVQC0PyPYQZTOKus0x/RE='}} |
| 0:22:00.626086 | LOG | Server ----------> DUT |
| 0:22:00.630085 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:22:00.634081 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:22:04.199401 | LOG | PULL_DATA: 02 f7d5 02 3834383419003400 |
| 0:22:04.201400 | LOG | PULL_ACK: 02 f7d5 04 |
| 0:22:05.617594 | LOG | PUSH_ACK: 02 38f2 01 |
| 0:22:05.621593 | LOG | PUSH_DATA: Protocol version = 02, Token = 38f2, Identifier = 00, JSON = {'rxpk': [{'tmst': 4086218948, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAIAkBDRp2sZ32'}]} |
| 0:22:05.622592 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0920, FOpts: ), FPort: 01, FRMPayload: 0451, MIC: 76b19df6) |
| 0:22:05.623591 | LOG | Server <---------- DUT |
| 0:22:05.625590 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0603, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:22:15.610263 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0922, FOpts: ), FPort: e0, FRMPayload: 095304, MIC: f305481b) |
| 0:22:15.612264 | LOG | Server <---------- DUT |
| 0:22:15.613264 | LOG | Answer in payload: 5304 |
| 0:22:15.615262 | LOG | Frame Command Payload in the Answer: 095304 |
| 0:22:15.620257 | LOG | RX Count received by DUT: 1107 |
| 0:22:15.623256 | LOG | Send Test Command RxAppCntReq process completed |
| 0:22:15.630252 | LOG | End Test Step: Test packet error rate for SF9BW125 using RX2 window |
| 0:22:15.634250 | LOG | Partial Verdict: PASS |
| 0:22:15.640246 | LOG | ========== |
| 0:22:15.647242 | LOG | ========== |
| 0:22:15.649241 | LOG | Start Test Step: Test packet error rate for SF8BW125 using RX2 window |
| 0:22:15.661234 | LOG | Send RXParamSetupReq process starts |
| 0:22:20.595953 | LOG | PUSH_ACK: 02 38f6 01 |
| 0:22:20.597952 | LOG | PUSH_DATA: Protocol version = 02, Token = 38f6, Identifier = 00, JSON = {'rxpk': [{'tmst': 4101229389, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAIwkBjULYdcI3'}]} |
| 0:22:20.598951 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0923, FOpts: ), FPort: 01, FRMPayload: 0453, MIC: d875c237) |
| 0:22:20.600950 | LOG | Server <---------- DUT |
| 0:22:20.602949 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0605, FOpts: ), FPort: 00, FRMPayload: 0504d2ad84), MIC: 6732557c) |
| 0:22:20.605947 | LOG | PULL_RESP: Protocol version = 02, Token = 183b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4103229389, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAABQYAwebjDVZnMlV8'}} |
| 0:22:20.606947 | LOG | Server ----------> DUT |
| 0:22:20.610944 | LOG | TX_ACK: 02 183b 05 3834383419003400 |
| 0:22:24.389418 | LOG | PULL_DATA: 02 8b24 02 3834383419003400 |
| 0:22:24.392415 | LOG | PULL_ACK: 02 8b24 04 |
| 0:22:25.634683 | LOG | PUSH_ACK: 02 38f8 01 |
| 0:22:25.636683 | LOG | PUSH_DATA: Protocol version = 02, Token = 38f8, Identifier = 00, JSON = {'rxpk': [{'tmst': 4106237542, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCJAkFBwGacyR5Io0='}]} |
| 0:22:25.638683 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0924, FOpts: 0507), FPort: 01, FRMPayload: 0453, MIC: 2479228d) |
| 0:22:25.639681 | LOG | Server <---------- DUT |
| 0:22:25.641706 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:22:25.642706 | LOG | Command Answer: 0507 |
| 0:22:25.656697 | LOG | MAC command communication completed |
| 0:22:25.665663 | LOG | Send Test Command RxAppCntReq process starts |
| 0:22:30.625119 | LOG | PUSH_ACK: 02 38f9 01 |
| 0:22:30.627117 | LOG | PUSH_DATA: Protocol version = 02, Token = 38f9, Identifier = 00, JSON = {'rxpk': [{'tmst': 4111240590, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCJQkFBwGeP8Dr53A='}]} |
| 0:22:30.629117 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0925, FOpts: 0507), FPort: 01, FRMPayload: 0453, MIC: c0ebe770) |
| 0:22:30.630116 | LOG | Server <---------- DUT |
| 0:22:30.631115 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0606, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 3b5271da) |
| 0:22:30.634114 | LOG | Frame command sent to the DUT |

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| 0:22:30.636113 | LOG | PULL_RESP: Protocol version = 02, Token = e9ca, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4113240590, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAABgbgeDtScdo='}} |
| 0:22:30.637114 | LOG | Server ----------> DUT |
| 0:22:30.641111 | LOG | TX_ACK: 02 e9ca 05 3834383419003400 |
| 0:22:34.419011 | LOG | PULL_DATA: 02 50c9 02 3834383419003400 |
| 0:22:34.421010 | LOG | PULL_ACK: 02 50c9 04 |
| 0:22:40.615321 | LOG | PUSH_ACK: 02 38fc 01 |
| 0:22:40.617320 | LOG | PUSH_DATA: Protocol version = 02, Token = 38fc, Identifier = 00, JSON = {'rxpk': [{'tmst': 4121241512, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAJwkBS9RHX52c'}]} |
| 0:22:40.619319 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0927, FOpts: ), FPort: 01, FRMPayload: 0454, MIC: 475f9d9c) |
| 0:22:40.620318 | LOG | Server <---------- DUT |
| 0:22:40.622317 | LOG | Packet received from unexpected FPort 01 |
| 0:22:44.498708 | LOG | PULL_DATA: 02 56c4 02 3834383419003400 |
| 0:22:44.503705 | LOG | PULL_ACK: 02 56c4 04 |
| 0:22:45.605079 | LOG | PUSH_ACK: 02 38fd 01 |
| 0:22:45.607079 | LOG | PUSH_DATA: Protocol version = 02, Token = 38fd, Identifier = 00, JSON = {'rxpk': [{'tmst': 4126244544, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAKAkBWd0ebWub'}]} |
| 0:22:45.608077 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0928, FOpts: ), FPort: 01, FRMPayload: 0454, MIC: 1e6d6b9b) |
| 0:22:45.609078 | LOG | Server <---------- DUT |
| 0:22:45.611076 | LOG | Resend the Frame command. May the DUT did not listen |
| 0:22:45.612077 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0607, FOpts: ), FPort: e0, FRMPayload: 09), MIC: f3f4fc43) |
| 0:22:45.614076 | LOG | Frame command sent to the DUT |
| 0:22:45.616075 | LOG | PULL_RESP: Protocol version = 02, Token = 5be5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4128244544, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAABwbgx/P0/EM='}} |
| 0:22:45.617072 | LOG | Server ----------> DUT |
| 0:22:45.620072 | LOG | TX_ACK: 02 5be5 05 3834383419003400 |
| 0:22:50.618157 | LOG | PUSH_ACK: 02 38fe 01 |
| 0:22:50.620157 | LOG | PUSH_DATA: Protocol version = 02, Token = 38fe, Identifier = 00, JSON = {'rxpk': [{'tmst': 4131257200, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 16, 'data': 'QCAgICCAKQng6W45Ivqg/w=='}]} |
| 0:22:50.621156 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0929, FOpts: ), FPort: e0, FRMPayload: 095504, MIC: 22faa0ff) |
| 0:22:50.622155 | LOG | Server <---------- DUT |
| 0:22:50.624154 | LOG | Answer in payload: 5504 |
| 0:22:50.625153 | LOG | Frame Command Payload in the Answer: 095504 |
| 0:22:50.629150 | LOG | RX Count received by DUT: 1109 |
| 0:22:50.632149 | LOG | Send Test Command RxAppCntReq process completed |
| 0:22:50.636148 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:22:54.648949 | LOG | PULL_DATA: 02 efe5 02 3834383419003400 |
| 0:22:54.650949 | LOG | PULL_ACK: 02 efe5 04 |
| 0:22:55.659375 | LOG | PUSH_ACK: 02 38ff 01 |
| 0:22:55.663373 | LOG | PUSH_DATA: Protocol version = 02, Token = 38ff, Identifier = 00, JSON = {'rxpk': [{'tmst': 4136251968, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAKgkBEIG8aCUm'}]} |
| 0:22:55.664372 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 092a, FOpts: ), FPort: 01, FRMPayload: 0455, MIC: bc682526) |
| 0:22:55.666373 | LOG | Server <---------- DUT |
| 0:22:55.668370 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0608, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:23:00.632321 | LOG | Server ----------> DUT |
| 0:23:00.635320 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:23:00.639318 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:23:04.828821 | LOG | PULL_DATA: 02 8d26 02 3834383419003400 |
| 0:23:04.830821 | LOG | PULL_ACK: 02 8d26 04 |
| 0:23:05.627397 | LOG | PUSH_ACK: 02 3901 01 |
| 0:23:05.629396 | LOG | PUSH_DATA: Protocol version = 02, Token = 3901, Identifier = 00, JSON = {'rxpk': [{'tmst': 4146263475, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCALAkBx2Sz2yxm'}]} |
| 0:23:05.631395 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 092c, FOpts: ), FPort: 01, FRMPayload: 0457, MIC: b3db2c66) |
| 0:23:05.633395 | LOG | Server <---------- DUT |
| 0:23:05.636393 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 060a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:23:10.656642 | LOG | PULL_RESP: Protocol version = 02, Token = 51f0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4153266366, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAACwbgsMu6ua4YtT7ZnXATtjFXBd4nxI6qn246XRDVktgokN6Pyq61x03xlFTA5pS757bceRcweF+wg4WsEBWySjUc2vhz8jtKdM61GyYsruQxLjgrCpkozYZskrLVBYIU2W6+8lDMXSEr4mbcbVpAkoHKCmuZFqZmRuYB1EOA8fd+KbR/ygwCAAAjehNfqGjySLhJTo05vEXaHPSwaMxw8Qh9oFijkrFsjXj5pL0rj3XrVtA7+8nnj25npASygTGMV2Y3n+gZX7X8Im4HWyb1nrHiKMzu/lnQ6GwWFXtx7CWmcvnfigeszdjMem9I0GaXYefWqCGD2hWd'}} |
| 0:23:10.658641 | LOG | Server ----------> DUT |
| 0:23:10.661639 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:23:10.664637 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:23:14.859232 | LOG | PULL_DATA: 02 a3d5 02 3834383419003400 |
| 0:23:14.863229 | LOG | PULL_ACK: 02 a3d5 04 |
| 0:23:15.636790 | LOG | PUSH_ACK: 02 3904 01 |
| 0:23:15.638789 | LOG | PUSH_DATA: Protocol version = 02, Token = 3904, Identifier = 00, JSON = {'rxpk': [{'tmst': 4156269401, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCALgkB6foSppq9'}]} |
| 0:23:15.640790 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 092e, FOpts: ), FPort: 01, FRMPayload: 0459, MIC: 12a69abd) |
| 0:23:15.642787 | LOG | Server <---------- DUT |
| 0:23:15.644786 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 060c, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:23:30.648728 | LOG | PUSH_DATA: Protocol version = 02, Token = 3907, Identifier = 00, JSON = {'rxpk': [{'tmst': 4171278455, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAMQkB4vypixGf'}]} |
| 0:23:30.650727 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0931, FOpts: ), FPort: 01, FRMPayload: 045c, MIC: a98b119f) |
| 0:23:30.652725 | LOG | Server <---------- DUT |
| 0:23:30.655724 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 060f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 3Znx0sUoCI82PpfBtmlOeKPuosNa30/5J3RtfZJd3J1Jccer76XoYHQ3C3bnxd00ieUphEHf7AT8EHe6GzD7YboNdoX80QUuzp8KuHLrpf3ICZvSDOPae3mU+HoGHajUzqPUJhMAxIqUsKjE0+iMfh8eVBsoPUm16w9nznUaPDdzWf5Tx+KPhTPzXH8Sqa96FPh3FkEv4YKK4dZPSwTRSY73PwXrLZ'}} |
| 0:23:35.662866 | LOG | Server ----------> DUT |
| 0:23:35.666864 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:23:35.670862 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:23:40.666302 | LOG | PUSH_ACK: 02 390a 01 |
| 0:23:40.668304 | LOG | PUSH_DATA: Protocol version = 02, Token = 390a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4181289946, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAMwkBbCSmzmvO'}]} |
| 0:23:40.669303 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0933, FOpts: ), FPort: 01, FRMPayload: 045e, MIC: a6ce6bce) |
| 0:23:40.671301 | LOG | Server <---------- DUT |
| 0:23:40.673301 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0611, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 5e86a89d) |
| 0:23:45.671034 | LOG | Frame command sent to the DUT |
| 0:23:45.673032 | LOG | PULL_RESP: Protocol version = 02, Token = 7447, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4188292943, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAEgbgybGhcGZBnrfFlMpOSAvNUVlO7aa4xFBAciKAWBMWB+nVbFaDYepiJqCe6DNFWWP6LhgUreP09cvwp4IdruFDPJCa+jeEb17UP8G2qgcBigYm4mq0yLaaygzAVspZtctvDH+66pWqT99fxUQLUhI1CojzcnPFK2BtKjMruj4BX8+6i1iLyAbDeUZoyHED4BNk1cFgfb/C+CYLOWHGRr5TD7Y9cmNJo7/KoQrGlEnVNJNUmmegQZ3XLY/ovTiidfP4rqBUEhB1OQR3Ky1xM/xj7ITwgX8pO39ujnJ2vUEDirPPSu1jPZ+lhSW9HWlOqQ7wWYRehqid'}} |
| 0:23:45.675032 | LOG | Server ----------> DUT |
| 0:23:45.679029 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:23:45.682027 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:23:50.664221 | LOG | PUSH_ACK: 02 390c 01 |
| 0:23:50.666220 | LOG | PUSH_DATA: Protocol version = 02, Token = 390c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4191295983, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCANQkB7ZODoW4M'}]} |
| 0:23:50.668219 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0935, FOpts: ), FPort: 01, FRMPayload: 0460, MIC: 83a16e0c) |
| 0:23:50.671217 | LOG | Server <---------- DUT |
| 0:23:50.673216 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0613, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:23:55.672104 | LOG | Server <---------- DUT |
| 0:23:55.674102 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0614, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:24:05.510453 | LOG | PULL_ACK: 02 1c1b 04 |
| 0:24:05.671361 | LOG | PUSH_ACK: 02 390f 01 |
| 0:24:05.673360 | LOG | PUSH_DATA: Protocol version = 02, Token = 390f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4206307726, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAOAkBCf0dZCdk'}]} |
| 0:24:05.675360 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0938, FOpts: ), FPort: 01, FRMPayload: 0463, MIC: 1d642764) |
| 0:24:05.676359 | LOG | Server <---------- DUT |
| 0:24:05.679357 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0616, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | Doz2oBHvtUVnP8K0bMMQJUGFFvs4RLRI8sQFLTzJrFwWjy+crpdnimUX4LE<br>TxO1/gsxkSqOMwGQtPDP8v9ACNhasT+/QHHJj0rZj0qUiC3hg8IOBV5tPtfxI0s<br>W2jctB9BOGXAmX880E0nUwp8MSCU/6cfwDdXZ/4LHPAkgpxo0gsJLMUSUR<br>LJrK0I+k5wpP5rn3C40liMEYZQrCdC2PHSFleu5'}} |
| 0:24:10.708051 | LOG | Server ----------> DUT |
| 0:24:10.712050 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:24:10.716047 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:24:15.538648 | LOG | PULL_DATA: 02 a7b1 02 3834383419003400 |
| 0:24:15.542646 | LOG | PULL_ACK: 02 a7b1 04 |
| 0:24:15.683567 | LOG | PUSH_ACK: 02 3912 01 |
| 0:24:15.685566 | LOG | PUSH_DATA: Protocol version = 02, Token = 3912, Identifier = 00, JSON = {'rxpk': [{'tmst': 4216316529, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAOgkBTDttysLE'}]} |
| 0:24:15.687565 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 093a, FOpts: ), FPort: 01, FRMPayload: 0465, MIC: 6dcac2c4) |
| 0:24:15.688564 | LOG | Server <---------- DUT |
| 0:24:15.691561 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0618, FOpts: ), FPort: e0, FRMPayload:<br>0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101) , MIC: b7a711e3) |
| 0:24:15.693562 | LOG | Frame command sent to the DUT |
| 0:24:15.695559 | LOG | PULL_RESP: Protocol version = 02, Token = b064, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4218316529, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data':<br>'YCAgICAAGAbg0K4GPhv3BIBo+bgGZt31Rvj0OylRNtV2OkrNbYUn9YF6dPM<br>mgqNOkiBGLMHI6wqKgIRZ48CO+BYyGXbhpHtnxkFZKr1AoBhGLhG9z9Z2O<br>YOuQFi16TRBfIvrRteXwGoVk2UVCx1AreBlHf8OTAD11/U2NlHS1YIDDBuVi<br>V16YotruCtZ7afnfAh/e+wAsi/8lJ2mAOn9R9ifZ7MLW2lg99HMrZ3v4/91PmdYF<br>KagFXbxvFNuiVTK14FtKN92rWSJKKQD290+3p3ooYdJvHy9PB15hBOvWOO<br>WC3A5gcARVad66iSrrhClP+ncixFr3ajfPp63pxHj'}} |
| 0:24:15.697558 | LOG | Server ----------> DUT |
| 0:24:15.701557 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:24:15.705555 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:24:20.686697 | LOG | PUSH_ACK: 02 3913 01 |
| 0:24:20.689694 | LOG | PUSH_DATA: Protocol version = 02, Token = 3913, Identifier = 00, JSON = {'rxpk': [{'tmst': 4221319532, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAOwkBUaP2wqDF'}]} |
| 0:24:20.690694 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 093b, FOpts: ), FPort: 01, FRMPayload: 0466, MIC: f6c2a0c5) |
| 0:24:20.692693 | LOG | Server <---------- DUT |
| 0:24:20.694692 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0619, FOpts: ), FPort: e0, FRMPayload:<br>0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101 |

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e351c06d) |
| 0:24:20.697690 | LOG | Frame command sent to the DUT |
| 0:24:20.698689 | LOG | PULL_RESP: Protocol version = 02, Token = 2678, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4223319532, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAGQbg7Bpb/NYgGEV04QmfEJbXmpUQSf8ogbIr+vh+w9um1FK3hC7/ZkwKsGbC58pMZeYdhEGmW7Cxkm7xdlXS/eIt59n8FzB1I0mcVvmY6MMq4gQuPoSkkiOoo9n0GON0csdWeNkk3uu9l0KlYE3R76uTLxpbm3kMnBGJ3bsIKNs3+ev3R3nXvXDHeTOCEiBSXaEfFAg4g75vkg0EkugsPKI9kNuf3DomUXmpd5s+NjZ2JrTFnu168WvdBbEMXq/SZ2+6kjj9MdLBpI/AkkBjc83TaKO/xkgm/nIye5SWeQZvbpkNEb6431+P5IND8BFI/4DiQvXjUcBt'}} |
| 0:24:20.700688 | LOG | Server ----------> DUT |
| 0:24:20.704687 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:24:20.708684 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:24:25.688890 | LOG | PUSH_ACK: 02 3914 01 |
| 0:24:25.691888 | LOG | PUSH_DATA: Protocol version = 02, Token = 3914, Identifier = 00, JSON = {'rxpk': [{'tmst': 4226322580, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAPAkBB2yiDGFm'}]} |
| 0:24:25.692888 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 093c, FOpts: ), FPort: 01, FRMPayload: 0467, MIC: a20c6166) |
| 0:24:25.694887 | LOG | Server <---------- DUT |
| 0:24:25.696886 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 061a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:24:30.700084 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 061b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:24:40.709205 | LOG | PUSH_DATA: Protocol version = 02, Token = 3918, Identifier = 00, JSON = {'rxpk': [{'tmst': 4241334323, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAPwkBd3UTlGhL'}]} |
| 0:24:40.710206 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 093f, FOpts: ), FPort: 01, FRMPayload: 046a, MIC: 1394684b) |
| 0:24:40.711205 | LOG | Server <---------- DUT |
| 0:24:40.714201 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 061d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | oOWbtlBLbb28omIBUYXfwZ+d2LqVcUi4UeaAxdn33fVsYDZk2rluYnQSkobcakU+JoxisJmVDx3XweQD55LS3eQoOYSu2T842C8'}} |
| 0:24:45.720105 | LOG | Server ----------> DUT |
| 0:24:45.724103 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:24:45.727101 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:24:50.709350 | LOG | PUSH_ACK: 02 391a 01 |
| 0:24:50.711351 | LOG | PUSH_DATA: Protocol version = 02, Token = 391a, Identifier = 00, JSON = {'rxpk': [{'tmst': 4251341730, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAQQkBbipiWNgk'}]} |
| 0:24:50.713348 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0941, FOpts: ), FPort: 01, FRMPayload: 046c, MIC: 6258d824) |
| 0:24:50.714347 | LOG | Server <---------- DUT |
| 0:24:50.716346 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 061f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:24:55.722481 | LOG | PULL_RESP: Protocol version = 02, Token = c4bf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4258344715, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAIAbgCOldnaXXF48wZ2cW+MlUcWjoxve8JnhlQHdWIyZKhVBxNtvOjlSCJGRJRwgs2ZFoT9bTDD2wr1C+uSaoaXEnjaYP8zXtv/B/VXGsPFDcu/0t2hrPBdA2Xw8gfU2QygDN8x6rVFToaKusqIi6wHYhHrPjIOmAkxaa70k+9n4e9xcueHQKr2G/wF6LDbq+YLgtdfl+kpSTMvKIcpd/nerkaEXSEh/1T/UegY1EyI8yRmMnZnGtAc4PZ+M8QjAMg06hXOsEmbGJFs0Gj0ZS2NundVUJu4l1+4z6htvyZ+79DWPpK2aSqp9f9rFXFQaVTUS0RUp0EsBK'}} |
| 0:24:55.724481 | LOG | Server ----------> DUT |
| 0:24:55.727480 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:24:55.729478 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:25:00.714958 | LOG | PUSH_ACK: 02 391c 01 |
| 0:25:00.716958 | LOG | PUSH_DATA: Protocol version = 02, Token = 391c, Identifier = 00, JSON = {'rxpk': [{'tmst': 4261347739, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAQwkBhn47hy5B'}]} |
| 0:25:00.717956 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0943, FOpts: ), FPort: 01, FRMPayload: 046e, MIC: 3b872e41) |
| 0:25:00.718956 | LOG | Server <---------- DUT |
| 0:25:00.720955 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0621, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: 8ea8df07) |
| 0:25:05.726619 | LOG | Frame command sent to the DUT |
| 0:25:05.727619 | LOG | PULL_RESP: Protocol version = 02, Token = 1fcb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4268350747, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAIgbgJtJvtuuKpNhWvmVAhxU7PLZAHj2FvhTktajq54qPJ2vVGrdOmIIToCZN57/8wn6otIUkVyJspkx9R6N2RUcPCn+4jn4WHVMgWy2fnwhvvtoROGUYna8Xk8D/axtIi5fHBwNgMjTZqDxXQAPI2gez6vAPbptmW3yAV/RuaWIqR0oVK80DKV5mC5Crprg6phSSEtJSgr0CcTO1fpUdoTGOCsPacPJWElOziJmwKrPb/FpmRMZrhrqwjPDPBz4Zs7aLLytf1TmaBp2koBJzLU73b5wPwZ8evypaqEad3s/CMAtOGCenRhrcPE3hQ19Kvyau8kWOqN8H'}} |
| 0:25:05.729619 | LOG | Server ----------> DUT |
| 0:25:05.731617 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:25:05.734615 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:25:10.736766 | LOG | PUSH_ACK: 02 391f 01 |
| 0:25:10.741763 | LOG | PUSH_DATA: Protocol version = 02, Token = 391f, Identifier = 00, JSON = {'rxpk': [{'tmst': 4271356485, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCARQkBlwTrxFm7'}]} |
| 0:25:10.744762 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0945, FOpts: ), FPort: 01, FRMPayload: 0470, MIC: ebc459bb) |
| 0:25:10.747760 | LOG | Server <---------- DUT |
| 0:25:10.753757 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0623, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: fedde70e) |
| 0:25:10.755756 | LOG | Frame command sent to the DUT |
| 0:25:10.757772 | LOG | PULL_RESP: Protocol version = 02, Token = afdc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 4273356485, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAIwbgK1LHQGjxg9qSjpgpg1YECFk0E9/5R6AvmR/MxSUhX5XpF9LIDdvoqWZE8djLkcPPo1R8uNI3s/scRahE7s4IqsdRGdp3WilxEXvT34kIUf4NT5gVa0nTURi0S2RgIYfrSqhJWf5HM36vXDReoKyqUBdx6udfGS05IfaEm81IM4UdmNsQd0JcFyWNb0fomuQJrn7wotu+Q9sltHfTKlc7oRAHBvv9s5zoozjV6a/nzsJSGk/zRCGCSYygH8g6c3OQZdzWjhUCxLe2HNzYpUtFsgp+ZjrHDoI3PBFL93vkGPyFcPh0c03OCZPSqWpjSn9Wpvf+3ecO'}} |
| 0:25:10.758754 | LOG | Server ----------> DUT |
| 0:25:10.761752 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:25:10.764750 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:25:15.726822 | LOG | PUSH_ACK: 02 3920 01 |
| 0:25:15.731820 | LOG | PUSH_DATA: Protocol version = 02, Token = 3920, Identifier = 00, JSON = {'rxpk': [{'tmst': 4276362207, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCARgkBmGiZU3xA'}]} |
| 0:25:15.733788 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0946, FOpts: ), FPort: 01, FRMPayload: 0471, MIC: 99537c40) |

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| 0:25:15.734787 | LOG | Server <---------- DUT |
| 0:25:15.737786 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0624, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:25:25.736692 | LOG | PUSH_DATA: Protocol version = 02, Token = 3922, Identifier = 00, JSON = {'rxpk': [{'tmst': 4286368177, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCASAkBivxtZHb6'}]} |
| 0:25:25.737690 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0948, FOpts: ), FPort: 01, FRMPayload: 0473, MIC: 6d6476fa) |
| 0:25:25.738689 | LOG | Server <---------- DUT |
| 0:25:25.741688 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0626, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 3ID9nD1ySHr8+EB54FEULDLzoYqbHgpl9lH+mwK/rZ2eGwaGkMc4Pt3owTd/6V3oogemEZyqZbDxdEdZ50pCDam37/t/F'}} |
| 0:25:30.750363 | LOG | Server ----------> DUT |
| 0:25:30.753362 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:25:30.756360 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:25:35.740235 | LOG | PUSH_ACK: 02 3924 01 |
| 0:25:35.742234 | LOG | PUSH_DATA: Protocol version = 02, Token = 3924, Identifier = 00, JSON = {'rxpk': [{'tmst': 1406757, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCASgkBEdTEZVZl'}]} |
| 0:25:35.744233 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 094a, FOpts: ), FPort: 01, FRMPayload: 0475, MIC: c4655665) |
| 0:25:35.746232 | LOG | Server <---------- DUT |
| 0:25:35.749230 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0628, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAKQbgmNQ2aoeqfwlOInbbovWO3BG6SYnUqH6TMyemJbXxFSyeA7UOFjNJqty/s5bViLa/wr1u/qUUVaysAqjpbGIKTaxzoTObp3mR1cALrUYPZSGnUMbQxampd7+aLG2Byh3anwAN+ZusIsxRmRHX6xHQY+2bUP764VC00wSPQQEi6v0QdQlgWjSHlSKDu4e3H4emJu1O+cHtPHjfJT0CPnP5B5AqCAWRCfJIzxH+IkucRpi9vhqOq0SJ+kCnavEJJsLVCHZF6Q1/uZyNMv97nacYdXul1QG5jVjd/W7LPQo7h8VRe8eu4vYbO4mBTNVBtx9FbR20YCym'}} |
| 0:25:40.771078 | LOG | Server ----------> DUT |
| 0:25:40.775077 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:25:40.780072 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:25:45.749163 | LOG | PUSH_ACK: 02 3927 01 |
| 0:25:45.753163 | LOG | PUSH_DATA: Protocol version = 02, Token = 3927, Identifier = 00, JSON = {'rxpk': [{'tmst': 11418224, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCATAkB2XV5/UPU'}]} |
| 0:25:45.755160 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 094c, FOpts: ), FPort: 01, FRMPayload: 0477, MIC: 79fd43d4) |
| 0:25:45.757160 | LOG | Server <---------- DUT |
| 0:25:45.759158 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 062a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 4caad247) |
| 0:25:50.766533 | LOG | Frame command sent to the DUT |
| 0:25:50.768531 | LOG | PULL_RESP: Protocol version = 02, Token = 0950, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 18421178, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAKwbgi8H3r0s2rXAKqYsJ3Y6+2x5XqrjG7XOeCssyqcF9bqmcgzvIB6s/Oj/XUIHmz+hGJE2O9b5gUf7DCGPYBik1Czhk2zitvwjPakye9eAQH5uUrSJBkbyVAQMoIk0hNS79H5vYjXmxxMKWrmN8OehVXr3RXqdnxbMPjKahN+YjBLgngRzRuOjlBYuB95VYJBNFy32ZyYPM6RRN0tzQ3zX8ExuUqOyTigjU3kWdep456c2MfJn3n7EtFO7TgDm/5BR5KDPTnF0rfkk7JxMuz17TNhGOngy83pjfiaFIowVZEC/uKIqRajcUTdtDT5IJ2I+bqp9MqtJH'}} |
| 0:25:50.769529 | LOG | Server ----------> DUT |
| 0:25:50.772527 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:25:50.776525 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:25:55.757828 | LOG | PUSH_ACK: 02 3929 01 |
| 0:25:55.759826 | LOG | PUSH_DATA: Protocol version = 02, Token = 3929, Identifier = 00, JSON = {'rxpk': [{'tmst': 21424148, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCATgkBEhDBp61U'}]} |
| 0:25:55.761826 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 094e, FOpts: ), FPort: 01, FRMPayload: 0479, MIC: c1a7ad54) |
| 0:25:55.763826 | LOG | Server <---------- DUT |
| 0:25:55.765824 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 062c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101

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| 0:26:00.768978 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 062d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:26:10.780672 | LOG | PUSH_DATA: Protocol version = 02, Token = 392d, Identifier = 00, JSON = {'rxpk': [{'tmst': 36433042, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAUQkBiLOL81xS'}]} |
| 0:26:10.781672 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0951, FOpts: ), FPort: 01, FRMPayload: 047c, MIC: 8bf35c52) |
| 0:26:10.783672 | LOG | Server <---------- DUT |
| 0:26:10.785669 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 062f, FOpts: ), FPort: e0, FRMPayload: 070001010101010101010101

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| | | 9YUKiL7cxL0A4P/xsSBW7LM/vw42NIAO5zYKqvDld2LRHEavL9vy6inngiojq//LJmpoFuElDiURz6z1dNTsbFt/tE6HbdllNiP9'}} |
| 0:26:15.784827 | LOG | Server ----------> DUT |
| 0:26:15.787825 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:26:15.792822 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:26:20.776090 | LOG | PUSH_ACK: 02 392f 01 |
| 0:26:20.780088 | LOG | PUSH_DATA: Protocol version = 02, Token = 392f, Identifier = 00, JSON = {'rxpk': [{'tmst': 46441814, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAUwkBi/q24vVv'}]} |
| 0:26:20.784086 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0953, FOpts: ), FPort: 01, FRMPayload: 047e, MIC: b6e2f56f) |
| 0:26:20.788084 | LOG | Server <---------- DUT |
| 0:26:20.794079 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0631, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:26:25.790086 | LOG | PULL_RESP: Protocol version = 02, Token = abcf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 53444864, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAMgbgiRRZwjzcoJQI4vrLeN0uWPF7uUa5WoLw/OlQdc0lxVWe9QN0aQCvYgIOrW6JUm5v46FkjnORez61Wbi5TUooCrK6Kkx4X6ASv3HWGOH2hRshjcDx457P4K3DC1OITxhY7bPPov7ZyniKi+k1QEC8PB3g5x7rKo8WkL0QW8GrbxhwkaVrXRDXGWQmBW+7sSaLdg60Vc36yZmrefZmW9GjO9nSSiwx9z3YnB8VX9Zr8wgUdfZwIebOHoTZO1tvpyblia9jbRGVzGIE6JNRaQ2eDYs2E3BQ0dUwByBmllcrT/12v6PMDw2RoU8BT8dc1h3vmvZblVeh'}} |
| 0:26:25.791088 | LOG | Server ----------> DUT |
| 0:26:25.794086 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:26:25.797082 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:26:30.781248 | LOG | PUSH_ACK: 02 3931 01 |
| 0:26:30.783248 | LOG | PUSH_DATA: Protocol version = 02, Token = 3931, Identifier = 00, JSON = {'rxpk': [{'tmst': 56447851, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVQkBvBi436M4'}]} |
| 0:26:30.785246 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0955, FOpts: ), FPort: 01, FRMPayload: 0480, MIC: b8dfa338) |
| 0:26:30.786245 | LOG | Server <---------- DUT |
| 0:26:30.788244 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0633, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 106d7d59) |
| 0:26:35.794634 | LOG | Frame command sent to the DUT |
| 0:26:35.796633 | LOG | PULL_RESP: Protocol version = 02, Token = 6745, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 63450870, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAANAbgRBxpaPxfILq64WQ5dYtxzYjHMVLj1DJjXXAc1noBxgVPih7cKbdrjh2ui0gg0s5LQRPIaFCWm28NY1GM1kg8WfbxCaO5ODZPdJI/5S4KuRF/+MAUCfa7+iAGIeD2LVGS5ZjkuKqZ/dCdrIBNWBbuvvAp4xs87R8rfXR7OyUKt7eldi9JMJvhkJm10tFD7tqoibqiPkzHnYkLtAFbu/lcG/UcLKP1AwxxHPhlKFymj2y7y6nDASp3gdzzfyvv60IELnTwAF+Mmj3RfrKbbp7AgNM1awVdvAWTrMySCqtHPHDMUeXJRedIDhBneVsjWMSqnRQQbX1Z'}} |
| 0:26:35.797631 | LOG | Server ----------> DUT |
| 0:26:35.801628 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:26:35.805645 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:26:40.797787 | LOG | PUSH_ACK: 02 3934 01 |
| 0:26:40.799786 | LOG | PUSH_DATA: Protocol version = 02, Token = 3934, Identifier = 00, JSON = {'rxpk': [{'tmst': 66453895, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVwkBOom2pYA8'}]} |
| 0:26:40.801785 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0957, FOpts: ), FPort: 01, FRMPayload: 0482, MIC: b6a5803c) |
| 0:26:40.802785 | LOG | Server <---------- DUT |
| 0:26:40.805783 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0635, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: c7c2b17f) |
| 0:26:40.807782 | LOG | Frame command sent to the DUT |
| 0:26:40.809781 | LOG | PULL_RESP: Protocol version = 02, Token = 95d9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 68453895, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAANQbgBr8aVN+XnlroTq2EXdaDhk7X4oL+YzZxXt53VVVyP6EQYy66eAA+5xP2s0X0UBEvnL+YzJjx/uoSEsgbVY6WAnVKKpgDkyqvmni9OHmZsSslyhNlNHLd+holeRNwGplhEPDJ+lrO2xF1YLvWMh43NNyUZoKxocqo3pnKEQhw9dD92wPs67BFW6sAuBR1q6THQkWaKq5hJb5e+1FbPbxMNek1eB06NxiYmAXFUMFdfDKFUew0pNVZ7xotZG/u889yaHNjftkEaouITHnUmKwJyN8KHXm6MJaSoTWq2h+7TooazdzK80QpMDSxPPU4MDkxDgnHwrF/'}} |
| 0:26:40.811780 | LOG | Server ----------> DUT |
| 0:26:40.814778 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:26:40.818776 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:26:45.791640 | LOG | PUSH_ACK: 02 3935 01 |
| 0:26:45.795635 | LOG | PUSH_DATA: Protocol version = 02, Token = 3935, Identifier = 00, JSON = {'rxpk': [{'tmst': 71459627, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAWAkBJ8rf70K9'}]} |
| 0:26:45.797636 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0958, FOpts: ), FPort: 01, FRMPayload: 0483, MIC: dfef42bd) |

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| 0:26:45.798634 | LOG | Server <---------- DUT |
| 0:26:45.800633 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0636, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:26:55.805666 | LOG | PUSH_DATA: Protocol version = 02, Token = 3937, Identifier = 00, JSON = {'rxpk': [{'tmst': 81468369, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAWgkBRpGjKcA2'}]} |
| 0:26:55.807664 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 095a, FOpts: ), FPort: 01, FRMPayload: 0485, MIC: a329c036) |
| 0:26:55.809664 | LOG | Server <---------- DUT |
| 0:26:55.811664 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0638, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | b1h7LtwQLkU34Z4SpQ7T80uMDZICxEOb/zOYKB+KdxUe1ATLlLTcXTRy+I1oCfznq1vhwj0rXvLcF/M5RWYHZ4DPk7GgqMV'}} |
| 0:27:00.820202 | LOG | Server ----------> DUT |
| 0:27:00.823203 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:27:00.827200 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:27:05.809131 | LOG | PUSH_ACK: 02 3939 01 |
| 0:27:05.811098 | LOG | PUSH_DATA: Protocol version = 02, Token = 3939, Identifier = 00, JSON = {'rxpk': [{'tmst': 91474438, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAXAkB145oRidr'}]} |
| 0:27:05.814122 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 095c, FOpts: ), FPort: 01, FRMPayload: 0487, MIC: 6846276b) |
| 0:27:05.815122 | LOG | Server <---------- DUT |
| 0:27:05.818121 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 063a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:27:10.839139 | LOG | PULL_RESP: Protocol version = 02, Token = 810a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 98477456, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAOwbgd9mdA292srZyknIAWWxjsQQnsL77lzc613wfUS/STdopVZATFdhw0M8L2lWACtJL+66SmOq3qe4OSQlkKHmLwJyTmaSNRKAcWzlwqGKkIVd16cIyYtHqqnMafg82+jFlYx3ZhmuIuY0u5hiwilWmTmIkDonVB6cOaHUiV5Gg/oZHRWkNKeqKYFdiOYHDhJlgVw9Cw4rSzeECgbdM1l+stFHF1XMg9Mf9WKJaKfM560OXAhZlHsRWFiM49rnVJGcTqmBZrn9Ta3nno0NB/pSEcvRj3R0CvSW+yYYWt7FlQbcwW8AN7GGf3dhB+jT6kS6e5A02dQb3'}} |
| 0:27:10.840138 | LOG | Server ----------> DUT |
| 0:27:10.844136 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:27:10.847136 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:27:15.816039 | LOG | PUSH_ACK: 02 393c 01 |
| 0:27:15.825032 | LOG | PUSH_DATA: Protocol version = 02, Token = 393c, Identifier = 00, JSON = {'rxpk': [{'tmst': 101483209, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAXgkBctpPW7p/'}]} |
| 0:27:15.826034 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 095e, FOpts: ), FPort: 01, FRMPayload: 0489, MIC: 4f5bba7f) |
| 0:27:15.828030 | LOG | Server <---------- DUT |
| 0:27:15.830030 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 063c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: e10b9170) |
| 0:27:20.831926 | LOG | Frame command sent to the DUT |
| 0:27:20.833925 | LOG | PULL_RESP: Protocol version = 02, Token = b95d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 108488972, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAPQbgNY3SAaKNpzm2pX07iBJ6ASGkH9/uhfKZWZCJIzLrkV9G9R0SYIMvNApt8OwBAN1TWr+avIB93o+yxDFWIzgyM99XKEhUQwI+AAlsOVsq8C4XUu7wSk50KjRnULUDzwLqZ3GysOuWJnQRrQKLg1lWnvXXjweldyV862xJVsr0ecZCKBgBp8Ja/RRmB8Ezk8U2jlzvmGjgRPSh9NtURsRsSKEKaPxTnkYMSKgxf0pnqGh/EC79IY0JqsXwqE96ku7X2C36jDXCLVCQt5n373mpqHIuzw2anEB//IDUc3ZKF0PWPEZowhsPbBjRmcfU3GXJcXPhC5Fw'}} |
| 0:27:20.834924 | LOG | Server ----------> DUT |
| 0:27:20.838922 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:27:20.842920 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:27:25.827367 | LOG | PUSH_ACK: 02 393e 01 |
| 0:27:25.829366 | LOG | PUSH_DATA: Protocol version = 02, Token = 393e, Identifier = 00, JSON = {'rxpk': [{'tmst': 111491990, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAYAkBi3fqSOJ2'}]} |
| 0:27:25.830365 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0960, FOpts: ), FPort: 01, FRMPayload: 048b, MIC: ea48e276) |
| 0:27:25.832364 | LOG | Server <---------- DUT |
| 0:27:25.834364 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 063e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: c56e3009) |
| 0:27:25.837362 | LOG | Frame command sent to the DUT |
| 0:27:25.839360 | LOG | PULL_RESP: Protocol version = 02, Token = a4c2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 113491990, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAPgbgsga56zP2hp4lSosFwK6+K48s0kC8g0mXuIbxJKL58wPJmMlpLCo25N8Zqayfkuz1xIBojbCq4fW+ir4K4qRa67yquOMCXJ0t3UMm3g6vCAfcyt75OIG3h3p0uPC7cD+RmSFEPBWPU5BZyMZozUi2/cAmDGQc77wi0gwT+gJzDhfRaX/YlD+58CqkkXRv3+2Qx+gfo/d/2COB21PNYSNuLIac9FiDgLIqd6MX3UXXz4Es15mfHVbG/2orJ3e1wwSSrv/KdaxOWyaODvEw7I/9/7KqKw6A47cJjrGwj2k5w6oCgxpL0xeygApnFQY4YC0QV5TFbjAJ'}} |
| 0:27:25.840360 | LOG | Server ----------> DUT |
| 0:27:25.844357 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:27:25.847355 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:27:30.830566 | LOG | PUSH_ACK: 02 393f 01 |
| 0:27:30.833564 | LOG | PUSH_DATA: Protocol version = 02, Token = 393f, Identifier = 00, JSON = {'rxpk': [{'tmst': 116494998, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAYQkBXH21iQpC'}]} |
| 0:27:30.835563 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0961, FOpts: ), FPort: 01, FRMPayload: 048c, MIC: b5890a42) |

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| 0:27:30.837562 | LOG | Server <---------- DUT |
| 0:27:30.839561 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 063f, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:27:40.850941 | LOG | PUSH_DATA: Protocol version = 02, Token = 3942, Identifier = 00, JSON = {'rxpk': [{'tmst': 126501045, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAYwkBaI8EhYPF'}]} |
| 0:27:40.852940 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0963, FOpts: ), FPort: 01, FRMPayload: 048e, MIC: 048583c5) |
| 0:27:40.853939 | LOG | Server <---------- DUT |
| 0:27:40.856938 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0641, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 4aJgH5vpanJZ2atBPwIMw5cTzdqxRxRFmuHPM1jqn5fXyFEgTLem5mt+vYPG/LnLhzRafrgBFxxkf4TYdVfcwOrOE2KUf4'}} |
| 0:27:45.855724 | LOG | Server ----------> DUT |
| 0:27:45.859720 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:27:45.864719 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:27:50.842975 | LOG | PUSH_ACK: 02 3944 01 |
| 0:27:50.847973 | LOG | PUSH_DATA: Protocol version = 02, Token = 3944, Identifier = 00, JSON = {'rxpk': [{'tmst': 136511207, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAZQkBqYtBgVGi'}]} |
| 0:27:50.851970 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0965, FOpts: ), FPort: 01, FRMPayload: 0490, MIC: 418151a2) |
| 0:27:50.853969 | LOG | Server <---------- DUT |
| 0:27:50.855968 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0643, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:28:00.854012 | LOG | PUSH_DATA: Protocol version = 02, Token = 3946, Identifier = 00, JSON = {'rxpk': [{'tmst': 146525539, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 16, 'data': 'QCAgICCAZwngIDdQnuOXPw=='}]} |
| 0:28:00.856012 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0967, FOpts: ), FPort: e0, FRMPayload: 099204, MIC: 9ee3973f) |
| 0:28:00.857010 | LOG | Server <---------- DUT |
| 0:28:00.859010 | LOG | Answer in payload: 9204 |
| 0:28:00.860009 | LOG | Frame Command Payload in the Answer: 099204 |
| 0:28:00.865023 | LOG | RX Count received by DUT: 1170 |
| 0:28:00.867006 | LOG | Send Test Command RxAppCntReq process completed |
| 0:28:00.875000 | LOG | End Test Step: Test packet error rate for SF8BW125 using RX2 window |
| 0:28:00.878998 | LOG | Partial Verdict: PASS |
| 0:28:00.883997 | LOG | ========== |
| 0:28:00.889993 | LOG | ========== |
| 0:28:00.891990 | LOG | Start Test Step: Test packet error rate for SF7BW125 using RX2 window |
| 0:28:00.903984 | LOG | Send RXParamSetupReq process starts |
| 0:28:05.892871 | LOG | PUSH_ACK: 02 3947 01 |
| 0:28:05.894868 | LOG | PUSH_DATA: Protocol version = 02, Token = 3947, Identifier = 00, JSON = {'rxpk': [{'tmst': 151520307, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAaAkBsm7Wx42F'}]} |
| 0:28:05.896868 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0968, FOpts: ), FPort: 01, FRMPayload: 0492, MIC: d6c78d85) |
| 0:28:05.898866 | LOG | Server <---------- DUT |
| 0:28:05.899866 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0645, FOpts: ), FPort: 00, FRMPayload: 0505d2ad84), MIC: a87a50fb) |
| 0:28:05.902867 | LOG | PULL_RESP: Protocol version = 02, Token = 37af, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 153520307, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAARQYA2xtWU9+oelD7'}} |
| 0:28:05.904863 | LOG | Server ----------> DUT |
| 0:28:05.907861 | LOG | TX_ACK: 02 37af 05 3834383419003400 |
| 0:28:05.910860 | LOG | PULL_DATA: 02 ea4e 02 3834383419003400 |
| 0:28:05.912858 | LOG | PULL_ACK: 02 ea4e 04 |
| 0:28:10.878612 | LOG | PUSH_ACK: 02 3949 01 |
| 0:28:10.880609 | LOG | PUSH_DATA: Protocol version = 02, Token = 3949, Identifier = 00, JSON = {'rxpk': [{'tmst': 156528492, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCaQkFBwEApQXEXew='}]} |
| 0:28:10.882608 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0969, FOpts: 0507), FPort: 01, FRMPayload: 0492, MIC: 05c45dec) |
| 0:28:10.883608 | LOG | Server <---------- DUT |
| 0:28:10.885606 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:28:10.887605 | LOG | Command Answer: 0507 |
| 0:28:10.899598 | LOG | MAC command communication completed |
| 0:28:10.911591 | LOG | Send Test Command RxAppCntReq process starts |
| 0:28:15.868120 | LOG | PUSH_ACK: 02 394a 01 |
| 0:28:15.873118 | LOG | PUSH_DATA: Protocol version = 02, Token = 394a, Identifier = 00, JSON = {'rxpk': [{'tmst': 161531532, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCagkFBwEE7j64dx4='}]} |
| 0:28:15.875116 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 096a, FOpts: 0507), FPort: 01, FRMPayload: 0492, MIC: 3eb8771e) |
| 0:28:15.876117 | LOG | Server <---------- DUT |

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| 0:28:15.879114 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0646, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 598c9358) |
| 0:28:15.882112 | LOG | Frame command sent to the DUT |
| 0:28:15.883112 | LOG | PULL_RESP: Protocol version = 02, Token = db9b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 163531532, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAARgbgjVmMk1g='}} |
| 0:28:15.885110 | LOG | Server ----------> DUT |
| 0:28:15.889110 | LOG | TX_ACK: 02 db9b 05 3834383419003400 |
| 0:28:16.096990 | LOG | PULL_DATA: 02 ba0a 02 3834383419003400 |
| 0:28:16.098989 | LOG | PULL_ACK: 02 ba0a 04 |
| 0:28:20.879724 | LOG | PUSH_ACK: 02 394b 01 |
| 0:28:20.881724 | LOG | PUSH_DATA: Protocol version = 02, Token = 394b, Identifier = 00, JSON = {'rxpk': [{'tmst': 166537710, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 16, 'data': 'QCAgICCAawng2nW46LAWvQ=='}]} |
| 0:28:20.883721 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 096b, FOpts: ), FPort: e0, FRMPayload: 099304, MIC: e8b016bd) |
| 0:28:20.885720 | LOG | Server <---------- DUT |
| 0:28:20.886720 | LOG | Answer in payload: 9304 |
| 0:28:20.887719 | LOG | Frame Command Payload in the Answer: 099304 |
| 0:28:20.892716 | LOG | RX Count received by DUT: 1171 |
| 0:28:20.895715 | LOG | Send Test Command RxAppCntReq process completed |
| 0:28:20.899714 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:28:25.868923 | LOG | PUSH_ACK: 02 394c 01 |
| 0:28:25.870922 | LOG | PUSH_DATA: Protocol version = 02, Token = 394c, Identifier = 00, JSON = {'rxpk': [{'tmst': 171532462, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAbAkBonWqaCRI'}]} |
| 0:28:25.872921 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 096c, FOpts: ), FPort: 01, FRMPayload: 0493, MIC: aa682448) |
| 0:28:25.873920 | LOG | Server <---------- DUT |
| 0:28:25.876919 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0647, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:28:26.309031 | LOG | PULL_ACK: 02 7e29 04 |
| 0:28:30.873436 | LOG | PUSH_ACK: 02 394d 01 |
| 0:28:30.875435 | LOG | PUSH_DATA: Protocol version = 02, Token = 394d, Identifier = 00, JSON = {'rxpk': [{'tmst': 176535487, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAbQkBoF8S06oT'}]} |
| 0:28:30.877433 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 096d, FOpts: ), FPort: 01, FRMPayload: 0494, MIC: 12d3aa13) |
| 0:28:30.878434 | LOG | Server <---------- DUT |
| 0:28:30.881433 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0648, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | QjhGoZhhlocFevgMoJLBl8uO0Abs3LMzYFn+rW+rg7lWVF6/mucjoLRUKhbqLvFxl+q5Tgv09U5FOLqSKh7qQabTuAfGDS/gAcHjQRKbR/9nU7Bk3ro6vI/OtJc8v4VP1vtA1Tk9rBnXGpmMcXQx+OHKU7np73Axc5u/o4uBu44/CBG9pQ85oVAfy6CEdipmxBTHWs59x00sZRlBp5iKzTBFE'}} |
| 0:28:35.888300 | LOG | Server ----------> DUT |
| 0:28:35.892298 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:28:35.896296 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:28:36.517222 | LOG | PULL_DATA: 02 f8dd 02 3834383419003400 |
| 0:28:36.519221 | LOG | PULL_ACK: 02 f8dd 04 |
| 0:28:40.898219 | LOG | PUSH_ACK: 02 3950 01 |
| 0:28:40.900216 | LOG | PUSH_DATA: Protocol version = 02, Token = 3950, Identifier = 00, JSON = {'rxpk': [{'tmst': 186541555, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAbwkBFXQgl4Rw'}]} |
| 0:28:40.902217 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 096f, FOpts: ), FPort: 01, FRMPayload: 0496, MIC: 20978470) |
| 0:28:40.903215 | LOG | Server <---------- DUT |
| 0:28:40.905213 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 064a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 284cfc6b) |
| 0:28:45.899716 | LOG | Frame command sent to the DUT |
| 0:28:45.901699 | LOG | PULL_RESP: Protocol version = 02, Token = a5b6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 193545964, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAASwbg/krRQ5rsKCax9WpCgiX3O40hAtRpPCI5MEWerlLvyhybFw6D3X1PH1K5iypvnoOfLeJEPVdEqMxRP6B6wGefE/Uw0dOGinNnH48woIFGwodGmMhDYsD/t7CixIGOn122r3IIM+fe9Ha1zL0Hx/RZjZmNTciCAzY3q50Kic6lGlzTEEYtDiCbqodDEZwWR0+ReDNLF3Ug26L6+5CTRJ+5dq8/YHignEOw/0l5Wu/sHb2ffpi1WxPQECY9nTtsEphZlz3jQRQ0GPvfFLHm8ut5AZKFchSvOhAIiIwLV7bTKPx+SsasjN2BeKS1FNWYmxOGrrQoTPxr'}} |
| 0:28:45.902698 | LOG | Server ----------> DUT |
| 0:28:45.906696 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:28:45.910693 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:28:46.537361 | LOG | PULL_DATA: 02 44e4 02 3834383419003400 |
| 0:28:46.538362 | LOG | PULL_ACK: 02 44e4 04 |
| 0:28:50.889349 | LOG | PUSH_ACK: 02 3953 01 |
| 0:28:50.891348 | LOG | PUSH_DATA: Protocol version = 02, Token = 3953, Identifier = 00, JSON = {'rxpk': [{'tmst': 196550342, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAcQkBt6CkAN+2'}]} |
| 0:28:50.893347 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0971, FOpts: ), FPort: 01, FRMPayload: 0498, MIC: a400dfb6) |
| 0:28:50.894346 | LOG | Server <---------- DUT |
| 0:28:50.896345 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 064c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:28:55.896262 | LOG | Server <---------- DUT |
| 0:28:55.899260 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 064d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:29:00.921089 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:29:05.900815 | LOG | PUSH_ACK: 02 3956 01 |
| 0:29:05.902813 | LOG | PUSH_DATA: Protocol version = 02, Token = 3956, Identifier = 00, JSON = {'rxpk': [{'tmst': 211560763, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAdAkB0YndW68N'}]} |
| 0:29:05.904812 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0974, FOpts: ), FPort: 01, FRMPayload: 049b, MIC: dd5baf0d) |
| 0:29:05.905811 | LOG | Server <---------- DUT |
| 0:29:05.907810 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 064f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'size': 255, 'data': 'YCAgICAAUAbgVx2kVxJMSMS5KA1Xgm9F7lFqmS9LpM7wzq59ZGYtesUHi8AukNdpb7NkuzCR+NUZ/J9AMGcNQEG0Jf3qK5PlRwz09yAFFtis2h89OJ++20XZoo9TDTD31rConFTB4ZPjMEjvxqWdYFkDthPftxGfV3fhEI9JBt7oSNDhDeu1kW7PV5lr8+A/73jWPExHxmCJeGpArV/7PoGvAdad2ByAQeSXgI8BzyKZkD6qqgRQMIn7eL9jW5MHhmkdV2AzpqQDl1R/FvwQsU9DUiAc/XRJgwz2TaeDaCFD3YbQ6hiWLcwlGE/Nz9Oh8edKieFebr7HJkeIXTAv'}} |
| 0:29:10.933974 | LOG | Server ----------> DUT |
| 0:29:10.937971 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:29:10.940972 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:29:15.908229 | LOG | PUSH_ACK: 02 3959 01 |
| 0:29:15.911227 | LOG | PUSH_DATA: Protocol version = 02, Token = 3959, Identifier = 00, JSON = {'rxpk': [{'tmst': 221568086, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAdgkBhoF/zAM3'}]} |
| 0:29:15.913227 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0976, FOpts: ), FPort: 01, FRMPayload: 049d, MIC: 7fcc0337) |
| 0:29:15.914226 | LOG | Server <---------- DUT |
| 0:29:15.916225 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0651, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 64b0a1bd) |
| 0:29:20.920300 | LOG | Frame command sent to the DUT |
| 0:29:20.922321 | LOG | PULL_RESP: Protocol version = 02, Token = 3229, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 228572385, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAUgbgfkVNYWxYzLmG0YAkrukZoGePs7klioCJQg3VzEi+sXIeBtKM3iyEsh+TXNBkEOiWHkSJvLsSQ7/tlwGVOFsvrZVjJoqNQixyUMAHBSmyVDTz9d0Ac2jrCHPsPZqPUTa2byZvxa7q9M4gup5w+bLHb8cJXZEVfdxwQrlN3oHvR8WQhI+2X4z51pjE5rBoVsyypHKOS7DyS97TRZyJLVFDinAxXrUN5qlCCJmQCX4RO+/lxpSqnT3iKOyQbde9V68W40Z1WkA6aH6mPZ/Pt+7hDIq93z7xtXUvwj27ZTBSOeN1Ji1epn85vkmtKifRLJvA5UNksKG9'}} |
| 0:29:20.924320 | LOG | Server ----------> DUT |
| 0:29:20.929317 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:29:20.933313 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:29:25.916314 | LOG | PUSH_ACK: 02 395b 01 |
| 0:29:25.918311 | LOG | PUSH_DATA: Protocol version = 02, Token = 395b, Identifier = 00, JSON = {'rxpk': [{'tmst': 231576722, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAeAkBTH71SEDA'}]} |
| 0:29:25.919310 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0978, FOpts: ), FPort: 01, FRMPayload: 049f, MIC: f54840c0) |
| 0:29:25.921309 | LOG | Server <---------- DUT |
| 0:29:25.923308 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0653, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: f673d7a1) |
| 0:29:25.926308 | LOG | Frame command sent to the DUT |
| 0:29:25.927305 | LOG | PULL_RESP: Protocol version = 02, Token = 6804, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 233576722, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAUwbg/LKihVcIJ6AD7LDv0fBlnAPDoFT7MAbBCKo7HDH5Tsi1B4765Npqrw/MoYFNP2EzDpJneLAJCGxEL63//+B7oNxXShPrfW5YKpS4Tjbl9Si5TyZZAiyqwkNRLxcNrxsuvXBwAmIIfxFR6KVSV1lBKS4ps1oP16g1JolmvAN+hL2p+3oawyaqlhjlDNq8tNnWZHzdkCgqtFgQnjyZcTKMdQpwGxbkGMM6KHYeVrXctctewbWDfbvDqZsqdwl+c4pKRLkW1jz1N9lLdik5yT0KCQ+pGPzavSqW8buOhUgq1psXxn1m0C0V5mJgdvRlafIh3j72c9eh'}} |
| 0:29:25.928305 | LOG | Server ----------> DUT |
| 0:29:25.932302 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:29:25.935303 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:29:26.976456 | LOG | PULL_DATA: 02 82c1 02 3834383419003400 |
| 0:29:26.978455 | LOG | PULL_ACK: 02 82c1 04 |
| 0:29:30.918214 | LOG | PUSH_ACK: 02 395c 01 |
| 0:29:30.920213 | LOG | PUSH_DATA: Protocol version = 02, Token = 395c, Identifier = 00, JSON = {'rxpk': [{'tmst': 236579683, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAeQkBVnJ46Xm5'}]} |
| 0:29:30.922213 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0979, FOpts: ), FPort: 01, FRMPayload: 04a0, MIC: 78e979b9) |
| 0:29:30.923211 | LOG | Server <---------- DUT |
| 0:29:30.925212 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0654, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:29:35.936601 | LOG | Server ----------> DUT |
| 0:29:35.940598 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:29:35.944597 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:29:36.987017 | LOG | PULL_DATA: 02 6f70 02 3834383419003400 |
| 0:29:36.989017 | LOG | PULL_ACK: 02 6f70 04 |
| 0:29:40.940768 | LOG | PUSH_ACK: 02 395f 01 |
| 0:29:40.942767 | LOG | PUSH_DATA: Protocol version = 02, Token = 395f, Identifier = 00, JSON = {'rxpk': [{'tmst': 246585717, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAewkBnMexkx1L'}]} |
| 0:29:40.944766 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 097b, FOpts: ), FPort: 01, FRMPayload: 04a2, MIC: b1931d4b) |
| 0:29:40.945765 | LOG | Server <---------- DUT |
| 0:29:40.947764 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0656, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:29:45.940926 | LOG | PULL_RESP: Protocol version = 02, Token = 0df5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 253590081, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAVwbgSBxJDjEHT2EBjqnmfG9Vn/DwVfI2GTG52eYhNK2VKBMQaw7ni+F6ZQnJzzGSCTmgfnMmrBoGxJRV/bcAChMQMeT3mlIO1hXpPrNLFZ9k0i0tk3w+YFoUSJ28EzlpO4yowh1GJBbRKBYsgN7Nq3TisCbL+HtN7CWPGTDK0nyTw0JA1etKKKNalpX8V7m7Sq8Uq4ZPO+aBdlV46wrwtQL/rRhc54NWuWIG823d8+Ninzna5NIXfWAVmupvcx+YEnd2JHwKV3LPQMhoHrHzHsYGVePfAaINo5MSRgsyBKsoCLkdA+xArIG7InZEaxKzt4a+uqpF4D7c'}} |
| 0:29:45.941924 | LOG | Server ----------> DUT |
| 0:29:45.945922 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:29:45.950919 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:29:47.196627 | LOG | PULL_DATA: 02 5940 02 3834383419003400 |
| 0:29:47.198625 | LOG | PULL_ACK: 02 5940 04 |
| 0:29:50.933501 | LOG | PUSH_ACK: 02 3961 01 |
| 0:29:50.935500 | LOG | PUSH_DATA: Protocol version = 02, Token = 3961, Identifier = 00, JSON = {'rxpk': [{'tmst': 256595780, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAfQkBFrpO9MKu'}]} |
| 0:29:50.937499 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 097d, FOpts: ), FPort: 01, FRMPayload: 04a4, MIC: 4ef4c2ae) |
| 0:29:50.939498 | LOG | Server <---------- DUT |
| 0:29:50.941497 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0658, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:30:05.946485 | LOG | PUSH_DATA: Protocol version = 02, Token = 3964, Identifier = 00, JSON = {'rxpk': [{'tmst': 271606160, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAgAkB6lec2G8p'}]} |
| 0:30:05.948483 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0980, FOpts: ), FPort: 01, FRMPayload: 04a7, MIC: 9cd86f29) |
| 0:30:05.949483 | LOG | Server <---------- DUT |
| 0:30:05.951482 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 065b, FOpts: ), FPort: e0, FRMPayload: 070001010101010101010101

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| | | XgZCzgPOt6F2qSAdZWYR1xq3BKjhSGQRD5Qc9vF7FbAx0kVUbGYf8NO+51uIaEyVu3dFQMfmfXwA1/+i7FCrBGeuEzEdQyFrmR150tTSeU0xaH7svDXCj7uweMa3oEAWkEZL/BxnExysqrH2khbvokOFKkPMMlDvAUsigxsnNiPaSFrrZvNs9Gpy73plPpr7zN+CRP7lb16EcmcoDpPU9jPUegxdd'}} |
| 0:30:10.975170 | LOG | Server ----------> DUT |
| 0:30:10.979196 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:30:10.983194 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:30:15.950459 | LOG | PUSH_ACK: 02 3968 01 |
| 0:30:15.954457 | LOG | PUSH_DATA: Protocol version = 02, Token = 3968, Identifier = 00, JSON = {'rxpk': [{'tmst': 281612194, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAggkBoS0p2uZf'}]} |
| 0:30:15.956454 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0982, FOpts: ), FPort: 01, FRMPayload: 04a9, MIC: 29dae65f) |
| 0:30:15.957454 | LOG | Server <---------- DUT |
| 0:30:15.959453 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 065d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 0f90a91f) |
| 0:30:20.965298 | LOG | Frame command sent to the DUT |
| 0:30:20.967270 | LOG | PULL_RESP: Protocol version = 02, Token = 2dee, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 288616613, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAXgbg0b6l+3Cg4hnTf1ZOu8B62bGQ0TjYNaJVqM/56o21AOtPvQ7XT91Ok/ndDvL91pz/FE6h/wqtFbP6jIf/iVVkIQjQhKeL5/1dDVT+boSFdQvIUhjE6u5Pe0ih0oEg8+WpJgXA6SFvzSmMcayfJlUFJgInfFT3adJPGKqCyM8lxWs0cSPLkDSq6zWYP4n7r5U2qiaL0SCjzXZrUC+wQISAKM4I8N+0dGKCVQwMggT58YOlv5Kl/zkKDnyUamzbvU9ds4f+qeZwd9q6zdlX8dWakEF36voS0TU1qfJOiHjmr6pR1ncwbV7vWOisY6mSqEi3SJUPkKkf'}} |
| 0:30:20.968296 | LOG | Server ----------> DUT |
| 0:30:20.972296 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:30:20.975293 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:30:25.959993 | LOG | PUSH_ACK: 02 396a 01 |
| 0:30:25.961994 | LOG | PUSH_DATA: Protocol version = 02, Token = 396a, Identifier = 00, JSON = {'rxpk': [{'tmst': 291621023, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAhAkB9g01SUPw'}]} |
| 0:30:25.962991 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0984, FOpts: ), FPort: 01, FRMPayload: 04ab, MIC: 354943f0) |
| 0:30:25.963991 | LOG | Server <---------- DUT |
| 0:30:25.966990 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 065f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:30:30.969419 | LOG | Server <---------- DUT |
| 0:30:30.971418 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0660, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:30:37.447768 | LOG | PULL_ACK: 02 3ad3 04 |
| 0:30:40.980756 | LOG | PUSH_ACK: 02 396e 01 |
| 0:30:40.982755 | LOG | PUSH_DATA: Protocol version = 02, Token = 396e, Identifier = 00, JSON = {'rxpk': [{'tmst': 306631425, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAhwkBq7sOkgsu'}]} |
| 0:30:40.984754 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0987, FOpts: ), FPort: 01, FRMPayload: 04ae, MIC: 0e920b2e) |
| 0:30:40.986753 | LOG | Server <---------- DUT |
| 0:30:40.988752 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0662, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | WQi5wpPYakLV6ye6mztz+hgQa1Di5zuRqxek5/IMQEakYNxZmKD31SZLQcjaBdzvmIVOzTYaAZ9TYWAPKZ0SK0lfDzVfZBdOnwLRTo2iqumMIPbK1QiukVwQs51qTB9yzNFmXlLE1UGkX4CXY7pTSFyCPJ6cceahFg/xIMeq1aaDjTNOHz5AhIH89wKkDjBkfOpqQjVgynchTA8PUKJwO/wrW8NJE2'}} |
| 0:30:45.989104 | LOG | Server ----------> DUT |
| 0:30:45.992103 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:30:45.996101 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:30:47.456410 | LOG | PULL_DATA: 02 45f4 02 3834383419003400 |
| 0:30:47.457412 | LOG | PULL_ACK: 02 45f4 04 |
| 0:30:50.977413 | LOG | PUSH_ACK: 02 3970 01 |
| 0:30:50.980408 | LOG | PUSH_DATA: Protocol version = 02, Token = 3970, Identifier = 00, JSON = {'rxpk': [{'tmst': 316638845, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAiQkBb0iflxvb'}]} |
| 0:30:50.981407 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0989, FOpts: ), FPort: 01, FRMPayload: 04b0, MIC: 9f971bdb) |
| 0:30:50.982407 | LOG | Server <---------- DUT |
| 0:30:50.984409 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0664, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c46a8857) |
| 0:30:55.994446 | LOG | Frame command sent to the DUT |
| 0:30:55.995443 | LOG | PULL_RESP: Protocol version = 02, Token = c41e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 323644617, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAZQbgyDD3GNKtg6g1Shu8KY6a48l8QbCDwVDsHLfhZmwP9LvxXV0VgGvOuOUApx/CKFSfw/8Ci682d4HTzI92rfFdQDUqN971iwO6kVQ512tP86SqnebHFZRY7Lrwc8HBzDBHSb2QQ/lP9e+kD9S6Y9ZxTeJmQMdsncighXJki10pklYo/b9iRJAtBT/VM1V+3IX21cHCLLl996VxmYbjzzAx1nwPwFSQjrTmKvAVIhqbb2dgU8ZFWmpcHdKisLaeYgQ3dGJVCuZryu4vCUjLuXpOG5DUfYCHt02voP0vvmPYF56J641YqF/rewHwE2YyCDNGQzbEaohX'}} |
| 0:30:55.996442 | LOG | Server ----------> DUT |
| 0:30:56.000438 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:30:56.004435 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:30:57.466373 | LOG | PULL_DATA: 02 ddc4 02 3834383419003400 |
| 0:30:57.471371 | LOG | PULL_ACK: 02 ddc4 04 |
| 0:31:00.988221 | LOG | PUSH_ACK: 02 3972 01 |
| 0:31:00.990219 | LOG | PUSH_DATA: Protocol version = 02, Token = 3972, Identifier = 00, JSON = {'rxpk': [{'tmst': 326648986, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAiwkB6LweV3aH'}]} |
| 0:31:00.992218 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 098b, FOpts: ), FPort: 01, FRMPayload: 04b1, MIC: 1e577687) |
| 0:31:00.993218 | LOG | Server <---------- DUT |
| 0:31:00.995217 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0666, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:31:05.997744 | LOG | Server <---------- DUT |
| 0:31:05.998742 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0667, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:31:11.030494 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:31:15.998462 | LOG | PUSH_ACK: 02 3976 01 |
| 0:31:16.002459 | LOG | PUSH_DATA: Protocol version = 02, Token = 3976, Identifier = 00, JSON = {'rxpk': [{'tmst': 341657995, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAjgkBYPbjSYU2'}]} |
| 0:31:16.004458 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 098e, FOpts: ), FPort: 01, FRMPayload: 04b4, MIC: e3498536) |
| 0:31:16.005457 | LOG | Server <---------- DUT |
| 0:31:16.008456 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0669, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'size': 255, 'data': 'YCAgICAAagbgRUH5TLub71q9vVDy8/otBV8w87RqLwXWE1HP1fhhpnXyP35Ndy8MFkAt8IOI9XjRJZ8Xc8rSWWToKeK13A60sQy7qmyVxQpbmMRnxKa0C/rsi/dIxZbAv2W6KEyRGhdQCoZ4yDooC4b+q8ZMxoc6wx8kptwv/A2ovCHXXiB46Rv5vVMmaxg/lVEOkEbhQIN9okACe/eP16iVUw8LxrS7UYzJOTtm5OmpvqMIAyBiPtU2lrO4kxEgsqEIWkkE/VFeJmqriQTix5ou2KiedzyqmR3AtcHkm484N9CeG2blBJF/6j4Q2eMHYPJXlRCpbQICZjgh7cos'}} |
| 0:31:21.013048 | LOG | Server ----------> DUT |
| 0:31:21.016046 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:31:21.024043 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:31:26.005506 | LOG | PUSH_ACK: 02 3978 01 |
| 0:31:26.010504 | LOG | PUSH_DATA: Protocol version = 02, Token = 3978, Identifier = 00, JSON = {'rxpk': [{'tmst': 351668104, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAkAkBABg9cBef'}]} |
| 0:31:26.014501 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0990, FOpts: ), FPort: 01, FRMPayload: 04b6, MIC: 3d70179f) |
| 0:31:26.018499 | LOG | Server <---------- DUT |
| 0:31:26.023496 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 066b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: ef781792) |
| 0:31:31.019658 | LOG | Frame command sent to the DUT |
| 0:31:31.021657 | LOG | PULL_RESP: Protocol version = 02, Token = 8729, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 358672514, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAbAbg5hfNCW1VqOucq7brSeBjyAx1eEOeA3wNTWhq2rBl0t+JvkFHaxMdQdDKWsySqKJn99OhPOTYdcKj2lvdyEWrbNnjWS1XLbGG+r+6wsFvE5GRwQMFMJOHC2zZixJy7L+Jo1qL4IgUE1mbS8/NNW7w0iVG7ARIU0WRfBTJrpq/TlZGD9egGCQMdYKb5rKwh5TEcO+zm9U9fjOiZXAau2rkkzW321IpdNHi38gbrMGY91gsZNshWs/J81vEXq6rgWixF5hNE1mc0A94PiAJFnff4ndFAhMA/mVSrdAFYfnFv1ECRgEgiBsPV8hfU0yS3M8HCTXveBeS'}} |
| 0:31:31.023656 | LOG | Server ----------> DUT |
| 0:31:31.027654 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:31:31.031651 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:31:36.015265 | LOG | PUSH_ACK: 02 397a 01 |
| 0:31:36.017263 | LOG | PUSH_DATA: Protocol version = 02, Token = 397a, Identifier = 00, JSON = {'rxpk': [{'tmst': 361675556, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAkgkBQC9foRXF'}]} |
| 0:31:36.019263 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0992, FOpts: ), FPort: 01, FRMPayload: 04b8, MIC: 5fa115c5) |
| 0:31:36.020262 | LOG | Server <---------- DUT |
| 0:31:36.022261 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 066d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 4b57419f) |
| 0:31:36.025259 | LOG | Frame command sent to the DUT |
| 0:31:36.026258 | LOG | PULL_RESP: Protocol version = 02, Token = 43c1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 363675556, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAbQbgVDagmi1Bt7hawqK3z3tmvjmZGqm6l4wQ9FcQ4hdeko82CTvh5HH9jjr8CdxyFQ2+faAQdGjm9JSDu8omClX/aBlqn3ai1wj1XpSe56vgci2kSEXB7vy1Ky6kHFTxBKO7PhwNqPdmjMD2+rxTJZzUxKIlNQ78Ul1OVXr4E/OKnwZlrlLzUJcRnzO1HhNInPP9E3Hc3ysa47uDq5dhnzXKiFLPJBn+qVHLfLAK0LjeLeCVnYsGuNfjvozdB5myHEyeD7ItnEywK9ZJ53Wtcm4lezIfzZbJ7rhENp/u94Mtdui27CJjosA9eyE91+jMb0eXzUFLV0Gf'}} |
| 0:31:36.027258 | LOG | Server ----------> DUT |
| 0:31:36.031256 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:31:36.037252 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:31:37.706573 | LOG | PULL_DATA: 02 8134 02 3834383419003400 |
| 0:31:37.708572 | LOG | PULL_ACK: 02 8134 04 |
| 0:31:41.031682 | LOG | PUSH_ACK: 02 397c 01 |
| 0:31:41.034681 | LOG | PUSH_DATA: Protocol version = 02, Token = 397c, Identifier = 00, JSON = {'rxpk': [{'tmst': 366678602, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAkwkBJMjrx2Pd'}]} |
| 0:31:41.035682 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0993, FOpts: ), FPort: 01, FRMPayload: 04b9, MIC: ebc763dd) |
| 0:31:41.037678 | LOG | Server <---------- DUT |
| 0:31:41.039678 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 066e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:31:46.036007 | LOG | Server ----------> DUT |
| 0:31:46.039006 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:31:46.042004 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:31:47.715717 | LOG | PULL_DATA: 02 2999 02 3834383419003400 |
| 0:31:47.717716 | LOG | PULL_ACK: 02 2999 04 |
| 0:31:51.023160 | LOG | PUSH_ACK: 02 397e 01 |
| 0:31:51.025159 | LOG | PUSH_DATA: Protocol version = 02, Token = 397e, Identifier = 00, JSON = {'rxpk': [{'tmst': 376684630, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAlQkBXL2gpORs'}]} |
| 0:31:51.027158 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0995, FOpts: ), FPort: 01, FRMPayload: 04bb, MIC: a0a4e46c) |
| 0:31:51.029157 | LOG | Server <---------- DUT |
| 0:31:51.031156 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0670, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:31:56.041307 | LOG | PULL_RESP: Protocol version = 02, Token = dc7b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 383689039, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAcQbgheaUsDtzjBJrPnVwqzTJkhK6rdP9f/O+TNCNBeLew0brmLoPeoOdzIrUOQFUgMaiCYk84jK6i4ArLhP0t8ZdzsKSo6LOZRGcIQQGMvFD8cSyIzS3Dd2FY53gSpT8/Xe/DXErTUQX8bJLT+OVMhXTVTUh7AaZ0XQJBEWi+uLJ/Jb8cD2UkPdZZSSIXuhBUJ/+PpoG00hU9eHxKKE1OlJRM+a5q5VNxS5Z25HeEEFouONjjeArjer1SJUbrgcs0V+mT5WGsrhIyaVGdF5uecT1SthyQqUI6wogwBckP1uzM1pWWEpp/npze2UyGzqoShab3mLk1Fch'}} |
| 0:31:56.042306 | LOG | Server ----------> DUT |
| 0:31:56.047303 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:31:56.053300 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:31:57.725275 | LOG | PULL_DATA: 02 5fab 02 3834383419003400 |
| 0:31:57.727273 | LOG | PULL_ACK: 02 5fab 04 |
| 0:32:01.031394 | LOG | PUSH_ACK: 02 3981 01 |
| 0:32:01.032393 | LOG | PUSH_DATA: Protocol version = 02, Token = 3981, Identifier = 00, JSON = {'rxpk': [{'tmst': 386692038, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAlwkBFxocx/fu'}]} |
| 0:32:01.034393 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0997, FOpts: ), FPort: 01, FRMPayload: 04bd, MIC: 1cc7f7ee) |
| 0:32:01.036392 | LOG | Server <---------- DUT |
| 0:32:01.038391 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0672, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:32:16.045927 | LOG | PUSH_DATA: Protocol version = 02, Token = 3985, Identifier = 00, JSON = {'rxpk': [{'tmst': 401702501, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAmgkBVKhJ1XfI'}]} |
| 0:32:16.047922 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 099a, FOpts: ), FPort: 01, FRMPayload: 04c0, MIC: 49d577c8) |
| 0:32:16.048922 | LOG | Server <---------- DUT |
| 0:32:16.050921 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0675, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | cXxXvxVMOC3Cbx5pfXkXJlwcbj8z7oEvgFK3a9/Ycz3H0MGCs77rd4FtC+b8D8<br>+XHVYdHo+tjBSHsm9L1rmwE6y+dfqoxHGxRTBHJzwWbiz6aRQDDlY85n38F<br>Wy4lkZ3nhbZ1EufnksgRxblpyNt45zHcYqiDoiofLGhiwUxnm7cQr6qCGfrok1BS4<br>K5Es6FE5Gn39S3kF/dJiqkMd3oKyYqAkVnBX8'}} |
| 0:32:21.071627 | LOG | Server ----------> DUT |
| 0:32:21.075624 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:32:21.078622 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:32:26.047680 | LOG | PUSH_ACK: 02 3987 01 |
| 0:32:26.050678 | LOG | PUSH_DATA: Protocol version = 02, Token = 3987, Identifier = 00, JSON = {'rxpk': [{'tmst': 411709922, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAnAkBSnehQT/T'}]} |
| 0:32:26.052677 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 099c, FOpts: ), FPort: 01, FRMPayload: 04c2, MIC: a1413fd3) |
| 0:32:26.053676 | LOG | Server <---------- DUT |
| 0:32:26.056675 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0677, FOpts: ), FPort: e0, FRMPayload:<br>0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: a20a179f) |
| 0:32:26.058674 | LOG | Frame command sent to the DUT |
| 0:32:26.059673 | LOG | PULL_RESP: Protocol version = 02, Token = ddf0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 413709922, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data':<br>'YCAgICAAdwbgzJOQTU3cuUGqy9EGuB/xSMDazXv7iLGP8u4r4O1JR+wEVD<br>tm8Pa64GwXZBQlavHnG3N6qMqJlhs8PB4f076+ubUQlf4ms61f8Pbi24kUNmec<br>Xuv+LEdrzfgShR0RDq9O3e42BmIZT/AmdiiQI0RINaGkCBCjAt/RzUJWSz/tf7K<br>9+vYXWUrZp7oaAQKW1Cx6gY0VboybuaIf5sEB/qkb7ARKYlsIz0zjYaipBtHrc<br>TaCPXheeqTRDryUbuuXV1FgYVMz5W1oxCHkqMa382Q6PODssEAwIL3j2dy2<br>vudbJWYSAjHKq7JYW9hTysCEbPqwjy6iChef'}} |
| 0:32:26.061671 | LOG | Server ----------> DUT |
| 0:32:26.063671 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:32:26.068668 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:32:28.155911 | LOG | PULL_DATA: 02 0e2f 02 3834383419003400 |
| 0:32:28.157910 | LOG | PULL_ACK: 02 0e2f 04 |
| 0:32:31.050283 | LOG | PUSH_ACK: 02 3988 01 |
| 0:32:31.052264 | LOG | PUSH_DATA: Protocol version = 02, Token = 3988, Identifier = 00, JSON = {'rxpk': [{'tmst': 416715659, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAnQkBmhwo/Ax9'}]} |
| 0:32:31.054264 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 099d, FOpts: ), FPort: 01, FRMPayload: 04c3, MIC: 28fc0c7d) |
| 0:32:31.055263 | LOG | Server <---------- DUT |
| 0:32:31.057262 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0678, FOpts: ), FPort: e0, FRMPayload:<br>0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101 |

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9f03c2f7) |
| 0:32:31.060260 | LOG | Frame command sent to the DUT |
| 0:32:31.062259 | LOG | PULL_RESP: Protocol version = 02, Token = 2fb2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 418715659, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAeAbg9jZT7AHpyRHLkwBMjQDja4x+eRI027cvpPyGCFNY4hOfeRDPiBXc6TZPVzVucfG9kVUSFjVNJm6g74GSRhasQdNQxAGmSQa2irXbrNRXILfA+9SUSbnQkDxCXU04ED7Q8sNDZJQscL7dPP6NKqq7PLMWNCui0Rhs3wr/MLfMxXuOTTr/VNocEQG6N0fDy8QpFUmgv0WfMyGk6T37GRlLBUg7EgnKNugjg9B0tvJE+fUbfBxh+VQ55pNuj3tV6UQP9Lp5nQtrOzQJq1dcIATpumzFbcGFEJG1//C2tZbuK/+PgDVAgzXMFGKSGEZdu6u57pafA8L3'}} |
| 0:32:31.063258 | LOG | Server ----------> DUT |
| 0:32:31.066258 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:32:31.070259 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:32:36.055793 | LOG | PUSH_ACK: 02 3989 01 |
| 0:32:36.058792 | LOG | PUSH_DATA: Protocol version = 02, Token = 3989, Identifier = 00, JSON = {'rxpk': [{'tmst': 421720053, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAngkBM2Ro5kyj'}]} |
| 0:32:36.059793 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 099e, FOpts: ), FPort: 01, FRMPayload: 04c3, MIC: 68e64ca3) |
| 0:32:36.061791 | LOG | Server <---------- DUT |
| 0:32:36.062791 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0679, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:32:41.078833 | LOG | Server <---------- DUT |
| 0:32:41.080832 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 067a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:32:48.177182 | LOG | PULL_ACK: 02 2909 04 |
| 0:32:51.067546 | LOG | PUSH_ACK: 02 398d 01 |
| 0:32:51.069541 | LOG | PUSH_DATA: Protocol version = 02, Token = 398d, Identifier = 00, JSON = {'rxpk': [{'tmst': 436729145, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAoQkBrMoNr/43'}]} |
| 0:32:51.071542 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09a1, FOpts: ), FPort: 01, FRMPayload: 04c6, MIC: 0daffe37) |
| 0:32:51.073539 | LOG | Server <---------- DUT |
| 0:32:51.075538 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 067c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 8mIjFgmc3e8xPMTYnWE9HrQh5oZeLAz3nnggKtNZD3JaBznXVBbwUyQsRx1VXqT/kCapDYfhZ9czv4Hq692qMzBwiStestQMWif1JodB4X7cMy3cFIOvFSJez8A7hWwPO3I/WMbbMygh+AkiQmi6YXhDwlhh4wjZ07mPl4MpheI3YxMTZ+UcJkFW4Zsp+jsMP9W30hoksw2c8C1ISzhl2MjUHJD'}} |
| 0:32:56.082034 | LOG | Server ----------> DUT |
| 0:32:56.084050 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:32:56.087030 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:32:58.185620 | LOG | PULL_DATA: 02 3212 02 3834383419003400 |
| 0:32:58.187620 | LOG | PULL_ACK: 02 3212 04 |
| 0:33:01.074058 | LOG | PUSH_ACK: 02 398f 01 |
| 0:33:01.076057 | LOG | PUSH_DATA: Protocol version = 02, Token = 398f, Identifier = 00, JSON = {'rxpk': [{'tmst': 446736476, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAowkBwS/Q/eum'}]} |
| 0:33:01.078058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09a3, FOpts: ), FPort: 01, FRMPayload: 04c7, MIC: d0fdeba6) |
| 0:33:01.079058 | LOG | Server <---------- DUT |
| 0:33:01.081057 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 067e, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a50ea77d) |
| 0:33:06.089205 | LOG | Frame command sent to the DUT |
| 0:33:06.091204 | LOG | PULL_RESP: Protocol version = 02, Token = 5674, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 453740845, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAfwbgn/vN10LEKu2/CJO0eYzyJSm43tV2Gvf6jAqd7G2JAuKG0L7631y2Sldep49oMBCa1rgB8TgBuUyp7f4UuEXSmd24bXleccyYscGOpRs3XRfVQIYZqYpY4nUHFPmvpEocJxjx4PN5XLTAx18WtwYmQf3ibWKIoyddHW0wkP6cfXFFi/fUtVxOW22nS2qa8esqurFieZGfOszBuzWjcwN7ejRhGhL74Y6YJviQqmdbDtJIXTnup7CzpNFrwpXZ4ZEht4OSds8b/0TLGkxG9LzJ0M6HESlWT4zlWIzFz/s8WSAijDZBWsAx5TC8ZlDd2SJqVNylDqd9'}} |
| 0:33:06.092202 | LOG | Server ----------> DUT |
| 0:33:06.095200 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:33:06.098200 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:33:08.195513 | LOG | PULL_DATA: 02 006d 02 3834383419003400 |
| 0:33:08.199516 | LOG | PULL_ACK: 02 006d 04 |
| 0:33:11.092300 | LOG | PUSH_ACK: 02 3992 01 |
| 0:33:11.094298 | LOG | PUSH_DATA: Protocol version = 02, Token = 3992, Identifier = 00, JSON = {'rxpk': [{'tmst': 456743869, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCApQkBPXWNX5DU'}]} |
| 0:33:11.096297 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09a5, FOpts: ), FPort: 01, FRMPayload: 04c9, MIC: 8d5f90d4) |
| 0:33:11.097296 | LOG | Server <---------- DUT |
| 0:33:11.099295 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0680, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:33:16.091163 | LOG | Server <---------- DUT |
| 0:33:16.094161 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0681, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:33:21.110340 | LOG | Send Test Command RxAppCntReq process starts |
| 0:33:26.091965 | LOG | PUSH_ACK: 02 3995 01 |
| 0:33:26.093962 | LOG | PUSH_DATA: Protocol version = 02, Token = 3995, Identifier = 00, JSON = {'rxpk': [{'tmst': 471754121, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAqAkBMjjuZqNE'}]} |
| 0:33:26.094962 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09a8, FOpts: ), FPort: 01, FRMPayload: 04cc, MIC: ee66a344) |
| 0:33:26.096961 | LOG | Server <---------- DUT |
| 0:33:26.097960 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0683, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 2059e422) |
| 0:33:26.099959 | LOG | Frame command sent to the DUT |
| 0:33:26.100959 | LOG | PULL_RESP: Protocol version = 02, Token = 746e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 473754121, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAgwbgzyBZ5CI='}} |
| 0:33:26.101958 | LOG | Server ----------> DUT |
| 0:33:26.105956 | LOG | TX_ACK: 02 746e 05 3834383419003400 |
| 0:33:28.415309 | LOG | PULL_DATA: 02 61c3 02 3834383419003400 |
| 0:33:28.417308 | LOG | PULL_ACK: 02 61c3 04 |
| 0:33:31.100912 | LOG | PUSH_ACK: 02 3996 01 |
| 0:33:31.102910 | LOG | PUSH_DATA: Protocol version = 02, Token = 3996, Identifier = 00, JSON = {'rxpk': [{'tmst': 476765340, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 16, 'data': 'QCAgICCAqQngcL9kZaMXfg=='}]} |
| 0:33:31.104910 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09a9, FOpts: ), FPort: e0, FRMPayload: 09cd04, MIC: 65a3177e) |
| 0:33:31.105909 | LOG | Server <---------- DUT |
| 0:33:31.107908 | LOG | Answer in payload: cd04 |
| 0:33:31.109907 | LOG | Frame Command Payload in the Answer: 09cd04 |
| 0:33:31.114904 | LOG | RX Count received by DUT: 1229 |
| 0:33:31.116904 | LOG | Send Test Command RxAppCntReq process completed |
| 0:33:31.126897 | LOG | End Test Step: Test packet error rate for SF7BW125 using RX2 window |
| 0:33:31.129896 | LOG | Partial Verdict: PASS |
| 0:33:31.133895 | LOG | ========== |
| 0:33:31.138890 | LOG | ========== |
| 0:33:31.141889 | LOG | Start Test Step: Test packet error rate for SF7BW250 using RX2 window |
| 0:33:31.154881 | LOG | Send RXParamSetupReq process starts |
| 0:33:36.088506 | LOG | PUSH_ACK: 02 3997 01 |
| 0:33:36.090505 | LOG | PUSH_DATA: Protocol version = 02, Token = 3997, Identifier = 00, JSON = {'rxpk': [{'tmst': 481761420, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAqgkB0S+lOJNa'}]} |
| 0:33:36.092504 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09aa, FOpts: ), FPort: 01, FRMPayload: 04cd, MIC: a538935a) |
| 0:33:36.093503 | LOG | Server <---------- DUT |
| 0:33:36.095502 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0684, FOpts: ), FPort: 00, FRMPayload: 0506d2ad84), MIC: 1760cdbe) |
| 0:33:36.097504 | LOG | PULL_RESP: Protocol version = 02, Token = bfef, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 483761420, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAhAYAQig1kVMXYM2+'}} |
| 0:33:36.099500 | LOG | Server ----------> DUT |
| 0:33:36.102499 | LOG | TX_ACK: 02 bfef 05 3834383419003400 |
| 0:33:38.614553 | LOG | PULL_DATA: 02 0a7f 02 3834383419003400 |
| 0:33:38.616553 | LOG | PULL_ACK: 02 0a7f 04 |

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| 0:33:41.133121 | LOG | PUSH_ACK: 02 399a 01 |
| 0:33:41.135122 | LOG | PUSH_DATA: Protocol version = 02, Token = 399a, Identifier = 00, JSON = {'rxpk': [{'tmst': 486770934, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCqwkFBwEeQ+UJx4Q='}]} |
| 0:33:41.136120 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 09ab, FOpts: 0507), FPort: 01, FRMPayload: 04cd, MIC: e509c784) |
| 0:33:41.138119 | LOG | Server <---------- DUT |
| 0:33:41.140117 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:33:41.141116 | LOG | Command Answer: 0507 |
| 0:33:41.154109 | LOG | MAC command communication completed |
| 0:33:41.163104 | LOG | Send Test Command RxAppCntReq process starts |
| 0:33:46.123071 | LOG | PUSH_ACK: 02 399b 01 |
| 0:33:46.127070 | LOG | PUSH_DATA: Protocol version = 02, Token = 399b, Identifier = 00, JSON = {'rxpk': [{'tmst': 491775302, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCrAkFBwFBuFwwDWk='}]} |
| 0:33:46.128068 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 09ac, FOpts: 0507), FPort: 01, FRMPayload: 04cd, MIC: 5c300d69) |
| 0:33:46.130067 | LOG | Server <---------- DUT |
| 0:33:46.132066 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0685, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 1dcc1d17) |
| 0:33:46.134065 | LOG | Frame command sent to the DUT |
| 0:33:46.136064 | LOG | PULL_RESP: Protocol version = 02, Token = 40b5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 493775302, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAhQbghx3MHRc='}} |
| 0:33:46.138063 | LOG | Server ----------> DUT |
| 0:33:46.142061 | LOG | TX_ACK: 02 40b5 05 3834383419003400 |
| 0:33:48.654413 | LOG | PULL_DATA: 02 99ab 02 3834383419003400 |
| 0:33:48.656410 | LOG | PULL_ACK: 02 99ab 04 |
| 0:33:51.153989 | LOG | PUSH_ACK: 02 399c 01 |
| 0:33:51.155988 | LOG | PUSH_DATA: Protocol version = 02, Token = 399c, Identifier = 00, JSON = {'rxpk': [{'tmst': 496781396, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 16, 'data': 'QCAgICCArQngOgmVI/0KTg=='}]} |
| 0:33:51.157987 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09ad, FOpts: ), FPort: e0, FRMPayload: 09ce04, MIC: 23fd0a4e) |
| 0:33:51.159986 | LOG | Server <---------- DUT |
| 0:33:51.160986 | LOG | Answer in payload: ce04 |
| 0:33:51.162985 | LOG | Frame Command Payload in the Answer: 09ce04 |
| 0:33:51.166984 | LOG | RX Count received by DUT: 1230 |
| 0:33:51.169980 | LOG | Send Test Command RxAppCntReq process completed |
| 0:33:51.173980 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:33:56.142345 | LOG | PUSH_ACK: 02 399d 01 |
| 0:33:56.144344 | LOG | PUSH_DATA: Protocol version = 02, Token = 399d, Identifier = 00, JSON = {'rxpk': [{'tmst': 501776060, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCArgkBcPFfbIk4'}]} |
| 0:33:56.146343 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09ae, FOpts: ), FPort: 01, FRMPayload: 04ce, MIC: 5f6c8938) |
| 0:33:56.147342 | LOG | Server <---------- DUT |
| 0:33:56.149341 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0686, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010 |

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 44ce8f48) |
| 0:33:56.152340 | LOG | Frame command sent to the DUT |
| 0:33:56.154339 | LOG | PULL_RESP: Protocol version = 02, Token = fa9e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 503776060, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAhgbgLl5BH3VgiJShDojl88hXK9QJRkohxD3o1htB/skV8xC6qb3csPw6yvHb0TxVxh0UiKhZ0V1cQRNMFjb0cgKnBoYARMOST9WfyO6IC1jj+F+yPJJr01rqhr53nkfnmwIXi8MO4PMsXKeNiXSqa6mabu66VximemYsvJBQxsGv+nJrAxrREfxdV75+v4VpritpeTwOQBLY4fYlpQ+R6KMW3L8L4EOQvfW7yvUjFrHS9gSzw/IwxpW64zGzR7HF6NcjYwm0lQ+1Q0LodWXj/SSRKUsF9qwa/ZiHZojCAJhprsnAKQtxNJOC1DoRp3lSp4VCmuZEzo9I'}} |
| 0:33:56.158337 | LOG | Server ----------> DUT |
| 0:33:56.162334 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:33:56.165332 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:33:58.675343 | LOG | PULL_DATA: 02 e154 02 3834383419003400 |
| 0:33:58.677342 | LOG | PULL_ACK: 02 e154 04 |
| 0:34:01.125412 | LOG | PUSH_ACK: 02 399e 01 |
| 0:34:01.127411 | LOG | PUSH_DATA: Protocol version = 02, Token = 399e, Identifier = 00, JSON = {'rxpk': [{'tmst': 506779020, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCArwkB0Gkz8oo5'}]} |
| 0:34:01.129410 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09af, FOpts: ), FPort: 01, FRMPayload: 04cf, MIC: 33f28a39) |
| 0:34:01.131408 | LOG | Server <---------- DUT |
| 0:34:01.133408 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0687, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: b6a19b8b) |
| 0:34:01.136406 | LOG | Frame command sent to the DUT |
| 0:34:01.138406 | LOG | PULL_RESP: Protocol version = 02, Token = 2b66, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 508779020, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAhwbgvKZxDnGcvxTOa8BrL2J3MysNLRszqjeanMyH4MV81vNainCL/hA+fv6V7+coj8XYyKmVxSAaoMWtT/0MfhAwynEomFpmJuS/uBOVUn5JxqAb/8YxKStGoUUKKp2XbWJQipW0NNf7UP9SUOykgynvWNaYJiUXAk1m3V1sqBCOlG6OPyLe4YU2OK87csColsgDbnrfZGMRJ24NKIf3WyM2ANn/hdDwvXBNcDtfL/sII3u9oN4bYgxvWAb6dnDd5eJGeGJXGculOn/2JJckhFlyituPVAi/8Yn99V+bplCsVYhDMLQ+/IV4XOgIohUs0zvgtYy2oZuL'}} |
| 0:34:01.139404 | LOG | Server ----------> DUT |
| 0:34:01.144401 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:34:01.147400 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:34:06.128916 | LOG | PUSH_ACK: 02 399f 01 |

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| 0:34:06.134914 | LOG | PUSH_DATA: Protocol version = 02, Token = 399f, Identifier = 00, JSON = {'rxpk': [{'tmst': 511783347, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAsAkBqSbCK3MK'}]} |
| 0:34:06.136926 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09b0, FOpts: ), FPort: 01, FRMPayload: 04d0, MIC: c22b730a) |
| 0:34:06.137924 | LOG | Server <---------- DUT |
| 0:34:06.140926 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0688, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | w3tUSYMbZIbpicxklOCkB1f776ENSjq8fBJqZZCqcSbJGb37+1l+An6+lTMdu7zOLufr8/p8GwvABfyXdaX3yVCKhO3TAAmUNSRkROUowBlntYh8P/vLsGP2g0lpU7lWuohETuUFrEpFvzTbOYPNHIETxUoaWV50CdXejAFf3NILRzlUJgLCyfKkO9/zWiYknkCdWBFwQt3h8sstwi8Olzahh5c'}} |
| 0:34:11.155512 | LOG | Server ----------> DUT |
| 0:34:11.158509 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:34:11.161509 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:34:16.137009 | LOG | PUSH_ACK: 02 39a2 01 |
| 0:34:16.141006 | LOG | PUSH_DATA: Protocol version = 02, Token = 39a2, Identifier = 00, JSON = {'rxpk': [{'tmst': 521790634, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAsgkBP5xmfUQi'}]} |
| 0:34:16.143006 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09b2, FOpts: ), FPort: 01, FRMPayload: 04d2, MIC: 667d4422) |
| 0:34:16.145004 | LOG | Server <---------- DUT |
| 0:34:16.147003 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 068a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: dc545673) |
| 0:34:21.149293 | LOG | Frame command sent to the DUT |
| 0:34:21.151291 | LOG | PULL_RESP: Protocol version = 02, Token = 56cb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 528794999, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAiwbg0JFQ00yq9kLViGdMUcsUtYu2y8ACKhAOrCV3w+WRukp9CytBV9S0q4AbduqYH9rebssGaGzyDdD03c/O9w8lQXEWSnCfN7f8+2jhctZDH0o2PHhrWx8w5bxzlaD/opDFfP6lXqa6YdtbNW3pVgsMifdhYS9LSipKh5UjNPtBEYNJV/3vfx+UcfqMy4CWEzU7oSTZW9F38GGXClKcYiOoMqL7ci327XCHp1NoJfH/3jLxblJPg8wcs6dtmbsEi5vFufc9W8yFsybmnVmIZyrY3KPG2zQRvRBV1E0TzcouS9kxZx+KDnmB4Ap8DrQ18TYv2+DcVFZz'}} |
| 0:34:21.153290 | LOG | Server ----------> DUT |
| 0:34:21.156288 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:34:21.161287 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:34:26.143662 | LOG | PUSH_ACK: 02 39a4 01 |
| 0:34:26.145662 | LOG | PUSH_DATA: Protocol version = 02, Token = 39a4, Identifier = 00, JSON = {'rxpk': [{'tmst': 531797965, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAtAkBi/QTKeCD'}]} |
| 0:34:26.147661 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09b4, FOpts: ), FPort: 01, FRMPayload: 04d4, MIC: 1329e083) |
| 0:34:26.148658 | LOG | Server <---------- DUT |
| 0:34:26.150657 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 068c, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:34:31.150563 | LOG | Server <---------- DUT |
| 0:34:31.152590 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 068d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:34:39.107306 | LOG | PULL_ACK: 02 3256 04 |
| 0:34:41.163136 | LOG | PUSH_ACK: 02 39a8 01 |
| 0:34:41.165136 | LOG | PUSH_DATA: Protocol version = 02, Token = 39a8, Identifier = 00, JSON = {'rxpk': [{'tmst': 546809731, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAtwkBXKcBRDAk'}]} |
| 0:34:41.167134 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09b7, FOpts: ), FPort: 01, FRMPayload: 04d7, MIC: 01443024) |
| 0:34:41.168134 | LOG | Server <---------- DUT |
| 0:34:41.171132 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 068f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | jx+MVhcWC0UN5B1qMPJlQ2yGZQu/uNOXpbieE6J2ywqiGbna7LXh/JtNzUdgH<br>jbD2HagCgX/r2q6XaJTHT6Zpxg9tlTFxrUYiXLfsAkK2Fumad1Fw9g5mL1xTfP1<br>6eQvHLLIr0p1VFoNhNegLzkI7zxy2wO6mGZIoFRGnl9hg1sV3DhsflGfy0VWZr<br>5es3N4pkslfJp8K/S65l6LBuOL+x1FSaaDKA6'}} |
| 0:34:46.173312 | LOG | Server ----------> DUT |
| 0:34:46.177309 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:34:46.181307 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:34:49.114767 | LOG | PULL_DATA: 02 b64d 02 3834383419003400 |
| 0:34:49.116766 | LOG | PULL_ACK: 02 b64d 04 |
| 0:34:51.162603 | LOG | PUSH_ACK: 02 39aa 01 |
| 0:34:51.164601 | LOG | PUSH_DATA: Protocol version = 02, Token = 39aa, Identifier = 00, JSON = {'rxpk': [{'tmst': 556815686, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAuQkBB+ma5zuM'}]} |
| 0:34:51.166599 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09b9, FOpts: ), FPort: 01, FRMPayload: 04d9, MIC: 9ae73b8c) |
| 0:34:51.167601 | LOG | Server <---------- DUT |
| 0:34:51.169598 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0691, FOpts: ), FPort: e0, FRMPayload:<br>0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: a2afde19) |
| 0:34:51.172596 | LOG | Frame command sent to the DUT |
| 0:34:51.174595 | LOG | PULL_RESP: Protocol version = 02, Token = 55c4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 558815686, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAkQbgsdSdQvCm9mwRukhFWNkf9c9auV9D8UbWkiUbj4Sr8r0PwaE<br>DukHq3fRDMWJPEj8mb8I7WK1pPFour9zGgqrb4B71NsHsk36dyEkATYN+7jJF<br>399VQolYpOjl9dtMSxZkQ4/taAaDarQtpee/aVFG3OckC7KJ+rh9JvXVJ1eXHoW<br>DZLYpjEjzk8Gv570y4z0pBqiCuU34y1H+OnqyuUSLMmvnN6UzjckZJnaR9t+Ug<br>pBnYor2DmfLlbzdE8IqxWMfre/Sc+7GJCMLWv7PJUAxrSDvNsHviAyN/aBezB<br>CKXVJxuei734hHWFT+X5CZQXfZaj+ir94Z'}} |
| 0:34:51.175595 | LOG | Server ----------> DUT |
| 0:34:51.179592 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:34:51.183591 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:34:56.166065 | LOG | PUSH_ACK: 02 39ab 01 |
| 0:34:56.168065 | LOG | PUSH_DATA: Protocol version = 02, Token = 39ab, Identifier = 00, JSON = {'rxpk': [{'tmst': 561820060, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAugkBy0TxI9bR'}]} |
| 0:34:56.170065 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09ba, FOpts: ), FPort: 01, FRMPayload: 04da, MIC: f123d6d1) |
| 0:34:56.171064 | LOG | Server <---------- DUT |
| 0:34:56.173062 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0692, FOpts: ), FPort: e0, FRMPayload:<br>0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101 |

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 13f54889) |
| 0:34:56.175041 | LOG | Frame command sent to the DUT |
| 0:34:56.177070 | LOG | PULL_RESP: Protocol version = 02, Token = 1b06, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 563820060, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAkgbgAVW462LZ4V+c9LW99Kj4XuiJNjn1OjDn4GJ47qngMGRwpk7p5LNht7+6StpMLT3ZPg50/o52fjFhqm+6VEJ6OmG4p6b37S+9lDf0PaZvIyWz1a3SekpzLbbVK+40nYCgtWKQSwy7F7/pcOD+8Vux8DA48/mm2b4X49LVYe+yo5C3ShO93crtFRszA3euq0w2K5KbrYfgvqh50HDrtYB9/2J7tatiaaKsDjOrmfiQWcp0WJ+BNFp0gRB/Tb9I1GIUNeJy2pTkdKdpjt3l9imU5TqMeKp+cWsEMglUByyYWysRjOBzRNTEU9hEDz3q7xL6kKYT9UiJ'}} |
| 0:34:56.179069 | LOG | Server ----------> DUT |
| 0:34:56.182068 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:34:56.188063 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:34:59.124752 | LOG | PULL_DATA: 02 09c4 02 3834383419003400 |
| 0:34:59.127752 | LOG | PULL_ACK: 02 09c4 04 |
| 0:35:01.169591 | LOG | PUSH_ACK: 02 39ac 01 |
| 0:35:01.171589 | LOG | PUSH_DATA: Protocol version = 02, Token = 39ac, Identifier = 00, JSON = {'rxpk': [{'tmst': 566823058, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAuwkBcIqUGkk/'}]} |
| 0:35:01.173587 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09bb, FOpts: ), FPort: 01, FRMPayload: 04db, MIC: 941a493f) |
| 0:35:01.175589 | LOG | Server <---------- DUT |
| 0:35:01.177584 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0693, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:35:06.177957 | LOG | Server <---------- DUT |
| 0:35:06.179956 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0694, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:35:11.205043 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:35:16.178728 | LOG | PUSH_ACK: 02 39b0 01 |
| 0:35:16.181726 | LOG | PUSH_DATA: Protocol version = 02, Token = 39b0, Identifier = 00, JSON = {'rxpk': [{'tmst': 581834691, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAvgkBbXC3IetJ'}]} |
| 0:35:16.183728 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09be, FOpts: ), FPort: 01, FRMPayload: 04de, MIC: b721eb49) |
| 0:35:16.185724 | LOG | Server <---------- DUT |
| 0:35:16.187723 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0696, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'size': 255, 'data': 'YCAgICAAlwbg27LOI2/sPefti7Wb5e46uL3QzJ4HyYD1a462e9z1MfHHOumMC0RAJvFSoj4ilJ95fCkF9L2+Ec2kHG32AQ+sByqlOb26hzgQ3CHj8zY07EUo605YgXjWw0y3xLRG+hjoUfOjAQd7ONRN7xaA2aD6/BOe6JH9fkf5IZ2GtuScKHrCFqUyhg6yXgrpFVb27znVHM24osNGhlurkGN/FpZCMfkQLI6l/6kjHZBes16FNUAvBO3RRhFYOdHcZmusXHJ9THNREKMzgTUmLftXyQ5LLK3kFkwYrzdqT2Ob+FT2fr0P67iVuqt50VrhPGrCC7BjalQpVi87'}} |
| 0:35:21.196028 | LOG | Server ----------> DUT |
| 0:35:21.199028 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:35:21.201045 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:35:26.185149 | LOG | PUSH_ACK: 02 39b2 01 |
| 0:35:26.187146 | LOG | PUSH_DATA: Protocol version = 02, Token = 39b2, Identifier = 00, JSON = {'rxpk': [{'tmst': 591842014, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAwAkBtq0rs87l'}]} |
| 0:35:26.189146 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09c0, FOpts: ), FPort: 01, FRMPayload: 04e0, MIC: 2bb3cee5) |
| 0:35:26.191145 | LOG | Server <---------- DUT |
| 0:35:26.193143 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0698, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: b64b2486) |
| 0:35:31.199723 | LOG | Frame command sent to the DUT |
| 0:35:31.201702 | LOG | PULL_RESP: Protocol version = 02, Token = 095d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 598844954, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAmQbg5Xt7Yysx0T6Al1IChG/NKDjRRf80a3c6uro9MmTaR2brKuYNucHvHA3TwPBl0ACTYc0v4JEJEf9qPSZSiTyZ9UjHWl0tMaWrGitzSiT3qvaNBgpQ0oSay2IckTby52lbRDhbKHWiSe7o1LGtxDXu0MKNDoqBhXf4FxhzwMDbZLoVOxVubSmslWj4sh60jzY/wmPArkp3WWiIPwODs/oC91D4+t6uwSAAMaUlqes+KmzkUuy+fmqj/Eay9/fDE0mYLLyYcUkADWY9H4IN89+rGAGnTui+Ey91Kv9wD1w3kVriq6maL929+aOiFYAgjnAJ2He2SySG'}} |
| 0:35:31.203701 | LOG | Server ----------> DUT |
| 0:35:31.206699 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:35:31.211696 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:35:36.192635 | LOG | PUSH_ACK: 02 39b4 01 |
| 0:35:36.194635 | LOG | PUSH_DATA: Protocol version = 02, Token = 39b4, Identifier = 00, JSON = {'rxpk': [{'tmst': 601847921, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAwgkBflHI6pGa'}]} |
| 0:35:36.196633 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09c2, FOpts: ), FPort: 01, FRMPayload: 04e2, MIC: c8ea919a) |
| 0:35:36.197632 | LOG | Server <---------- DUT |
| 0:35:36.200631 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 069a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 331d4c79) |
| 0:35:36.202629 | LOG | Frame command sent to the DUT |
| 0:35:36.204628 | LOG | PULL_RESP: Protocol version = 02, Token = c18b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 603847921, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAmgbgRwzZK3DZh1HyBVDig73IAAi6/x2C4PX0PTs9VCYcTjzuFGpx0iaD+0lXpOotd6CssDDEwQzU7mancM2+AhqubSsm/c4aboSOB/EhsL5ebegRMWI/hjMvMOHcrmmcYOucLqaceWY4Ue/pTdg/7jVMJHgjtOz3IiuDwXQfWsTMSvLqFsF7WNFzcjo453vSvba28czbBK8AoXNhz/nu20iZYTmHMzt45f14uFSJftHSwh4FP+GLQOxtWQMgBru4r2b0AQuFyuOE9KIEgubsRSm/Nn7Jcl/+f6fdEQX0FR/ipNLr0TQRM9q3OFi0cJIpb4nJAJAzHUx5'}} |
| 0:35:36.205627 | LOG | Server ----------> DUT |
| 0:35:36.208626 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:35:36.212626 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:35:39.564778 | LOG | PULL_DATA: 02 b8e4 02 3834383419003400 |
| 0:35:39.565779 | LOG | PULL_ACK: 02 b8e4 04 |
| 0:35:41.214843 | LOG | PUSH_ACK: 02 39b6 01 |
| 0:35:41.216840 | LOG | PUSH_DATA: Protocol version = 02, Token = 39b6, Identifier = 00, JSON = {'rxpk': [{'tmst': 606852215, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAwwkB/mmn3WaX'}]} |
| 0:35:41.218839 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09c3, FOpts: ), FPort: 01, FRMPayload: 04e3, MIC: a7dd6697) |
| 0:35:41.220837 | LOG | Server <---------- DUT |
| 0:35:41.222836 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 069b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:35:46.214762 | LOG | Server ----------> DUT |
| 0:35:46.216761 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:35:46.219779 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:35:49.574236 | LOG | PULL_DATA: 02 7b9e 02 3834383419003400 |
| 0:35:49.576234 | LOG | PULL_ACK: 02 7b9e 04 |
| 0:35:51.204307 | LOG | PUSH_ACK: 02 39b9 01 |
| 0:35:51.206307 | LOG | PUSH_DATA: Protocol version = 02, Token = 39b9, Identifier = 00, JSON = {'rxpk': [{'tmst': 616859467, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAxQkB1XTSRykS'}]} |
| 0:35:51.207306 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09c5, FOpts: ), FPort: 01, FRMPayload: 04e5, MIC: d2472912) |
| 0:35:51.209305 | LOG | Server <---------- DUT |
| 0:35:51.212303 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 069d, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:35:56.218806 | LOG | PULL_RESP: Protocol version = 02, Token = a3d6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 623863777, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAngbg5eOLT+InTGmf77UrpY8vaC1AE/8y2YRwbC1SPv761pduaVsO0MEWeYbI+RsFNgPi/aj5wJLlOJKnWOhDk44KEHcGVg2fHlO5M+PLK9V/1whsKuswZsBo+r0/HY6YMvaT1SaGrh9V61JCk06inQxjGRnU1dQ7oBP74BrLEq845/SAdALYS4A55yDwmQFpx3I/nEYR2dWrpIeP4Pkj/zLeBx1PquEZnGq4Q3U4Z2ZfDP9VEodxXWhEY0ubmlW4f7Pio4I5JA0tYJZPsJ+LReKgrRyAQPEFhOh1X2aWYrCvfVxfvbq7vDTYOTSQmwE32CZv7FE8Li5R'}} |
| 0:35:56.220804 | LOG | Server ----------> DUT |
| 0:35:56.223803 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:35:56.227800 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:35:59.583922 | LOG | PULL_DATA: 02 2add 02 3834383419003400 |
| 0:35:59.585919 | LOG | PULL_ACK: 02 2add 04 |
| 0:36:01.210995 | LOG | PUSH_ACK: 02 39bb 01 |
| 0:36:01.213968 | LOG | PUSH_DATA: Protocol version = 02, Token = 39bb, Identifier = 00, JSON = {'rxpk': [{'tmst': 626868102, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAxwkBTLJZau8P'}]} |
| 0:36:01.215963 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09c7, FOpts: ), FPort: 01, FRMPayload: 04e7, MIC: 596aef0f) |
| 0:36:01.216962 | LOG | Server <---------- DUT |
| 0:36:01.218961 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 069f, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:36:16.226888 | LOG | PUSH_DATA: Protocol version = 02, Token = 39bf, Identifier = 00, JSON = {'rxpk': [{'tmst': 641878349, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAygkB7Bt2YMbz'}]} |
| 0:36:16.228887 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09ca, FOpts: ), FPort: 01, FRMPayload: 04ea, MIC: 7660c6f3) |
| 0:36:16.230885 | LOG | Server <---------- DUT |
| 0:36:16.232885 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06a2, FOpts: ), FPort: e0, FRMPayload: 070001010101010101010101

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| | | wxo38Yh2ECGZV82CcA2WnSCDoDznzjZBCVDvf0pmmFRUSxhSKgPpQkCfWjLVTAUqX7D4Xhw324a3zsC7AAMEWoEPlFTIjvtZfDemDqp5Znuj08HBPPKDx+mRPO+L96RMzcLnQfXlLHn1vTLZWZzqFkZrOex+3xk82WTk3XN92zY9gINNmF1Awdk0Icjp9P1Jv6vcbnilaDN9G4EgRc39/kA'}} |
| 0:36:21.238733 | LOG | Server ----------> DUT |
| 0:36:21.241733 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:36:21.244729 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:36:26.228028 | LOG | PUSH_ACK: 02 39c1 01 |
| 0:36:26.230027 | LOG | PUSH_DATA: Protocol version = 02, Token = 39c1, Identifier = 00, JSON = {'rxpk': [{'tmst': 651884304, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 5.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzAkBoGwW04L3'}]} |
| 0:36:26.232027 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09cc, FOpts: ), FPort: 01, FRMPayload: 04ec, MIC: 16d382f7) |
| 0:36:26.233028 | LOG | Server <---------- DUT |
| 0:36:26.236024 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06a4, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: d6891a28) |
| 0:36:31.243515 | LOG | Frame command sent to the DUT |
| 0:36:31.245514 | LOG | PULL_RESP: Protocol version = 02, Token = 4f52, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 658888597, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAApQbgyiqcgJE0KpaTQZ0XrcD9nE/TSbTRF/y+bEqjOGeJOBKN6JLJUcwt+53+4zJ3FIGokkjtLXCxwni1rgQ1xbjMXZBYzi1IYpg5f7K1FEDG+fSf8Z0dxwQSKTMqGTUATkfLd5duktrVM+y2hdH9zWeC4DUWg/GiXGsAcDOe4uuPfQDDABdBVBVJ+Zw3jLCOk7DBM//LKydn9GXsXPCLP1ENEuqeWUQHTwMxr1ALAKM/miqlrgig7hA8SCuxdSEA1gFqXlqlS6dm8EbL1JkjSRgw14lOQGSo9hXFBQeDB2oRph4kNoBdpqhKWTNO/Y75ZRGSAUnWiRoo'}} |
| 0:36:31.247513 | LOG | Server ----------> DUT |
| 0:36:31.251510 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:36:31.255508 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:36:36.238842 | LOG | PUSH_ACK: 02 39c3 01 |
| 0:36:36.240843 | LOG | PUSH_DATA: Protocol version = 02, Token = 39c3, Identifier = 00, JSON = {'rxpk': [{'tmst': 661891532, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAzgkBHLxbX7ns'}]} |
| 0:36:36.242841 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09ce, FOpts: ), FPort: 01, FRMPayload: 04ee, MIC: 5b5fb9ec) |
| 0:36:36.243840 | LOG | Server <---------- DUT |
| 0:36:36.246838 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06a6, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:36:41.259875 | LOG | Server <---------- DUT |
| 0:36:41.262846 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06a7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:36:49.835715 | LOG | PULL_ACK: 02 a1d8 04 |
| 0:36:51.247893 | LOG | PUSH_ACK: 02 39c7 01 |
| 0:36:51.250893 | LOG | PUSH_DATA: Protocol version = 02, Token = 39c7, Identifier = 00, JSON = {'rxpk': [{'tmst': 676903148, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA0QkB9kJegNRe'}]} |
| 0:36:51.251891 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09d1, FOpts: ), FPort: 01, FRMPayload: 04f1, MIC: 5e80d45e) |
| 0:36:51.253890 | LOG | Server <---------- DUT |
| 0:36:51.256888 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06a9, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | cnofdaJ2uqUIyojXkMCzU9MdJ9N27a9v5lgfICmwEpVPwxoBsyQjc4i6Gua4VWDaygwfkzFLOSSOvm6CxyeWBFNaTor8VvTDaZtqeHgHP0e7s29ZQrYdi+/kUpVoqQ78jBVy+dMi7Kw8tONwUG2cYh9cEtOj0fMrTk0edGVZy0xXLO1ja3tgsS3kpTIPjQtR0ibG/c4/INbMflwCDrpvFRC'}} |
| 0:36:56.264447 | LOG | Server ----------> DUT |
| 0:36:56.267447 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:36:56.271444 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:37:00.043790 | LOG | PULL_DATA: 02 c39d 02 3834383419003400 |
| 0:37:00.045791 | LOG | PULL_ACK: 02 c39d 04 |
| 0:37:01.255701 | LOG | PUSH_ACK: 02 39c9 01 |
| 0:37:01.257700 | LOG | PUSH_DATA: Protocol version = 02, Token = 39c9, Identifier = 00, JSON = {'rxpk': [{'tmst': 686910496, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA0wkBQxKpHiHs'}]} |
| 0:37:01.259698 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09d3, FOpts: ), FPort: 01, FRMPayload: 04f3, MIC: a91e21ec) |
| 0:37:01.261697 | LOG | Server <---------- DUT |
| 0:37:01.263696 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ab, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: c1e89d9f) |
| 0:37:06.270211 | LOG | Frame command sent to the DUT |
| 0:37:06.271211 | LOG | PULL_RESP: Protocol version = 02, Token = 77ef, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 693913517, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAArAbgcV62D9NRRqJYnzfgBndI8uupw2P3WSjBAMV+Fzum+TTaW3QuKZpVKtVzUEAojdWDtL6G8Pw+DdfGsQarmPAlc12ejLz8e5tEa/Y8optmZHc2Vuuhw7dKbKYRUFyhxXQVrHs/KuHfXvVrTinOm6caFaqDpYEkkLWXLDvM9xT3KNjY7JJy/4UvQWlg54aGkJV2ponKy7tXf4SWP2ZRQ3bItiTdxhEYrulXxUghpmxmQuRTblZUjJ9QkZ0GhaIGsWuXsEz07gdXJKV5lLReUUjS/05cXf1OE3noE+Ne95AQ3DyZz2NKyZEDKNbZdrWWwB2qjN7B6J2f'}} |
| 0:37:06.272210 | LOG | Server ----------> DUT |
| 0:37:06.276210 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:37:06.280206 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:37:10.053464 | LOG | PULL_DATA: 02 bff5 02 3834383419003400 |
| 0:37:10.055464 | LOG | PULL_ACK: 02 bff5 04 |
| 0:37:11.275769 | LOG | PUSH_ACK: 02 39cc 01 |
| 0:37:11.277769 | LOG | PUSH_DATA: Protocol version = 02, Token = 39cc, Identifier = 00, JSON = {'rxpk': [{'tmst': 696916521, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA1QkBak+1hCf9'}]} |
| 0:37:11.279767 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09d5, FOpts: ), FPort: 01, FRMPayload: 04f4, MIC: b58427fd) |
| 0:37:11.280767 | LOG | Server <---------- DUT |
| 0:37:11.283765 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ad, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:37:16.273139 | LOG | Server <---------- DUT |
| 0:37:16.276138 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ae, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:37:21.289515 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:37:30.104532 | LOG | PULL_DATA: 02 43fc 02 3834383419003400 |
| 0:37:30.106531 | LOG | PULL_ACK: 02 43fc 04 |
| 0:37:31.258967 | LOG | PUSH_ACK: 02 39d0 01 |
| 0:37:31.260966 | LOG | PUSH_DATA: Protocol version = 02, Token = 39d0, Identifier = 00, JSON = {'rxpk': [{'tmst': 716931051, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA2QkBPhO+2byC'}]} |
| 0:37:31.262965 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09d9, FOpts: ), FPort: 01, FRMPayload: 04f7, MIC: bed9bc82) |
| 0:37:31.263963 | LOG | Server <---------- DUT |
| 0:37:31.265962 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06b0, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'size': 255, 'data': 'YCAgICAAsQbgJF4X2Wj5fakuCJV3xAo/QiM36AdxOmf0U+qXbTc4dogqEJLjrJXi8BPsAcFHk74QeCYBolHx6YP45V5Wc3Ux2LxUOXKPq3WxuYAhor0qEKhc4ANzxL3iExjqQq1Fv5+2y5df6ZdGYGqnREmX01J4q6Mu9w23ovwXdj0L3NS77/0w/rXSwlJBOLxEI3rqtUc8fbZzgSc/Dntqe8XDbRjth27XgSPjhiMN129bdUGEBabdLmn72XfaR0UcTqGSg9STjkrNefY7EiApIgajEoD/5Af+yIYnIXKdkJC0teBTkatEBw08Uh+lwxUQ4lbw2ngKAGA/TrU/'}} |
| 0:37:36.294721 | LOG | Server ----------> DUT |
| 0:37:36.298716 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:37:36.301715 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:37:40.283801 | LOG | PULL_DATA: 02 3ac0 02 3834383419003400 |
| 0:37:40.285825 | LOG | PULL_ACK: 02 3ac0 04 |
| 0:37:41.297667 | LOG | PUSH_ACK: 02 39d5 01 |
| 0:37:41.299667 | LOG | PUSH_DATA: Protocol version = 02, Token = 39d5, Identifier = 00, JSON = {'rxpk': [{'tmst': 726938296, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA2wkBjoD9QmFB'}]} |
| 0:37:41.301665 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09db, FOpts: ), FPort: 01, FRMPayload: 04f9, MIC: fd426141) |
| 0:37:41.302666 | LOG | Server <---------- DUT |
| 0:37:41.305663 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06b2, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: b7fe8cfe) |
| 0:37:46.299362 | LOG | Frame command sent to the DUT |
| 0:37:46.301360 | LOG | PULL_RESP: Protocol version = 02, Token = 5acf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 733941221, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAswbgxZcXnRgqxc7RnFcFXT8Ovgpr7/kDPc5sxwOM8eDlhbBXz9F7NXvRr310MSr1vPM3Q+UT+vd4DlOsiWoMmSdk6wEfzE2bsFPJi7TB55VqbzXT278dsPhWetWaAUIzU/gRse0PTUSu24P7Jzsf+ojMtbrD2aUdGqvuSwPKAFnJ61lMrgn/AfiH9NGmO9dYHCctf+rM8JWYvjF0pKTgspfXzui5OWom+K6Q5rv3OgEk7n2tEcuSF/+NhB3SgtAdA3Pjhk1fwo2EoCvYBh7uCmOGdBSIVCc7ixAHGsYbw27HAKxkYiNj6xLDNHGYvK/WW/4Qi8K3/oz+'}} |
| 0:37:46.302360 | LOG | Server ----------> DUT |
| 0:37:46.306357 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:37:46.309355 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:37:50.293810 | LOG | PULL_DATA: 02 d716 02 3834383419003400 |
| 0:37:50.295836 | LOG | PULL_ACK: 02 d716 04 |
| 0:37:51.290243 | LOG | PUSH_ACK: 02 39d7 01 |
| 0:37:51.292241 | LOG | PUSH_DATA: Protocol version = 02, Token = 39d7, Identifier = 00, JSON = {'rxpk': [{'tmst': 736945547, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA3QkBq3qjvqY6'}]} |
| 0:37:51.295267 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09dd, FOpts: ), FPort: 01, FRMPayload: 04fb, MIC: a3bea63a) |
| 0:37:51.296267 | LOG | Server <---------- DUT |
| 0:37:51.299266 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06b4, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 9bb247dc) |
| 0:37:51.302264 | LOG | Frame command sent to the DUT |
| 0:37:51.304263 | LOG | PULL_RESP: Protocol version = 02, Token = 0b74, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 738945547, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAtAbgwUuuGrRvZ0GlCbpfYutryCEVE3W58b8JPnH/R1KIPFynDbZY08DDaK1Dn0IDydnluvNl9hajraH0PHWA5aSmNtcuzMCO+fR6jwGWULWGQc4Z0iaVp/OGYzEU+YDTFvqzFMbWnt9RLZWSGNdqPbAtMbn3m/x5Tv6O8f+PiUAqPfOW2gEcxrmIsSct98OjLi4fAUuU1QhD5B10kOsnkyKrQ+qoqL5Z9Iq3LfhJxwUYDRsbNS2HH1IgwtsqPkNoWHmzPKaTVGdlGlmKcbHhiiSuirRR8ZPUcQEPLuXVWyGFw4tjczWkITv9/Wc2pgSM0L8AHn6bskfc'}} |
| 0:37:51.305262 | LOG | Server ----------> DUT |
| 0:37:51.311258 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:37:51.324224 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:37:56.294430 | LOG | PUSH_ACK: 02 39d8 01 |
| 0:37:56.297399 | LOG | PUSH_DATA: Protocol version = 02, Token = 39d8, Identifier = 00, JSON = {'rxpk': [{'tmst': 741948571, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA3gkBvlKweSCf'}]} |
| 0:37:56.298398 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09de, FOpts: ), FPort: 01, FRMPayload: 04fc, MIC: b079209f) |
| 0:37:56.300426 | LOG | Server <---------- DUT |
| 0:37:56.302424 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06b5, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | K0IU+vF6E9VtuJKqHmL3qWn2ZTdp/m5/Jozc/Pt+m1VfY78+OpiepE80Kz03QK1p+0mHB8LUBAPynG0SvY0GC5DB674lH2DP'}} |
| 0:38:01.308113 | LOG | Server ----------> DUT |
| 0:38:01.310112 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:38:01.313110 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:38:06.300179 | LOG | PUSH_ACK: 02 39da 01 |
| 0:38:06.302178 | LOG | PUSH_DATA: Protocol version = 02, Token = 39da, Identifier = 00, JSON = {'rxpk': [{'tmst': 751957292, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA4AkB4ZNTqtZr'}]} |
| 0:38:06.304177 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09e0, FOpts: ), FPort: 01, FRMPayload: 04fe, MIC: 53aad66b) |
| 0:38:06.305177 | LOG | Server <---------- DUT |
| 0:38:06.307176 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06b7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:38:11.325267 | LOG | Frame command sent to the DUT |
| 0:38:11.327266 | LOG | PULL_RESP: Protocol version = 02, Token = c46d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 758960299, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAuAbgAe8zWFKgVIhuv9X2zYzmwyyDiTj2mh9p0Ii2cMDEax0rz3xuQmFoSLawr1vauAqpC9nDaCYbhB5pNg9emfxAH+7CB8y+FEn7AL/KtBLJoXgagLIOGW+cT4WvmmbLHDCZJQoGqdc04umUHAImSwsft+4pVOMKe8LT0mHf+A0nqgR+efBKum0QuNCuQiebsLjQkyZE4oUrfM/cXwwn0vYWG5SYKxbEYzdCK/Pp0WVVe1FkCuycJMKqL9dOlAp/D2Xz+rd1TNjFNlZgh39/36ErMu0Xl0TUIqvH76CMa0PmqmcwR2SeM4WNv48T3Ti1PTZrIY3aJSSO'}} |
| 0:38:11.329265 | LOG | Server ----------> DUT |
| 0:38:11.334262 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:38:11.338261 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:38:16.307153 | LOG | PUSH_ACK: 02 39dd 01 |
| 0:38:16.312150 | LOG | PUSH_DATA: Protocol version = 02, Token = 39dd, Identifier = 00, JSON = {'rxpk': [{'tmst': 761963310, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA4gkBTo2YaaQb'}]} |
| 0:38:16.313150 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09e2, FOpts: ), FPort: 01, FRMPayload: 0500, MIC: 9869a41b) |
| 0:38:16.315149 | LOG | Server <---------- DUT |
| 0:38:16.317148 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06b9, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:38:21.317668 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ba, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:38:31.318582 | LOG | PUSH_ACK: 02 39e0 01 |
| 0:38:31.320581 | LOG | PUSH_DATA: Protocol version = 02, Token = 39e0, Identifier = 00, JSON = {'rxpk': [{'tmst': 776974888, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5QkBqfzbWlxn'}]} |
| 0:38:31.322580 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09e5, FOpts: ), FPort: 01, FRMPayload: 0503, MIC: db5a5c67) |
| 0:38:31.324578 | LOG | Server <---------- DUT |
| 0:38:31.326577 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06bc, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | B5JgQaGvKzd+HxwFC+6x36VrSOyu20en6w6RVfdXJuOw8Uwnz5gQTuBWIYf gOyRbQF2bIjfdlp29cuuyEhcJpPHtyKzmHHWbdB3iKsUMslJ0nsLga12ou6UJYuT ErbB72642Gq+4LA+HQyufnhB6glNT'}} |
| 0:38:36.335267 | LOG | Server ----------> DUT |
| 0:38:36.338265 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:38:36.342261 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:38:40.743637 | LOG | PULL_DATA: 02 7d1f 02 3834383419003400 |
| 0:38:40.745636 | LOG | PULL_ACK: 02 7d1f 04 |
| 0:38:41.335301 | LOG | PUSH_ACK: 02 39e4 01 |
| 0:38:41.337300 | LOG | PUSH_DATA: Protocol version = 02, Token = 39e4, Identifier = 00, JSON = {'rxpk': [{'tmst': 786982235, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA5wkBzihNfCBE'}]} |
| 0:38:41.339299 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09e7, FOpts: ), FPort: 01, FRMPayload: 0505, MIC: 4d7c2044) |
| 0:38:41.341298 | LOG | Server <---------- DUT |
| 0:38:41.343297 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06be, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 101010101010101), MIC: 86207c06) |
| 0:38:41.346295 | LOG | Frame command sent to the DUT |
| 0:38:41.347294 | LOG | PULL_RESP: Protocol version = 02, Token = b3bb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 788982235, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAvgbgxJrTqw+gupqkyTji3fQacHQsa+AmDWmEpAX2/fasyO/WlqCm/ KUH/fS07OWYgPFN1yo2NrDIjIuXzJ69nYx39uUpx3SsmOIxCnSQMNACdEtUd DL8fa2UICgowxuqemq+DUK72RJK9/lsVFarLWYx5iHNLGHAe5nk+sxCVW6T 7ukQmn6mPfrOOooxAqv9FZcUo12Fa0tqSn3DAet20USV/BAKU1+RULFV/8KP kzTh0CcHZ9ZsD1zpOwhgy8O6ZXXz8lX39Ir9gJFtbR+VOMsmi2Oq8+NSF1e4n UoRmIjTxkQ1zdSAxdzxubqXRJLi8KfZhAiGIHwG'}} |
| 0:38:41.349293 | LOG | Server ----------> DUT |
| 0:38:41.353291 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:38:41.357289 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:38:46.329475 | LOG | PUSH_ACK: 02 39e5 01 |
| 0:38:46.333473 | LOG | PUSH_DATA: Protocol version = 02, Token = 39e5, Identifier = 00, JSON = {'rxpk': [{'tmst': 791985200, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA6AkBbipjwjSb'}]} |
| 0:38:46.335472 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09e8, FOpts: ), FPort: 01, FRMPayload: 0506, MIC: 63c2349b) |
| 0:38:46.337471 | LOG | Server <---------- DUT |
| 0:38:46.339470 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06bf, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 |

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 1ed065bd) |
| 0:38:46.342468 | LOG | Frame command sent to the DUT |
| 0:38:46.344468 | LOG | PULL_RESP: Protocol version = 02, Token = 4e19, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 793985200, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAvwbgUup0zG5ynPqS7e3iQ1rQvX2nwjFRIHNJNMBBW0Vw/YLfeqfIdtwrG6jos/nTLP1YVZ86AaRWCnHZIbpLz03nygoz1vf6dMCGX4HYP4VSCaPMajI1FXJbCq7sxj7oUMduCmZMcIpI4fPy8GTeZdmb+GwNkBx01ODORDTN6E7fyifyKYi180kF6WDv4zeisSHxzQ2lpF5+8Oet5/R4v9s/VoCF4UmJyHcwDJ6+UPWItDxDIlfbhW4DPjitVnGbSs8S5mnmrR+pq+4B6wSdm0z/RuLhbcsKIOr9SVjuQI8p7kfaHaapibNzxMie59nCHf6NYkwe0GW9'}} |
| 0:38:46.345466 | LOG | Server ----------> DUT |
| 0:38:46.350463 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:38:46.354463 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:38:50.753407 | LOG | PULL_DATA: 02 fed9 02 3834383419003400 |
| 0:38:50.754407 | LOG | PULL_ACK: 02 fed9 04 |
| 0:38:51.332078 | LOG | PUSH_ACK: 02 39e6 01 |
| 0:38:51.334077 | LOG | PUSH_DATA: Protocol version = 02, Token = 39e6, Identifier = 00, JSON = {'rxpk': [{'tmst': 796989548, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA6QkBwHBDrknj'}]} |
| 0:38:51.336078 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09e9, FOpts: ), FPort: 01, FRMPayload: 0507, MIC: 43ae49e3) |
| 0:38:51.337076 | LOG | Server <---------- DUT |
| 0:38:51.339076 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06c0, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:38:56.341257 | LOG | Server <---------- DUT |
| 0:38:56.343255 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06c1, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:39:06.398010 | LOG | Partial Verdict: PASS |
| 0:39:06.401008 | LOG | ========== |
| 0:39:06.408005 | LOG | ========== |
| 0:39:06.410004 | LOG | Start Test Step: Test packet error rate for FSK50 using RX2 window |
| 0:39:06.425994 | LOG | Send RXParamSetupReq process starts |
| 0:39:11.013382 | LOG | PULL_DATA: 02 176a 02 3834383419003400 |
| 0:39:11.015381 | LOG | PULL_ACK: 02 176a 04 |
| 0:39:11.325204 | LOG | PUSH_ACK: 02 39eb 01 |
| 0:39:11.328202 | LOG | PUSH_DATA: Protocol version = 02, Token = 39eb, Identifier = 00, JSON = {'rxpk': [{'tmst': 817002860, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA7QkBEn7RiwKD'}]} |
| 0:39:11.332201 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09ed, FOpts: ), FPort: 01, FRMPayload: 050a, MIC: d18b0283) |
| 0:39:11.336198 | LOG | Server <---------- DUT |
| 0:39:11.342194 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06c3, FOpts: ), FPort: 00, FRMPayload: 0507d2ad84), MIC: 79327b12) |
| 0:39:11.347193 | LOG | PULL_RESP: Protocol version = 02, Token = 6470, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 819002860, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAwwYAt3T+rt55MnsS'}} |
| 0:39:11.348191 | LOG | Server ----------> DUT |
| 0:39:11.351189 | LOG | TX_ACK: 02 6470 05 3834383419003400 |
| 0:39:16.333114 | LOG | PUSH_ACK: 02 39ec 01 |
| 0:39:16.336113 | LOG | PUSH_DATA: Protocol version = 02, Token = 39ec, Identifier = 00, JSON = {'rxpk': [{'tmst': 822010986, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC7gkFBwF1nj4dunA='}]} |
| 0:39:16.338106 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 09ee, FOpts: 0507), FPort: 01, FRMPayload: 050a, MIC: 3e1dba70) |
| 0:39:16.339105 | LOG | Server <---------- DUT |
| 0:39:16.343105 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:39:16.344105 | LOG | Command Answer: 0507 |
| 0:39:16.356097 | LOG | MAC command communication completed |
| 0:39:16.364093 | LOG | Send Test Command RxAppCntReq process starts |
| 0:39:21.213246 | LOG | PULL_DATA: 02 1bb8 02 3834383419003400 |
| 0:39:21.214247 | LOG | PULL_ACK: 02 1bb8 04 |
| 0:39:21.374124 | LOG | PUSH_ACK: 02 39ed 01 |
| 0:39:21.375123 | LOG | PUSH_DATA: Protocol version = 02, Token = 39ed, Identifier = 00, JSON = {'rxpk': [{'tmst': 827013994, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCC7wkFBwH8OC3r1mE='}]} |
| 0:39:21.377124 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 09ef, FOpts: 0507), FPort: 01, FRMPayload: 050a, MIC: 2debd661) |
| 0:39:21.379123 | LOG | Server <---------- DUT |
| 0:39:21.381124 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06c4, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 1f55a519) |
| 0:39:21.383124 | LOG | Frame command sent to the DUT |
| 0:39:21.385119 | LOG | PULL_RESP: Protocol version = 02, Token = 5fbe, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 829013994, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 14, 'data': 'YCAgICAAxAbgRx9VpRk='}} |
| 0:39:21.386119 | LOG | Server ----------> DUT |
| 0:39:21.389117 | LOG | TX_ACK: 02 5fbe 05 3834383419003400 |
| 0:39:26.372594 | LOG | PUSH_ACK: 02 39ee 01 |

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| 0:39:26.374593 | LOG | PUSH_DATA: Protocol version = 02, Token = 39ee, Identifier = 00, JSON = {'rxpk': [{'tmst': 832020092, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 16, 'data': 'QCAgICCA8Angi7SlSOVnHQ==''}]} |
| 0:39:26.376595 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09f0, FOpts: ), FPort: e0, FRMPayload: 090b05, MIC: 48e5671d) |
| 0:39:26.377591 | LOG | Server <---------- DUT |
| 0:39:26.378591 | LOG | Answer in payload: 0b05 |
| 0:39:26.379590 | LOG | Frame Command Payload in the Answer: 090b05 |
| 0:39:26.383588 | LOG | RX Count received by DUT: 1291 |
| 0:39:26.386586 | LOG | Send Test Command RxAppCntReq process completed |
| 0:39:26.389584 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:39:31.253298 | LOG | PULL_DATA: 02 42de 02 3834383419003400 |
| 0:39:31.255296 | LOG | PULL_ACK: 02 42de 04 |
| 0:39:31.362236 | LOG | PUSH_ACK: 02 39ef 01 |
| 0:39:31.364235 | LOG | PUSH_DATA: Protocol version = 02, Token = 39ef, Identifier = 00, JSON = {'rxpk': [{'tmst': 837014772, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA8QkBiqQSUDP5'}]} |
| 0:39:31.366234 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09f1, FOpts: ), FPort: 01, FRMPayload: 050b, MIC: 125033f9) |
| 0:39:31.368232 | LOG | Server <---------- DUT |
| 0:39:31.370232 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06c5, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: 2efd5025) |
| 0:39:36.371718 | LOG | Frame command sent to the DUT |
| 0:39:36.372718 | LOG | PULL_RESP: Protocol version = 02, Token = fb50, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 844019078, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAAxgbgQjf613KjQfx4Zk006usPPv+HgcEQxd1F0RwGmLKfErFY6sIMFnPMTj2Q7s9AjB32MeZnoT0Rifdl97w+t6+Tw2tVfqpLhyrH07HJJYqK1BPcg3rhPPDQT5f7SCTFtO9lA1TjWf/YSY4fecW0ibsEdU7abiE1Bza27/CVWoC93Vn8grNkZL+/sJ1vi54FLhE9+m+5zB3yvgGKLfm1EiCZOTxOdrwuyQixpli1by0E2hgxKluDACeTfBasxTqeW5hC/0n3Y6YCFw0idpGNcuIOQVqR0i7gzoj96n+1IAhEaUnbZahBA7q8cZVUmWKNE1GR2XYu/VAl'}} |
| 0:39:36.375717 | LOG | Server ----------> DUT |
| 0:39:36.379714 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:39:36.382712 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:39:41.377182 | LOG | PUSH_ACK: 02 39f3 01 |
| 0:39:41.379181 | LOG | PUSH_DATA: Protocol version = 02, Token = 39f3, Identifier = 00, JSON = {'rxpk': [{'tmst': 847022031, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA8wkB/JnTYuzA'}]} |
| 0:39:41.381180 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09f3, FOpts: ), FPort: 01, FRMPayload: 050d, MIC: d362ecc0) |
| 0:39:41.382180 | LOG | Server <---------- DUT |
| 0:39:41.385178 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06c7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: d8bf8512) |
| 0:39:41.388176 | LOG | Frame command sent to the DUT |
| 0:39:41.390175 | LOG | PULL_RESP: Protocol version = 02, Token = b495, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 849022031, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAAxwbg1C24epLM59X7D5wu10JB6AJO2CenWBrXTBfq4UxO9GE6hdUYS/b+hhAprGVxhlq/D9IukFQzZWmYk1ovUas3F/N6/+n3SJWDI0cG0GP9v1vpQxT364WAxzpbmswnxgrZfmtSMY6BG4Zoq6ZmNy4Tyadr96dNnFaCS6Qsvty+puGZdWtGN5D3f+YRFLMQz10XPyzUBeOk08qbiS9hFTgfuA5CFW+RsCMA+V97t8d+gTlIeUVd4t457rJLxnwjRBVU4YDmu/C888pg8PUExU4kwjHU1nQFE/1gODRrZPFVLEdWpsuTx4D3iKVBz3Cdtn+HT2jYv4US'}} |
| 0:39:41.391175 | LOG | Server ----------> DUT |
| 0:39:41.396172 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:39:41.400170 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:39:46.368193 | LOG | PUSH_ACK: 02 39f4 01 |
| 0:39:46.372191 | LOG | PUSH_DATA: Protocol version = 02, Token = 39f4, Identifier = 00, JSON = {'rxpk': [{'tmst': 852024964, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA9AkB1Unr0PS9'}]} |
| 0:39:46.373191 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09f4, FOpts: ), FPort: 01, FRMPayload: 050e, MIC: ebd0f4bd) |

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| 0:39:46.375189 | LOG | Server <---------- DUT |
| 0:39:46.377161 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06c8, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:39:56.373818 | LOG | PUSH_ACK: 02 39f6 01 |
| 0:39:56.375817 | LOG | PUSH_DATA: Protocol version = 02, Token = 39f6, Identifier = 00, JSON = {'rxpk': [{'tmst': 862032185, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA9gkBxiE7Mvcw'}]} |
| 0:39:56.377816 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09f6, FOpts: ), FPort: 01, FRMPayload: 0510, MIC: 3b32f730) |
| 0:39:56.378815 | LOG | Server <---------- DUT |
| 0:39:56.381814 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ca, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | uaLZFCKfIYYO6lo/Z2Z5BkHCckaILsq2/jLYOJwR318j8Go6BL0PfQ449eEyxBx6yOCcEUP0PvtAYv59qfZYFL'}} |
| 0:40:01.391569 | LOG | Server ----------> DUT |
| 0:40:01.394565 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:40:01.396583 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:40:01.602447 | LOG | PULL_DATA: 02 7717 02 3834383419003400 |
| 0:40:01.604446 | LOG | PULL_ACK: 02 7717 04 |
| 0:40:06.382708 | LOG | PUSH_ACK: 02 39f8 01 |
| 0:40:06.384706 | LOG | PUSH_DATA: Protocol version = 02, Token = 39f8, Identifier = 00, JSON = {'rxpk': [{'tmst': 872040790, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA+AkBDNLiG9ae'}]} |
| 0:40:06.386705 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09f8, FOpts: ), FPort: 01, FRMPayload: 0512, MIC: e21bd69e) |
| 0:40:06.388704 | LOG | Server <---------- DUT |
| 0:40:06.390703 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06cc, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:40:11.408097 | LOG | PULL_RESP: Protocol version = 02, Token = 3fc6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 879043721, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAAzQbg1XDHzUWcq+BEo6mRhu5SIVF1ptA2FGiZQ7El5WKQTZARgF1xMj53mtfsvFhoSvpEElAvnBgXK/VMRVk98kg9bbSG4/MsYSO79bPvdwsdQXeaIKoVRx1lJVRWuRlt/c5dBlf6iq2PNr2rVEynjjROMMVW7zzhvg13rRDpWLtl/77HAkwrAvkG4S/3tcxfcMrwEqQIjOgJU6zwAiSJ2enosc4qk9P1KMnqBwlyKT4wPyZu5aB1+dzt5HscPoCHPOVFfK+OYeclru8uJyvMlnfSXTsJJxMNo+/xCY1OiduKTXVWW03fr+Lw3b20esa6QwDO24tT7LA0'}} |
| 0:40:11.409095 | LOG | Server ----------> DUT |
| 0:40:11.412093 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:40:11.416092 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:40:11.622801 | LOG | PULL_DATA: 02 44b1 02 3834383419003400 |
| 0:40:11.625802 | LOG | PULL_ACK: 02 44b1 04 |
| 0:40:16.388749 | LOG | PUSH_ACK: 02 39fb 01 |
| 0:40:16.392746 | LOG | PUSH_DATA: Protocol version = 02, Token = 39fb, Identifier = 00, JSON = {'rxpk': [{'tmst': 882046644, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA+gkBTXHyR59m'}]} |
| 0:40:16.394746 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09fa, FOpts: ), FPort: 01, FRMPayload: 0514, MIC: f2479f66) |
| 0:40:16.395745 | LOG | Server <---------- DUT |
| 0:40:16.398743 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ce, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:40:31.403543 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09fd, FOpts: ), FPort: 01, FRMPayload: 0517, MIC: 836ec6af) |
| 0:40:31.405542 | LOG | Server <---------- DUT |
| 0:40:31.407543 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06d1, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:40:36.425294 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:40:41.419971 | LOG | PUSH_ACK: 02 3a01 01 |
| 0:40:41.421968 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a01, Identifier = 00, JSON = {'rxpk': [{'tmst': 907066812, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA/wkBLSZ073kd'}]} |
| 0:40:41.423967 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 09ff, FOpts: ), FPort: 01, FRMPayload: 0519, MIC: 74ef791d) |
| 0:40:41.424966 | LOG | Server <---------- DUT |
| 0:40:41.426965 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06d3, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | DreMLlhp1tcJeXkMT2uY1sDwSiia4aPDKDMnimPTZBNkMoz0s739VTlE1+KC4B0JZefKCFjt6mqLWJWeCuymL8VFWwW4MUda3StRi23B/iK1xJouYih7/mPEos+0C9zpefz7tNsp21BPB4U1qBixckPjq5Ci9e/i+S+6ZERqUvc6+i9IcQaeXFJSV6dAiQoaD7B6JdqVsJg0qSeZ/vg1XpK02xo5cAChDsHgdfhKoItWO4Ca1K1AvklrZSaTageilDiZWdfiP16BqsAPuQt+544'}} |
| 0:40:46.427935 | LOG | Server ----------> DUT |
| 0:40:46.430933 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:40:46.433932 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:40:51.415950 | LOG | PUSH_ACK: 02 3a03 01 |
| 0:40:51.417949 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a03, Identifier = 00, JSON = {'rxpk': [{'tmst': 917072697, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAAQoBN7Opvf0/'}]} |
| 0:40:51.419948 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a01, FOpts: ), FPort: 01, FRMPayload: 051b, MIC: a9bdfd3f) |
| 0:40:51.421947 | LOG | Server <---------- DUT |
| 0:40:51.423946 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06d5, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 388b46fb) |
| 0:40:56.429772 | LOG | Frame command sent to the DUT |
| 0:40:56.430771 | LOG | PULL_RESP: Protocol version = 02, Token = 107c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 924075612, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA1gbgLZaUPe0I+qPaRq5McKXrcM8luUZkL5u7KFJm+FA166wIExqdfraPlc3WMdVyxSVEYlhHT3WuAv4SvcIWVcdiSN2a6DKWrLJdbemGKOKOSqmUpiAAN/CvbUMUvIoU5TKM3BTupN7N/e3zloirPoiUthMw9CRTQYrAkpJ7dVYb+ShpkKP6leQmcomxRxhHro64zHjepOsSFBQ1nbg/u1INTNmpnro4Uz0p4bHUHvyijgMUwuL63RjMbdLq5eioacZ0y1ar38xPxGX1GkRYTXeIhiG8eYVyeuxXQFJhQ4a7xU6WwN7Uf7k2/acGnrxuV6hrAT84i0b7'}} |
| 0:40:56.432771 | LOG | Server ----------> DUT |
| 0:40:56.436767 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:40:56.439768 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:41:01.420933 | LOG | PUSH_ACK: 02 3a05 01 |
| 0:41:01.423903 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a05, Identifier = 00, JSON = {'rxpk': [{'tmst': 927079912, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAwoBhUxYyULQ'}]} |
| 0:41:01.425932 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a03, FOpts: ), FPort: 01, FRMPayload: 051d, MIC: 58c942d0) |
| 0:41:01.426930 | LOG | Server <---------- DUT |
| 0:41:01.429927 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06d7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:41:06.432988 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06d8, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:41:16.437714 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a09, Identifier = 00, JSON = {'rxpk': [{'tmst': 942090121, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCABgoB/bB50lWb'}]} |
| 0:41:16.438712 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a06, FOpts: ), FPort: 01, FRMPayload: 0520, MIC: 79d2559b) |
| 0:41:16.440711 | LOG | Server <---------- DUT |
| 0:41:16.442709 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06da, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:41:21.449830 | LOG | Server ----------> DUT |
| 0:41:21.452828 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:41:21.456827 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:41:22.502057 | LOG | PULL_DATA: 02 373e 02 3834383419003400 |
| 0:41:22.504056 | LOG | PULL_ACK: 02 373e 04 |
| 0:41:26.438818 | LOG | PUSH_ACK: 02 3a0b 01 |
| 0:41:26.441815 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a0b, Identifier = 00, JSON = {'rxpk': [{'tmst': 952096150, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCACAoBW0YR4NA2'}]} |
| 0:41:26.442818 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a08, FOpts: ), FPort: 01, FRMPayload: 0522, MIC: 11e0d036) |
| 0:41:26.444813 | LOG | Server <---------- DUT |
| 0:41:26.446816 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06dc, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:41:36.438654 | LOG | PULL_RESP: Protocol version = 02, Token = a51b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 964103394, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA3QbgGNLOEWfFyavjg5lQ0QUXTO6REvHQxW5wAPDKu5nw3tc8 2954xeRVW907Zm5x2Z7xqAcv3bOQVFrAPJUiDh0oibLkjp5sWFNXThMaUoaJ Q8RY/L0WbUt+/HSKPArLU6HzqYEXO/6ku9OusVT+ms+BRyIgoWmJj8k7x8uq ryuzLcN/o1omh+9Z8AhlxuwbkLfEyVRfbgCU3Lg2L1w7KxdIgEzM94JyeT0d+oh /MgwJUYTPCyVkWJuRPhIFaRjBGX8nMDURkUI5pL0NV8NNgiz6wmPa6CmhUGPoO7H72rxGsunVpV+y5nnVNxvF/fS1ZLMzWTR3t7F1'}} |
| 0:41:36.439654 | LOG | Server ----------> DUT |
| 0:41:36.443651 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:41:36.447651 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:41:41.466746 | LOG | PUSH_ACK: 02 3a0f 01 |
| 0:41:41.469745 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a0f, Identifier = 00, JSON = {'rxpk': [{'tmst': 967107704, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCACwoBdk/VJa0E'}]} |
| 0:41:41.471745 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a0b, FOpts: ), FPort: 01, FRMPayload: 0524, MIC: d525ad04) |
| 0:41:41.473743 | LOG | Server <---------- DUT |
| 0:41:41.475742 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06de, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 101010101010101), MIC: 259ec9fe) |
| 0:41:41.478741 | LOG | Frame command sent to the DUT |
| 0:41:41.479757 | LOG | PULL_RESP: Protocol version = 02, Token = 4d91, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 969107704, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA3gbgkGe66IQDmqkKQL7UzIx2q6+wd03pJ2exdvLNaAXrOTaSZDE KRurh+VqP5YyGWndyZBuRvz20NwgMNv3h4UaxYN4j9B1qyUpwi4F5WBOaD h4Mhip0aPYDtf4yh8/EtfOBW1j9Lh9JlfVZuSu3gpFM/YM9LNSzQbxPuww6CzL dmU70btwHfXdTlyEBL4q1SzmnduHnXrlw85g16dlXkVOlXKfzWtrel6rn1dLi1J8 H5ePQbSM8/YIafq2P14KwAxUm1fluZhsR1kRjdSaB1eQ18n+MePqV5YLtGjbfu 9Zybb0GDrhaNBLJ7ZtkKtGK+2iaGYQlnsn+'}} |
| 0:41:41.481757 | LOG | Server ----------> DUT |
| 0:41:41.485737 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:41:41.488734 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:41:42.741957 | LOG | PULL_DATA: 02 1cf9 02 3834383419003400 |
| 0:41:42.743955 | LOG | PULL_ACK: 02 1cf9 04 |
| 0:41:46.454844 | LOG | PUSH_ACK: 02 3a10 01 |
| 0:41:46.457842 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a10, Identifier = 00, JSON = {'rxpk': [{'tmst': 972110692, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCADAoBkhDbtv0k'}]} |
| 0:41:46.459841 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a0c, FOpts: ), FPort: 01, FRMPayload: 0525, MIC: dbb6fd24) |
| 0:41:46.461840 | LOG | Server <---------- DUT |
| 0:41:46.463839 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06df, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101 01010101010101010101010101010101010101010101010101010101010101010101 |

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| | | 0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: 097567a0) |
| 0:41:46.466838 | LOG | Frame command sent to the DUT |
| 0:41:46.468836 | LOG | PULL_RESP: Protocol version = 02, Token = 505b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 974110692, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA3wbgEsDfwH04XBTz+x9JtI5jt/xz1SEY9ASQy4q0ZKiooj4T2dMpK2sW7mJJa/KnwCRJOn/qRi4VAzwMSxHlfNc9alP3Oa56sH85lkceYL+44rNZSGPdJAyycli1CSR6NujNcoqAnG4aHxHKUcpUszIO90FSc+b9oaY7R0LVAdIFPzo5weJl2EpO+ffjmk2xK6Ax0IMVc5jzEP0YK5jxXrTp5SE7C8WKH1w+J2QSci8JFSE9vGBN266GO0N/UX3yvFPV44JAEIEcYNpz3R66nTl/xA5rX85b66Tf3Th93EciJoGx/zRIfgjVyjT0w45PKq7LPbEJdWeg'}} |
| 0:41:46.469836 | LOG | Server ----------> DUT |
| 0:41:46.473833 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:41:46.477832 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:41:51.456899 | LOG | PUSH_ACK: 02 3a11 01 |
| 0:41:51.458898 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a11, Identifier = 00, JSON = {'rxpk': [{'tmst': 977113695, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCADQoBvALaQo1g'}]} |
| 0:41:51.460897 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a0d, FOpts: ), FPort: 01, FRMPayload: 0526, MIC: da428d60) |
| 0:41:51.462896 | LOG | Server <---------- DUT |
| 0:41:51.464895 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06e0, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: a62bf6fc) |
| 0:41:51.466893 | LOG | Frame command sent to the DUT |
| 0:41:51.468892 | LOG | PULL_RESP: Protocol version = 02, Token = 1615, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 979113695, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA4Abgbpug8U5GqHFk58NNa43Sgm3elmP5m7at8f71LYUxUoG9by51Nj/g13aFMmpXVZ5OEMtV/1h/Am5uIKQlegIAj5Vm9c/ODSqobZwF6yghcN7Ou3FqS8fOGCM1GgI5ltjtZDns7hxBEJdqGGxgtMkRvQLmArO2141pgE/kz3FMhLdAFVPvWAdyX0kVuFQVovwijDl1hDBgMF3Tl70Qvyu6eRCFBsqpj1kNcUbrojuv8NAurHPENxUwXr02b313rxuJ6nKKwNOMowFtFdsh6hrQnMUU41LxBUIockuMJeQLIMBWG2rqDn7D/ZR5/sTHGM9oDIamK/b8'}} |
| 0:41:51.469892 | LOG | Server ----------> DUT |
| 0:41:51.473889 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:41:51.477887 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:41:52.942412 | LOG | PULL_DATA: 02 bc37 02 3834383419003400 |
| 0:41:52.944411 | LOG | PULL_ACK: 02 bc37 04 |
| 0:41:56.460411 | LOG | PUSH_ACK: 02 3a12 01 |
| 0:41:56.463410 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a12, Identifier = 00, JSON = {'rxpk': [{'tmst': 982116660, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCADgoBYLg5W6CB'}]} |

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| 0:41:56.464411 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a0e, FOpts: ), FPort: 01, FRMPayload: 0527, MIC: 395ba081) |
| 0:41:56.466408 | LOG | Server <---------- DUT |
| 0:41:56.468406 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06e1, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:42:03.153788 | LOG | PULL_ACK: 02 b2fe 04 |
| 0:42:06.467391 | LOG | PUSH_ACK: 02 3a14 01 |
| 0:42:06.469391 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a14, Identifier = 00, JSON = {'rxpk': [{'tmst': 992125266, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAEAoBHohBAGW0'}]} |
| 0:42:06.471389 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a10, FOpts: ), FPort: 01, FRMPayload: 0529, MIC: 410065b4) |
| 0:42:06.472388 | LOG | Server <---------- DUT |
| 0:42:06.475389 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06e3, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | W7U5hSs8are5MCiMgyHTnn/HVwin5GD9PElBXYl28EhxGycfdvTtzZPSW4v2w3lN1O9mcYagMb7RqngRHp0ELTn0/z2Xpr'}} |
| 0:42:11.503455 | LOG | Server ----------> DUT |
| 0:42:11.509450 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:42:11.512449 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:42:13.182789 | LOG | PULL_DATA: 02 1607 02 3834383419003400 |
| 0:42:13.186768 | LOG | PULL_ACK: 02 1607 04 |
| 0:42:16.475930 | LOG | PUSH_ACK: 02 3a17 01 |
| 0:42:16.480924 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a17, Identifier = 00, JSON = {'rxpk': [{'tmst': 1002134018, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAEgoB5J9lqxpu'}]} |
| 0:42:16.482896 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a12, FOpts: ), FPort: 01, FRMPayload: 052b, MIC: 65ab1a6e) |
| 0:42:16.484925 | LOG | Server <---------- DUT |
| 0:42:16.486922 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06e5, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:42:21.493773 | LOG | PULL_RESP: Protocol version = 02, Token = 62fd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1009136934, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA5gbg7UOQ3ElL5rORP/QM286h1keCJTVOqYOCPBbLzHx0JEYEI WH2RXZ14hpi29aN+iZzUNC9t0FjNzKoqlC76OS11k38VyyHOacBTVeTfru1VQ 0jA+IU950FtQG/o+fBxmjcv837dTfqLHpciQsaI69JUkNomHc4dXLNfXFZFwUaz 2WanDhqNNFK23CUiGubGGTaYM/xAkvCXzxeeOdjEoG2CNi70lKH+z/6jwSyC y5pTmRwUGw8R8/Xbide/xyNZQe9uh/ovFGA/ntATDfD7Tujdkz/dpzdp9FU+VD/ HIt9i39oNCs+mUKq922kz/2g8iVhzHu6RCMs'}} |
| 0:42:21.494772 | LOG | Server ----------> DUT |
| 0:42:21.496771 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:42:21.499769 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:42:23.382456 | LOG | PULL_DATA: 02 ffea 02 3834383419003400 |
| 0:42:23.383473 | LOG | PULL_ACK: 02 ffea 04 |
| 0:42:26.484349 | LOG | PUSH_ACK: 02 3a19 01 |
| 0:42:26.486347 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a19, Identifier = 00, JSON = {'rxpk': [{'tmst': 1012139866, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 7.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAFAoBEhrlTRcc'}]} |
| 0:42:26.488347 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a14, FOpts: ), FPort: 01, FRMPayload: 052d, MIC: e54d171c) |
| 0:42:26.489347 | LOG | Server <---------- DUT |
| 0:42:26.491344 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06e7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 101010101010101), MIC: 24d71ccc) |
| 0:42:26.493343 | LOG | Frame command sent to the DUT |
| 0:42:26.495344 | LOG | PULL_RESP: Protocol version = 02, Token = 9a75, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1014139866, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA5wbgB5PwhWFNi/2CC/RFJcNrx8FOU1/dldqpqdgwN04gG1tH0MXv QMtf2SG6kN0eVjjt7O5zgNLA90p5tl5c33v3rsO+Pzu0Es+Y2bi8/96njWBidCTX8l yAiMezI33WO/oxK7plVYB2YE+l6QR/7L899M+2BjHZDfO/PsB6fGkTLZCs4o5 GNpljeUhvbu8SpdVBChSsM/ZOsGW+I1FOkGNh+dAgqNBKkY5uZU2szQBUm yucrxxp6EPItPoKNVGqcmk4TTR1ZWW5VIWRu+WfvIC3mj3qBCs+SiLZSzwSI 9biFiP/S6qTF+TY0dwYd/fLY+MrYiUk1xzM'}} |
| 0:42:26.496341 | LOG | Server ----------> DUT |
| 0:42:26.500339 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:42:26.504337 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:42:31.486324 | LOG | PUSH_ACK: 02 3a1a 01 |
| 0:42:31.489323 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a1a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1017144183, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAFQoB65GfeRla'}]} |
| 0:42:31.491322 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a15, FOpts: ), FPort: 01, FRMPayload: 052e, MIC: 9f79195a) |
| 0:42:31.492321 | LOG | Server <---------- DUT |
| 0:42:31.494320 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06e8, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101 0101010101010101010101010101010101010101010101010101010101010101010101 |

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| | | 0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: ac8d0894) |
| 0:42:31.497318 | LOG | Frame command sent to the DUT |
| 0:42:31.499317 | LOG | PULL_RESP: Protocol version = 02, Token = 35ae, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1019144183, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA6Abg5L5Ln/lQKysV2E5aqWFCd8GquKneAXQLMTb6XvnOhfGWbAjyY17i6v2R4soDX3YmmvWUku9deYS1nIRQultLFSDAJB+IZN3hrB29UtbkyxIxD8lGoExxgJZjXqnb17NxTjZCYrWUUOPQ7qs3BT6gD3lWROGrv54OmN/evt/o4rPFMf2Ndh3QIkTzipmhWAbZywuA+AnARhIFxk0Ush54q6IrR6DYm/30FW9iFG758CuD8s6Xn9adyfQhrGSKqxtpqauYuQtK3L+Rd3aCSQe2/i1pNql3WOler6EA/Z4Ai/KbAhTmJmdTQm5oWG34/19zmumsjQiU'}} |
| 0:42:31.500316 | LOG | Server ----------> DUT |
| 0:42:31.507312 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:42:31.516307 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:42:33.392505 | LOG | PULL_DATA: 02 5076 02 3834383419003400 |
| 0:42:33.394504 | LOG | PULL_ACK: 02 5076 04 |
| 0:42:36.490789 | LOG | PUSH_ACK: 02 3a1b 01 |
| 0:42:36.491789 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a1b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1022148516, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAFgoBxJ/b66A/'}]} |
| 0:42:36.493788 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a16, FOpts: ), FPort: 01, FRMPayload: 052f, MIC: dbeba03f) |
| 0:42:36.495787 | LOG | Server <---------- DUT |
| 0:42:36.497785 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06e9, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101). MIC: dbae7cbc) |
| 0:42:36.499784 | LOG | Frame command sent to the DUT |
| 0:42:36.501783 | LOG | PULL_RESP: Protocol version = 02, Token = dada, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1024148516, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA6QbgYiZ/J8QhwN17WANJlTqXklo+iPjqwBRruZ3KhIw2caJayNONrAzScJ52G3qLSK4h+fhY3XowNjFApwPg0mAxTJdnt4N1/RN/aKKZsHhv/gkuDagAM635JBZMUMGtqG5RUPGIKtit2lKEJmdBG6Pdk2bPVZEpKbWKb4SKDgEnMoXqXnfuaw7eOwTN3n+u6kipl9m5Hj6NGiRArNABcYcl6BQYAM7v33qa06pufrjSiBWM5dXLPb+gXjcBH8UG14LbwWMINjDT+KeOQw9K2OekhD0aDbZP/hOIZXYVKEYRpmSTslRmfZAacT/lKW+myhKb4bfbrny8'}} |
| 0:42:36.503782 | LOG | Server ----------> DUT |
| 0:42:36.506780 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:42:36.511778 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:42:41.509559 | LOG | PUSH_ACK: 02 3a1d 01 |
| 0:42:41.513552 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a1d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1027152809, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAFwoBJbHwEKqk'}]} |

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| 0:42:41.516554 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a17, FOpts: ), FPort: 01, FRMPayload: 0530, MIC: f010aaa4) |
| 0:42:41.520552 | LOG | Server <---------- DUT |
| 0:42:41.524545 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ea, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:42:46.519346 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:42:51.502930 | LOG | PUSH_ACK: 02 3a1f 01 |
| 0:42:51.504928 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a1f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1037160138, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAGQoBG0O5AbRY'}]} |
| 0:42:51.506926 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a19, FOpts: ), FPort: 01, FRMPayload: 0532, MIC: b901b458) |
| 0:42:51.507926 | LOG | Server <---------- DUT |
| 0:42:51.510926 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ec, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | Ew+ATs21oFeiviztFcSMb5DH1luz7pfbSsPUr8geDv1j/47UfTrcL2HLHcfJE04FGkn4R4y9C+hfHzLIohWzQCc//F1LMUo1wvfw0IbJHl47uClqMun42dkJR9icZMJmoGXIJDfWnWb7Bd+MWN/1MGX8YK11QdHTeOXW2reYLuY5YzSWwmIhkewDc7McxhN/sBQuyU73ylloVRQ8SK4M1XR3o9301YAsY9K/GqEVRe/OJ093opi+nLABSLncBOx7C/u7/3Al3EHiagARTUZAlWXJ'}} |
| 0:42:56.518063 | LOG | Server ----------> DUT |
| 0:42:56.520061 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:42:56.524059 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:43:01.507572 | LOG | PUSH_ACK: 02 3a21 01 |
| 0:43:01.509569 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a21, Identifier = 00, JSON = {'rxpk': [{'tmst': 1047167394, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAGwoB+RwWWa7e'}]} |
| 0:43:01.510569 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a1b, FOpts: ), FPort: 01, FRMPayload: 0534, MIC: 1659aede) |
| 0:43:01.512564 | LOG | Server <---------- DUT |
| 0:43:01.514564 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06ee, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 65b5ebda) |
| 0:43:06.520380 | LOG | Frame command sent to the DUT |
| 0:43:06.522379 | LOG | PULL_RESP: Protocol version = 02, Token = e4a9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1054171726, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA7wbgF9OnzfDLlPZdhHKJ5Tr6mrn6Ev6OZ14MBMzcBSLCnle4oenmitfAH75eSkVPYD9oH2Ws+CKo3N69U9iVbpQz/aZtFW0HQaobQXjzOsbdT2L2c24E9YD7QXE9ggVF6TvYLuWYKrBjtQV3ebEq+JOwF7GrQRaaPkbD6n/N9SetskDWMKuBeR8zANUyIwNScVvYtUum+4w/ETp/O24sY4Z2AGH+dDWADuWa7BrEjCYI7O9Wmcap7yOkl6QFqGGBvBi7Oz6vpPNhOECxa73Ec8HzCc5/aLwttOg6B2YH9ERGaFCnRvT80nKnYabPUl9OVz71G8plteva'}} |
| 0:43:06.523378 | LOG | Server ----------> DUT |
| 0:43:06.526377 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:43:06.530374 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:43:11.528782 | LOG | PUSH_ACK: 02 3a24 01 |
| 0:43:11.531781 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a24, Identifier = 00, JSON = {'rxpk': [{'tmst': 1057174706, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAHQoB3ayW/qyd'}]} |
| 0:43:11.532781 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a1d, FOpts: ), FPort: 01, FRMPayload: 0536, MIC: 96feac9d) |
| 0:43:11.534781 | LOG | Server <---------- DUT |
| 0:43:11.536780 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06f0, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101

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| 0:43:16.530416 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06f1, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:43:26.529322 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a27, Identifier = 00, JSON = {'rxpk': [{'tmst': 1072185026, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAIAoB9DNmdgpe'}]} |
| 0:43:26.530320 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a20, FOpts: ), FPort: 01, FRMPayload: 0539, MIC: 66760a5e) |
| 0:43:26.531320 | LOG | Server <---------- DUT |
| 0:43:26.533321 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06f3, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:43:31.542221 | LOG | Server ----------> DUT |
| 0:43:31.545220 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:43:31.550216 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:43:33.851956 | LOG | PULL_DATA: 02 fc65 02 3834383419003400 |
| 0:43:33.852955 | LOG | PULL_ACK: 02 fc65 04 |
| 0:43:36.532812 | LOG | PUSH_ACK: 02 3a29 01 |
| 0:43:36.533810 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a29, Identifier = 00, JSON = {'rxpk': [{'tmst': 1082192343, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAIgoB3th8NM68'}]} |
| 0:43:36.535810 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a22, FOpts: ), FPort: 01, FRMPayload: 053b, MIC: 7c34cebc) |
| 0:43:36.537810 | LOG | Server <---------- DUT |
| 0:43:36.538810 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06f5, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA9gbgFHXqamLwzL5EgmyzaLvALo3C7p8XNSA3YkGQsrd3K5gj7fTGT+DfWSBpQaBAK5BDCbwwXgO7Z/ZVojAV06Zf6K7kPNoEfb/ZuMLieE9Kvyrdn0k7pclJ3lLh9KHNO26dbBMIdG0QKmXTMCYdsA0ohoWIuB9JC7eQ/fU9UkNfdjxACKlzJejy+9UoOaw9VzLH8Z/br8R8oygI581VHRxM8WeBYbLIbTSVdEBXl3evhbodpX+51xg3LgxMOBSYXXfhMiBoa5JK5Bq7A1t15hk6wjKPY3uz3PNaMJNDupw8GwcqqjQzYHrFRk9W/SWRHIkmTKTct6FR'}} |
| 0:43:41.560670 | LOG | Server ----------> DUT |
| 0:43:41.563669 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:43:41.566650 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:43:43.871758 | LOG | PULL_DATA: 02 893c 02 3834383419003400 |
| 0:43:43.873757 | LOG | PULL_ACK: 02 893c 04 |
| 0:43:46.540434 | LOG | PUSH_ACK: 02 3a2c 01 |
| 0:43:46.544433 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a2c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1092200981, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAJAoBK61yiX0K'}]} |
| 0:43:46.545432 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a24, FOpts: ), FPort: 01, FRMPayload: 053d, MIC: 72897d0a) |
| 0:43:46.548431 | LOG | Server <---------- DUT |
| 0:43:46.554427 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06f7, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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|---|---|---|
| | | 0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: 22aea468) |
| 0:43:51.554840 | LOG | Frame command sent to the DUT |
| 0:43:51.556841 | LOG | PULL_RESP: Protocol version = 02, Token = 6d41, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1099205339, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA+Abg4J2if37RThAWX8YnEcMuZ4GplHndW1dMa1GfyR53+xCtIPE2g4F1+OhPJ5J8Fe5Gz+3tpJHd61E0Y9lsR89PwgfJExKwbz6CiXqUZ24Ojm0aFsapBoQmzcKuDQ5mqHvz+XS8m+1Dtk7QB1KSlSMGrKK/FWzC1957F1sLnzYrjBYyz6oom5zTwwr3xjQUuFQ/JsQJK1LEp/OWfHWa55SpxioO4JAAEP9WaZdyJePszPAKGTRiOutw9/KHw0151LTHG2koJx/Qx/zu/3xvZLFyJ+QxJR0p/QlELsoOlB8HIucZ7yaOvvYlvnjWBqXsugVN5UkirqRo'}} |
| 0:43:51.557841 | LOG | Server ----------> DUT |
| 0:43:51.561838 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:43:51.565834 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:43:54.081518 | LOG | PULL_DATA: 02 6ec0 02 3834383419003400 |
| 0:43:54.082519 | LOG | PULL_ACK: 02 6ec0 04 |
| 0:43:56.550115 | LOG | PUSH_ACK: 02 3a2e 01 |
| 0:43:56.552113 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a2e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1102208294, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAJgoBm2xnaGMh'}]} |
| 0:43:56.554112 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a26, FOpts: ), FPort: 01, FRMPayload: 053f, MIC: 67686321) |
| 0:43:56.555111 | LOG | Server <---------- DUT |
| 0:43:56.557110 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06f9, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>101010101010101), MIC: a01521c7) |
| 0:43:56.559109 | LOG | Frame command sent to the DUT |
| 0:43:56.560110 | LOG | PULL_RESP: Protocol version = 02, Token = 8237, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1104208294, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA+QbgFq2zIk9oZhlMXExobaV9MolT9RmAGSTPvrX6kvjM1yze+yTgDKjrJ7D5jbv4+lz9ZhTrDwTWMuFD/UWga0rW492uC/YH+aaIoE9lLKcmqO5D/NUtzE5VNWIPgUT9It9yZeVOeeLJSSHSXZhOSulFK6+NkwuckqJqnUUM7xqBhoJOuYDtMrZTfUwZi6pMRS+pfBTrAJTCydnDFVoBXE+G0Rj6ivx1VfGTjdJlEIg3FDqw5KfcFRHZWDSYarFpjEg//zc9ErYfSZgNS3NI5zpSHaK7F0Vqr00b+sWvxSymbtY6P2lUJNmMO2FqioSw/9oZ97CgFSHH'}} |
| 0:43:56.561110 | LOG | Server ----------> DUT |
| 0:43:56.566124 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:43:56.570103 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:44:01.552975 | LOG | PUSH_ACK: 02 3a2f 01 |
| 0:44:01.554974 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a2f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1107211291, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAJwoBYLeEyN0T'}]} |
| 0:44:01.556974 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a27, FOpts: ), FPort: 01, FRMPayload: 0540, MIC: 84c8dd13) |

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| 0:44:01.557972 | LOG | Server <---------- DUT |
| 0:44:01.559972 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06fa, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:44:11.569107 | LOG | PUSH_ACK: 02 3a32 01 |
| 0:44:11.571107 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a32, Identifier = 00, JSON = {'rxpk': [{'tmst': 1117220089, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAKQoBgAWxtbbt'}]} |
| 0:44:11.573105 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a29, FOpts: ), FPort: 01, FRMPayload: 0542, MIC: b1b5b6ed) |
| 0:44:11.574104 | LOG | Server <---------- DUT |
| 0:44:11.577103 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06fc, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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|---|---|---|
| | | HEXWSHkRgqHFUC7kilpQy0r5gkS28yQ24HW55/S5ubSsR8Qguy4psu+TTdeQKuN5KEOSO5JZgeSOOyzv6e3d7cSUyaVCo0D2Emsluo9vY1neDU+pE/onSevSMde56RlK1m52nqYSAG0cduFkWF224P+CCcXv'}} |
| 0:44:16.580027 | LOG | Server ----------> DUT |
| 0:44:16.584025 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:44:16.587025 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:44:21.569193 | LOG | PUSH_ACK: 02 3a34 01 |
| 0:44:21.571189 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a34, Identifier = 00, JSON = {'rxpk': [{'tmst': 1127228921, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAKwoBukhEnU2j'}]} |
| 0:44:21.573189 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a2b, FOpts: ), FPort: 01, FRMPayload: 0544, MIC: 449d4da3) |
| 0:44:21.574188 | LOG | Server <---------- DUT |
| 0:44:21.577185 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 06fe, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:44:26.584932 | LOG | Frame command sent to the DUT |
| 0:44:26.586931 | LOG | PULL_RESP: Protocol version = 02, Token = 0ede, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1134231957, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAA/wbgvpMHd/LE9yxW/tOYQoRR+ehk0hQc/KctDRVa82v31Q6i3EXZEJPZOgtUWIav5wM0zuvJYGwBVZUIegV9TUdjpKSR3YKytEyTlIi1mc18PeODwp2caH7axbwB163VJxCoz/yXLpWmo8FhDugOhM4YG1ypEobYYKnHHke/zwtBquc3KLy+lUvjnQqHcZ5mmJSftnXfyR0fDH5dlzttqqB9bLMXQ2+griT3q9rzRXLbQHCWJrez6i/wQJOtPRRbCluopcn4BHm0r2TLIPD4SEGEBzWlXLYEqUB0omC/5GqCjG+CpVHE0+yH2cgrxmLMUhUVa24TzTWa'}} |
| 0:44:26.587930 | LOG | Server ----------> DUT |
| 0:44:26.589929 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:44:26.592928 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:44:31.575324 | LOG | PUSH_ACK: 02 3a36 01 |
| 0:44:31.578321 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a36, Identifier = 00, JSON = {'rxpk': [{'tmst': 1137234945, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCALQoBm9PUFOPp'}]} |
| 0:44:31.582318 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a2d, FOpts: ), FPort: 01, FRMPayload: 0546, MIC: d414e3e9) |
| 0:44:31.586316 | LOG | Server <---------- DUT |
| 0:44:31.590313 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0700, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010

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| 0:44:36.589463 | LOG | PULL_RESP: Protocol version = 02, Token = 144b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1144237956, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 14, 'data': 'YCAgICAAAQfgp/t6AAg='}} |
| 0:44:36.591463 | LOG | Server ----------> DUT |
| 0:44:36.594458 | LOG | TX_ACK: 02 144b 05 3834383419003400 |
| 0:44:41.611000 | LOG | PUSH_ACK: 02 3a39 01 |
| 0:44:41.611995 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a39, Identifier = 00, JSON = {'rxpk': [{'tmst': 1147251944, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 16, 'data': 'QCAgICCALwrg16c1SPYBTA=='}]} |
| 0:44:41.613994 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a2f, FOpts: ), FPort: e0, FRMPayload: 094805, MIC: 48f6014c) |
| 0:44:41.614993 | LOG | Server <---------- DUT |
| 0:44:41.615993 | LOG | Answer in payload: 4805 |
| 0:44:41.617992 | LOG | Frame Command Payload in the Answer: 094805 |
| 0:44:41.620990 | LOG | RX Count received by DUT: 1352 |
| 0:44:41.622988 | LOG | Send Test Command RxAppCntReq process completed |
| 0:44:41.630983 | LOG | End Test Step: Test packet error rate for FSK50 using RX2 window |
| 0:44:41.633983 | LOG | Partial Verdict: PASS |
| 0:44:41.650972 | LOG | ========== |
| 0:44:41.656969 | LOG | ========== |
| 0:44:41.659967 | LOG | Start Test Step: Restore default settings |
| 0:44:41.672961 | LOG | Send RXParamSetupReq process starts |
| 0:44:44.570724 | LOG | PULL_DATA: 02 cce5 02 3834383419003400 |
| 0:44:44.572693 | LOG | PULL_ACK: 02 cce5 04 |
| 0:44:46.598545 | LOG | PUSH_ACK: 02 3a3a 01 |
| 0:44:46.607540 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a3a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1152246632, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAMAoBVlKqUceW'}]} |
| 0:44:46.609533 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a30, FOpts: ), FPort: 01, FRMPayload: 0548, MIC: aa51c796) |
| 0:44:46.610532 | LOG | Server <---------- DUT |
| 0:44:46.612531 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0702, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: 4693fb0c) |
| 0:44:46.615531 | LOG | PULL_RESP: Protocol version = 02, Token = 7188, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1154246632, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 18, 'data': 'YCAgICAAAgcAA1Vq059Gk/sM'}} |
| 0:44:46.616530 | LOG | Server ----------> DUT |
| 0:44:46.619528 | LOG | TX_ACK: 02 7188 05 3834383419003400 |
| 0:44:51.604440 | LOG | PUSH_ACK: 02 3a3b 01 |
| 0:44:51.606439 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1157254723, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCMQoFBwFH54HDUHc='}]} |
| 0:44:51.608438 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a31, FOpts: 0507), FPort: 01, FRMPayload: 0548, MIC: 81c35077) |
| 0:44:51.610437 | LOG | Server <---------- DUT |
| 0:44:51.611438 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:44:51.613435 | LOG | Command Answer: 0507 |
| 0:44:51.630425 | LOG | MAC command communication completed |
| 0:44:51.634423 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:44:54.590980 | LOG | PULL_DATA: 02 03cc 02 3834383419003400 |

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| 0:44:54.592978 | LOG | PULL_ACK: 02 03cc 04 |
| 0:44:56.593810 | LOG | PUSH_ACK: 02 3a3c 01 |
| 0:44:56.594809 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a3c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1162257635, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCMgoFBwEszyAyNEE='}]} |
| 0:44:56.596809 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a32, FOpts: 0507), FPort: 01, FRMPayload: 0548, MIC: 20323441) |
| 0:44:56.597809 | LOG | Server <---------- DUT |
| 0:44:56.599806 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0703, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: f8918821) |
| 0:44:56.600806 | LOG | Frame command sent to the DUT |
| 0:44:56.602811 | LOG | PULL_RESP: Protocol version = 02, Token = df04, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1164257635, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAAwfgjsL4kYgh'}} |
| 0:44:56.603805 | LOG | Server ----------> DUT |
| 0:44:56.605803 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:44:56.607802 | LOG | End Test Step: Restore default settings |
| 0:44:56.610800 | LOG | Partial Verdict: PASS |
| 0:44:56.614798 | LOG | ========== |
| 0:44:56.619795 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_016 |
| 0:44:56.620795 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_017 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 23:46:03 | |
| **Comments** | RX1 and RX2 simultaneous frames | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.036607 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_017 |
| 0:00:00.069588 | LOG | ========== |
| 0:00:00.071586 | LOG | Start Test Step: Device activation |
| 0:00:00.131552 | LOG | Activation process has finished successfully |
| 0:00:00.133551 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.137549 | LOG | DevAddr: 20202020 |
| 0:00:00.140547 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.144545 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.146544 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.150543 | LOG | End Test Step: Device activation |
| 0:00:00.155539 | LOG | Partial Verdict: PASS |
| 0:00:00.159536 | LOG | ========== |
| 0:00:00.166532 | LOG | ========== |
| 0:00:00.170531 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.182524 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.185521 | LOG | DUT Pre-condition activation completed |
| 0:00:00.188520 | LOG | End Test Step: DUT Pre-condition settings |

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|---|---|---|
| 0:00:00.193517 | LOG | Partial Verdict: PASS |
| 0:00:00.197514 | LOG | ========== |
| 0:00:00.202512 | LOG | ========== |
| 0:00:00.206510 | LOG | Start Test Step: RX1 and RX2 simultaneous frames |
| 0:00:00.219502 | LOG | Send Frames in both windows and test behaviour process starts |
| 0:00:02.998921 | LOG | PULL_DATA: 02 cf53 02 3834383419003400 |
| 0:00:03.000920 | LOG | PULL_ACK: 02 cf53 04 |
| 0:00:03.002919 | LOG | First PULL_DATA received |
| 0:00:04.834877 | LOG | PUSH_ACK: 02 3a3e 01 |
| 0:00:04.837875 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a3e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1172258367, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCANAoBWcTcmOo7'}]} |
| 0:00:04.838875 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a34, FOpts: ), FPort: 01, FRMPayload: 0549, MIC: dc98ea3b) |
| 0:00:04.839874 | LOG | Server <---------- DUT |
| 0:00:04.842873 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0704, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 442d08bd) |
| 0:00:04.844872 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0705, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: bf4d0b43) |
| 0:00:04.847871 | LOG | PULL_RESP: Protocol version = 02, Token = f22c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1173258367, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABQfgLZK/TQtD'}} |
| 0:00:04.848870 | LOG | Server ----------> DUT |
| 0:00:04.850868 | LOG | PULL_RESP: Protocol version = 02, Token = 9925, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1174258367, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAABAfgdYZELQi9'}} |
| 0:00:04.851867 | LOG | Server ----------> DUT |
| 0:00:04.853867 | LOG | Sent txpk for both windows (RX1 and RX2): [{'imme': False, 'tmst': 1173258367, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABQfgLZK/TQtD'}, {'imme': False, 'tmst': 1174258367, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAABAfgdYZELQi9'}] |
| 0:00:09.808052 | LOG | PUSH_ACK: 02 3a40 01 |
| 0:00:09.810047 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a40, Identifier = 00, JSON = {'rxpk': [{'tmst': 1177262665, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -12, 'size': 15, 'data': 'QCAgICCANQoBLiGlKBn3'}]} |
| 0:00:09.812046 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a35, FOpts: ), FPort: 01, FRMPayload: 054a, MIC: a52819f7) |
| 0:00:09.813047 | LOG | Server <---------- DUT |
| 0:00:09.815046 | LOG | ACK bit is set to 0, so RX2 downlink is ignored |
| 0:00:09.818045 | LOG | Send Frames in both windows and test behaviour tested successfully |
| 0:00:09.825039 | LOG | Send Frames in both windows and test behaviour process starts |
| 0:00:13.039210 | LOG | PULL_DATA: 02 42d0 02 3834383419003400 |
| 0:00:13.040211 | LOG | PULL_ACK: 02 42d0 04 |
| 0:00:14.797210 | LOG | PUSH_ACK: 02 3a41 01 |
| 0:00:14.799210 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a41, Identifier = 00, JSON = {'rxpk': [{'tmst': 1182265585, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCANgoBwxiNecIN'}]} |
| 0:00:14.800210 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a36, FOpts: ), FPort: 01, FRMPayload: 054a, MIC: 8d79c20d) |

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| 0:00:14.802208 | LOG | Server <---------- DUT |
| 0:00:14.805206 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0706, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 6ef5b026) |
| 0:00:14.808204 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0707, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 3ca850ee) |
| 0:00:14.812202 | LOG | PULL_RESP: Protocol version = 02, Token = 4d30, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1183265585, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABwfg8EI8qFDu'}} |
| 0:00:14.813203 | LOG | Server ----------> DUT |
| 0:00:14.816199 | LOG | PULL_RESP: Protocol version = 02, Token = 2f8b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1184265585, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAABgfgva5u9bAm'}} |
| 0:00:14.818200 | LOG | Server ----------> DUT |
| 0:00:14.820198 | LOG | Sent txpk for both windows (RX1 and RX2): [{'imme': False, 'tmst': 1183265585, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAABwfg8EI8qFDu'}, {'imme': False, 'tmst': 1184265585, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAABgfgva5u9bAm'}] |
| 0:00:19.799365 | LOG | PUSH_ACK: 02 3a42 01 |
| 0:00:19.801364 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a42, Identifier = 00, JSON = {'rxpk': [{'tmst': 1187268547, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCANwoB/yznP28e'}]} |
| 0:00:19.803363 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a37, FOpts: ), FPort: 01, FRMPayload: 054b, MIC: e73f6f1e) |
| 0:00:19.804362 | LOG | Server <---------- DUT |
| 0:00:19.806361 | LOG | ACK bit is set to 0, so RX2 downlink is ignored |
| 0:00:19.809359 | LOG | Send Frames in both windows and test behaviour tested successfully |
| 0:00:19.815356 | LOG | Send Frames in both windows and test behaviour process starts |
| 0:00:23.219419 | LOG | PULL_DATA: 02 e76a 02 3834383419003400 |
| 0:00:23.221419 | LOG | PULL_ACK: 02 e76a 04 |
| 0:00:24.838994 | LOG | PUSH_ACK: 02 3a43 01 |
| 0:00:24.841992 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a43, Identifier = 00, JSON = {'rxpk': [{'tmst': 1192271483, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAOAoBnwZRncN9'}]} |
| 0:00:24.843991 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a38, FOpts: ), FPort: 01, FRMPayload: 054b, MIC: 519dc37d) |
| 0:00:24.844990 | LOG | Server <---------- DUT |
| 0:00:24.848989 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0708, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 09691c15) |
| 0:00:24.851987 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0709, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: f4387fdb) |
| 0:00:24.854985 | LOG | PULL_RESP: Protocol version = 02, Token = b263, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1193271483, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACQfgSTX0OH/b'}} |
| 0:00:24.855984 | LOG | Server ----------> DUT |
| 0:00:24.858982 | LOG | PULL_RESP: Protocol version = 02, Token = 7040, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1194271483, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAACAfgZrUJaRwV'}} |
| 0:00:24.860982 | LOG | Server ----------> DUT |

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| 0:00:24.861981 | LOG | Sent txpk for both windows (RX1 and RX2): [{'imme': False, 'tmst': 1193271483, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACQfgSTX0OH/b'}, {'imme': False, 'tmst': 1194271483, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAACAfgZrUJaRwV'}] |
| 0:00:29.805169 | LOG | PUSH_ACK: 02 3a44 01 |
| 0:00:29.809167 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a44, Identifier = 00, JSON = {'rxpk': [{'tmst': 1197274398, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAOQoBaRHiElSY'}]} |
| 0:00:29.810185 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a39, FOpts: ), FPort: 01, FRMPayload: 054c, MIC: e2125498) |
| 0:00:29.811167 | LOG | Server <---------- DUT |
| 0:00:29.813165 | LOG | ACK bit is set to 0, so RX2 downlink is ignored |
| 0:00:29.815181 | LOG | Send Frames in both windows and test behaviour tested successfully |
| 0:00:29.821162 | LOG | Send Frames in both windows and test behaviour process starts |
| 0:00:33.259235 | LOG | PULL_DATA: 02 a897 02 3834383419003400 |
| 0:00:33.261234 | LOG | PULL_ACK: 02 a897 04 |
| 0:00:34.846301 | LOG | PUSH_ACK: 02 3a45 01 |
| 0:00:34.848300 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a45, Identifier = 00, JSON = {'rxpk': [{'tmst': 1202277334, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAOgoB5r2jOLqU'}]} |
| 0:00:34.850299 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a3a, FOpts: ), FPort: 01, FRMPayload: 054c, MIC: a338ba94) |
| 0:00:34.851299 | LOG | Server <---------- DUT |
| 0:00:34.854297 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 070a, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: aeba1469) |
| 0:00:34.858295 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 070b, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: ac4b6691) |
| 0:00:34.861293 | LOG | PULL_RESP: Protocol version = 02, Token = ba6d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1203277334, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACwfgyX6sS2aR'}} |
| 0:00:34.863292 | LOG | Server ----------> DUT |
| 0:00:34.865293 | LOG | PULL_RESP: Protocol version = 02, Token = 16e1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1204277334, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAACgfgXF6uuhRp'}} |
| 0:00:34.867290 | LOG | Server ----------> DUT |
| 0:00:34.869289 | LOG | Sent txpk for both windows (RX1 and RX2): [{'imme': False, 'tmst': 1203277334, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAACwfgyX6sS2aR'}, {'imme': False, 'tmst': 1204277334, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oCAgICAACgfgXF6uuhRp'}] |
| 0:00:39.827969 | LOG | PUSH_ACK: 02 3a47 01 |
| 0:00:39.829967 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a47, Identifier = 00, JSON = {'rxpk': [{'tmst': 1207281625, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAOwoB1tyWKKhZ'}]} |
| 0:00:39.831968 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a3b, FOpts: ), FPort: 01, FRMPayload: 054d, MIC: 9628a859) |
| 0:00:39.832966 | LOG | Server <---------- DUT |
| 0:00:39.833966 | LOG | ACK bit is set to 0, so RX2 downlink is ignored |
| 0:00:39.837963 | LOG | Send Frames in both windows and test behaviour tested successfully |

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| 0:00:39.847959 | LOG | End Test Step: RX1 and RX2 simultaneous frames |
| 0:00:39.851957 | LOG | Partial Verdict: PASS |
| 0:00:39.856952 | LOG | ========== |
| 0:00:39.861949 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_017 |
| 0:00:39.863948 | LOG | Final Verdict: PASS |

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|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_018 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-09 23:46:46 | |
| **Comments** | RX Oversized Payload | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | SF7BW250 Frequency | 868.100 |
| | FSK Frequency | 868.100 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.013388 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_018 |
| 0:00:00.046370 | LOG | ========== |
| 0:00:00.048368 | LOG | Start Test Step: Device activation |
| 0:00:00.107333 | LOG | Activation process has finished successfully |
| 0:00:00.109333 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.112331 | LOG | DevAddr: 20202020 |
| 0:00:00.114332 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.117329 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.120325 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.123326 | LOG | End Test Step: Device activation |
| 0:00:00.127321 | LOG | Partial Verdict: PASS |
| 0:00:00.131321 | LOG | ========== |
| 0:00:00.135320 | LOG | ========== |
| 0:00:00.137317 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.149308 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.152309 | LOG | DUT Pre-condition activation completed |
| 0:00:00.155306 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.158305 | LOG | Partial Verdict: PASS |
| 0:00:00.163303 | LOG | ========== |
| 0:00:00.168300 | LOG | ========== |
| 0:00:00.171297 | LOG | Start Test Step: Initial settings for the test |
| 0:00:00.184289 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:00:00.488147 | LOG | PULL_DATA: 02 58bd 02 3834383419003400 |
| 0:00:00.490145 | LOG | PULL_ACK: 02 58bd 04 |
| 0:00:00.491144 | LOG | First PULL_DATA received |
| 0:00:02.039234 | LOG | PUSH_ACK: 02 3a49 01 |
| 0:00:02.041233 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a49, Identifier = 00, JSON = {'rxpk': [{'tmst': 1212285921, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAPAoBpD9BiTaV'}]} |
| 0:00:02.042233 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a3c, FOpts: ), FPort: 01, FRMPayload: 054d, MIC: 41893695) |

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| 0:00:02.043233 | LOG | Server <---------- DUT |
| 0:00:02.045230 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 070c, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: e649bbd4) |
| 0:00:02.047231 | LOG | Frame command sent to the DUT |
| 0:00:02.049230 | LOG | PULL_RESP: Protocol version = 02, Token = f593, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1214285921, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAADAfgHCHmSbvU'}} |
| 0:00:02.050227 | LOG | Server ----------> DUT |
| 0:00:02.053226 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:00:02.056226 | LOG | End Test Step: Initial settings for the test |
| 0:00:02.060221 | LOG | Partial Verdict: PASS |
| 0:00:02.063220 | LOG | ========== |
| 0:00:02.069217 | LOG | ========== |
| 0:00:02.071215 | LOG | Start Test Step: Oversized downlink for datarate SF12BW125 |
| 0:00:02.084211 | LOG | Send MAC command block process starts |
| 0:00:07.038421 | LOG | PUSH_ACK: 02 3a4a 01 |
| 0:00:07.041419 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a4a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1217290218, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAPQoBqsric725'}]} |
| 0:00:07.042420 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a3d, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: e273bdb9) |
| 0:00:07.044418 | LOG | Server <---------- DUT |
| 0:00:07.046416 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 070d, FOpts: ), FPort: 00, FRMPayload: 03000700010500d2ad84), MIC: 9dd5c739) |
| 0:00:07.049414 | LOG | PULL_RESP: Protocol version = 02, Token = 7222, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1219290218, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAADQcAdwIkcpHO0HaHAJ3Vxzk='}} |
| 0:00:07.051413 | LOG | Server ----------> DUT |
| 0:00:07.056410 | LOG | TX_ACK: 02 7222 05 3834383419003400 |
| 0:00:10.627350 | LOG | PULL_DATA: 02 1e32 02 3834383419003400 |
| 0:00:10.629349 | LOG | PULL_ACK: 02 1e32 04 |
| 0:00:13.347833 | LOG | PUSH_ACK: 02 3a4b 01 |
| 0:00:13.349831 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a4b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1223569763, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 19, 'data': 'QCAgICCEPgoDBwUHAad5/ZAKlg=='}]} |
| 0:00:13.350831 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a3e, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: fd900a96) |
| 0:00:13.352830 | LOG | Server <---------- DUT |
| 0:00:13.354827 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:13.356828 | LOG | Command Answer: 03070507 |
| 0:00:13.417763 | LOG | MAC command communication completed |
| 0:00:13.427755 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:18.387966 | LOG | PUSH_ACK: 02 3a4c 01 |
| 0:00:18.389964 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a4c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1228574075, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCPwoFBwGxNZNPQF8='}]} |
| 0:00:18.391963 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a3f, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 934f405f) |
| 0:00:18.393963 | LOG | Server <---------- DUT |

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| 0:00:18.395960 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 070e, FOpts: ), FPort: e0, FRMPayload: 07020101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 1bba06d7) |
| 0:00:18.398959 | LOG | Frame command sent to the DUT |
| 0:00:18.400958 | LOG | PULL_RESP: Protocol version = 02, Token = bb8f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1229574075, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAADgfgW3oeC6I1CtL/VoL0QE2AW9Y2r9+2liH4eZqvE5F8ynvyoKlhdWpsB2Q8ds0/7uhj6q5clhu6Btc='}} |
| 0:00:18.402958 | LOG | Server ----------> DUT |
| 0:00:18.406954 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:18.410951 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:00:20.707655 | LOG | PULL_DATA: 02 2d1a 02 3834383419003400 |
| 0:00:20.709644 | LOG | PULL_ACK: 02 2d1a 04 |
| 0:00:28.188390 | LOG | PUSH_ACK: 02 3a4e 01 |
| 0:00:28.190362 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a4e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1238416111, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAQAoBtVBkxdO+'}]} |
| 0:00:28.192388 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a40, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 64c5d3be) |
| 0:00:28.195386 | LOG | Server <---------- DUT |
| 0:00:28.198385 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:00:28.212349 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:30.787912 | LOG | PULL_DATA: 02 98b6 02 3834383419003400 |
| 0:00:30.791884 | LOG | PULL_ACK: 02 98b6 04 |
| 0:00:33.228523 | LOG | PUSH_ACK: 02 3a4f 01 |
| 0:00:33.231523 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a4f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1243419079, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -11, 'size': 15, 'data': 'QCAgICCAQQoBpDTsFUuU'}]} |
| 0:00:33.232521 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a41, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: ec154b94) |
| 0:00:33.234521 | LOG | Server <---------- DUT |
| 0:00:33.236518 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 070f, FOpts: ), FPort: e0, FRMPayload: 07020101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 07ac5e06) |
| 0:00:33.238519 | LOG | Frame command sent to the DUT |
| 0:00:33.240517 | LOG | PULL_RESP: Protocol version = 02, Token = 699e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1245419079, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAADwfg+4Ox4OPS6UA8YbHO8V5JGGsFJl20g32YPOEHPdM9eDKeqG8t7ceUnnB8Ypt4ZnUKjbHj9gesXgY='}} |
| 0:00:33.241517 | LOG | Server ----------> DUT |
| 0:00:33.245514 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:33.249484 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:00:40.797218 | LOG | PULL_DATA: 02 5706 02 3834383419003400 |
| 0:00:40.799218 | LOG | PULL_ACK: 02 5706 04 |
| 0:00:43.201852 | LOG | PUSH_ACK: 02 3a50 01 |
| 0:00:43.203850 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a50, Identifier = 00, JSON = {'rxpk': [{'tmst': 1253425002, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAQgoBbaqvVS7r'}]} |

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| 0:00:43.205849 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a42, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: af552eeb) |
| 0:00:43.206847 | LOG | Server <---------- DUT |
| 0:00:43.209818 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:00:43.222839 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:48.241983 | LOG | PUSH_ACK: 02 3a51 01 |
| 0:00:48.243984 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a51, Identifier = 00, JSON = {'rxpk': [{'tmst': 1258427986, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -11, 'size': 15, 'data': 'QCAgICCAQwoB3w6N4Lhy'}]} |
| 0:00:48.244983 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a43, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 8de0b872) |
| 0:00:48.246980 | LOG | Server <---------- DUT |
| 0:00:48.247980 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0710, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: a3b560af) |
| 0:00:48.249979 | LOG | Frame command sent to the DUT |
| 0:00:48.251977 | LOG | PULL_RESP: Protocol version = 02, Token = 75b5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1259427986, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'oCAgICAAEAfg4nlA+SgzYQsj2jgh5jU0VFRDq3TIC+edBdzn3RPTTszggI0yAmm4HHKM39sNJ+w+0TtIiqO1YK8='}} |
| 0:00:48.252978 | LOG | Server ----------> DUT |
| 0:00:48.256977 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:48.261973 | LOG | Check ACK bit in next uplink starts |
| 0:00:50.987422 | LOG | PULL_DATA: 02 77d2 02 3834383419003400 |
| 0:00:50.989421 | LOG | PULL_ACK: 02 77d2 04 |
| 0:00:58.249262 | LOG | PUSH_ACK: 02 3a53 01 |
| 0:00:58.251265 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a53, Identifier = 00, JSON = {'rxpk': [{'tmst': 1268435356, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCARAoBrQK29SEs'}]} |
| 0:00:58.252260 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a44, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: b6f5212c) |
| 0:00:58.254259 | LOG | Server <---------- DUT |
| 0:00:58.255257 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:00:58.258256 | LOG | Check ACK bit in next uplink tested successfully |
| 0:00:58.270249 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:01.067658 | LOG | PULL_DATA: 02 5689 02 3834383419003400 |
| 0:01:01.071657 | LOG | PULL_ACK: 02 5689 04 |
| 0:01:03.238424 | LOG | PUSH_ACK: 02 3a54 01 |
| 0:01:03.240422 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a54, Identifier = 00, JSON = {'rxpk': [{'tmst': 1273438348, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -11, 'size': 15, 'data': 'QCAgICCARQoBjJ7qYxuY'}]} |
| 0:01:03.241421 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a45, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: ea631b98) |
| 0:01:03.242421 | LOG | Server <---------- DUT |
| 0:01:03.244420 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0711, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 48da60c4) |
| 0:01:03.247418 | LOG | Frame command sent to the DUT |

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| 0:01:03.249417 | LOG | PULL_RESP: Protocol version = 02, Token = e771, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1275438348, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'oCAgICAAEQfgHnRXmCQzwkYPkYAKiFei7mSJkU36/wpfWLUDn/nvPfVLvNHB4ohYtiliZcB7vbZGqyBJckjaYMQ='}} |
| 0:01:03.251415 | LOG | Server ----------> DUT |
| 0:01:03.254414 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:03.258412 | LOG | Check ACK bit in next uplink starts |
| 0:01:11.227283 | LOG | PULL_DATA: 02 699f 02 3834383419003400 |
| 0:01:11.228283 | LOG | PULL_ACK: 02 699f 04 |
| 0:01:13.220152 | LOG | PUSH_ACK: 02 3a55 01 |
| 0:01:13.224148 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a55, Identifier = 00, JSON = {'rxpk': [{'tmst': 1283444318, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCARgoB4c2GGoTZ'}]} |
| 0:01:13.227147 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a46, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 861a84d9) |
| 0:01:13.230145 | LOG | Server <---------- DUT |
| 0:01:13.234142 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:01:13.239139 | LOG | Check ACK bit in next uplink tested successfully |
| 0:01:13.247135 | LOG | End Test Step: Oversized downlink for datarate SF12BW125 |
| 0:01:13.254161 | LOG | Partial Verdict: PASS |
| 0:01:13.259128 | LOG | ========== |
| 0:01:13.264143 | LOG | ========== |
| 0:01:13.267123 | LOG | Start Test Step: Oversized downlink for datarate SF11BW125 |
| 0:01:13.278117 | LOG | Send MAC command block process starts |
| 0:01:18.262300 | LOG | PUSH_ACK: 02 3a56 01 |
| 0:01:18.265281 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a56, Identifier = 00, JSON = {'rxpk': [{'tmst': 1288448662, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCARwoBhsUqdD0g'}]} |
| 0:01:18.267280 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a47, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 2a743d20) |
| 0:01:18.268279 | LOG | Server <---------- DUT |
| 0:01:18.270278 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0712, FOpts: ), FPort: 00, FRMPayload: 03100700010501d2ad84), MIC: e3ca3835) |
| 0:01:18.272277 | LOG | PULL_RESP: Protocol version = 02, Token = 9136, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1290448662, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAEgcADtLuIy8k+1U31ePKODU='}} |
| 0:01:18.273277 | LOG | Server ----------> DUT |
| 0:01:18.277274 | LOG | TX_ACK: 02 9136 05 3834383419003400 |
| 0:01:21.417487 | LOG | PULL_DATA: 02 5838 02 3834383419003400 |
| 0:01:21.418488 | LOG | PULL_ACK: 02 5838 04 |
| 0:01:22.809696 | LOG | PUSH_ACK: 02 3a57 01 |
| 0:01:22.811694 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a57, Identifier = 00, JSON = {'rxpk': [{'tmst': 1293039328, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 19, 'data': 'QCAgICCESAoDBwUHAakjxSdwSA=='}]} |
| 0:01:22.812695 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a48, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: c5277048) |
| 0:01:22.813694 | LOG | Server <---------- DUT |
| 0:01:22.815692 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |

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| 0:01:22.817692 | LOG | Command Answer: 03070507 |
| 0:01:22.880655 | LOG | MAC command communication completed |
| 0:01:22.889650 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:27.755881 | LOG | PUSH_ACK: 02 3a59 01 |
| 0:01:27.758881 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a59, Identifier = 00, JSON = {'rxpk': [{'tmst': 1297960328, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCSQoFBwFCpS/wVlg='}]} |
| 0:01:27.759881 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a49, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 2ff05658) |
| 0:01:27.796858 | LOG | Server <---------- DUT |
| 0:01:27.798857 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0713, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7e15cfe2) |
| 0:01:27.801855 | LOG | Frame command sent to the DUT |
| 0:01:27.803854 | LOG | PULL_RESP: Protocol version = 02, Token = a1ba, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1298960328, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 868.5, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAAEwfgPgepId6onAI0HAo74T0uq1QtHgPxXAL+lZZx4svvVgBr4DVrkyNSfEUuD39gkmbhwo+W2X4Vz+I='}} |
| 0:01:27.805853 | LOG | Server ----------> DUT |
| 0:01:27.808851 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:27.812851 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:01:31.586702 | LOG | PULL_DATA: 02 9b24 02 3834383419003400 |
| 0:01:31.590700 | LOG | PULL_ACK: 02 9b24 04 |
| 0:01:32.756038 | LOG | PUSH_ACK: 02 3a5a 01 |
| 0:01:32.758036 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a5a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1302963270, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 14.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICCASgoB31P69xMA'}]} |
| 0:01:32.760035 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a4a, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: faf71300) |
| 0:01:32.761034 | LOG | Server <---------- DUT |
| 0:01:32.764032 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:01:32.776026 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:37.744201 | LOG | PUSH_ACK: 02 3a5b 01 |
| 0:01:37.746198 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a5b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1307966278, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCASwoBQC2KsSWO'}]} |
| 0:01:37.747198 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a4b, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 8ab1258e) |
| 0:01:37.748197 | LOG | Server <---------- DUT |
| 0:01:37.750196 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0714, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4b357c36) |
| 0:01:37.752195 | LOG | Frame command sent to the DUT |
| 0:01:37.754194 | LOG | PULL_RESP: Protocol version = 02, Token = 2f37, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1309966278, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAAFAfgw0Fpkv8oPwPXFKgViLsCdFOsrveIc58+5M2Fk9BQQRXCL5bGCr1ekdree398aQZ6ODYdeks1fDY='}} |
| 0:01:37.755193 | LOG | Server ----------> DUT |

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| 0:01:37.758193 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:37.762190 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:01:41.746923 | LOG | PULL_DATA: 02 1d9e 02 3834383419003400 |
| 0:01:41.748922 | LOG | PULL_ACK: 02 1d9e 04 |
| 0:01:42.734362 | LOG | PUSH_ACK: 02 3a5c 01 |
| 0:01:42.736359 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a5c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1312970682, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCATAoBIXYdk3qx'}]} |
| 0:01:42.737360 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a4c, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 1d937ab1) |
| 0:01:42.739360 | LOG | Server <---------- DUT |
| 0:01:42.741359 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:01:42.752351 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:47.774495 | LOG | PUSH_ACK: 02 3a5d 01 |
| 0:01:47.776495 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a5d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1317975042, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCATQoB0L8+QYya'}]} |
| 0:01:47.777493 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a4d, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 3e418c9a) |
| 0:01:47.778494 | LOG | Server <---------- DUT |
| 0:01:47.780492 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0715, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 74e41195) |
| 0:01:47.782491 | LOG | Frame command sent to the DUT |
| 0:01:47.784490 | LOG | PULL_RESP: Protocol version = 02, Token = 1736, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1318975042, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 868.3, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'oCAgICAAFQfgQ+VOeOAjE5U9gM4uVC4wTl/sprQb9zZjfu7rUvN5HCucV9ohANFcSwua46Q4yqebgKivDHTkEZU='}} |
| 0:01:47.785489 | LOG | Server ----------> DUT |
| 0:01:47.789488 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:47.792485 | LOG | Check ACK bit in next uplink starts |
| 0:01:51.777217 | LOG | PULL_DATA: 02 f0ec 02 3834383419003400 |
| 0:01:51.779216 | LOG | PULL_ACK: 02 f0ec 04 |
| 0:01:52.770653 | LOG | PUSH_ACK: 02 3a5e 01 |
| 0:01:52.772652 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a5e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1322978029, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCATgoBuGE9KCKz'}]} |
| 0:01:52.774650 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a4e, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 3d2822b3) |
| 0:01:52.775650 | LOG | Server <---------- DUT |
| 0:01:52.777649 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:01:52.780647 | LOG | Check ACK bit in next uplink tested successfully |
| 0:01:52.790641 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:01:57.775806 | LOG | PUSH_ACK: 02 3a60 01 |
| 0:01:57.778804 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a60, Identifier = 00, JSON = {'rxpk': [{'tmst': 1327980981, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCATwoBK+uOC2we'}]} |
| 0:01:57.779803 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a4f, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 8e0b6c1e) |

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| 0:01:57.781802 | LOG | Server <---------- DUT |
| 0:01:57.782805 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0716, FOpts: ), FPort: e0, FRMPayload: 07000101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: bcef33f5) |
| 0:01:57.784802 | LOG | Frame command sent to the DUT |
| 0:01:57.786801 | LOG | PULL_RESP: Protocol version = 02, Token = 58cd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1329980981, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'oCAgICAAFgfgo1QspNCK4d8bSePrrdKwV5HdZDD3Sweq9Y22SKTnPKqIZy0+6rp/9A8ii7pPnZKL5DROBbzvM/U='}} |
| 0:01:57.787801 | LOG | Server ----------> DUT |
| 0:01:57.790797 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:01:57.795794 | LOG | Check ACK bit in next uplink starts |
| 0:02:01.987410 | LOG | PULL_DATA: 02 f133 02 3834383419003400 |
| 0:02:01.992407 | LOG | PULL_ACK: 02 f133 04 |
| 0:02:02.748978 | LOG | PUSH_ACK: 02 3a61 01 |
| 0:02:02.750975 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a61, Identifier = 00, JSON = {'rxpk': [{'tmst': 1332983919, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAUAoBlU2yuqdU'}]} |
| 0:02:02.752975 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a50, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: b2baa754) |
| 0:02:02.753974 | LOG | Server <---------- DUT |
| 0:02:02.755973 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:02:02.759971 | LOG | Check ACK bit in next uplink tested successfully |
| 0:02:02.763969 | LOG | End Test Step: Oversized downlink for datarate SF11BW125 |
| 0:02:02.767968 | LOG | Partial Verdict: PASS |
| 0:02:02.773962 | LOG | ========== |
| 0:02:02.782957 | LOG | ========== |
| 0:02:02.785958 | LOG | Start Test Step: Oversized downlink for datarate SF10BW125 |
| 0:02:02.800947 | LOG | Send MAC command block process starts |
| 0:02:07.789112 | LOG | PUSH_ACK: 02 3a62 01 |
| 0:02:07.791109 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a62, Identifier = 00, JSON = {'rxpk': [{'tmst': 1337986895, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAUQoBkuoTycrk'}]} |
| 0:02:07.793108 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a51, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 13c9cae4) |
| 0:02:07.795107 | LOG | Server <---------- DUT |
| 0:02:07.797107 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0717, FOpts: ), FPort: 00, FRMPayload: 03200700010502d2ad84), MIC: 479ba505) |
| 0:02:07.799106 | LOG | PULL_RESP: Protocol version = 02, Token = 15bb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1339986895, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAFwcAxrAMl6f5pcbeVkebpQU='}} |
| 0:02:07.800106 | LOG | Server ----------> DUT |
| 0:02:07.803103 | LOG | TX_ACK: 02 15bb 05 3834383419003400 |
| 0:02:11.996717 | LOG | PULL_DATA: 02 bcd8 02 3834383419003400 |
| 0:02:11.998715 | LOG | PULL_ACK: 02 bcd8 04 |
| 0:02:12.428471 | LOG | PUSH_ACK: 02 3a63 01 |
| 0:02:12.431469 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a63, Identifier = 00, JSON = {'rxpk': [{'tmst': 1342662920, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -13, 'size': 19, 'data': 'QCAgICCEUgoDBwUHAaHirVE/mg=='}]} |
| 0:02:12.432469 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a52, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: ad513f9a) |
| 0:02:12.433470 | LOG | Server <---------- DUT |
| 0:02:12.435467 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:12.436467 | LOG | Command Answer: 03070507 |
| 0:02:12.504427 | LOG | MAC command communication completed |
| 0:02:12.517420 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:17.417634 | LOG | PUSH_ACK: 02 3a64 01 |
| 0:02:17.419632 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a64, Identifier = 00, JSON = {'rxpk': [{'tmst': 1347665872, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCUwoFBwHHBQnxLMA='}]} |
| 0:02:17.421631 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a53, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 09f12cc0) |
| 0:02:17.422630 | LOG | Server <---------- DUT |
| 0:02:17.424629 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0718, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9c286826) |
| 0:02:17.427628 | LOG | Frame command sent to the DUT |
| 0:02:17.429627 | LOG | PULL_RESP: Protocol version = 02, Token = 173e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1348665872, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAAGAfg0u3qSxFHxxY2Rnq/s+wAcAbXsYSQ9q12e5Do0Innoi19vZW4sS1U44d66aGsb6e78xky35woaCY='}} |
| 0:02:17.431625 | LOG | Server ----------> DUT |
| 0:02:17.435623 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:17.438623 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:02:22.047000 | LOG | PULL_DATA: 02 9d64 02 3834383419003400 |
| 0:02:22.047999 | LOG | PULL_ACK: 02 9d64 04 |
| 0:02:22.450770 | LOG | PUSH_ACK: 02 3a65 01 |
| 0:02:22.453768 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a65, Identifier = 00, JSON = {'rxpk': [{'tmst': 1352668780, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAVAoBDtQNees5'}]} |
| 0:02:22.454768 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a54, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 0d79eb39) |
| 0:02:22.456767 | LOG | Server <---------- DUT |
| 0:02:22.459766 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:02:22.471760 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:27.456923 | LOG | PUSH_ACK: 02 3a67 01 |
| 0:02:27.458922 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a67, Identifier = 00, JSON = {'rxpk': [{'tmst': 1357673092, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAVQoBVZWZoLYs'}]} |
| 0:02:27.459920 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a55, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 99a0b62c) |
| 0:02:27.461919 | LOG | Server <---------- DUT |
| 0:02:27.463919 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0719, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 80608288) |

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| 0:02:27.465917 | LOG | Frame command sent to the DUT |
| 0:02:27.466917 | LOG | PULL_RESP: Protocol version = 02, Token = df6c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1359673092, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAAGQfgqfksfZGes+FY+Eq2u95MwbP1HuuIEJv8X+Wn/UEyL3HXCIIRwDY9unZam8onhjarbjYZDoBggog='}} |
| 0:02:27.467916 | LOG | Server ----------> DUT |
| 0:02:27.471914 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:27.474913 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:02:32.087293 | LOG | PULL_DATA: 02 70f5 02 3834383419003400 |
| 0:02:32.091290 | LOG | PULL_ACK: 02 70f5 04 |
| 0:02:32.431093 | LOG | PUSH_ACK: 02 3a68 01 |
| 0:02:32.433092 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a68, Identifier = 00, JSON = {'rxpk': [{'tmst': 1362676030, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVgoBPZY3oYL8'}]} |
| 0:02:32.434091 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a56, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 37a182fc) |
| 0:02:32.436090 | LOG | Server <---------- DUT |
| 0:02:32.439091 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:02:32.454082 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:37.470227 | LOG | PUSH_ACK: 02 3a69 01 |
| 0:02:37.473225 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a69, Identifier = 00, JSON = {'rxpk': [{'tmst': 1367678974, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAVwoBYWs3Caz9'}]} |
| 0:02:37.474226 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a57, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 3709acfd) |
| 0:02:37.476223 | LOG | Server <---------- DUT |
| 0:02:37.478223 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 071a, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 4c9f08a7) |
| 0:02:37.481221 | LOG | Frame command sent to the DUT |
| 0:02:37.483220 | LOG | PULL_RESP: Protocol version = 02, Token = 9bf9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1368678974, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'oCAgICAAGgfgIpfKWLLhtmfOrBwHUoWbugGjZni5Mjid3eyJ0JSEQ0q+Wr6msFkaZHhqs5zadSknmT8ROkyfCKc='}} |
| 0:02:37.485218 | LOG | Server ----------> DUT |
| 0:02:37.489216 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:37.492216 | LOG | Check ACK bit in next uplink starts |
| 0:02:42.106590 | LOG | PULL_DATA: 02 218e 02 3834383419003400 |
| 0:02:42.108588 | LOG | PULL_ACK: 02 218e 04 |
| 0:02:42.463463 | LOG | PUSH_ACK: 02 3a6a 01 |
| 0:02:42.466461 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a6a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1372681944, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAWAoB8g2s0/Rh'}]} |
| 0:02:42.467461 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a58, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: acd3f461) |
| 0:02:42.469460 | LOG | Server <---------- DUT |
| 0:02:42.470460 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:02:42.473459 | LOG | Check ACK bit in next uplink tested successfully |

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| 0:02:42.486450 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:02:47.452625 | LOG | PUSH_ACK: 02 3a6b 01 |
| 0:02:47.454624 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a6b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1377684912, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAWQoBf5VSgOE5'}]} |
| 0:02:47.456623 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a59, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 5280e139) |
| 0:02:47.458622 | LOG | Server <---------- DUT |
| 0:02:47.460621 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 071b, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 90ea1421) |
| 0:02:47.462619 | LOG | Frame command sent to the DUT |
| 0:02:47.465618 | LOG | PULL_RESP: Protocol version = 02, Token = 102a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1379684912, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'oCAgICAAGwfgRjSS4YOgBhzdmmdEKUVm4tq5TJ+1R97mVbhdRool6Zk1g/hYZTn4Sg1IYFyTIaXU2pxiqJDqFCE='}} |
| 0:02:47.466617 | LOG | Server ----------> DUT |
| 0:02:47.470615 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:02:47.473613 | LOG | Check ACK bit in next uplink starts |
| 0:02:52.296871 | LOG | PULL_DATA: 02 284f 02 3834383419003400 |
| 0:02:52.297870 | LOG | PULL_ACK: 02 284f 04 |
| 0:02:52.442787 | LOG | PUSH_ACK: 02 3a6c 01 |
| 0:02:52.444785 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a6c, Identifier = 00, JSON = {'rxpk': [{'tmst': 1382687860, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAWgoBGBzyvnc7'}]} |
| 0:02:52.446785 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a5a, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: f2be773b) |
| 0:02:52.447783 | LOG | Server <---------- DUT |
| 0:02:52.449782 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:02:52.452781 | LOG | Check ACK bit in next uplink tested successfully |
| 0:02:52.456779 | LOG | End Test Step: Oversized downlink for datarate SF10BW125 |
| 0:02:52.461776 | LOG | Partial Verdict: PASS |
| 0:02:52.468772 | LOG | ========== |
| 0:02:52.473770 | LOG | ========== |
| 0:02:52.475768 | LOG | Start Test Step: Oversized downlink for datarate SF9BW125 |
| 0:02:52.487761 | LOG | Send MAC command block process starts |
| 0:02:57.446941 | LOG | PUSH_ACK: 02 3a6e 01 |
| 0:02:57.448940 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a6e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1387692188, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAWwoBOoHFwr90'}]} |
| 0:02:57.449939 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a5b, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: c5c2bf74) |
| 0:02:57.451937 | LOG | Server <---------- DUT |
| 0:02:57.454936 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 071c, FOpts: ), FPort: 00, FRMPayload: 03300700010503d2ad84), MIC: abb9afb0) |
| 0:02:57.456934 | LOG | PULL_RESP: Protocol version = 02, Token = c3a5, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1389692188, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAHAcAd/Qiuptl1Xhejau5r7A='}} |

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| 0:02:57.458933 | LOG | Server ----------> DUT |
| 0:02:57.461932 | LOG | TX_ACK: 02 c3a5 05 3834383419003400 |
| 0:03:02.329163 | LOG | PUSH_ACK: 02 3a6f 01 |
| 0:03:02.336159 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a6f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1392554975, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 13.0, 'rssi': -19, 'size': 19, 'data': 'QCAgICCEXAoDBwUHAUxsoyD00g==’}]} |
| 0:03:02.338158 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a5c, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: a320f4d2) |
| 0:03:02.339157 | LOG | Server <---------- DUT |
| 0:03:02.341156 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:02.342156 | LOG | Command Answer: 03070507 |
| 0:03:02.408120 | LOG | MAC command communication completed |
| 0:03:02.418114 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:02.496068 | LOG | PULL_DATA: 02 a8c0 02 3834383419003400 |
| 0:03:02.498070 | LOG | PULL_ACK: 02 a8c0 04 |
| 0:03:07.321813 | LOG | PUSH_ACK: 02 3a70 01 |
| 0:03:07.324811 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a70, Identifier = 00, JSON = {'rxpk': [{'tmst': 1397537407, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCXQoFBwH6G9VMDN8=’}]} |
| 0:03:07.325811 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a5d, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: d54c0cdf) |
| 0:03:07.327783 | LOG | Server <---------- DUT |
| 0:03:07.330778 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 071d, FOpts: ), FPort: e0, FRMPayload: 07020101010101010101010

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| 0:03:17.292114 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a72, Identifier = 00, JSON = {'rxpk': [{'tmst': 1407544618, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAXwoBOeCi0niw'}]} |
| 0:03:17.293116 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a5f, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: a2d278b0) |
| 0:03:17.295114 | LOG | Server <---------- DUT |
| 0:03:17.296113 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 071e, FOpts: ), FPort: e0, FRMPayload: 07020101010101010101010

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| | | 44xYPmeUpi77ZhjQx97GMLFgDVruD865vPlJzc4hlt7r6svav06UEwdvjVVyZ/WcVWxEm85LiVQ+Ml4y0aJ/UIWuug51TTcnW4FTvkXE9CviWS0'}} |
| 0:03:27.344676 | LOG | Server ----------> DUT |
| 0:03:27.348673 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:27.351671 | LOG | Check ACK bit in next uplink starts |
| 0:03:32.314632 | LOG | PUSH_ACK: 02 3a76 01 |
| 0:03:32.316630 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a76, Identifier = 00, JSON = {'rxpk': [{'tmst': 1422553417, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAYgoBvHMGrIrn'}]} |
| 0:03:32.318630 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a62, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 06ac8ae7) |
| 0:03:32.319629 | LOG | Server <---------- DUT |
| 0:03:32.320628 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:03:32.323627 | LOG | Check ACK bit in next uplink tested successfully |
| 0:03:32.342616 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:32.806382 | LOG | PULL_DATA: 02 d11c 02 3834383419003400 |
| 0:03:32.810380 | LOG | PULL_ACK: 02 d11c 04 |
| 0:03:37.304792 | LOG | PUSH_ACK: 02 3a78 01 |
| 0:03:37.307792 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a78, Identifier = 00, JSON = {'rxpk': [{'tmst': 1427556345, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAYwoB7TmJO6c2'}]} |
| 0:03:37.308792 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a63, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 893ba736) |
| 0:03:37.309789 | LOG | Server <---------- DUT |
| 0:03:37.311790 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0720, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:03:42.378906 | LOG | ========== |
| 0:03:42.382904 | LOG | Start Test Step: Oversized downlink for datarate SF8BW125 |
| 0:03:42.394915 | LOG | Send MAC command block process starts |
| 0:03:42.986590 | LOG | PULL_DATA: 02 063b 02 3834383419003400 |
| 0:03:42.988589 | LOG | PULL_ACK: 02 063b 04 |
| 0:03:47.334978 | LOG | PUSH_ACK: 02 3a7a 01 |
| 0:03:47.336994 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a7a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1437563571, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAZQoBveocvD0v'}]} |
| 0:03:47.337978 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a65, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 1cbc3d2f) |
| 0:03:47.338978 | LOG | Server <---------- DUT |
| 0:03:47.339977 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0721, FOpts: ), FPort: 00, FRMPayload: 03400700010504d2ad84), MIC: a540f639) |
| 0:03:47.342975 | LOG | PULL_RESP: Protocol version = 02, Token = 317e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1439563571, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAIQcAughn/mZukTiY7aVA9jk='}} |
| 0:03:47.343973 | LOG | Server ----------> DUT |
| 0:03:47.346972 | LOG | TX_ACK: 02 317e 05 3834383419003400 |
| 0:03:52.270172 | LOG | PUSH_ACK: 02 3a7b 01 |
| 0:03:52.272171 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a7b, Identifier = 00, JSON = {'rxpk': [{'tmst': 1442510104, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -13, 'size': 19, 'data': 'QCAgICCEZgoDBwUHAe53Gc85Vw=='}]} |
| 0:03:52.273171 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a66, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: 19cf3957) |
| 0:03:52.274171 | LOG | Server <---------- DUT |
| 0:03:52.276170 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:52.277169 | LOG | Command Answer: 03070507 |
| 0:03:52.334135 | LOG | MAC command communication completed |
| 0:03:52.344131 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:03:53.016655 | LOG | PULL_DATA: 02 bb5e 02 3834383419003400 |
| 0:03:53.018654 | LOG | PULL_ACK: 02 bb5e 04 |
| 0:03:57.271242 | LOG | PUSH_ACK: 02 3a7d 01 |
| 0:03:57.273238 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a7d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1447504168, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCZwoFBwH6x3kzagI='}]} |
| 0:03:57.274235 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a67, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 79336a02) |
| 0:03:57.275234 | LOG | Server <---------- DUT |
| 0:03:57.277233 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0722, FOpts: ), FPort: e0, FRMPayload: 07020101010101010101010

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| 0:03:57.281231 | LOG | PULL_RESP: Protocol version = 02, Token = 4857, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1448504168, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 256, 'data': 'YCAgICAAIgfgCsKOAEcVEIt5OeYRF9vT7d8CnyOX9u7TcYp1yP6ThpaEKUhyZmfTDCWTm0MT0O+1Pg4Sa/z9jZ0VE/71/G/AJg9N8jCDrXP/BPzauyI4EPUBPkPikIBUtqlYLFRLljDx5hCQkpNbCS397HYVhDnhupJrrF1mBtS7Zx1A8Ij8okmJclu/9itKSJQDC9CK2kkK6Y9cSQrOe4zl7A2uOoI4GZJQhOi5NSd1F3HPWW/kG1q74Le6ZuEXrOEbpffPii3SPGo7TbTL+ETMEI9tGWAXbfrK1TWjjmLxEHsK8b8aekhHMdKfhM4u9+NWOSWJXhFXr+mtzZkdoA=='}} |
| 0:03:57.282259 | LOG | Server ----------> DUT |
| 0:03:57.286227 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:03:57.288256 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:04:02.258017 | LOG | PUSH_ACK: 02 3a7e 01 |
| 0:04:02.259035 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a7e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1452507120, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCaAoFBwFmygvtAAU='}]} |
| 0:04:02.261015 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a68, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 0bed0005) |
| 0:04:02.262015 | LOG | Server <---------- DUT |
| 0:04:02.264013 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:04:02.277005 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:03.166105 | LOG | PULL_DATA: 02 7356 02 3834383419003400 |
| 0:04:03.169103 | LOG | PULL_ACK: 02 7356 04 |
| 0:04:07.296755 | LOG | PUSH_ACK: 02 3a7f 01 |
| 0:04:07.299753 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a7f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1457510048, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCaQoFBwHiNsCeHA8='}]} |
| 0:04:07.300752 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a69, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: c09e1c0f) |
| 0:04:07.302751 | LOG | Server <---------- DUT |
| 0:04:07.304751 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0723, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101

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| 0:04:12.284558 | LOG | PUSH_ACK: 02 3a80 01 |
| 0:04:12.286556 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a80, Identifier = 00, JSON = {'rxpk': [{'tmst': 1462514352, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCagoFBwGHMazknok='}]} |
| 0:04:12.287556 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a6a, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: ace49e89) |
| 0:04:12.288555 | LOG | Server <---------- DUT |
| 0:04:12.291554 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:04:12.303547 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:13.186044 | LOG | PULL_DATA: 02 8291 02 3834383419003400 |
| 0:04:13.188043 | LOG | PULL_ACK: 02 8291 04 |
| 0:04:17.273719 | LOG | PUSH_ACK: 02 3a81 01 |
| 0:04:17.275718 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a81, Identifier = 00, JSON = {'rxpk': [{'tmst': 1467518728, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCawoFBwFU+UMk688='}]} |
| 0:04:17.276718 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a6b, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 4324ebcf) |
| 0:04:17.277717 | LOG | Server <---------- DUT |
| 0:04:17.279716 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0724, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:04:27.312010 | LOG | PUSH_ACK: 02 3a85 01 |
| 0:04:27.314009 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a85, Identifier = 00, JSON = {'rxpk': [{'tmst': 1477524656, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCbQoFBwGO088scVM='}]} |
| 0:04:27.316009 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a6d, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: cf2c7153) |
| 0:04:27.317007 | LOG | Server <---------- DUT |
| 0:04:27.319007 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0725, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:04:37.293334 | LOG | Server <---------- DUT |
| 0:04:37.295333 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0726, FOpts: ), FPort: 00, FRMPayload: 03500700010505d2ad84), MIC: 4e35f13f) |
| 0:04:37.297330 | LOG | PULL_RESP: Protocol version = 02, Token = fda7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1489530536, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAJgcA/DGUfq+9eg9HWE418T8='}} |
| 0:04:37.298329 | LOG | Server ----------> DUT |
| 0:04:37.302327 | LOG | TX_ACK: 02 fda7 05 3834383419003400 |
| 0:04:42.257157 | LOG | PUSH_ACK: 02 3a88 01 |
| 0:04:42.260155 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a88, Identifier = 00, JSON = {'rxpk': [{'tmst': 1492493624, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 19, 'data': 'QCAgICCEcAoDBwUHAZrSPBPpJQ=='}]} |
| 0:04:42.261154 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a70, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: 3c13e925) |
| 0:04:42.263153 | LOG | Server <---------- DUT |
| 0:04:42.264152 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:42.266151 | LOG | Command Answer: 03070507 |
| 0:04:42.332114 | LOG | MAC command communication completed |
| 0:04:42.343107 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:43.595413 | LOG | PULL_DATA: 02 a63a 02 3834383419003400 |
| 0:04:43.597394 | LOG | PULL_ACK: 02 a63a 04 |
| 0:04:47.245809 | LOG | PUSH_ACK: 02 3a89 01 |
| 0:04:47.248807 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a89, Identifier = 00, JSON = {'rxpk': [{'tmst': 1497497920, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCcQoFBwEb+yHVDqY='}]} |
| 0:04:47.250806 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a71, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 21d50ea6) |
| 0:04:47.251805 | LOG | Server <---------- DUT |
| 0:04:47.253806 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0727, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101

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| 0:04:52.286191 | LOG | PUSH_ACK: 02 3a8a 01 |
| 0:04:52.288190 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a8a, Identifier = 00, JSON = {'rxpk': [{'tmst': 1502502216, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCcgoFBwH1bDn85/c='}]} |
| 0:04:52.290188 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a72, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 39fce7f7) |
| 0:04:52.291187 | LOG | Server <---------- DUT |
| 0:04:52.293187 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:04:52.307178 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:04:53.766348 | LOG | PULL_DATA: 02 be43 02 3834383419003400 |
| 0:04:53.767347 | LOG | PULL_ACK: 02 be43 04 |
| 0:04:57.292342 | LOG | PUSH_ACK: 02 3a8d 01 |
| 0:04:57.294341 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a8d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1507505152, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCcwoFBwEeF/64TLg='}]} |
| 0:04:57.296340 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a73, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: feb84cb8) |
| 0:04:57.298339 | LOG | Server <---------- DUT |
| 0:04:57.300337 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0728, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101

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| 0:05:07.271696 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a8f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1517511024, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCdQoFBwEQOYM6ErQ='}]} |
| 0:05:07.273694 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a75, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 833a12b4) |
| 0:05:07.274694 | LOG | Server <---------- DUT |
| 0:05:07.277692 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0729, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>1010101010101010101010101010101010101010101010101010101010101010101<br>0101010101010101010101010101010101010101010101010101010101010101010<br>10101010101010101), MIC: a3caf6d6) |
| 0:05:17.307323 | LOG | Frame command sent to the DUT |
| 0:05:17.309322 | LOG | PULL_RESP: Protocol version = 02, Token = 0531, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1529518240, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 256, 'data': 'oCAgICAAKgfgxUyxG9erpIMMLhdhD54cXevgkHqxSWa1D6YrrBDMUjuV4w0yy+HiSzA7WJbrFBAR+XK0hAoKkbajEHZiESZxDrEwJVT1yDDruSSlxTHRs2uLCBOtG7Mkb+caOiAe/jsKZHVc6u3gSivZ+c4sp6XW8eeilVpDgh7/6oZ312jyOw1rnnx/mpGE0jTI3wQf6WrVtHNsijOXDLlc8pcWiDG21r7hd97BzvStLKkfhm0/2e465aYBnRnhdvzo7f+1Hfug34wWJAh/d+GD1e0X3ggb+/U6WJFWf1OLmXqHspvGhIPBfEipJPBLezj64oriRNAPN9eJo8r21g=='}} |
| 0:05:17.310321 | LOG | Server ----------> DUT |
| 0:05:17.313320 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:17.317335 | LOG | Check ACK bit in next uplink starts |
| 0:05:22.285490 | LOG | PUSH_ACK: 02 3a92 01 |
| 0:05:22.287490 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a92, Identifier = 00, JSON = {'rxpk': [{'tmst': 1532522536, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCeAoFBwGGdL6X2bc='}]} |
| 0:05:22.289488 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a78, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: be97d9b7) |
| 0:05:22.290488 | LOG | Server <---------- DUT |
| 0:05:22.291488 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:05:22.294486 | LOG | Check ACK bit in next uplink tested successfully |
| 0:05:22.298483 | LOG | End Test Step: Oversized downlink for datarate SF7BW125 |
| 0:05:22.303480 | LOG | Partial Verdict: PASS |
| 0:05:22.307478 | LOG | ========== |
| 0:05:22.312475 | LOG | ========== |
| 0:05:22.314474 | LOG | Start Test Step: Oversized downlink for optional datarate SF7BW250 |
| 0:05:22.326467 | LOG | Send NewChannelReq process starts |
| 0:05:24.025778 | LOG | PULL_DATA: 02 bc60 02 3834383419003400 |
| 0:05:24.027779 | LOG | PULL_ACK: 02 bc60 04 |
| 0:05:27.290920 | LOG | PUSH_ACK: 02 3a95 01 |
| 0:05:27.292919 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a95, Identifier = 00, JSON = {'rxpk': [{'tmst': 1537525464, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCeQoFBwGN2WSjTKA='}]} |
| 0:05:27.293919 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a79, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 64a34ca0) |
| 0:05:27.294918 | LOG | Server <---------- DUT |
| 0:05:27.296917 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 072b, FOpts: ), FPort: 00, FRMPayload: 070328768466), MIC: a55644dc) |
| 0:05:27.299916 | LOG | PULL_RESP: Protocol version = 02, Token = b498, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1539525464, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAKwcA46PY7q1dpVZE3A=='}} |
| 0:05:27.301915 | LOG | Server ----------> DUT |
| 0:05:27.304913 | LOG | TX_ACK: 02 b498 05 3834383419003400 |
| 0:05:32.304023 | LOG | PUSH_ACK: 02 3a96 01 |
| 0:05:32.306018 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a96, Identifier = 00, JSON = {'rxpk': [{'tmst': 1542528395, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCegoHAwHpWgRe3eE='}]} |
| 0:05:32.308015 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a7a, FOpts: 0703), FPort: 01, FRMPayload: 054e, MIC: 045edde1) |
| 0:05:32.309014 | LOG | Server <---------- DUT |
| 0:05:32.310016 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:32.312014 | LOG | Command Answer: 0703 |
| 0:05:32.316011 | LOG | MAC command communication completed |
| 0:05:32.321007 | LOG | Send MAC command block process starts |
| 0:05:34.225716 | LOG | PULL_DATA: 02 0f64 02 3834383419003400 |
| 0:05:34.233711 | LOG | PULL_ACK: 02 0f64 04 |
| 0:05:37.293001 | LOG | PUSH_ACK: 02 3a97 01 |
| 0:05:37.294999 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a97, Identifier = 00, JSON = {'rxpk': [{'tmst': 1547526187, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAewoBQ1NHV/U5'}]} |
| 0:05:37.296999 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a7b, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 4757f539) |
| 0:05:37.297968 | LOG | Server <---------- DUT |
| 0:05:37.299997 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 072c, FOpts: ), FPort: 00, FRMPayload: 03600f00010506d2ad84), MIC: db61dd2b) |
| 0:05:37.302996 | LOG | PULL_RESP: Protocol version = 02, Token = cfd6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1549526187, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAALAcALtf3Os9HotXi09th3Ss='}} |
| 0:05:37.303995 | LOG | Server ----------> DUT |
| 0:05:37.306993 | LOG | TX_ACK: 02 cfd6 05 3834383419003400 |
| 0:05:42.257511 | LOG | PUSH_ACK: 02 3a98 01 |
| 0:05:42.259510 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a98, Identifier = 00, JSON = {'rxpk': [{'tmst': 1552511267, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 19, 'data': 'QCAgICCEfAoDBwUHAYLQdwYp6w=='}]} |
| 0:05:42.260510 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a7c, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: 770629eb) |
| 0:05:42.262509 | LOG | Server <---------- DUT |
| 0:05:42.263508 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:42.265508 | LOG | Command Answer: 03070507 |
| 0:05:42.328470 | LOG | MAC command communication completed |
| 0:05:42.343463 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:05:44.235404 | LOG | PULL_DATA: 02 2014 02 3834383419003400 |
| 0:05:44.237386 | LOG | PULL_ACK: 02 2014 04 |
| 0:05:47.296644 | LOG | PUSH_ACK: 02 3a99 01 |
| 0:05:47.298643 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a99, Identifier = 00, JSON = {'rxpk': [{'tmst': 1557515571, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCfQoFBwFYcLzdvtk='}]} |
| 0:05:47.299643 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a7d, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: bcddbed9) |
| 0:05:47.300642 | LOG | Server <---------- DUT |
| 0:05:47.302641 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 072d, FOpts: ), FPort: e0, FRMPayload: 07020101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101 |

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| | | w/h125p1TgWNChiYw2TZaSfgVklX8ZRex5XvAajjglCNZ//SFayqJa5tPZifHLNjr<br>Iyxjb4pFiEgKQjKbcKE665lskJAoTP815r8PnvpIdh9UE307z8cdAIEj6zIPNVDL5f<br>gcPfeFk/uU7H6WjC5YiAX2d/vc6/dN/PUD0P0BKqsqMieL0lvYM0EJHQNYulw<br>MoU04n76Z8tZ/+D2Mz3aVQDXM5qMRg=='}} |
| 0:05:57.293112 | LOG | Server ----------> DUT |
| 0:05:57.297110 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:05:57.299108 | LOG | Wait Until Unconfirmed Uplink arrives process starts |
| 0:06:02.269447 | LOG | PUSH_ACK: 02 3a9d 01 |
| 0:06:02.271444 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a9d, Identifier = 00, JSON = {'rxpk': [{'tmst': 1572525883, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCgAoFBwHMfHrRf/Y='}]} |
| 0:06:02.272445 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a80, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 7ad17ff6) |
| 0:06:02.273445 | LOG | Server <---------- DUT |
| 0:06:02.276443 | LOG | Wait Until Unconfirmed Uplink arrives tested successfully |
| 0:06:02.288434 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:04.435231 | LOG | PULL_DATA: 02 9135 02 3834383419003400 |
| 0:06:04.440211 | LOG | PULL_ACK: 02 9135 04 |
| 0:06:07.309579 | LOG | PUSH_ACK: 02 3a9e 01 |
| 0:06:07.311577 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a9e, Identifier = 00, JSON = {'rxpk': [{'tmst': 1577528899, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCgQoFBwEygPub0qA='}]} |
| 0:06:07.312577 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a81, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: fb9bd2a0) |
| 0:06:07.314593 | LOG | Server <---------- DUT |
| 0:06:07.316574 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 072f, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101010101010101010101010101010101010101010101010101<br>1010101010101010101010101010101010101010101010101010101010101010101010<br>0101010101010101010101010101010101010101010101010101010101010101010101<br>1010101010101010101010101010101010101010101010101010101010101010101010<br>0101010101010101010101010101010101010101010101010101010101010101010101<br>1010101010101010101010101010101010101010101010101010101010101010101010<br>0101010101010101010101010101010101010101010101010101010101010101010101<br>10101010101010101), MIC: 615f3e63) |
| 0:06:07.318574 | LOG | Frame command sent to the DUT |
| 0:06:07.320572 | LOG | PULL_RESP: Protocol version = 02, Token = bf13, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1578528899, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 256, 'data': 'oCAgICAALwfgzrEQQSv6rd+PHlHpHiEgK4lax5e7AvVhGBkHUrXf+XWuUc+i<br>ou7tktjkIRghzNs18Sq7FxVebM8toWmWlAPJVtPgH6pVr7aDjYcCJBb8wIP298vb<br>LfTx8Ikt572l45BXh54XsUwrgMR0j/MqLzeIhrVYIwrhFN+UK0CGeQAVy9qclh/<br>YU3vosg7climejd2+FjUZ9+TsyeT6nzC3v2B1o0zL94iO3QaA3zYdPj40dPC28/Mz<br>OlNWlfA9G4huxO/yR4la7UXAx5Q+f3tT+qzC9rw4JxVyv/Ps5ozCAGH/hLdUFPi<br>t/dyxXA3O2pzkwRgJzNsPYV8+Yw=='}} |
| 0:06:07.321571 | LOG | Server ----------> DUT |
| 0:06:07.325569 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:06:07.328569 | LOG | Check ACK bit in next uplink starts |
| 0:06:12.299724 | LOG | PUSH_ACK: 02 3a9f 01 |
| 0:06:12.304722 | LOG | PUSH_DATA: Protocol version = 02, Token = 3a9f, Identifier = 00, JSON = {'rxpk': [{'tmst': 1582531875, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCggoFBwEN80nrPiY='}]} |

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| 0:06:12.306721 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a82, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 49eb3e26) |
| 0:06:12.308720 | LOG | Server <---------- DUT |
| 0:06:12.309720 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:06:12.311717 | LOG | Check ACK bit in next uplink tested successfully |
| 0:06:12.323712 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:06:14.465605 | LOG | PULL_DATA: 02 0297 02 3834383419003400 |
| 0:06:14.467605 | LOG | PULL_ACK: 02 0297 04 |
| 0:06:17.290000 | LOG | PUSH_ACK: 02 3aa0 01 |
| 0:06:17.291999 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aa0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1587536159, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCgwoFBwEJBZFRBDM='}]} |
| 0:06:17.292998 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a83, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 91510433) |
| 0:06:17.293998 | LOG | Server <---------- DUT |
| 0:06:17.295996 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0730, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| | | 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -20, 'size': 17, 'data': 'QCAgICCChQoFBwGRvdEaGqo='}]} |
| 0:06:27.334226 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a85, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: d11a1aaa) |
| 0:06:27.336224 | LOG | Server <---------- DUT |
| 0:06:27.338223 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0731, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 08e65b17) |
| 0:06:27.341221 | LOG | PULL_RESP: Protocol version = 02, Token = d948, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1599543407, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAMQcABDB3zjMI5lsX'}} |
| 0:06:27.343220 | LOG | Server ----------> DUT |
| 0:06:27.346218 | LOG | TX_ACK: 02 d948 05 3834383419003400 |
| 0:06:32.346916 | LOG | PUSH_ACK: 02 3aa4 01 |
| 0:06:32.348914 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aa4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1602572062, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 17, 'data': 'QCAgICCChgoDBwFA9kpyWBA='}]} |
| 0:06:32.350913 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a86, FOpts: 0307), FPort: 01, FRMPayload: 054e, MIC: 4a725810) |
| 0:06:32.351915 | LOG | Server <---------- DUT |
| 0:06:32.352912 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:32.354913 | LOG | Command Answer: 0307 |
| 0:06:32.360908 | LOG | MAC command communication completed |
| 0:06:32.364905 | LOG | Send NewChannelReq process starts |
| 0:06:34.695612 | LOG | PULL_DATA: 02 f5e4 02 3834383419003400 |
| 0:06:34.698609 | LOG | PULL_ACK: 02 f5e4 04 |
| 0:06:37.336082 | LOG | PUSH_ACK: 02 3aa5 01 |
| 0:06:37.338080 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aa5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1607569846, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAhwoB0zYzLfeB'}]} |
| 0:06:37.340077 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a87, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 332df781) |
| 0:06:37.341076 | LOG | Server <---------- DUT |
| 0:06:37.342075 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0732, FOpts: ), FPort: 00, FRMPayload: 070300000050), MIC: e4ebde5d) |
| 0:06:37.345073 | LOG | PULL_RESP: Protocol version = 02, Token = 4e74, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1609569846, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAMgcAvZXg8KO85OveXQ=='}} |
| 0:06:37.346073 | LOG | Server ----------> DUT |
| 0:06:37.349070 | LOG | TX_ACK: 02 4e74 05 3834383419003400 |
| 0:06:42.373227 | LOG | PUSH_ACK: 02 3aa6 01 |
| 0:06:42.375225 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aa6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1612580649, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCiAoHAwH+n0PcvY0='}]} |
| 0:06:42.377224 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a88, FOpts: 0703), FPort: 01, FRMPayload: 054e, MIC: 43dcbd8d) |
| 0:06:42.378223 | LOG | Server <---------- DUT |
| 0:06:42.380222 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:42.381221 | LOG | Command Answer: 0703 |
| 0:06:42.387218 | LOG | MAC command communication completed |

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| 0:06:42.392216 | LOG | End Test Step: Oversized downlink for optional datarate SF7BW250 |
| 0:06:42.395214 | LOG | Partial Verdict: PASS |
| 0:06:42.399211 | LOG | ========== |
| 0:06:42.404209 | LOG | ========== |
| 0:06:42.407207 | LOG | Start Test Step: Oversized downlink for optional datarate FSK |
| 0:06:42.417219 | LOG | Send NewChannelReq process starts |
| 0:06:44.905471 | LOG | PULL_DATA: 02 1477 02 3834383419003400 |
| 0:06:44.907470 | LOG | PULL_ACK: 02 1477 04 |
| 0:06:47.362073 | LOG | PUSH_ACK: 02 3aa7 01 |
| 0:06:47.364073 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aa7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1617578449, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAiQoBrs+G4HCR'}]} |
| 0:06:47.365071 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a89, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 86e07091) |
| 0:06:47.367070 | LOG | Server <---------- DUT |
| 0:06:47.369069 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0733, FOpts: ), FPort: 00, FRMPayload: 070428768477), MIC: 88136386) |
| 0:06:47.372069 | LOG | PULL_RESP: Protocol version = 02, Token = 0031, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1619578449, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAMwcAvoqvazk6iBNjhg=='}} |
| 0:06:47.373069 | LOG | Server ----------> DUT |
| 0:06:47.377066 | LOG | TX_ACK: 02 0031 05 3834383419003400 |
| 0:06:52.382490 | LOG | PUSH_ACK: 02 3aa8 01 |
| 0:06:52.384488 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aa8, Identifier = 00, JSON = {'rxpk': [{'tmst': 1622590623, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCigoHAwFQz0ZHcPU='}]} |
| 0:06:52.386487 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a8a, FOpts: 0703), FPort: 01, FRMPayload: 054e, MIC: 464770f5) |
| 0:06:52.387486 | LOG | Server <---------- DUT |
| 0:06:52.389485 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:52.390485 | LOG | Command Answer: 0703 |
| 0:06:52.397482 | LOG | MAC command communication completed |
| 0:06:52.402478 | LOG | Send MAC command block process starts |
| 0:06:54.935037 | LOG | PULL_DATA: 02 7509 02 3834383419003400 |
| 0:06:54.937037 | LOG | PULL_ACK: 02 7509 04 |
| 0:06:57.382645 | LOG | PUSH_ACK: 02 3aaa 01 |
| 0:06:57.384644 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aaa, Identifier = 00, JSON = {'rxpk': [{'tmst': 1627589783, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAiwoB0elkKDT5'}]} |
| 0:06:57.386643 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a8b, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 642834f9) |
| 0:06:57.387644 | LOG | Server <---------- DUT |
| 0:06:57.389642 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0734, FOpts: ), FPort: 00, FRMPayload: 03701700010507d2ad84), MIC: 713a8ac5) |
| 0:06:57.391640 | LOG | PULL_RESP: Protocol version = 02, Token = 01a6, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1629589783, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAANAcAYVnLDn9RQLxgOHE6isU='}} |
| 0:06:57.392639 | LOG | Server ----------> DUT |
| 0:06:57.396637 | LOG | TX_ACK: 02 01a6 05 3834383419003400 |

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| 0:07:02.292747 | LOG | PUSH_ACK: 02 3aab 01 |
| 0:07:02.294747 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aab, Identifier = 00, JSON = {'rxpk': [{'tmst': 1632550737, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 19, 'data': 'QCAgICCEjAoDBwUHAad/cGAfPw==’}]} |
| 0:07:02.296745 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0a8c, FOpts: 03070507), FPort: 01, FRMPayload: 054e, MIC: 70601f3f) |
| 0:07:02.297746 | LOG | Server <---------- DUT |
| 0:07:02.299743 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:02.301743 | LOG | Command Answer: 03070507 |
| 0:07:02.366704 | LOG | MAC command communication completed |
| 0:07:02.377698 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:04.954861 | LOG | PULL_DATA: 02 eaf2 02 3834383419003400 |
| 0:07:04.958859 | LOG | PULL_ACK: 02 eaf2 04 |
| 0:07:07.332478 | LOG | PUSH_ACK: 02 3aac 01 |
| 0:07:07.335476 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aac, Identifier = 00, JSON = {'rxpk': [{'tmst': 1637553325, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCjQoFBwHttOGRSOE=’}]} |
| 0:07:07.337476 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a8d, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: e19148e1) |
| 0:07:07.338475 | LOG | Server <---------- DUT |
| 0:07:07.340473 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0735, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101

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| 0:07:17.312211 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aae, Identifier = 00, JSON = {'rxpk': [{'tmst': 1647559204, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCjwoFBwF+drrWqIY='}]} |
| 0:07:17.314210 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a8f, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: bad6a886) |
| 0:07:17.316209 | LOG | Server <---------- DUT |
| 0:07:17.318208 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0736, FOpts: ), FPort: e0, FRMPayload: 0702010101010101010101

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| 0:07:32.345563 | LOG | Frame command sent to the DUT |
| 0:07:32.347562 | LOG | PULL_RESP: Protocol version = 02, Token = 0a15, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1663572128, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 868.1, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 256, 'data': 'oCAgICAANwfgowK3/8CK81NQ0U7a/FItU7AZErKKyDis7jsCrSlb/zdqMtnfyib2mcpM53QYpG8BFb9vZx+D9LxC7L9P6EVq4+biw5dlSOc6iuEfVj62v26eCpfjTSU5469a5cWD2SAiVx5b3eVUPN65a3cv2PJWls2SjQbDae/WF0A9M5IonjIpnrtWfSd9WCDbnujANhOWtryyfLkEK9NOV1iv6PVeWFkwKXWIpsWoNk0DTyYWJNoQTxqI6CvMaQaooJtxHtkDusn0yy/oLp4H0u9MxCv3/vJ5hHULu4QcSpIqF/eqmQ/mg2Q1wkeH/XN5DCZg0MpFL2S6zJXJaw=='}} |
| 0:07:32.349561 | LOG | Server ----------> DUT |
| 0:07:32.353559 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:07:32.358555 | LOG | Check ACK bit in next uplink starts |
| 0:07:35.494956 | LOG | PULL_DATA: 02 d3cb 02 3834383419003400 |
| 0:07:35.499953 | LOG | PULL_ACK: 02 d3cb 04 |
| 0:07:37.323916 | LOG | PUSH_ACK: 02 3ab2 01 |
| 0:07:37.325914 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ab2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1667575064, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCkwoFBwHU7t66z/8='}]} |
| 0:07:37.326915 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a93, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: debacfff) |
| 0:07:37.327915 | LOG | Server <---------- DUT |
| 0:07:37.329914 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:07:37.332910 | LOG | Check ACK bit in next uplink tested successfully |
| 0:07:37.346903 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:07:45.574286 | LOG | PULL_DATA: 02 da0c 02 3834383419003400 |
| 0:07:45.576261 | LOG | PULL_ACK: 02 da0c 04 |
| 0:07:47.346279 | LOG | PUSH_ACK: 02 3ab3 01 |
| 0:07:47.348250 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ab3, Identifier = 00, JSON = {'rxpk': [{'tmst': 1677580975, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCClQoFBwEc7YTcGL8='}]} |
| 0:07:47.350275 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a95, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 84dc18bf) |
| 0:07:47.352276 | LOG | Server <---------- DUT |
| 0:07:47.356242 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0738, FOpts: ), FPort: e0, FRMPayload: 0700010101010101010101

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| 0:07:55.764515 | LOG | PULL_DATA: 02 8b96 02 3834383419003400 |
| 0:07:55.766515 | LOG | PULL_ACK: 02 8b96 04 |
| 0:07:57.329625 | LOG | PUSH_ACK: 02 3ab5 01 |
| 0:07:57.331624 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ab5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1687589579, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCClwoFBwEhIX7vCC0='}]} |
| 0:07:57.333623 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a97, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 7eef082d) |
| 0:07:57.334623 | LOG | Server <---------- DUT |
| 0:07:57.336621 | LOG | Oversized frame was sent. ACK bit received in uplink is set to 0 |
| 0:07:57.340619 | LOG | Check ACK bit in next uplink tested successfully |
| 0:07:57.343617 | LOG | Send LinkADRReq process starts |
| 0:08:02.369758 | LOG | PUSH_ACK: 02 3ab6 01 |
| 0:08:02.371756 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ab6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1692592521, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCmAoFBwHlmcjdB30='}]} |
| 0:08:02.373756 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a98, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: c8dd077d) |
| 0:08:02.374755 | LOG | Server <---------- DUT |
| 0:08:02.376754 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0739, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 825c3db9) |
| 0:08:02.379752 | LOG | PULL_RESP: Protocol version = 02, Token = 00bd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1694592521, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 18, 'data': 'YCAgICAAOQcAeEm6QH2CXD25'}} |
| 0:08:02.380752 | LOG | Server ----------> DUT |
| 0:08:02.384749 | LOG | TX_ACK: 02 00bd 05 3834383419003400 |
| 0:08:05.953936 | LOG | PULL_DATA: 02 6c9a 02 3834383419003400 |
| 0:08:05.957932 | LOG | PULL_ACK: 02 6c9a 04 |
| 0:08:07.426089 | LOG | PUSH_ACK: 02 3ab7 01 |
| 0:08:07.427086 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ab7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1697647021, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCmQoDBwEZrOfL0ys='}]} |
| 0:08:07.429087 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a99, FOpts: 0307), FPort: 01, FRMPayload: 054e, MIC: e7cbd32b) |
| 0:08:07.430083 | LOG | Server <---------- DUT |
| 0:08:07.431083 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:07.433085 | LOG | Command Answer: 0307 |
| 0:08:07.441091 | LOG | MAC command communication completed |
| 0:08:07.445088 | LOG | Send NewChannelReq process starts |
| 0:08:12.414506 | LOG | PUSH_ACK: 02 3ab9 01 |
| 0:08:12.416504 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ab9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1702644821, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAmgoBRiIXZaeP'}]} |
| 0:08:12.417503 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a9a, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: 1765a78f) |
| 0:08:12.418505 | LOG | Server <---------- DUT |
| 0:08:12.420503 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 073a, FOpts: ), FPort: 00, FRMPayload: 070400000050), MIC: 6a067242) |
| 0:08:12.423501 | LOG | PULL_RESP: Protocol version = 02, Token = 13ed, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1704644821, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 19, 'data': 'YCAgICAAOgcAJAHtnl7DagZyQg=='}} |

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| 0:08:12.424499 | LOG | Server ----------> DUT |
| 0:08:12.427499 | LOG | TX_ACK: 02 13ed 05 3834383419003400 |
| 0:08:15.994486 | LOG | PULL_DATA: 02 fb8d 02 3834383419003400 |
| 0:08:15.995468 | LOG | PULL_ACK: 02 fb8d 04 |
| 0:08:17.426654 | LOG | PUSH_ACK: 02 3aba 01 |
| 0:08:17.428655 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aba, Identifier = 00, JSON = {'rxpk': [{'tmst': 1707652881, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCmwoHAwFYSHKr/ok='}]} |
| 0:08:17.429654 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a9b, FOpts: 0703), FPort: 01, FRMPayload: 054e, MIC: 72abfe89) |
| 0:08:17.430652 | LOG | Server <---------- DUT |
| 0:08:17.431653 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:17.433650 | LOG | Command Answer: 0703 |
| 0:08:17.438649 | LOG | MAC command communication completed |
| 0:08:17.441646 | LOG | End Test Step: Oversized downlink for optional datarate FSK |
| 0:08:17.445661 | LOG | Partial Verdict: PASS |
| 0:08:17.450642 | LOG | ========== |
| 0:08:17.455639 | LOG | ========== |
| 0:08:17.458654 | LOG | Start Test Step: Restore default settings |
| 0:08:17.471628 | LOG | Send LinkADRReq process starts |
| 0:08:22.415014 | LOG | PUSH_ACK: 02 3abb 01 |
| 0:08:22.417013 | LOG | PUSH_DATA: Protocol version = 02, Token = 3abb, Identifier = 00, JSON = {'rxpk': [{'tmst': 1712650745, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAnAoBEFHj3LCd'}]} |
| 0:08:22.418012 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a9c, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: e3dcb09d) |
| 0:08:22.419012 | LOG | Server <---------- DUT |
| 0:08:22.421011 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 073b, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: bcad7f13) |
| 0:08:22.424009 | LOG | PULL_RESP: Protocol version = 02, Token = 1ca2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1714650745, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 18, 'data': 'YCAgICAAOwcALa80//O8rX8T'}} |
| 0:08:22.425009 | LOG | Server ----------> DUT |
| 0:08:22.428007 | LOG | TX_ACK: 02 1ca2 05 3834383419003400 |
| 0:08:26.204385 | LOG | PULL_DATA: 02 ae5f 02 3834383419003400 |
| 0:08:26.206384 | LOG | PULL_ACK: 02 ae5f 04 |
| 0:08:27.444679 | LOG | PUSH_ACK: 02 3abd 01 |
| 0:08:27.446678 | LOG | PUSH_DATA: Protocol version = 02, Token = 3abd, Identifier = 00, JSON = {'rxpk': [{'tmst': 1717660175, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCnQoDBwFiAR3v0I0='}]} |
| 0:08:27.447678 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a9d, FOpts: 0307), FPort: 01, FRMPayload: 054e, MIC: 1defd08d) |
| 0:08:27.449677 | LOG | Server <---------- DUT |
| 0:08:27.450676 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:27.452675 | LOG | Command Answer: 0307 |
| 0:08:27.460670 | LOG | MAC command communication completed |
| 0:08:27.463668 | LOG | Send RXParamSetupReq process starts |
| 0:08:32.432170 | LOG | PUSH_ACK: 02 3abe 01 |
| 0:08:32.435168 | LOG | PUSH_DATA: Protocol version = 02, Token = 3abe, Identifier = 00, JSON = {'rxpk': [{'tmst': 1722659351, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAngoBc+zFsRV/'}]} |
| 0:08:32.436168 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0a9e, FOpts: ), FPort: 01, FRMPayload: 054e, MIC: c5b1157f) |
| 0:08:32.437169 | LOG | Server <---------- DUT |
| 0:08:32.440166 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 073c, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: 8653b77d) |
| 0:08:32.443164 | LOG | PULL_RESP: Protocol version = 02, Token = d79c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1724659351, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 869.525, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 18, 'data': 'YCAgICAAPAcAZwrPcMmGU7d9'}} |
| 0:08:32.444163 | LOG | Server ----------> DUT |
| 0:08:32.448161 | LOG | TX_ACK: 02 d79c 05 3834383419003400 |
| 0:08:36.224360 | LOG | PULL_DATA: 02 733f 02 3834383419003400 |
| 0:08:36.227340 | LOG | PULL_ACK: 02 733f 04 |
| 0:08:37.442270 | LOG | PUSH_ACK: 02 3abf 01 |
| 0:08:37.445269 | LOG | PUSH_DATA: Protocol version = 02, Token = 3abf, Identifier = 00, JSON = {'rxpk': [{'tmst': 1727668799, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 17, 'data': 'QCAgICCCnwoFBwFBTGvpNfg='}]} |
| 0:08:37.447268 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0a9f, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: 6be935f8) |
| 0:08:37.448267 | LOG | Server <---------- DUT |
| 0:08:37.450266 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:08:37.451267 | LOG | Command Answer: 0507 |
| 0:08:37.469256 | LOG | MAC command communication completed |
| 0:08:37.472253 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:08:42.430707 | LOG | PUSH_ACK: 02 3ac0 01 |
| 0:08:42.433707 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1732671727, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCoAoFBwGsFdda1B0='}]} |
| 0:08:42.434706 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0aa0, FOpts: 0507), FPort: 01, FRMPayload: 054e, MIC: d75ad41d) |
| 0:08:42.435706 | LOG | Server <---------- DUT |
| 0:08:42.437703 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 073d, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: 7a784287) |
| 0:08:42.439702 | LOG | Frame command sent to the DUT |
| 0:08:42.441701 | LOG | PULL_RESP: Protocol version = 02, Token = 68d4, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1734671727, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAPQfgSx16eEKH'}} |
| 0:08:42.443702 | LOG | Server ----------> DUT |
| 0:08:42.447697 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:08:42.450696 | LOG | End Test Step: Restore default settings |
| 0:08:42.455693 | LOG | Partial Verdict: PASS |
| 0:08:42.461689 | LOG | ========== |
| 0:08:42.468686 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_018 |
| 0:08:42.471684 | LOG | Final Verdict: PASS |

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|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_019_A |
| **Verdict** | PASS |
| **Date** | 2021-10-09 23:55:32 |
| **Comments** | Maximum Allowed Payload (Part 1) |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 |

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|---|---|---|
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | SF7BW250 Frequency | 868.100 |
| | FSK Frequency | 868.100 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.014090 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_019_A |
| 0:00:00.056067 | LOG | ========== |
| 0:00:00.058067 | LOG | Start Test Step: Device activation |
| 0:00:00.122030 | LOG | Activation process has finished successfully |
| 0:00:00.124031 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.126029 | LOG | DevAddr: 20202020 |
| 0:00:00.129024 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.131024 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.134023 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.137020 | LOG | End Test Step: Device activation |
| 0:00:00.140019 | LOG | Partial Verdict: PASS |
| 0:00:00.144016 | LOG | ========== |
| 0:00:00.148034 | LOG | ========== |
| 0:00:00.150014 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.163006 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.166004 | LOG | DUT Pre-condition activation completed |
| 0:00:00.170001 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.173020 | LOG | Partial Verdict: PASS |
| 0:00:00.176998 | LOG | ========== |
| 0:00:00.183995 | LOG | ========== |
| 0:00:00.185993 | LOG | Start Test Step: Initial settings for the test |
| 0:00:00.194987 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:00:00.302926 | LOG | PULL_DATA: 02 9476 02 3834383419003400 |
| 0:00:00.304925 | LOG | PULL_ACK: 02 9476 04 |
| 0:00:00.305924 | LOG | First PULL_DATA received |
| 0:00:01.292393 | LOG | PUSH_ACK: 02 3ac2 01 |
| 0:00:01.295393 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1737669514, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAoQoB+1bJQtKz'}]} |
| 0:00:01.297391 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aa1, FOpts: ), FPort: 01, FRMPayload: 054f, MIC: c942d2b3) |
| 0:00:01.299391 | LOG | Server <---------- DUT |
| 0:00:01.301389 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 073e, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: a6a600ab) |
| 0:00:01.304387 | LOG | Frame command sent to the DUT |
| 0:00:01.305387 | LOG | PULL_RESP: Protocol version = 02, Token = c30c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1739669514, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAPgfgAKumpgCr'}} |
| 0:00:01.307386 | LOG | Server ----------> DUT |
| 0:00:01.312383 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:00:01.316379 | LOG | End Test Step: Initial settings for the test |
| 0:00:01.320377 | LOG | Partial Verdict: PASS |

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| 0:00:01.325344 | LOG | ========== |
| 0:00:01.331341 | LOG | ========== |
| 0:00:01.333340 | LOG | Start Test Step: Uplink - Max Payload via Echo for datarate SF12BW125 |
| 0:00:01.345333 | LOG | Send MAC command block process starts |
| 0:00:06.287552 | LOG | PUSH_ACK: 02 3ac3 01 |
| 0:00:06.290550 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac3, Identifier = 00, JSON = {'rxpk': [{'tmst': 1742672459, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAogoBaWOl+irY'}]} |
| 0:00:06.291549 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aa2, FOpts: ), FPort: 01, FRMPayload: 0550, MIC: a5fa2ad8) |
| 0:00:06.293548 | LOG | Server <---------- DUT |
| 0:00:06.295546 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 073f, FOpts: ), FPort: 00, FRMPayload: 03000700010505d2ad84), MIC: ae757294) |
| 0:00:06.299545 | LOG | PULL_RESP: Protocol version = 02, Token = 31cf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1744672459, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAPwcAn+0c5GyVvv7zgK51cpQ='}} |
| 0:00:06.301543 | LOG | Server ----------> DUT |
| 0:00:06.304542 | LOG | TX_ACK: 02 31cf 05 3834383419003400 |
| 0:00:10.502155 | LOG | PULL_DATA: 02 d605 02 3834383419003400 |
| 0:00:10.504153 | LOG | PULL_ACK: 02 d605 04 |
| 0:00:12.606926 | LOG | PUSH_ACK: 02 3ac5 01 |
| 0:00:12.608925 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1748949285, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -12, 'size': 19, 'data': 'QCAgICCEowoDBwUHAX5sZZNPLg=='}]} |
| 0:00:12.610924 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0aa3, FOpts: 03070507), FPort: 01, FRMPayload: 0550, MIC: 65934f2e) |
| 0:00:12.611924 | LOG | Server <---------- DUT |
| 0:00:12.613923 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:12.614922 | LOG | Command Answer: 03070507 |
| 0:00:12.676908 | LOG | MAC command communication completed |
| 0:00:12.686882 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:17.595119 | LOG | PUSH_ACK: 02 3ac6 01 |
| 0:00:17.597118 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1753952261, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 13.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCpAoFBwFiK/X7loE='}]} |
| 0:00:17.599117 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0aa4, FOpts: 0507), FPort: 01, FRMPayload: 0550, MIC: f5fb9681) |
| 0:00:17.601117 | LOG | Server <---------- DUT |
| 0:00:17.603113 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0740, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 16ec307b) |
| 0:00:17.606113 | LOG | Frame command sent to the DUT |
| 0:00:17.608111 | LOG | PULL_RESP: Protocol version = 02, Token = 57af, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1754952261, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQAfgweTqDvLd9s7wsYVqvQAJ5subim/d/l/VfaWuCQzWPj2vt8Zo9+EFod7xvJq2P5z99hLFFuwwew=='}} |
| 0:00:17.610110 | LOG | Server ----------> DUT |

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|---|---|---|
| 0:00:17.614082 | LOG | TX_ACK: 02 57af 05 3834383419003400 |
| 0:00:20.552437 | LOG | PULL_DATA: 02 34cb 02 3834383419003400 |
| 0:00:20.553436 | LOG | PULL_ACK: 02 34cb 04 |
| 0:00:29.115565 | LOG | PUSH_ACK: 02 3ac7 01 |
| 0:00:29.117564 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1765447175, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -11, 'size': 64, 'data': 'QCAgICCApQrg/xCwfq43JY3oaDOYbsDT4jtavSCyZY6pic5D2ZFehd2T9Lft8sO37L6L7l1SIhDFhOosVoTSdw=='}]} |
| 0:00:29.119537 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aa5, FOpts: ), FPort: e0, FRMPayload: 080202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: 5684d277) |
| 0:00:29.121561 | LOG | Server <---------- DUT |
| 0:00:29.123560 | LOG | Answer in payload: 020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:29.124561 | LOG | Frame Command Payload in the Answer: 080202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:29.133554 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:29.136523 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:29.141519 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:30.632672 | LOG | PULL_DATA: 02 e948 02 3834383419003400 |
| 0:00:30.635674 | LOG | PULL_ACK: 02 e948 04 |
| 0:00:32.460632 | LOG | PUSH_ACK: 02 3ac8 01 |
| 0:00:32.461631 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac8, Identifier = 00, JSON = {'rxpk': [{'tmst': 1768798767, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCApgoB2gqLaB8Y'}]} |
| 0:00:32.462630 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aa6, FOpts: ), FPort: 01, FRMPayload: 0551, MIC: 8b681f18) |
| 0:00:32.464629 | LOG | Server <---------- DUT |
| 0:00:32.466648 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0741, FOpts: ), FPort: e0, FRMPayload: 080101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101, MIC: ffcd2b61) |
| 0:00:32.468645 | LOG | Frame command sent to the DUT |
| 0:00:32.469645 | LOG | PULL_RESP: Protocol version = 02, Token = 50fe, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1770798767, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQQfgq6H0l1HbsJJZx8DBSABw7SG/w11jk3ucZvqnOv5RuBhGXz7eytxbAaR+Pfg0CDEFN/Zj/80rYQ=='}} |
| 0:00:32.471644 | LOG | Server ----------> DUT |
| 0:00:32.476640 | LOG | TX_ACK: 02 50fe 05 3834383419003400 |
| 0:00:39.104882 | LOG | PUSH_ACK: 02 3ac9 01 |
| 0:00:39.106880 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ac9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1775454562, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -12, 'size': 64, 'data': 'QCAgICCApwrg1LeywOFywBUAXCa0lDvN+68F9p75fkICJ7x/SRYK+/gxCLuIiv0m81f8BZMprhlG0rN0pL+rBA=='}]} |
| 0:00:39.108880 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aa7, FOpts: ), FPort: e0, FRMPayload: 080202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: a4bfab04) |
| 0:00:39.110877 | LOG | Server <---------- DUT |

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| 0:00:39.112877 | LOG | Answer in payload: 0202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:39.137832 | LOG | Frame Command Payload in the Answer: 0802020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:39.143829 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:39.148826 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:39.152824 | LOG | End Test Step: Uplink - Max Payload via Echo for datarate SF12BW125 |
| 0:00:39.157821 | LOG | Partial Verdict: PASS |
| 0:00:39.163819 | LOG | ========== |
| 0:00:39.168816 | LOG | ========== |
| 0:00:39.170815 | LOG | Start Test Step: Uplink - Max Payload via Echo for datarate SF11BW125 |
| 0:00:39.182809 | LOG | Send MAC command block process starts |
| 0:00:40.661995 | LOG | PULL_DATA: 02 435e 02 3834383419003400 |
| 0:00:40.663995 | LOG | PULL_ACK: 02 435e 04 |
| 0:00:42.463940 | LOG | PUSH_ACK: 02 3acb 01 |
| 0:00:42.465939 | LOG | PUSH_DATA: Protocol version = 02, Token = 3acb, Identifier = 00, JSON = {'rxpk': [{'tmst': 1778804778, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAqAoBWQh/TJ9A'}]} |
| 0:00:42.466938 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aa8, FOpts: ), FPort: 01, FRMPayload: 0552, MIC: 7f4c9f40) |
| 0:00:42.467938 | LOG | Server <---------- DUT |
| 0:00:42.469936 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0742, FOpts: ), FPort: 00, FRMPayload: 03100700010505d2ad84), MIC: ebe53664) |
| 0:00:42.471936 | LOG | PULL_RESP: Protocol version = 02, Token = c396, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1780804778, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAQgcAUjJWSrDWx1rESuvlNmQ='}} |
| 0:00:42.473934 | LOG | Server ----------> DUT |
| 0:00:42.477932 | LOG | TX_ACK: 02 c396 05 3834383419003400 |
| 0:00:47.045936 | LOG | PUSH_ACK: 02 3acc 01 |
| 0:00:47.047936 | LOG | PUSH_DATA: Protocol version = 02, Token = 3acc, Identifier = 00, JSON = {'rxpk': [{'tmst': 1783394085, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -12, 'size': 19, 'data': 'QCAgICCEqQoDBwUHAW+Fo42fCQ=='}]} |
| 0:00:47.049936 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0aa9, FOpts: 03070507), FPort: 01, FRMPayload: 0552, MIC: a38d9f09) |
| 0:00:47.051933 | LOG | Server <---------- DUT |
| 0:00:47.053932 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:47.054932 | LOG | Command Answer: 03070507 |
| 0:00:47.128859 | LOG | MAC command communication completed |
| 0:00:47.138853 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:50.871732 | LOG | PULL_DATA: 02 512d 02 3834383419003400 |
| 0:00:50.873728 | LOG | PULL_ACK: 02 512d 04 |
| 0:00:51.985097 | LOG | PUSH_ACK: 02 3acd 01 |
| 0:00:51.987095 | LOG | PUSH_DATA: Protocol version = 02, Token = 3acd, Identifier = 00, JSON = {'rxpk': [{'tmst': 1788316549, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCqgoFBwEusd9TqU4='}]} |
| 0:00:51.989094 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0aaa, FOpts: 0507), FPort: 01, FRMPayload: 0552, MIC: df53a94e) |
| 0:00:51.990093 | LOG | Server <---------- DUT |

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| 0:00:51.993092 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0743, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 1a189c23) |
| 0:00:51.996090 | LOG | Frame command sent to the DUT |
| 0:00:51.998089 | LOG | PULL_RESP: Protocol version = 02, Token = 5410, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1789316549, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF11BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAAQwfgYZszdEvXB9Rkn3ibeTz757bn9zv5xOKnHMoDUJcMVXsE16jlf8vXYvoVfhdF23xhyLaAGhicIw=='}} |
| 0:00:51.999089 | LOG | Server ----------> DUT |
| 0:00:52.005085 | LOG | TX_ACK: 02 5410 05 3834383419003400 |
| 0:00:57.903777 | LOG | PUSH_ACK: 02 3ace 01 |
| 0:00:57.905775 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ace, Identifier = 00, JSON = {'rxpk': [{'tmst': 1794235054, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -12, 'size': 64, 'data': 'QCAgICCAqwrgcNbvaRuFG2D00JrNiqWv6eMPGyjO14CVDovUlair6NL0sEwkQ6IzlnZR9enA9J9f1Wc8d+KllA=='}]} |
| 0:00:57.906774 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aab, FOpts: ), FPort: e0, FRMPayload: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202), MIC: 77e2a594) |
| 0:00:57.908774 | LOG | Server <---------- DUT |
| 0:00:57.910773 | LOG | Answer in payload: 02020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:57.911772 | LOG | Frame Command Payload in the Answer: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:57.916769 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:57.919767 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:00:57.926763 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:01.031996 | LOG | PULL_DATA: 02 5040 02 3834383419003400 |
| 0:01:01.035012 | LOG | PULL_ACK: 02 5040 04 |
| 0:01:01.967464 | LOG | PUSH_ACK: 02 3acf 01 |
| 0:01:01.969463 | LOG | PUSH_DATA: Protocol version = 02, Token = 3acf, Identifier = 00, JSON = {'rxpk': [{'tmst': 1798322526, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCArAoBaTfTUzfV'}]} |
| 0:01:01.971463 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aac, FOpts: ), FPort: 01, FRMPayload: 0553, MIC: d35337d5) |
| 0:01:01.972461 | LOG | Server <---------- DUT |
| 0:01:01.974461 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0744, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 7aa30e81) |
| 0:01:01.977459 | LOG | Frame command sent to the DUT |
| 0:01:01.979458 | LOG | PULL_RESP: Protocol version = 02, Token = dffa, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1800322526, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARAfgtHYFESRQ68HaqmOJbmfKpbBCCPhcQqUIehkqRnjNTfQRL0eT0yMduz/CngMynmaA+maPeqMOgQ=='}} |
| 0:01:01.980457 | LOG | Server ----------> DUT |
| 0:01:01.984455 | LOG | TX_ACK: 02 dffa 05 3834383419003400 |
| 0:01:07.909084 | LOG | PUSH_ACK: 02 3ad0 01 |

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| 0:01:07.911083 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad0, Identifier = 00, JSON = {'rxpk': [{'tmst': 1804241007, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 15.8, 'rssi': -14, 'size': 64, 'data': 'QCAgICCArQrgNS77wUmoQ28vOZ0S/G4nxnX6vpfiqWHZTdbYEXbpqK6feh0OLevODoyz6Ftk9XW4vqdjhHk9zA=='}]} |
| 0:01:07.913082 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aad, FOpts: ), FPort: e0, FRMPayload: 080202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: 84793dcc) |
| 0:01:07.914081 | LOG | Server <---------- DUT |
| 0:01:07.916080 | LOG | Answer in payload: 020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:07.918079 | LOG | Frame Command Payload in the Answer: 080202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:07.922077 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:07.924075 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:07.928073 | LOG | End Test Step: Uplink - Max Payload via Echo for datarate SF11BW125 |
| 0:01:07.932071 | LOG | Partial Verdict: PASS |
| 0:01:07.936069 | LOG | ========== |
| 0:01:07.945064 | LOG | ========== |
| 0:01:07.950061 | LOG | Start Test Step: Uplink - Max Payload via Echo for datarate SF10BW125 |
| 0:01:07.963054 | LOG | Send MAC command block process starts |
| 0:01:11.222199 | LOG | PULL_DATA: 02 be7d 02 3834383419003400 |
| 0:01:11.224198 | LOG | PULL_ACK: 02 be7d 04 |
| 0:01:11.991762 | LOG | PUSH_ACK: 02 3ad2 01 |
| 0:01:11.993760 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1808328423, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -17, 'size': 15, 'data': 'QCAgICCArgoB/WoR5QNN'}]} |
| 0:01:11.994761 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aae, FOpts: ), FPort: 01, FRMPayload: 0554, MIC: 11e5034d) |
| 0:01:11.995759 | LOG | Server <---------- DUT |
| 0:01:11.997758 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0745, FOpts: ), FPort: 00, FRMPayload: 03200700010505d2ad84), MIC: 3cb443f7) |
| 0:01:11.999757 | LOG | PULL_RESP: Protocol version = 02, Token = ed43, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1810328423, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAARQcAH1xJWV6Bmc+oaTy0Q/c='}} |
| 0:01:12.001756 | LOG | Server ----------> DUT |
| 0:01:12.005753 | LOG | TX_ACK: 02 ed43 05 3834383419003400 |
| 0:01:16.671099 | LOG | PUSH_ACK: 02 3ad3 01 |
| 0:01:16.673098 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad3, Identifier = 00, JSON = {'rxpk': [{'tmst': 1813005809, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 19, 'data': 'QCAgICCErwoDBwUHAQqLvkAGvA=='}]} |
| 0:01:16.674097 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0aaf, FOpts: 03070507), FPort: 01, FRMPayload: 0554, MIC: be4006bc) |
| 0:01:16.675097 | LOG | Server <---------- DUT |
| 0:01:16.677096 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:16.679096 | LOG | Command Answer: 03070507 |
| 0:01:16.745057 | LOG | MAC command communication completed |
| 0:01:16.756051 | LOG | Send Test Command EchoPayloadReq process starts |

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| 0:01:21.242028 | LOG | PULL_DATA: 02 ec91 02 3834383419003400 |
| 0:01:21.244027 | LOG | PULL_ACK: 02 ec91 04 |
| 0:01:21.660792 | LOG | PUSH_ACK: 02 3ad4 01 |
| 0:01:21.661792 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1818008745, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCsAoFBwEKqMmjTM8='}]} |
| 0:01:21.663788 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ab0, FOpts: 0507), FPort: 01, FRMPayload: 0554, MIC: c9a34ccf) |
| 0:01:21.667788 | LOG | Server <---------- DUT |
| 0:01:21.671789 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0746, FOpts: ), FPort: e0, FRMPayload: 0801010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: e0ee768b) |
| 0:01:21.676783 | LOG | Frame command sent to the DUT |
| 0:01:21.679781 | LOG | PULL_RESP: Protocol version = 02, Token = 9f22, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1819008745, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARgfg8XBs86p0WXTF6Cthngbk+65Sf02wyKFStZ3w3eWKTlfHDewlZcu2KwfUHk/zt6TrowrW4O52iw=='}} |
| 0:01:21.682778 | LOG | Server ----------> DUT |
| 0:01:21.688778 | LOG | TX_ACK: 02 9f22 05 3834383419003400 |
| 0:01:27.021119 | LOG | PUSH_ACK: 02 3ad5 01 |
| 0:01:27.023117 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1823396076, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -14, 'size': 64, 'data': 'QCAgICCAsQrgo/9udDBrD0XDGXz1KJdDuw5qjcDJtN6XmxcOCJZLfvCbQzmgDuRp7ekrumfudp7TpQKIDIP8Cg=='}]} |
| 0:01:27.024090 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ab1, FOpts: ), FPort: e0, FRMPayload: 0802020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: 0c83fc0a) |
| 0:01:27.026114 | LOG | Server <---------- DUT |
| 0:01:27.027116 | LOG | Answer in payload: 0202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:27.029114 | LOG | Frame Command Payload in the Answer: 0802020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:27.032112 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:27.037109 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:27.041108 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:31.341661 | LOG | PULL_DATA: 02 48c7 02 3834383419003400 |
| 0:01:31.346657 | LOG | PULL_ACK: 02 48c7 04 |
| 0:01:31.651454 | LOG | PUSH_ACK: 02 3ad6 01 |
| 0:01:31.653452 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1828015980, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAsgoB2cZlG0M0'}]} |
| 0:01:31.655481 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ab2, FOpts: ), FPort: 01, FRMPayload: 0555, MIC: 651b4334) |
| 0:01:31.656470 | LOG | Server <---------- DUT |
| 0:01:31.658468 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0747, FOpts: ), FPort: e0, FRMPayload: 0801010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: cae367c1) |

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| 0:01:31.660466 | LOG | Frame command sent to the DUT |
| 0:01:31.662467 | LOG | PULL_RESP: Protocol version = 02, Token = 8e14, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1830015980, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 64, 'data': 'YCAgICAARwfg0/oEUOGlI/8sm2r5uSFTA0538Y0lxdEz/40wi6y8ePkw0VjPqsEM3tW97I77MRSEH54VyuNnwQ==''}} |
| 0:01:31.663466 | LOG | Server ----------> DUT |
| 0:01:31.668463 | LOG | TX_ACK: 02 8e14 05 3834383419003400 |
| 0:01:37.036419 | LOG | PUSH_ACK: 02 3ad7 01 |
| 0:01:37.038420 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1833401976, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -15, 'size': 64, 'data': 'QCAgICCAswrgRNLPKXwrb933ZZVQrME2J/4ICjeBqvELHr45Yz88avFsLt7JpSlAVh2VcygmmIoS77lvv6Z0MA==''}]} |
| 0:01:37.039418 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ab3, FOpts: ), FPort: e0, FRMPayload: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: bfa67430) |
| 0:01:37.040418 | LOG | Server <---------- DUT |
| 0:01:37.041392 | LOG | Answer in payload: 02020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:37.043416 | LOG | Frame Command Payload in the Answer: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:37.049414 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:37.053410 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:37.056397 | LOG | End Test Step: Uplink - Max Payload via Echo for datarate SF10BW125 |
| 0:01:37.060376 | LOG | Partial Verdict: PASS |
| 0:01:37.066391 | LOG | ========== |
| 0:01:37.072387 | LOG | ========== |
| 0:01:37.074386 | LOG | Start Test Step: Uplink - Max Payload via Echo for datarate SF9BW125 |
| 0:01:37.086363 | LOG | Send MAC command block process starts |
| 0:01:41.531833 | LOG | PULL_DATA: 02 9dd3 02 3834383419003400 |
| 0:01:41.533832 | LOG | PULL_ACK: 02 9dd3 04 |
| 0:01:41.683765 | LOG | PUSH_ACK: 02 3ad9 01 |
| 0:01:41.685762 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ad9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1838021848, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAtAoBNjlGn3gg''}]} |
| 0:01:41.687765 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ab4, FOpts: ), FPort: 01, FRMPayload: 0556, MIC: 469f7820) |
| 0:01:41.688761 | LOG | Server <---------- DUT |
| 0:01:41.690760 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0748, FOpts: ), FPort: 00, FRMPayload: 03300700010505d2ad84), MIC: 74abe87d) |
| 0:01:41.693759 | LOG | PULL_RESP: Protocol version = 02, Token = b4cb, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1840021848, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAASAcAwoLjpSiKLKW3CnSr6H0=''}} |
| 0:01:41.695760 | LOG | Server ----------> DUT |
| 0:01:41.700754 | LOG | TX_ACK: 02 b4cb 05 3834383419003400 |
| 0:01:46.519022 | LOG | PUSH_ACK: 02 3ada 01 |
| 0:01:46.521021 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ada, Identifier = 00, JSON = {'rxpk': [{'tmst': 1842880558, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -16, 'size': 19, 'data': 'QCAgICCEtQoDBwUHAZTxfozZCw=='}]} |
| 0:01:46.522021 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0ab5, FOpts: 03070507), FPort: 01, FRMPayload: 0556, MIC: 7e8cd90b) |
| 0:01:46.524020 | LOG | Server <---------- DUT |
| 0:01:46.525019 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:46.526019 | LOG | Command Answer: 03070507 |
| 0:01:46.589982 | LOG | MAC command communication completed |
| 0:01:46.600977 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:51.510182 | LOG | PUSH_ACK: 02 3adb 01 |
| 0:01:51.512181 | LOG | PUSH_DATA: Protocol version = 02, Token = 3adb, Identifier = 00, JSON = {'rxpk': [{'tmst': 1847864366, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCtgoFBwFlnRyvSv4='}]} |
| 0:01:51.513181 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ab6, FOpts: 0507), FPort: 01, FRMPayload: 0556, MIC: 1caf4afe) |
| 0:01:51.515180 | LOG | Server <---------- DUT |
| 0:01:51.516179 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0749, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| | | 2020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:57.075019 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:57.079015 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:01:57.087010 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:02:01.486506 | LOG | PUSH_ACK: 02 3add 01 |
| 0:02:01.491506 | LOG | PUSH_DATA: Protocol version = 02, Token = 3add, Identifier = 00, JSON = {'rxpk': [{'tmst': 1857870352, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAuAoBMzALy7RX'}]} |
| 0:02:01.492505 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ab8, FOpts: ), FPort: 01, FRMPayload: 0557, MIC: 0bcbb457) |
| 0:02:01.493505 | LOG | Server <---------- DUT |
| 0:02:01.495504 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 074a, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| 0:02:07.048611 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:02:07.051582 | LOG | End Test Step: Uplink - Max Payload via Echo for datarate SF9BW125 |
| 0:02:07.056607 | LOG | Partial Verdict: PASS |
| 0:02:07.061603 | LOG | ========== |
| 0:02:07.068601 | LOG | ========== |
| 0:02:07.071598 | LOG | Start Test Step: Uplink - Max Payload via Echo for datarate SF8BW125 |
| 0:02:07.091557 | LOG | Send MAC command block process starts |
| 0:02:11.528062 | LOG | PUSH_ACK: 02 3ae1 01 |
| 0:02:11.530061 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ae1, Identifier = 00, JSON = {'rxpk': [{'tmst': 1867877620, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -19, 'size': 15, 'data': 'QCAgICCAugoBO8RO/OoH'}]} |
| 0:02:11.532061 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aba, FOpts: ), FPort: 01, FRMPayload: 0558, MIC: 4efcea07) |
| 0:02:11.533061 | LOG | Server <---------- DUT |
| 0:02:11.535060 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 074b, FOpts: ), FPort: 00, FRMPayload: 03400700010505d2ad84), MIC: dcc8efd6) |
| 0:02:11.538057 | LOG | PULL_RESP: Protocol version = 02, Token = 070a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1869877620, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAASwcA1RWzGtISSL4gS9zI79Y='}} |
| 0:02:11.540056 | LOG | Server ----------> DUT |
| 0:02:11.543055 | LOG | TX_ACK: 02 070a 05 3834383419003400 |
| 0:02:11.971810 | LOG | PULL_DATA: 02 971b 02 3834383419003400 |
| 0:02:11.972813 | LOG | PULL_ACK: 02 971b 04 |
| 0:02:16.477248 | LOG | PUSH_ACK: 02 3ae2 01 |
| 0:02:16.479246 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ae2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1872820014, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 19, 'data': 'QCAgICCEuwoDBwUHARtnLqjLKA=='}]} |
| 0:02:16.481249 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0abb, FOpts: 03070507), FPort: 01, FRMPayload: 0558, MIC: 2ea8cb28) |
| 0:02:16.482244 | LOG | Server <---------- DUT |
| 0:02:16.484244 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:16.486245 | LOG | Command Answer: 03070507 |
| 0:02:16.547180 | LOG | MAC command communication completed |
| 0:02:16.559172 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:02:21.468378 | LOG | PUSH_ACK: 02 3ae3 01 |
| 0:02:21.470377 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ae3, Identifier = 00, JSON = {'rxpk': [{'tmst': 1877812694, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCvAoFBwGsCcB6cAY='}]} |
| 0:02:21.471376 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0abc, FOpts: 0507), FPort: 01, FRMPayload: 0558, MIC: c07a7006) |
| 0:02:21.473374 | LOG | Server <---------- DUT |
| 0:02:21.475373 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 074c, FOpts: ), FPort: e0, FRMPayload: 0801010101010101010101

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| 0:02:21.478371 | LOG | Frame command sent to the DUT |
| 0:02:21.480370 | LOG | PULL_RESP: Protocol version = 02, Token = 4865, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1878812694, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF8BW125', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAATAfgwXgYYaDzy2IcSEvQ/GQWR/PVkkDdODVHZG20BfU7JrsXKVF5lZsNbIZyzCDA7ZoYdFGOlQG/r2Jf3laCgaemnnqXn+fDtePn698f6DdtVYddgMPsHrvEA3gES1vaTLgBo0+/ZdDNzn8o0XzHv96Tkg9HMft+tuUJ2Z8UskDW8riAGbKc2Wqr3aE0MjkrXMWrFx4c5xB/Ta9CKHgfC3yH+fVJ8E1gDfzzli0uccjGhW5v3aSDLN5MeGsYAk0K1ULElXjDgMMMsynKDjw8d5TRATGPORCpuneQ9+9hRhDNlZmZ6omWhbvHCZTG75M/BDh1+uUyrSPo'}} |
| 0:02:21.481369 | LOG | Server ----------> DUT |
| 0:02:21.485368 | LOG | TX_ACK: 02 4865 05 3834383419003400 |
| 0:02:22.111014 | LOG | PULL_DATA: 02 b70a 02 3834383419003400 |
| 0:02:22.113042 | LOG | PULL_ACK: 02 b70a 04 |
| 0:02:27.131187 | LOG | PUSH_ACK: 02 3ae4 01 |
| 0:02:27.133186 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ae4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1883488904, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 255, 'data': 'QCAgICCAvQrg405xvyV50jcZakq2mKLrxV7rM7y6ADukvLmK/sCD5ZX/gSo+N22GecutNfSs5hRjzP9a++ZLvGQlCFwEHfFUqeQI5k6Rmw/+NpLWl5kHteNaeHKTg/vbIBXgymciJaKSnt6NDuWWhfbM1Y8gjROqs+8Vt6rBv55SniePkHNsDXcA8IbGM+hzNv98Mbv+vL9M+p0KSVjgZAiXp5xt9x+Vf6KucbjEYwU3NPEal40uyvFyn/F53XgEdwicVEKFAZ60FEc4pMaWv3tHwjT/H5YmcSaQJ6P7NAxwHjU3+q4aW7daZ+p/JFOQnz+h145nb6P0LpP4RScs'}]} |
| 0:02:27.135184 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0abd, FOpts: ), FPort: e0, FRMPayload: 0802020202020202020202

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| 0:02:31.457695 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ae5, Identifier = 00, JSON = {'rxpk': [{'tmst': 1887818616, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAvgoBcB67babI'}]} |
| 0:02:31.461692 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0abe, FOpts: ), FPort: 01, FRMPayload: 0559, MIC: bb6da6c8) |
| 0:02:31.465693 | LOG | Server <---------- DUT |
| 0:02:31.471688 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 074d, FOpts: ), FPort: e0, FRMPayload: 0801010101010101010101

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| 0:02:51.479306 | LOG | Server <---------- DUT |
| 0:02:51.482304 | LOG | Resend the MAC Block command. May the DUT did not listen |
| 0:02:51.486300 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 074f, FOpts: ), FPort: 00, FRMPayload: 03500700010505d2ad84), MIC: 590bc2fe) |
| 0:02:51.489298 | LOG | PULL_RESP: Protocol version = 02, Token = 7ada, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1909834576, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAATwcAcvqhgpzkPs5Il1kLwv4='}} |
| 0:02:51.491299 | LOG | Server ----------> DUT |
| 0:02:51.495294 | LOG | TX_ACK: 02 7ada 05 3834383419003400 |
| 0:02:52.540702 | LOG | PULL_DATA: 02 51b4 02 3834383419003400 |
| 0:02:52.542701 | LOG | PULL_ACK: 02 51b4 04 |
| 0:02:56.432486 | LOG | PUSH_ACK: 02 3aeb 01 |
| 0:02:56.434484 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aeb, Identifier = 00, JSON = {'rxpk': [{'tmst': 1912796378, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 19, 'data': 'QCAgICCEwwoDBwUHASXW+3OMVQ=='}]} |
| 0:02:56.437489 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0ac3, FOpts: 03070507), FPort: 01, FRMPayload: 055a, MIC: fb738c55) |
| 0:02:56.439484 | LOG | Server <---------- DUT |
| 0:02:56.440487 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:56.441486 | LOG | Command Answer: 03070507 |
| 0:02:56.510460 | LOG | MAC command communication completed |
| 0:02:56.523452 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:03:01.420649 | LOG | PUSH_ACK: 02 3aec 01 |
| 0:03:01.422648 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aec, Identifier = 00, JSON = {'rxpk': [{'tmst': 1917799314, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCxAoFBwHD1xV6oIw='}]} |
| 0:03:01.423647 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ac4, FOpts: 0507), FPort: 01, FRMPayload: 055a, MIC: 157aa08c) |
| 0:03:01.424647 | LOG | Server <---------- DUT |
| 0:03:01.427662 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0750, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| 0:03:02.690943 | LOG | PULL_DATA: 02 fd3a 02 3834383419003400 |
| 0:03:02.694942 | LOG | PULL_ACK: 02 fd3a 04 |
| 0:03:06.866581 | LOG | PUSH_ACK: 02 3aed 01 |
| 0:03:06.868580 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aed, Identifier = 00, JSON = {'rxpk': [{'tmst': 1923209258, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 255, 'data': 'QCAgICCAxQrgoXjKrsMYB4cb11kGHQLt8kRF1RhRqW+N6zCrKqs6e9lVlgY OcSVFubxsKwS/plzqqNwUmO81HEsBruikJAh/t9uI1LRCEHy3aPzHyQz2oXda9 Kb2eGpqBVg3qGuH0M0yuIQHXrsmcHWLYrkHygpsM0L98xHdlYC0L2hMaAa OZYfipgqeUXxVvQnJnmIs+XS/UZBl1fANl2YiQXgtYy1dfpHYwNHRdPqd9Sw5 OvlWj/Cffh5xwI5GBh3O5Gb8S8bxAQVghgkyZGMR1Q2Bu0ne4VVYfJFG7mv UcagD1mIVDuJRO72mR01RsALdP1mJPjxyFkDNkyhE'}]} |
| 0:03:06.870577 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ac5, FOpts: ), FPort: e0, FRMPayload: 080202020202020202020202020202020202020202020202020202020202020 2020202020202020202020202020202020202020202020202020202020202020202 0202020202020202020202020202020202020202020202020202020202020202020 2020202020202020202020202020202020202020202020202020202020202020202 0202020202020202020202020202020202020202020202020202020202020202020 2020202020202020202020202020202020202020202020202020202020202020202 0202020202020202020202020202020202020202020202020202020202020202020 2020202020202020202020202020202020202020202020202020202020202020202 0202020202020202020202020202020202020202020202020202020202020202020 202020202020202, MIC: cd932844) |
| 0:03:06.871576 | LOG | Server <---------- DUT |
| 0:03:06.872576 | LOG | Answer in payload: 020202020202020202020202020202020202020202020202020202020202020 2020202020202020202020202020202020202020202020202020202020202020202 0202

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| 0:03:16.853899 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:03:16.858897 | LOG | Send Test Command EchoPayloadReq process completed |
| 0:03:16.861896 | LOG | End Test Step: Uplink - Max Payload via Echo for datarate SF7BW125 |
| 0:03:16.866861 | LOG | Partial Verdict: PASS |
| 0:03:16.870857 | LOG | ========== |
| 0:03:16.878872 | LOG | ========== |
| 0:03:16.880853 | LOG | Start Test Step: Uplink - Max Payload via Echo for optional datarate SF7BW250 |
| 0:03:16.890847 | LOG | Send NewChannelReq process starts |
| 0:03:21.417092 | LOG | PUSH_ACK: 02 3af1 01 |
| 0:03:21.419090 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af1, Identifier = 00, JSON = {'rxpk': [{'tmst': 1937807301, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAyAoBx9vbA5RE'}]} |
| 0:03:21.421089 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ac8, FOpts: ), FPort: 01, FRMPayload: 055c, MIC: db039444) |
| 0:03:21.422088 | LOG | Server <---------- DUT |
| 0:03:21.424088 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0752, FOpts: ), FPort: 00, FRMPayload: 070328768466), MIC: b6b9183f) |
| 0:03:21.427086 | LOG | PULL_RESP: Protocol version = 02, Token = 8340, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1939807301, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAUgcA8R62j/UZtrkYPw=='}} |
| 0:03:21.429085 | LOG | Server ----------> DUT |
| 0:03:21.432085 | LOG | TX_ACK: 02 8340 05 3834383419003400 |
| 0:03:22.901247 | LOG | PULL_DATA: 02 984e 02 3834383419003400 |
| 0:03:22.902246 | LOG | PULL_ACK: 02 984e 04 |
| 0:03:26.451229 | LOG | PUSH_ACK: 02 3af2 01 |
| 0:03:26.455225 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af2, Identifier = 00, JSON = {'rxpk': [{'tmst': 1942815191, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCyQoHAwEzz3t6Q48='}]} |
| 0:03:26.459223 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ac9, FOpts: 0703), FPort: 01, FRMPayload: 055c, MIC: 7b7a438f) |
| 0:03:26.462221 | LOG | Server <---------- DUT |
| 0:03:26.465221 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:26.467220 | LOG | Command Answer: 0703 |
| 0:03:26.471217 | LOG | MAC command communication completed |
| 0:03:26.475214 | LOG | Send MAC command block process starts |
| 0:03:31.442277 | LOG | PUSH_ACK: 02 3af3 01 |
| 0:03:31.444278 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af3, Identifier = 00, JSON = {'rxpk': [{'tmst': 1947814375, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAygoBsuzaSr4B'}]} |
| 0:03:31.445277 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aca, FOpts: ), FPort: 01, FRMPayload: 055c, MIC: da4abe01) |
| 0:03:31.447275 | LOG | Server <---------- DUT |
| 0:03:31.449274 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0753, FOpts: ), FPort: 00, FRMPayload: 03600f00010505d2ad84), MIC: fc826784) |
| 0:03:31.452272 | LOG | PULL_RESP: Protocol version = 02, Token = 2c23, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1949814375, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAUwcAJlGholocDjgtUfyCZ4Q='}} |
| 0:03:31.453273 | LOG | Server ----------> DUT |
| 0:03:31.457269 | LOG | TX_ACK: 02 2c23 05 3834383419003400 |

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| 0:03:32.921276 | LOG | PULL_DATA: 02 6de8 02 3834383419003400 |
| 0:03:32.924275 | LOG | PULL_ACK: 02 6de8 04 |
| 0:03:36.463262 | LOG | PUSH_ACK: 02 3af4 01 |
| 0:03:36.465261 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af4, Identifier = 00, JSON = {'rxpk': [{'tmst': 1952817318, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAywoBLQp95Q+D'}]} |
| 0:03:36.467260 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0acb, FOpts: ), FPort: 01, FRMPayload: 055c, MIC: 7de50f83) |
| 0:03:36.468259 | LOG | Server <---------- DUT |
| 0:03:36.470258 | LOG | MAC command not received because FPort field is not set to 0 and FOpts field is empty |
| 0:03:41.465416 | LOG | PUSH_ACK: 02 3af6 01 |
| 0:03:41.467415 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af6, Identifier = 00, JSON = {'rxpk': [{'tmst': 1957820246, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAzAoBEnJVfqY4'}]} |
| 0:03:41.469415 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0acc, FOpts: ), FPort: 01, FRMPayload: 055c, MIC: 557ea638) |
| 0:03:41.470413 | LOG | Server <---------- DUT |
| 0:03:41.471415 | LOG | Resend the MAC Block command. May the DUT did not listen |
| 0:03:41.473413 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0754, FOpts: ), FPort: 00, FRMPayload: 03600f00010505d2ad84), MIC: df486ccb) |
| 0:03:41.476411 | LOG | PULL_RESP: Protocol version = 02, Token = 826d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1959820246, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAVAcAY0qYtWZcksqAyd9IbMs='}} |
| 0:03:41.477409 | LOG | Server ----------> DUT |
| 0:03:41.481408 | LOG | TX_ACK: 02 826d 05 3834383419003400 |
| 0:03:42.950872 | LOG | PULL_DATA: 02 8e2b 02 3834383419003400 |
| 0:03:42.952870 | LOG | PULL_ACK: 02 8e2b 04 |
| 0:03:46.419898 | LOG | PUSH_ACK: 02 3af7 01 |
| 0:03:46.421896 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af7, Identifier = 00, JSON = {'rxpk': [{'tmst': 1962803954, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -20, 'size': 19, 'data': 'QCAgICCEzQoDBwUHAYF5jWquRA=='}]} |
| 0:03:46.422897 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0acd, FOpts: 03070507), FPort: 01, FRMPayload: 055c, MIC: 8d6aae44) |
| 0:03:46.423896 | LOG | Server <---------- DUT |
| 0:03:46.425895 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:46.426895 | LOG | Command Answer: 03070507 |
| 0:03:46.489857 | LOG | MAC command communication completed |
| 0:03:46.502850 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:03:51.462035 | LOG | PUSH_ACK: 02 3af8 01 |
| 0:03:51.466028 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af8, Identifier = 00, JSON = {'rxpk': [{'tmst': 1967808254, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCzgoFBwFI+GhhDdo='}]} |
| 0:03:51.470026 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ace, FOpts: 0507), FPort: 01, FRMPayload: 055c, MIC: 68610dda) |
| 0:03:51.474023 | LOG | Server <---------- DUT |
| 0:03:51.479026 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0755, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010 |

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| 0:03:51.486015 | LOG | Frame command sent to the DUT |
| 0:03:51.488014 | LOG | PULL_RESP: Protocol version = 02, Token = 73ba, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1968808254, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW250', 'freq': 868.1, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 255, 'data': 'YCAgICAAVQfggmsQIk37Wc37s6glqXXbGPzA4afAFWoJrGP0GE671+pJeJZHWkERS+YjuTcpeUJ5VqGJ2RNp7PsWspidx4s/dm8Y237kyAkTu6XNq4zqM1I6bdTC8AD6mWDUVNC4TBbujS5wj10mny9Xt0LLGVJms/RKSZ6KP/C51G2HDa6Ko7VpdByYMv8YE5Q3qKlgywRlnShaw7Ev+4oAJkWT2hTSMQGYkCxTMd2pt4nXA5Pe7hHwBlXgieUTHOdS0XTUgI3xrAUNy88zD0nqdRxXpVJ5/RZDN5j1BwMIAlbPLradfVzd8eLmkrm3Ftdo/4LPhKMZfpE441Wk'}} |
| 0:03:51.490013 | LOG | Server ----------> DUT |
| 0:03:51.496009 | LOG | TX_ACK: 02 73ba 05 3834383419003400 |
| 0:03:52.961176 | LOG | PULL_DATA: 02 657b 02 3834383419003400 |
| 0:03:52.963174 | LOG | PULL_ACK: 02 657b 04 |
| 0:03:56.681079 | LOG | PUSH_ACK: 02 3af9 01 |
| 0:03:56.683058 | LOG | PUSH_DATA: Protocol version = 02, Token = 3af9, Identifier = 00, JSON = {'rxpk': [{'tmst': 1973045548, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -20, 'size': 255, 'data': 'QCAgICCAzwrghkAYV4WsKw0SU43QU7mlzaraUB42W78CqA5pxC7JaHkCM/WNVPf5VWdw6JgcKA6G8X0WUqAUZAO4fILAhsPTQIbbbYrUm9AL76ZpGVLqZSACJwUjiNC8BrJRwCDp7UM3aEhZ1jHU8r6N07QV00kOQOkPRFefB0IaC13aA8NFEquErKfXgYVtztf02Kjphhf10Vbir7dT+KyUgrpRKGo8Y9TfB4L64vkyjRulyIBS5mMDF75c/njCnQDrpCjdFrwcGA7s0cP5A4mPQG6JuErlW022/6Ha2JgDrlmpKliyMlSu6347a2+U7sxPOA3C5AwT2HiR2YA+'}]} |
| 0:03:56.685058 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0acf, FOpts: ), FPort: e0, FRMPayload: 0802020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020<br>202020202020202, MIC: 91d9803e) |
| 0:03:56.686057 | LOG | Server <---------- DUT |
| 0:03:56.687056 | LOG | Answer in payload: 0202020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020<br>2020202020202 |
| 0:03:56.689055 | LOG | Frame Command Payload in the Answer: 0802020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020<br>2020202020202020202020202020202020202020202020202020202020202020202<br>0202020202020202020202020202020202020202020202020202020202020202020 |

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| | | 020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: afa8bee3) |
| 0:04:06.703774 | LOG | Server <---------- DUT |
| 0:04:06.704773 | LOG | Answer in payload: 020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202

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| 0:04:21.503555 | LOG | PUSH_DATA: Protocol version = 02, Token = 3aff, Identifier = 00, JSON = {'rxpk': [{'tmst': 1997853379, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA1AoBQHglotuP'}]} |
| 0:04:21.505537 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ad4, FOpts: ), FPort: 01, FRMPayload: 055e, MIC: 25a2db8f) |
| 0:04:21.506536 | LOG | Server <---------- DUT |
| 0:04:21.508534 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0758, FOpts: ), FPort: 00, FRMPayload: 070300000050), MIC: 537fdcab) |
| 0:04:21.511534 | LOG | PULL_RESP: Protocol version = 02, Token = 6054, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 1999853379, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAWAcACunUbMSxU3/cqw=='}} |
| 0:04:21.512534 | LOG | Server ----------> DUT |
| 0:04:21.516531 | LOG | TX_ACK: 02 6054 05 3834383419003400 |
| 0:04:23.400404 | LOG | PULL_DATA: 02 809f 02 3834383419003400 |
| 0:04:23.402403 | LOG | PULL_ACK: 02 809f 04 |
| 0:04:26.497642 | LOG | PUSH_ACK: 02 3b00 01 |
| 0:04:26.500641 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b00, Identifier = 00, JSON = {'rxpk': [{'tmst': 2002864181, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCC1QoHAwHh8YH4XlA='}]} |
| 0:04:26.501640 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ad5, FOpts: 0703), FPort: 01, FRMPayload: 055e, MIC: 81f85e50) |
| 0:04:26.502639 | LOG | Server <---------- DUT |
| 0:04:26.504638 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:26.505638 | LOG | Command Answer: 0703 |
| 0:04:26.511634 | LOG | MAC command communication completed |
| 0:04:26.514632 | LOG | End Test Step: Uplink - Max Payload via Echo for optional datarate SF7BW250 |
| 0:04:26.518630 | LOG | Partial Verdict: PASS |
| 0:04:26.523630 | LOG | ========== |
| 0:04:26.528624 | LOG | ========== |
| 0:04:26.531623 | LOG | Start Test Step: Uplink - Max Payload via Echo for optional datarate FSK |
| 0:04:26.542617 | LOG | Send NewChannelReq process starts |
| 0:04:31.490338 | LOG | PUSH_ACK: 02 3b01 01 |
| 0:04:31.495336 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b01, Identifier = 00, JSON = {'rxpk': [{'tmst': 2007863325, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA1goBpzjE2tJe'}]} |
| 0:04:31.499334 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ad6, FOpts: ), FPort: 01, FRMPayload: 055e, MIC: c4dad25e) |
| 0:04:31.503331 | LOG | Server <---------- DUT |
| 0:04:31.506332 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0759, FOpts: ), FPort: 00, FRMPayload: 070428768477), MIC: 71192dc6) |
| 0:04:31.509328 | LOG | PULL_RESP: Protocol version = 02, Token = 54a7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2009863325, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAWQcA5kRBI+6PcRktxg=='}} |
| 0:04:31.510327 | LOG | Server ----------> DUT |
| 0:04:31.515325 | LOG | TX_ACK: 02 54a7 05 3834383419003400 |
| 0:04:33.611138 | LOG | PULL_DATA: 02 64ed 02 3834383419003400 |
| 0:04:33.619130 | LOG | PULL_ACK: 02 64ed 04 |
| 0:04:36.507650 | LOG | PUSH_ACK: 02 3b02 01 |
| 0:04:36.510650 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b02, Identifier = 00, JSON = {'rxpk': [{'tmst': 2012871382, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 17, 'data': 'QCAgICCC1woHAwEsbmLkYVo='}]} |
| 0:04:36.511649 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ad7, FOpts: 0703), FPort: 01, FRMPayload: 055e, MIC: 62e4615a) |
| 0:04:36.513646 | LOG | Server <---------- DUT |
| 0:04:36.514648 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:36.516645 | LOG | Command Answer: 0703 |
| 0:04:36.522641 | LOG | MAC command communication completed |
| 0:04:36.526641 | LOG | Send MAC command block process starts |
| 0:04:41.514801 | LOG | PUSH_ACK: 02 3b04 01 |
| 0:04:41.516800 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b04, Identifier = 00, JSON = {'rxpk': [{'tmst': 2017869190, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA2AoB2WkpmgqA'}]} |
| 0:04:41.517799 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ad8, FOpts: ), FPort: 01, FRMPayload: 055e, MIC: 299a0a80) |
| 0:04:41.519798 | LOG | Server <---------- DUT |
| 0:04:41.521797 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 075a, FOpts: ), FPort: 00, FRMPayload: 03701700010505d2ad84), MIC: e3d896f7) |
| 0:04:41.524796 | LOG | PULL_RESP: Protocol version = 02, Token = ea12, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2019869190, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAWgcAcHp1Wgo6/foGYePYlvc='}} |
| 0:04:41.526795 | LOG | Server ----------> DUT |
| 0:04:41.530792 | LOG | TX_ACK: 02 ea12 05 3834383419003400 |
| 0:04:43.630982 | LOG | PULL_DATA: 02 f8fb 02 3834383419003400 |
| 0:04:43.633980 | LOG | PULL_ACK: 02 f8fb 04 |
| 0:04:46.466399 | LOG | PUSH_ACK: 02 3b05 01 |
| 0:04:46.468396 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b05, Identifier = 00, JSON = {'rxpk': [{'tmst': 2022830192, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 19, 'data': 'QCAgICCE2QoDBwUHAS0Rl5q0BA=='}]} |
| 0:04:46.469398 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0ad9, FOpts: 03070507), FPort: 01, FRMPayload: 055e, MIC: 979ab404) |
| 0:04:46.470396 | LOG | Server <---------- DUT |
| 0:04:46.472395 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:46.473395 | LOG | Command Answer: 03070507 |
| 0:04:46.539326 | LOG | MAC command communication completed |
| 0:04:46.552319 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:04:51.454564 | LOG | PUSH_ACK: 02 3b06 01 |
| 0:04:51.456560 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b06, Identifier = 00, JSON = {'rxpk': [{'tmst': 2027834132, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCC2goFBwH9ycZQRwA='}]} |
| 0:04:51.458559 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ada, FOpts: 0507), FPort: 01, FRMPayload: 055e, MIC: c6504700) |
| 0:04:51.460558 | LOG | Server <---------- DUT |
| 0:04:51.462555 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 075b, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 8d58dc80) |
| 0:04:51.464529 | LOG | Frame command sent to the DUT |
| 0:04:51.466553 | LOG | PULL_RESP: Protocol version = 02, Token = 705d, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2028834132, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 50000, 'freq': 868.1, 'modu': 'FSK', 'prea': 5, 'fdev': 25000, 'size': 255, 'data': 'YCAgICAAWwfg7Gsvh6Rg3/P4EqcEMcmcvuzbG6RikYZAId2joQHlL8DEvAj0QyjCY+mFpmjrJ2q/wYAqPYP1N5iMOgv7Mxp9uXME5KzILorWVDBgURRgAvZKRX2vh78Bp68pzEPz6xYlINEwnPYjkycFlbvIQZBMd+IfD8yhWO7AWs0ptKCNHg8/div2IJgAuGCGbCaq8cRYc9Om84Hngg+2TPTl7/vf08DsOynHMKGlQO6yLg1uhFDCGSZA4LoYs2JdBR/atGoG27ae2387s6S4P6bZHErTX0/I5ao+Rjx5sltjoB1HxR9aSY/U+q3IdUpBOBZKWmlXCu6NWNyA'}} |
| 0:04:51.469525 | LOG | Server ----------> DUT |
| 0:04:51.473550 | LOG | TX_ACK: 02 705d 05 3834383419003400 |
| 0:04:53.780428 | LOG | PULL_DATA: 02 09af 02 3834383419003400 |
| 0:04:53.782428 | LOG | PULL_ACK: 02 09af 04 |
| 0:04:56.550856 | LOG | PUSH_ACK: 02 3b07 01 |
| 0:04:56.554857 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b07, Identifier = 00, JSON = {'rxpk': [{'tmst': 2032934767, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 255, 'data': 'QCAgICCA2wrgs3z35DVUiMlSkNFNituxwJSfvaMxCkRY93bGjDWVY+g1ge93Cp6laiDF2EX37bFRiDDHWbELoH67cXrL3gnizo41jil2mR67VvOOvaKoXarKlxV4drpvh4BBcp91mTCh+w//tEjHyzJsSMb741ElfMSb8nb2wcZ3wEjJ2wbWSlJe7n2QVNxih5ez2MRcd/Blng8Ntwnum7pbF0Feyu2hO9i1/7AHjuyzmZlADmUhoI8jXEvVlz7F6vl8Ct4OfMd3vVw2+ob71qHKttyM+gNECYoBiHG4r01ZExw1IOKNpinDMCVj7ec/UbjnS9Wb/PAcCHnVrrKI'}]} |
| 0:04:56.555852 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0adb, FOpts: ), FPort: e0, FRMPayload: 080202020202020202020

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| 0:05:01.488693 | LOG | PUSH_ACK: 02 3b08 01 |
| 0:05:01.490692 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b08, Identifier = 00, JSON = {'rxpk': [{'tmst': 2037841020, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 15, 'data': 'QCAgICCA3AoBshMyH1SW'}]} |
| 0:05:01.491691 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0adc, FOpts: ), FPort: 01, FRMPayload: 055f, MIC: 321f5496) |
| 0:05:01.492691 | LOG | Server <---------- DUT |
| 0:05:01.494689 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 075c, FOpts: ), FPort: e0, FRMPayload: 0801010101010101010101

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| 0:05:21.542928 | LOG | PULL_RESP: Protocol version = 02, Token = 437e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2059896780, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAXgcAOsXK/Fk/9b54KQ=='}} |
| 0:05:21.543927 | LOG | Server ----------> DUT |
| 0:05:21.547926 | LOG | TX_ACK: 02 437e 05 3834383419003400 |
| 0:05:24.060369 | LOG | PULL_DATA: 02 954c 02 3834383419003400 |
| 0:05:24.061363 | LOG | PULL_ACK: 02 954c 04 |
| 0:05:26.540952 | LOG | PUSH_ACK: 02 3b0e 01 |
| 0:05:26.543950 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b0e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2062910293, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -14, 'size': 17, 'data': 'QCAgICCC4QoHAwFFqP1LADc='}]} |
| 0:05:26.544951 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ae1, FOpts: 0703), FPort: 01, FRMPayload: 0560, MIC: fd4b0037) |
| 0:05:26.546947 | LOG | Server <---------- DUT |
| 0:05:26.547948 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:26.549946 | LOG | Command Answer: 0703 |
| 0:05:26.555942 | LOG | MAC command communication completed |
| 0:05:26.558942 | LOG | End Test Step: Uplink - Max Payload via Echo for optional datarate FSK |
| 0:05:26.562939 | LOG | Partial Verdict: PASS |
| 0:05:26.568910 | LOG | ========== |
| 0:05:26.576939 | LOG | ========== |
| 0:05:26.579931 | LOG | Start Test Step: Restore default settings |
| 0:05:26.595922 | LOG | Send LinkADRReq process starts |
| 0:05:31.531820 | LOG | PUSH_ACK: 02 3b0f 01 |
| 0:05:31.534818 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b0f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2067908149, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA4goBxG9PVZbC'}]} |
| 0:05:31.535817 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ae2, FOpts: ), FPort: 01, FRMPayload: 0560, MIC: 4f5596c2) |
| 0:05:31.536817 | LOG | Server <---------- DUT |
| 0:05:31.538816 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 075f, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 1c3c4fb8) |
| 0:05:31.541814 | LOG | PULL_RESP: Protocol version = 02, Token = 9867, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2069908149, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAXwcAEQQJdu8cPE+4'}} |
| 0:05:31.543813 | LOG | Server ----------> DUT |
| 0:05:31.548810 | LOG | TX_ACK: 02 9867 05 3834383419003400 |
| 0:05:34.270262 | LOG | PULL_DATA: 02 3b92 02 3834383419003400 |
| 0:05:34.275259 | LOG | PULL_ACK: 02 3b92 04 |
| 0:05:36.552964 | LOG | PUSH_ACK: 02 3b10 01 |
| 0:05:36.554962 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b10, Identifier = 00, JSON = {'rxpk': [{'tmst': 2072916285, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC4woDBwHA+TN2LAk='}]} |
| 0:05:36.556961 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ae3, FOpts: 0307), FPort: 01, FRMPayload: 0560, MIC: 33762c09) |
| 0:05:36.558960 | LOG | Server <---------- DUT |
| 0:05:36.559959 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:36.561958 | LOG | Command Answer: 0307 |
| 0:05:36.571953 | LOG | MAC command communication completed |

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| 0:05:36.575952 | LOG | Send RXParamSetupReq process starts |
| 0:05:41.555895 | LOG | PUSH_ACK: 02 3b12 01 |
| 0:05:41.557893 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b12, Identifier = 00, JSON = {'rxpk': [{'tmst': 2077914093, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA5AoB18lFwv6f'}]} |
| 0:05:41.558893 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ae4, FOpts: ), FPort: 01, FRMPayload: 0560, MIC: 45c2fe9f) |
| 0:05:41.560891 | LOG | Server <---------- DUT |
| 0:05:41.596871 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0760, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: 5785af2b) |
| 0:05:41.599869 | LOG | PULL_RESP: Protocol version = 02, Token = 4256, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2079914093, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAYAcAuNOQF0hXha8r'}} |
| 0:05:41.600869 | LOG | Server ----------> DUT |
| 0:05:41.604866 | LOG | TX_ACK: 02 4256 05 3834383419003400 |
| 0:05:44.330315 | LOG | PULL_DATA: 02 8638 02 3834383419003400 |
| 0:05:44.332316 | LOG | PULL_ACK: 02 8638 04 |
| 0:05:46.557049 | LOG | PUSH_ACK: 02 3b13 01 |
| 0:05:46.559048 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b13, Identifier = 00, JSON = {'rxpk': [{'tmst': 2082922177, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC5QoFBwEwGTuP2Gk='}]} |
| 0:05:46.560047 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ae5, FOpts: 0507), FPort: 01, FRMPayload: 0560, MIC: 3b8fd869) |
| 0:05:46.561048 | LOG | Server <---------- DUT |
| 0:05:46.563047 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:46.564047 | LOG | Command Answer: 0507 |
| 0:05:46.577037 | LOG | MAC command communication completed |
| 0:05:46.580036 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:05:51.546709 | LOG | PUSH_ACK: 02 3b15 01 |
| 0:05:51.548708 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b15, Identifier = 00, JSON = {'rxpk': [{'tmst': 2087925193, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC5goFBwEitaj6hDY='}]} |
| 0:05:51.549706 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0ae6, FOpts: 0507), FPort: 01, FRMPayload: 0560, MIC: a8fa8436) |
| 0:05:51.551705 | LOG | Server <---------- DUT |
| 0:05:51.553704 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0761, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: 00a78492) |
| 0:05:51.555703 | LOG | Frame command sent to the DUT |
| 0:05:51.557703 | LOG | PULL_RESP: Protocol version = 02, Token = c292, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2089925193, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAYQfgMDAAp4SS'}} |
| 0:05:51.558702 | LOG | Server ----------> DUT |
| 0:05:51.596680 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:05:51.600678 | LOG | End Test Step: Restore default settings |
| 0:05:51.603696 | LOG | Partial Verdict: PASS |
| 0:05:51.607673 | LOG | ========== |
| 0:05:51.612671 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_019_A |
| 0:05:51.613670 | LOG | Final Verdict: PASS |

| **Test Case** | TP_A_EU868_ED_MAC_104_BV_019_B |
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| **Verdict** | PASS | |
| **Date** | 2021-10-10 00:01:28 | |
| **Comments** | Maximum Allowed Payload (Part 2) | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | SF7BW250 Frequency | 868.100 |
| | FSK Frequency | 868.100 |
| | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.011454 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_019_B |
| 0:00:00.045434 | LOG | ========== |
| 0:00:00.048433 | LOG | Start Test Step: Device activation |
| 0:00:00.111397 | LOG | Activation process has finished successfully |
| 0:00:00.113397 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.116394 | LOG | DevAddr: 20202020 |
| 0:00:00.119392 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.122391 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.125389 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.130386 | LOG | End Test Step: Device activation |
| 0:00:00.133384 | LOG | Partial Verdict: PASS |
| 0:00:00.137382 | LOG | ========== |
| 0:00:00.142379 | LOG | ========== |
| 0:00:00.144378 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.155371 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.158369 | LOG | DUT Pre-condition activation completed |
| 0:00:00.162368 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.167365 | LOG | Partial Verdict: PASS |
| 0:00:00.172362 | LOG | ========== |
| 0:00:00.177359 | LOG | ========== |
| 0:00:00.180357 | LOG | Start Test Step: Initial settings for the test |
| 0:00:00.192350 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:00:01.511600 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:06.508223 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:09.576477 | LOG | PULL_DATA: 02 8640 02 3834383419003400 |
| 0:00:09.578476 | LOG | PULL_ACK: 02 8640 04 |
| 0:00:09.579477 | LOG | First PULL_DATA received |
| 0:00:11.509378 | LOG | PUSH_ACK: 02 3b18 01 |
| 0:00:11.511378 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b18, Identifier = 00, JSON = {'rxpk': [{'tmst': 2102930490, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCA6QoBEgKYx3xc'}]} |
| 0:00:11.512378 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0ae9, FOpts: ), FPort: 01, FRMPayload: 0561, MIC: 98c77c5c) |
| 0:00:11.514375 | LOG | Server <---------- DUT |
| 0:00:11.515376 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0762, FOpts: ), FPort: e0, FRMPayload: 0500), MIC: 19319449) |
| 0:00:11.518373 | LOG | Frame command sent to the DUT |
| 0:00:11.520371 | LOG | PULL_RESP: Protocol version = 02, Token = 4bfd, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2104930490, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAYgfgnoYZMZRJ'}} |
| 0:00:11.521371 | LOG | Server ----------> DUT |
| 0:00:11.527367 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:00:11.531365 | LOG | End Test Step: Initial settings for the test |
| 0:00:11.536363 | LOG | Partial Verdict: PASS |
| 0:00:11.541359 | LOG | ========== |
| 0:00:11.548356 | LOG | ========== |
| 0:00:11.550354 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate SF12BW125 |
| 0:00:11.565346 | LOG | Send MAC command block process starts |
| 0:00:16.520544 | LOG | PUSH_ACK: 02 3b1a 01 |
| 0:00:16.522525 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b1a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2107933475, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -17, 'size': 15, 'data': 'QCAgICCA6goBgATuXxXv'}]} |
| 0:00:16.524524 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aea, FOpts: ), FPort: 01, FRMPayload: 0562, MIC: ee5f15ef) |
| 0:00:16.525524 | LOG | Server <---------- DUT |
| 0:00:16.527523 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0763, FOpts: ), FPort: 00, FRMPayload: 03000700010505d2ad84), MIC: 8f334594) |
| 0:00:16.531521 | LOG | PULL_RESP: Protocol version = 02, Token = 6ead, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2109933475, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAYwcAtIFBpgW9xfI9rI8zRZQ='}} |
| 0:00:16.532520 | LOG | Server ----------> DUT |
| 0:00:16.538517 | LOG | TX_ACK: 02 6ead 05 3834383419003400 |
| 0:00:19.685726 | LOG | PULL_DATA: 02 0715 02 3834383419003400 |
| 0:00:19.687725 | LOG | PULL_ACK: 02 0715 04 |
| 0:00:22.820942 | LOG | PUSH_ACK: 02 3b1b 01 |
| 0:00:22.823941 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b1b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2114210318, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -12, 'size': 19, 'data': 'QCAgICCE6woDBwUHAby6Oyl3iA=='}]} |
| 0:00:22.824940 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0aeb, FOpts: 03070507), FPort: 01, FRMPayload: 0562, MIC: 3b297788) |
| 0:00:22.826940 | LOG | Server <---------- DUT |
| 0:00:22.827938 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:22.829939 | LOG | Command Answer: 03070507 |
| 0:00:22.891902 | LOG | MAC command communication completed |
| 0:00:22.905893 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:27.863074 | LOG | PUSH_ACK: 02 3b1c 01 |
| 0:00:27.866072 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b1c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2119213326, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC7AoFBwES8fZz8Fg='}]} |
| 0:00:27.867071 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0aec, FOpts: 0507), FPort: 01, FRMPayload: 0562, MIC: f673f058) |
| 0:00:27.869071 | LOG | Server <---------- DUT |
| 0:00:27.871070 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0764, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 0862fb7d) |
| 0:00:27.874069 | LOG | Frame command sent to the DUT |

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| 0:00:27.875067 | LOG | PULL_RESP: Protocol version = 02, Token = aa16, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2121213326, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAAZAfgjQa7X8McCpe3iO4Ub5Qe8P5+Ihr+ZE1JW5U1RIIYjEd8/4xLhAFUJ5riwGCaHpaVItUwNwhi+30='}} |
| 0:00:27.876068 | LOG | Server ----------> DUT |
| 0:00:27.881065 | LOG | TX_ACK: 02 aa16 05 3834383419003400 |
| 0:00:29.765991 | LOG | PULL_DATA: 02 6b6c 02 3834383419003400 |
| 0:00:29.768991 | LOG | PULL_ACK: 02 6b6c 04 |
| 0:00:34.329395 | LOG | PUSH_ACK: 02 3b1d 01 |
| 0:00:34.330394 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b1d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2125705305, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -12, 'size': 64, 'data': 'QCAgICCA7QrgPpac5sPD/thx06MXoDR20+bYtNWft1wCTKXgzlHpf2/kjDttR/z4HpoqdaBF6oLcXtxDoh6m4w=='}]} |
| 0:00:34.332395 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aed, FOpts: ), FPort: e0, FRMPayload: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: a21ea6e3) |
| 0:00:34.333395 | LOG | Server <---------- DUT |
| 0:00:34.335392 | LOG | Answer in payload: 02020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:34.336392 | LOG | Frame Command Payload in the Answer: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:34.340389 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:34.346403 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate SF12BW125 |
| 0:00:34.350400 | LOG | Partial Verdict: PASS |
| 0:00:34.353383 | LOG | ========== |
| 0:00:34.361377 | LOG | ========== |
| 0:00:34.364375 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate SF11BW125 |
| 0:00:34.379366 | LOG | Send MAC command block process starts |
| 0:00:37.675492 | LOG | PUSH_ACK: 02 3b1e 01 |
| 0:00:37.677490 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b1e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2129055473, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCA7goB9kZ6fiv/'}]} |
| 0:00:37.678489 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0aee, FOpts: ), FPort: 01, FRMPayload: 0563, MIC: 7a7e2bff) |
| 0:00:37.679489 | LOG | Server <---------- DUT |
| 0:00:37.681488 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0765, FOpts: ), FPort: 00, FRMPayload: 03100700010505d2ad84), MIC: b23839b7) |
| 0:00:37.684487 | LOG | PULL_RESP: Protocol version = 02, Token = 1057, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2131055473, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAZQcA+9Vh6Mrvm89CPrI4Obc='}} |
| 0:00:37.685486 | LOG | Server ----------> DUT |
| 0:00:37.691482 | LOG | TX_ACK: 02 1057 05 3834383419003400 |
| 0:00:39.785310 | LOG | PULL_DATA: 02 9028 02 3834383419003400 |
| 0:00:39.787291 | LOG | PULL_ACK: 02 9028 04 |
| 0:00:42.259883 | LOG | PUSH_ACK: 02 3b1f 01 |
| 0:00:42.262881 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b1f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2133644818, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 13.2, 'rssi': -12, 'size': 19, 'data': 'QCAgICCE7woDBwUHAcyb4/aiBw=='}]} |
| 0:00:42.263881 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0aef, FOpts: 03070507), FPort: 01, FRMPayload: 0563, MIC: e3f6a207) |
| 0:00:42.264880 | LOG | Server <---------- DUT |
| 0:00:42.265880 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:42.267879 | LOG | Command Answer: 03070507 |
| 0:00:42.326845 | LOG | MAC command communication completed |
| 0:00:42.343836 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:00:47.158096 | LOG | PUSH_ACK: 02 3b21 01 |
| 0:00:47.160095 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b21, Identifier = 00, JSON = {'rxpk': [{'tmst': 2138567234, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -17, 'size': 17, 'data': 'QCAgICCC8AoFBwEMo5GAzog='}]} |
| 0:00:47.162094 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0af0, FOpts: 0507), FPort: 01, FRMPayload: 0563, MIC: 9180ce88) |
| 0:00:47.163093 | LOG | Server <---------- DUT |
| 0:00:47.165093 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0766, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: fd498b5f) |
| 0:00:47.167091 | LOG | Frame command sent to the DUT |
| 0:00:47.168091 | LOG | PULL_RESP: Protocol version = 02, Token = 293f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2140567234, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAAZgfgEEhvvAJtvzGROvB+dpukdlqhzOd2QY8Ezaz/e7mKLjbzhTiruzdnQXazPapvH/jWbVqCeP1Ji18='}} |
| 0:00:47.170090 | LOG | Server ----------> DUT |
| 0:00:47.174088 | LOG | TX_ACK: 02 293f 05 3834383419003400 |
| 0:00:49.895557 | LOG | PULL_DATA: 02 1ad2 02 3834383419003400 |
| 0:00:49.897540 | LOG | PULL_ACK: 02 1ad2 04 |
| 0:00:53.116708 | LOG | PUSH_ACK: 02 3b22 01 |
| 0:00:53.119705 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b22, Identifier = 00, JSON = {'rxpk': [{'tmst': 2144485743, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.8, 'rssi': -12, 'size': 64, 'data': 'QCAgICCA8Qrg+OyGTJ/4IDMwIdUugE7g/+QhGzLNXBOC+MZ26019ZjZ9k87i0/SELJgPN2MMmNTf9uZ0hOWUNA=='}]} |
| 0:00:53.121704 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0af1, FOpts: ), FPort: e0, FRMPayload: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202), MIC: 84e59434) |
| 0:00:53.122703 | LOG | Server <---------- DUT |
| 0:00:53.124704 | LOG | Answer in payload: 02020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:53.125701 | LOG | Frame Command Payload in the Answer: 08020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:00:53.128700 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:00:53.134697 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate SF11BW125 |
| 0:00:53.139693 | LOG | Partial Verdict: PASS |
| 0:00:53.145690 | LOG | ========== |
| 0:00:53.150687 | LOG | ========== |
| 0:00:53.153686 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate SF10BW125 |

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| 0:00:53.165679 | LOG | Send MAC command block process starts |
| 0:00:57.185392 | LOG | PUSH_ACK: 02 3b24 01 |
| 0:00:57.187392 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b24, Identifier = 00, JSON = {'rxpk': [{'tmst': 2148573223, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF11BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA8goBHeCTnYg5'}]} |
| 0:00:57.188390 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0af2, FOpts: ), FPort: 01, FRMPayload: 0564, MIC: 939d8839) |
| 0:00:57.190389 | LOG | Server <---------- DUT |
| 0:00:57.191388 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0767, FOpts: ), FPort: 00, FRMPayload: 03200700010505d2ad84), MIC: 61d95149) |
| 0:00:57.193388 | LOG | PULL_RESP: Protocol version = 02, Token = 7626, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2150573223, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAZwcAAplIqRP+Uy1taWHZUUk='}} |
| 0:00:57.194388 | LOG | Server ----------> DUT |
| 0:00:57.199385 | LOG | TX_ACK: 02 7626 05 3834383419003400 |
| 0:00:59.925833 | LOG | PULL_DATA: 02 839a 02 3834383419003400 |
| 0:00:59.928831 | LOG | PULL_ACK: 02 839a 04 |
| 0:01:01.828750 | LOG | PUSH_ACK: 02 3b25 01 |
| 0:01:01.831750 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b25, Identifier = 00, JSON = {'rxpk': [{'tmst': 2153246530, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.2, 'rssi': -13, 'size': 19, 'data': 'QCAgICCE8woDBwUHAT6XxeO8Kg=='}]} |
| 0:01:01.833747 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0af3, FOpts: 03070507), FPort: 01, FRMPayload: 0564, MIC: c5e3bc2a) |
| 0:01:01.834747 | LOG | Server <---------- DUT |
| 0:01:01.835746 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:01.837745 | LOG | Command Answer: 03070507 |
| 0:01:01.911705 | LOG | MAC command communication completed |
| 0:01:01.928694 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:01:06.871906 | LOG | PUSH_ACK: 02 3b26 01 |
| 0:01:06.873882 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b26, Identifier = 00, JSON = {'rxpk': [{'tmst': 2158249538, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -14, 'size': 17, 'data': 'QCAgICCC9AoFBwHxuBrZFJE='}]} |
| 0:01:06.875878 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0af4, FOpts: 0507), FPort: 01, FRMPayload: 0564, MIC: 1ad91491) |
| 0:01:06.876879 | LOG | Server <---------- DUT |
| 0:01:06.878877 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0768, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 9333bead) |
| 0:01:06.880876 | LOG | Frame command sent to the DUT |
| 0:01:06.881876 | LOG | PULL_RESP: Protocol version = 02, Token = 73cf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2160249538, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 65, 'data': 'YCAgICAAaAfg4PvzJ93RjfCoLz6xB2baxA+u/Obc4nrYi/GK/WATAHwI8dzR+EkeKc05N3sXWma6HbWE9pMzvq0='}} |
| 0:01:06.882875 | LOG | Server ----------> DUT |
| 0:01:06.886872 | LOG | TX_ACK: 02 73cf 05 3834383419003400 |
| 0:01:10.036082 | LOG | PULL_DATA: 02 71e7 02 3834383419003400 |
| 0:01:10.037098 | LOG | PULL_ACK: 02 71e7 04 |

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| 0:01:12.232954 | LOG | PUSH_ACK: 02 3b27 01 |
| 0:01:12.235952 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b27, Identifier = 00, JSON = {'rxpk': [{'tmst': 2163636959, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.8, 'rssi': -13, 'size': 64, 'data': 'QCAgICCA9Qrg3IJkwXXJm8ue3X978YPRi0A42+CrYkRklUrPzuUaOQXRLDaDaS8EmwIuLgy8Q6v1MmAcOQlf6A=='}]} |
| 0:01:12.236952 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0af5, FOpts: ), FPort: e0, FRMPayload: 080202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202, MIC: 39095fe8) |
| 0:01:12.238950 | LOG | Server <---------- DUT |
| 0:01:12.240949 | LOG | Answer in payload: 020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:12.241949 | LOG | Frame Command Payload in the Answer: 080202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202020202 |
| 0:01:12.246946 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:12.251943 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate SF10BW125 |
| 0:01:12.256940 | LOG | Partial Verdict: PASS |
| 0:01:12.261938 | LOG | ========== |
| 0:01:12.266934 | LOG | ========== |
| 0:01:12.267934 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate SF9BW125 |
| 0:01:12.279927 | LOG | Send MAC command block process starts |
| 0:01:16.882309 | LOG | PUSH_ACK: 02 3b29 01 |
| 0:01:16.884308 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b29, Identifier = 00, JSON = {'rxpk': [{'tmst': 2168258279, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF10BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCA9goBhQvY4t84'}]} |
| 0:01:16.885307 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0af6, FOpts: ), FPort: 01, FRMPayload: 0565, MIC: d8e2df38) |
| 0:01:16.886307 | LOG | Server <---------- DUT |
| 0:01:16.888305 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0769, FOpts: ), FPort: 00, FRMPayload: 03300700010505d2ad84), MIC: b6e9c88e) |
| 0:01:16.890305 | LOG | PULL_RESP: Protocol version = 02, Token = bc0c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2170258279, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAaQcAkGW+IAOYG8TnobbpyI4='}} |
| 0:01:16.892303 | LOG | Server ----------> DUT |
| 0:01:16.895301 | LOG | TX_ACK: 02 bc0c 05 3834383419003400 |
| 0:01:20.245413 | LOG | PULL_DATA: 02 8869 02 3834383419003400 |
| 0:01:20.247394 | LOG | PULL_ACK: 02 8869 04 |
| 0:01:21.719226 | LOG | PUSH_ACK: 02 3b2a 01 |
| 0:01:21.721224 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b2a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2173117065, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -17, 'size': 19, 'data': 'QCAgICCE9woDBwUHARwAnOZDGw=='}]} |
| 0:01:21.723224 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0af7, FOpts: 03070507), FPort: 01, FRMPayload: 0565, MIC: 9ce6431b) |
| 0:01:21.724224 | LOG | Server <---------- DUT |
| 0:01:21.725223 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:01:21.726223 | LOG | Command Answer: 03070507 |
| 0:01:21.785159 | LOG | MAC command communication completed |
| 0:01:21.799152 | LOG | Send Test Command EchoPayloadReq process starts |

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| 0:01:26.709387 | LOG | PUSH_ACK: 02 3b2b 01 |
| 0:01:36.893592 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b2b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2178099545, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCC+AoFBwGwaC681SU='}]} |
| 0:01:36.895591 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0af8, FOpts: 0507), FPort: 01, FRMPayload: 0565, MIC: 2ebcd525) |
| 0:01:36.897590 | LOG | Server <---------- DUT |
| 0:01:36.900588 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 076a, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| | | Ay3VaWOxtvDuqaQnUkM8pR+qA2QgnQOyybyaPyNxFoh7y/EWagTt5jImrXajh mmfjUsHx46qClEsbaRWb6Nx4KauPp8jO61g3sffdCsOdytj14eDypz'}} |
| 0:01:46.729966 | LOG | Server ----------> DUT |
| 0:01:46.733964 | LOG | TX_ACK: 02 8321 05 3834383419003400 |
| 0:01:50.505715 | LOG | PULL_DATA: 02 f514 02 3834383419003400 |
| 0:01:50.506714 | LOG | PULL_ACK: 02 f514 04 |
| 0:01:52.241728 | LOG | PUSH_ACK: 02 3b31 01 |
| 0:01:52.243727 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b31, Identifier = 00, JSON = {'rxpk': [{'tmst': 2203657237, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 12.5, 'rssi': -19, 'size': 128, 'data': 'QCAgICCA/QrgCg2VK6k4MW9OL+Qqbx0AC9qZ/u2mnSGbzWLYl/5LLBTag QOko/29pYeVTeLFVtLJ5LgBTNG8PhuPJOf5DjdjzJKW1HBgbB7TnqrfZ3Ppgoq 7pjoz8t9dnrUl6DQa4hc7eoL0mulJ5hlq970jkMPe+86dM4PzPXs='}]} |
| 0:01:52.244726 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0afd, FOpts: ), FPort: e0, FRMPayload: 08020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 20202020202020202020202020202, MIC: 83f33d7b) |
| 0:01:52.245727 | LOG | Server <---------- DUT |
| 0:01:52.247725 | LOG | Answer in payload: 02020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 20202020202020202020202020202 |
| 0:01:52.248725 | LOG | Frame Command Payload in the Answer: 08020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 02020202020202020202020202020202020202020202020202020202020202020202 20202020202020202020202020202 |
| 0:01:52.253720 | LOG | Checking if the payload of the EchoPayloadAns is correct |
| 0:01:52.260717 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate SF9BW125 |
| 0:01:52.265713 | LOG | Partial Verdict: PASS |
| 0:01:52.271710 | LOG | ========== |
| 0:01:52.280705 | LOG | ========== |
| 0:01:52.283704 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate SF8BW125 |
| 0:01:52.294697 | LOG | Send MAC command block process starts |
| 0:01:56.718181 | LOG | PUSH_ACK: 02 3b32 01 |
| 0:01:56.720180 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b32, Identifier = 00, JSON = {'rxpk': [{'tmst': 2208118805, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF9BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCA/goBmcbajtfi'}]} |
| 0:01:56.722178 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0afe, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: da8ed7e2) |
| 0:01:56.724177 | LOG | Server <---------- DUT |
| 0:01:56.725177 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 076c, FOpts: ), FPort: 00, FRMPayload: 03400700010505d2ad84), MIC: 9c7abca9) |
| 0:01:56.727175 | LOG | PULL_RESP: Protocol version = 02, Token = d855, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2210118805, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAbAcA+vp0OFoqSBmDpJx6vKk='}} |
| 0:01:56.728174 | LOG | Server ----------> DUT |
| 0:01:56.733173 | LOG | TX_ACK: 02 d855 05 3834383419003400 |
| 0:02:00.715696 | LOG | PULL_DATA: 02 6f8a 02 3834383419003400 |
| 0:02:00.716696 | LOG | PULL_ACK: 02 6f8a 04 |
| 0:02:01.683147 | LOG | PUSH_ACK: 02 3b33 01 |

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| 0:02:01.688144 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b33, Identifier = 00, JSON = {'rxpk': [{'tmst': 2213059840, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -16, 'size': 19, 'data': 'QCAgICCE/woDBwUHAckUdTL7iQ=='}]} |
| 0:02:01.691143 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0aff, FOpts: 03070507), FPort: 01, FRMPayload: 0566, MIC: 7532fb89) |
| 0:02:01.695140 | LOG | Server <---------- DUT |
| 0:02:01.698139 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:01.702136 | LOG | Command Answer: 03070507 |
| 0:02:01.763117 | LOG | MAC command communication completed |
| 0:02:01.777092 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:02:06.675305 | LOG | PUSH_ACK: 02 3b34 01 |
| 0:02:06.676304 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b34, Identifier = 00, JSON = {'rxpk': [{'tmst': 2218052528, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCAAsFBwH/ZkWj0xs='}]} |
| 0:02:06.678303 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b00, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 45a3d31b) |
| 0:02:06.679303 | LOG | Server <---------- DUT |
| 0:02:06.681302 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 076d, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| | | 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCAgsFBwGOOlSb1eA='}]} |
| 0:02:16.668620 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b02, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 549bd5e0) |
| 0:02:16.669619 | LOG | Server <---------- DUT |
| 0:02:16.670618 | LOG | Resend the Frame command. May the DUT did not listen |
| 0:02:16.672618 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 076e, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| | | 0101010101010101010101010101010101010101010101010101010101010101010101010101010101), MIC: 270771ee) |
| 0:02:26.655976 | LOG | Frame command sent to the DUT |
| 0:02:26.657973 | LOG | PULL_RESP: Protocol version = 02, Token = 7cd9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2240067048, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 256, 'data': 'YCAgICAAbwfg96mvtKTLN30E/JyS493a4C/1C+NCXneNTdUfMq4oOAXnlRIhFKqDkHgqbcoJUKhiSwRLtdYVIr1jwmsga5WZZaQDbichOfHtRDhmSYWy2M9hao01u5IUVnZGlFOA4fkhYh2rYtQnrClgPOijPFXqU+14dOaoi4OMANMY0P2ki2QBw2ccKDHeBMDhBs2G64iYBMIhg1V1y8u50DSFNeXcSeUAOxbq4r/9GW+rQEUMCZjdHth/A86h4PkCj1zVCNkjwP8f5SyK9XmZcelzJyT2BEwxC2fB/w/n+xw1HynkFnQvWm4vwi1uiTtHrc/K3JfHMePGJwdx7g=='}} |
| 0:02:26.659973 | LOG | Server ----------> DUT |
| 0:02:26.664970 | LOG | TX_ACK: 02 7cd9 05 3834383419003400 |
| 0:02:31.275346 | LOG | PULL_DATA: 02 e2ef 02 3834383419003400 |
| 0:02:31.276345 | LOG | PULL_ACK: 02 e2ef 04 |
| 0:02:31.685181 | LOG | PUSH_ACK: 02 3b3a 01 |
| 0:02:31.687180 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b3a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2243070032, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCBQsFBwG71MC32cM='}]} |
| 0:02:31.688180 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b05, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: c0b7d9c3) |
| 0:02:31.689179 | LOG | Server <---------- DUT |
| 0:02:31.690179 | LOG | Packet received from unexpected FPort 01 |
| 0:02:36.675341 | LOG | PUSH_ACK: 02 3b3b 01 |
| 0:02:36.677341 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b3b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2248073032, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCBgsFBwH14qDqDBw='}]} |
| 0:02:36.678340 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b06, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: a0ea0c1c) |
| 0:02:36.680339 | LOG | Server <---------- DUT |
| 0:02:36.682339 | LOG | Packet received from unexpected FPort 01 |
| 0:02:41.355453 | LOG | PULL_DATA: 02 0669 02 3834383419003400 |
| 0:02:41.359452 | LOG | PULL_ACK: 02 0669 04 |
| 0:02:41.665277 | LOG | PUSH_ACK: 02 3b3c 01 |
| 0:02:41.667276 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b3c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2253077344, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 12.0, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCBwsFBwFEuVmw/Yw='}]} |
| 0:02:41.668275 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b07, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 59b0fd8c) |
| 0:02:41.669274 | LOG | Server <---------- DUT |
| 0:02:41.671273 | LOG | Packet received from unexpected FPort 01 |
| 0:02:46.664986 | LOG | PUSH_ACK: 02 3b3e 01 |
| 0:02:46.666985 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b3e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2258081648, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCCAsFBwHLQ8annmA='}]} |
| 0:02:46.668984 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b08, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: c6a79e60) |
| 0:02:46.669984 | LOG | Server <---------- DUT |
| 0:02:46.670983 | LOG | Packet received from unexpected FPort 01 |
| 0:02:51.435273 | LOG | PULL_DATA: 02 2f0d 02 3834383419003400 |

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| 0:02:51.436272 | LOG | PULL_ACK: 02 2f0d 04 |
| 0:02:51.707118 | LOG | PUSH_ACK: 02 3b3f 01 |
| 0:02:51.710116 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b3f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2263084608, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCCQsFBwFCNfVNzHc='}]} |
| 0:02:51.711115 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b09, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: f54dcc77) |
| 0:02:51.712115 | LOG | Server <---------- DUT |
| 0:02:51.713115 | LOG | Packet received from unexpected FPort 01 |
| 0:02:51.719113 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate SF8BW125 |
| 0:02:51.723109 | LOG | Partial Verdict: PASS |
| 0:02:51.727106 | LOG | ========== |
| 0:02:51.733105 | LOG | ========== |
| 0:02:51.735104 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate SF7BW125 |
| 0:02:51.746096 | LOG | Send MAC command block process starts |
| 0:02:56.698278 | LOG | PUSH_ACK: 02 3b40 01 |
| 0:02:56.700277 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b40, Identifier = 00, JSON = {'rxpk': [{'tmst': 2268087544, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF8BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCCgsFBwHHEVAkOMQ='}]} |
| 0:02:56.702276 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b0a, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 502438c4) |
| 0:02:56.703275 | LOG | Server <---------- DUT |
| 0:02:56.705274 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0770, FOpts: ), FPort: 00, FRMPayload: 03500700010505d2ad84), MIC: f68f7b49) |
| 0:02:56.708273 | LOG | PULL_RESP: Protocol version = 02, Token = 3e6e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2270087544, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAcAcAlBN6dV10nVhBFfaPe0k='}} |
| 0:02:56.710272 | LOG | Server ----------> DUT |
| 0:02:56.714270 | LOG | TX_ACK: 02 3e6e 05 3834383419003400 |
| 0:03:01.535289 | LOG | PULL_DATA: 02 7e9b 02 3834383419003400 |
| 0:03:01.536289 | LOG | PULL_ACK: 02 7e9b 04 |
| 0:03:01.648871 | LOG | PUSH_ACK: 02 3b41 01 |
| 0:03:01.650870 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b41, Identifier = 00, JSON = {'rxpk': [{'tmst': 2273049265, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 19, 'data': 'QCAgICCECwsDBwUHAT0ItUmowg=='}]} |
| 0:03:01.651870 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0b0b, FOpts: 03070507), FPort: 01, FRMPayload: 0566, MIC: b549a8c2) |
| 0:03:01.652868 | LOG | Server <---------- DUT |
| 0:03:01.653867 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:01.654868 | LOG | Command Answer: 03070507 |
| 0:03:01.718829 | LOG | MAC command communication completed |
| 0:03:01.734821 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:03:06.637032 | LOG | PUSH_ACK: 02 3b42 01 |
| 0:03:06.639030 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b42, Identifier = 00, JSON = {'rxpk': [{'tmst': 2278052209, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCDAsFBwGvPgD6J3c='}]} |
| 0:03:06.641029 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b0c, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 00fa2777) |
| 0:03:06.642029 | LOG | Server <---------- DUT |

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| 0:03:06.644028 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0771, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| | | JjD23zxXAP8q8j2IGmi0rEKAmwBXa5GaA4DGIXiaWVafgv2B04Nai8VEwC72URLKeMazlSb8iWq1MqpogDCpS8SZj5mmZRGn/zcKbVOAxeOeaxwfuoejCzpGFBc6ptxvkUcl7EsoGFcihQvkyPoPTEt2m3A8EADG4Gr86qDvHm8tjUbqBachCvcC5SRWy1g1rybqB1rdfP5iZr7fO3a3zXxg==''}} |
| 0:03:16.673324 | LOG | Server ----------> DUT |
| 0:03:16.677320 | LOG | TX_ACK: 02 4311 05 3834383419003400 |
| 0:03:21.673004 | LOG | PUSH_ACK: 02 3b46 01 |
| 0:03:21.674021 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b46, Identifier = 00, JSON = {'rxpk': [{'tmst': 2293062368, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCDwsFBwHXCDFQR5I='}]} |
| 0:03:21.676003 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b0f, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 31504792) |
| 0:03:21.677001 | LOG | Server <---------- DUT |
| 0:03:21.678002 | LOG | Packet received from unexpected FPort 01 |
| 0:03:21.715036 | LOG | PULL_DATA: 02 c393 02 3834383419003400 |
| 0:03:21.717032 | LOG | PULL_ACK: 02 c393 04 |
| 0:03:26.659940 | LOG | PUSH_ACK: 02 3b47 01 |
| 0:03:26.661939 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b47, Identifier = 00, JSON = {'rxpk': [{'tmst': 2298065304, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCEAsFBwF+2Tz7vZU='}]} |
| 0:03:26.664938 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b10, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 3cfbbd95) |
| 0:03:26.666936 | LOG | Server <---------- DUT |
| 0:03:26.670934 | LOG | Resend the Frame command. May the DUT did not listen |
| 0:03:26.676930 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0773, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| 0:03:31.655098 | LOG | Packet received from unexpected FPort 01 |
| 0:03:31.725058 | LOG | PULL_DATA: 02 e046 02 3834383419003400 |
| 0:03:31.727058 | LOG | PULL_ACK: 02 e046 04 |
| 0:03:36.691233 | LOG | PUSH_ACK: 02 3b49 01 |
| 0:03:36.693232 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b49, Identifier = 00, JSON = {'rxpk': [{'tmst': 2308071232, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCEgsFBwG/tODMlZI='}]} |
| 0:03:36.695231 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b12, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: e0cc9592) |
| 0:03:36.696230 | LOG | Server <---------- DUT |
| 0:03:36.698229 | LOG | Packet received from unexpected FPort 01 |
| 0:03:41.681860 | LOG | PUSH_ACK: 02 3b4a 01 |
| 0:03:41.685857 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b4a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2313074145, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCEwsFBwEjG4DtqHs='}]} |
| 0:03:41.687856 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b13, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 80eda87b) |
| 0:03:41.688855 | LOG | Server <---------- DUT |
| 0:03:41.689855 | LOG | Packet received from unexpected FPort 01 |
| 0:03:41.804788 | LOG | PULL_DATA: 02 2e51 02 3834383419003400 |
| 0:03:41.805788 | LOG | PULL_ACK: 02 2e51 04 |
| 0:03:46.685012 | LOG | PUSH_ACK: 02 3b4c 01 |
| 0:03:46.686011 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b4c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2318077080, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCFAsFBwGikV8I4a0='}]} |
| 0:03:46.688011 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b14, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 5f08e1ad) |
| 0:03:46.689010 | LOG | Server <---------- DUT |
| 0:03:46.691009 | LOG | Packet received from unexpected FPort 01 |
| 0:03:51.672176 | LOG | PUSH_ACK: 02 3b4d 01 |
| 0:03:51.674180 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b4d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2323081384, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCFQsFBwE2zLYMNiE='}]} |
| 0:03:51.676173 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b15, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: b60c3621) |
| 0:03:51.702160 | LOG | Server <---------- DUT |
| 0:03:51.704158 | LOG | Packet received from unexpected FPort 01 |
| 0:03:51.717151 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate SF7BW125 |
| 0:03:51.721148 | LOG | Partial Verdict: PASS |
| 0:03:51.752130 | LOG | ========== |
| 0:03:51.758126 | LOG | ========== |
| 0:03:51.761124 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate SF7BW250 |
| 0:03:51.774119 | LOG | Send NewChannelReq process starts |
| 0:03:51.885055 | LOG | PULL_DATA: 02 2eb6 02 3834383419003400 |
| 0:03:51.889052 | LOG | PULL_ACK: 02 2eb6 04 |
| 0:03:56.661337 | LOG | PUSH_ACK: 02 3b4e 01 |
| 0:03:56.663336 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b4e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2328085712, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCFgsFBwGV2Bf7OUo='}]} |
| 0:03:56.664335 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b16, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 17fb394a) |

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| 0:03:56.666334 | LOG | Server <---------- DUT |
| 0:03:56.668333 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0774, FOpts: ), FPort: 00, FRMPayload: 070328768466), MIC: cc77b683) |
| 0:03:56.671331 | LOG | PULL_RESP: Protocol version = 02, Token = 97b9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2330085712, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAdAcAb5lSUXMczHe2gw=='}} |
| 0:03:56.672331 | LOG | Server ----------> DUT |
| 0:03:56.676329 | LOG | TX_ACK: 02 97b9 05 3834383419003400 |
| 0:04:01.693474 | LOG | PUSH_ACK: 02 3b4f 01 |
| 0:04:01.695473 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b4f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2333088628, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCFwsHAwFugyrOGU4='}]} |
| 0:04:01.696472 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b17, FOpts: 0703), FPort: 01, FRMPayload: 0566, MIC: 2ace194e) |
| 0:04:01.698471 | LOG | Server <---------- DUT |
| 0:04:01.699471 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:01.700470 | LOG | Command Answer: 0703 |
| 0:04:01.705467 | LOG | MAC command communication completed |
| 0:04:01.709465 | LOG | Send MAC command block process starts |
| 0:04:01.924361 | LOG | PULL_DATA: 02 bb11 02 3834383419003400 |
| 0:04:01.926343 | LOG | PULL_ACK: 02 bb11 04 |
| 0:04:06.684635 | LOG | PUSH_ACK: 02 3b50 01 |
| 0:04:06.686633 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b50, Identifier = 00, JSON = {'rxpk': [{'tmst': 2338086444, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAGAsBCyDG2VWe'}]} |
| 0:04:06.687633 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b18, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: c6d9559e) |
| 0:04:06.688633 | LOG | Server <---------- DUT |
| 0:04:06.690631 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0775, FOpts: ), FPort: 00, FRMPayload: 03600f00010505d2ad84), MIC: e3023322) |
| 0:04:06.692630 | LOG | PULL_RESP: Protocol version = 02, Token = 1549, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2340086444, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAdQcA4yJbcaiQ9Fg0x+MCMyI='}} |
| 0:04:06.694629 | LOG | Server ----------> DUT |
| 0:04:06.698627 | LOG | TX_ACK: 02 1549 05 3834383419003400 |
| 0:04:11.648812 | LOG | PUSH_ACK: 02 3b51 01 |
| 0:04:11.650813 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b51, Identifier = 00, JSON = {'rxpk': [{'tmst': 2343072921, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 19, 'data': 'QCAgICCEGQsDBwUHAVqZtIXeZA=='}]} |
| 0:04:11.652808 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0b19, FOpts: 03070507), FPort: 01, FRMPayload: 0566, MIC: b485de64) |
| 0:04:11.654807 | LOG | Server <---------- DUT |
| 0:04:11.655807 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:11.657805 | LOG | Command Answer: 03070507 |
| 0:04:11.718771 | LOG | MAC command communication completed |
| 0:04:11.735760 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:04:11.944643 | LOG | PULL_DATA: 02 47d4 02 3834383419003400 |
| 0:04:11.945644 | LOG | PULL_ACK: 02 47d4 04 |

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| 0:04:16.653963 | LOG | PUSH_ACK: 02 3b53 01 |
| 0:04:16.656963 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b53, Identifier = 00, JSON = {'rxpk': [{'tmst': 2348075857, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCGgsFBwHuAxG5xBA='}]} |
| 0:04:16.657961 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b1a, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 11b9c410) |
| 0:04:16.659960 | LOG | Server <---------- DUT |
| 0:04:16.661960 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0776, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| | | CxaBPzEPrxKXwLoJqESLwSo0YGAyfxKC1waZBG//8yeYXABXR8nhX9ne5xPRIqc8inOzYlsWA1Yu/kSfVpBIUegjDpA=='}} |
| 0:04:36.680710 | LOG | Server ----------> DUT |
| 0:04:36.685708 | LOG | TX_ACK: 02 4dd1 05 3834383419003400 |
| 0:04:41.709392 | LOG | PUSH_ACK: 02 3b5a 01 |
| 0:04:41.711391 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b5a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2373092177, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCHwsFBwHOw9EGuFA='}]} |
| 0:04:41.713390 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b1f, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: d106b850) |
| 0:04:41.714390 | LOG | Server <---------- DUT |
| 0:04:41.716389 | LOG | Packet received from unexpected FPort 01 |
| 0:04:42.354045 | LOG | PULL_DATA: 02 c649 02 3834383419003400 |
| 0:04:42.358023 | LOG | PULL_ACK: 02 c649 04 |
| 0:04:46.714545 | LOG | PUSH_ACK: 02 3b5c 01 |
| 0:04:46.716544 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b5c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2378096565, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCIAsFBwEQrK1iuWw='}]} |
| 0:04:46.717544 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b20, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: ad62b96c) |
| 0:04:46.718545 | LOG | Server <---------- DUT |
| 0:04:46.720542 | LOG | Packet received from unexpected FPort 01 |
| 0:04:51.702707 | LOG | PUSH_ACK: 02 3b5d 01 |
| 0:04:51.704706 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b5d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2383100901, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCIQsFBwEfeuL0w2A='}]} |
| 0:04:51.706705 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b21, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: e2f4c360) |
| 0:04:51.707706 | LOG | Server <---------- DUT |
| 0:04:51.708706 | LOG | Packet received from unexpected FPort 01 |
| 0:04:52.434647 | LOG | PULL_DATA: 02 14e3 02 3834383419003400 |
| 0:04:52.435646 | LOG | PULL_ACK: 02 14e3 04 |
| 0:04:56.691226 | LOG | PUSH_ACK: 02 3b5e 01 |
| 0:04:56.693225 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b5e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2388103873, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCIgsFBwETUd/K69I='}]} |
| 0:04:56.694224 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b22, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: dfcaebd2) |
| 0:04:56.695224 | LOG | Server <---------- DUT |
| 0:04:56.696224 | LOG | Packet received from unexpected FPort 01 |
| 0:05:01.678387 | LOG | PUSH_ACK: 02 3b5f 01 |
| 0:05:01.680387 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b5f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2393106889, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCIwsFBwFseGHHchM='}]} |
| 0:05:01.681387 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b23, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 61c77213) |
| 0:05:01.682386 | LOG | Server <---------- DUT |
| 0:05:01.683386 | LOG | Packet received from unexpected FPort 01 |
| 0:05:01.688383 | LOG | Send LinkADRReq process starts |
| 0:05:02.514710 | LOG | PULL_DATA: 02 31f6 02 3834383419003400 |
| 0:05:02.516709 | LOG | PULL_ACK: 02 31f6 04 |

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| 0:05:06.718336 | LOG | PUSH_ACK: 02 3b60 01 |
| 0:05:06.720317 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b60, Identifier = 00, JSON = {'rxpk': [{'tmst': 2398109897, 'chan': 8, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW250', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -20, 'size': 17, 'data': 'QCAgICCCJAsFBwEJt50OjWw='}]} |
| 0:05:06.721316 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b24, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 9d0e8d6c) |
| 0:05:06.723315 | LOG | Server <---------- DUT |
| 0:05:06.725314 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0779, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 724beb3f) |
| 0:05:06.728312 | LOG | PULL_RESP: Protocol version = 02, Token = 82da, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2400109897, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAeQcAHRbGzPtyS+s/'}} |
| 0:05:06.730311 | LOG | Server ----------> DUT |
| 0:05:06.733310 | LOG | TX_ACK: 02 82da 05 3834383419003400 |
| 0:05:11.716578 | LOG | PUSH_ACK: 02 3b61 01 |
| 0:05:11.718576 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b61, Identifier = 00, JSON = {'rxpk': [{'tmst': 2403142666, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCJQsDBwE900Wgdt4='}]} |
| 0:05:11.719576 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b25, FOpts: 0307), FPort: 01, FRMPayload: 0566, MIC: 45a076de) |
| 0:05:11.721575 | LOG | Server <---------- DUT |
| 0:05:11.722574 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:11.724573 | LOG | Command Answer: 0307 |
| 0:05:11.733568 | LOG | MAC command communication completed |
| 0:05:11.737565 | LOG | Send NewChannelReq process starts |
| 0:05:12.604452 | LOG | PULL_DATA: 02 d337 02 3834383419003400 |
| 0:05:12.608450 | LOG | PULL_ACK: 02 d337 04 |
| 0:05:16.714145 | LOG | PUSH_ACK: 02 3b63 01 |
| 0:05:16.716144 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b63, Identifier = 00, JSON = {'rxpk': [{'tmst': 2408140498, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAJgsBTanWaaCJ'}]} |
| 0:05:16.718143 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b26, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: d669a089) |
| 0:05:16.719142 | LOG | Server <---------- DUT |
| 0:05:16.721140 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 077a, FOpts: ), FPort: 00, FRMPayload: 070300000050), MIC: b86d47a3) |
| 0:05:16.724139 | LOG | PULL_RESP: Protocol version = 02, Token = 50e9, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2410140498, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAegcAnBsqBi3TuG1How=='}} |
| 0:05:16.725139 | LOG | Server ----------> DUT |
| 0:05:16.729136 | LOG | TX_ACK: 02 50e9 05 3834383419003400 |
| 0:05:21.747214 | LOG | PUSH_ACK: 02 3b64 01 |
| 0:05:21.749211 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b64, Identifier = 00, JSON = {'rxpk': [{'tmst': 2413151291, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCJwsHAwHAJwOj3a0='}]} |
| 0:05:21.750215 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b27, FOpts: 0703), FPort: 01, FRMPayload: 0566, MIC: 03a3ddad) |
| 0:05:21.751209 | LOG | Server <---------- DUT |

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| 0:05:21.752209 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:21.753208 | LOG | Command Answer: 0703 |
| 0:05:21.763203 | LOG | MAC command communication completed |
| 0:05:21.771203 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate SF7BW250 |
| 0:05:21.775196 | LOG | Partial Verdict: PASS |
| 0:05:21.779194 | LOG | ========== |
| 0:05:21.786189 | LOG | ========== |
| 0:05:21.788187 | LOG | Start Test Step: Uplink - Oversized Payload via Echo for datarate FSK |
| 0:05:21.798181 | LOG | Send NewChannelReq process starts |
| 0:05:22.814543 | LOG | PULL_DATA: 02 5f02 02 3834383419003400 |
| 0:05:22.816542 | LOG | PULL_ACK: 02 5f02 04 |
| 0:05:26.735022 | LOG | PUSH_ACK: 02 3b65 01 |
| 0:05:26.737019 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b65, Identifier = 00, JSON = {'rxpk': [{'tmst': 2418150451, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAKAsBMEhuQWm7'}]} |
| 0:05:26.738019 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b28, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: 6e4169bb) |
| 0:05:26.740018 | LOG | Server <---------- DUT |
| 0:05:26.742017 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 077b, FOpts: ), FPort: 00, FRMPayload: 070428768477), MIC: 23385798) |
| 0:05:26.745015 | LOG | PULL_RESP: Protocol version = 02, Token = 5dbe, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2420150451, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAewcAuVU/TFpdIzhXmA=='}} |
| 0:05:26.746014 | LOG | Server ----------> DUT |
| 0:05:26.750012 | LOG | TX_ACK: 02 5dbe 05 3834383419003400 |
| 0:05:31.758071 | LOG | PUSH_ACK: 02 3b66 01 |
| 0:05:31.760069 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b66, Identifier = 00, JSON = {'rxpk': [{'tmst': 2423158540, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 17, 'data': 'QCAgICCCKQsHAwHiBp1mYvc='}]} |
| 0:05:31.762069 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b29, FOpts: 0703), FPort: 01, FRMPayload: 0566, MIC: 9d6662f7) |
| 0:05:31.763068 | LOG | Server <---------- DUT |
| 0:05:31.765067 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:31.766066 | LOG | Command Answer: 0703 |
| 0:05:31.772063 | LOG | MAC command communication completed |
| 0:05:31.776061 | LOG | Send MAC command block process starts |
| 0:05:32.834458 | LOG | PULL_DATA: 02 44dd 02 3834383419003400 |
| 0:05:32.836457 | LOG | PULL_ACK: 02 44dd 04 |
| 0:05:36.746233 | LOG | PUSH_ACK: 02 3b67 01 |
| 0:05:36.749231 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b67, Identifier = 00, JSON = {'rxpk': [{'tmst': 2428156324, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAKgsBaUU5dCzZ'}]} |
| 0:05:36.750230 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b2a, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: 39742cd9) |
| 0:05:36.752229 | LOG | Server <---------- DUT |
| 0:05:36.754228 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 077c, FOpts: ), FPort: 00, FRMPayload: 03701700010505d2ad84), MIC: 07f7beb2) |
| 0:05:36.756227 | LOG | PULL_RESP: Protocol version = 02, Token = 40d2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2430156324, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAfAcAnbWsjNoEjotbiAf3vrI='}} |
| 0:05:36.758226 | LOG | Server ----------> DUT |
| 0:05:36.761224 | LOG | TX_ACK: 02 40d2 05 3834383419003400 |
| 0:05:41.717407 | LOG | PUSH_ACK: 02 3b68 01 |
| 0:05:41.719404 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b68, Identifier = 00, JSON = {'rxpk': [{'tmst': 2433117267, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 19, 'data': 'QCAgICCEKwsDBwUHAVISmat4lA=='}]} |
| 0:05:41.721402 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0b2b, FOpts: 03070507), FPort: 01, FRMPayload: 0566, MIC: 99ab7894) |
| 0:05:41.723400 | LOG | Server <---------- DUT |
| 0:05:41.724400 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:41.726399 | LOG | Command Answer: 03070507 |
| 0:05:41.794359 | LOG | MAC command communication completed |
| 0:05:41.805354 | LOG | Send Test Command EchoPayloadReq process starts |
| 0:05:42.843781 | LOG | PULL_DATA: 02 9dbd 02 3834383419003400 |
| 0:05:42.847761 | LOG | PULL_ACK: 02 9dbd 04 |
| 0:05:46.724555 | LOG | PUSH_ACK: 02 3b6a 01 |
| 0:05:46.726554 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b6a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2438121211, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCLAsFBwGK6Itznv8='}]} |
| 0:05:46.728553 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b2c, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 8b739eff) |
| 0:05:46.729552 | LOG | Server <---------- DUT |
| 0:05:46.732550 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 077d, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| 0:05:53.043794 | LOG | PULL_DATA: 02 eb61 02 3834383419003400 |
| 0:05:53.045793 | LOG | PULL_ACK: 02 eb61 04 |
| 0:05:56.706679 | LOG | PUSH_ACK: 02 3b6c 01 |
| 0:05:56.707678 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b6c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2448129812, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCLgsFBwGkJyRMPBo='}]} |
| 0:05:56.709678 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b2e, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 244c3c1a) |
| 0:05:56.710677 | LOG | Server <---------- DUT |
| 0:05:56.711676 | LOG | Resend the Frame command. May the DUT did not listen |
| 0:05:56.713675 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 077e, FOpts: ), FPort: e0, FRMPayload: 08010101010101010101

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| 0:06:31.741217 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b74, Identifier = 00, JSON = {'rxpk': [{'tmst': 2483151919, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCNQsFBwGlqAEHPKI='}]} |
| 0:06:31.742217 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b35, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 01073ca2) |
| 0:06:31.743216 | LOG | Server <---------- DUT |
| 0:06:31.744216 | LOG | Packet received from unexpected FPort 01 |
| 0:06:31.751212 | LOG | Send LinkADRReq process starts |
| 0:06:33.424196 | LOG | PULL_DATA: 02 35d8 02 3834383419003400 |
| 0:06:33.426194 | LOG | PULL_ACK: 02 35d8 04 |
| 0:06:41.764900 | LOG | PUSH_ACK: 02 3b75 01 |
| 0:06:41.766898 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b75, Identifier = 00, JSON = {'rxpk': [{'tmst': 2493157861, 'chan': 9, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'FSK', 'datr': 50000, 'rssi': -12, 'size': 17, 'data': 'QCAgICCCNwsFBwH6i+QoB1M='}]} |
| 0:06:41.767897 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b37, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: e4280753) |
| 0:06:41.768896 | LOG | Server <---------- DUT |
| 0:06:41.770895 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0780, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 4d4c2f64) |
| 0:06:41.772894 | LOG | PULL_RESP: Protocol version = 02, Token = 2f7c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2495157861, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAgAcAwZNfKeNNTC9k'}} |
| 0:06:41.774893 | LOG | Server ----------> DUT |
| 0:06:41.779891 | LOG | TX_ACK: 02 2f7c 05 3834383419003400 |
| 0:06:43.452937 | LOG | PULL_DATA: 02 e67c 02 3834383419003400 |
| 0:06:43.456955 | LOG | PULL_ACK: 02 e67c 04 |
| 0:06:46.826726 | LOG | PUSH_ACK: 02 3b77 01 |
| 0:06:46.830724 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b77, Identifier = 00, JSON = {'rxpk': [{'tmst': 2498212360, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCOAsDBwHuhRl7vy8='}]} |
| 0:06:46.833721 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b38, FOpts: 0307), FPort: 01, FRMPayload: 0566, MIC: 197bbf2f) |
| 0:06:46.837717 | LOG | Server <---------- DUT |
| 0:06:46.840721 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:46.845714 | LOG | Command Answer: 0307 |
| 0:06:46.857707 | LOG | MAC command communication completed |
| 0:06:46.862703 | LOG | Send NewChannelReq process starts |
| 0:06:51.816885 | LOG | PUSH_ACK: 02 3b78 01 |
| 0:06:51.818883 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b78, Identifier = 00, JSON = {'rxpk': [{'tmst': 2503210168, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAOQsBWcdAw4T1'}]} |
| 0:06:51.819883 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b39, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: 40c384f5) |
| 0:06:51.821881 | LOG | Server <---------- DUT |
| 0:06:51.823882 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0781, FOpts: ), FPort: 00, FRMPayload: 070400000050), MIC: 0831a1c9) |
| 0:06:51.825880 | LOG | PULL_RESP: Protocol version = 02, Token = d0d1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2505210168, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 19, 'data': 'YCAgICAAgQcA9ee5IrtZCDGhyQ=='}} |
| 0:06:51.827881 | LOG | Server ----------> DUT |
| 0:06:51.831876 | LOG | TX_ACK: 02 d0d1 05 3834383419003400 |

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| 0:06:53.503832 | LOG | PULL_DATA: 02 ace0 02 3834383419003400 |
| 0:06:53.506831 | LOG | PULL_ACK: 02 ace0 04 |
| 0:06:56.816945 | LOG | PUSH_ACK: 02 3b79 01 |
| 0:06:56.818944 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b79, Identifier = 00, JSON = {'rxpk': [{'tmst': 2508220986, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCOgsHAwEfb0ccf90='}]} |
| 0:06:56.819943 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b3a, FOpts: 0703), FPort: 01, FRMPayload: 0566, MIC: 471c7fdd) |
| 0:06:56.821942 | LOG | Server <---------- DUT |
| 0:06:56.823941 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:06:56.824940 | LOG | Command Answer: 0703 |
| 0:06:56.834935 | LOG | MAC command communication completed |
| 0:06:56.838933 | LOG | End Test Step: Uplink - Oversized Payload via Echo for datarate FSK |
| 0:06:56.843930 | LOG | Partial Verdict: PASS |
| 0:06:56.847928 | LOG | ========== |
| 0:06:56.854923 | LOG | ========== |
| 0:06:56.857921 | LOG | Start Test Step: Restore default settings |
| 0:06:56.870914 | LOG | Send LinkADRReq process starts |
| 0:07:01.805415 | LOG | PUSH_ACK: 02 3b7a 01 |
| 0:07:01.807413 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b7a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2513220186, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAOwsBEK6vgKnZ'}]} |
| 0:07:01.809412 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b3b, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: af80a9d9) |
| 0:07:01.810411 | LOG | Server <---------- DUT |
| 0:07:01.812411 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0782, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: a70279ec) |
| 0:07:01.815409 | LOG | PULL_RESP: Protocol version = 02, Token = f25f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2515220186, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAggcAuS8amfenAnns'}} |
| 0:07:01.817408 | LOG | Server ----------> DUT |
| 0:07:01.820406 | LOG | TX_ACK: 02 f25f 05 3834383419003400 |
| 0:07:03.703414 | LOG | PULL_DATA: 02 b894 02 3834383419003400 |
| 0:07:03.705394 | LOG | PULL_ACK: 02 b894 04 |
| 0:07:06.826618 | LOG | PUSH_ACK: 02 3b7b 01 |
| 0:07:06.828617 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b7b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2518228261, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCPAsDBwHq/I9VqJE='}]} |
| 0:07:06.830615 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b3c, FOpts: 0307), FPort: 01, FRMPayload: 0566, MIC: 8f55a891) |
| 0:07:06.832614 | LOG | Server <---------- DUT |
| 0:07:06.834613 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:06.836612 | LOG | Command Answer: 0307 |
| 0:07:06.843608 | LOG | MAC command communication completed |
| 0:07:06.848605 | LOG | Send RXParamSetupReq process starts |
| 0:07:11.815246 | LOG | PUSH_ACK: 02 3b7c 01 |
| 0:07:11.817244 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b7c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2523226069, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAPQsB2ZJ3S8fZ'}]} |

| | | |
|---|---|---|
| 0:07:11.819244 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b3d, FOpts: ), FPort: 01, FRMPayload: 0566, MIC: 774bc7d9) |
| 0:07:11.820244 | LOG | Server <---------- DUT |
| 0:07:11.822242 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0783, FOpts: ), FPort: 00, FRMPayload: 0500d2ad84), MIC: cda23af3) |
| 0:07:11.825240 | LOG | PULL_RESP: Protocol version = 02, Token = a691, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2525226069, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF7BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAgwcAjpXxqTDNojrz'}} |
| 0:07:11.827238 | LOG | Server ----------> DUT |
| 0:07:11.830237 | LOG | TX_ACK: 02 a691 05 3834383419003400 |
| 0:07:13.713166 | LOG | PULL_DATA: 02 4a7e 02 3834383419003400 |
| 0:07:13.717163 | LOG | PULL_ACK: 02 4a7e 04 |
| 0:07:16.845903 | LOG | PUSH_ACK: 02 3b7e 01 |
| 0:07:16.847904 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b7e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2528234145, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCPgsFBwET+XMIHYY='}]} |
| 0:07:16.848903 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b3e, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 73081d86) |
| 0:07:16.850901 | LOG | Server <---------- DUT |
| 0:07:16.851900 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:07:16.853899 | LOG | Command Answer: 0507 |
| 0:07:16.867891 | LOG | MAC command communication completed |
| 0:07:16.870889 | LOG | Send Test Command RegionalDutyCycleCtrlReq process starts |
| 0:07:21.836900 | LOG | PUSH_ACK: 02 3b7f 01 |
| 0:07:21.838898 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b7f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2533237113, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCPwsFBwFc3YQ8Bec='}]} |
| 0:07:21.840897 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b3f, FOpts: 0507), FPort: 01, FRMPayload: 0566, MIC: 843c05e7) |
| 0:07:21.841897 | LOG | Server <---------- DUT |
| 0:07:21.843894 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0784, FOpts: ), FPort: e0, FRMPayload: 0501), MIC: 77552443) |
| 0:07:21.846895 | LOG | Frame command sent to the DUT |
| 0:07:21.848893 | LOG | PULL_RESP: Protocol version = 02, Token = 45b1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2535237113, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAhAfgoBZ3VSRD'}} |
| 0:07:21.849892 | LOG | Server ----------> DUT |
| 0:07:21.854862 | LOG | Send Test Command RegionalDutyCycleCtrlReq process completed |
| 0:07:21.858887 | LOG | End Test Step: Restore default settings |
| 0:07:21.863872 | LOG | Partial Verdict: PASS |
| 0:07:21.868850 | LOG | ========== |
| 0:07:21.873866 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_019_B |
| 0:07:21.875847 | LOG | Final Verdict: PASS |

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|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_020 |
| **Verdict** | PASS |
| **Date** | 2021-10-10 00:08:53 |
| **Comments** | MAC Command(s) in App-Payload and/or Frame Options |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 |

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|---|---|---|
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.189756 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_020 |
| 0:00:00.231702 | LOG | ========== |
| 0:00:00.233700 | LOG | Start Test Step: Device activation |
| 0:00:00.295664 | LOG | Activation process has finished successfully |
| 0:00:00.297664 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.299663 | LOG | DevAddr: 20202020 |
| 0:00:00.302661 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.304660 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.306659 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.309657 | LOG | End Test Step: Device activation |
| 0:00:00.312655 | LOG | Partial Verdict: PASS |
| 0:00:00.316653 | LOG | ========== |
| 0:00:00.321649 | LOG | ========== |
| 0:00:00.323649 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.332644 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.335642 | LOG | DUT Pre-condition activation completed |
| 0:00:00.337641 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.340640 | LOG | Partial Verdict: PASS |
| 0:00:00.343638 | LOG | ========== |
| 0:00:00.348635 | LOG | ========== |
| 0:00:00.350634 | LOG | Start Test Step: MAC Commands in App-Payload (FRMPayload) only (FPort = 0) |
| 0:00:00.359630 | LOG | Send MAC command block process starts |
| 0:00:01.351541 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:06.346698 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:08.352558 | LOG | PULL_DATA: 02 620f 02 3834383419003400 |
| 0:00:08.354556 | LOG | PULL_ACK: 02 620f 04 |
| 0:00:08.356555 | LOG | First PULL_DATA received |
| 0:00:16.381988 | LOG | PUSH_ACK: 02 3b82 01 |
| 0:00:16.384987 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b82, Identifier = 00, JSON = {'rxpk': [{'tmst': 2553243748, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAQwsBeCG5Llyt'}]} |
| 0:00:16.385986 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b43, FOpts: ), FPort: 01, FRMPayload: 0567, MIC: b92e5cad) |
| 0:00:16.387985 | LOG | Server <---------- DUT |
| 0:00:16.388984 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0785, FOpts: ), FPort: 00, FRMPayload: 060502d2ad8408010350000061), MIC: c006a263) |
| 0:00:16.391983 | LOG | PULL_RESP: Protocol version = 02, Token = ae48, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2555243748, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 26, 'data': 'YCAgICAAhQcAqj6EtZ2Z6YlVLUnX2MAGomM='}} |
| 0:00:16.393982 | LOG | Server ----------> DUT |
| 0:00:16.398979 | LOG | TX_ACK: 02 ae48 05 3834383419003400 |
| 0:00:18.491807 | LOG | PULL_DATA: 02 5435 02 3834383419003400 |
| 0:00:18.493787 | LOG | PULL_ACK: 02 5435 04 |
| 0:00:21.382144 | LOG | PUSH_ACK: 02 3b84 01 |

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|---|---|---|
| 0:00:21.385141 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b84, Identifier = 00, JSON = {'rxpk': [{'tmst': 2558262134, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 23, 'data': 'QCAgICCIRAsGAAkFBwgDBwF3Dsfp+f0='}]} |
| 0:00:21.386141 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 88, FCnt: 0b44, FOpts: 0600090507080307), FPort: 01, FRMPayload: 0567, MIC: c7e9f9fd) |
| 0:00:21.388141 | LOG | Server <---------- DUT |
| 0:00:21.389140 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:21.391139 | LOG | Command Answer: 0600090507080307 |
| 0:00:21.477090 | LOG | MAC command communication completed |
| 0:00:21.481087 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:28.572053 | LOG | PULL_DATA: 02 46b4 02 3834383419003400 |
| 0:00:28.574051 | LOG | PULL_ACK: 02 46b4 04 |
| 0:00:31.409438 | LOG | PUSH_ACK: 02 3b86 01 |
| 0:00:31.414436 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b86, Identifier = 00, JSON = {'rxpk': [{'tmst': 2568257694, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 18, 'data': 'QCAgICCDRQsFBwgBvmPSPD1f'}]} |
| 0:00:31.416433 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 83, FCnt: 0b45, FOpts: 050708), FPort: 01, FRMPayload: 0567, MIC: d23c3d5f) |
| 0:00:31.417433 | LOG | Server <---------- DUT |
| 0:00:31.419432 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0786, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 401164c8) |
| 0:00:31.422430 | LOG | Frame command sent to the DUT |
| 0:00:31.424430 | LOG | PULL_RESP: Protocol version = 02, Token = 37ac, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2570257694, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAhgfguIBAEWTI'}} |
| 0:00:31.425429 | LOG | Server ----------> DUT |
| 0:00:31.429426 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:31.434423 | LOG | End Test Step: MAC Commands in App-Payload (FRMPayload) only (FPort = 0) |
| 0:00:31.438422 | LOG | Partial Verdict: PASS |
| 0:00:31.442419 | LOG | ========== |
| 0:00:31.452413 | LOG | ========== |
| 0:00:31.455411 | LOG | Start Test Step: MAC Commands in Frame Options (FOpts) only (FPort != 0) |
| 0:00:31.468404 | LOG | Send MAC command block process starts |
| 0:00:38.772248 | LOG | PULL_DATA: 02 378a 02 3834383419003400 |
| 0:00:38.774247 | LOG | PULL_ACK: 02 378a 04 |
| 0:00:41.409747 | LOG | PUSH_ACK: 02 3b87 01 |
| 0:00:41.411746 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b87, Identifier = 00, JSON = {'rxpk': [{'tmst': 2578261127, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCARgsBe1cW/8ee'}]} |
| 0:00:41.412745 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b46, FOpts: ), FPort: 01, FRMPayload: 0568, MIC: 16ffc79e) |
| 0:00:41.414745 | LOG | Server <---------- DUT |
| 0:00:41.415744 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 0d, FCnt: 0787, FOpts: 060502d2ad8408010350000061), FPort: , FRMPayload: ), MIC: 8986073c) |
| 0:00:41.418742 | LOG | PULL_RESP: Protocol version = 02, Token = 2758, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2580261127, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 25, 'data': 'YCAgICANhwcGBQLSrYQIAQNQAABhiYYHPA=='}} |
| 0:00:41.419743 | LOG | Server ----------> DUT |
| 0:00:41.424738 | LOG | TX_ACK: 02 2758 05 3834383419003400 |

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| 0:00:46.407903 | LOG | PUSH_ACK: 02 3b88 01 |
| 0:00:46.409902 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b88, Identifier = 00, JSON = {'rxpk': [{'tmst': 2583279513, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 23, 'data': 'QCAgICCIRwsGAAgFBwgDBwGfjSW1wTQ='}]} |
| 0:00:46.411902 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 88, FCnt: 0b47, FOpts: 0600080507080307), FPort: 01, FRMPayload: 0568, MIC: 25b5c134) |
| 0:00:46.412903 | LOG | Server <---------- DUT |
| 0:00:46.414901 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:46.416898 | LOG | Command Answer: 0600080507080307 |
| 0:00:46.497853 | LOG | MAC command communication completed |
| 0:00:46.500852 | LOG | Send Test Command TxFramesCtrlReq process starts |
| 0:00:48.982438 | LOG | PULL_DATA: 02 91d5 02 3834383419003400 |
| 0:00:48.984438 | LOG | PULL_ACK: 02 91d5 04 |
| 0:00:56.391223 | LOG | PUSH_ACK: 02 3b8a 01 |
| 0:00:56.393222 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b8a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2593276449, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 18, 'data': 'QCAgICCDSAsFBwgB4kT+0u4w'}]} |
| 0:00:56.395221 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 83, FCnt: 0b48, FOpts: 050708), FPort: 01, FRMPayload: 0568, MIC: fed2ee30) |
| 0:00:56.397219 | LOG | Server <---------- DUT |
| 0:00:56.399218 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0788, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 0e9e55df) |
| 0:00:56.402216 | LOG | Frame command sent to the DUT |
| 0:00:56.403216 | LOG | PULL_RESP: Protocol version = 02, Token = dc37, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2595276449, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAiAfgLycOnlXf'}} |
| 0:00:56.404215 | LOG | Server ----------> DUT |
| 0:00:56.408213 | LOG | Send Test Command TxFramesCtrlReq process completed |
| 0:00:56.411213 | LOG | End Test Step: MAC Commands in Frame Options (FOpts) only (FPort != 0) |
| 0:00:56.414210 | LOG | Partial Verdict: PASS |
| 0:00:56.420207 | LOG | ========== |
| 0:00:56.425203 | LOG | ========== |
| 0:00:56.427202 | LOG | Start Test Step: MAC Commands in App-Payload (FRMPayload) and FOpts |
| 0:00:56.437196 | LOG | Send Test Command RxAppCntReq process starts |
| 0:00:59.131663 | LOG | PULL_DATA: 02 477d 02 3834383419003400 |
| 0:00:59.133680 | LOG | PULL_ACK: 02 477d 04 |
| 0:01:06.428511 | LOG | PUSH_ACK: 02 3b8b 01 |
| 0:01:06.433508 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b8b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2603277157, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCASQsBXY4L2u1B'}]} |
| 0:01:06.434508 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b49, FOpts: ), FPort: 01, FRMPayload: 0569, MIC: 0bdaed41) |
| 0:01:06.436507 | LOG | Server <---------- DUT |
| 0:01:06.438506 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0789, FOpts: ), FPort: e0, FRMPayload: 09), MIC: 71e7e5cc) |
| 0:01:06.440505 | LOG | Frame command sent to the DUT |
| 0:01:06.441504 | LOG | PULL_RESP: Protocol version = 02, Token = dda8, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2605277157, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAiQfghXHn5cw='}} |
| 0:01:06.443503 | LOG | Server ----------> DUT |

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| 0:01:06.448501 | LOG | TX_ACK: 02 dda8 05 3834383419003400 |
| 0:01:09.171950 | LOG | PULL_DATA: 02 3698 02 3834383419003400 |
| 0:01:09.172949 | LOG | PULL_ACK: 02 3698 04 |
| 0:01:11.394685 | LOG | PUSH_ACK: 02 3b8c 01 |
| 0:01:11.396685 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b8c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2608289733, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 16, 'data': 'QCAgICCASgvgp+WcX1Mlmg=='}]} |
| 0:01:11.398683 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b4a, FOpts: ), FPort: e0, FRMPayload: 096a05, MIC: 5f53259a) |
| 0:01:11.399683 | LOG | Server <---------- DUT |
| 0:01:11.401682 | LOG | Answer in payload: 6a05 |
| 0:01:11.402681 | LOG | Frame Command Payload in the Answer: 096a05 |
| 0:01:11.407678 | LOG | RX Count received by DUT: 1386 |
| 0:01:11.410676 | LOG | Send Test Command RxAppCntReq process completed |
| 0:01:11.415674 | LOG | Send MAC command block in FOpts and FRMPayload process starts |
| 0:01:19.251413 | LOG | PULL_DATA: 02 48dd 02 3834383419003400 |
| 0:01:19.253411 | LOG | PULL_ACK: 02 48dd 04 |
| 0:01:21.438150 | LOG | PUSH_ACK: 02 3b8e 01 |
| 0:01:21.440149 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b8e, Identifier = 00, JSON = {'rxpk': [{'tmst': 2618287309, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCASwsBJl7nUOsV'}]} |
| 0:01:21.441148 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b4b, FOpts: ), FPort: 01, FRMPayload: 056a, MIC: e750eb15) |
| 0:01:21.442147 | LOG | Server <---------- DUT |
| 0:01:21.443147 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 0f, FCnt: 078a, FOpts: 03000000610300000061050 2d2ad84), FPort: 00, FRMPayload: 0350000061080106), MIC: fc46de55) |
| 0:01:21.446145 | LOG | PULL_RESP: Protocol version = 02, Token = e5cf, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2620287309, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 36, 'data': 'YCAgICAPigcDAAAAYQMAAABhBQLSrYQAyCWkyaRwYIP8Rt5V'}} |
| 0:01:21.447145 | LOG | Server ----------> DUT |
| 0:01:21.453141 | LOG | TX_ACK: 02 e5cf 05 3834383419003400 |
| 0:01:26.054523 | LOG | PUSH_ACK: 02 3b8f 01 |
| 0:01:26.057523 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b8f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2622912424, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCASwsBJl7nUOsV'}]} |
| 0:01:26.058521 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b4b, FOpts: ), FPort: 01, FRMPayload: 056a, MIC: e750eb15) |
| 0:01:26.081507 | LOG | Server <---------- DUT |
| 0:01:26.083506 | LOG | MAC command not received because FPort field is not set to 0 and FOpts field is empty |
| 0:01:26.088503 | LOG | MAC command communication completed |
| 0:01:26.093501 | LOG | Send MAC command block in FOpts and FRMPayload process starts |
| 0:01:29.431601 | LOG | PULL_DATA: 02 1765 02 3834383419003400 |
| 0:01:29.433600 | LOG | PULL_ACK: 02 1765 04 |
| 0:01:31.406388 | LOG | PUSH_ACK: 02 3b90 01 |
| 0:01:31.409386 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b90, Identifier = 00, JSON = {'rxpk': [{'tmst': 2628293168, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCATQsBz/qoDnfE'}]} |

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| 0:01:31.410388 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b4d, FOpts: ), FPort: 01, FRMPayload: 056a, MIC: a80e77c4) |
| 0:01:31.411387 | LOG | Server <---------- DUT |
| 0:01:31.413384 | LOG | PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 0f, FCnt: 078b, FOpts: 03000000610300000061050 2d2ad84), FPort: 00, FRMPayload: 0350000061080106), MIC: cb05b8e9) |
| 0:01:31.417382 | LOG | PULL_RESP: Protocol version = 02, Token = 824e, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2630293168, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 36, 'data': 'oCAgICAPiwcDAAAAYQMAAABhBQLSrYQA5mpt+HKZpeHLBbjp'}} |
| 0:01:31.418381 | LOG | Server ----------> DUT |
| 0:01:31.423379 | LOG | TX_ACK: 02 824e 05 3834383419003400 |
| 0:01:36.060195 | LOG | PUSH_ACK: 02 3b91 01 |
| 0:01:36.062195 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b91, Identifier = 00, JSON = {'rxpk': [{'tmst': 2632919272, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCATQsBz/qoDnfE'}]} |
| 0:01:36.063194 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b4d, FOpts: ), FPort: 01, FRMPayload: 056a, MIC: a80e77c4) |
| 0:01:36.065193 | LOG | Server <---------- DUT |
| 0:01:36.067191 | LOG | MAC command not received because FPort field is not set to 0 and FOpts field is empty |
| 0:01:36.068191 | LOG | Confirmed wrong MAC Command. MAC Command answer received with ACK bit to 0 |
| 0:01:36.072189 | LOG | MAC command communication completed |
| 0:01:36.075187 | LOG | Send Test Command RxAppCntReq process starts |
| 0:01:39.612175 | LOG | PULL_DATA: 02 b34c 02 3834383419003400 |
| 0:01:39.616172 | LOG | PULL_ACK: 02 b34c 04 |
| 0:01:46.447285 | LOG | PUSH_ACK: 02 3b93 01 |
| 0:01:46.448284 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b93, Identifier = 00, JSON = {'rxpk': [{'tmst': 2643303232, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAUAsBX1xBBogI'}]} |
| 0:01:46.450283 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b50, FOpts: ), FPort: 01, FRMPayload: 056a, MIC: 41068808) |
| 0:01:46.451283 | LOG | Server <---------- DUT |
| 0:01:46.452282 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 078c, FOpts: ), FPort: e0, FRMPayload: 09), MIC: aabf1985) |
| 0:01:46.454281 | LOG | Frame command sent to the DUT |
| 0:01:46.456280 | LOG | PULL_RESP: Protocol version = 02, Token = 97c3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2645303232, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAjAfg7Kq/GYU='}} |
| 0:01:46.457279 | LOG | Server ----------> DUT |
| 0:01:46.461277 | LOG | TX_ACK: 02 97c3 05 3834383419003400 |
| 0:01:49.821383 | LOG | PULL_DATA: 02 3d99 02 3834383419003400 |
| 0:01:49.823364 | LOG | PULL_ACK: 02 3d99 04 |
| 0:01:51.438446 | LOG | PUSH_ACK: 02 3b95 01 |
| 0:01:51.439445 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b95, Identifier = 00, JSON = {'rxpk': [{'tmst': 2648314450, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 16, 'data': 'QCAgICCAUQvgR05yVIvmPQ=='}]} |
| 0:01:51.442445 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b51, FOpts: ), FPort: e0, FRMPayload: 096b05, MIC: 548be63d) |
| 0:01:51.443445 | LOG | Server <---------- DUT |

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| 0:01:51.444444 | LOG | Answer in payload: 6b05 |
| 0:01:51.446441 | LOG | Frame Command Payload in the Answer: 096b05 |
| 0:01:51.452438 | LOG | RX Count received by DUT: 1387 |
| 0:01:51.456435 | LOG | Send Test Command RxAppCntReq process completed |
| 0:01:51.464431 | LOG | End Test Step: MAC Commands in App-Payload (FRMPayload) and FOpts |
| 0:01:51.470427 | LOG | Partial Verdict: PASS |
| 0:01:51.474426 | LOG | ========== |
| 0:01:51.479423 | LOG | ========== |
| 0:01:51.482420 | LOG | Start Test Step: Incorrect MAC Commands |
| 0:01:51.492416 | LOG | Send LinkADRReq process starts |
| 0:01:59.901629 | LOG | PULL_DATA: 02 c8e9 02 3834383419003400 |
| 0:01:59.903629 | LOG | PULL_ACK: 02 c8e9 04 |
| 0:02:01.460742 | LOG | PUSH_ACK: 02 3b96 01 |
| 0:02:01.463740 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b96, Identifier = 00, JSON = {'rxpk': [{'tmst': 2658312026, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAUgsBmJA8Qi/s'}]} |
| 0:02:01.464740 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b52, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 3c422fec) |
| 0:02:01.466740 | LOG | Server <---------- DUT |
| 0:02:01.467738 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 078d, FOpts: ), FPort: 00, FRMPayload: 0380000000), MIC: 14d6d638) |
| 0:02:01.469738 | LOG | PULL_RESP: Protocol version = 02, Token = 9a75, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2660312026, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAjQcAvDm1tEgU1tY4'}} |
| 0:02:01.470737 | LOG | Server ----------> DUT |
| 0:02:01.474022 | LOG | TX_ACK: 02 9a75 05 3834383419003400 |
| 0:02:06.469552 | LOG | PUSH_ACK: 02 3b97 01 |
| 0:02:06.471551 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b97, Identifier = 00, JSON = {'rxpk': [{'tmst': 2663321507, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 17, 'data': 'QCAgICCCUwsDBAHF3pdtWDY='}]} |
| 0:02:06.472551 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b53, FOpts: 0304), FPort: 01, FRMPayload: 056b, MIC: 976d5836) |
| 0:02:06.474550 | LOG | Server <---------- DUT |
| 0:02:06.475549 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:06.477548 | LOG | Command Answer: 0304 |
| 0:02:06.481546 | LOG | MAC command communication completed |
| 0:02:06.484544 | LOG | Answer received from DUT: 04 |
| 0:02:06.488542 | LOG | Send LinkADRReq process starts |
| 0:02:10.081499 | LOG | PULL_DATA: 02 7a80 02 3834383419003400 |
| 0:02:10.086495 | LOG | PULL_ACK: 02 7a80 04 |
| 0:02:16.443877 | LOG | PUSH_ACK: 02 3b98 01 |
| 0:02:16.445876 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b98, Identifier = 00, JSON = {'rxpk': [{'tmst': 2673323643, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAVAsBMghClOzH'}]} |
| 0:02:16.446876 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b54, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 4294ecc7) |
| 0:02:16.447875 | LOG | Server <---------- DUT |
| 0:02:16.450874 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 078e, FOpts: ), FPort: 00, FRMPayload: 03010000), MIC: 3c8520e6) |
| 0:02:16.453871 | LOG | PULL_RESP: Protocol version = 02, Token = 7991, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2675323643, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': |

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| | | 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAjgcAVk5PCTyFIOY='}} |
| 0:02:16.454871 | LOG | Server ----------> DUT |
| 0:02:16.459868 | LOG | TX_ACK: 02 7991 05 3834383419003400 |
| 0:02:20.231723 | LOG | PULL_DATA: 02 7ec4 02 3834383419003400 |
| 0:02:20.233721 | LOG | PULL_ACK: 02 7ec4 04 |
| 0:02:21.447034 | LOG | PUSH_ACK: 02 3b9a 01 |
| 0:02:21.451029 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b9a, Identifier = 00, JSON = {'rxpk': [{'tmst': 2678327989, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAVQsBP3aO4bWQ'}]} |
| 0:02:21.455026 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b55, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 8ee1b590) |
| 0:02:21.459025 | LOG | Server <---------- DUT |
| 0:02:21.462023 | LOG | MAC command not received because FPort field is not set to 0 and FOpts field is empty |
| 0:02:26.439190 | LOG | PUSH_ACK: 02 3b9b 01 |
| 0:02:26.441189 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b9b, Identifier = 00, JSON = {'rxpk': [{'tmst': 2683330973, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAVgsBtur57Yh4'}]} |
| 0:02:26.443187 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b56, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: f9ed8878) |
| 0:02:26.444187 | LOG | Server <---------- DUT |
| 0:02:26.446186 | LOG | Resend the MAC command. May the DUT did not listen |
| 0:02:26.447185 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 078f, FOpts: ), FPort: 00, FRMPayload: 03010000), MIC: 19cbd670) |
| 0:02:26.451183 | LOG | PULL_RESP: Protocol version = 02, Token = a292, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2685330973, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAjwcAqpdypBnL1nA='}} |
| 0:02:26.453181 | LOG | Server ----------> DUT |
| 0:02:26.456181 | LOG | TX_ACK: 02 a292 05 3834383419003400 |
| 0:02:30.441655 | LOG | PULL_DATA: 02 ff5c 02 3834383419003400 |
| 0:02:30.443653 | LOG | PULL_ACK: 02 ff5c 04 |
| 0:02:31.437089 | LOG | PUSH_ACK: 02 3b9c 01 |
| 0:02:31.440086 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b9c, Identifier = 00, JSON = {'rxpk': [{'tmst': 2688333954, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAVwsBsLFyHU4y'}]} |
| 0:02:31.441087 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b57, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 721d4e32) |
| 0:02:31.442085 | LOG | Server <---------- DUT |
| 0:02:31.444085 | LOG | MAC command not received because FPort field is not set to 0 and FOpts field is empty |
| 0:02:36.479219 | LOG | PUSH_ACK: 02 3b9d 01 |
| 0:02:36.482217 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b9d, Identifier = 00, JSON = {'rxpk': [{'tmst': 2693338250, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAWAsBXENCrrjU'}]} |
| 0:02:36.483216 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b58, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 42aeb8d4) |
| 0:02:36.485217 | LOG | Server <---------- DUT |
| 0:02:36.486215 | LOG | Resend the MAC command. May the DUT did not listen |
| 0:02:36.488216 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0790, FOpts: ), FPort: 00, FRMPayload: 03010000), MIC: a32f942f) |

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| 0:02:36.491213 | LOG | PULL_RESP: Protocol version = 02, Token = 1777, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2695338250, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAkAcAkvayE6MvlC8='}} |
| 0:02:36.493211 | LOG | Server ----------> DUT |
| 0:02:36.503205 | LOG | Send Unknown command process starts |
| 0:02:40.480943 | LOG | PULL_DATA: 02 2261 02 3834383419003400 |
| 0:02:40.484940 | LOG | PULL_ACK: 02 2261 04 |
| 0:02:41.446394 | LOG | PUSH_ACK: 02 3b9f 01 |
| 0:02:41.447393 | LOG | PUSH_DATA: Protocol version = 02, Token = 3b9f, Identifier = 00, JSON = {'rxpk': [{'tmst': 2698342619, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAWQsBpdMhCqpU'}]} |
| 0:02:41.449393 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b59, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 210aaa54) |
| 0:02:41.450390 | LOG | Server <---------- DUT |
| 0:02:41.451390 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0791, FOpts: ), FPort: 00, FRMPayload: 7f), MIC: 2e47d0a1) |
| 0:02:41.454390 | LOG | PULL_RESP: Protocol version = 02, Token = 5313, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2700342619, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAkQcAjy5H0KE='}} |
| 0:02:41.455389 | LOG | Server ----------> DUT |
| 0:02:41.459388 | LOG | TX_ACK: 02 5313 05 3834383419003400 |
| 0:02:46.459540 | LOG | PUSH_ACK: 02 3ba0 01 |
| 0:02:46.461538 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2703346973, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAWgsBj9ESc7Um'}]} |
| 0:02:46.462538 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b5a, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 1273b526) |
| 0:02:46.463537 | LOG | Server <---------- DUT |
| 0:02:46.465537 | LOG | MAC command not received because FPort field is not set to 0 and FOpts field is empty |
| 0:02:46.470536 | LOG | Send MAC command block process starts |
| 0:02:50.691134 | LOG | PULL_DATA: 02 6b76 02 3834383419003400 |
| 0:02:50.693131 | LOG | PULL_ACK: 02 6b76 04 |
| 0:02:51.467692 | LOG | PUSH_ACK: 02 3ba2 01 |
| 0:02:51.469694 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2708349941, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAWwsByzkD37Fr'}]} |
| 0:02:51.470689 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b5b, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 03dfb16b) |
| 0:02:51.471718 | LOG | Server <---------- DUT |
| 0:02:51.474705 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0792, FOpts: ), FPort: 00, FRMPayload: 0603010000), MIC: 4fc4e1d5) |
| 0:02:51.479684 | LOG | PULL_RESP: Protocol version = 02, Token = 8f5f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2710349941, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAkgcARJ35PjtPxOHV'}} |
| 0:02:51.482683 | LOG | Server ----------> DUT |
| 0:02:51.488678 | LOG | TX_ACK: 02 8f5f 05 3834383419003400 |
| 0:02:56.506907 | LOG | PUSH_ACK: 02 3ba3 01 |
| 0:02:56.508906 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2713358086, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': |

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| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 18, 'data': 'QCAgICCDXAsGAAgBNCmuEAfv'}]} |
| 0:02:56.509904 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 83, FCnt: 0b5c, FOpts: 060008), FPort: 01, FRMPayload: 056b, MIC: ae1007ef) |
| 0:02:56.510903 | LOG | Server <---------- DUT |
| 0:02:56.512902 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:02:56.514900 | LOG | Command Answer: 060008 |
| 0:02:56.563873 | LOG | MAC command communication completed |
| 0:02:56.566871 | LOG | Send MAC command block process starts |
| 0:03:00.721507 | LOG | PULL_DATA: 02 96b1 02 3834383419003400 |
| 0:03:00.722508 | LOG | PULL_ACK: 02 96b1 04 |
| 0:03:06.480229 | LOG | PUSH_ACK: 02 3ba4 01 |
| 0:03:06.481229 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba4, Identifier = 00, JSON = {'rxpk': [{'tmst': 2723358846, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAXQsB6SJDVerI'}]} |
| 0:03:06.483228 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b5d, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 4355eac8) |
| 0:03:06.484228 | LOG | Server <---------- DUT |
| 0:03:06.485227 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0793, FOpts: ), FPort: 00, FRMPayload: 03500000617f06), MIC: 3f380aa9) |
| 0:03:06.488225 | LOG | PULL_RESP: Protocol version = 02, Token = 0f1a, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2725358846, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 20, 'data': 'YCAgICAAkwcAsjO1Drx+0z84Cqk='}} |
| 0:03:06.489225 | LOG | Server ----------> DUT |
| 0:03:06.493222 | LOG | TX_ACK: 02 0f1a 05 3834383419003400 |
| 0:03:10.900686 | LOG | PULL_DATA: 02 2acd 02 3834383419003400 |
| 0:03:10.904683 | LOG | PULL_ACK: 02 2acd 04 |
| 0:03:11.519364 | LOG | PUSH_ACK: 02 3ba5 01 |
| 0:03:11.523334 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2728372377, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCXgsDBwFz/7BVWOk='}]} |
| 0:03:11.525360 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b5e, FOpts: 0307), FPort: 01, FRMPayload: 056b, MIC: b05558e9) |
| 0:03:11.528359 | LOG | Server <---------- DUT |
| 0:03:11.531328 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:03:11.534329 | LOG | Command Answer: 0307 |
| 0:03:11.593291 | LOG | MAC command communication completed |
| 0:03:11.596289 | LOG | Receive frame on specific channels process starts |
| 0:03:11.604285 | LOG | Attempt 1/15 |
| 0:03:20.980599 | LOG | PULL_DATA: 02 3bbc 02 3834383419003400 |
| 0:03:20.982598 | LOG | PULL_ACK: 02 3bbc 04 |
| 0:03:21.508329 | LOG | PUSH_ACK: 02 3ba7 01 |
| 0:03:21.510329 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2738374529, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAXwsBzNZD8uUH'}]} |
| 0:03:21.511327 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b5f, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 43f2e507) |
| 0:03:21.512328 | LOG | Server <---------- DUT |
| 0:03:21.514301 | LOG | Attempt 2/15 |
| 0:03:26.498511 | LOG | PUSH_ACK: 02 3ba8 01 |

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| 0:03:26.501510 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2743377441, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAYAsB/GJlECuW'}]} |
| 0:03:26.502509 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b60, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 65102b96) |
| 0:03:26.504508 | LOG | Server <---------- DUT |
| 0:03:26.506507 | LOG | Attempt 3/15 |
| 0:03:31.060915 | LOG | PULL_DATA: 02 a282 02 3834383419003400 |
| 0:03:31.062914 | LOG | PULL_ACK: 02 a282 04 |
| 0:03:31.489672 | LOG | PUSH_ACK: 02 3ba9 01 |
| 0:03:31.491670 | LOG | PUSH_DATA: Protocol version = 02, Token = 3ba9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2748380401, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAYQsB09RhfujC'}]} |
| 0:03:31.493669 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b61, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 617ee8c2) |
| 0:03:31.494668 | LOG | Server <---------- DUT |
| 0:03:31.496667 | LOG | Attempt 4/15 |
| 0:03:36.530802 | LOG | PUSH_ACK: 02 3baa 01 |
| 0:03:36.532802 | LOG | PUSH_DATA: Protocol version = 02, Token = 3baa, Identifier = 00, JSON = {'rxpk': [{'tmst': 2753383329, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAYgsBP2ArHQti'}]} |
| 0:03:36.534801 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b62, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 2b1d0b62) |
| 0:03:36.535799 | LOG | Server <---------- DUT |
| 0:03:36.537799 | LOG | Attempt 5/15 |
| 0:03:41.141179 | LOG | PULL_DATA: 02 39d8 02 3834383419003400 |
| 0:03:41.145207 | LOG | PULL_ACK: 02 39d8 04 |
| 0:03:41.520963 | LOG | PUSH_ACK: 02 3bab 01 |
| 0:03:41.522962 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bab, Identifier = 00, JSON = {'rxpk': [{'tmst': 2758387665, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAYwsBnhFOFoXp'}]} |
| 0:03:41.523961 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b63, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 4e1685e9) |
| 0:03:41.524961 | LOG | Server <---------- DUT |
| 0:03:41.526960 | LOG | Attempt 6/15 |
| 0:03:46.511124 | LOG | PUSH_ACK: 02 3bac 01 |
| 0:03:46.513122 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bac, Identifier = 00, JSON = {'rxpk': [{'tmst': 2763392001, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAZAsBOaDeSrwu'}]} |
| 0:03:46.514122 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b64, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: de4abc2e) |
| 0:03:46.516121 | LOG | Server <---------- DUT |
| 0:03:46.517120 | LOG | Attempt 7/15 |
| 0:03:51.230438 | LOG | PULL_DATA: 02 1b81 02 3834383419003400 |
| 0:03:51.232437 | LOG | PULL_ACK: 02 1b81 04 |
| 0:03:51.517277 | LOG | PUSH_ACK: 02 3bae 01 |
| 0:03:51.519276 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bae, Identifier = 00, JSON = {'rxpk': [{'tmst': 2768394937, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 11.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAZQsB5C8+z5XB'}]} |

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| 0:03:51.520275 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b65, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 3ecf95c1) |
| 0:03:51.521277 | LOG | Server <---------- DUT |
| 0:03:51.523276 | LOG | Attempt 8/15 |
| 0:03:56.506440 | LOG | PUSH_ACK: 02 3baf 01 |
| 0:03:56.510441 | LOG | PUSH_DATA: Protocol version = 02, Token = 3baf, Identifier = 00, JSON = {'rxpk': [{'tmst': 2773397881, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAZgsBte9d05P/'}]} |
| 0:03:56.513433 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b66, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 5dd393ff) |
| 0:03:56.514432 | LOG | Server <---------- DUT |
| 0:03:56.515442 | LOG | Attempt 9/15 |
| 0:04:01.310733 | LOG | PULL_DATA: 02 b632 02 3834383419003400 |
| 0:04:01.312701 | LOG | PULL_ACK: 02 b632 04 |
| 0:04:01.548568 | LOG | PUSH_ACK: 02 3bb0 01 |
| 0:04:01.550567 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2778400801, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 15, 'data': 'QCAgICCAZwsBLQm3WTnM'}]} |
| 0:04:01.552566 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b67, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: b75939cc) |
| 0:04:01.554565 | LOG | Server <---------- DUT |
| 0:04:01.557563 | LOG | Attempt 10/15 |
| 0:04:06.536730 | LOG | PUSH_ACK: 02 3bb1 01 |
| 0:04:06.538729 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2783403721, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAaAsBNQDSMj+5'}]} |
| 0:04:06.539727 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b68, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: d2323fb9) |
| 0:04:06.541726 | LOG | Server <---------- DUT |
| 0:04:06.542726 | LOG | Attempt 11/15 |
| 0:04:11.390968 | LOG | PULL_DATA: 02 e769 02 3834383419003400 |
| 0:04:11.394964 | LOG | PULL_ACK: 02 e769 04 |
| 0:04:11.525891 | LOG | PUSH_ACK: 02 3bb2 01 |
| 0:04:11.527889 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2788408009, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAaQsBCPQygnXt'}]} |
| 0:04:11.529888 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b69, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 328275ed) |
| 0:04:11.530888 | LOG | Server <---------- DUT |
| 0:04:11.532917 | LOG | Attempt 12/15 |
| 0:04:16.514052 | LOG | PUSH_ACK: 02 3bb3 01 |
| 0:04:16.516051 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2793412337, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAagsBTgI+FClO'}]} |
| 0:04:16.518051 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b6a, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 3e14294e) |
| 0:04:16.521049 | LOG | Server <---------- DUT |
| 0:04:16.524046 | LOG | Attempt 13/15 |
| 0:04:21.471231 | LOG | PULL_DATA: 02 7f24 02 3834383419003400 |
| 0:04:21.474229 | LOG | PULL_ACK: 02 7f24 04 |
| 0:04:21.516205 | LOG | PUSH_ACK: 02 3bb5 01 |

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| 0:04:21.518204 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2798415265, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAawsBv1WYSjfY'}]} |
| 0:04:21.520203 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b6b, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 984a37d8) |
| 0:04:21.521202 | LOG | Server <---------- DUT |
| 0:04:21.522202 | LOG | Attempt 14/15 |
| 0:04:26.556343 | LOG | PUSH_ACK: 02 3bb6 01 |
| 0:04:26.559340 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2803418217, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.8, 'rssi': -17, 'size': 15, 'data': 'QCAgICCAbAsBkGTMthac'}]} |
| 0:04:26.560336 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b6c, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: ccb6169c) |
| 0:04:26.561336 | LOG | Server <---------- DUT |
| 0:04:26.562335 | LOG | Attempt 15/15 |
| 0:04:31.547974 | LOG | PUSH_ACK: 02 3bb7 01 |
| 0:04:31.552969 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb7, Identifier = 00, JSON = {'rxpk': [{'tmst': 2808421145, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAbQsBgENB9gLm'}]} |
| 0:04:31.554968 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b6d, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 41f602e6) |
| 0:04:31.555969 | LOG | Server <---------- DUT |
| 0:04:31.562963 | LOG | Receive frame on specific channels process tested successfully |
| 0:04:31.565963 | LOG | End Test Step: Incorrect MAC Commands |
| 0:04:31.568962 | LOG | Partial Verdict: PASS |
| 0:04:31.573957 | LOG | ========== |
| 0:04:31.578956 | LOG | ========== |
| 0:04:31.580955 | LOG | Start Test Step: Restore default settings |
| 0:04:31.596945 | LOG | Send RXTimingSetupReq process starts |
| 0:04:36.540131 | LOG | PUSH_ACK: 02 3bb8 01 |
| 0:04:36.542130 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb8, Identifier = 00, JSON = {'rxpk': [{'tmst': 2813424105, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAbgsBJ2gjgM5u'}]} |
| 0:04:36.544129 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b6e, FOpts: ), FPort: 01, FRMPayload: 056b, MIC: 2380ce6e) |
| 0:04:36.545130 | LOG | Server <---------- DUT |
| 0:04:36.546130 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0794, FOpts: ), FPort: 00, FRMPayload: 0800), MIC: fe6606f4) |
| 0:04:36.548129 | LOG | PULL_RESP: Protocol version = 02, Token = 8bf0, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2815424105, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAlAcALab+Zgb0'}} |
| 0:04:36.549128 | LOG | Server ----------> DUT |
| 0:04:36.552125 | LOG | TX_ACK: 02 8bf0 05 3834383419003400 |
| 0:04:41.538287 | LOG | PUSH_ACK: 02 3bb9 01 |
| 0:04:41.542285 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bb9, Identifier = 00, JSON = {'rxpk': [{'tmst': 2818432195, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -14, 'size': 16, 'data': 'QCAgICCBbwsIARvj5YVnTQ=='}]} |
| 0:04:41.543285 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0b6f, FOpts: 08), FPort: 01, FRMPayload: 056b, MIC: e585674d) |
| 0:04:41.544284 | LOG | Server <---------- DUT |

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| 0:04:41.545283 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:04:41.546283 | LOG | Command Answer: 08 |
| 0:04:41.563273 | LOG | MAC command communication completed |
| 0:04:41.574267 | LOG | Send MAC command block process starts |
| 0:04:41.590292 | LOG | PULL_DATA: 02 0e7c 02 3834383419003400 |
| 0:04:41.592290 | LOG | PULL_ACK: 02 0e7c 04 |
| 0:04:51.579680 | LOG | PUSH_ACK: 02 3bbb 01 |
| 0:04:51.581679 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bbb, Identifier = 00, JSON = {'rxpk': [{'tmst': 2828438107, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 16, 'data': 'QCAgICCBcAsIAWX2VkFVwA==\'}]} |
| 0:04:51.583678 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 81, FCnt: 0b70, FOpts: 08), FPort: 01, FRMPayload: 056b, MIC: 564155c0) |
| 0:04:51.584677 | LOG | Server <---------- DUT |
| 0:04:51.585676 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0795, FOpts: ), FPort: 00, FRMPayload: 03500700010500d2ad84), MIC: 956ed9ef) |
| 0:04:51.588676 | LOG | PULL_RESP: Protocol version = 02, Token = eb9b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2830438107, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF10BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 23, 'data': 'YCAgICAAlQcAlm27waQeBPDHrJVu2e8=\'}} |
| 0:04:51.589674 | LOG | Server ----------> DUT |
| 0:04:51.592688 | LOG | TX_ACK: 02 eb9b 05 3834383419003400 |
| 0:04:51.594673 | LOG | PULL_DATA: 02 c88c 02 3834383419003400 |
| 0:04:51.595689 | LOG | PULL_ACK: 02 c88c 04 |
| 0:05:01.566499 | LOG | PUSH_ACK: 02 3bbc 01 |
| 0:05:01.569496 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bbc, Identifier = 00, JSON = {'rxpk': [{'tmst': 2838449629, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -14, 'size': 19, 'data': 'QCAgICCEcQsDBwUHAYS0oLlgNg==\'}]} |
| 0:05:01.571495 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 84, FCnt: 0b71, FOpts: 03070507), FPort: 01, FRMPayload: 056b, MIC: a0b96036) |
| 0:05:01.572494 | LOG | Server <---------- DUT |
| 0:05:01.574493 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:05:01.576491 | LOG | Command Answer: 03070507 |
| 0:05:01.690397 | LOG | MAC command communication completed |
| 0:05:01.697395 | LOG | End Test Step: Restore default settings |
| 0:05:01.702408 | LOG | Partial Verdict: PASS |
| 0:05:01.708386 | LOG | ========== |
| 0:05:01.713384 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_020 |
| 0:05:01.714384 | LOG | Final Verdict: PASS |

| | | |
|---|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_021 | |
| **Verdict** | PASS | |
| **Date** | 2021-10-10 00:13:58 | |
| **Comments** | Multiple MAC commands prioritization | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.016316 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_021 |
| 0:00:00.050295 | LOG | ========== |
| 0:00:00.052294 | LOG | Start Test Step: Device activation |
| 0:00:00.114260 | LOG | Activation process has finished successfully |
| 0:00:00.116259 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.119256 | LOG | DevAddr: 20202020 |
| 0:00:00.121255 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.124252 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.126251 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.130249 | LOG | End Test Step: Device activation |
| 0:00:00.134247 | LOG | Partial Verdict: PASS |
| 0:00:00.138245 | LOG | ========== |
| 0:00:00.143242 | LOG | ========== |
| 0:00:00.145241 | LOG | Start Test Step: DUT Pre-condition settings |
| 0:00:00.157234 | LOG | DUT Pre-condition activation process starts |
| 0:00:00.160233 | LOG | DUT Pre-condition activation completed |
| 0:00:00.164230 | LOG | End Test Step: DUT Pre-condition settings |
| 0:00:00.168228 | LOG | Partial Verdict: PASS |
| 0:00:00.172226 | LOG | ========== |
| 0:00:00.176224 | LOG | ========== |
| 0:00:00.179222 | LOG | Start Test Step: Test MAC Command priorization |
| 0:00:00.191215 | LOG | Send MAC command block process starts |
| 0:00:06.551597 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:00:06.708506 | LOG | PULL_DATA: 02 e862 02 3834383419003400 |
| 0:00:06.710505 | LOG | PULL_ACK: 02 e862 04 |
| 0:00:06.712504 | LOG | First PULL_DATA received |
| 0:00:16.545909 | LOG | PUSH_ACK: 02 3bc0 01 |
| 0:00:16.548907 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bc0, Identifier = 00, JSON = {'rxpk': [{'tmst': 2858462805, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -15, 'size': 17, 'data': 'QCAgICCCcwsFBwEDTt0Ea+8='}]} |
| 0:00:16.549906 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b73, FOpts: 0507), FPort: 01, FRMPayload: 056b, MIC: dd046bef) |
| 0:00:16.550906 | LOG | Server <---------- DUT |
| 0:00:16.552905 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 06, FCnt: 0796, FOpts: 060350070001), FPort: e0, FRMPayload: 20), MIC: 72392216) |
| 0:00:16.554904 | LOG | PULL_RESP: Protocol version = 02, Token = 5d29, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2860462805, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 20, 'data': 'YCAgICAGlgcGA1AHAAHgzHI5IhY='}} |
| 0:00:16.556903 | LOG | Server ----------> DUT |
| 0:00:16.559901 | LOG | TX_ACK: 02 5d29 05 3834383419003400 |
| 0:00:16.767802 | LOG | PULL_DATA: 02 2853 02 3834383419003400 |
| 0:00:16.771799 | LOG | PULL_ACK: 02 2853 04 |
| 0:00:26.571973 | LOG | PUSH_ACK: 02 3bc1 01 |
| 0:00:26.573972 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bc1, Identifier = 00, JSON = {'rxpk': [{'tmst': 2868475374, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 21, 'data': 'QCAgICCGdAsGAAcDBwIB7gjzTEQm'}]} |
| 0:00:26.574971 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 86, FCnt: 0b74, FOpts: 060007030702), FPort: 01, FRMPayload: 056c, MIC: f34c4426) |
| 0:00:26.575971 | LOG | Server <---------- DUT |

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|---|---|---|
| 0:00:26.577971 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:26.579969 | LOG | Command Answer: 060007030702 |
| 0:00:26.581968 | LOG | Sending LinkCheckAns to DUT: 020d01 |
| 0:00:26.582967 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0797, FOpts: ), FPort: 00, FRMPayload: 020d01), MIC: 4bde7ffe) |
| 0:00:26.586964 | LOG | PULL_RESP: Protocol version = 02, Token = 0682, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2870475374, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 16, 'data': 'YCAgICAAlwcAf0JOS95//g=='}} |
| 0:00:26.587964 | LOG | Server ----------> DUT |
| 0:00:26.626941 | LOG | MAC command communication completed |
| 0:00:26.629941 | LOG | End Test Step: Test MAC Command priorization |
| 0:00:26.634937 | LOG | Partial Verdict: PASS |
| 0:00:26.638935 | LOG | ========== |
| 0:00:26.643932 | LOG | ========== |
| 0:00:26.645931 | LOG | Start Test Step: Test MAC Command payload truncation |
| 0:00:26.658923 | LOG | Send LinkADRReq process starts |
| 0:00:26.798843 | LOG | PULL_DATA: 02 d9be 02 3834383419003400 |
| 0:00:26.801841 | LOG | PULL_ACK: 02 d9be 04 |
| 0:00:36.575281 | LOG | PUSH_ACK: 02 3bc2 01 |
| 0:00:36.578279 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bc2, Identifier = 00, JSON = {'rxpk': [{'tmst': 2878471009, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.0, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAdQsBp1/rijqr'}]} |
| 0:00:36.580278 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b75, FOpts: ), FPort: 01, FRMPayload: 056c, MIC: eb8a3aab) |
| 0:00:36.581277 | LOG | Server <---------- DUT |
| 0:00:36.583277 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0798, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: c3f19166) |
| 0:00:36.585275 | LOG | PULL_RESP: Protocol version = 02, Token = 86cc, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2880471009, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YCAgICAAmAcA/MJJrnrD8ZFm'}} |
| 0:00:36.586275 | LOG | Server ----------> DUT |
| 0:00:36.590272 | LOG | TX_ACK: 02 86cc 05 3834383419003400 |
| 0:00:37.008066 | LOG | PULL_DATA: 02 0403 02 3834383419003400 |
| 0:00:37.010064 | LOG | PULL_ACK: 02 0403 04 |
| 0:00:41.545458 | LOG | PUSH_ACK: 02 3bc3 01 |
| 0:00:41.547454 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bc3, Identifier = 00, JSON = {'rxpk': [{'tmst': 2883480498, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 8.8, 'rssi': -13, 'size': 17, 'data': 'QCAgICCCdgsDBwHpiKSIBRk='}]} |
| 0:00:41.549483 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b76, FOpts: 0307), FPort: 01, FRMPayload: 056c, MIC: a4880519) |
| 0:00:41.551452 | LOG | Server <---------- DUT |
| 0:00:41.552452 | LOG | FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field |
| 0:00:41.553481 | LOG | Command Answer: 0307 |
| 0:00:41.561474 | LOG | MAC command communication completed |
| 0:00:41.567443 | LOG | Send MAC command block process starts |
| 0:00:47.098324 | LOG | PULL_DATA: 02 8b3f 02 3834383419003400 |
| 0:00:47.100322 | LOG | PULL_ACK: 02 8b3f 04 |
| 0:00:51.580744 | LOG | PUSH_ACK: 02 3bc5 01 |
| 0:00:51.583741 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bc5, Identifier = 00, JSON = {'rxpk': [{'tmst': 2893481362, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': |

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|---|---|---|
| | | 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -16, 'size': 15, 'data': 'QCAgICCAdwsBeRn77QtQ'}]} |
| 0:00:51.584740 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b77, FOpts: ), FPort: 01, FRMPayload: 056c, MIC: fbed0b50) |
| 0:00:51.614723 | LOG | Server <---------- DUT |
| 0:00:51.616722 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 0799, FOpts: ), FPort: 00, FRMPayload: 060500d2ad840606060606060606060606060606060300070001), MIC: 4e6127d1) |
| 0:00:51.618722 | LOG | PULL_RESP: Protocol version = 02, Token = 5915, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 2895481362, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 39, 'data': 'YCAgICAAmQcA2ItuwH5N4f2Duvc5/LTZWZNTJZw1C/8uh8lOYSfR'}} |
| 0:00:51.620720 | LOG | Server ----------> DUT |
| 0:00:51.623718 | LOG | TX_ACK: 02 5915 05 3834383419003400 |
| 0:00:57.287525 | LOG | PULL_DATA: 02 bf2e 02 3834383419003400 |
| 0:00:57.289525 | LOG | PULL_ACK: 02 bf2e 04 |
| 0:00:59.318340 | LOG | PUSH_ACK: 02 3bc6 01 |
| 0:00:59.324336 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bc6, Identifier = 00, JSON = {'rxpk': [{'tmst': 2901222414, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.8, 'rssi': -15, 'size': 63, 'data': 'QCAgICCAeAsAHBbzjlDUbyLPX8aqMal+SSE9TlL/xA0lMLXipCP4MPr/17bxiqw/0DaqhG7OB+ucm8gWzmoV'}]} |
| 0:00:59.327334 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b78, FOpts: ), FPort: 00, FRMPayload: 06000805070600080600080600080600080600080600080600080600080600080600080600080600080600080600080600080600008060, MIC: 16ce6a15) |
| 0:00:59.331332 | LOG | Server <---------- DUT |
| 0:00:59.332332 | LOG | Command Answer: 06000805070600080600080600080600080600080600080600080600080600080600080600080600080600080600080600008060 |
| 0:00:59.464257 | LOG | MAC command communication completed |
| 0:00:59.467255 | LOG | Check previous uplink data rate process starts |
| 0:00:59.471253 | LOG | Uplink received with expected Data Rate |
| 0:00:59.474253 | LOG | End Test Step: Test MAC Command payload truncation |
| 0:00:59.477251 | LOG | Partial Verdict: PASS |
| 0:00:59.482248 | LOG | ========== |
| 0:00:59.489262 | LOG | ========== |
| 0:00:59.492241 | LOG | Start Test Step: Test MAC Command payload without truncation |
| 0:00:59.504234 | LOG | Send MAC command block process starts |
| 0:01:07.367760 | LOG | PULL_DATA: 02 c1f8 02 3834383419003400 |
| 0:01:07.371757 | LOG | PULL_ACK: 02 c1f8 04 |
| 0:01:17.448054 | LOG | PULL_DATA: 02 06dc 02 3834383419003400 |
| 0:01:17.449053 | LOG | PULL_ACK: 02 06dc 04 |
| 0:01:27.527320 | LOG | PULL_DATA: 02 7abc 02 3834383419003400 |
| 0:01:27.529317 | LOG | PULL_ACK: 02 7abc 04 |
| 0:01:37.607584 | LOG | PULL_DATA: 02 0f61 02 3834383419003400 |
| 0:01:37.612552 | LOG | PULL_ACK: 02 0f61 04 |
| 0:01:47.687847 | LOG | PULL_DATA: 02 258e 02 3834383419003400 |
| 0:01:47.688846 | LOG | PULL_ACK: 02 258e 04 |
| 0:01:57.767112 | LOG | PULL_DATA: 02 8528 02 3834383419003400 |
| 0:01:57.769111 | LOG | PULL_ACK: 02 8528 04 |
| 0:02:07.847376 | LOG | PULL_DATA: 02 d593 02 3834383419003400 |
| 0:02:07.850374 | LOG | PULL_ACK: 02 d593 04 |
| 0:02:17.927642 | LOG | PULL_DATA: 02 a49d 02 3834383419003400 |
| 0:02:17.929639 | LOG | PULL_ACK: 02 a49d 04 |

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|---|---|---|
| 0:02:28.016901 | LOG | PULL_DATA: 02 1fe5 02 3834383419003400 |
| 0:02:28.018897 | LOG | PULL_ACK: 02 1fe5 04 |
| 0:02:38.097162 | LOG | PULL_DATA: 02 6407 02 3834383419003400 |
| 0:02:38.101133 | LOG | PULL_ACK: 02 6407 04 |
| 0:02:48.177426 | LOG | PULL_DATA: 02 478c 02 3834383419003400 |
| 0:02:48.178426 | LOG | PULL_ACK: 02 478c 04 |
| 0:02:58.256690 | LOG | PULL_DATA: 02 5a20 02 3834383419003400 |
| 0:02:58.258688 | LOG | PULL_ACK: 02 5a20 04 |
| 0:03:08.336943 | LOG | PULL_DATA: 02 4a5e 02 3834383419003400 |
| 0:03:08.340920 | LOG | PULL_ACK: 02 4a5e 04 |
| 0:03:18.417185 | LOG | PULL_DATA: 02 24d6 02 3834383419003400 |
| 0:03:18.418184 | LOG | PULL_ACK: 02 24d6 04 |
| 0:03:28.497499 | LOG | PULL_DATA: 02 9de3 02 3834383419003400 |
| 0:03:28.498498 | LOG | PULL_ACK: 02 9de3 04 |
| 0:03:38.576762 | LOG | PULL_DATA: 02 045f 02 3834383419003400 |
| 0:03:38.579760 | LOG | PULL_ACK: 02 045f 04 |
| 0:03:48.657027 | LOG | PULL_DATA: 02 dc0a 02 3834383419003400 |
| 0:03:48.659025 | LOG | PULL_ACK: 02 dc0a 04 |
| 0:03:58.736290 | LOG | PULL_DATA: 02 3b56 02 3834383419003400 |
| 0:03:58.738288 | LOG | PULL_ACK: 02 3b56 04 |
| 0:04:08.826578 | LOG | PULL_DATA: 02 c74a 02 3834383419003400 |
| 0:04:08.831574 | LOG | PULL_ACK: 02 c74a 04 |
| 0:04:18.906810 | LOG | PULL_DATA: 02 b7ec 02 3834383419003400 |
| 0:04:18.907809 | LOG | PULL_ACK: 02 b7ec 04 |
| 0:04:28.987073 | LOG | PULL_DATA: 02 d83c 02 3834383419003400 |
| 0:04:28.988073 | LOG | PULL_ACK: 02 d83c 04 |
| 0:04:39.066336 | LOG | PULL_DATA: 02 14ae 02 3834383419003400 |
| 0:04:39.070335 | LOG | PULL_ACK: 02 14ae 04 |
| 0:04:49.146601 | LOG | PULL_DATA: 02 d0b9 02 3834383419003400 |
| 0:04:49.147599 | LOG | PULL_ACK: 02 d0b9 04 |
| 0:04:59.225899 | LOG | PULL_DATA: 02 4bef 02 3834383419003400 |
| 0:04:59.227898 | LOG | PULL_ACK: 02 4bef 04 |
| 0:05:09.306163 | LOG | PULL_DATA: 02 9eb0 02 3834383419003400 |
| 0:05:09.309161 | LOG | PULL_ACK: 02 9eb0 04 |
| 0:05:19.386427 | LOG | PULL_DATA: 02 f7e5 02 3834383419003400 |
| 0:05:19.388425 | LOG | PULL_ACK: 02 f7e5 04 |
| 0:05:29.465689 | LOG | PULL_DATA: 02 3c51 02 3834383419003400 |
| 0:05:29.467688 | LOG | PULL_ACK: 02 3c51 04 |
| 0:05:38.016823 | LOG | PUSH_ACK: 02 3bd1 01 |
| 0:05:38.019822 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bd1, Identifier = 00, JSON = {'rxpk': [{'tmst': 3179926222, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 11.2, 'rssi': -27, 'size': 17, 'data': 'QCAgICCCeQsFBwFoZ5qboJE='}]} |
| 0:05:38.020821 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b79, FOpts: 0507), FPort: 01, FRMPayload: 056c, MIC: 9a9ba091) |
| 0:05:38.022820 | LOG | Server <---------- DUT |
| 0:05:38.024819 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 079a, FOpts: ), FPort: 00, FRMPayload: 060500d2ad840606060606060606060606060606060350070001), MIC: 2873ba9a) |
| 0:05:38.027819 | LOG | PULL_RESP: Protocol version = 02, Token = c613, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3181926222, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 39, 'data': 'YCAgICAAmgcA2i1Iq9g010PPDPwARSbz5FWOUwA1Quynq5Eoc7qa'}} |
| 0:05:38.028816 | LOG | Server ----------> DUT |

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| 0:05:38.031814 | LOG | TX_ACK: 02 c613 05 3834383419003400 |
| 0:05:39.495983 | LOG | PULL_DATA: 02 0687 02 3834383419003400 |
| 0:05:39.498979 | LOG | PULL_ACK: 02 0687 04 |
| 0:05:49.575705 | LOG | PULL_DATA: 02 b02a 02 3834383419003400 |
| 0:05:49.577685 | LOG | PULL_ACK: 02 b02a 04 |
| 0:05:59.655949 | LOG | PULL_DATA: 02 5d4d 02 3834383419003400 |
| 0:05:59.657948 | LOG | PULL_ACK: 02 5d4d 04 |
| 0:06:09.736212 | LOG | PULL_DATA: 02 0d61 02 3834383419003400 |
| 0:06:09.739211 | LOG | PULL_ACK: 02 0d61 04 |
| 0:06:19.815555 | LOG | PULL_DATA: 02 ace9 02 3834383419003400 |
| 0:06:19.817554 | LOG | PULL_ACK: 02 ace9 04 |
| 0:06:29.895818 | LOG | PULL_DATA: 02 6be8 02 3834383419003400 |
| 0:06:29.897817 | LOG | PULL_ACK: 02 6be8 04 |
| 0:06:39.975616 | LOG | PULL_DATA: 02 3f32 02 3834383419003400 |
| 0:06:39.979616 | LOG | PULL_ACK: 02 3f32 04 |
| 0:06:50.055879 | LOG | PULL_DATA: 02 32f6 02 3834383419003400 |
| 0:06:50.059877 | LOG | PULL_ACK: 02 32f6 04 |
| 0:07:00.135144 | LOG | PULL_DATA: 02 1f0b 02 3834383419003400 |
| 0:07:00.137143 | LOG | PULL_ACK: 02 1f0b 04 |
| 0:07:10.215407 | LOG | PULL_DATA: 02 3333 02 3834383419003400 |
| 0:07:10.220404 | LOG | PULL_ACK: 02 3333 04 |
| 0:07:20.295669 | LOG | PULL_DATA: 02 b903 02 3834383419003400 |
| 0:07:20.297669 | LOG | PULL_ACK: 02 b903 04 |
| 0:07:30.374923 | LOG | PULL_DATA: 02 ec04 02 3834383419003400 |
| 0:07:30.376902 | LOG | PULL_ACK: 02 ec04 04 |
| 0:07:40.455197 | LOG | PULL_DATA: 02 f28a 02 3834383419003400 |
| 0:07:40.459196 | LOG | PULL_ACK: 02 f28a 04 |
| 0:07:50.535463 | LOG | PULL_DATA: 02 b4e9 02 3834383419003400 |
| 0:07:50.536460 | LOG | PULL_ACK: 02 b4e9 04 |
| 0:07:51.863678 | LOG | PUSH_ACK: 02 3bd7 01 |
| 0:07:51.865676 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bd7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3313801504, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 65, 'data': 'QCAgICCAegsATZ0m3QhEx0kZ9hvAy5wOnWnqrFALVewJzVvPaDH9OsPhI+Miywgsg/Zylgu5M2A+PN1Z5ELYenc='}]} |
| 0:07:51.866673 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0b7a, FOpts: ), FPort: 00, FRMPayload: 06000805070600080600080600080600080600080600080600080600080600080600080600080600080600080600080600080600080600080307, MIC: 42d87a77) |
| 0:07:51.867677 | LOG | Server <---------- DUT |
| 0:07:51.868677 | LOG | Command Answer: 06000805070600080600080600080600080600080600080600080600080600080600080600080600080600080600080600080600080307 |
| 0:07:52.005593 | LOG | MAC command communication completed |
| 0:07:52.008592 | LOG | Check previous uplink data rate process starts |
| 0:07:52.013588 | LOG | Uplink received with expected Data Rate |
| 0:07:52.015587 | LOG | End Test Step: Test MAC Command payload without truncation |
| 0:07:52.019585 | LOG | Partial Verdict: PASS |
| 0:07:52.022585 | LOG | ========== |
| 0:07:52.028580 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_021 |
| 0:07:52.030580 | LOG | Final Verdict: PASS |

| | |
|---|---|
| **Test Case** | TP_A_EU868_ED_MAC_104_BV_022 |
| **Verdict** | PASS |
| **Date** | 2021-10-10 00:21:53 |

| | | |
|---|---|---|
| **Comments** | FPort 224 Deactivation | |
| **Technology Version** | LCTT v3.1.0_D1 \| GUI v1.10.0 | |
| **Core Version** | LoRaWAN_L2v1.0.4/RP2_v1.0.1 | |
| **Test Specs Version** | USv1.5.1/EUv1.6/KRv1.2.1/ASv1.1.1/INv1.1.1/ALLv1.1 | |
| **Project** | MLS_SDK_1_0_P_6_EU | |
| **Project Creation Date** | 2021-10-05 00:16:03 | |
| **Sample** | DevID:WLR089-XPRO_EU \| AppID:CertApp_OTAA \| SW:MLS_SDK_1_0_P_6_RC2 \| HW:WLR089U0 | |
| **Parameters** | Conformance | TRUE |

| Time Stamp (ms) | Event | Summary |
|---|---|---|
| 0:00:00.013640 | LOG | Start Test Case: TP_A_EU868_ED_MAC_104_BV_022 |
| 0:00:00.053618 | LOG | ========== |
| 0:00:00.055616 | LOG | Start Test Step: Device activation |
| 0:00:00.112584 | LOG | Activation process has finished successfully |
| 0:00:00.115582 | LOG | Data stored in the DUT after Activation: |
| 0:00:00.138569 | LOG | DevAddr: 20202020 |
| 0:00:00.141567 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:00:00.143566 | LOG | NwkSKey: bcd1374acd3a75f7ba744fbe4b569117 |
| 0:00:00.146566 | LOG | AppSKey: b06761946c7682bc3ec9c836374144f2 |
| 0:00:00.149563 | LOG | End Test Step: Device activation |
| 0:00:00.153561 | LOG | Partial Verdict: PASS |
| 0:00:00.157576 | LOG | ========== |
| 0:00:00.161556 | LOG | ========== |
| 0:00:00.164556 | LOG | Start Test Step: FPort 224 Deactivation |
| 0:01:29.756931 | LOG | FPort 224 Deactivation process starts |
| 0:01:31.778780 | LOG | PUSH_DATA received while waiting first PULL_DATA |
| 0:01:36.209259 | LOG | PULL_DATA: 02 cdf3 02 3834383419003400 |
| 0:01:36.211258 | LOG | PULL_ACK: 02 cdf3 04 |
| 0:01:36.213257 | LOG | First PULL_DATA received |
| 0:01:41.756103 | LOG | PUSH_ACK: 02 3be5 01 |
| 0:01:41.758102 | LOG | PUSH_DATA: Protocol version = 02, Token = 3be5, Identifier = 00, JSON = {'rxpk': [{'tmst': 3418806816, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -15, 'size': 17, 'data': 'QCAgICCChAsFBwHG6l98jv8='}]} |
| 0:01:41.760100 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 82, FCnt: 0b84, FOpts: 0507), FPort: 01, FRMPayload: 056c, MIC: 5f7c8eff) |
| 0:01:41.761099 | LOG | Server <---------- DUT |
| 0:01:41.762100 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 079b, FOpts: ), FPort: e0, FRMPayload: 7e), MIC: 80c8698a) |
| 0:01:41.765097 | LOG | Frame command sent to the DUT |
| 0:01:41.766096 | LOG | PULL_RESP: Protocol version = 02, Token = 4641, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3420806816, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YCAgICAAmwfg7IDIaYo='}} |
| 0:01:41.767096 | LOG | Server ----------> DUT |
| 0:01:41.777090 | LOG | Over-The-Air Activation (OTAA) process starts |
| 0:01:46.398460 | LOG | PULL_DATA: 02 0a00 02 3834383419003400 |
| 0:01:46.400459 | LOG | PULL_ACK: 02 0a00 04 |
| 0:01:54.620781 | LOG | PUSH_ACK: 02 3be7 01 |
| 0:01:54.622779 | LOG | PUSH_DATA: Protocol version = 02, Token = 3be7, Identifier = 00, JSON = {'rxpk': [{'tmst': 3431622946, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -23, 'size': 23, 'data': 'AM2rzavNq82reFY0EnhWNBIRAPMcoKo='}]} |

| | | |
|---|---|---|
| 0:01:54.624780 | LOG | DATA: (MHDR: 00, Join-Request: (AppEUI: abcdabcdabcdabcd, DevEUI: 1234567812345678, DevNonce: 0011),MIC: f31ca0aa) |
| 0:01:54.625780 | LOG | Server <---------- DUT |
| 0:01:54.626779 | LOG | DevNonce is greater than the previous in Join Request |
| 0:01:54.628776 | LOG | Previous DevNonce: 16 |
| 0:01:54.629775 | LOG | Actual DevNonce: 17 |
| 0:01:54.631776 | LOG | PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 280000, NetID: 000000, DevAddr: 20202020, DLSettings: 00, RxDelay: 01, CFList: ), MIC: 8fb797de) |
| 0:01:54.635774 | LOG | PULL_RESP: Protocol version = 02, Token = c46b, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3437622946, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IGszo8eTX6+2LRkTgl2jfuA='}} |
| 0:01:54.637773 | LOG | Server ----------> DUT |
| 0:01:54.641769 | LOG | TX_ACK: 02 c46b 05 3834383419003400 |
| 0:01:56.528695 | LOG | PULL_DATA: 02 26c3 02 3834383419003400 |
| 0:01:56.530694 | LOG | PULL_ACK: 02 26c3 04 |
| 0:02:02.942045 | LOG | PUSH_ACK: 02 3be8 01 |
| 0:02:02.946043 | LOG | PUSH_DATA: Protocol version = 02, Token = 3be8, Identifier = 00, JSON = {'rxpk': [{'tmst': 3439985989, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.2, 'rssi': -15, 'size': 15, 'data': 'QCAgICCAAAABKkKdJHL3'}]} |
| 0:02:02.947044 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0000, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: 9d2472f7) |
| 0:02:02.948044 | LOG | Server <---------- DUT |
| 0:02:02.952041 | LOG | Over-The-Air Activation (OTAA) process has finished successfully |
| 0:02:02.956038 | LOG | Activation process has finished successfully |
| 0:02:02.959035 | LOG | Data stored in the DUT after Activation: |
| 0:02:02.961034 | LOG | DevAddr: 20202020 |
| 0:02:02.963033 | LOG | AppEUI: abcdabcdabcdabcd |
| 0:02:02.966031 | LOG | NwkSKey: bd73ad314c88bf7961cf0399773d1cce |
| 0:02:02.968030 | LOG | AppSKey: 4af6d9cb3622f863dc8073cc422c5fd7 |
| 0:02:02.975027 | LOG | Send Test Command TxPeriodicityChange process starts |
| 0:02:06.608958 | LOG | PULL_DATA: 02 0313 02 3834383419003400 |
| 0:02:06.610957 | LOG | PULL_ACK: 02 0313 04 |
| 0:02:07.982258 | LOG | PUSH_ACK: 02 3be9 01 |
| 0:02:07.984256 | LOG | PUSH_DATA: Protocol version = 02, Token = 3be9, Identifier = 00, JSON = {'rxpk': [{'tmst': 3444990397, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.0, 'rssi': -12, 'size': 15, 'data': 'QCAgICCAAQABpoT+a4wT'}]} |
| 0:02:07.985255 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0001, FOpts: ), FPort: 01, FRMPayload: 0000, MIC: fe6b8c13) |
| 0:02:07.987255 | LOG | Server <---------- DUT |
| 0:02:07.989253 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 079c, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 3e10ce9e) |
| 0:02:07.993251 | LOG | Frame command sent to the DUT |
| 0:02:07.995250 | LOG | PULL_RESP: Protocol version = 02, Token = 5afa, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3446990397, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YCAgICAAnAfgQBo+EM6e'}} |
| 0:02:07.997249 | LOG | Server ----------> DUT |
| 0:02:08.000247 | LOG | Send Test Command TxPeriodicityChange process completed |
| 0:02:08.003245 | LOG | Check if last uplink FPort is not 224 process starts |
| 0:02:08.012240 | LOG | Check if last uplink FPort is not 224 process complete |
| 0:02:08.015239 | LOG | Wait Until FPort 224 is disabled process starts |
| 0:02:16.818229 | LOG | PULL_DATA: 02 c8f5 02 3834383419003400 |
| 0:02:16.820227 | LOG | PULL_ACK: 02 c8f5 04 |

| | | |
|---|---|---|
| 0:02:17.343929 | LOG | PUSH_ACK: 02 3bea 01 |
| 0:02:17.345929 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bea, Identifier = 00, JSON = {'rxpk': [{'tmst': 3454359385, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 8.5, 'rssi': -13, 'size': 15, 'data': 'QCAgICCAAgABrliV9H/N'}]} |
| 0:02:17.346929 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 01, FRMPayload: 0001, MIC: 95f47fcd) |
| 0:02:17.347932 | LOG | Server <---------- DUT |
| 0:02:17.349928 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 079d, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 41f38876) |
| 0:02:17.352925 | LOG | PULL_RESP: Protocol version = 02, Token = 2a02, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3456359385, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAnQfgVb9/eUHziHY='}} |
| 0:02:17.353925 | LOG | Server ----------> DUT |
| 0:02:17.354924 | LOG | Echo in FPort 224 sent to the DUT |
| 0:02:22.359075 | LOG | PUSH_ACK: 02 3bec 01 |
| 0:02:22.362074 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bec, Identifier = 00, JSON = {'rxpk': [{'tmst': 3459362403, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 9.5, 'rssi': -11, 'size': 15, 'data': 'QCAgICCAAwABRQwVrfky'}]} |
| 0:02:22.364072 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 01, FRMPayload: 0002, MIC: 15adf932) |
| 0:02:22.366072 | LOG | Server <---------- DUT |
| 0:02:22.368070 | LOG | PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 00, FCnt: 079e, FOpts: ), FPort: e0, FRMPayload: 08010203), MIC: 456568df) |
| 0:02:22.371069 | LOG | PULL_RESP: Protocol version = 02, Token = 324c, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 3461362403, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'YCAgICAAngfgLMlIn0VlaN8='}} |
| 0:02:22.373067 | LOG | Server ----------> DUT |
| 0:02:22.377065 | LOG | Echo in FPort 224 sent to the DUT |
| 0:02:26.998435 | LOG | PULL_DATA: 02 9d7c 02 3834383419003400 |
| 0:02:27.000434 | LOG | PULL_ACK: 02 9d7c 04 |
| 0:02:27.349237 | LOG | PUSH_ACK: 02 3bed 01 |
| 0:02:27.351234 | LOG | PUSH_DATA: Protocol version = 02, Token = 3bed, Identifier = 00, JSON = {'rxpk': [{'tmst': 3464365276, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'lsnr': 10.5, 'rssi': -15, 'size': 15, 'data': 'QCAgICCABAAB+ajDC/hW'}]} |
| 0:02:27.352234 | LOG | DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 20202020, FCtrl: 80, FCnt: 0004, FOpts: ), FPort: 01, FRMPayload: 0003, MIC: c30bf856) |
| 0:02:27.354232 | LOG | Server <---------- DUT |
| 0:02:27.357231 | LOG | Wait Until FPort 224 is disabled process starts |
| 0:02:27.361229 | LOG | FPort 224 Deactivation process completed successfully |
| 0:02:27.365227 | LOG | End Test Step: FPort 224 Deactivation |
| 0:02:27.369224 | LOG | Partial Verdict: PASS |
| 0:02:27.372223 | LOG | ========== |
| 0:02:27.378219 | LOG | End Test Case: TP_A_EU868_ED_MAC_104_BV_022 |
| 0:02:27.381217 | LOG | Final Verdict: PASS |

# Appendix B – ICS

| NAME | VALUE |
|---|---|
| DUT is a Class A Device (All End Devices) | TRUE |
| DUT works in EU 868MHz ISM Band | TRUE |
| DUT supports Over-The-Air Activation (OTAA) mechanism | TRUE |
| DUT supports Adaptive Data Rate (ADR) feature | TRUE |
| DUT supports Trigger Join Request command in Test Mode | TRUE |
| DUT supports DlChannelReq MAC command | TRUE |
| DUT supports LinkADRReq block | TRUE |
| DUT supports the Lorawan-1.0.x-join-synch-issues-remedies-v1.0.0 | TRUE |
| DUT implements Data Rate Decay | TRUE |
| DUT implements LoRaWAN v1.0.4 certification requirements | TRUE |
| DUT supports uplink re-transmissions for Confirmed frames | TRUE |

# Appendix C – IXIT

| NAME | VALUE |
|---|---|
| Minimum transmission power | 0 |
| Maximum transmission power | 0 |
| End-device identifier (DevEUI) | '1234567812345678'O |
| End-device Address asigned during activation (DevAddr) | '20202020'O |
| Maximum number of uplinks re-transmission | 1 |
| Frame counter size | 32 |
| Application session key (AppSKey) | '12345678123456781234567812345678'O |
| Network session key (NwkSKey) | 'ABCDABCDABCDABCDABCDABCDABCDABCD'O |
| Application key (AppKey) | '1234567812345678ABCDABCDABCDABCD'O |
| Application identifier (AppEUI) | 'ABCDABCDABCDABCD'O |
| End-device Address (DevAddr) | '20202020'O |

# Appendix D – General Parameters

| NAME | VALUE |
|---|---|
| Gateway model | Semtech |
| IN865 Class B default pingSlot frequency | 866.550 |
| IN865 pingSlot DR | SF8BW125 |
| RU864 Beacon DR | SF9BW125 |
| RU864 Beacon default frequency | 869.1 |
| RU864 Class B default pingSlot frequency | 868.9 |
| RU864 pingSlot DR | SF9BW125 |
| AU915 Beacon DR | SF12BW500 |
| AU915 Beacon default frequency | 923.3 |
| AU915 Class B default pingSlot frequency | 923.3 |
| AU915 pingSlot DR | SF12BW500 |
| IN865 RECEIVE_DELAY1 (s) | 1.0 |
| IN865 RECEIVE_DELAY2 (s) | 2.0 |
| IN865 JOIN_ACCEPT_DELAY1 (s) | 5.0 |
| IN865 JOIN_ACCEPT_DELAY2 (s) | 6.0 |
| IN865 RX2 Receive window DR | SF10BW125 |
| IN865 RX2 Receive window frequency | 866.550 |
| Verbosity level for Logs | TRUE |
| EU868 Beacon DR | SF9BW125 |
| EU868 Beacon default frequency | 869.525 |
| EU868 Class B default pingSlot frequency | 869.525 |
| AS923 Beacon DR | SF9BW125 |
| AS923 Beacon default frequency | 923.4 |
| AS923 Class B default pingSlot frequency | 923.4 |
| Gateway IP Address | 10.40.56.123 |
| Gateway socket port | 1780 |
| Default Tx Power (dBm) | 14 |
| Default Tx Antenna | 0 |
| EU868 RECEIVE_DELAY1 (s) | 1.0 |
| EU868 RECEIVE_DELAY2 (s) | 2.0 |
| EU868 JOIN_ACCEPT_DELAY1 (s) | 5.0 |
| AU915 RECEIVE_DELAY1 (s) | 1.0 |
| AU915 RECEIVE_DELAY2 (s) | 2.0 |
| AU915 JOIN_ACCEPT_DELAY1(s) | 5.0 |
| AU915 JOIN_ACCEPT_DELAY2(s) | 6.0 |
| AU915 RX2 Receive window frequency | 923.3 |
| AU915 RX2 Receive window DR | SF12BW500 |
| EU868 pingSlot DR | SF9BW125 |
| AS923 pingSlot DR | SF9BW125 |
| US915 Beacon DR | SF12BW500 |
| US915 Beacon default frequency | 923.3 |
| US915 Class B default pingSlot frequency | 923.3 |
| US915 pingSlot DR | SF12BW500 |
| KR920 Beacon DR | SF9BW125 |
| KR920 Beacon default frequency | 923.1 |
| KR920 Class B default pingSlot frequency | 923.1 |

| | |
|---|---|
| KR920 pingSlot DR | SF9BW125 |
| IN865 Beacon DR | SF8BW125 |
| IN865 Beacon default frequency | 866.550 |
| US915 RX2 Receive window DR | SF12BW500 |
| General Timer | 90 |
| KR920 RECEIVE_DELAY1 (s) | 1.0 |
| KR920 RECEIVE_DELAY2 (s) | 2.0 |
| KR920 JOIN_ACCEPT_DELAY1(s) | 5.0 |
| KR920 JOIN_ACCEPT_DELAY2(s) | 6.0 |
| KR920 RX2 Receive window frequency | 921.9 |
| KR920 RX2 Receive window DR | SF12BW125 |
| AS923 RECEIVE_DELAY1 (s) | 1.0 |
| AS923 RECEIVE_DELAY2 (s) | 2.0 |
| AS923 JOIN_ACCEPT_DELAY1 (s) | 5.0 |
| AS923 JOIN_ACCEPT_DELAY2 (s) | 6.0 |
| AS923 RX2 Receive window DR | SF10BW125 |
| AS923 RX2 Receive window frequency | 923.2 |
| Network Server IP Address | 10.40.56.41 |
| EU868 JOIN_ACCEPT_DELAY2(s) | 6.0 |
| EU868 RX2 Receive window frequency | 869.525 |
| EU868 RX2 Receive window DR | SF12BW125 |
| US915 RECEIVE_DELAY1 (s) | 1.0 |
| US915 RECEIVE_DELAY2 (s) | 2.0 |
| US915 JOIN_ACCEPT_DELAY1(s) | 5.0 |
| US915 JOIN_ACCEPT_DELAY2(s) | 6.0 |
| US915 RX2 Receive window frequency | 923.3 |
| General frequency offset applied that defines the AS923 country | 0 |
| Number of supported channels in Gateway | 8 |
| RU864 RECEIVE_DELAY1 (s) | 1.0 |
| RU864 RECEIVE_DELAY2 (s) | 2.0 |
| RU864 JOIN_ACCEPT_DELAY1 (s) | 5.0 |
| RU864 JOIN_ACCEPT_DELAY2(s) | 6.0 |
| RU864 RX2 Receive window frequency | 869.1 |
| RU864 RX2 Receive window DR | SF12BW125 |

# **Appendix E –** Photographs