

# Test Case Results

<b>Test Case</b>	TP_A_EU868_ED_MAC_104_BV_004	
<b>Verdict</b>	PASS	
<b>Date</b>	2023-11-27 13:30:53.146	
<b>Comments</b>		
<b>Technology Version</b>	LCTT v3.11.0_R1   GUI v2.6.0	
<b>Core Version</b>	LoRaWAN_L2v1.0.4/RP2_v1.0.3	
<b>Test Specs Version</b>	USv1.5.1/EUv1.6.2/KRv1.2.1/ASv1.1.1/INV1.1.1/ALL_Av1.6/ALL_Cv1.0/ALL_Bv1.0/SCHCv1.1/ALPv1.0	
<b>Project</b>	ref-stack	
<b>Project Creation Date</b>	2023-10-04 09:10:20	
<b>Sample Parameters</b>	Conformance	TRUE

Time Stamp (ms)	Event	Summary
0:00:00.009198	LOG	<b>Start Test Case: TP_A_EU868_ED_MAC_104_BV_004</b>
0:00:00.066284	LOG	=====
0:00:00.069284	LOG	<b>Start Test Step: Device activation</b>
0:00:00.081355	LOG	<b>Over-The-Air Activation (OTAA) process starts</b>
0:00:00.094562	LOG	<b>Waiting GPS time...</b>
0:00:00.473045	LOG	<b>GPS Time updated: 1385123470642</b>
0:00:00.474051	LOG	<b>PULL_DATA: 02 984f 02 0016c001ff1025bf</b>
0:00:00.476015	LOG	<b>PULL_ACK: 02 984f 04</b>
0:00:08.243935	LOG	<b>First uplink received. Open reception window.</b>
0:00:08.348950	LOG	<b>PUSH_ACK: 02 b340 01</b>
0:00:08.352958	LOG	<b>GPS Time from gateway: 1385123479551</b>
0:00:08.353958	LOG	<b>First BEACON scheduled at GPS Time (ms): 1385123584000</b>
0:00:08.363957	LOG	<b># *****FIRST BEACON QUEUED*****#</b>
0:00:08.364965	LOG	<b>Next beacon scheduled: JSON = {'txpk': {'imme': False, 'tmms': 1385123584000, 'rfch': 0, 'powe': 14, 'ipol': False, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'prea': 10, 'fdev': 0, 'codr': '4/5', 'ncrc': True, 'nhdr': True, 'size': 17, 'data': 'AAAAT49SjUAAAAAAAAAAAAA='}}</b>
0:00:08.365959	LOG	<b>Server -----&gt; DUT</b>
0:00:08.368476	LOG	<b>BEACON queued frame [BCNPayload: BCNPayload: (RFU1: 00, Param: 00, Time: 004f8f52, CRC1: 8d40, GwSpecific: 00000000000000, RFU2: , CRC2: 0000)] at GPS time (ms): 1385123584000</b>
0:00:08.369471	LOG	<b># *****#</b>
0:00:08.371468	LOG	<b>Next BEACON scheduled at GPS time (ms): 1385123712000</b>
0:00:08.372468	LOG	<b>PUSH_DATA: Protocol version = 02, Token = b340, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 753763655, 'time': '2023-11-27T12:31:00.552295Z', 'tmms': 1385123479551, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'mid': 0, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 11.8, 'foff': -3335, 'rssi': -51, 'size': 23, 'data': 'AAAAAAAAAAAAAAAAAAAAA+X6ik='}]}</b>
0:00:08.374468	LOG	<b>DATA: (MHDR: 00, Join-Request: (AppEUI: 0000000000000000, DevEUI: 0000000000000000, DevNonce: 0012),MIC: 4f97ea29)</b>
0:00:08.375468	LOG	<b>Server &lt;----- DUT</b>
0:00:08.376468	LOG	<b>GPS Time locked</b>
0:00:08.378468	LOG	<b>PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 010000, NetID: 000000, DevAddr: 00000000, DLSettings: 00, RxDelay: 01, CFList: ), MIC: ddaad1a0)</b>
0:00:08.380469	LOG	<b>PULL_RESP: Protocol version = 02, Token = 2869, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 759763655, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IGy9J69z5ufQ8Zd3iKpSfCE='}}</b>
0:00:08.381469	LOG	<b>Server -----&gt; DUT</b>
0:00:08.383724	LOG	<b>TX_ACK: 02 2869 05 0016c001ff1025bf</b>
0:00:10.482646	LOG	<b>GPS Time updated: 1385123481790</b>
0:00:10.484610	LOG	<b>PULL_DATA: 02 4ca5 02 0016c001ff1025bf</b>
0:00:10.485611	LOG	<b>PULL_ACK: 02 4ca5 04</b>
0:00:20.390817	LOG	<b>Multiple frames received. Selecting the correct frame...</b>
0:00:20.392822	LOG	<b>Frame selected: {'jver': 1, 'tmst': 765906567, 'time': '2023-11-27T12:31:12.695205Z', 'tmms': 1385123491694, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 0, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 11.2, 'foff': -3325, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAAQACWzhvrBlzB/OzM20='}</b>
0:00:20.394819	LOG	<b>First uplink received. Open reception window.</b>
0:00:20.496359	LOG	<b>PUSH_ACK: 02 4895 01</b>
0:00:20.497867	LOG	<b>GPS Time from gateway: 1385123491694</b>
0:00:20.498867	LOG	<b>PUSH_DATA: Protocol version = 02, Token = 4895, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 765906567, 'time': '2023-11-27T12:31:12.695205Z', 'tmms': 1385123491694, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 0, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 11.2, 'foff': -3325, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAAQACWzhvrBlzB/OzM20='}], {'jver': 1, 'tmst': 765906567, 'time': '2023-11-27T12:31:12.695205Z', 'tmms': 1385123491694, 'chan': 4, 'rfch': 0, 'freq': 867.3, 'mid': 2, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5',</b>

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'rssi': -126, 'lsnr': -13.8, 'foff': -3324, 'rssi': -113, 'size': 20, 'data':
'QAAAAACAAQACWzhvrBlzB/OzM20=']}]
0:00:20.500867 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0001, FOpts: ), FPort:
02, FRMPayload: 00000001020000, MIC: f3b3336d)
0:00:20.501871 LOG Server <----- DUT
0:00:20.507125 LOG Over-The-Air Activation (OTAA) process has finished successfully
0:00:20.509126 LOG Activation process has finished successfully
0:00:20.511124 LOG Data stored in the DUT after Activation:
0:00:20.513160 LOG DevAddr: 00000000
0:00:20.516663 LOG AppEUI: 0000000000000000
0:00:20.519670 LOG NwkSKey: e99cd61e154f444fc140dbd9a6d85269
0:00:20.521705 LOG AppSKey: 07500fda1a4b09c826e4809e65aef1ef
0:00:20.525178 LOG End Test Step: Device activation
0:00:20.530179 LOG Partial Verdict: PASS
0:00:20.534178 LOG =====
0:00:20.539178 LOG =====
0:00:20.541182 LOG Start Test Step: DUT Pre-condition settings
0:00:20.550182 LOG DUT Pre-condition activation process starts
0:00:20.554183 LOG Check FCntUp after reset process starts
0:00:20.562340 LOG Check FCntUp after reset process complete
0:00:20.569338 LOG Send Test Command DutResetReq process starts
0:00:20.572385 LOG PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 0000, FOpts: ),
FPort: e0, FRMPayload: 01), MIC: 30f333d6)
0:00:20.574368 LOG Frame command sent to the DUT
0:00:20.575377 LOG PULL_RESP: Protocol version = 02, Token = c09b, Identifier = 03, JSON = {'txpk': {'imme': False,
'tmst': 767906567, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu':
'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YAAAAAAAAADggTDzM9Y='}]
0:00:20.577365 LOG Server -----> DUT
0:00:20.580344 LOG Send Test Command DutResetReq process completed
0:00:20.593887 LOG Over-The-Air Activation (OTAA) process starts
0:00:20.607956 LOG Waiting GPS time...
0:00:25.886805 LOG First uplink received. Open reception window.
0:00:25.987924 LOG PUSH_ACK: 02 24f2 01
0:00:25.989927 LOG GPS Time from gateway: 1385123497188
0:00:25.990926 LOG PUSH_DATA: Protocol version = 02, Token = 24f2, Identifier = 00, JSON = {'rxpk': [{'jver': 1,
'tmst': 771400318, 'time': '2023-11-27T12:31:18.188955Z', 'tmms': 1385123497188, 'chan': 2,
'rfch': 1, 'freq': 868.5, 'mid': 0, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi':
-51, 'lsnr': 9.2, 'foff': -3323, 'rssi': -51, 'size': 23, 'data':
'AAAAAAAAAAAAAAAAAAAAAAAAATAA6/CFc='}]}
0:00:25.991931 LOG DATA: (MHDR: 00, Join-Request: (AppEUI: 0000000000000000, DevEUI: 0000000000000000,
DevNonce: 0013),MIC: 0ebf0857)
0:00:25.993436 LOG Server <----- DUT
0:00:25.995444 LOG DevNonce is greater than the previous in Join Request
0:00:25.996475 LOG Previous DevNonce: 18
0:00:25.998442 LOG Actual DevNonce: 19
0:00:25.999476 LOG PHYPayload: (MHDR: 20, Join-Response: (JoinNonce: 020000, NetID: 000000, DevAddr: 00000000,
DLSettings: 00, RxDelay: 01, CFList: ), MIC: 1e8313f2)
0:00:26.001443 LOG PULL_RESP: Protocol version = 02, Token = 30e0, Identifier = 03, JSON = {'txpk': {'imme': False,
'tmst': 776400318, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 868.5, 'modu':
'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 17, 'data': 'IO+U5c8ZAc8EMP6XGVeC+n0='}]
0:00:26.002478 LOG Server -----> DUT
0:00:26.005319 LOG TX_ACK: 02 30e0 05 0016c001ff1025bf
0:00:30.622470 LOG GPS Time updated: 1385123501924
0:00:30.624438 LOG PULL_DATA: 02 f6c4 02 0016c001ff1025bf
0:00:30.625438 LOG PULL_ACK: 02 f6c4 04
0:00:35.031335 LOG First uplink received. Open reception window.
0:00:35.143957 LOG PUSH_ACK: 02 5fe3 01
0:00:35.145975 LOG GPS Time from gateway: 1385123506338
0:00:35.146960 LOG PUSH_DATA: Protocol version = 02, Token = 5fe3, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst':
780550506, 'time': '2023-11-27T12:31:27.339140Z', 'tmms': 1385123506338, 'chan': 2, 'rfch': 1,
'freq': 868.5, 'mid': 0, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi':
8.5, 'foff': -3318, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAAQACqAyWrfvIvm1rpm='}]}
0:00:35.148992 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0001, FOpts: ), FPort:
02, FRMPayload: 00000001020000, MIC: 59b5ae93)
0:00:35.150533 LOG Server <----- DUT
0:00:35.154573 LOG Over-The-Air Activation (OTAA) process has finished successfully
0:00:35.157535 LOG Activation process has finished successfully
0:00:35.159571 LOG Data stored in the DUT after Activation:
0:00:35.162531 LOG DevAddr: 00000000
0:00:35.165056 LOG AppEUI: 0000000000000000
0:00:35.167097 LOG NwkSKey: aad643c71103bc3ae5267058b2d62dd8
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0:00:35.170033	LOG	AppSKey: 51313c5cc05b95133e2e07bb051e1a95
0:00:35.183092	LOG	Check FCntUp after reset process starts
0:00:35.191093	LOG	Check FCntUp after reset process complete
0:00:35.202157	LOG	Send Test Command TxPeriodicityChange process starts
0:00:35.205131	LOG	PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 0000, FOpts: ), FPort: e0, FRMPayload: 0601), MIC: 5da88844)
0:00:35.207130	LOG	Frame command sent to the DUT
0:00:35.208129	LOG	PULL_RESP: Protocol version = 02, Token = 28ae, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 782550506, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YAAAAAAAAADgrRjdqlhE'}}
0:00:35.210136	LOG	Server -----> DUT
0:00:35.212648	LOG	Send Test Command TxPeriodicityChange process completed
0:00:35.216691	LOG	Check uplink frame type process starts
0:00:40.663083	LOG	GPS Time updated: 1385123511969
0:00:40.664082	LOG	PULL_DATA: 02 7bb5 02 0016c001ff1025bf
0:00:40.665084	LOG	PULL_ACK: 02 7bb5 04
0:00:44.543879	LOG	First uplink received. Open reception window.
0:00:44.659635	LOG	PUSH_ACK: 02 ed3d 01
0:00:44.661635	LOG	GPS Time from gateway: 1385123515852
0:00:44.662638	LOG	PUSH_DATA: Protocol version = 02, Token = ed3d, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 790064289, 'time': '2023-11-27T12:31:36.852923Z', 'tmms': 1385123515852, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 1, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 12.2, 'foff': -3316, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAAGACPDwHQVmnQ7Wf/p4='}]}
0:00:44.663602	LOG	DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0002, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: b59ffe9e)
0:00:44.664647	LOG	Server <----- DUT
0:00:44.671644	LOG	Check ADR bit process starts
0:00:49.551918	LOG	First uplink received. Open reception window.
0:00:49.661825	LOG	PUSH_ACK: 02 76cb 01
0:00:49.663824	LOG	GPS Time from gateway: 1385123520852
0:00:49.664828	LOG	PUSH_DATA: Protocol version = 02, Token = 76cb, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 795064024, 'time': '2023-11-27T12:31:41.852657Z', 'tmms': 1385123520852, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'mid': 0, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 9.0, 'foff': -3310, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAaAwAcysQRiJXyH8ZRI8='}]}
0:00:49.666842	LOG	DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0003, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 3f19448f)
0:00:49.667873	LOG	Server <----- DUT
0:00:49.670872	LOG	ADR bit in FCtrl field is set
0:00:49.675879	LOG	Send LinkADRRReq process starts
0:00:50.742723	LOG	GPS Time updated: 1385123522043
0:00:50.743726	LOG	PULL_DATA: 02 9beb 02 0016c001ff1025bf
0:00:50.744728	LOG	PULL_ACK: 02 9beb 04
0:00:54.545587	LOG	First uplink received. Open reception window.
0:00:54.647929	LOG	PUSH_ACK: 02 e734 01
0:00:54.649432	LOG	GPS Time from gateway: 1385123525852
0:00:54.651440	LOG	PUSH_DATA: Protocol version = 02, Token = e734, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 800063773, 'time': '2023-11-27T12:31:46.852405Z', 'tmms': 1385123525852, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'mid': 0, 'stat': 1, 'modu': 'LORA', 'datr': 'SF12BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 8.8, 'foff': -3307, 'rssi': -51, 'size': 20, 'data': 'QAAAAACABAACDSEI5JU3V6xSTA='}]}
0:00:54.652441	LOG	DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0004, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 5eb14930)
0:00:54.654441	LOG	Server <----- DUT
0:00:54.655441	LOG	PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 0001, FOpts: ), FPort: 00, FRMPayload: 0350070001), MIC: 433616b3)
0:00:54.657441	LOG	PULL_RESP: Protocol version = 02, Token = 7483, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 802063773, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 18, 'data': 'YAAAAAAAAQAafV76wZDNhaz'}}
0:00:54.659441	LOG	Server -----> DUT
0:00:54.661440	LOG	TX_ACK: 02 7483 05 0016c001ff1025bf
0:00:59.548008	LOG	First uplink received. Open reception window.
0:00:59.659142	LOG	PUSH_ACK: 02 3a9a 01
0:00:59.661108	LOG	GPS Time from gateway: 1385123530864
0:00:59.662110	LOG	PUSH_DATA: Protocol version = 02, Token = 3a9a, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 805076514, 'time': '2023-11-27T12:31:51.865145Z', 'tmms': 1385123530864, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 14.5, 'foff': -3320, 'rssi': -51, 'size': 22, 'data': 'QAAAAACCBQADBwL56rXpgPG1LJXFlg='}]}
0:00:59.664109	LOG	DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 82, FCnt: 0005, FOpts: 0307), FPort: 02, FRMPayload: 00000001020000, MIC: 2c95c596)
0:00:59.665110	LOG	Server <----- DUT
0:00:59.667117	LOG	FRMPayload field and FOpts field are present. MAC command shall be present in FOpts field
0:00:59.669115	LOG	Command Answer: 0307

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0:00:59.676114 LOG      MAC command communication completed
0:00:59.680687 LOG      Send Test Command DutVersionsReq process starts
0:01:00.952269 LOG      GPS Time updated: 1385123532268
0:01:00.954239 LOG      PULL_DATA: 02 7487 02 0016c001ff1025bf
0:01:00.955239 LOG      PULL_ACK: 02 7487 04
0:01:04.327408 LOG      First uplink received. Open reception window.
0:01:04.441779 LOG      PUSH_ACK: 02 4083 01
0:01:04.442815 LOG      GPS Time from gateway: 1385123535646
0:01:04.444818 LOG      PUSH_DATA: Protocol version = 02, Token = 4083, Identifier = 00, JSON = {'rxpk': [{'jver': 1,
'tmst': 809858753, 'time': '2023-11-27T12:31:56.647382Z', 'tmms': 1385123535646, 'chan': 0,
'rfch': 1, 'freq': 868.1, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi':
-51, 'lsnr': 14.2, 'foff': -3316, 'rssi': -51, 'size': 20, 'data': 'QAAAAACABgAC4pyQXLhFI4SAo/M=']}]
0:01:04.445781 LOG      DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0006, FOpts: ), FPort:
02, FRMPayload: 00000001020000, MIC: 8480a3f3)
0:01:04.446820 LOG      Server <----- DUT
0:01:04.448821 LOG      PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 0002, FOpts: ),
FPort: e0, FRMPayload: 7f), MIC: 77605703)
0:01:04.449787 LOG      Frame command sent to the DUT
0:01:04.451823 LOG      PULL_RESP: Protocol version = 02, Token = 6fef, Identifier = 03, JSON = {'txpk': {'imme': False,
'tmst': 811858753, 'rfch': 0, 'pove': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu':
'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YAAAAAAAAGdGgHdVgWm='}}
0:01:04.452820 LOG      Server -----> DUT
0:01:04.455401 LOG      TX_ACK: 02 6fef 05 0016c001ff1025bf
0:01:07.597536 LOG      First uplink received. Open reception window.
0:01:07.707103 LOG      PUSH_ACK: 02 7d88 01
0:01:07.708715 LOG      GPS Time from gateway: 1385123538915
0:01:07.710357 LOG      PUSH_DATA: Protocol version = 02, Token = 7d88, Identifier = 00, JSON = {'rxpk': [{'jver': 1,
'tmst': 813127127, 'time': '2023-11-27T12:31:59.915757Z', 'tmms': 1385123538915, 'chan': 1,
'rfch': 1, 'freq': 868.3, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi':
-51, 'lsnr': 14.0, 'foff': -3335, 'rssi': -51, 'size': 26, 'data':
'QAAAAACABwDgvJXtEfSCK65f9LCGxb7OqEM=']}]
0:01:07.711556 LOG      DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0007, FOpts: ), FPort:
e0, FRMPayload: 7f010300000100040002010003, MIC: becea843)
0:01:07.712625 LOG      Server <----- DUT
0:01:07.714270 LOG      Frame Command Payload in the Answer: 7f010300000100040002010003
0:01:07.719691 LOG      DUT Version received: 010300000100040002010003
0:01:07.722021 LOG      Send Test Command DutVersionsReq completed
0:01:07.725070 LOG      DUT Pre-condition activation completed
0:01:07.727268 LOG      End Test Step: DUT Pre-condition settings
0:01:07.731781 LOG      Partial Verdict: PASS
0:01:07.735036 LOG      =====
0:01:07.739329 LOG      =====
0:01:07.741336 LOG      Start Test Step: Confirmed Uplinks
0:01:07.754490 LOG      Step 01
0:01:07.758045 LOG      Wait Until Unconfirmed Uplink arrives process starts
0:01:10.962756 LOG      GPS Time updated: 1385123542280
0:01:10.963758 LOG      PULL_DATA: 02 1969 02 0016c001ff1025bf
0:01:10.965727 LOG      PULL_ACK: 02 1969 04
0:01:14.322774 LOG      First uplink received. Open reception window.
0:01:14.426711 LOG      PUSH_ACK: 02 f73d 01
0:01:14.428709 LOG      GPS Time from gateway: 1385123545646
0:01:14.428709 LOG      PUSH_DATA: Protocol version = 02, Token = f73d, Identifier = 00, JSON = {'rxpk': [{'jver': 1,
'tmst': 819858225, 'time': '2023-11-27T12:32:06.646854Z', 'tmms': 1385123545646, 'chan': 0,
'rfch': 1, 'freq': 868.1, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi':
-51, 'lsnr': 14.5, 'foff': -3324, 'rssi': -51, 'size': 20, 'data': 'QAAAAACACAAcJIL0cyBugIHrDt4=']}]
0:01:14.431256 LOG      DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0008, FOpts: ), FPort:
02, FRMPayload: 00000001020000, MIC: 51eb0ede)
0:01:14.433270 LOG      Server <----- DUT
0:01:14.436254 LOG      Wait Until Unconfirmed Uplink arrives tested successfully
0:01:14.440287 LOG      Send Test Command RxAppCntReq process starts
0:01:14.443287 LOG      PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 0003, FOpts: ),
FPort: e0, FRMPayload: 09), MIC: 8abe76d4)
0:01:14.445286 LOG      Frame command sent to the DUT
0:01:14.446287 LOG      PULL_RESP: Protocol version = 02, Token = 52e1, Identifier = 03, JSON = {'txpk': {'imme': False,
'tmst': 821858225, 'rfch': 0, 'pove': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu':
'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YAAAAAAAawDgrYq+dtQ='}}
0:01:14.448315 LOG      Server -----> DUT
0:01:14.450449 LOG      TX_ACK: 02 52e1 05 0016c001ff1025bf
0:01:17.585635 LOG      First uplink received. Open reception window.
0:01:17.695419 LOG      PUSH_ACK: 02 5ced 01
0:01:17.697131 LOG      GPS Time from gateway: 1385123548905

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0:01:17.698581 LOG    PUSH_DATA: Protocol version = 02, Token = 5ced, Identifier = 00, JSON = {'rxpk': [{'jver': 1,
'tmst': 823116875, 'time': '2023-11-27T12:32:09.905503Z', 'tmms': 1385123548905, 'chan': 2,
'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi':
-52, 'lsnr': 13.8, 'foff': -3347, 'rssi': -51, 'size': 16, 'data': 'QAAAAACACQDg/Z20IzSI0g=='}]}

0:01:17.700228 LOG    DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0009, FOpts: ), FPort:
e0, FRMPayload: 090300, MIC: 2334883a)

0:01:17.701323 LOG    Server <----- DUT

0:01:17.702968 LOG    Frame Command Payload in the Answer: 090300

0:01:17.706836 LOG    RX Count received by DUT: 3

0:01:17.709021 LOG    Send Test Command RxAppCntReq process completed

0:01:17.713308 LOG    Step 02

0:01:17.719681 LOG    Send Test Command TxFramesCtrlReq process starts

0:01:17.723551 LOG    Frame command RxAppCntReq received

0:01:17.725354 LOG    PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 0004, FOpts: ),
FPort: e0, FRMPayload: 0702), MIC: b9395a28)

0:01:17.727425 LOG    Frame command sent to the DUT

0:01:17.728665 LOG    PULL_RESP: Protocol version = 02, Token = 0665, Identifier = 03, JSON = {'txpk': {'imme': False,
'tmst': 825116875, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu':
'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAABADgqK5OVoo'}}

0:01:17.730306 LOG    Server -----> DUT

0:01:17.732572 LOG    Send Test Command TxFramesCtrlReq process completed

0:01:17.736575 LOG    Step 03

0:01:17.739251 LOG    Wait Until Confirmed Uplink arrives process starts

0:01:20.832079 LOG    First uplink received. Open reception window.

0:01:20.939646 LOG    PUSH_ACK: 02 7c61 01

0:01:20.941614 LOG    GPS Time from gateway: 1385123552152

0:01:20.942613 LOG    PUSH_DATA: Protocol version = 02, Token = 7c61, Identifier = 00, JSON = {'rxpk': [{'jver': 1,
'tmst': 826364300, 'time': '2023-11-27T12:32:13.152928Z', 'tmms': 1385123552152, 'chan': 2,
'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi':
-52, 'lsnr': 13.2, 'foff': -3347, 'rssi': -52, 'size': 12, 'data': 'gAAAAACgCgAXBhUo'}}]

0:01:20.943614 LOG    DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: a0, FCnt: 000a, FOpts: ), FPort:
, FRMPayload: , MIC: 17061528)

0:01:20.945621 LOG    Server <----- DUT

0:01:20.948625 LOG    Wait Until Confirmed Uplink arrives tested successfully

0:01:20.953109 LOG    Send ACK to DUT process starts

0:01:20.955735 LOG    PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 20, FCnt: 0005, FOpts: ),
FPort: , FRMPayload: ), MIC: a42f18f6)

0:01:20.956777 LOG    PULL_RESP: Protocol version = 02, Token = f222, Identifier = 03, JSON = {'txpk': {'imme': False,
'tmst': 828364300, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu':
'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 12, 'data': 'YAAAAAAGBQCKLxj2'}}

0:01:20.958776 LOG    Server -----> DUT

0:01:20.961280 LOG    Send ACK to DUT tested successfully

0:01:20.964289 LOG    Step 04

0:01:20.968292 LOG    Wait Until Confirmed Uplink arrives process starts

0:01:21.162689 LOG    GPS Time updated: 1385123552482

0:01:21.163690 LOG    PULL_DATA: 02 d8f7 02 0016c001ff1025bf

0:01:21.164690 LOG    PULL_ACK: 02 d8f7 04

0:01:24.322333 LOG    First uplink received. Open reception window.

0:01:24.431434 LOG    PUSH_ACK: 02 17c5 01

0:01:24.433404 LOG    GPS Time from gateway: 1385123555645

0:01:24.434438 LOG    PUSH_DATA: Protocol version = 02, Token = 17c5, Identifier = 00, JSON = {'rxpk': [{'jver': 1,
'tmst': 829857704, 'time': '2023-11-27T12:32:16.646331Z', 'tmms': 1385123555645, 'chan': 2,
'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi':
-51, 'lsnr': 14.0, 'foff': -3347, 'rssi': -51, 'size': 20, 'data': 'gAAAAACACwACs3cxrn3Jjd9CHwg='}]

0:01:24.436404 LOG    DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 000b, FOpts: ), FPort:
02, FRMPayload: 00000001020000, MIC: df421f08)

0:01:24.437435 LOG    Server <----- DUT

0:01:24.440403 LOG    Wait Until Confirmed Uplink arrives tested successfully

0:01:24.445022 LOG    Send Test Command TxFramesCtrlReq process starts

0:01:24.449055 LOG    PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 20, FCnt: 0006, FOpts: ),
FPort: e0, FRMPayload: 0700), MIC: 484be547)

0:01:24.451066 LOG    Frame command sent to the DUT

0:01:24.452067 LOG    PULL_RESP: Protocol version = 02, Token = 81ff, Identifier = 03, JSON = {'txpk': {'imme': False,
'tmst': 831857704, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu':
'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YAAAAAAGBgDgAZhIS+VH'}}

0:01:24.454056 LOG    Server -----> DUT

0:01:24.456057 LOG    Send Test Command TxFramesCtrlReq process completed

0:01:24.460024 LOG    Step 05

0:01:24.463570 LOG    Wait Until Confirmed Uplink arrives process starts

0:01:29.323969 LOG    First uplink received. Open reception window.

0:01:29.425954 LOG    PUSH_ACK: 02 341c 01

0:01:29.427920 LOG    GPS Time from gateway: 1385123560645

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0:01:29.428920 LOG    PUSH_DATA: Protocol version = 02, Token = 341c, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 834857452, 'time': '2023-11-27T12:32:21.646078Z', 'tmms': 1385123560645, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 14.5, 'foff': -3335, 'rssi': -51, 'size': 20, 'data': 'gAAAAACADAACf0Ph5eUJ50PSUXc='}]}
0:01:29.430426 LOG    DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 000c, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 43d25177)
0:01:29.431432 LOG    Server <----- DUT
0:01:29.434433 LOG    Wait Until Confirmed Uplink arrives tested successfully
0:01:29.441430 LOG    Send Test Command RxAppCntReq process starts
0:01:29.444432 LOG    PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 20, FCnt: 0007, FOpts: ), FPort: e0, FRMPayload: 09), MIC: bbd8c221)
0:01:29.445431 LOG    Frame command sent to the DUT
0:01:29.447435 LOG    PULL_RESP: Protocol version = 02, Token = 1934, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 836857452, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 14, 'data': 'YAAAAAAGBwDgyrvYwIE='}}
0:01:29.448435 LOG    Server -----> DUT
0:01:29.452542 LOG    TX_ACK: 02 1934 05 0016c001ff1025bf
0:01:31.331992 LOG    GPS Time updated: 1385123562653
0:01:31.332993 LOG    PULL_DATA: 02 57aa 02 0016c001ff1025bf
0:01:31.334996 LOG    PULL_ACK: 02 57aa 04
0:01:32.585046 LOG    First uplink received. Open reception window.
0:01:32.698164 LOG    PUSH_ACK: 02 e7f2 01
0:01:32.700165 LOG    GPS Time from gateway: 1385123563903
0:01:32.701165 LOG    PUSH_DATA: Protocol version = 02, Token = e7f2, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 838115240, 'time': '2023-11-27T12:32:24.903866Z', 'tmms': 1385123563903, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 14.0, 'foff': -3354, 'rssi': -51, 'size': 16, 'data': 'gAAAAACADQDgt38w7qOpNg='}]}
0:01:32.702170 LOG    DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 000d, FOpts: ), FPort: e0, FRMPayload: 090700, MIC: eea3a936)
0:01:32.704170 LOG    Server <----- DUT
0:01:32.705169 LOG    Frame Command Payload in the Answer: 090700
0:01:32.708905 LOG    RX Count received by DUT: 7
0:01:32.711449 LOG    Send Test Command RxAppCntReq process completed
0:01:32.714459 LOG    Check uplink frame type process starts
0:01:32.718456 LOG    Confirmed Uplink received
0:01:32.719454 LOG    Frame command RxAppCntReq received
0:01:32.721456 LOG    Check uplink frame type tested successfully
0:01:32.727454 LOG    Step 06
0:01:32.734461 LOG    Step 07
0:01:32.737460 LOG    Wait Until Confirmed Uplink arrives process starts
0:01:39.321805 LOG    First uplink received. Open reception window.
0:01:39.430043 LOG    PUSH_ACK: 02 95ce 01
0:01:39.431627 LOG    GPS Time from gateway: 1385123570645
0:01:39.432640 LOG    PUSH_DATA: Protocol version = 02, Token = 95ce, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 844856933, 'time': '2023-11-27T12:32:31.645558Z', 'tmms': 1385123570645, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 14.2, 'foff': -3335, 'rssi': -51, 'size': 20, 'data': 'gAAAAACADgACJ7ykqQ6LyyGuMhQ='}]}
0:01:39.434622 LOG    DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 000e, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 21ae3214)
0:01:39.435621 LOG    Server <----- DUT
0:01:39.438595 LOG    Wait Until Confirmed Uplink arrives tested successfully
0:01:39.444402 LOG    Send Test Command TxFramesCtrlReq process starts
0:01:39.447479 LOG    PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 20, FCnt: 0008, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 4a616009)
0:01:39.449484 LOG    Frame command sent to the DUT
0:01:39.450480 LOG    PULL_RESP: Protocol version = 02, Token = f1c2, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 846856933, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YAAAAAAGCADg2sZKYWAJ'}}
0:01:39.452481 LOG    Server -----> DUT
0:01:39.454450 LOG    Send Test Command TxFramesCtrlReq process completed
0:01:39.458229 LOG    Step 08
0:01:39.460273 LOG    Wait Until Unconfirmed Uplink arrives process starts
0:01:41.341746 LOG    GPS Time updated: 1385123572666
0:01:41.343713 LOG    PULL_DATA: 02 26d0 02 0016c001ff1025bf
0:01:41.344713 LOG    PULL_ACK: 02 26d0 04
0:01:44.325346 LOG    # *****CURRENT BEACON SENT*****#
0:01:44.327302 LOG    PULL_RESP: Protocol version = 02, Token = 9ef7, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmms': 1385123584000, 'rfch': 0, 'powe': 14, 'ipol': False, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'prea': 10, 'fdev': 0, 'codr': '4/5', 'ncrc': True, 'nhdr': True, 'size': 17, 'data': 'AAAAT49SjUAAAAAAAAAAAAAAAA='}}
0:01:44.328334 LOG    Server -----> DUT
0:01:44.329334 LOG    # *****#
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0:01:44.338433 LOG #*****NEXT BEACON QUEUED*****#
0:01:44.340470 LOG Next beacon scheduled: JSON = {'txpk': {'imme': False, 'tmms': 1385123712000, 'rfch': 0, 'powe': 14, 'ipol': False, 'datr': 'SF9BW125', 'freq': 869.525, 'modu': 'LORA', 'prea': 10, 'fdev': 0, 'codr': '4/5', 'ncrc': True, 'nhdr': True, 'size': 17, 'data': 'AACAT49StZOAAAAAAAAAAAAA='}}
0:01:44.342474 LOG Server -----> DUT
0:01:44.344435 LOG BEACON queued frame [BCNPayload: BCNPayload: (RFU1: 00, Param: 00, Time: 804f8f52, CRC1: b59d, GwSpecific: 000000000000, RFU2: , CRC2: 0000)] at GPS time (ms): 1385123712000
0:01:44.346436 LOG #*****#
0:01:44.347435 LOG Next BEACON scheduled at GPS time (ms): 1385123840000
0:01:44.349436 LOG First uplink received. Open reception window.
0:01:44.350434 LOG TX_ACK: 02 9ef7 05 0016c001ff1025bf
0:01:44.461391 LOG PUSH_ACK: 02 689a 01
0:01:44.462897 LOG GPS Time from gateway: 1385123575644
0:01:44.464901 LOG PUSH_DATA: Protocol version = 02, Token = 689a, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 849856670, 'time': '2023-11-27T12:32:36.645294Z', 'tmms': 1385123575644, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 14.2, 'foff': -3335, 'rssi': -51, 'size': 20, 'data': 'QAAAAACADwACaNqeklapCUHmbv4='}]}
0:01:44.465902 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 000f, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 41e66efe)
0:01:44.466931 LOG Server <----- DUT
0:01:44.470899 LOG Wait Until Unconfirmed Uplink arrives tested successfully
0:01:44.475932 LOG End Test Step: Confirmed Uplinks
0:01:44.479972 LOG Partial Verdict: PASS
0:01:44.483972 LOG =====
0:01:44.488483 LOG =====
0:01:44.490230 LOG Start Test Step: Restore unconfirmed frame in DUT
0:01:44.499848 LOG Send Test Command TxFramesCtrlReq process starts
0:01:49.322301 LOG First uplink received. Open reception window.
0:01:49.435435 LOG PUSH_ACK: 02 1ed4 01
0:01:49.437403 LOG GPS Time from gateway: 1385123580644
0:01:49.438403 LOG PUSH_DATA: Protocol version = 02, Token = 1ed4, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 854856446, 'time': '2023-11-27T12:32:41.645069Z', 'tmms': 1385123580644, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 13.8, 'foff': -3346, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAEAAC1K5uj6UIVImumOI='}]}
0:01:49.439404 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0010, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 59ae98e2)
0:01:49.441404 LOG Server <----- DUT
0:01:49.443403 LOG PHYPayload: (MHDR: 60, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 0009, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: 6aa6b4f5)
0:01:49.444403 LOG Frame command sent to the DUT
0:01:49.446402 LOG PULL_RESP: Protocol version = 02, Token = fcb3, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 856856446, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'YAAAAAACQDgj7tqprT1'}}
0:01:49.447407 LOG Server -----> DUT
0:01:49.450408 LOG Send Test Command TxFramesCtrlReq process completed
0:01:49.453407 LOG Wait Until Unconfirmed Uplink arrives process starts
0:01:51.542419 LOG GPS Time updated: 1385123582863
0:01:51.543419 LOG PULL_DATA: 02 3037 02 0016c001ff1025bf
0:01:51.545435 LOG PULL_ACK: 02 3037 04
0:01:54.322294 LOG First uplink received. Open reception window.
0:01:54.432279 LOG PUSH_ACK: 02 3e27 01
0:01:54.434246 LOG GPS Time from gateway: 1385123585644
0:01:54.435247 LOG PUSH_DATA: Protocol version = 02, Token = 3e27, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 859856182, 'time': '2023-11-27T12:32:46.644804Z', 'tmms': 1385123585644, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 14.2, 'foff': -3347, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAEQACMQtHkUugy+OehrQ='}]}
0:01:54.436247 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0011, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: e39e86b4)
0:01:54.437246 LOG Server <----- DUT
0:01:54.440247 LOG Wait Until Unconfirmed Uplink arrives tested successfully
0:01:54.443247 LOG End Test Step: Restore unconfirmed frame in DUT
0:01:54.447250 LOG Partial Verdict: PASS
0:01:54.451251 LOG =====
0:01:54.455251 LOG =====
0:01:54.458252 LOG Start Test Step: Confirmed Downlinks
0:01:54.469615 LOG Step 01
0:01:54.472612 LOG Wait Until Unconfirmed Uplink arrives process starts
0:01:59.326803 LOG First uplink received. Open reception window.
0:01:59.433276 LOG PUSH_ACK: 02 749a 01
0:01:59.435244 LOG GPS Time from gateway: 1385123590644

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0:01:59.436244 LOG PUSH_DATA: Protocol version = 02, Token = 749a, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 864855949, 'time': '2023-11-27T12:32:51.644569Z', 'tmms': 1385123590644, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 14.2, 'foff': -3335, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAEGACKtw7LtqfE6Lp27o='}]}
0:01:59.437244 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0012, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: a2e9dbba)
0:01:59.438244 LOG Server <----- DUT
0:01:59.441251 LOG Wait Until Unconfirmed Uplink arrives tested successfully
0:01:59.445963 LOG Send Test Command TxFramesCtrlReq process starts
0:01:59.449004 LOG PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 000a, FOpts: ), FPort: e0, FRMPayload: 0702), MIC: 16b8acc4)
0:01:59.451004 LOG Frame command sent to the DUT
0:01:59.451989 LOG PULL_RESP: Protocol version = 02, Token = 0e81, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 866855949, 'rfch': 0, 'pove': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAACgDgzEsWuKzE'}}
0:01:59.454005 LOG Server -----> DUT
0:01:59.456007 LOG Send Test Command TxFramesCtrlReq process completed
0:01:59.461510 LOG Step 02
0:01:59.465518 LOG Check ACK bit in next uplink process starts
0:02:01.551937 LOG GPS Time updated: 1385123592869
0:02:01.552937 LOG PULL_DATA: 02 1476 02 0016c001ff1025bf
0:02:01.553906 LOG PULL_ACK: 02 1476 04
0:02:04.330939 LOG First uplink received. Open reception window.
0:02:04.444196 LOG PUSH_ACK: 02 8e90 01
0:02:04.446198 LOG GPS Time from gateway: 1385123595656
0:02:04.447203 LOG PUSH_DATA: Protocol version = 02, Token = 8e90, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 869868477, 'time': '2023-11-27T12:32:56.657098Z', 'tmms': 1385123595656, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -51, 'lsnr': 14.5, 'foff': -3347, 'rssi': -51, 'size': 12, 'data': 'gAAAAACgEwBZAI DL'}}]
0:02:04.448209 LOG DATA: (MHDR: 80, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: a0, FCnt: 0013, FOpts: ), FPort: , FRMPayload: , MIC: 590080cb)
0:02:04.449208 LOG Server <----- DUT
0:02:04.451231 LOG ACK bit in FCtrl field is set
0:02:04.454207 LOG Check ACK bit in next uplink tested successfully
0:02:04.459921 LOG Send Test Command TxFramesCtrlReq process starts
0:02:04.463503 LOG PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 20, FCnt: 000b, FOpts: ), FPort: e0, FRMPayload: 0701), MIC: f6c7c8ee)
0:02:04.465472 LOG Frame command sent to the DUT
0:02:04.467474 LOG PULL_RESP: Protocol version = 02, Token = 4a19, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 871868477, 'rfch': 0, 'pove': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAAGCwDg8RX2x8ju'}}
0:02:04.468471 LOG Server -----> DUT
0:02:04.471470 LOG Send Test Command TxFramesCtrlReq process completed
0:02:04.477505 LOG Step 03
0:02:04.480543 LOG Check ACK bit in next uplink process starts
0:02:07.580207 LOG First uplink received. Open reception window.
0:02:07.693577 LOG PUSH_ACK: 02 d866 01
0:02:07.695546 LOG GPS Time from gateway: 1385123598903
0:02:07.697552 LOG PUSH_DATA: Protocol version = 02, Token = d866, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 873115504, 'time': '2023-11-27T12:32:59.904124Z', 'tmms': 1385123598903, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 14.0, 'foff': -3362, 'rssi': -51, 'size': 12, 'data': 'QAAAAACgFACxq6v5'}}]
0:02:07.698552 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: a0, FCnt: 0014, FOpts: ), FPort: , FRMPayload: , MIC: b1ababf9)
0:02:07.700551 LOG Server <----- DUT
0:02:07.701552 LOG ACK bit in FCtrl field is set
0:02:07.704552 LOG Check ACK bit in next uplink tested successfully
0:02:07.711550 LOG Send Test Command TxFramesCtrlReq process starts
0:02:07.715059 LOG PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 1a194068)
0:02:07.717061 LOG Frame command sent to the DUT
0:02:07.719073 LOG PULL_RESP: Protocol version = 02, Token = 60b1, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 875115504, 'rfch': 0, 'pove': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAADADgS0oaGUBo'}}
0:02:07.721065 LOG Server -----> DUT
0:02:07.723569 LOG Send Test Command TxFramesCtrlReq process completed
0:02:07.732364 LOG Step 04
0:02:07.735799 LOG Check ACK bit in next uplink process starts
0:02:10.833117 LOG First uplink received. Open reception window.
0:02:10.945108 LOG PUSH_ACK: 02 87ef 01
0:02:10.947079 LOG GPS Time from gateway: 1385123602151
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0:02:10.948079 LOG PUSH_DATA: Protocol version = 02, Token = 87ef, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 876363304, 'time': '2023-11-27T12:33:03.151922Z', 'tmms': 1385123602151, 'chan': 1, 'rfch': 1, 'freq': 868.3, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': 14.2, 'foff': -3358, 'rssi': -52, 'size': 12, 'data': 'QAAAAACgFOAxG1Ct'}}]
0:02:10.949084 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: a0, FCnt: 0015, FOpts: ), FPort: , FRMPayload: , MIC: 311b50ad)
0:02:10.951084 LOG Server <----- DUT
0:02:10.952084 LOG ACK bit in FCtrl field is set
0:02:10.955085 LOG Check ACK bit in next uplink tested successfully
0:02:10.960116 LOG Step 05
0:02:10.965625 LOG Wait Until Unconfirmed Uplink arrives process starts
0:02:11.722071 LOG GPS Time updated: 1385123603040
0:02:11.723106 LOG PULL_DATA: 02 2bbc 02 0016c001ff1025bf
0:02:11.724102 LOG PULL_ACK: 02 2bbc 04
0:02:14.326549 LOG First uplink received. Open reception window.
0:02:14.432451 LOG PUSH_ACK: 02 0b82 01
0:02:14.434419 LOG GPS Time from gateway: 1385123605643
0:02:14.435419 LOG PUSH_DATA: Protocol version = 02, Token = 0b82, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 879855182, 'time': '2023-11-27T12:33:06.643801Z', 'tmms': 1385123605643, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 13.5, 'foff': -3332, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAFgACzYgTm7pLw1tQ2xl='}]}
0:02:14.436419 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0016, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 5b50db12)
0:02:14.437418 LOG Server <----- DUT
0:02:14.440419 LOG Wait Until Unconfirmed Uplink arrives tested successfully
0:02:14.445420 LOG Check previous uplink sequence process starts
0:02:14.449024 LOG Uplink received with expected sequence
0:02:14.456949 LOG Send Test Command TxFramesCtrlReq process starts
0:02:14.459951 LOG PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 1a194068)
0:02:14.462493 LOG Frame command sent to the DUT
0:02:14.463495 LOG PULL_RESP: Protocol version = 02, Token = 0479, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 881855182, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAADADgS0oaGUBo'}}
0:02:14.465507 LOG Server -----> DUT
0:02:14.468495 LOG Send Test Command TxFramesCtrlReq process completed
0:02:14.472494 LOG Check ACK bit in next uplink process starts
0:02:19.319904 LOG First uplink received. Open reception window.
0:02:19.426087 LOG PUSH_ACK: 02 75fc 01
0:02:19.428111 LOG GPS Time from gateway: 1385123610643
0:02:19.429111 LOG PUSH_DATA: Protocol version = 02, Token = 75fc, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 884854916, 'time': '2023-11-27T12:33:11.643534Z', 'tmms': 1385123610643, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 14.2, 'foff': -3332, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAFwACEuA1Pwysrn9KJU='}]}
0:02:19.430614 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0017, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: b9fd2895)
0:02:19.432637 LOG Server <----- DUT
0:02:19.438161 LOG Check previous uplink sequence process starts
0:02:19.442351 LOG Uplink received with expected sequence
0:02:19.450816 LOG Send Test Command TxFramesCtrlReq process starts
0:02:19.454812 LOG PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 1a194068)
0:02:19.455812 LOG Frame command sent to the DUT
0:02:19.457785 LOG PULL_RESP: Protocol version = 02, Token = 3403, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 886854916, 'rfch': 0, 'powe': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAADADgS0oaGUBo'}}
0:02:19.459829 LOG Server -----> DUT
0:02:19.462345 LOG Send Test Command TxFramesCtrlReq process completed
0:02:19.466341 LOG Check ACK bit in next uplink process starts
0:02:21.771247 LOG GPS Time updated: 1385123613096
0:02:21.772247 LOG PULL_DATA: 02 c09b 02 0016c001ff1025bf
0:02:21.774770 LOG PULL_ACK: 02 c09b 04
0:02:24.317403 LOG First uplink received. Open reception window.
0:02:24.424369 LOG PUSH_ACK: 02 cc28 01
0:02:24.426338 LOG GPS Time from gateway: 1385123615642
0:02:24.427368 LOG PUSH_DATA: Protocol version = 02, Token = cc28, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 889854664, 'time': '2023-11-27T12:33:16.643281Z', 'tmms': 1385123615642, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 14.2, 'foff': -3346, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAGAACf40R4L5SGDNTFI4='}]}
0:02:24.428369 LOG DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0018, FOpts: ), FPort: 02, FRMPayload: 00000001020000, MIC: 3353148e)
0:02:24.430369 LOG Server <----- DUT
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0:02:24.436461	LOG	Check previous uplink sequence process starts
0:02:24.442009	LOG	Uplink received with expected sequence
0:02:24.452026	LOG	Send Test Command TxFramesCtrlReq process starts
0:02:24.456027	LOG	PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 1a194068)
0:02:24.458027	LOG	Frame command sent to the DUT
0:02:24.459027	LOG	PULL_RESP: Protocol version = 02, Token = 072f, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 891854664, 'rfch': 0, 'pove': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAADADgS0oaGUBo'}}
0:02:24.460026	LOG	Server -----> DUT
0:02:24.463573	LOG	Send Test Command TxFramesCtrlReq process completed
0:02:24.467571	LOG	Check ACK bit in next uplink process starts
0:02:29.318563	LOG	First uplink received. Open reception window.
0:02:29.433065	LOG	PUSH_ACK: 02 3623 01
0:02:29.435031	LOG	GPS Time from gateway: 1385123620642
0:02:29.436030	LOG	PUSH_DATA: Protocol version = 02, Token = 3623, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 894854401, 'time': '2023-11-27T12:33:21.643018Z', 'tmms': 1385123620642, 'chan': 0, 'rfch': 1, 'freq': 868.1, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 14.0, 'foff': -3346, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAGQAC+AqMRRjie4HEfhs='}]}
0:02:29.437030	LOG	DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 0019, FOpts: ), FPort: 02, FRMPayload: 0000001020000, MIC: 81c47e1b)
0:02:29.439043	LOG	Server <----- DUT
0:02:29.444030	LOG	Check previous uplink sequence process starts
0:02:29.447803	LOG	Uplink received with expected sequence
0:02:29.457013	LOG	Send Test Command TxFramesCtrlReq process starts
0:02:29.460045	LOG	PHYPayload: (MHDR: a0, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 00, FCnt: 000c, FOpts: ), FPort: e0, FRMPayload: 0700), MIC: 1a194068)
0:02:29.461582	LOG	Frame command sent to the DUT
0:02:29.463596	LOG	PULL_RESP: Protocol version = 02, Token = 4651, Identifier = 03, JSON = {'txpk': {'imme': False, 'tmst': 896854401, 'rfch': 0, 'pove': 14, 'ipol': True, 'datr': 'SF12BW125', 'freq': 869.525, 'modu': 'LORA', 'codr': '4/5', 'prea': 8, 'ncrc': True, 'size': 15, 'data': 'oAAAAAADADgS0oaGUBo'}}
0:02:29.464586	LOG	Server -----> DUT
0:02:29.468590	LOG	Send Test Command TxFramesCtrlReq process completed
0:02:29.471615	LOG	Check ACK bit in next uplink process starts
0:02:31.981571	LOG	GPS Time updated: 1385123623305
0:02:31.983536	LOG	PULL_DATA: 02 d154 02 0016c001ff1025bf
0:02:31.984536	LOG	PULL_ACK: 02 d154 04
0:02:34.320211	LOG	First uplink received. Open reception window.
0:02:34.428591	LOG	PUSH_ACK: 02 f701 01
0:02:34.430128	LOG	GPS Time from gateway: 1385123625642
0:02:34.431132	LOG	PUSH_DATA: Protocol version = 02, Token = f701, Identifier = 00, JSON = {'rxpk': [{'jver': 1, 'tmst': 899854165, 'time': '2023-11-27T12:33:26.642781Z', 'tmms': 1385123625642, 'chan': 2, 'rfch': 1, 'freq': 868.5, 'mid': 8, 'stat': 1, 'modu': 'LORA', 'datr': 'SF7BW125', 'codr': '4/5', 'rssi': -52, 'lsnr': 14.0, 'foff': -3347, 'rssi': -51, 'size': 20, 'data': 'QAAAAACAGgACdUbAKFWz4q9AIyg='}]}
0:02:34.433184	LOG	DATA: (MHDR: 40, MACPayload: (FHDR: (DevAddr: 00000000, FCtrl: 80, FCnt: 001a, FOpts: ), FPort: 02, FRMPayload: 0000001020000, MIC: af402328)
0:02:34.434134	LOG	Server <----- DUT
0:02:34.440171	LOG	Check previous uplink sequence process starts
0:02:34.443170	LOG	Uplink received with expected sequence
0:02:34.446205	LOG	End Test Step: Confirmed Downlinks
0:02:34.449203	LOG	Partial Verdict: PASS
0:02:34.453776	LOG	=====
0:02:34.460244	LOG	End Test Case: TP_A_EU868_ED_MAC_104_BV_004
0:02:34.461748	LOG	Final Verdict: PASS

Verification code: f155de37042a6ef29f8946e902d80a24