

**Espressif IOT ESP**

**Bluetooth Auto Test Report**

**Version 1.0**

Espressif Systems IOT Team

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A2 Report Revision History:

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| --- | --- | --- | --- |
| Table 1 | | | |
| Revision | Date | Changes | Author |
|  |  |  |  |

Module&Test Information

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| Table 2 | |
| Module Name: | ESP32\_TestBoard |
| PCB Version: | V2 |
| Sample number: | #1 |
| Test Engineer: | hujinping |
| Test Date: | 10/26/18 17:42:16 |
| Test Place: | Second floor laboratory |
| Test Equipment: | IQxel |
| Test Bin | WT200 |
| Cable loss/dB: | 12.8 |
| Backoff(4=1dB): | IC(1.5pf\_2.4nH\_1.0pf)/29-j12 |
| Pi match/s11 smith: | 2.0 |
| Note: | |

1. Test Item Summary

1.1. Static Performance

1.1.1. Basic rate TX

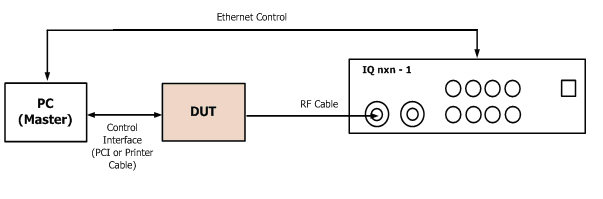
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| Table 3 | | |
| No. | Test Items | Pass/Fail |
| 1 | Basic rate TX | pass |
| 2 | 2M EDR TX | pass |
| 3 | 3M EDR TX | pass |
| 4 | BLE TX | pass |

1. Test Result

2.1. Test setup

a. Maximum Transmit Power Profile vs. Operation Channel

Test Setup:



**Figure 1: WiFi TX Performance Environment Setup**

Note :

1. Config the instrument setup as above.
2. Select Tx Rate/Channel/BW as tables specified below.
3. Run the Test script and record test results.

2.2. Basic rate TX

Requirement

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| Table 5 | |
| Specification | Requirement |
| Frequency range(MHz) | (2400,2483.5) |
| Output Power(dBm) | (-3, +3) @power\_level=4； |
| Init Freq Error(kHz) | (-75kHz,+75kHz) |
| Bandwidth20dB(kHz) | ≤ 1000kHz |
| deltaF2Max(kHz) | (115kHz ,500kHz)(at least 99%) |
| deltaF2Avg(kHz) | (112kHz, 500kHz) |
| deltaF1Avg(kHz) | (140kH, 175kHz) |

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| Table 6 | | | | | | | | | |
| Data rate | 1M\_DH5\_1010 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.44 | -3.20 | -3.12 | -3.34 | -3.15 | -3.19 | -3.08 | -3.02 | -2.67 |
| Init Freq Error(KHz) | -21.60 | -17.41 | -18.23 | -21.37 | -18.39 | -19.73 | -21.65 | -18.59 | -20.06 |
| deltaF2Max(kHz) | 146.70 | 146.16 | 145.70 | 146.71 | 146.07 | 147.44 | 144.68 | 146.80 | 145.55 |
| deltaF2Avg(kHz) | 140.52 | 139.55 | 139.50 | 140.09 | 139.43 | 140.74 | 138.54 | 140.60 | 139.64 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_1M_DH5_1010 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_1M_DH5_1010 | | | | | | | | |
| deltaF2Max by channel | bt_deltaF2Max_1M_DH5_1010 | | | | | | | | |
| deltaF2Avg by channel | bt_deltaF2Avg_1M_DH5_1010_pwr | | | | | | | | |
| **Note：** | **1M\_DH5\_1010 meets the test requirements** | | | | | | | | |

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| Table 7 | | | | | | | | | |
| Data rate | 1M\_DH5\_00001111 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.47 | -3.28 | -3.20 | -3.34 | -3.23 | -3.19 | -3.22 | -2.97 | -2.74 |
| Init Freq Error(KHz) | -21.33 | -18.41 | -19.75 | -22.29 | -18.22 | -19.34 | -22.06 | -19.15 | -19.84 |
| deltaF1Avg(kHz) | 155.07 | 155.69 | 155.71 | 154.45 | 156.72 | 155.87 | 156.73 | 153.88 | 156.49 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_1M_DH5_00001111 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_1M_DH5_00001111 | | | | | | | | |
| deltaF1Avg by channel | bt_deltaF1Avg_1M_DH5_00001111 | | | | | | | | |
| **Note：** | **1M\_DH5\_00001111 meets the test requirements** | | | | | | | | |

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| Table 8 | | | | | | | | | |
| Data rate | 1M\_DH5\_prbs9 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.52 | -3.30 | -3.23 | -3.39 | -3.22 | -3.21 | -3.21 | -3.02 | -2.73 |
| Init Freq Error(KHz) | -21.16 | -18.50 | -19.44 | -21.99 | -18.92 | -18.93 | -22.19 | -18.87 | -19.61 |
| Bandwidth20dB(kHz) | 905.00 | 895.00 | 860.00 | 860.00 | 870.00 | 882.00 | 860.00 | 900.00 | 895.00 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_1M_DH5_prbs9 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_1M_DH5_prbs9 | | | | | | | | |
| Bandwidth20dB by channel | bt_bandwidth20dB_1M_DH5_prbs9 | | | | | | | | |
| **Note：** | **1M\_DH5\_prbs9 meets the test requirements** | | | | | | | | |

2.3 Enhanced data rate 2M TX

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| Table 9 | |
| Specification | Requirement |
| Output Power(dBm) | (-3, +3) @power\_level=4； |
| Init Freq Error(kHz) | (-75,+75) |
| OMEGA\_I(kHz) | (-75kHz, +75kHz)，for all packets |
| OMEGA\_O(kHz) | (-10kHz, 10kHz)，for all block |
| OMEGA\_IO(kHz) | (-75kHz, +75kHz)，for all block |
| DEVM Average(%) | (0, 20) @ 2M |
| DEVM Peak(%) | (0, 35) @ 2M |
| EdrprobEVM99pass(%) | (0, 30) @ 2M |
| EdrPowDiffdB(dB) | (-4dBm, 1dBm) |

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| Table 10 | | | | | | | | | |
| Data rate | 2M\_DH5\_1010 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.65 | -3.44 | -3.37 | -3.54 | -3.36 | -3.37 | -3.34 | -3.16 | -2.88 |
| Init Freq Error(kHz) | -21.82 | -18.66 | -19.62 | -22.29 | -19.71 | -19.27 | -22.49 | -18.97 | -19.63 |
| OMEGA\_I(kHz) | -19.77 | -19.77 | -20.29 | -20.10 | -20.21 | -20.24 | -19.90 | -20.49 | -20.49 |
| OMEGA\_O(kHz) | -1.12 | -1.60 | -1.66 | -1.78 | -1.68 | -1.35 | -1.34 | -1.91 | -2.12 |
| OMEGA\_IO(kHz) | -20.89 | -21.36 | -21.94 | -21.88 | -21.89 | -21.59 | -21.24 | -22.39 | -22.61 |
| DEVM Average(%) | 3.60 | 3.54 | 3.55 | 3.55 | 3.61 | 3.57 | 3.76 | 3.86 | 4.04 |
| DEVM Peak(%) | 5.87 | 5.79 | 5.76 | 5.85 | 6.03 | 5.83 | 5.95 | 6.62 | 6.60 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.20 | -0.18 | -0.16 | -0.18 | -0.18 | -0.17 | -0.19 | -0.18 | -0.19 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_2M_DH5_1010 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_2M_DH5_1010 | | | | | | | | |
| DEVM Average(%) by channel | bt_EdrEVMAv_2M_DH5_1010 | | | | | | | | |
| DEVM Peak(%) | bt_EdrEVMpk_2M_DH5_1010 | | | | | | | | |
| EdrPowDiffdB by channel | bt_EdrPowDiffdB_2M_DH5_1010 | | | | | | | | |
| **Note:** | **2M\_DH5\_1010 meets the test requirements** | | | | | | | | |

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| Table 11 | | | | | | | | | |
| Data rate | 2M\_DH5\_00001111 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.71 | -3.49 | -3.42 | -3.59 | -3.41 | -3.43 | -3.40 | -3.21 | -2.92 |
| Init Freq Error(kHz) | -22.21 | -18.31 | -19.39 | -21.80 | -18.78 | -19.50 | -22.41 | -19.30 | -20.09 |
| OMEGA\_I(kHz) | -20.06 | -20.28 | -19.50 | -20.55 | -19.92 | -20.30 | -20.50 | -20.61 | -20.58 |
| OMEGA\_O(kHz) | -2.09 | -2.36 | -2.30 | -2.70 | -1.84 | -1.32 | -1.79 | -1.44 | -2.47 |
| OMEGA\_IO(kHz) | -22.15 | -22.65 | -21.79 | -23.25 | -21.75 | -21.62 | -22.29 | -22.05 | -23.06 |
| DEVM Average(%) | 4.87 | 4.71 | 4.76 | 4.91 | 4.67 | 4.63 | 4.93 | 5.26 | 4.91 |
| DEVM Peak(%) | 8.18 | 8.01 | 8.11 | 8.47 | 8.13 | 8.43 | 8.56 | 8.91 | 8.72 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.23 | -0.21 | -0.23 | -0.21 | -0.24 | -0.21 | -0.22 | -0.21 | -0.23 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_2M_DH5_00001111 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_2M_DH5_00001111 | | | | | | | | |
| DEVM Average(%) by channel | bt_EdrEVMAv_2M_DH5_00001111 | | | | | | | | |
| DEVM Peak(%) | bt_EdrEVMpk_2M_DH5_00001111 | | | | | | | | |
| EdrPowDiffdB by channel | bt_EdrPowDiffdB_2M_DH5_00001111 | | | | | | | | |
| **Note:** | **2M\_DH5\_00001111 meets the test requirements** | | | | | | | | |

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| Table 12 | | | | | | | | | |
| Data rate | 2M\_DH5\_prbs9 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.63 | -3.42 | -3.34 | -3.51 | -3.33 | -3.33 | -3.33 | -3.14 | -2.83 |
| Init Freq Error(kHz) | -21.66 | -18.43 | -19.75 | -21.86 | -19.52 | -19.53 | -22.51 | -19.20 | -20.69 |
| OMEGA\_I(kHz) | -19.99 | -19.70 | -20.12 | -20.53 | -20.01 | -20.06 | -20.37 | -20.60 | -20.74 |
| OMEGA\_O(kHz) | -2.01 | -2.16 | -2.13 | -2.71 | -1.82 | -1.60 | -1.72 | -1.95 | -3.01 |
| OMEGA\_IO(kHz) | -21.99 | -21.86 | -22.26 | -23.24 | -21.83 | -21.66 | -22.08 | -22.55 | -23.75 |
| DEVM Average(%) | 4.87 | 5.17 | 5.04 | 5.26 | 4.80 | 4.91 | 5.14 | 5.18 | 5.23 |
| DEVM Peak(%) | 10.22 | 10.76 | 10.26 | 10.85 | 10.24 | 10.55 | 10.73 | 11.45 | 10.81 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.13 | -0.13 | -0.13 | -0.13 | -0.14 | -0.14 | -0.13 | -0.12 | -0.14 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_2M_DH5_prbs9 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_2M_DH5_prbs9 | | | | | | | | |
| DEVM Average(%) by channel | bt_EdrEVMAv_2M_DH5_prbs9 | | | | | | | | |
| DEVM Peak(%) | bt_EdrEVMpk_2M_DH5_prbs9 | | | | | | | | |
| EdrPowDiffdB by channel | bt_EdrPowDiffdB_2M_DH5_prbs9 | | | | | | | | |
| **Note:** | **2M\_DH5\_prbs9 meets the test requirements** | | | | | | | | |

2.4Enhanced data rate 3M TX

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| Table 13 | |
| Specification | Requirement |
| Output Power(dBm) | (-3, +3) @power\_level=4； |
| Init Freq Error(kHz) | (-75,+75) |
| OMEGA\_I(kHz) | (-75kHz, +75kHz)，for all packets |
| OMEGA\_O(kHz) | (-10kHz, 10kHz)，for all block |
| OMEGA\_IO(kHz) | (-75kHz, +75kHz)，for all block |
| DEVM Average(%) | (0, 13)@ 3M |
| DEVM Peak(%) | (0, 25)@ 3M |
| EdrprobEVM99pass(%) | (0, 20)@ 3M |
| EdrPowDiffdB(dB) | (-4dBm, 1dBm) |

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| Table 14 | | | | | | | | | |
| Data rate | 3M\_DH5\_1010 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.65 | -3.43 | -3.35 | -3.52 | -3.34 | -3.35 | -3.34 | -3.14 | -2.85 |
| Init Freq Error(kHz) | -22.16 | -19.08 | -20.06 | -22.28 | -18.41 | -20.22 | -22.09 | -18.86 | -20.25 |
| OMEGA\_I(kHz) | -19.61 | -19.59 | -19.16 | -20.11 | -19.58 | -20.02 | -20.46 | -20.27 | -20.07 |
| OMEGA\_O(kHz) | -1.87 | -2.07 | -2.33 | -2.42 | -2.53 | -2.08 | -1.68 | -2.08 | -1.67 |
| OMEGA\_IO(kHz) | -21.48 | -21.66 | -21.49 | -22.52 | -22.10 | -22.10 | -22.14 | -22.35 | -21.75 |
| DEVM Average(%) | 6.61 | 6.58 | 6.54 | 6.53 | 6.62 | 6.59 | 6.73 | 6.64 | 6.67 |
| DEVM Peak(%) | 9.96 | 9.84 | 9.66 | 9.83 | 10.17 | 9.75 | 10.14 | 10.25 | 10.32 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.14 | -0.14 | -0.15 | -0.14 | -0.15 | -0.15 | -0.12 | -0.14 | -0.16 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_3M_DH5_1010 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_3M_DH5_1010 | | | | | | | | |
| DEVM Average(%) by channel | bt_EdrEVMAv_3M_DH5_1010 | | | | | | | | |
| DEVM Peak(%) | bt_EdrEVMpk_3M_DH5_1010 | | | | | | | | |
| EdrPowDiffdB by channel | bt_EdrPowDiffdB_3M_DH5_1010 | | | | | | | | |
| **Note:** | **3M\_DH5\_1010 meets the test requirements** | | | | | | | | |

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| Table 15 | | | | | | | | | |
| Data rate | 3M\_DH5\_00001111 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.63 | -3.47 | -3.36 | -3.52 | -3.35 | -3.37 | -3.32 | -3.12 | -2.85 |
| Init Freq Error(kHz) | -22.07 | -18.39 | -20.20 | -22.69 | -18.90 | -18.79 | -23.02 | -18.64 | -21.33 |
| OMEGA\_I(kHz) | -19.43 | -20.25 | -20.14 | -20.14 | -20.06 | -20.12 | -19.96 | -19.89 | -20.39 |
| OMEGA\_O(kHz) | -1.95 | -1.89 | -1.36 | -2.09 | -1.85 | -1.94 | -1.62 | -1.81 | -1.69 |
| OMEGA\_IO(kHz) | -21.38 | -22.14 | -21.50 | -22.23 | -21.90 | -22.06 | -21.58 | -21.70 | -22.08 |
| DEVM Average(%) | 5.08 | 4.27 | 4.13 | 4.23 | 4.59 | 4.71 | 5.11 | 5.20 | 4.75 |
| DEVM Peak(%) | 7.95 | 7.37 | 7.24 | 7.26 | 7.76 | 7.81 | 8.26 | 8.59 | 8.19 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.15 | -0.15 | -0.13 | -0.14 | -0.15 | -0.16 | -0.12 | -0.13 | -0.14 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_3M_DH5_00001111 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_3M_DH5_00001111 | | | | | | | | |
| DEVM Average(%) by channel | bt_EdrEVMAv_3M_DH5_00001111 | | | | | | | | |
| DEVM Peak(%) | bt_EdrEVMpk_3M_DH5_00001111 | | | | | | | | |
| EdrPowDiffdB by channel | bt_EdrPowDiffdB_3M_DH5_00001111 | | | | | | | | |
| **Note:** | **3M\_DH5\_00001111 meets the test requirements** | | | | | | | | |

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| Table 16 | | | | | | | | | |
| Data rate | 3M\_DH5\_prbs9 | | | | | | | | |
| Channel | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 78 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.64 | -3.42 | -3.35 | -3.52 | -3.35 | -3.35 | -3.33 | -3.13 | -2.85 |
| Init Freq Error(kHz) | -22.56 | -18.65 | -20.19 | -22.68 | -19.47 | -19.80 | -22.90 | -19.38 | -20.19 |
| OMEGA\_I(kHz) | -19.80 | -19.74 | -19.82 | -19.93 | -20.46 | -20.19 | -20.21 | -19.91 | -20.55 |
| OMEGA\_O(kHz) | -1.85 | -2.02 | -1.98 | -1.80 | -2.35 | -1.20 | -2.34 | -2.13 | -2.04 |
| OMEGA\_IO(kHz) | -21.64 | -21.76 | -21.80 | -21.72 | -22.81 | -21.39 | -22.55 | -22.04 | -22.58 |
| DEVM Average(%) | 4.96 | 5.05 | 5.20 | 5.05 | 5.42 | 4.69 | 5.16 | 5.22 | 5.04 |
| DEVM Peak(%) | 10.06 | 10.15 | 10.41 | 10.12 | 11.23 | 9.85 | 10.38 | 10.74 | 10.38 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.13 | -0.13 | -0.13 | -0.14 | -0.14 | -0.14 | -0.13 | -0.14 | -0.13 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_3M_DH5_prbs9 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_3M_DH5_prbs9 | | | | | | | | |
| DEVM Average(%) by channel | bt_EdrEVMAv_3M_DH5_prbs9 | | | | | | | | |
| DEVM Peak(%) | bt_EdrEVMpk_3M_DH5_prbs9 | | | | | | | | |
| EdrPowDiffdB by channel | bt_EdrPowDiffdB_3M_DH5_prbs9 | | | | | | | | |
| **Note:** | **3M\_DH5\_prbs9 meets the test requirements** | | | | | | | | |

2.5 BLE TX

Requirement

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| Table 17 | |
| Specification | Requirement |
| Frequency range(MHz) | (2400,2483.5) |
| Output Power(dBm) | (-3, +3) @power\_level=4； |
| Init Freq Error(kHz) | (-150kHz,+150kHz) |
| deltaF2Max(kHz) | (185kHz ,500kHz)(at least 99%) |
| deltaF2Avg(kHz) | (180kHz, 500kHz) |
| deltaF1Avg(kHz) | (225kH, 275kHz) |

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| Table1 18 | | | | | | | | | |
| Data rate | LE\_1010 | | | | | | | | |
| Channel | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 39 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.83 | -3.59 | -3.71 | -3.70 | -3.82 | -3.70 | -3.27 | -3.20 | -2.86 |
| Init Freq Error(kHz) | -18.08 | -20.40 | -20.42 | -18.73 | -20.70 | -20.35 | -19.31 | -20.43 | -20.07 |
| deltaF2Max(kHz) | 225.26 | 223.32 | 228.51 | 223.73 | 225.32 | 227.94 | 224.50 | 226.46 | 224.20 |
| deltaF2Avg(kHz) | 218.30 | 216.96 | 222.49 | 216.81 | 218.69 | 221.92 | 218.12 | 220.03 | 218.28 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_LE_1010 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_LE_1010 | | | | | | | | |
| deltaF2Max by channel | bt_deltaF2Max_LE_1010 | | | | | | | | |
| deltaF2Avg by channel | bt_deltaF2Avg_LE_1010_pwr | | | | | | | | |
| **Note：** | **LE\_1010 meets the test requirements** | | | | | | | | |

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| Table1 19 | | | | | | | | | |
| Data rate | LE\_00001111 | | | | | | | | |
| Channel | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 39 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.91 | -3.69 | -3.61 | -3.79 | -3.84 | -3.61 | -3.37 | -3.17 | -2.89 |
| Init Freq Error(kHz) | -18.38 | -20.97 | -20.40 | -19.14 | -21.04 | -20.75 | -19.39 | -21.19 | -20.32 |
| deltaF1Avg(kHz) | 245.06 | 243.78 | 244.92 | 242.37 | 242.59 | 243.96 | 244.20 | 244.14 | 243.02 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_LE_00001111 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_LE_00001111 | | | | | | | | |
| deltaF1Avg by channel | bt_deltaF1Avg_LE_00001111 | | | | | | | | |
| **Note：** | **LE\_00001111 meets the test requirements** | | | | | | | | |

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| Table1 20 | | | | | | | | | |
| Data rate | LE\_prbs9 | | | | | | | | |
| Channel | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 39 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -3.91 | -3.70 | -3.62 | -3.79 | -3.85 | -3.61 | -3.37 | -3.18 | -2.89 |
| Init Freq Error(kHz) | -18.93 | -20.92 | -20.49 | -19.18 | -20.94 | -20.37 | -18.91 | -21.13 | -20.06 |
| **Pass/Fail** | pass | pass | pass | pass | pass | pass | pass | pass | pass |
| Power by channel | bt_pwr_LE_prbs9 | | | | | | | | |
| Init Freq Error by channel | bt_Init_Freq_Err_LE_prbs9 | | | | | | | | |
| **Note:** | **LE\_prbs9 meets the test requirements** | | | | | | | | |