

**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 10:03:39 |
| Test Place: | Second floor laboratory |
| Test Equipment: | WT200 |
| Test Bin | V146 |
| 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 |

1.1.2. Receiver sensitivity

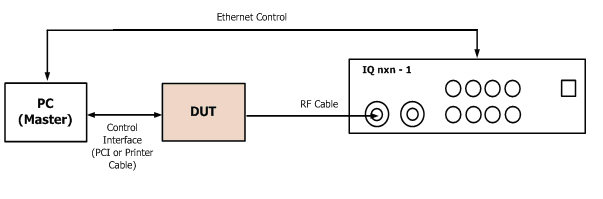
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| Table 4 | | |
| No. | Test Items | Pass/Fail |
| 1 | BR sensitivity | Pass |
| 2 | 2M EDR sensitivity | Pass |
| 3 | 3M EDR sensitivity | Pass |
| 3 | BLE sensitivity | Pass |

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) | -12.33 | -12.07 | -12.00 | -12.24 | -11.93 | -11.90 | -12.01 | -11.91 | -11.60 |
| Init Freq Error(KHz) | -21.31 | -18.27 | -18.26 | -21.84 | -18.99 | -19.13 | -20.96 | -18.95 | -19.69 |
| deltaF2Max(kHz) | 146.74 | 145.89 | 146.16 | 148.25 | 145.71 | 144.45 | 145.91 | 147.33 | 146.30 |
| deltaF2Avg(kHz) | 140.33 | 139.26 | 139.95 | 141.45 | 139.21 | 138.05 | 139.47 | 140.86 | 140.22 |
| **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) | -12.31 | -12.17 | -12.09 | -12.15 | -11.98 | -11.94 | -12.04 | -11.94 | -11.62 |
| Init Freq Error(KHz) | -22.27 | -17.55 | -19.10 | -21.78 | -18.97 | -18.85 | -22.33 | -19.61 | -19.86 |
| deltaF1Avg(kHz) | 154.92 | 157.05 | 157.18 | 155.28 | 156.07 | 153.38 | 155.27 | 158.37 | 156.51 |
| **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) | -12.34 | -12.13 | -12.04 | -12.16 | -11.96 | -12.00 | -12.06 | -11.86 | -11.58 |
| Init Freq Error(KHz) | -21.03 | -18.39 | -19.44 | -21.71 | -18.53 | -18.87 | -21.36 | -17.79 | -19.70 |
| Bandwidth20dB(kHz) | 910.00 | 910.00 | 910.00 | 910.00 | 910.00 | 885.00 | 910.00 | 900.00 | 910.00 |
| **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) | -12.46 | -12.25 | -12.17 | -12.28 | -12.08 | -12.14 | -12.18 | -12.00 | -11.71 |
| Init Freq Error(kHz) | -22.21 | -18.33 | -18.50 | -21.48 | -17.96 | -19.00 | -21.15 | -19.21 | -19.92 |
| OMEGA\_I(kHz) | -19.47 | -18.85 | -19.11 | -19.67 | -19.45 | -19.58 | -19.91 | -20.04 | -19.92 |
| OMEGA\_O(kHz) | -2.02 | -1.79 | -0.94 | -2.66 | -1.56 | -1.83 | -2.31 | -2.42 | -2.24 |
| OMEGA\_IO(kHz) | -21.49 | -20.64 | -20.05 | -22.33 | -21.01 | -21.41 | -22.22 | -22.46 | -22.16 |
| DEVM Average(%) | 3.66 | 3.73 | 3.59 | 3.80 | 3.67 | 3.80 | 3.89 | 3.96 | 4.23 |
| DEVM Peak(%) | 6.04 | 6.15 | 5.80 | 6.30 | 6.38 | 6.03 | 6.51 | 6.52 | 6.77 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.15 | -0.16 | -0.14 | -0.14 | -0.15 | -0.15 | -0.15 | -0.13 | -0.16 |
| **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) | -12.50 | -12.29 | -12.21 | -12.34 | -12.12 | -12.18 | -12.21 | -12.03 | -11.75 |
| Init Freq Error(kHz) | -21.90 | -17.63 | -19.19 | -21.84 | -18.45 | -19.00 | -21.77 | -18.89 | -19.70 |
| OMEGA\_I(kHz) | -19.28 | -18.97 | -19.34 | -19.81 | -19.25 | -19.89 | -19.45 | -19.64 | -19.26 |
| OMEGA\_O(kHz) | -1.56 | -1.75 | -1.65 | -2.27 | -1.74 | -2.15 | -1.79 | -1.97 | -1.26 |
| OMEGA\_IO(kHz) | -20.84 | -20.72 | -20.99 | -22.08 | -20.99 | -22.04 | -21.24 | -21.61 | -20.52 |
| DEVM Average(%) | 5.02 | 5.03 | 4.50 | 4.70 | 5.00 | 4.56 | 5.00 | 5.17 | 5.32 |
| DEVM Peak(%) | 8.78 | 8.77 | 8.13 | 8.20 | 8.56 | 7.82 | 8.90 | 9.00 | 9.00 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.18 | -0.20 | -0.20 | -0.19 | -0.20 | -0.18 | -0.21 | -0.19 | -0.22 |
| **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) | -12.41 | -12.20 | -12.12 | -12.24 | -12.05 | -12.09 | -12.13 | -11.94 | -11.66 |
| Init Freq Error(kHz) | -21.03 | -18.20 | -19.18 | -22.39 | -19.09 | -19.16 | -22.19 | -19.20 | -19.49 |
| OMEGA\_I(kHz) | -19.01 | -18.49 | -19.34 | -19.49 | -20.10 | -19.36 | -19.51 | -19.18 | -20.15 |
| OMEGA\_O(kHz) | -1.94 | -1.92 | -2.31 | -2.31 | -2.29 | -1.55 | -1.68 | -1.49 | -2.93 |
| OMEGA\_IO(kHz) | -20.95 | -20.41 | -21.65 | -21.80 | -22.39 | -20.92 | -21.19 | -20.67 | -23.08 |
| DEVM Average(%) | 5.22 | 5.36 | 4.99 | 5.12 | 5.29 | 5.12 | 5.25 | 5.23 | 5.24 |
| DEVM Peak(%) | 10.74 | 11.14 | 10.64 | 10.70 | 11.11 | 10.84 | 10.88 | 10.55 | 11.28 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.11 | -0.12 | -0.09 | -0.11 | -0.08 | -0.10 | -0.10 | -0.11 | -0.09 |
| **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) | -12.43 | -12.21 | -12.13 | -12.25 | -12.04 | -12.11 | -12.15 | -11.96 | -11.68 |
| Init Freq Error(kHz) | -21.69 | -17.92 | -18.45 | -21.17 | -18.05 | -19.13 | -21.53 | -19.29 | -21.21 |
| OMEGA\_I(kHz) | -19.02 | -18.68 | -18.97 | -19.35 | -18.57 | -19.75 | -20.19 | -19.25 | -19.71 |
| OMEGA\_O(kHz) | -1.32 | -1.81 | -2.33 | -1.81 | -2.74 | -1.74 | -3.39 | -1.77 | -1.69 |
| OMEGA\_IO(kHz) | -20.34 | -20.49 | -21.30 | -21.17 | -21.31 | -21.48 | -23.58 | -21.02 | -21.41 |
| DEVM Average(%) | 6.57 | 6.69 | 6.59 | 6.67 | 6.67 | 6.83 | 6.69 | 6.64 | 6.70 |
| DEVM Peak(%) | 9.91 | 10.32 | 10.05 | 10.13 | 10.31 | 10.20 | 10.22 | 10.27 | 10.30 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.11 | -0.11 | -0.11 | -0.11 | -0.13 | -0.10 | -0.10 | -0.12 | -0.12 |
| **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) | -12.41 | -12.17 | -12.12 | -12.25 | -12.04 | -12.06 | -12.14 | -11.95 | -11.65 |
| Init Freq Error(kHz) | -21.22 | -17.75 | -19.41 | -21.41 | -18.80 | -19.45 | -22.08 | -19.22 | -19.70 |
| OMEGA\_I(kHz) | -18.85 | -18.08 | -18.60 | -19.44 | -19.18 | -18.53 | -19.24 | -19.48 | -19.40 |
| OMEGA\_O(kHz) | -2.05 | -2.45 | -2.59 | -2.47 | -2.54 | -3.31 | -2.16 | -2.61 | -2.25 |
| OMEGA\_IO(kHz) | -20.90 | -20.53 | -21.19 | -21.91 | -21.73 | -21.83 | -21.41 | -22.09 | -21.65 |
| DEVM Average(%) | 4.67 | 5.65 | 5.28 | 5.15 | 4.71 | 5.91 | 5.22 | 5.39 | 5.03 |
| DEVM Peak(%) | 7.92 | 9.29 | 8.88 | 8.23 | 8.04 | 9.53 | 8.51 | 8.99 | 8.78 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.11 | -0.09 | -0.10 | -0.12 | -0.11 | -0.09 | -0.11 | -0.10 | -0.09 |
| **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) | -12.42 | -12.20 | -12.13 | -12.25 | -12.02 | -12.08 | -12.13 | -11.94 | -11.66 |
| Init Freq Error(kHz) | -22.11 | -18.18 | -19.45 | -21.52 | -18.27 | -18.80 | -21.33 | -18.21 | -19.79 |
| OMEGA\_I(kHz) | -19.51 | -18.51 | -19.30 | -19.55 | -19.17 | -19.10 | -19.85 | -19.02 | -19.56 |
| OMEGA\_O(kHz) | -2.24 | -2.14 | -1.40 | -2.09 | -1.81 | -1.76 | -2.64 | -1.62 | -2.01 |
| OMEGA\_IO(kHz) | -21.75 | -20.65 | -20.70 | -21.64 | -20.97 | -20.87 | -22.49 | -20.64 | -21.57 |
| DEVM Average(%) | 5.15 | 5.39 | 5.10 | 5.15 | 5.28 | 5.18 | 5.41 | 5.24 | 5.01 |
| DEVM Peak(%) | 10.84 | 10.91 | 10.43 | 10.53 | 10.75 | 10.34 | 11.05 | 10.78 | 10.05 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.09 | -0.11 | -0.09 | -0.10 | -0.11 | -0.12 | -0.10 | -0.11 | -0.11 |
| **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) | -12.63 | -12.34 | -12.31 | -12.39 | -12.39 | -12.42 | -11.94 | -11.80 | -11.66 |
| Init Freq Error(kHz) | -18.14 | -20.06 | -20.16 | -17.69 | -20.52 | -20.22 | -17.94 | -19.69 | -19.99 |
| deltaF2Max(kHz) | 227.76 | 224.24 | 225.80 | 225.39 | 223.04 | 229.62 | 221.61 | 222.72 | 227.19 |
| deltaF2Avg(kHz) | 220.58 | 217.56 | 219.45 | 218.59 | 216.44 | 223.19 | 215.23 | 216.32 | 221.25 |
| **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) | -12.60 | -12.38 | -12.30 | -12.42 | -12.48 | -12.28 | -12.06 | -11.88 | -11.60 |
| Init Freq Error(kHz) | -17.66 | -20.58 | -19.98 | -18.31 | -20.18 | -19.87 | -18.65 | -19.83 | -19.47 |
| deltaF1Avg(kHz) | 246.18 | 244.48 | 245.39 | 242.58 | 247.89 | 242.71 | 241.82 | 243.29 | 242.20 |
| **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 | | | | | | | | |
| 20deltaF1Avg by channel | bt_deltaF1Avg_LE_00001111 | | | | | | | | |
| **Note：** | **LE\_00001111 meets the test requirements** | | | | | | | | |
| Table1 20 | | | | | | | | | |
| Data rate | LE\_prbs9 | | | | | | | | |
| Channel | 0 | 5 | 10 | 15 |  | 25 | 30 | 35 | 39 |
| Frequency | 2402 | 2412 | 2422 | 2432 | 2442 | 2452 | 2462 | 2472 | 2480 |
| Output Power(dBm) | -12.59 | -12.38 | -12.31 | -12.43 | -12.48 | -12.28 | -12.08 | -11.88 | -11.61 |
| Init Freq Error(kHz) | -17.90 | -19.87 | -19.39 | -18.37 | -20.21 | -19.66 | -18.19 | -19.95 | -19.34 |
| **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** | | | | | | | | |