

**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: | 10/29/18 11:03:39 |
| 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

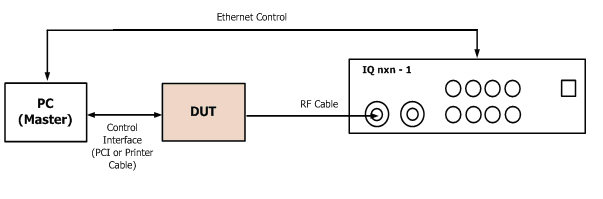
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| Table 3 | | |
| No. | Test Items | Pass/Fail |
| 1 | Basic rate TX | pass |
| 2 | 2M EDR TX | pass |
| 3 | 3M EDR TX | pass |
| 4 | BLE TX | pass |

1. 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) | 5.36 | 5.44 | 5.58 | 5.39 | 5.51 | 5.63 | 5.40 | 5.61 | 5.80 |
| Init Freq Error(KHz) | -22.34 | -18.47 | -18.62 | -22.02 | -19.38 | -19.67 | -22.14 | -19.27 | -19.51 |
| deltaF2Max(kHz) | 146.13 | 146.86 | 144.71 | 146.32 | 146.74 | 144.99 | 148.81 | 148.54 | 148.39 |
| deltaF2Avg(kHz) | 140.06 | 140.50 | 138.74 | 139.81 | 140.38 | 138.62 | 142.81 | 142.47 | 142.68 |
| **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) | 5.39 | 5.43 | 5.46 | 5.43 | 5.56 | 5.53 | 5.54 | 5.71 | 5.89 |
| Init Freq Error(KHz) | -21.93 | -18.65 | -19.21 | -21.86 | -18.79 | -19.43 | -22.02 | -19.54 | -20.22 |
| deltaF1Avg(kHz) | 154.03 | 157.66 | 156.90 | 154.37 | 155.57 | 156.99 | 154.62 | 155.08 | 157.44 |
| **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) | 5.33 | 5.46 | 5.49 | 5.38 | 5.54 | 5.57 | 5.51 | 5.70 | 5.93 |
| Init Freq Error(KHz) | -21.74 | -18.60 | -19.99 | -22.55 | -19.29 | -19.43 | -22.41 | -18.19 | -20.34 |
| Bandwidth20dB(kHz) | 875.00 | 881.00 | 900.00 | 860.00 | 900.00 | 900.00 | 900.00 | 900.00 | 901.00 |
| **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) | 5.20 | 5.34 | 5.36 | 5.25 | 5.40 | 5.44 | 5.38 | 5.55 | 5.80 |
| Init Freq Error(kHz) | -21.46 | -18.86 | -19.96 | -21.83 | -19.45 | -19.79 | -22.37 | -19.35 | -20.65 |
| OMEGA\_I(kHz) | -20.23 | -19.99 | -20.32 | -20.70 | -20.65 | -20.40 | -20.89 | -20.52 | -20.90 |
| OMEGA\_O(kHz) | -1.81 | -1.62 | -0.92 | -2.29 | -2.10 | -1.27 | -2.00 | -1.77 | -2.17 |
| OMEGA\_IO(kHz) | -22.04 | -21.60 | -21.24 | -22.99 | -22.74 | -21.67 | -22.89 | -22.29 | -23.07 |
| DEVM Average(%) | 3.20 | 3.23 | 3.31 | 3.28 | 3.20 | 3.31 | 3.26 | 3.32 | 4.33 |
| DEVM Peak(%) | 5.46 | 5.49 | 5.63 | 5.61 | 5.61 | 5.61 | 5.59 | 5.88 | 7.04 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.19 | -0.20 | -0.18 | -0.19 | -0.18 | -0.21 | -0.19 | -0.20 | -0.20 |
| **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) | 5.14 | 5.28 | 5.31 | 5.20 | 5.37 | 5.39 | 5.33 | 5.52 | 5.76 |
| Init Freq Error(kHz) | -22.33 | -19.18 | -19.47 | -22.23 | -19.23 | -18.90 | -21.87 | -19.34 | -19.52 |
| OMEGA\_I(kHz) | -20.26 | -20.01 | -20.11 | -20.58 | -20.26 | -20.67 | -20.60 | -20.85 | -20.79 |
| OMEGA\_O(kHz) | -1.75 | -1.66 | -1.45 | -2.16 | -1.74 | -1.88 | -2.27 | -1.57 | -1.69 |
| OMEGA\_IO(kHz) | -22.01 | -21.67 | -21.56 | -22.74 | -22.00 | -22.55 | -22.87 | -22.43 | -22.48 |
| DEVM Average(%) | 4.29 | 4.36 | 4.45 | 4.66 | 4.39 | 4.15 | 4.91 | 4.94 | 4.98 |
| DEVM Peak(%) | 7.92 | 7.50 | 7.98 | 8.03 | 7.97 | 7.42 | 8.62 | 8.56 | 8.79 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.24 | -0.25 | -0.25 | -0.26 | -0.26 | -0.24 | -0.25 | -0.25 | -0.27 |
| **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) | 5.22 | 5.38 | 5.40 | 5.27 | 5.43 | 5.47 | 5.41 | 5.62 | 5.85 |
| Init Freq Error(kHz) | -21.67 | -18.57 | -19.95 | -22.16 | -19.00 | -20.39 | -22.40 | -19.26 | -20.23 |
| OMEGA\_I(kHz) | -20.40 | -20.17 | -20.26 | -20.26 | -20.43 | -20.38 | -20.57 | -20.77 | -21.36 |
| OMEGA\_O(kHz) | -2.35 | -1.43 | -1.22 | -1.58 | -1.57 | -1.82 | -1.98 | -1.75 | -3.15 |
| OMEGA\_IO(kHz) | -22.75 | -21.59 | -21.48 | -21.84 | -22.01 | -22.20 | -22.55 | -22.52 | -24.51 |
| DEVM Average(%) | 4.96 | 4.79 | 4.71 | 4.65 | 4.71 | 4.64 | 4.69 | 5.02 | 4.97 |
| DEVM Peak(%) | 10.75 | 10.15 | 10.05 | 9.72 | 10.21 | 9.81 | 10.03 | 10.60 | 10.60 |
| 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 | -0.17 | -0.17 | -0.16 | -0.17 | -0.16 | -0.17 | -0.16 |
| **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) | 5.22 | 5.34 | 5.38 | 5.27 | 5.43 | 5.45 | 5.41 | 5.57 | 5.84 |
| Init Freq Error(kHz) | -21.77 | -18.73 | -19.99 | -21.88 | -19.40 | -19.55 | -22.56 | -19.67 | -20.07 |
| OMEGA\_I(kHz) | -19.96 | -20.05 | -19.76 | -20.39 | -20.55 | -19.94 | -20.65 | -20.17 | -20.42 |
| OMEGA\_O(kHz) | -2.09 | -1.50 | -2.26 | -1.44 | -2.07 | -1.91 | -1.53 | -2.10 | -2.30 |
| OMEGA\_IO(kHz) | -22.05 | -21.55 | -22.02 | -21.83 | -22.62 | -21.85 | -22.18 | -22.27 | -22.72 |
| DEVM Average(%) | 6.42 | 6.36 | 6.47 | 6.39 | 6.35 | 6.33 | 6.37 | 6.42 | 6.44 |
| DEVM Peak(%) | 9.14 | 9.48 | 9.42 | 9.35 | 9.26 | 9.30 | 9.32 | 9.62 | 9.50 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.18 | -0.17 | -0.18 | -0.19 | -0.17 | -0.19 | -0.18 | -0.20 | -0.19 |
| **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) | 5.21 | 5.36 | 5.37 | 5.25 | 5.41 | 5.46 | 5.40 | 5.59 | 5.82 |
| Init Freq Error(kHz) | -21.51 | -18.88 | -19.42 | -22.01 | -19.34 | -19.43 | -21.47 | -19.45 | -20.31 |
| OMEGA\_I(kHz) | -19.90 | -19.61 | -20.16 | -20.17 | -20.43 | -19.97 | -20.31 | -20.20 | -20.75 |
| OMEGA\_O(kHz) | -1.45 | -1.76 | -1.72 | -1.61 | -1.45 | -1.56 | -1.65 | -1.27 | -2.19 |
| OMEGA\_IO(kHz) | -21.35 | -21.38 | -21.89 | -21.78 | -21.88 | -21.53 | -21.96 | -21.47 | -22.95 |
| DEVM Average(%) | 4.09 | 4.96 | 4.17 | 4.44 | 4.25 | 4.49 | 4.14 | 4.18 | 4.08 |
| DEVM Peak(%) | 7.07 | 7.99 | 7.12 | 7.58 | 6.99 | 7.52 | 7.10 | 7.59 | 7.47 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.18 | -0.18 | -0.18 | -0.17 | -0.18 | -0.17 | -0.18 | -0.18 | -0.16 |
| **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) | 5.22 | 5.36 | 5.38 | 5.27 | 5.44 | 5.47 | 5.41 | 5.60 | 5.85 |
| Init Freq Error(kHz) | -22.33 | -18.76 | -19.23 | -22.80 | -19.39 | -19.84 | -22.44 | -18.62 | -20.34 |
| OMEGA\_I(kHz) | -19.93 | -19.72 | -19.75 | -20.27 | -20.01 | -20.30 | -20.51 | -20.39 | -20.71 |
| OMEGA\_O(kHz) | -1.25 | -2.30 | -1.85 | -1.88 | -1.35 | -1.66 | -1.25 | -1.80 | -1.90 |
| OMEGA\_IO(kHz) | -21.18 | -22.02 | -21.60 | -22.15 | -21.36 | -21.96 | -21.76 | -22.19 | -22.60 |
| DEVM Average(%) | 4.58 | 4.65 | 4.68 | 4.68 | 4.75 | 4.60 | 4.87 | 5.11 | 4.92 |
| DEVM Peak(%) | 9.33 | 9.72 | 9.36 | 9.50 | 9.96 | 9.30 | 10.17 | 10.35 | 10.40 |
| EdrprobEVM99pass(%) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| EdrPowDiffdB(dB) | -0.16 | -0.17 | -0.16 | -0.16 | -0.17 | -0.17 | -0.16 | -0.17 | -0.17 |
| **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) | 4.82 | 5.00 | 5.06 | 4.86 | 4.98 | 5.08 | 5.27 | 5.58 | 5.83 |
| Init Freq Error(kHz) | -18.47 | -20.99 | -20.19 | -19.14 | -21.10 | -20.77 | -19.74 | -21.14 | -20.20 |
| deltaF2Max(kHz) | 228.95 | 225.89 | 224.83 | 228.91 | 222.51 | 225.72 | 227.70 | 224.51 | 223.49 |
| deltaF2Avg(kHz) | 222.20 | 219.52 | 218.90 | 221.08 | 216.16 | 219.49 | 221.16 | 218.18 | 217.83 |
| **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) | 4.86 | 4.99 | 5.01 | 4.90 | 4.87 | 5.08 | 5.33 | 5.52 | 5.76 |
| Init Freq Error(kHz) | -18.76 | -20.79 | -20.45 | -19.39 | -21.13 | -20.73 | -19.70 | -20.70 | -20.52 |
| deltaF1Avg(kHz) | 243.69 | 245.56 | 245.76 | 243.80 | 243.46 | 243.87 | 245.26 | 243.83 | 244.65 |
| **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) | 4.85 | 4.98 | 5.01 | 4.89 | 4.85 | 5.07 | 5.33 | 5.50 | 5.74 |
| Init Freq Error(kHz) | -19.28 | -21.11 | -20.92 | -19.63 | -21.32 | -20.80 | -19.56 | -21.26 | -20.56 |
| **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** | | | | | | | | |