Certificate #6613.01

# TEST REPORT

| | |
|---|---|
| Applicant: | Power Idea Technology (Shenzhen) Co., Ltd. |
| Address: | 4th Floor, A Section, Languang Science&technology Building, No.7 Xinxi RD, Hi-Tech Industrial Park North, Nanshan District, ShenZhen, P.R.C. |

| | |
|---|---|
| Manufacturer or Supplier: | Power Idea Technology (Shenzhen) Co., Ltd. |
| Address: | 4th Floor, A Section, Languang Science&technology Building, No.7 Xinxi RD, Hi-Tech Industrial Park North, Nanshan District, ShenZhen, P.R.C. |
| Product: | Smart Phone |
| Brand Name: | RugGear |
| Model Name: | PSM05G |
| Marketing name： | RG880i |
| FCC ID: | ZLE-PSM05G |
| Date of tests: | Aug. 28, 2024 ~ Sep.27, 2024 |

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

☒ **FCC Part 15, Subpart C, Section 15.247** ☒ **ANSI C63.10-2020**
☒ **FCC Part 15, Subpart E, Section 15.407**
☒ **FCC Part 22** ☒ **FCC Part 24**
☒ **FCC Part 90**
☒ **FCC Part 27** ☒ **ANSI/TIA/EIA-603-D**
☒ **FCC Part 2** ☒ **ANSI/TIA/EIA-603-E** ☒ **ANSI C63.26-2015**

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

| Prepared by Hanwen Xu<br>Engineer / Mobile Department | Approved by Peibo Sun<br>Manager / Mobile Department |
|---|---|
| Xu Hanwen<br>Date: Sep.27, 2024 | Sun Peibo<br>Date: Sep.27, 2024 |

*This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.*

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| PSU-NQN2406210109RF12 | Original release | Sep.27, 2024 |

# 1 GENERAL INFORMATION

## 1.1 GENERAL DESCRIPTION OF EUT

| | | |
|---|---|---|
| **PRODUCT*** | Smart Phone | |
| **BRAND NAME*** | RugGear | |
| **MODEL NAME*** | PSM05G | |
| **MARKETING NAME*** | RG880i | |
| **NOMINAL VOLTAGE*** | 5.0Vdc/ 9.0Vdc/ 12.0Vdc(Adapter)<br>3.85Vdc (battery) | |
| **MODULATION TYPE** | **BT_LE** | GFSK |
| | **Bluetooth** | GFSK, π/4-DQPSK, 8DPSK |
| | **NFC** | ASK |
| | **WLAN** | DSSS, OFDM |
| | **GPS/GALILEO/GLONASS/BDS** | BPSK |
| | **GSM/GPRS/EDGE** | GMSK, 8PSK |
| | **WCDMA** | BPSK/QPSK |
| | **CDMA2000** | CDMA2000 1xRTT: BPSK, QPSK<br>CDMA2000 1xEV-DO: 8PSK |
| | **LTE** | QPSK/16QAM/64QAM |
| **OPERATING FREQUENCY** | **Bluetooth/BT_LE** | 2402MHz ~ 2480MHz |
| | **NFC** | 13.56 MHz |
| | **WLAN** | 2412 ~ 2462MHz for 11b/g/n(HT20/40)/<br>5180 ~ 5240MHz, 5260 ~ 5320 MHz,<br>5745 ~ 5825 MHz for 11a/ n(HT20)/ n(HT40) /<br>ac(VHT20)/ ac(VHT40) / ac(VHT80) |
| | **GPS/GALILEO/GLONASS/BDS** | 1559MHz ~ 1610MHz |
| | **GSM** | 824.2MHz ~ 848.8MHz (FOR GSM 850)<br>1850.2MHz ~ 1909.8MHz (FOR GSM 1900) |
| | **CDMA2000** | 824.70 MHz ~ 848.31 MHz (FOR CDMA2000 BC0)<br>1851.25 MHz ~ 1908.75 MHz (FOR CDMA2000 BC1) |
| | **WCDMA** | 1852.4MHz ~ 1907.6MHz(FOR WCDMA Band 2)<br>1712.4MHz ~ 1752.6MHz(FOR WCDMA Band 4) |

| | | |
|---|---|---|
| | | 826.4MHz ~ 846.6MHz (FOR WCDMA Band 5) |
| | **LTE** | 1850.7MHz ~ 1909.3MHz (FOR LTE Band2)<br>1710.7MHz ~ 1754.3MHz (FOR LTE Band4)<br>824.7MHz ~ 848.3MHz (FOR LTE Band5)<br>2502.5MHz ~ 2567.5MHz (FOR LTE Band7)<br>699.7MHz ~ 715.3MHz (FOR LTE Band12)<br>779.5MHz ~ 784.5MHz (FOR LTE Band13)<br>790.5MHz ~ 795.5MHz (FOR LTE Band14)<br>706.5MHz ~ 713.5MHz (FOR LTE Band17)<br>2572.5MHz ~ 2617.5MHz (FOR LTE Band38)<br>2498.5MHz ~2687.5MHz (FOR LTE Band41)<br>1710.7MHz ~ 1779.3MHz (FOR LTE Band66)<br>2505.5MHz ~ 2564.7MHz (FOR LTE Band7C)<br>2499.3MHz ~2686.7MHz (FOR LTE Band41C)<br>The following only support downlink<br>CA_2A_4A<br>CA_2A_12A<br>CA_2A_13A<br>CA_2A_17A<br>CA_4A_12A<br>CA_4A_17A |
| **HW VERSION*** | V02 | |
| **SW VERSION*** | RG880i_EAA_00.00_1 | |
| **I/O PORTS*** | Refer to user's manual | |
| **CABLE SUPPLIED*** | USB cable: non-shielded cable, with w/o ferrite core, 1.0 meter | |
| **ACCESSORY DEVICES*** | Refer to note as below | |

**NOTE**:

1. ***Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.

2. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

4. Antenna gain and EUT conducted cable loss are provided by the customer, and the laboratory will record the results based on these items that involve these two parameters.

5. **List of Accessory:**

| ACCESSORIES | BRAND | MANUFACTURER | MODEL | SPECIFICATION |
|---|---|---|---|---|
| CPU | QUALCOMM | N/A | SM6225 | N/A |
| eMMC 1 (=ROM 1) | SAMSUNG | N/A | KM2L9001CM-B518 | N/A |
| eMMC 2 (=ROM 2) | Hynix | N/A | H9QT0GECN6X145R | N/A |
| RAM 1 | N/A | N/A | N/A | N/A |
| RAM 2 | N/A | N/A | N/A | N/A |
| BT/WLAN Module | N/A | N/A | N/A | N/A |
| NFC chipset | NXP | N/A | N/A | N/A |
| Battery | N/A | N/A | BL450AGP | Power Rating: 4.4V 4500mAh |
| Adapter | N/A | Huizhou Juwei Electronics Co.,Ltd | FG18AQC3.0UU | I/P: 100-240Vac, 50/60Hz, 0.5A, O/P:5.0V 3.0A or 9.0V 2.0A or 12.0V 1.5A |
| USB Cable | N/A | N/A | N/A | N/A |

# 2 SUMMARY OF TEST RESULTS

## 2.1 TEST RESULTS

| TEST TYPE | Result |
|---|---|
| Radiated Emissions | Pass |

***Test Lab Information Reference**

**Lab A:**

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

**Lab Address:**

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

**Accredited Test Lab Cert 6613.01**

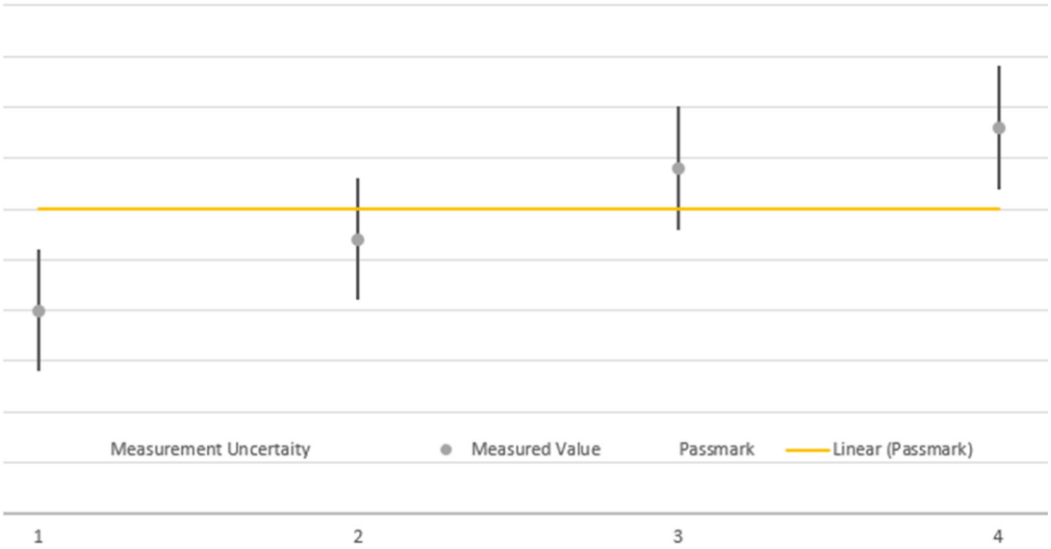
The FCC Site Registration No. is 434559; The Designation No. is CN1325.

## 2.2 MEASREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| MEASUREMENT | UNCERTAINTY |
|---|---|
| Radiated emissions & Radiated Power (30MHz~1GHz) | ±4.98dB |
| Radiated emissions & Radiated Power (1GHz ~6GHz) | ±4.70dB |
| Radiated emissions (6GHz ~18GHz) | ±4.60dB |
| Radiated emissions (18GHz ~40GHz) | ±4.12dB |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.




The verdicts in this test report are given according the above diagram:

| Case | Measured Value | Uncertainty Range | Verdict |
|---|---|---|---|
| 1 | below pass mark | below pass mark | Passed |
| 2 | below pass mark | within pass mark | Passed |
| 3 | above pass mark | within pass mark | Failed |
| 4 | above pass mark | above pass mark | Failed |

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.

## 2.3 TEST INSTRUMENTS

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---|---|---|---|---|
| Pre-Amplifier | R&S | SCU18F1 | 100815 | Aug.30,22 | Aug.29,24 |
| Pre-Amplifier | R&S | SCU18F1 | 100815 | Aug.29,24 | Aug.28,26 |
| Pre-Amplifier | R&S | SCU08F1 | 101028 | Sep.16,22 | Sep.15,24 |
| Pre-Amplifier | R&S | SCU08F1 | 101028 | Sep.15,24 | Sep.14,26 |
| Signal Generator | R&S | SMB100A | 182185 | Mar.29,24 | Mar.28,26 |
| 3m Fully-anechoic Chamber | TDK | 9m*6m*6m | HRSW-SZ-EMC -01Chamber | Nov.25,22 | Nov.24,25 |
| 3m Semi-anechoic Chamber | TDK | 9m*6m*6m | HRSW-SZ-EMC -02Chamber | Nov.25,22 | Nov.24,25 |
| 6DB attenuator | Tonscend Technology Co., Ltd | N/A | 23062787 | N/A | N/A |
| EMI TEST Receiver | R&S | ESW44 | 101973 | Mar.28,24 | Mar.27,26 |
| Bilog Antenna | SCHWARZBE CK | VULB 9163 | 1264 | Dec.26,23 | Dec.25,25 |
| Horn Antenna | ETS-LINDGRE N | 3117 | 227836 | Aug.21,24 | Aug.20,26 |
| Horn Antenna (18GHz-40GHz) | Steatite Q-par Antennas | QMS 00880 | 23486 | Jul.15,24 | Jul.14,26 |
| Horn Antenna | Steatite Q-par Antennas | QMS 00208 | 23485 | Aug.21,24 | Aug.20,26 |
| Loop Antenna | SCHWARZ | HFH2-Z2/Z2E | 100976 | Feb.22,24 | Feb.21,26 |
| WIDEBANDRADIO COMMUNICATION TESTER | R&S | CMW500 | 169399 | Jun.19,24 | Jun.18,26 |
| Test Software | ELEKTRA | ELEKTRA4.32 | N/A | N/A | N/A |
| Open Switch and Control Unit | R&S | OSP220 | 101964 | N/A | N/A |
| DC Source | HYELEC | HY3010B | 551016 | Aug.31,22 | Aug.30,24 |
| DC Source | HYELEC | HY3010B | 551016 | Aug.30,24 | Aug.29,26 |
| Hygrothermograph | DELI | 20210528 | SZ014 | Sep.06,22 | Sep.05,24 |
| Hygrothermograph | DELI | 20210528 | SZ014 | Sep.05,24 | Sep.04,26 |
| PC | LENOVO | E14 | HRSW0024 | N/A | N/A |
| TMC-AMI18843A(CAB LE) | R&S | HF290-NMNM-7.0 0M | N/A | N/A | N/A |
| TMC-AMI18843A(CAB LE) | R&S | HF290-NMNM-4.0 0M | N/A | N/A | N/A |
| CABLE | R&S | W13.02 | N/A | Apr.27,24 | Apr.26,25 |
| CABLE | R&S | W12.14 | N/A | Apr.27,24 | Apr.26,25 |

**NOTE:** 1.The calibration interval of the above test instruments is 12 / 24/ 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Chamber.

3. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.

4. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.

5. The FCC Site Registration No. is 434559; The Designation No. is CN1325.

## 2.4 REFERENCED STANDARDS

The fellowing referenced standards are necessary for the report.For undated references in this report,the cited version applies.

| No. | Identify | Note |
|---|---|---|
| 1 | FCC Part 15, Subpart C, Section 15.247 | For BT |
| 2 | FCC Part 15, Subpart E, Section 15.407 | For WLAN |
| 3 | FCC PART 22, Subpart H | For WWAN |
| 4 | FCC PART 24, Subpart E | For WWAN |
| 5 | FCC Part 27 | For WWAN |
| 6 | FCC Part 90 | For WWAN |

**Note:**More informations and test procedures pls refer to 15.247/15.407/Part22/Part24/ Part27/ Part90 reports.

## 2.5 TEST CONFIGURATIONS

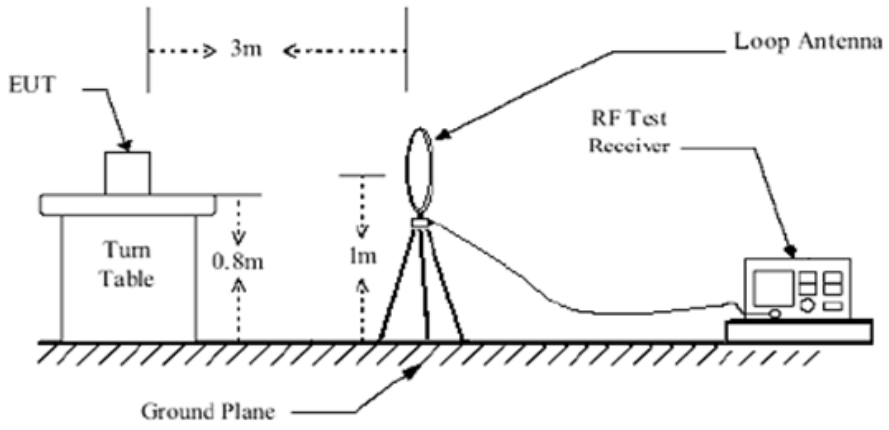
| Test Configurations | Description |
|---|---|
| Worst case test Mode | |
| 1 | WLAN-5G-11A-CH64+GSM850-MID |
| 2 | WLAN-2.4G-11N40-CH9+GSM1900-MID |
| 3 | WLAN-2.4G-11N40-CH9+LTE-B13-HIGH-5M |
| 4 | WLAN-BT-3DH5-CH78+LTE-B14-MID-5M |

**Note:** 1. Test equipment and site refer to Referenced Standards report

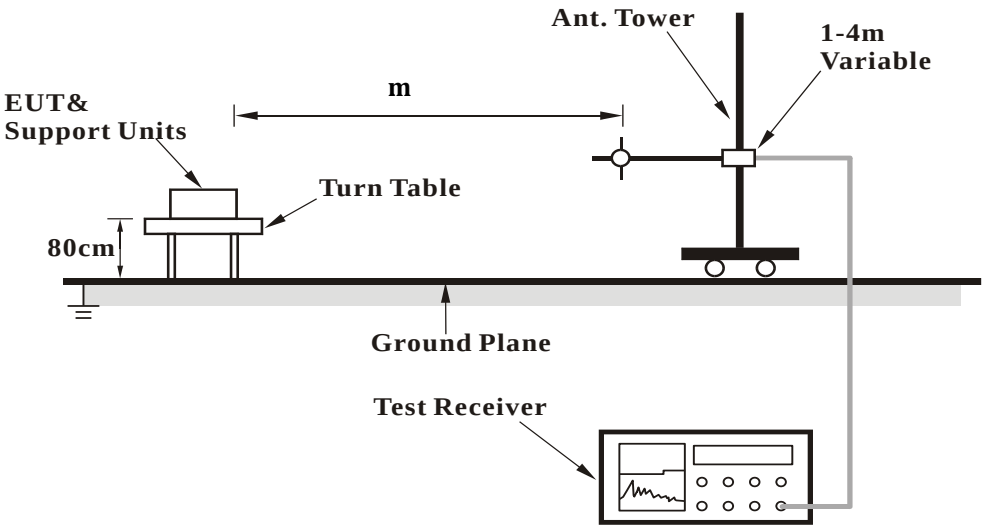
2. For higher frequency, the emission is 20dB below the limit was not record

## 2.6 TEST DATA

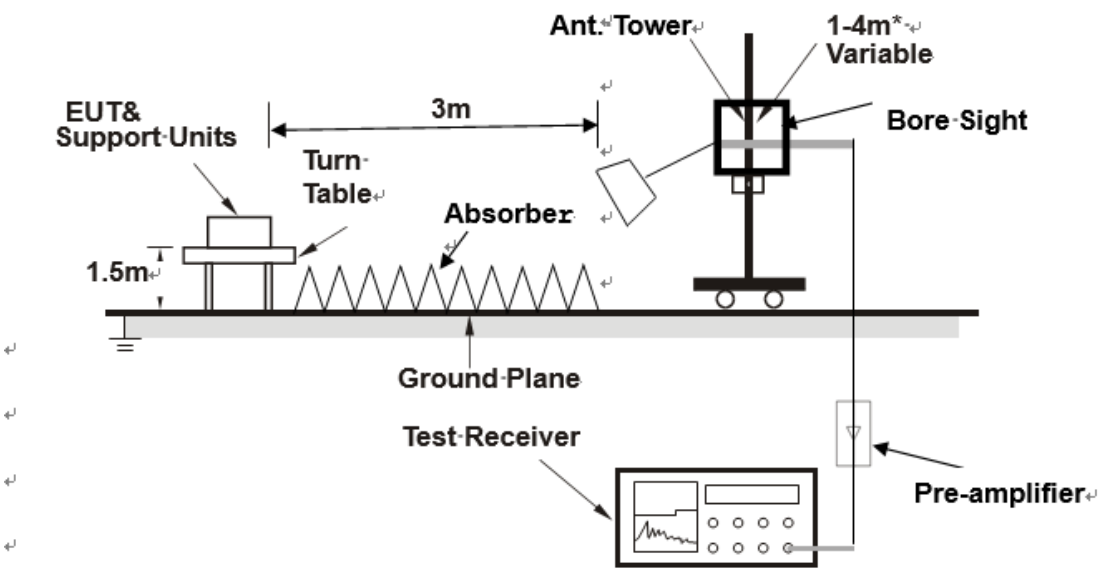
**<Frequency Range 9KHz~30MHz >**




**< Frequency Range 30MHz~1GHz >**



**<Frequency Range above 1GHz>**




**Note**: Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 2.6.1 EUT OPERATING CONDITIONS

a. Set the EUT under full load condition and placed them on a testing table.

b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.

c. The necessary accessories enable the EUT in full functions.

## 2.6.2 TEST RESULTS

**NOTE ： The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.**

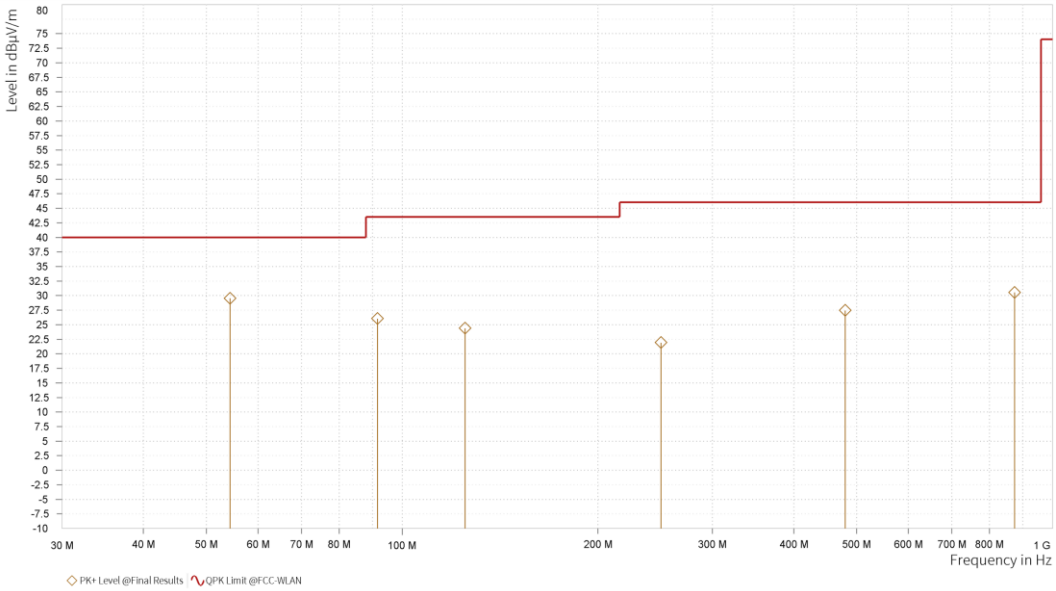
**WLAN-5G-11A-CH64+GSM850-MID:**

**BELOW 1GHz WORST-CASE DATA:**

**30 MHz – 1GHz data:**

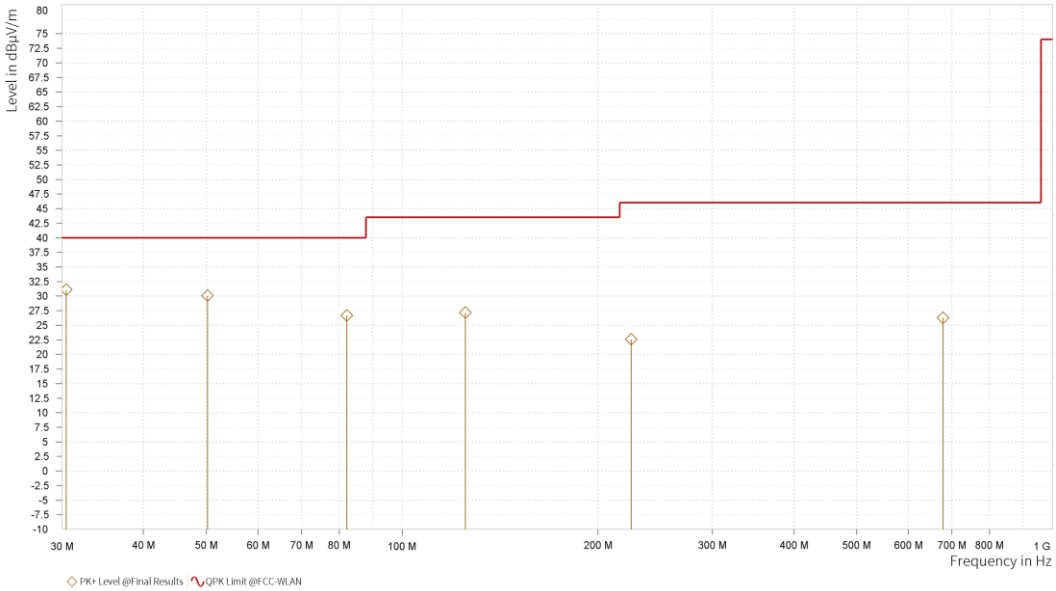
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-5G-11A-CH64+GSM850-MID | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 54.347 | 29.54 | 40.0 | 10.46 | -12.49 | H | 1.0 | 1.0 |
| 1 | 91.644 | 26.03 | 43.5 | 17.47 | -15.26 | H | 1.0 | 1.0 |
| 1 | 124.915 | 24.37 | 43.5 | 19.13 | -16.17 | H | 5.8 | 1.0 |
| 1 | 249.996 | 21.9 | 46.0 | 24.1 | -11.79 | H | 0.9 | 2.0 |
| 1 | 479.789 | 27.44 | 46.0 | 18.56 | -8.72 | H | 359.1 | 1.0 |
| 1 | 873.9 | 30.53 | 46.0 | 15.47 | -2.13 | H | 264.8 | 1.0 |



| CHANNEL | WLAN-5G-11A-CH64+GSM850-MID | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 30.437 | 31.07 | 40.0 | 8.93 | -14.8 | V | 1.0 | 1.0 |
| 1 | 50.176 | 30.07 | 40.0 | 9.93 | -12.01 | V | 359.0 | 1.0 |
| 1 | 82.186 | 26.67 | 40.0 | 13.33 | -17.43 | V | 129.8 | 1.0 |
| 1 | 125.012 | 27.14 | 43.5 | 16.36 | -16.19 | V | 97.6 | 2.0 |
| 1 | 225.019 | 22.56 | 46.0 | 23.44 | -12.49 | V | 359.0 | 1.0 |
| 1 | 678.3 | 26.27 | 46.0 | 19.73 | -5.13 | V | 359.0 | 2.0 |



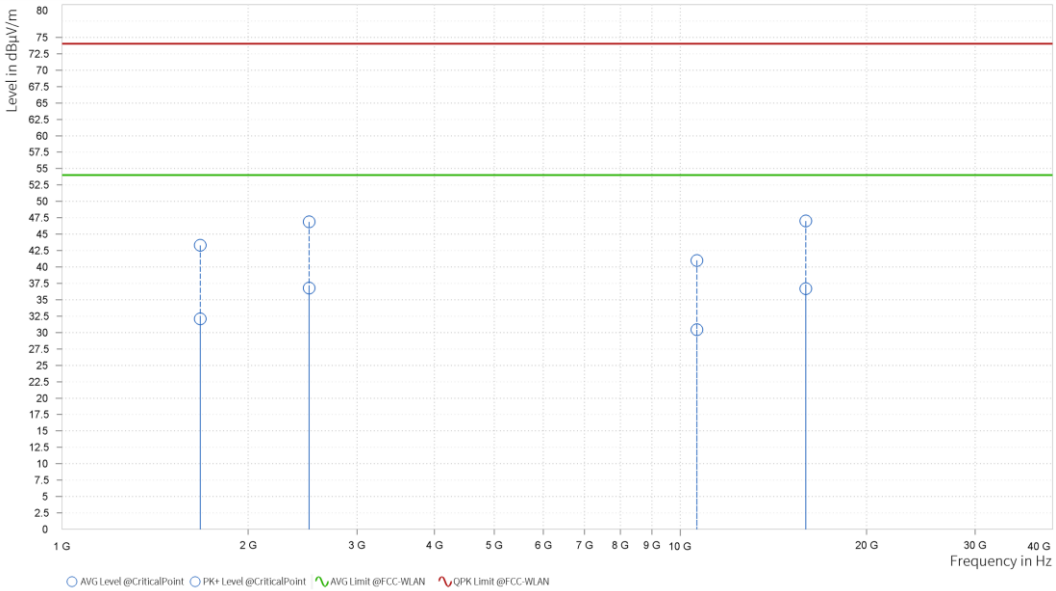
**ABOVE 1GHz WORST-CASE DATA:**

**Note:** 1. For radiated emissions testing，the full testing range of different modes have been scanned，only the worst case harmonic data is reported in the sheet.

2. All other emissions that more than 20dB below the limit were not recorded

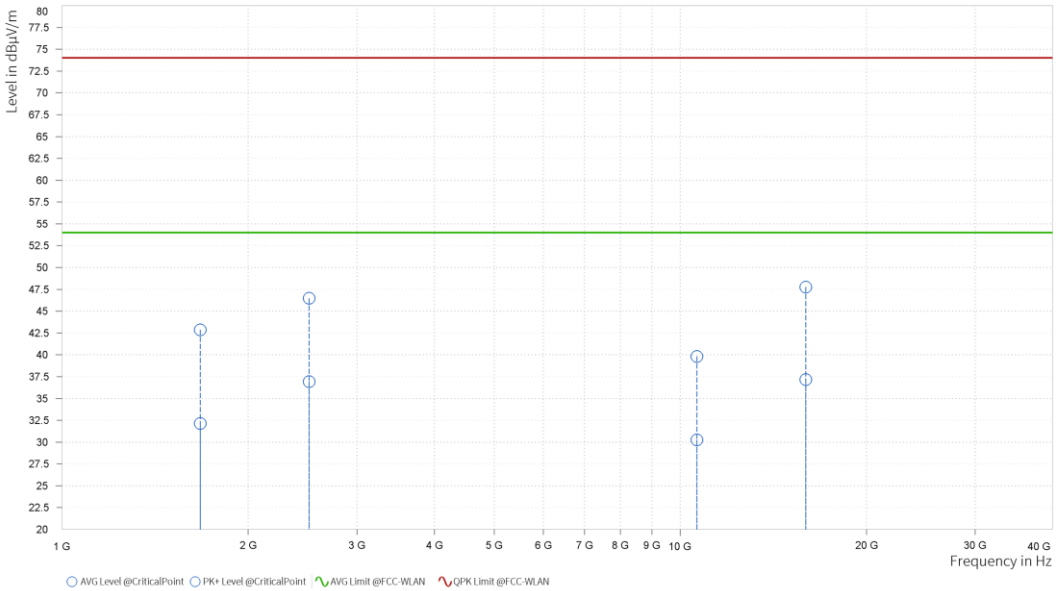
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-5G-11A-CH64+GSM850-MID | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+: QPK Limit [dBμV/m] | PK+ Margin [dB] | AVG Level [dBμV/m] | AVG Limit [dBμV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,672.000 | 43.29 | 74.0 | 30.71 | 32.11 | 54.0 | 21.89 | 6.4 | H | 1.0 | 1.0 |
| 1 | 2,509.000 | 46.88 | 74.0 | 27.12 | 36.77 | 54.0 | 17.23 | 11.85 | H | 355.6 | 2.0 |
| 4 | 10,640.000 | 41.0 | 74.0 | 33.0 | 30.43 | 54.0 | 23.57 | 14.69 | H | 1.0 | 1.0 |
| 4 | 15,960.000 | 47.0 | 74.0 | 27.0 | 36.7 | 54.0 | 17.3 | 21.02 | H | 1.0 | 1.0 |



| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-5G-11A-CH64+GSM850-MID | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+: QPK Limit [dBμV/m] | PK+ Margin [dB] | AVG Level [dBμV/m] | AVG Limit [dBμV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,672.000 | 42.86 | 74.0 | 31.14 | 32.14 | 54.0 | 21.86 | 6.4 | V | 1 | 1.0 |
| 1 | 2,509.000 | 46.48 | 74.0 | 27.52 | 36.94 | 54.0 | 17.06 | 11.85 | V | 1 | 1.0 |
| 4 | 10,640.000 | 39.81 | 74.0 | 34.19 | 30.27 | 54.0 | 23.73 | 14.69 | V | 1 | 1.0 |
| 4 | 15,960.000 | 47.77 | 74.0 | 26.23 | 37.17 | 54.0 | 16.83 | 21.02 | V | 1 | 1.0 |




Note: For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

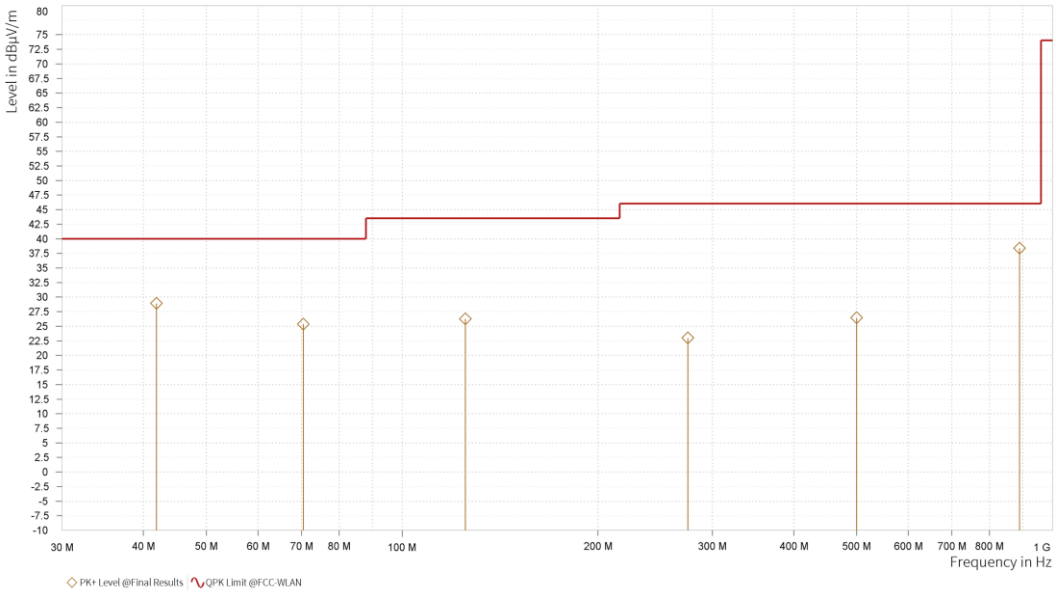
**WLAN-2.4G-11N40-CH9+GSM1900-MID:**

**BELOW 1GHz WORST-CASE DATA:**

**30 MHz – 1GHz data:**

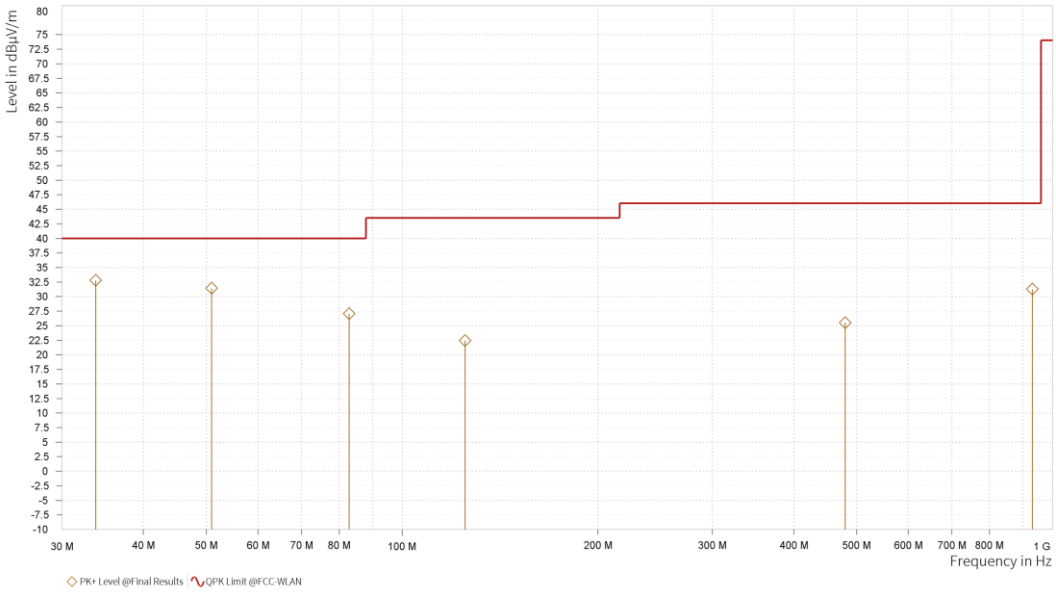
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-2.4G-11N40-CH9+ GSM1900-MID | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 41.883 | 28.89 | 40.0 | 11.11 | -12.17 | H | 0.9 | 2.0 |
| 1 | 70.498 | 25.36 | 40.0 | 14.64 | -16.52 | H | 358.6 | 1.0 |
| 1 | 125.06 | 26.25 | 43.5 | 17.25 | -16.2 | H | 0.9 | 2.0 |
| 1 | 274.974 | 22.98 | 46.0 | 23.02 | -11.56 | H | 359.1 | 1.0 |
| 1 | 499.577 | 26.44 | 46.0 | 19.56 | -8.1 | H | 229.1 | 2.0 |
| 1 | 889.469 | 38.38 | 46.0 | 7.62 | -1.23 | H | 359.1 | 1.0 |



| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-2.4G-11N40-CH9+ GSM1900-MID | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+: QPK Limit [dBμV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 33.783 | 32.78 | 40.0 | 7.22 | -14.6 | V | 358.6 | 1.0 |
| 1 | 50.952 | 31.43 | 40.0 | 8.57 | -12.11 | V | 5.0 | 1.0 |
| 1 | 82.865 | 27.06 | 40.0 | 12.94 | -17.28 | V | 94.1 | 2.0 |
| 1 | 124.915 | 22.43 | 43.5 | 21.07 | -16.17 | V | 94.1 | 2.0 |
| 1 | 480.032 | 25.52 | 46.0 | 20.48 | -8.72 | V | 229.1 | 2.0 |
| 1 | 931.373 | 31.27 | 46.0 | 14.73 | -0.76 | V | 131.0 | 1.0 |



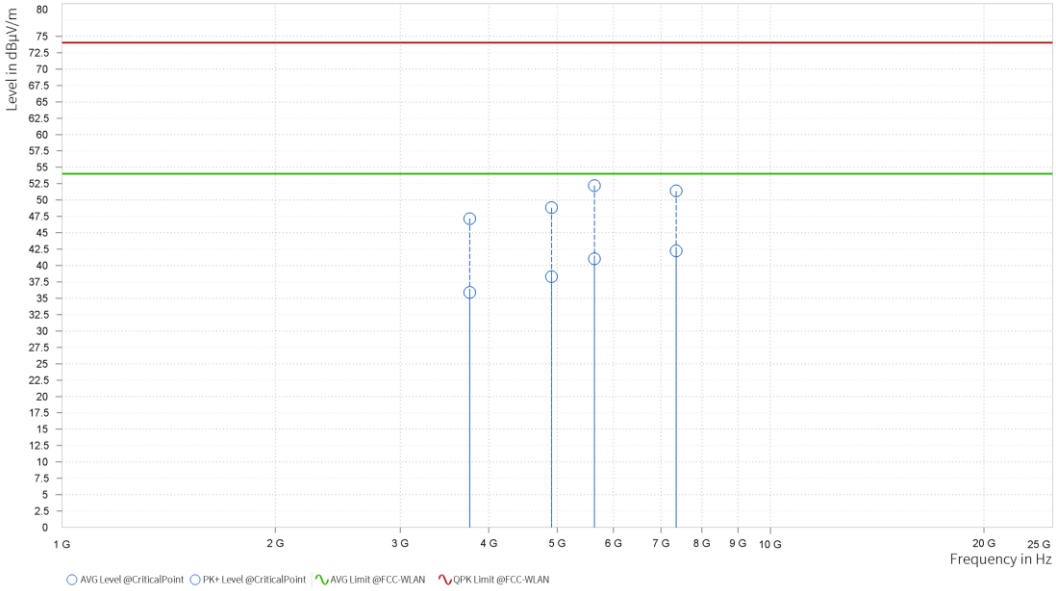
**ABOVE 1GHz WORST-CASE DATA:**

**Note:** 1. For radiated emissions testing，the full testing range of different modes have been scanned，only the worst case harmonic data is reported in the sheet.

2. All other emissions that more than 20dB below the limit were not recorded

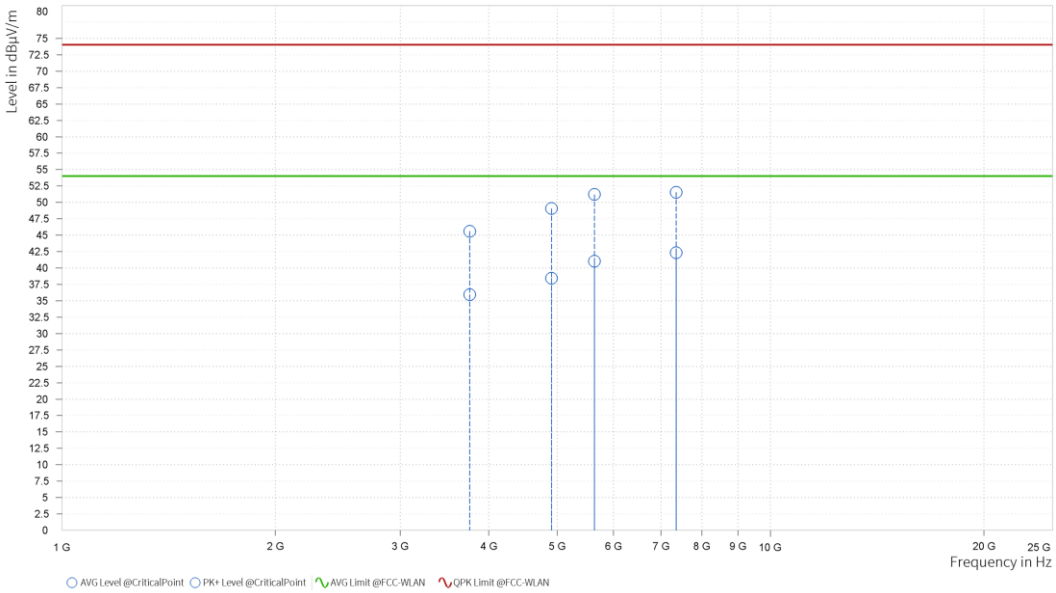
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-2.4G-11N40-CH9+ GSM1900-MID | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+: QPK Limit [dBμV/m] | PK+ Margin [dB] | AVG Level [dBμV/m] | AVG Limit [dBμV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 3,760.000 | 47.16 | 74.0 | 26.84 | 35.91 | 54.0 | 18.09 | 12.45 | H | 129.8 | 2.0 |
| 3 | 4,904.000 | 48.83 | 74.0 | 25.17 | 38.31 | 54.0 | 15.69 | 13.62 | H | 230.3 | 1.0 |
| 3 | 5,640.000 | 52.22 | 74.0 | 21.78 | 41.05 | 54.0 | 12.95 | 17.26 | H | 129.8 | 2.0 |
| 3 | 7,356.000 | 51.39 | 74.0 | 22.61 | 42.24 | 54.0 | 11.76 | 18.04 | H | 1.0 | 2.0 |



| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-2.4G-11N40-CH9+ GSM1900-MID | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 3,760.000 | 45.59 | 74.0 | 28.41 | 35.95 | 54.0 | 18.05 | 12.45 | V | 0.9 | 2.0 |
| 3 | 4,904.000 | 49.06 | 74.0 | 24.94 | 38.45 | 54.0 | 15.55 | 13.62 | V | 359.1 | 1.0 |
| 3 | 5,640.000 | 51.21 | 74.0 | 22.79 | 41.03 | 54.0 | 12.97 | 17.26 | V | 0.9 | 2.0 |
| 3 | 7,356.000 | 51.55 | 74.0 | 22.45 | 42.33 | 54.0 | 11.67 | 18.04 | V | 0.9 | 2.0 |




Note: For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

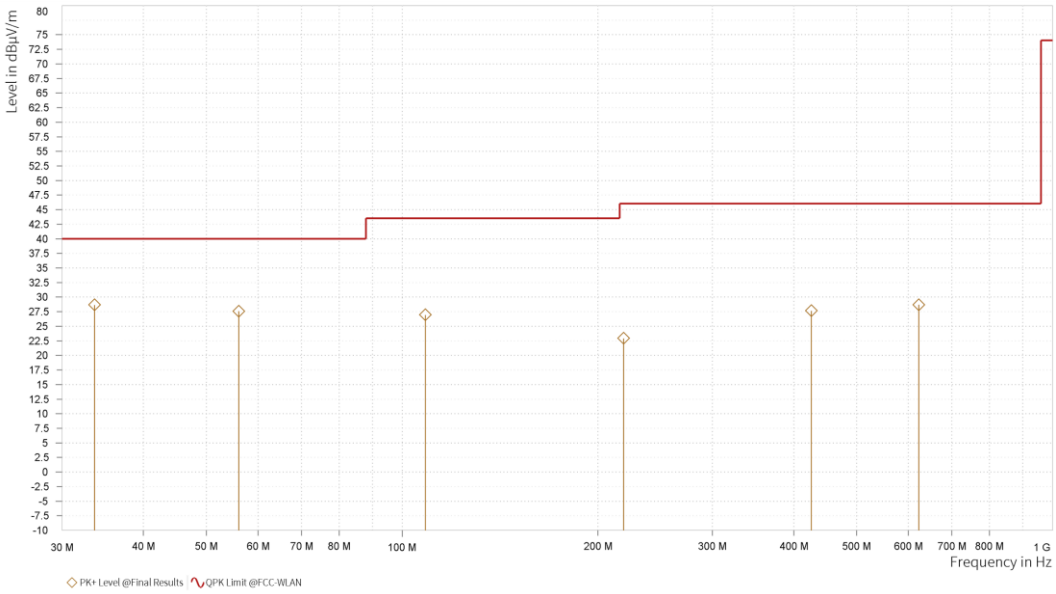
**WLAN-2.4G-11N40-CH9+LTE-B13-HIGH-5M:**

**BELOW 1GHz WORST-CASE DATA:**

**30 MHz – 1GHz data:**

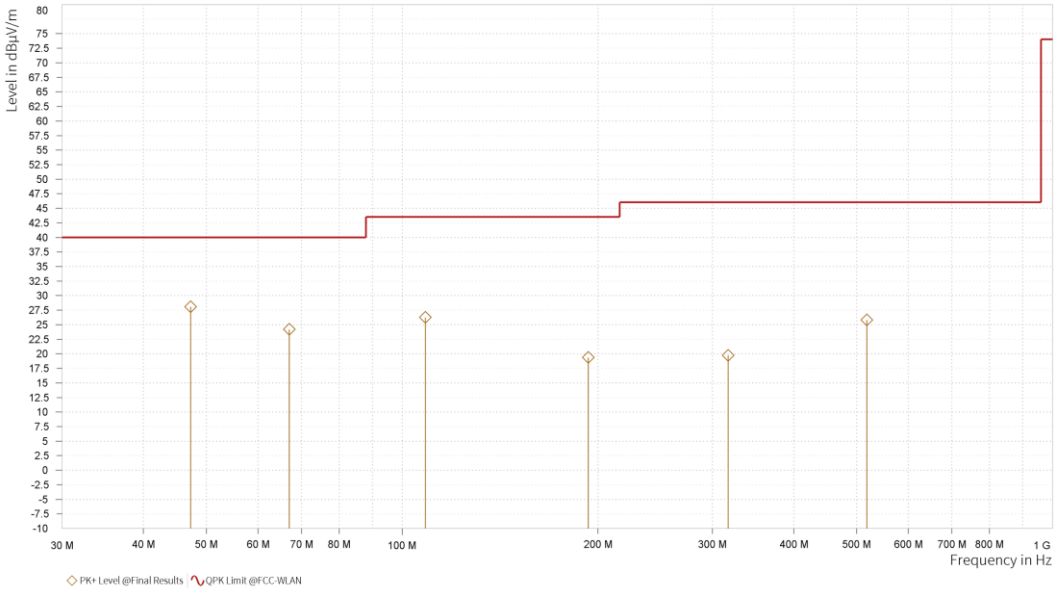
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-2.4G-11N40-CH9+LTE-B13-HIGH-5M | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 33.638 | 28.66 | 40.0 | 11.34 | -14.62 | H | 1 | 2.0 |
| 1 | 56.093 | 27.57 | 40.0 | 12.43 | -12.86 | H | 1 | 2.0 |
| 1 | 108.57 | 26.95 | 43.5 | 16.55 | -13.63 | H | 1 | 2.0 |
| 1 | 219.053 | 22.92 | 46.0 | 23.08 | -12.85 | H | 355 | 2.0 |
| 1 | 425.857 | 27.64 | 46.0 | 18.36 | -8.65 | H | 355 | 2.0 |
| 1 | 622.816 | 28.67 | 46.0 | 17.33 | -5.67 | H | 1 | 2.0 |



| CHANNEL | WLAN-2.4G-11N40-CH9+LTE-B13-HIGH-5M | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+: QPK Limit [dBμV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 47.266 | 28.07 | 40.0 | 11.93 | -11.92 | V | 1.0 | 1.0 |
| 1 | 67.054 | 24.18 | 40.0 | 15.82 | -15.2 | V | 355.5 | 2.0 |
| 1 | 108.57 | 26.25 | 43.5 | 17.25 | -13.63 | V | 355.5 | 2.0 |
| 1 | 193.348 | 19.36 | 43.5 | 24.14 | -13.31 | V | 355.5 | 2.0 |
| 1 | 317.12 | 19.72 | 46.0 | 26.28 | -10.72 | V | 355.5 | 2.0 |
| 1 | 517.91 | 25.81 | 46.0 | 20.19 | -7.96 | V | 359.0 | 2.0 |



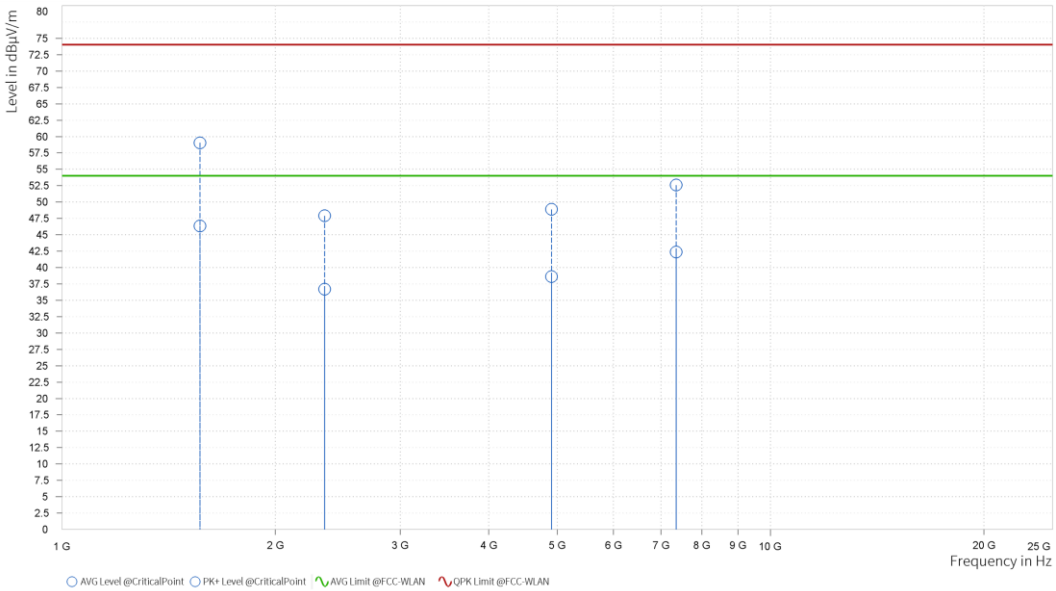
**ABOVE 1GHz WORST-CASE DATA:**

**Note:** 1. For radiated emissions testing，the full testing range of different modes have been scanned，only the worst case harmonic data is reported in the sheet.

2. All other emissions that more than 20dB below the limit were not recorded

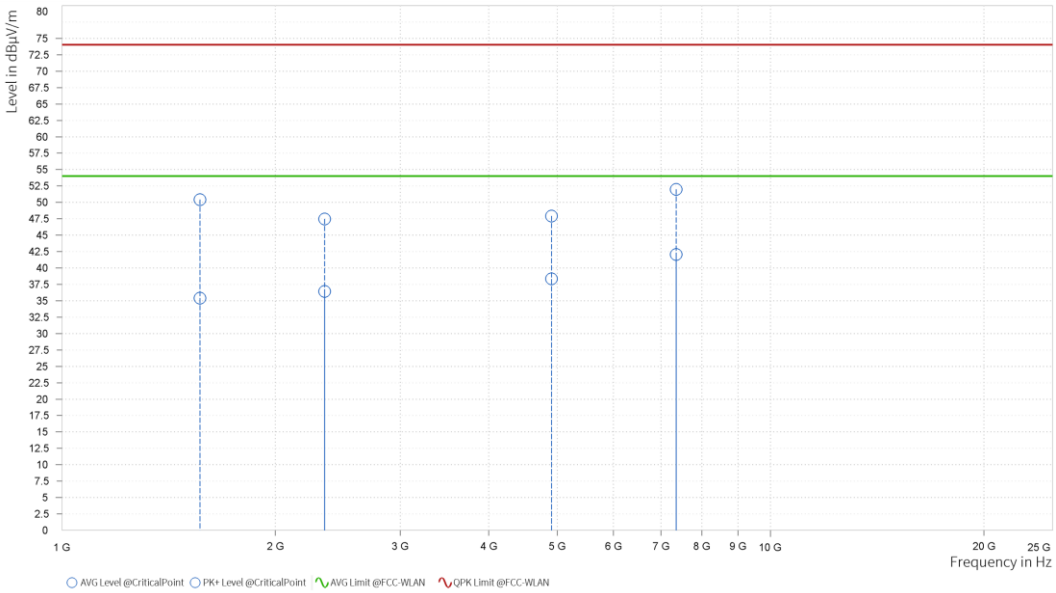
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-2.4G-11N40-CH9+LTE-B13-HIGH-5M | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,565.000 | 59.04 | 74.0 | 14.96 | 46.36 | 54.0 | 7.64 | 4.68 | H | 359.0 | 1.0 |
| 1 | 2,346.750 | 47.91 | 74.0 | 26.09 | 36.71 | 54.0 | 17.29 | 11.32 | H | 1.0 | 1.0 |
| 3 | 4,904.000 | 48.89 | 74.0 | 25.11 | 38.6 | 54.0 | 15.4 | 13.62 | H | 0.9 | 2.0 |
| 3 | 7,356.000 | 52.59 | 74.0 | 21.41 | 42.39 | 54.0 | 11.61 | 18.04 | H | 0.9 | 2.0 |



| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-2.4G-11N40-CH9+LTE-B13-HIGH-5M | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,565.000 | 50.43 | 74.0 | 23.57 | 35.41 | 54.0 | 18.59 | 4.68 | V | 354.9 | 2.0 |
| 1 | 2,346.750 | 47.47 | 74.0 | 26.53 | 36.45 | 54.0 | 17.55 | 11.32 | V | 354.9 | 2.0 |
| 3 | 4,904.000 | 47.91 | 74.0 | 26.09 | 38.32 | 54.0 | 15.68 | 13.62 | V | 0.9 | 2.0 |
| 3 | 7,356.000 | 51.99 | 74.0 | 22.01 | 42.05 | 54.0 | 11.95 | 18.04 | V | 0.9 | 2.0 |




Note: For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

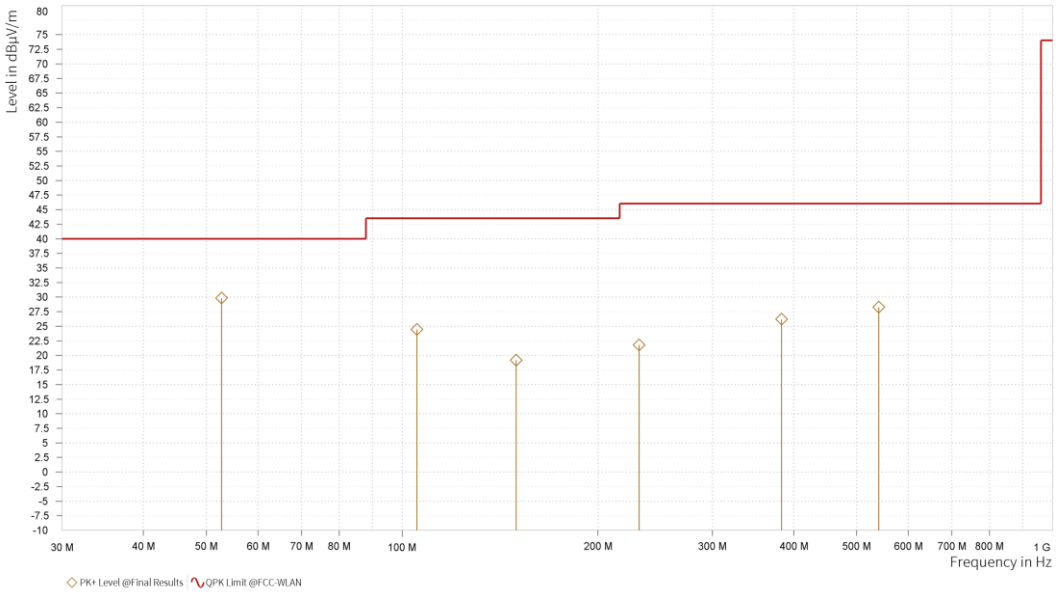
**WLAN-BT-3DH5-CH78+LTE-B14-MID-5M:**

**BELOW 1GHz WORST-CASE DATA:**

**30 MHz – 1GHz data:**

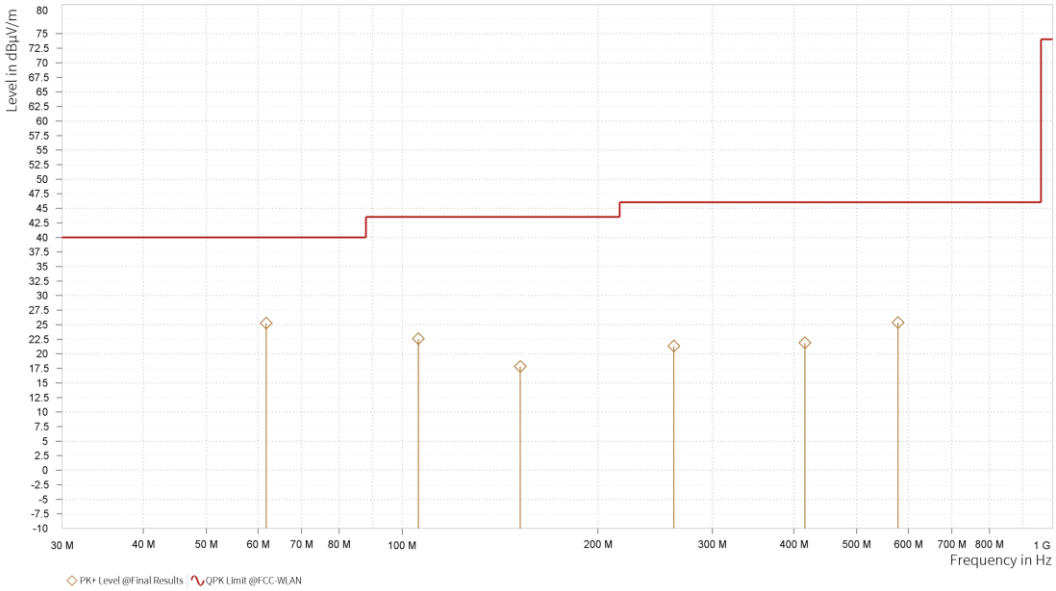
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-BT-3DH5-CH78+LTE-B14-MID-5M | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 52.747 | 29.8 | 40.0 | 10.2 | -12.15 | H | 0.9 | 2.0 |
| 1 | 105.321 | 24.45 | 43.5 | 19.05 | -13.56 | H | 269.7 | 1.0 |
| 1 | 149.747 | 19.18 | 43.5 | 24.32 | -16.42 | H | 0.9 | 2.0 |
| 1 | 231.421 | 21.8 | 46.0 | 24.2 | -12.13 | H | 1.0 | 1.0 |
| 1 | 383.274 | 26.19 | 46.0 | 19.81 | -9.53 | H | 354.2 | 2.0 |
| 1 | 540.802 | 28.24 | 46.0 | 17.76 | -7.39 | H | 354.2 | 2.0 |



| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-BT-3DH5-CH78+LTE-B14-MID-5M | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBμV/m] | PK+: QPK Limit [dBμV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 61.816 | 25.25 | 40.0 | 14.75 | -14.17 | V | 343.8 | 2.0 |
| 1 | 105.903 | 22.57 | 43.5 | 20.93 | -13.61 | V | 343.8 | 2.0 |
| 1 | 151.929 | 17.83 | 43.5 | 25.67 | -16.29 | V | 214.7 | 2.0 |
| 1 | 261.539 | 21.3 | 46.0 | 24.7 | -11.76 | V | 78.5 | 2.0 |
| 1 | 416.351 | 21.87 | 46.0 | 24.13 | -9.41 | V | 214.7 | 2.0 |
| 1 | 578.729 | 25.35 | 46.0 | 20.65 | -6.56 | V | 343.8 | 2.0 |



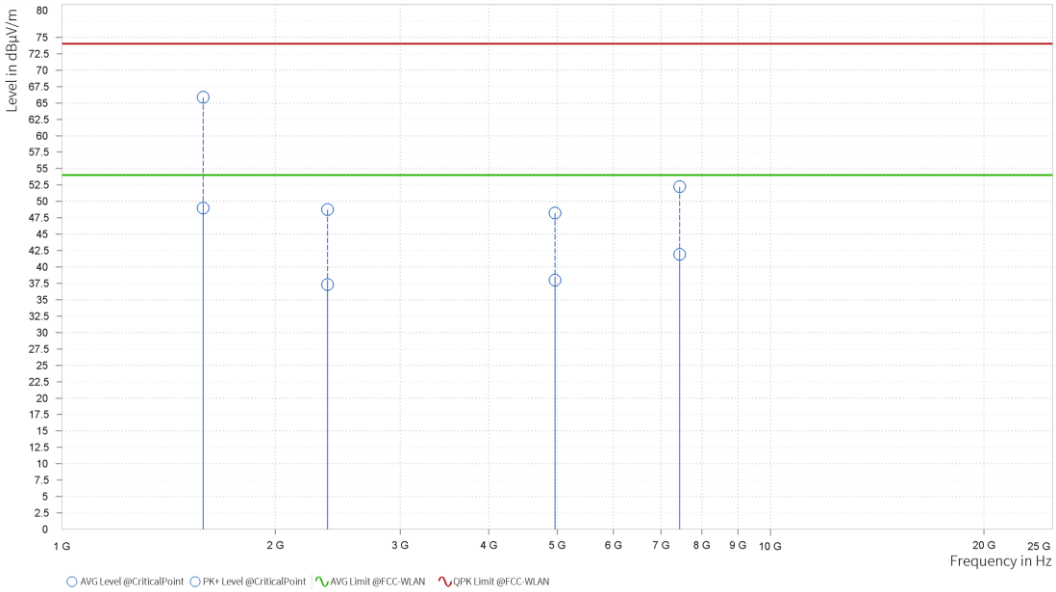
**ABOVE 1GHz WORST-CASE DATA:**

**Note:** 1. For radiated emissions testing，the full testing range of different modes have been scanned，only the worst case harmonic data is reported in the sheet.

2. All other emissions that more than 20dB below the limit were not recorded

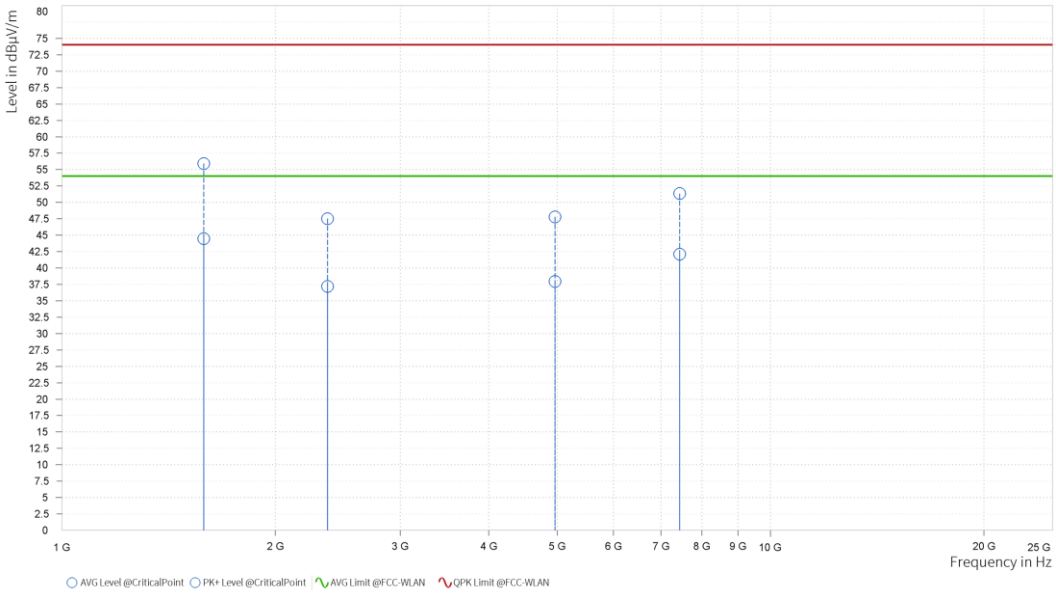
| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-BT-3DH5-CH78+LTE-B14-MID-5M | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,582.000 | 65.88 | 74.0 | 8.12 | 48.97 | 54.0 | 5.03 | 4.64 | H | 5.1 | 1.0 |
| 1 | 2,370.000 | 48.74 | 74.0 | 25.26 | 37.3 | 54.0 | 16.7 | 11.85 | H | 5.1 | 1.0 |
| 3 | 4,960.000 | 48.22 | 74.0 | 25.78 | 38.0 | 54.0 | 16.0 | 13.52 | H | 0.9 | 2.0 |
| 3 | 7,440.000 | 52.24 | 74.0 | 21.76 | 41.91 | 54.0 | 12.09 | 18.23 | H | 0.9 | 2.0 |



| | | | |
|---|---|---|---|
| **CHANNEL** | WLAN-BT-3DH5-CH78+LTE-B14-MID-5M | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+: QPK Limit [dBµV/m] | PK+ Margin [dB] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,584.000 | 55.92 | 74.0 | 18.08 | 44.48 | 54.0 | 9.52 | 4.64 | V | 354.9 | 2.0 |
| 1 | 2,370.000 | 47.52 | 74.0 | 26.48 | 37.17 | 54.0 | 16.83 | 11.85 | V | 1.0 | 2.0 |
| 3 | 4,960.000 | 47.79 | 74.0 | 26.21 | 37.95 | 54.0 | 16.05 | 13.52 | V | 1.0 | 2.0 |
| 3 | 7,440.000 | 51.35 | 74.0 | 22.65 | 42.11 | 54.0 | 11.89 | 18.23 | V | 125.0 | 2.0 |




Note: For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.

**--END--**