Certificate #6613.01

# FCC TEST REPORT

# (Part 15, Subpart C)

| | |
|---|---|
| Applicant: | HMD Global Oy |
| Address: | Bertel Jungin aukio 9, 02600 Espoo, Finland |

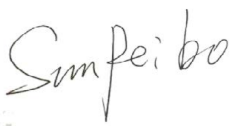
| | |
|---|---|
| Manufacturer or Supplier: | HMD Global Oy |
| Address: | Bertel Jungin aukio 9, 02600 Espoo, Finland |
| Product: | Mobile phone |
| Brand Name: | HMD |
| Model Name: | H1715V |
| FCC ID: | 2AJOTTA-1715 |
| Date of tests: | Jan. 13, 2025～Mar. 20, 2025 |

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 15, Subpart C, Section 15.247**

☒ **ANSI C63.10-2020**

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

| Prepared by Hanwen Xu | Approved by Peibo Sun |
|---|---|
| Engineer / Mobile Department | Manager / Mobile Department |
|  |  |
| Date: Mar. 20, 2025 | Date: Mar. 20, 2025 |

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| PSU-NQN2412090210RF02 | Original release | Mar. 20, 2025 |

# 1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247) | | | |
|---|---|---|---|
| **STANDARD SECTION** | **TEST TYPE AND LIMIT** | **RESULT** | **TEST LAB*** |
| 15.207 | AC Power Conducted Emission | Compliance | A |
| 15.205<br>15.209 | Radiated Emissions | Compliance | A |
| 15.247(d) | Out of band Emission Measurement | Compliance | A |
| 15.247(a)(2) | 6dB bandwidth | Compliance | A |
| 15.247(b) | Conducted Output power | Compliance | A |
| 15.247(e) | Power Spectral Density | Compliance | A |
| 15.203 | Antenna Requirement | Compliance | A |

Note：Except RSE and AC Power Conducted Emission, other data please refer to Appendix A and B.

***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**

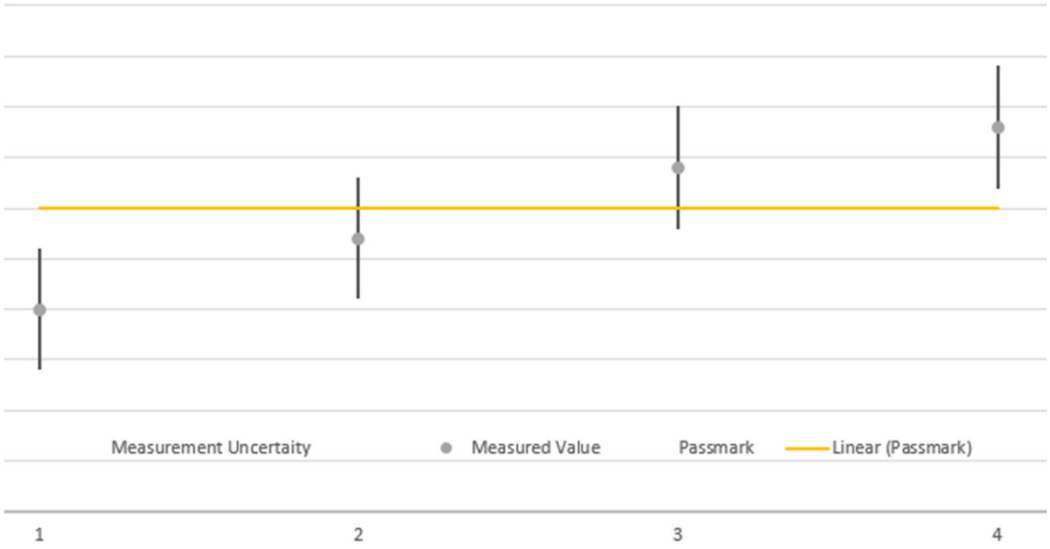
The FCC Site Registration No. is 434559; The Designation No. is CN1325.

## 1.1 MEASUREMENT 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 |
|---|---|
| AC Power Conducted emissions | ±2.70dB |
| Radiated emissions (9KHz~30MHz) | ±2.68dB |
| Radiated emissions (30MHz~1GHz) | ±4.98dB |
| Radiated emissions (1GHz ~6GHz) | ±4.70dB |
| Radiated emissions (6GHz ~18GHz) | ±4.60dB |
| Radiated emissions (18GHz ~40GHz) | ±4.12dB |
| Conducted emissions | ±4.01dB |
| Occupied Channel Bandwidth | ±43.58KHz |
| Conducted Output power | ±2.06dB |
| Power Spectral Density | ±0.85 dB |

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 GENERAL INFORMATION

## 2.2 GENERAL DESCRIPTION OF EUT

| | | |
|---|---|---|
| **PRODUCT*** | Mobile phone | |
| **BRAND NAME*** | HMD | |
| **MODEL NAME*** | H1715V | |
| **NOMINAL VOLTAGE*** | 3.87V | |
| **MODULATION *** | BLE | GFSK |
| | 2.4G WIFI | DSSS,OFDM |
| **TRANSMISSION RATE*** | BT_LE: 0.125 Mbps /0.5 Mbps /1 Mbps/2 Mbps | |
| | 802.11b: 11/5.5/2.0/1.0 Mbps | |
| | 802.11g: 54/48/36/24/18/9/6 Mbps | |
| | 802.11n(HT20): up to 144.4 Mbps | |
| | 802.11n(HT40): up to 300 Mbps | |
| **OPERATING FREQUENCY** | 2402-2480MHz for BT-LE | |
| | 2412-2462MHz for 11b/g/n(HT20/40) | |
| **MAX. OUTPUT POWER** | BT-LE: 8.75mW (Maximum) | |
| | WLAN: 244.34mW (Maximum) | |
| **ANTENNA GAIN*** | BLE | 0.5dBi |
| | 2.4G WIFI | 0.5dBi |
| **ANTENNA TYPE*** | BLE | PIFA Antenna |
| | 2.4G WIFI | PIFA Antenna |
| **HW VERSION*** | V1.0 | |
| **SW VERSION*** | 000T_0_310 | |
| **I/O PORTS*** | Refer to user's manual | |
| **CABLE SUPPLIED*** | N/A | |

**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. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

| MODULATION MODE | TX/RX FUNCTION |
|---|---|
| **802.11b** | 1TX/1RX |
| **802.11g** | 1TX/1RX |
| **802.11n(HT20)** | 1TX/1RX |
| **802.11n(HT40)** | 1TX/1RX |
| **BT_LE(1MHz)** | 1TX/1RX |
| **BT_LE(2MHz)** | 1TX/1RX |
| **BT_LE(S2)** | 1TX/1RX |
| **BT_LE(S8)** | 1TX/1RX |

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
5. 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.
6. The differences between the sample 1 and sample 2 as Listings below, others are the same. And only the worst case was shown in the test report.

| **Object** | **Sample 1**<br>**1st source** | | **Sample 2**<br>**2nd source** | |
|---|---|---|---|---|
| | **Specifications** | **Supplier** | **Specifications** | **Supplier** |
| **Display** | JL-P067P003-05 | Jinglong | Y92321 | Digital |
| **Memory（RAM)** | FLXC2004G-N1 | Longsys | BWCGBX32N2A-32G | Biwin |
| **Memory（ROM)** | MEMDNN064G-M1D03 | Longsys | BWCTAMV11X64G | Biwin |
| **Motor** | C0830H-C138ZN-021 | KunWang | CY0830-05-FPC-182 | Chaoying |
| **FPS Side fingerprint** | SA-FC15X00-1470-B0 | Shenao | HT.ZN-2832B | Huate |
| **Mic** | SM2718B381YR2-01 | Rayking | S150B381-155 | Goertek |
| **GPS LNA** | AW5005EDNR | AWINIC | WS7916DE | WILL |

**List of Accessory:**

| ACCESSORIES | BRAND | MANUFACTURER | MODEL | SPECIFICATION |
|---|---|---|---|---|
| Battery | HMD | HUNAN GAOYUAN BATTERY CO.,LTD | CH426385 | Capacity：3.87Vdc, 4000mAh |

| | | | | |
|---|---|---|---|---|
| USB Cable | Saibao | Saibao (Jiangxi) Industry Co.,Ltd. | SZN-A046A | Signal Line,1.0meter |
| USB Cable | Juwei | Huizhou Juwei Electronics Co.,Ltd | JWUB1913-ZN01H | Signal Line,1.0meter |
| Adapter | HMD | Shenzhen Baijunda Electronic Co., Ltd. | HAD-010U | I/P: 100- 240 Vac, 50/60Hz, 0.35 A, O/P: 5.0 Vdc, 2.0A 10.0W |

## 2.3 DESCRIPTION OF TEST MODES

11 CHannels are provided for 802.11b, 802.11g and 802.11n20 (HT20):

| 802.11b/802.11g/802.11n20 (HT20) | | | |
|---|---|---|---|
| **CHANNEL** | **FREQUENCY** | **CHANNEL** | **FREQUENCY** |
| 1 | 2412 MHz | 7 | 2442 MHz |
| 2 | 2417 MHz | 8 | 2447 MHz |
| 3 | 2422 MHz | 9 | 2452 MHz |
| 4 | 2427 MHz | 10 | 2457 MHz |
| 5 | 2432 MHz | 11 | 2462 MHz |
| 6 | 2437 MHz | | |

| 802.11n40 (HT40) | | | |
|---|---|---|---|
| **CHANNEL** | **FREQUENCY** | **CHANNEL** | **FREQUENCY** |
| 3 | 2422 MHz | 7 | 2442 MHz |
| 4 | 2427 MHz | 8 | 2447 MHz |
| 5 | 2432 MHz | 9 | 2452 MHz |
| 6 | 2437 MHz | | |

| BT-LE | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CHANNEL** | **FREQ. (MHZ)** | **CHANNEL** | **FREQ. (MHZ)** | **CHANNEL** | **FREQ. (MHZ)** | **CHANNEL** | **FREQ. (MHZ)** |
| 0 | 2402 | 10 | 2422 | 20 | 2442 | 30 | 2462 |
| 1 | 2404 | 11 | 2424 | 21 | 2444 | 31 | 2464 |
| 2 | 2406 | 12 | 2426 | 22 | 2446 | 32 | 2466 |
| 3 | 2408 | 13 | 2428 | 23 | 2448 | 33 | 2468 |
| 4 | 2410 | 14 | 2430 | 24 | 2450 | 34 | 2470 |
| 5 | 2412 | 15 | 2432 | 25 | 2452 | 35 | 2472 |
| 6 | 2414 | 16 | 2434 | 26 | 2454 | 36 | 2474 |
| 7 | 2416 | 17 | 2436 | 27 | 2456 | 37 | 2476 |
| 8 | 2418 | 18 | 2438 | 28 | 2458 | 38 | 2478 |
| 9 | 2420 | 19 | 2440 | 29 | 2460 | 39 | 2480 |

## 2.2.1 CONFIGURATION OF SYSTEM UNDER TEST

Please see section 4 photographs of the test configuration for reference.

## 2.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports.
The worst case was found when positioned on Y axis for radiated emission. Following test modes were selected for the final test, and the final worst case is marked in boldface and recorded in the report:

| EUT CONFIGURE MODE | APPLICABLE TO | | | | MODE |
|---|---|---|---|---|---|
| | RE<1G | RE≥1G | PLC | APCM | |
| - | √ | √ | √ | √ | - |

Where **RE<1G:** Radiated Emission below 1GHz **RE≥1G:** Radiated Emission above 1GHz
**PLC:** Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

**NOTE:** No need to concern of Conducted Emission due to the EUT is powered by battery.

**RADIATED EMISSION TEST (BELOW 1GHz):**

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity arCHitecture).
☒ The following CHannel(s) was (were) selected for the final test as listed below.

| MODE | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION | DATA RATE (Mbps) |
|---|---|---|---|---|
| 802.11b | 1 to 11 | 6 | DSSS | 1.0 |
| BT-LE | 0 to 39 | 19 | GFSK | 0.125 |

**RADIATED EMISSION TEST (ABOVE 1GHz):**

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity arCHitecture).

☒ The following CHannel(s) was (were) selected for the final test as listed below.

| MODE | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION | DATA RATE (Mbps) |
|---|---|---|---|---|
| 802.11b | 1 to 11 | 1, 6, 11 | DSSS | 1.0 |
| 802.11g | 1 to 11 | 1, 6, 11 | OFDM | 6.0 |
| 802.11n20(HT20) | 1 to 11 | 1, 6, 11 | OFDM | MCS0 |
| 802.11n(HT40) | 3 to 9 | 3,6,9 | OFDM | MCS0 |
| BT-LE | 0 to 39 | 0,19, 39 | GFSK | 0.125&0.5&1.0 |
| BT-LE | 1 to 38 | 1,19, 38 | GFSK | 2.0 |

**POWER LINE CONDUCTED EMISSION TEST**

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity arCHitecture).

☒ The following CHannel(s) was (were) selected for the final test as listed below.

| MODE | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION | DATA RATE (Mbps) |
|---|---|---|---|---|
| 802.11n20 | 1 to 11 | 6 | OFDM | MCS0 |

**BANDEDGE MEASUREMENT:**

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity arCHitecture).

☒ The following CHannel(s) was (were) selected for the final test as listed below.

| MODE | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION | DATA RATE (Mbps) |
|---|---|---|---|---|
| 802.11b | 1 to 11 | 1, 6, 11 | DSSS | 1.0 |
| 802.11g | 1 to 11 | 1, 6, 11 | OFDM | 6.0 |
| 802.11n20(HT20) | 1 to 11 | 1, 6, 11 | OFDM | MCS0 |
| 802.11n(HT40) | 3 to 9 | 3,6,9 | OFDM | MCS0 |
| BT-LE | 0 to 39 | 0,19, 39 | GFSK | 0.125&0.5&1.0 |
| BT-LE | 1 to 38 | 1,19, 38 | GFSK | 2.0 |

**ANTENNA PORT CONDUCTED MEASUREMENT:**

☒ This item includes all test value of eaCH mode, but only includes spectrum plot of worst value of eaCH mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity arCHitecture).
☒ The following CHannel(s) was (were) selected for the final test as listed below.

| MODE | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION | DATA RATE (Mbps) |
|---|---|---|---|---|
| 802.11b | 1 to 11 | 1, 6, 11 | DSSS | 1.0 |
| 802.11g | 1 to 11 | 1, 6, 11 | OFDM | 6.0 |
| 802.11n20(HT20) | 1 to 11 | 1, 6, 11 | OFDM | MCS0 |
| BT-LE | 0 to 39 | 0,19, 39 | GFSK | 0.125&0.5&1.0 |
| BT-LE | 1 to 38 | 1,19, 38 | GFSK | 2.0 |

| TEST CONDITION | | | |
|---|---|---|---|
| APPLICABLE TO | ENVIRONMENTAL CONDITIONS | TEST VOLTAGE | TESTED BY |
| RE<1G | 23deg. C, 70%RH | DC 5.0V/9.0V/12.0V By Adapter | Hanwen Xu |
| RE≥1G | 23deg. C, 70%RH | DC 5.0V/9.0V/12.0V By Adapter | Hanwen Xu |
| PLC | 25deg. C, 52%RH | DC 5.0V/9.0V/12.0V By Adapter | Hanwen Xu |
| APCM | 25deg. C, 60%RH | DC 3.89V By Battery | Hanwen Xu |

## 2.4 DUTY CYCLE OF TEST SIGNAL

Please Refer to Appendix A and B Of this test report..

## 2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart C, Section 15.247**

**KDB 558074 D01 DTS Meas Guidance v05r02**

**ANSI C63.10-2020**

Note：

1. All test items have been performed and recorded as per the above standards.
2. The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (Certification). The test report has been issued separately.

## 2.6 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|---|---|---|---|---|---|
| 1 | Laptop | Lenovo | Thinkpad E14 | SL10W47313 | N/A |
| 2 | Adapter | N/A | N/A | N/A | N/A |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|---|---|
| 1 | AC Line: Unshielded, DetaCHable 1.5m |
| 2 | USB Line: Unshielded, DetaCHable, 1.0m; |

# 3 TEST TYPES AND RESULTS

## 3.1 CONDUCTED EMISSION MEASUREMENT

### 3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

| FREQUENCY OF EMISSION (MHz) | CONDUCTED LIMIT (dBμV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 66 to 56 | 56 to 46 |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

**NOTE**:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

### 3.1.2 TEST INSTRUMENTS

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---|---|---|---|---|
| EMI Test Receiver | Rohde&SCHwarz | ESR3 | 102749 | Feb.24,24 | Feb.23,26 |
| ELEKTRA test software | Rohde&SCHwarz | ELEKTRA | NA | N/A | N/A |
| LISN network | Rohde&SCHwarz | ENV216 | 102640 | Feb.16,24 | Feb.15,26 |
| CABLE | Rohde&SCHwarz | W61.01 | N/A | Apr.27,24 | Apr.26,26 |
| CABLE | Rohde&SCHwarz | W601 | N/A | Apr.27,24 | Apr.26,26 |

**NOTE:**

1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

### 3.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were CHecked for maximum conducted interference.

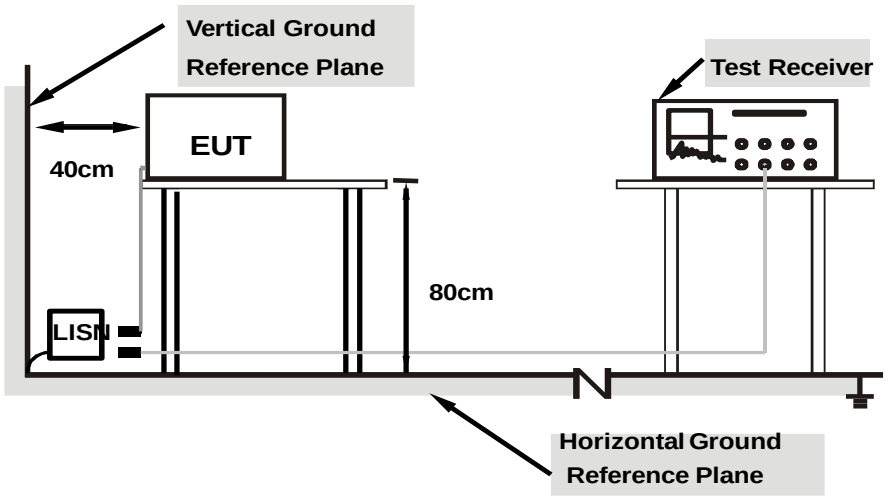
c. The frequency range from 150kHz to 30MHz was searCHed. Emission levels under (Limit - 20dB) was not recorded.

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported.

### 3.1.4 DEVIATION FROM TEST STANDARD

No deviation.

### 3.1.5 TEST SETUP




**Note: 1.Support units were connected to second LISN.**
**2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

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

### 3.1.6 EUT OPERATING CONDITIONS

a. Turned on the power and connected of all equipment.
b. EUT was operated according to the type used was description in manufacturer’s specifications or the User's Manual.

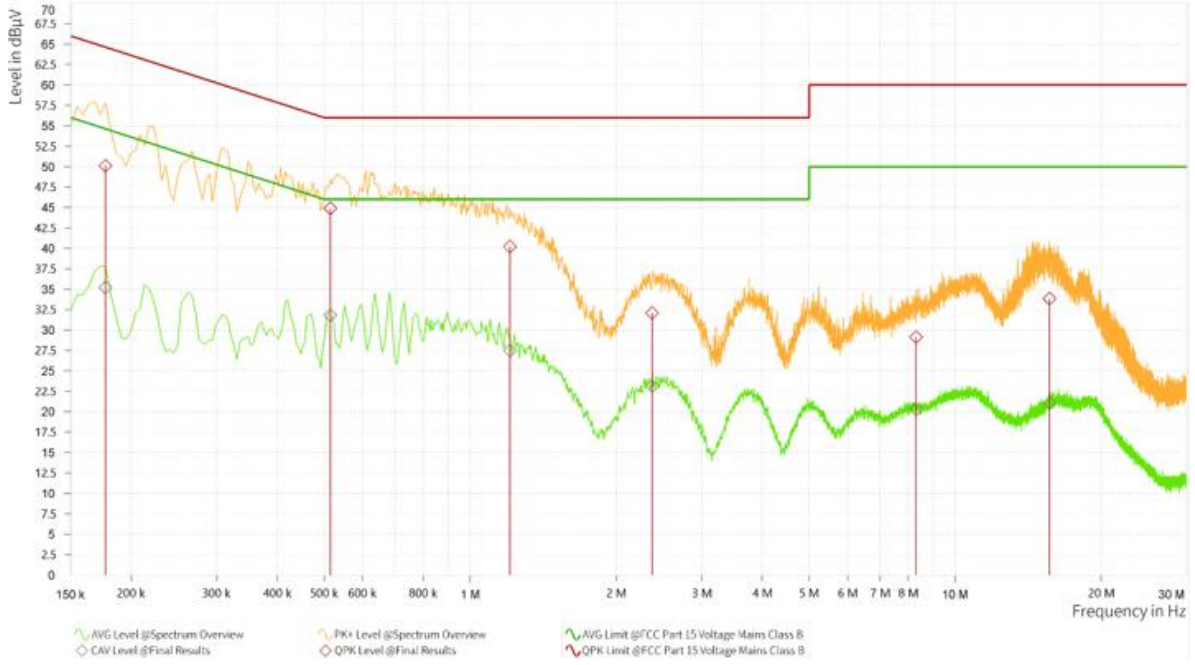
## 3.1.7 TEST RESULTS

| CONDUCTED WORST-CASE DATA | | | |
|---|---|---|---|
| **Frequency Range** | 150KHz ~ 30MHz | **Detector Function & Resolution Bandwidth** | Quasi-Peak (QP) / Average (AV), 9 kHz |
| **Input Power** | 120Vac, 60Hz | **Environmental Conditions** | 26deg. C, 51%RH |
| **Tested By** | Hanwen Xu | | |

| Rg | Frequency [MHz] | QPK Level [dBµV] | QPK Limit [dBµV] | QPK Margin [dB] | CAV Level [dBµV] | CAV: AVG Limit [dBµV] | CAV Margin [dB] | Correction [dB] | Line | Meas. BW [kHz] |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.177 | 50.10 | 64.63 | 14.53 | 35.19 | 54.63 | 19.44 | 12.26 | L1 | 9.000 |
| 1 | 0.515 | 44.89 | 56.00 | 11.11 | 31.81 | 46.00 | 14.19 | 11.75 | L1 | 9.000 |
| 1 | 1.208 | 40.20 | 56.00 | 15.80 | 27.47 | 46.00 | 18.53 | 11.75 | L1 | 9.000 |
| 1 | 2.373 | 32.08 | 56.00 | 23.92 | 23.13 | 46.00 | 22.87 | 11.76 | L1 | 9.000 |
| 1 | 8.309 | 29.12 | 60.00 | 30.88 | 20.32 | 50.00 | 29.68 | 11.81 | L1 | 9.000 |
| 1 | 15.644 | 33.84 | 60.00 | 26.16 | 21.03 | 50.00 | 28.97 | 11.85 | L1 | 9.000 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value -Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.

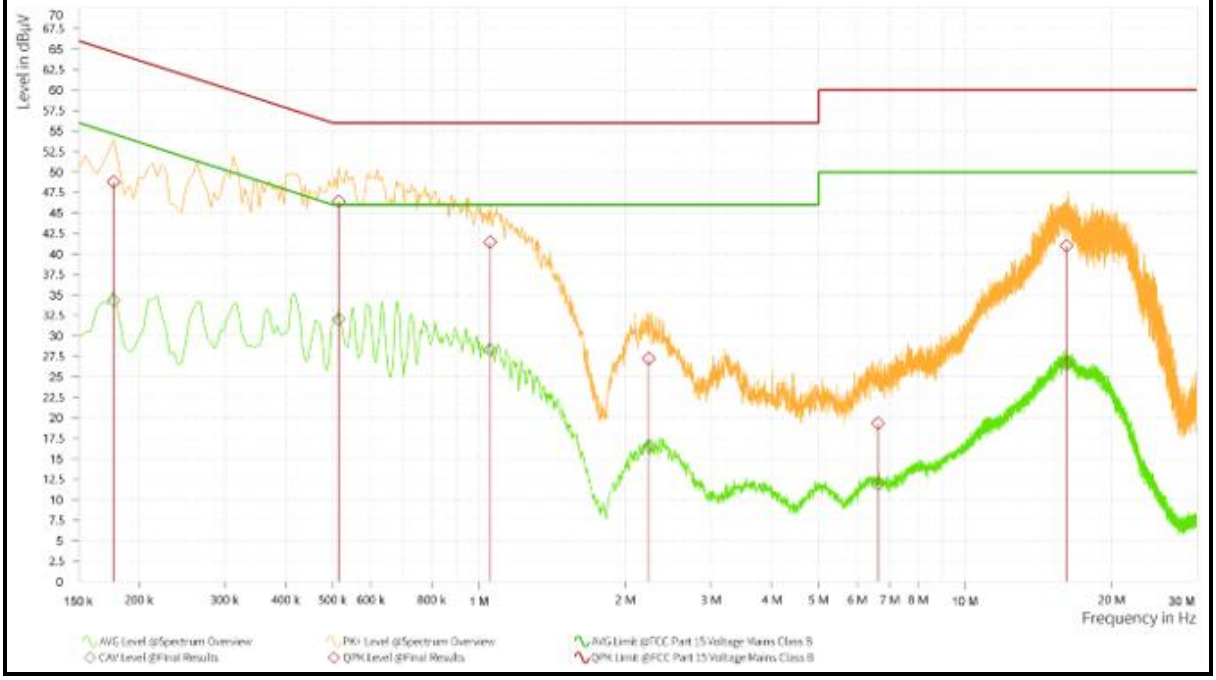


| Frequency Range | 150KHz ~ 30MHz | Detector Function & Resolution Bandwidth | Quasi-Peak (QP) / Average (AV), 9 kHz |
|---|---|---|---|
| Input Power | 120Vac, 60Hz | Environmental Conditions | 26deg. C, 51%RH |
| Tested By | Hanwen Xu | | |

| Rg | Frequency [MHz] | QPK Level [dBµV] | QPK Limit [dBµV] | QPK Margin [dB] | CAV Level [dBµV] | CAV: AVG Limit [dBµV] | CAV Margin [dB] | Correction [dB] | Line | Meas. BW [kHz] |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.177 | 48.79 | 64.63 | 15.84 | 34.31 | 54.63 | 20.32 | 12.22 | N | 9.000 |
| 1 | 0.515 | 46.40 | 56.00 | 9.60 | 32.04 | 46.00 | 13.96 | 12.78 | N | 9.000 |
| 1 | 1.055 | 41.44 | 56.00 | 14.56 | 28.31 | 46.00 | 17.69 | 12.73 | N | 9.000 |
| 1 | 2.234 | 27.23 | 56.00 | 28.77 | 16.50 | 46.00 | 29.50 | 12.74 | N | 9.000 |
| 1 | 6.621 | 19.33 | 60.00 | 40.67 | 11.91 | 50.00 | 38.09 | 12.77 | N | 9.000 |
| 1 | 16.170 | 41.00 | 60.00 | 19.00 | 26.49 | 50.00 | 23.51 | 12.83 | N | 9.000 |

**REMARKS:**

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Limit value -Emission level
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



## 3.2 RADIATED EMISSION MEASUREMENT

### 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

| FREQUENCIES (MHz) | FIELD STRENGTH (microvolts/meter) | MEASUREMENT DISTANCE (meters) |
|---|---|---|
| 0.009 ~ 0.490 | 2400/F(kHz) | 300 |
| 0.490 ~ 1.705 | 24000/F(kHz) | 30 |
| 1.705 ~ 30.0 | 30 | 30 |
| 30 ~ 88 | 100 | 3 |
| 88 ~ 216 | 150 | 3 |
| 216 ~ 960 | 200 | 3 |
| Above 960 | 500 | 3 |

**NOTE**:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

## 3.2.2 TEST INSTRUMENTS

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---|---|---|---|---|---|
| Pre-Amplifier | R&S | SCU18F1 | 100815 | Aug.29,24 | Aug.28,26 |
| Pre-Amplifier | R&S | SCU08F1 | 101028 | Sep.15,24 | Sep.14,26 |
| Signal Generator | R&S | SMB100A | 182185 | Feb.15,24 | Feb.14,26 |
| 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 |
| EMI TEST Receiver | R&S | ESW44 | 101973 | Feb.24,24 | Feb.23,26 |
| Bilog Antenna | SCHWARZBECK | VULB 9163 | 1264 | Feb.27,24 | Feb.26,26 |
| Horn Antenna | ETS-LINDGREN | 3117 | 227836 | Aug.21,24 | Aug.20,26 |
| Horn Antenna (18GHz-40GHz) | Steatite Q-par Antennas | QMS 00880 | 23486 | Feb.22,24 | Feb.21,26 |
| 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.26,24 | Jun.25,26 |
| 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.30,24 | Aug.29,26 |
| Hygrothermograph | DELI | 20210528 | SZ014 | Sep.05,24 | Sep.04,26 |
| 6DB attenuator | Tonscend TeCHnology Co., Ltd | N/A | 23062787 | N/A | N/A |
| PC | LENOVO | E14 | HRSW0024 | N/A | N/A |
| TMC-AMI18843A(CABLE) | R&S | HF290-NMNM-7.00M | N/A | N/A | N/A |
| TMC-AMI18843A(CABLE) | R&S | HF290-NMNM-4.00M | N/A | N/A | N/A |
| CABLE | R&S | W13.02 | N/A | Apr.27,24 | Apr.26,26 |
| CABLE | R&S | W12.14 | N/A | Apr.27,24 | Apr.26,26 |

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

### 3.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter CHamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, whiCH was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For eaCH suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. During the test, eaCH emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

**Note:**

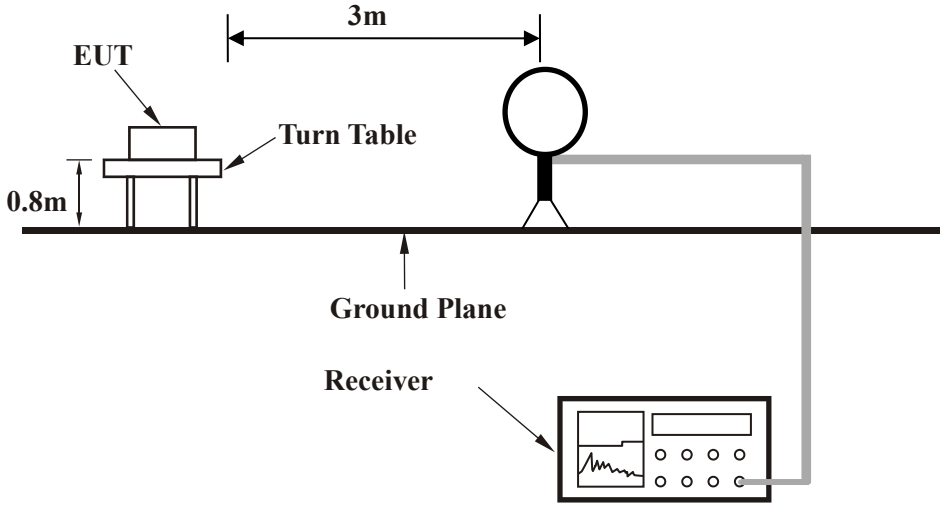
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

### 3.2.4 DEVIATION FROM TEST STANDARD

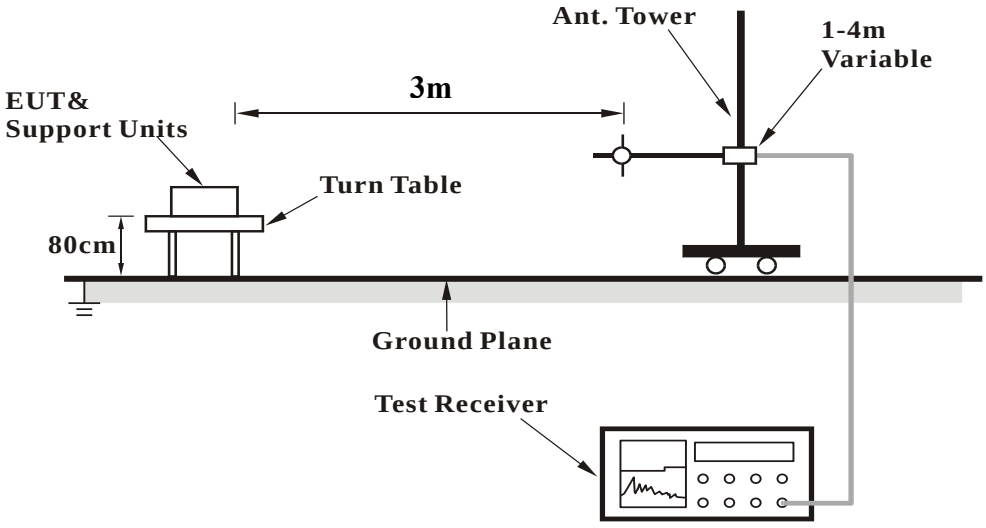
No deviation

## 3.2.5 TEST SETUP

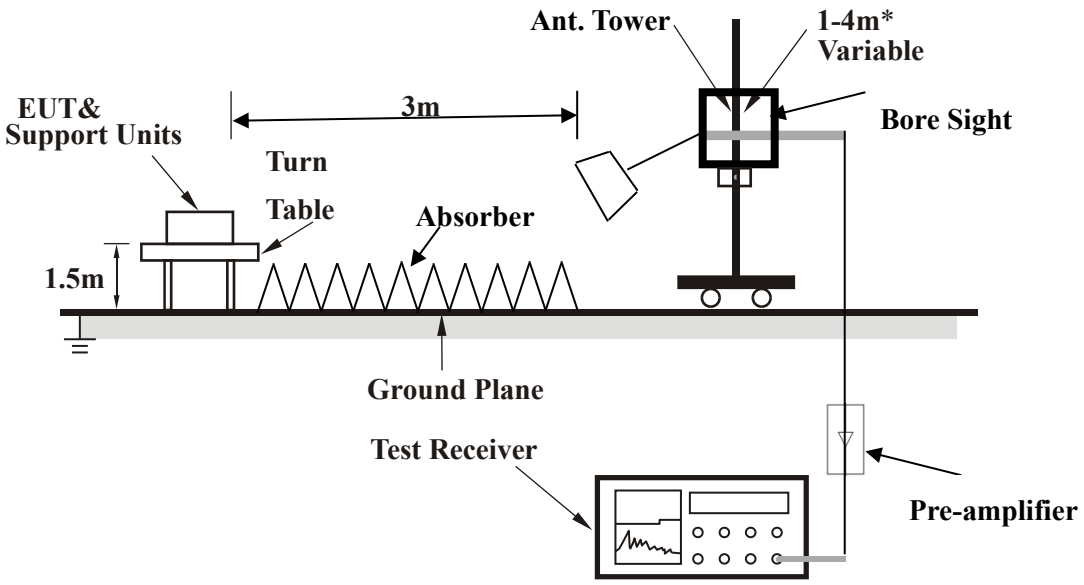
**<Frequency Range 9KHz~30MHz >**




**< 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).

### 3.2.6 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.

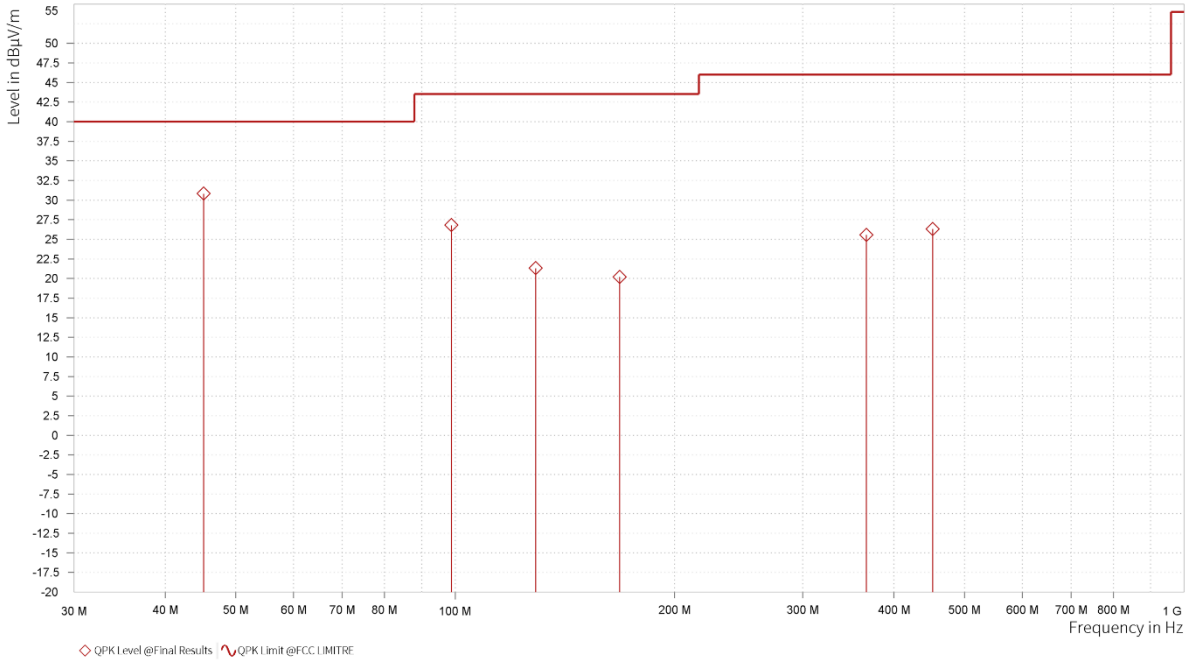
## 3.2.7 TEST RESULTS

| BELOW 1GHz WORST-CASE DATA | | | |
|---|---|---|---|
| **NOTE:** The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report. | | | |
| **802.11b** | | | |
| **CHANNEL** | TX Channel 6 | **DETECTOR FUNCTION** | Quasi-Peak (QP) |
| **FREQUENCY RANGE** | 30MHz ~ 1GHz | | |
| **ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M** | | | |

| Rg | Frequency [MHz] | QPK Level [dBµV/m] | QPK Limit [dBµV/m] | QPK Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] | Meas. BW [kHz] |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.181 | 30.80 | 40.00 | 9.20 | -2.98 | H | 359 | 1.00 | 120.000 |
| 1 | 98.822 | 26.79 | 43.50 | 16.71 | -5.34 | H | 355.7 | 2.00 | 120.000 |
| 1 | 128.940 | 21.30 | 43.50 | 22.20 | -7.78 | H | 83.3 | 2.00 | 120.000 |
| 1 | 168.080 | 20.20 | 43.50 | 23.30 | -7.30 | H | 359 | 1.00 | 120.000 |
| 1 | 366.736 | 25.55 | 46.00 | 20.45 | 2.12 | H | 359 | 1.00 | 120.000 |
| 1 | 451.950 | 26.30 | 46.00 | 19.70 | 3.50 | H | 277.8 | 1.00 | 120.000 |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.



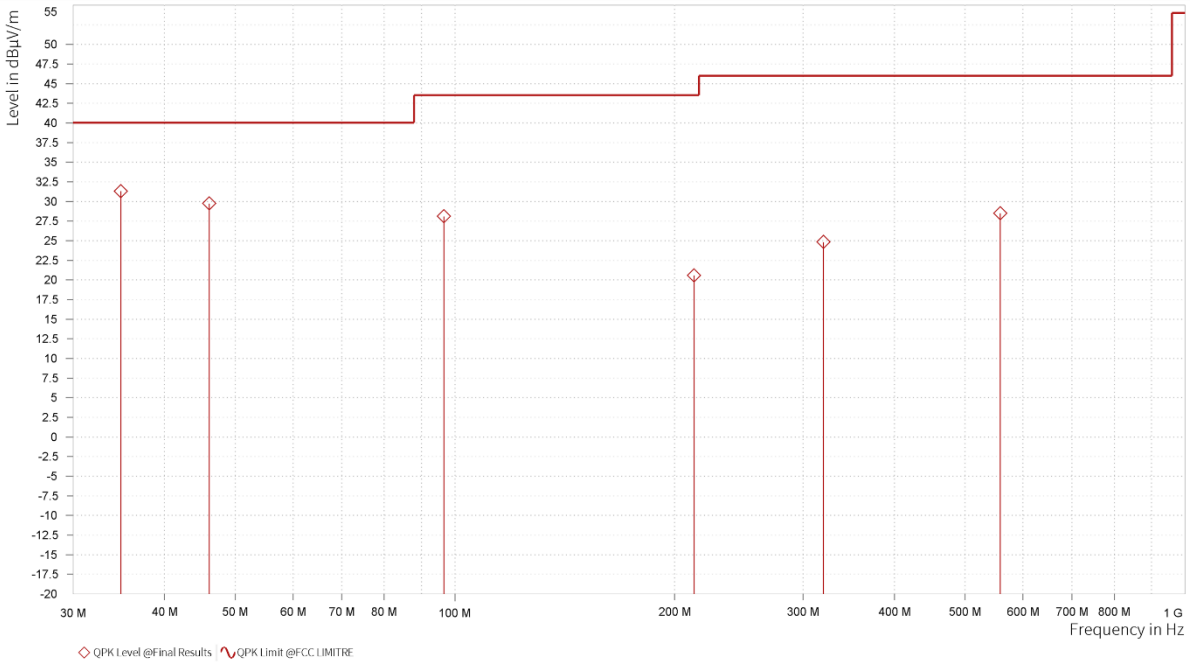
| CHANNEL | TX Channel 6 | DETECTOR FUNCTION | Quasi-Peak (QP) |
|---|---|---|---|
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

| Rg | Frequency [MHz] | QPK Level [dBµV/m] | QPK Limit [dBµV/m] | QPK Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] | Meas. BW [kHz] |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 34.850 | 31.30 | 40.00 | 8.70 | -7.49 | V | 1 | 1.00 | 120.000 |
| 1 | 46.054 | 29.72 | 40.00 | 10.28 | -3.92 | V | 1 | 1.00 | 120.000 |
| 1 | 96.542 | 28.10 | 43.50 | 15.40 | -5.84 | V | 359 | 1.00 | 120.000 |
| 1 | 212.457 | 20.56 | 43.50 | 22.94 | -4.57 | V | 79.8 | 2.00 | 120.000 |
| 1 | 319.642 | 24.83 | 46.00 | 21.17 | -0.06 | V | 354.4 | 2.00 | 120.000 |
| 1 | 558.359 | 28.50 | 46.00 | 17.50 | 3.09 | V | 359 | 1.00 | 120.000 |

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.



## ABOVE 1GHz WORST-CASE DATA

**Note:**

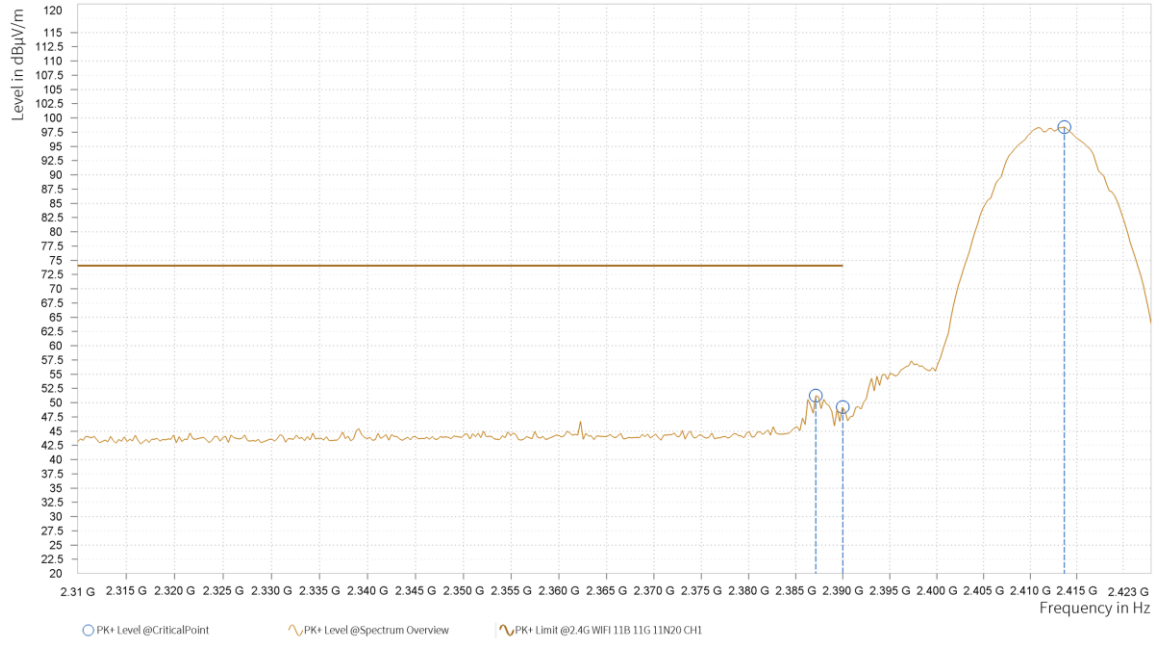
1. For radiated emissions testing，the full testing range of different modes have been scanned，only the worst case harmonic data is reported in the sheet.
2. All other emissions were greater than 20dB below the limit was not recorded

**802.11b**

| | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 1 | **DETECTOR** | Peak (PK) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | **FUNCTION** | Average (AV) |

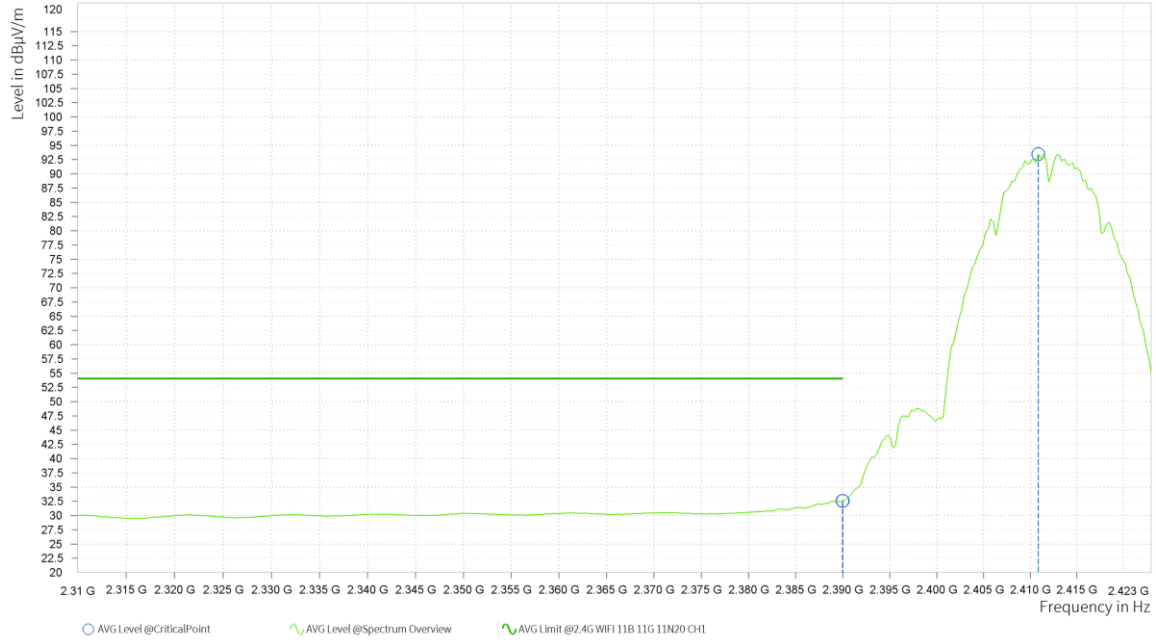
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,387.123 | 51.23 | 74.00 | 22.77 | 6.34 | H | 4.5 | 1.00 |
| 1 | 2,390.000 | 49.20 | 74.00 | 24.80 | 6.39 | H | 4.5 | 1.00 |
| 1 | 2,413.678 | 98.39 | | | 6.80 | H | 266.1 | 2.00 |

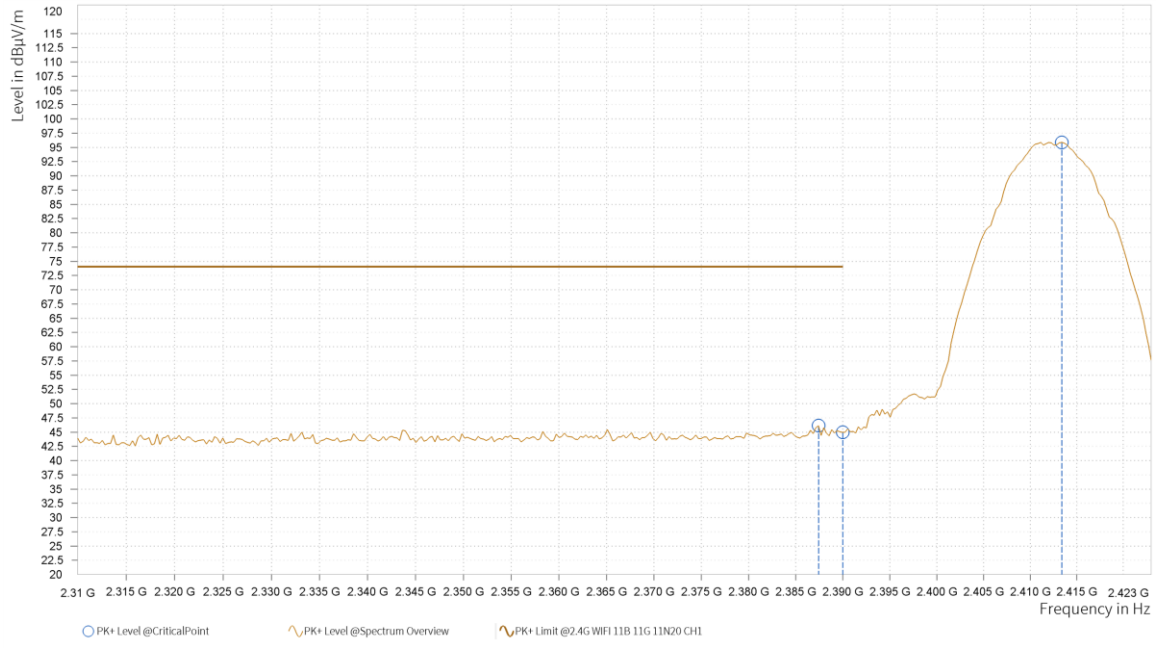


**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

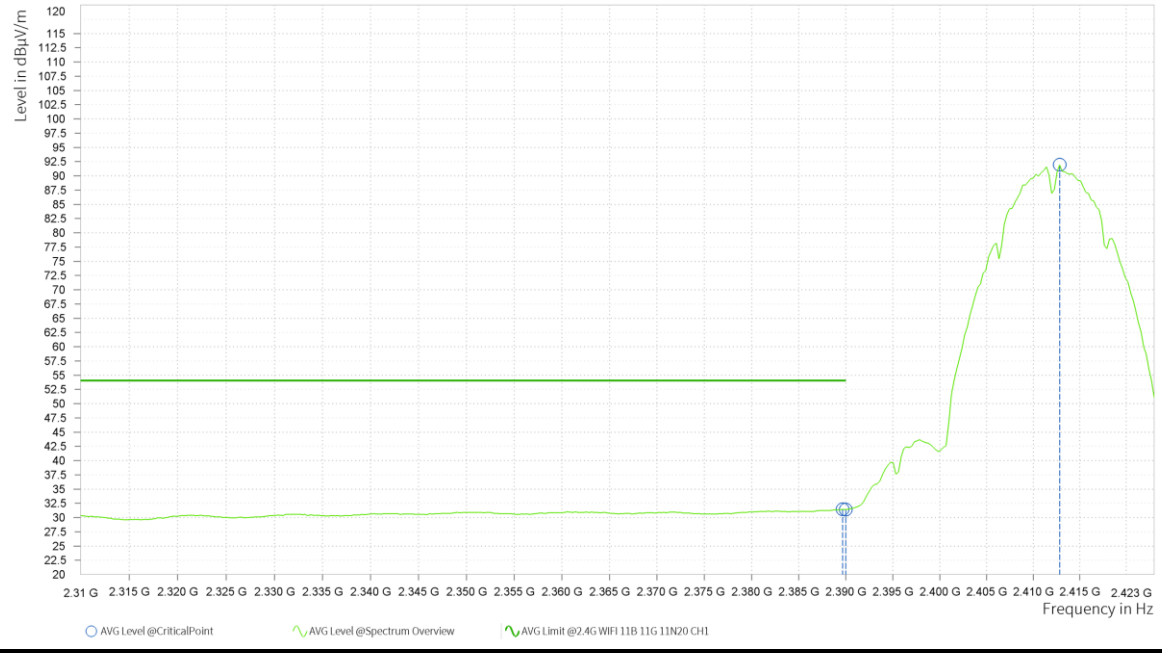
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,389.948 | 32.55 | 54.00 | 21.45 | 6.39 | H | 266.1 | 2.00 |
| 1 | 2,390.000 | 32.55 | 54.00 | 21.45 | 6.39 | H | 266.1 | 2.00 |
| 1 | 2,410.853 | 93.48 | | | 6.75 | H | 266.1 | 2.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 1 | 2,387.405 | 46.12 | 74.00 | 27.88 | 6.34 | V | 241 | 1.00 |
| 1 | 2,390.000 | 44.96 | 74.00 | 29.04 | 6.39 | V | 290 | 1.00 |
| 1 | 2,413.395 | 95.88 | | | 6.79 | V | 1 | 1.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 1 | 2,389.665 | 31.43 | 54.00 | 22.57 | 6.38 | V | 170.5 | 2.00 |
| 1 | 2,390.000 | 31.38 | 54.00 | 22.62 | 6.39 | V | 121.4 | 2.00 |
| 1 | 2,412.830 | 91.93 | | | 6.78 | V | 1 | 1.00 |



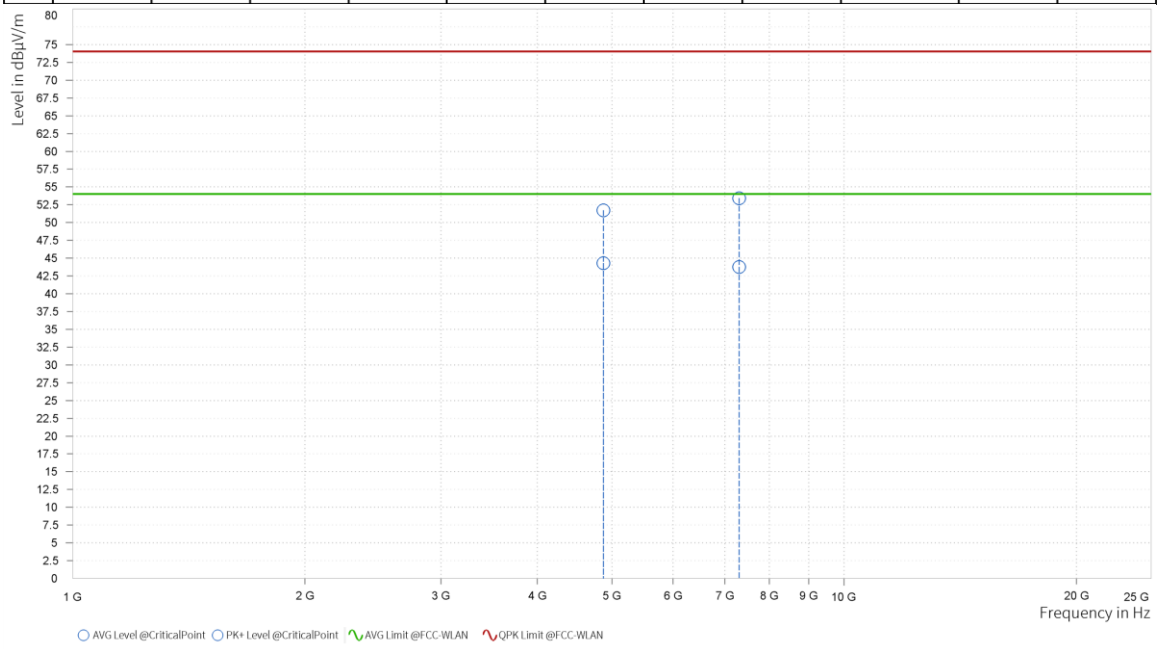

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2412MHz: Fundamental frequency.

| CHANNEL | TX Channel 6 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

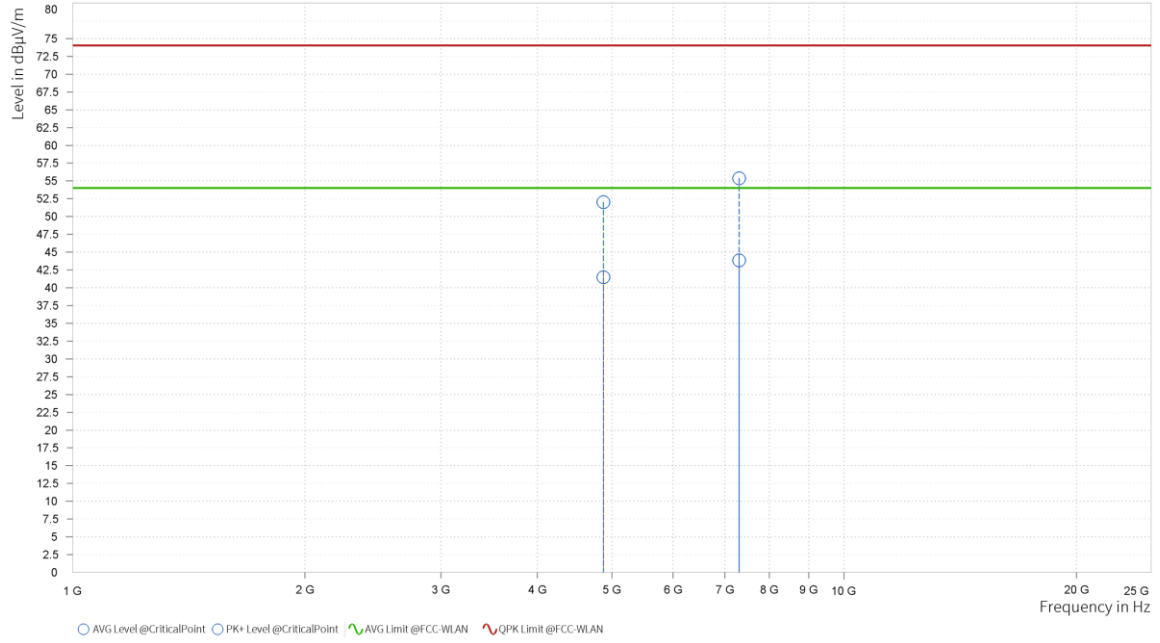
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| 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 | 4,874.000 | 51.71 | 74.00 | 22.29 | 44.31 | 54.00 | 9.69 | 13.85 | H | 1 | 2.00 |
| 3 | 7,311.000 | 53.43 | 74.00 | 20.57 | 43.78 | 54.00 | 10.22 | 19.48 | H | 359 | 2.00 |



**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

| 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 | 4,874.000 | 52.04 | 74.00 | 21.96 | 41.48 | 54.00 | 12.52 | 13.85 | V | 0.9 | 2.00 |
| 3 | 7,311.000 | 55.38 | 74.00 | 18.62 | 43.86 | 54.00 | 10.14 | 19.48 | V | 359 | 2.00 |



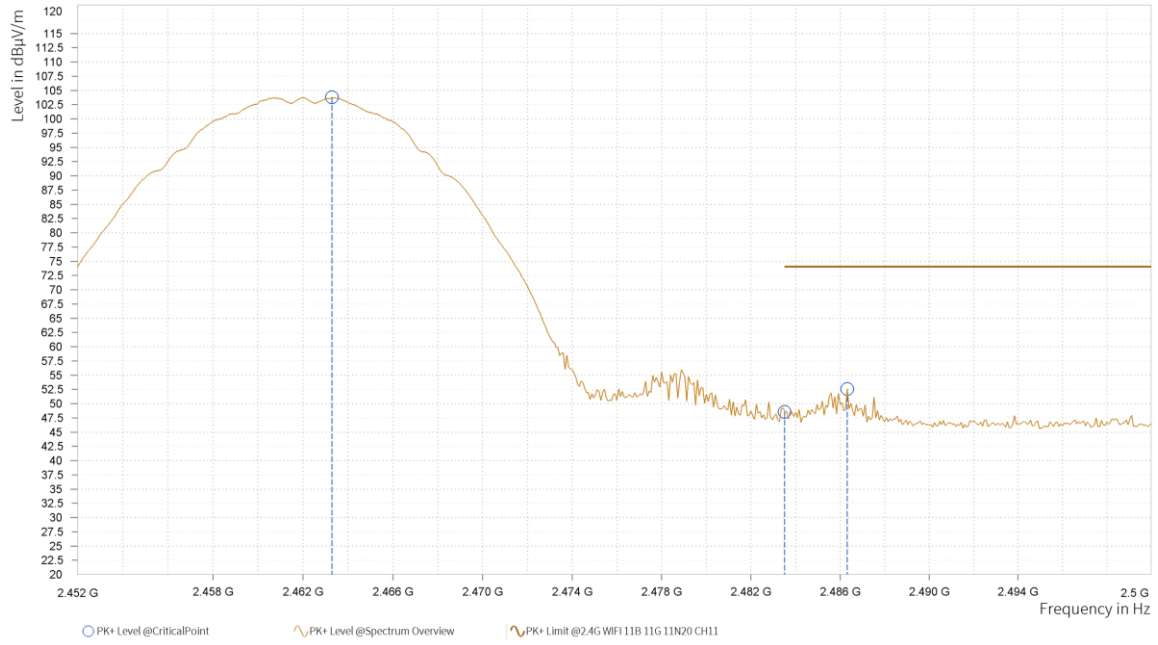

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2437MHz: Fundamental frequency.

| CHANNEL | TX Channel 11 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

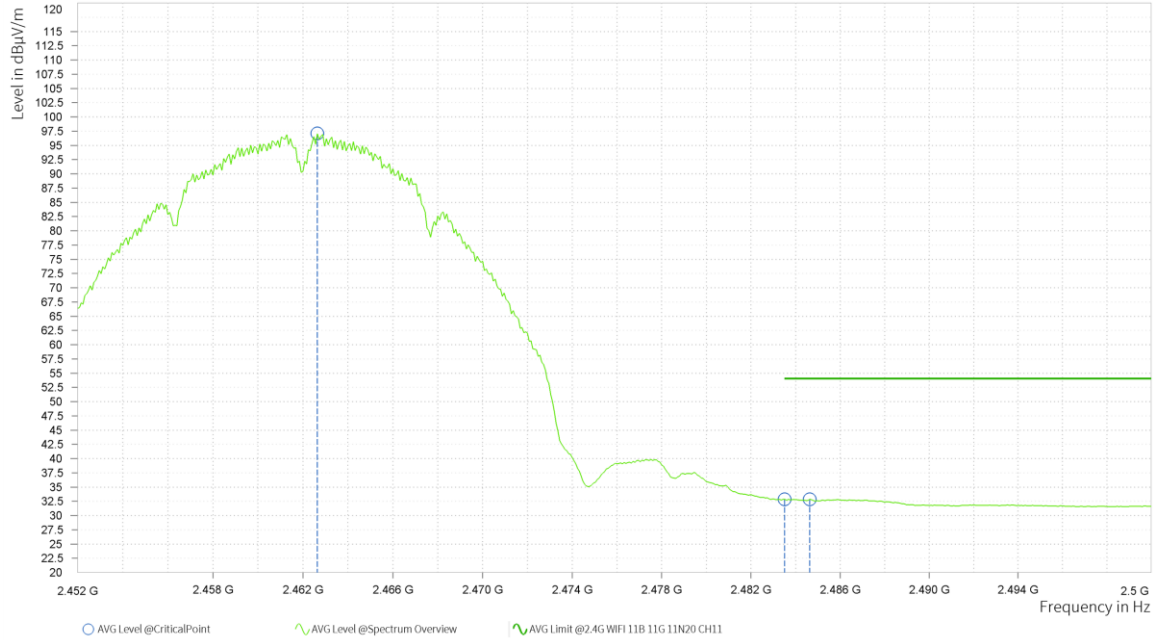
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 2 | 2,463.280 | 103.80 | | | 7.43 | H | 41.4 | 1.00 |
| 2 | 2,483.500 | 48.53 | 74.00 | 25.47 | 7.18 | H | 4.5 | 1.00 |
| 2 | 2,486.320 | 52.59 | 74.00 | 21.41 | 7.13 | H | 4.5 | 1.00 |

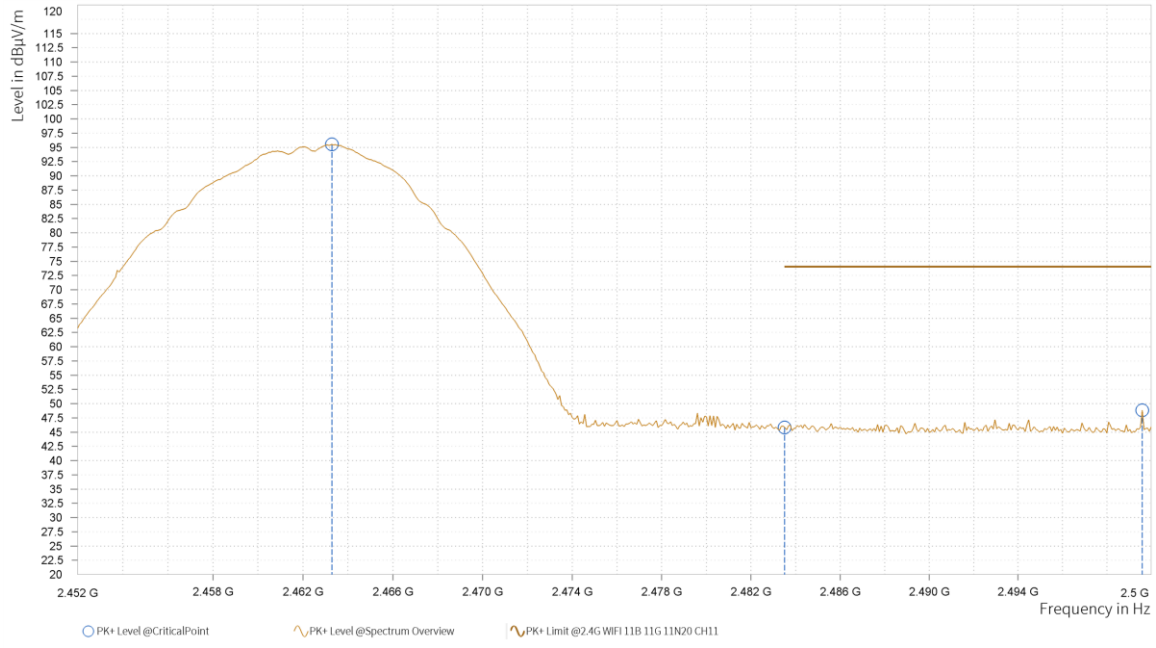


**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

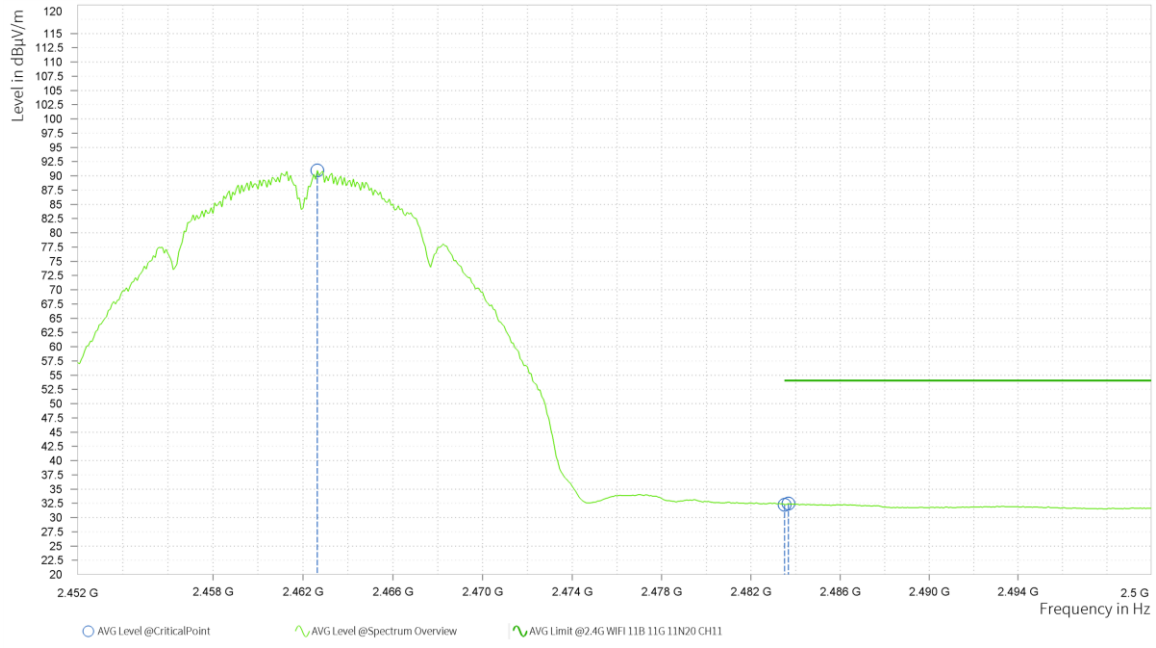
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 2 | 2,462.640 | 97.08 | | | 7.43 | H | 218.2 | 2.00 |
| 2 | 2,483.500 | 32.83 | 54.00 | 21.17 | 7.18 | H | 218.2 | 2.00 |
| 2 | 2,484.640 | 32.87 | 54.00 | 21.13 | 7.16 | H | 218.2 | 2.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 2 | 2,463.280 | 95.53 | | | 7.43 | V | 354.9 | 2.00 |
| 2 | 2,483.500 | 45.82 | 74.00 | 28.18 | 7.18 | V | 115.4 | 2.00 |
| 2 | 2,499.600 | 48.83 | 74.00 | 25.17 | 6.93 | V | 214.6 | 2.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 2 | 2,462.640 | 90.98 | | | 7.43 | V | 336.5 | 1.00 |
| 2 | 2,483.500 | 32.25 | 54.00 | 21.75 | 7.18 | V | 121.4 | 2.00 |
| 2 | 2,483.680 | 32.46 | 54.00 | 21.54 | 7.17 | V | 121.4 | 2.00 |



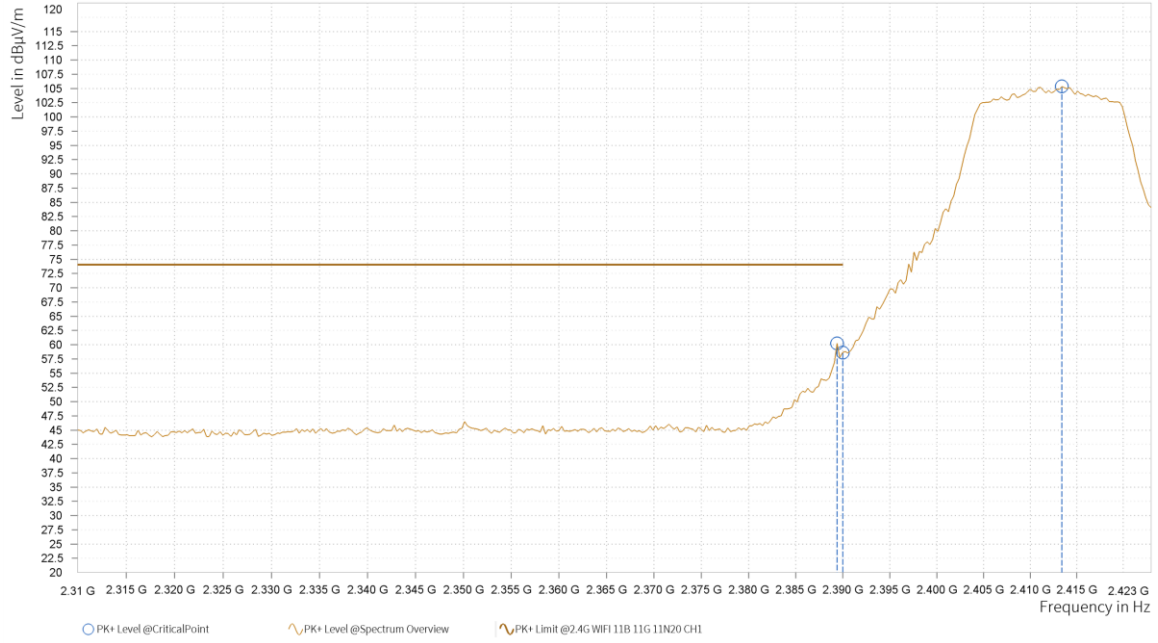

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2462MHz: Fundamental frequency.

| 802.11g | | | |
|---|---|---|---|
| CHANNEL | TX Channel 1 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

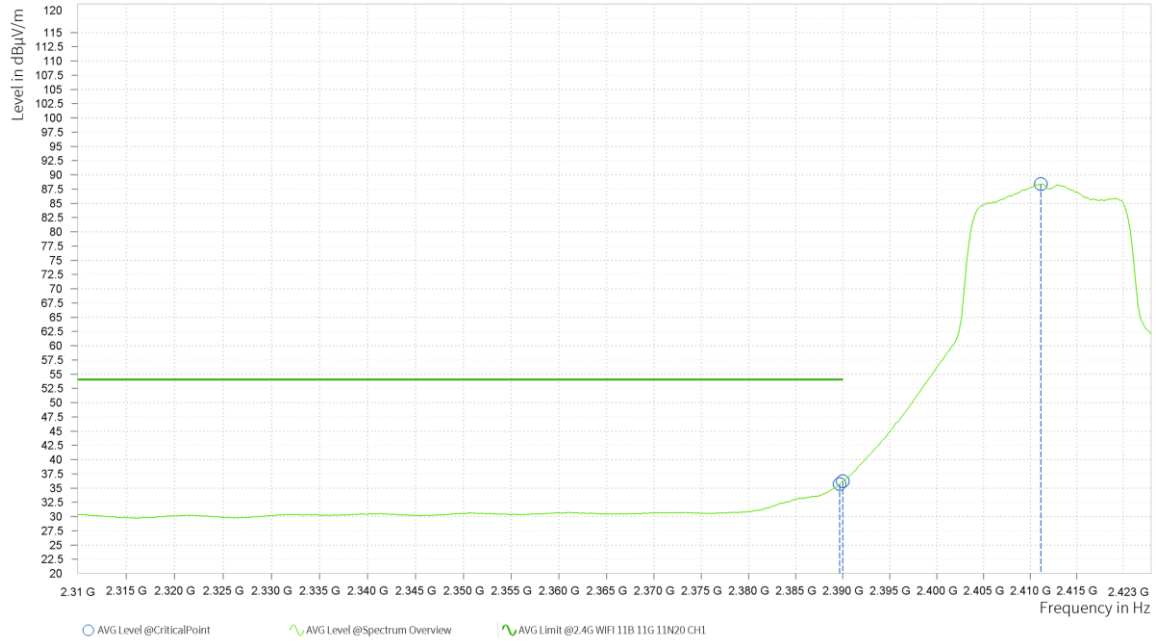
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,389.383 | 60.24 | 74.00 | 13.76 | 6.38 | H | 44.9 | 1.00 |
| 1 | 2,390.000 | 58.58 | 74.00 | 15.42 | 6.39 | H | 44.9 | 1.00 |
| 1 | 2,413.395 | 105.34 | | | 6.79 | H | 5.1 | 1.00 |

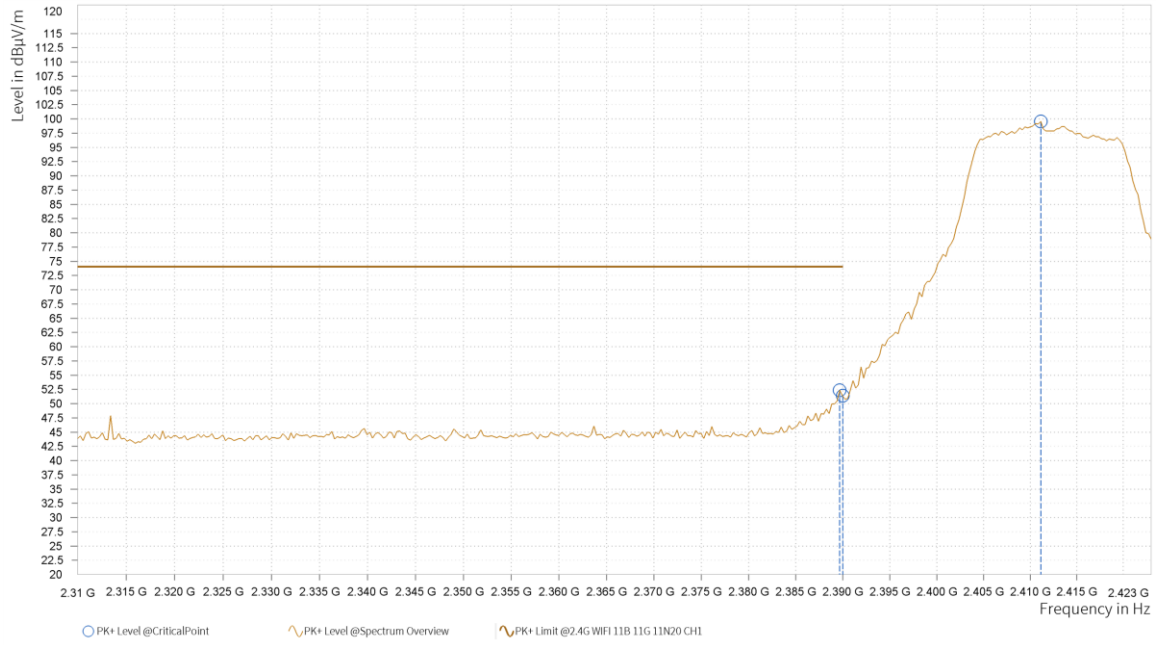


**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

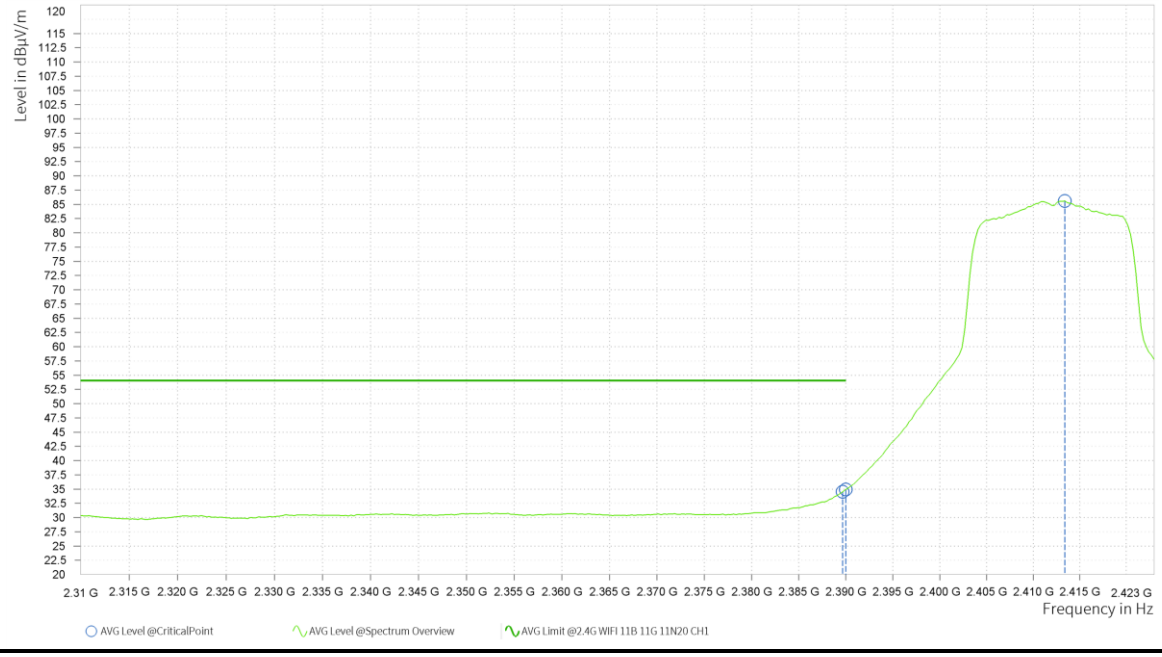
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,389.665 | 35.73 | 54.00 | 18.27 | 6.38 | H | 313.9 | 2.00 |
| 1 | 2,390.000 | 36.19 | 54.00 | 17.81 | 6.39 | H | 313.9 | 2.00 |
| 1 | 2,411.135 | 88.36 | | | 6.75 | H | 359 | 2.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 1 | 2,389.665 | 52.36 | 74.00 | 21.64 | 6.38 | V | 5.1 | 1.00 |
| 1 | 2,390.000 | 51.41 | 74.00 | 22.59 | 6.39 | V | 117.8 | 2.00 |
| 1 | 2,411.135 | 99.57 | | | 6.75 | V | 5.1 | 1.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 1 | 2,389.665 | 34.53 | 54.00 | 19.47 | 6.38 | V | 354.2 | 2.00 |
| 1 | 2,390.000 | 34.90 | 54.00 | 19.10 | 6.39 | V | 354.2 | 2.00 |
| 1 | 2,413.395 | 85.60 | | | 6.79 | V | 5.1 | 1.00 |



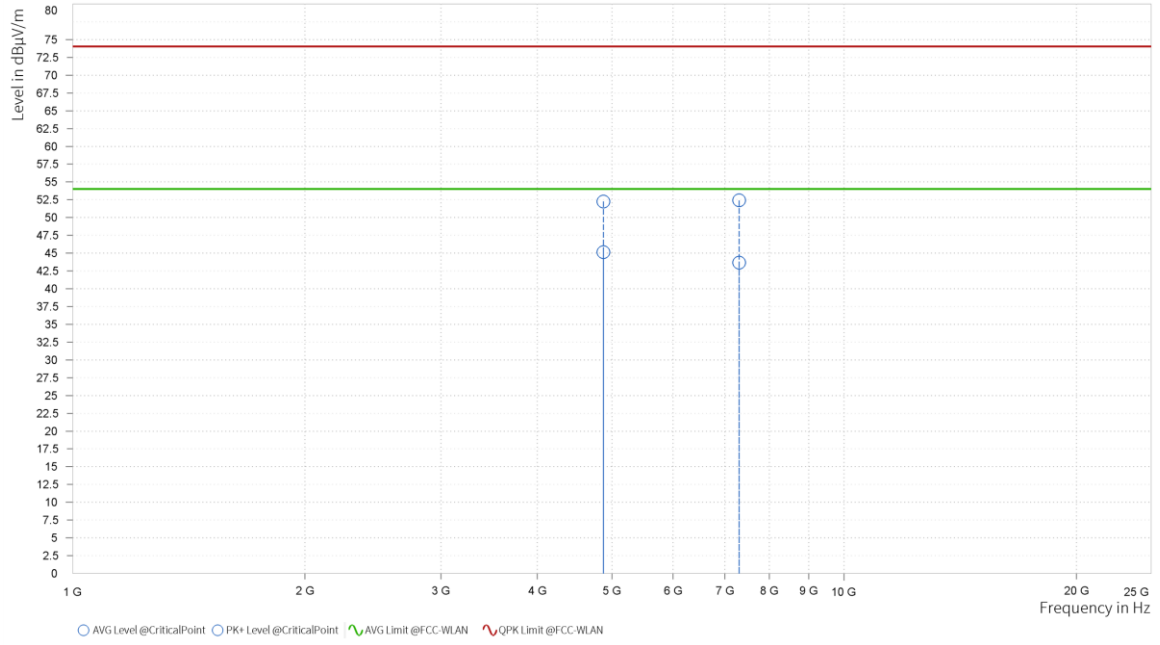

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2412MHz: Fundamental frequency.

| CHANNEL | TX Channel 6 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

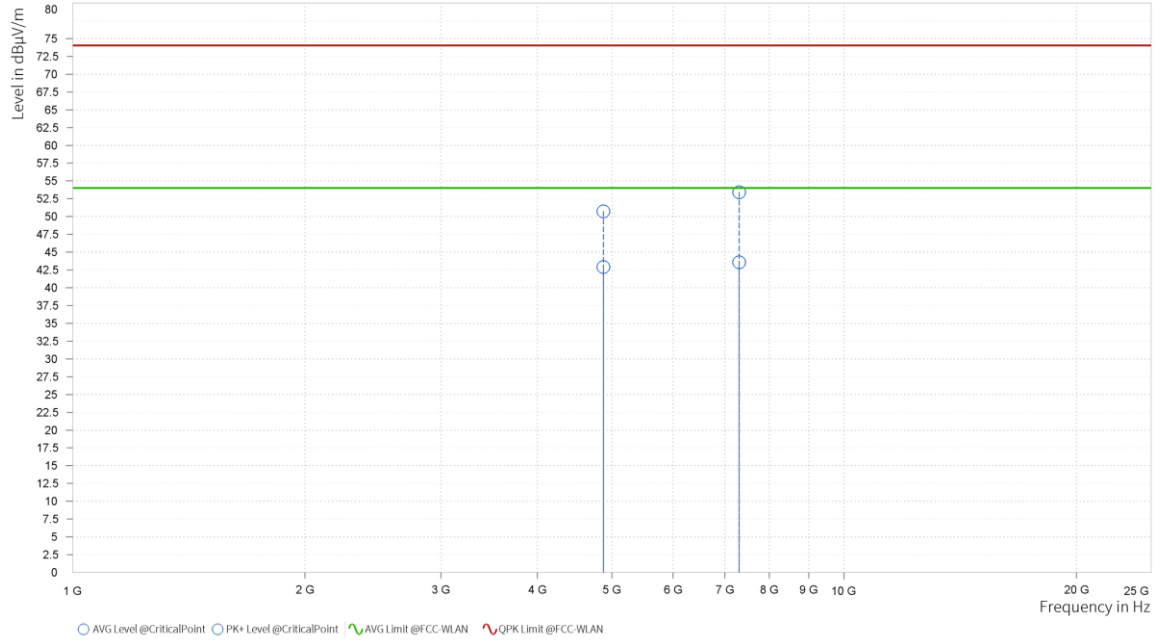
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| 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 | 4,874.000 | 52.26 | 74.00 | 21.74 | 45.14 | 54.00 | 8.86 | 13.85 | H | 359 | 2.00 |
| 3 | 7,311.000 | 52.41 | 74.00 | 21.59 | 43.67 | 54.00 | 10.33 | 19.48 | H | 0.9 | 2.00 |



**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

| 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 | 4,874.000 | 50.73 | 74.00 | 23.27 | 42.91 | 54.00 | 11.09 | 13.85 | V | 122.6 | 2.00 |
| 3 | 7,311.000 | 53.42 | 74.00 | 20.58 | 43.57 | 54.00 | 10.43 | 19.48 | V | 0.9 | 2.00 |



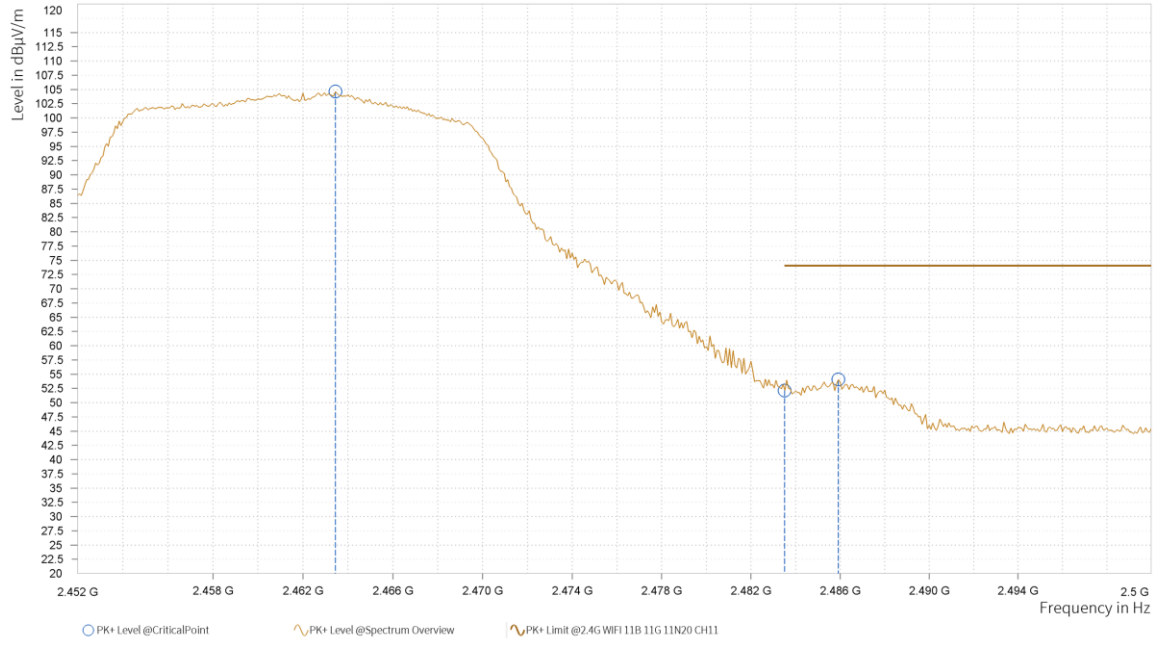

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2437MHz: Fundamental frequency.

| CHANNEL | TX Channel 11 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

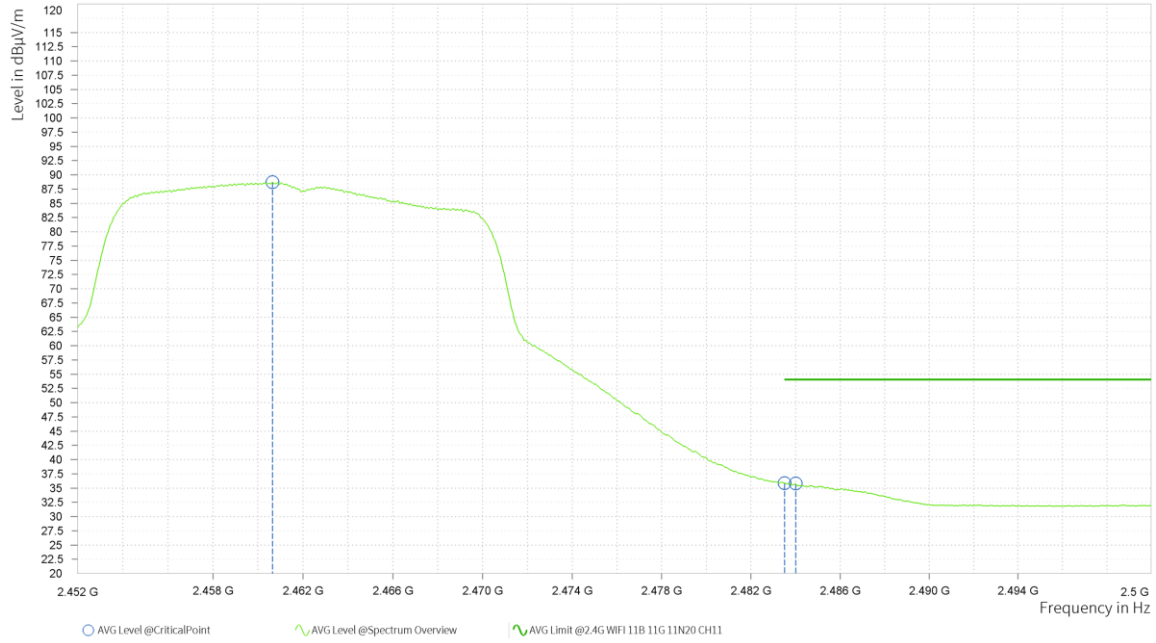
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 2 | 2,463.440 | 104.62 | | | 7.44 | H | 115.4 | 2.00 |
| 2 | 2,483.500 | 52.13 | 74.00 | 21.87 | 7.18 | H | 65.3 | 2.00 |
| 2 | 2,485.920 | 54.05 | 74.00 | 19.95 | 7.14 | H | 115.4 | 2.00 |

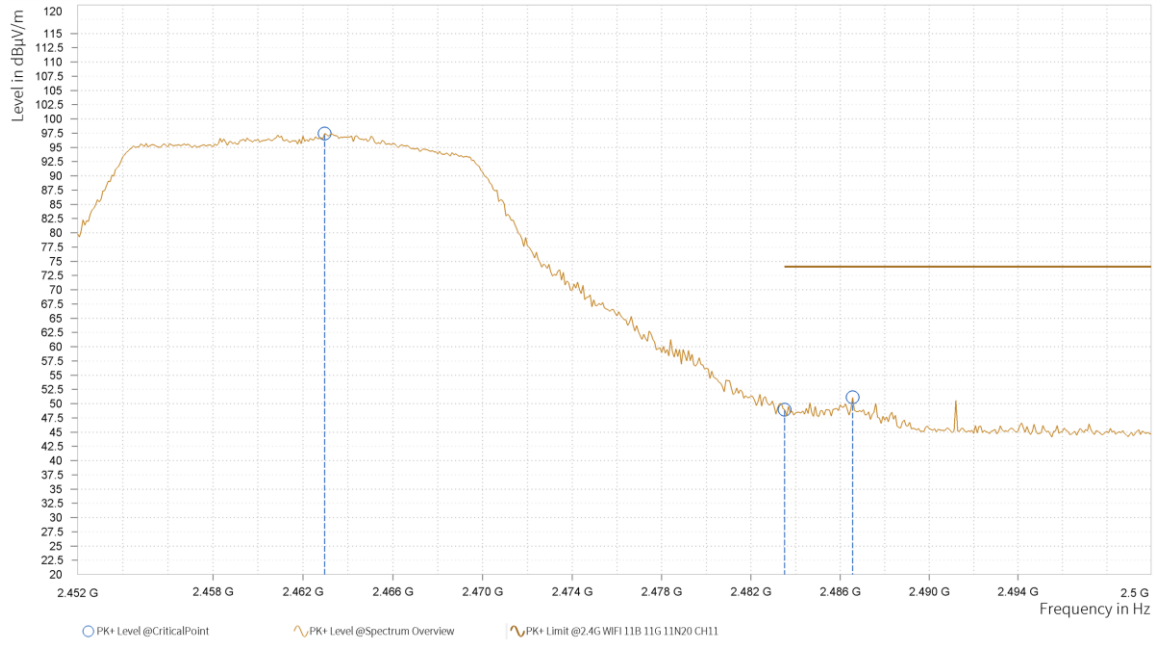


**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

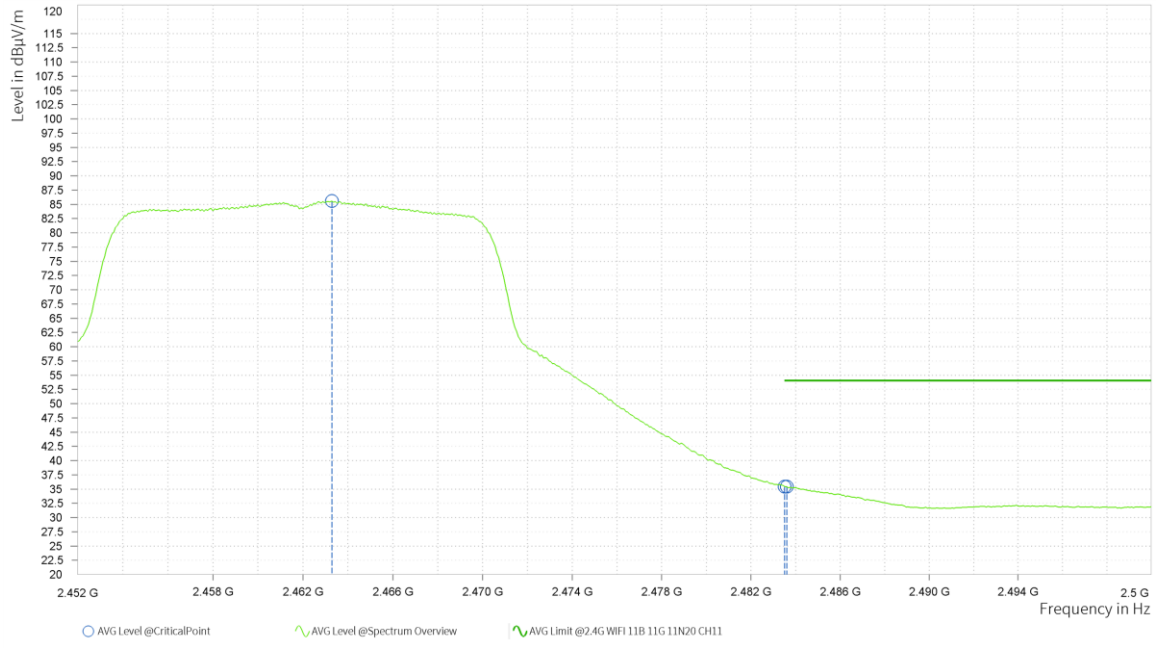
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 2 | 2,460.640 | 88.74 | | | 7.41 | H | 263.6 | 2.00 |
| 2 | 2,483.500 | 35.86 | 54.00 | 18.14 | 7.18 | H | 5.2 | 1.00 |
| 2 | 2,484.000 | 35.79 | 54.00 | 18.21 | 7.17 | H | 5.2 | 1.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 2 | 2,462.960 | 97.41 | | | 7.43 | V | 333 | 1.00 |
| 2 | 2,483.500 | 48.93 | 74.00 | 25.07 | 7.18 | V | 168.1 | 2.00 |
| 2 | 2,486.560 | 51.10 | 74.00 | 22.90 | 7.13 | V | 45 | 1.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 2 | 2,463.280 | 85.57 | | | 7.43 | V | 5.8 | 1.00 |
| 2 | 2,483.500 | 35.43 | 54.00 | 18.57 | 7.18 | V | 196.7 | 1.00 |
| 2 | 2,483.600 | 35.42 | 54.00 | 18.58 | 7.18 | V | 196.7 | 1.00 |



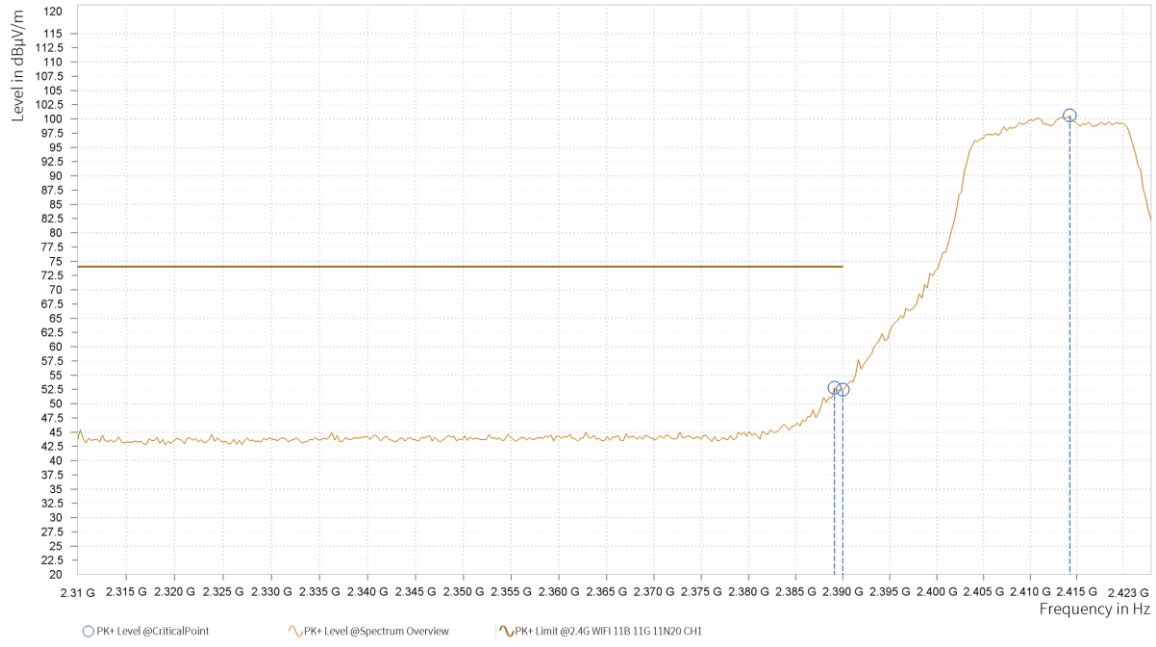

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2462MHz: Fundamental frequency.

| 802.11n (20MHz) | | | |
|---|---|---|---|
| **CHANNEL** | TX Channel 1 | **DETECTOR FUNCTION** | Peak (PK)<br>Average (AV) |
| **FREQUENCY RANGE** | 1GHz ~ 25GHz | | |

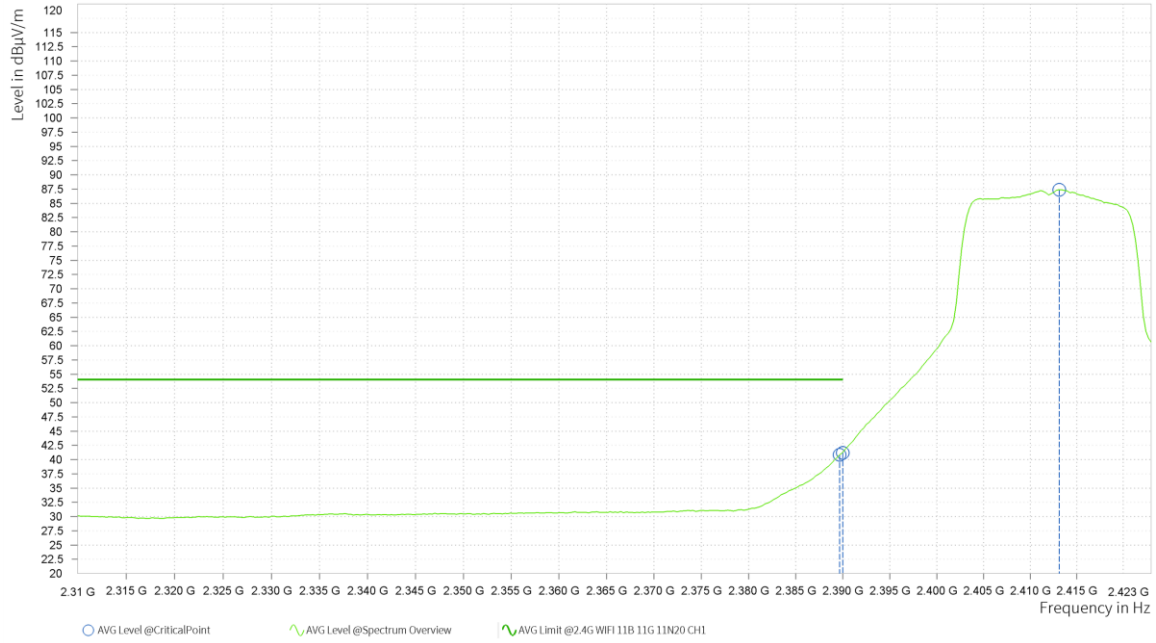
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,389.100 | 52.81 | 74.00 | 21.19 | 6.37 | H | 312.7 | 2.00 |
| 1 | 2,390.000 | 52.44 | 74.00 | 21.56 | 6.39 | H | 312.7 | 2.00 |
| 1 | 2,414.240 | 100.59 | | | 6.81 | H | 359 | 2.00 |

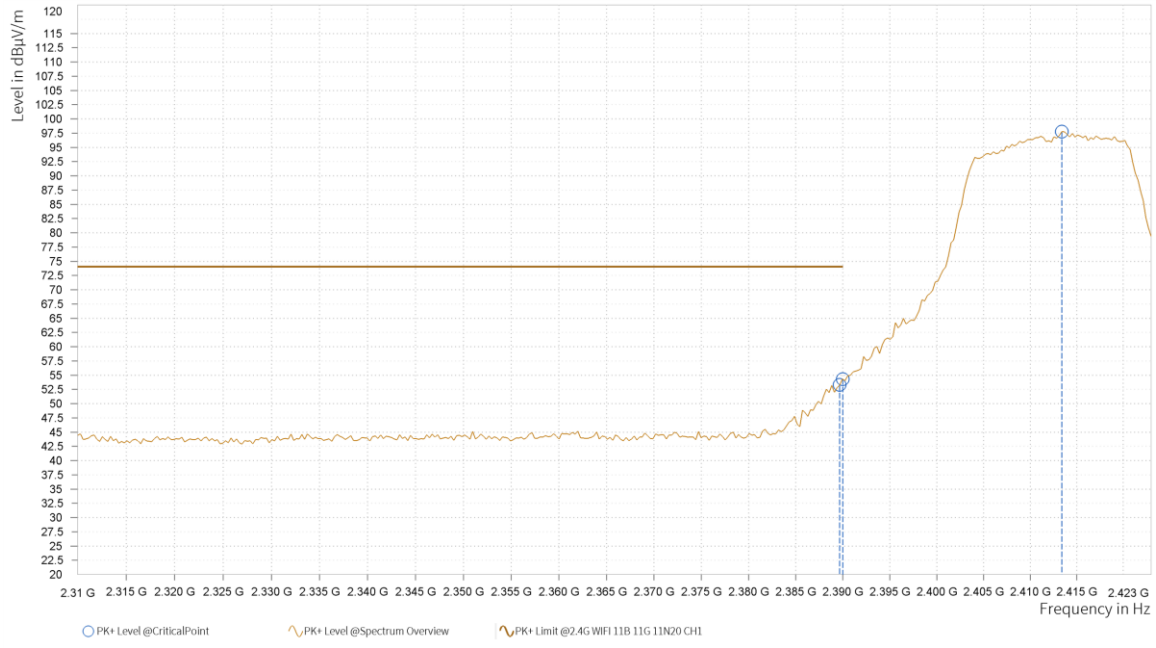


**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

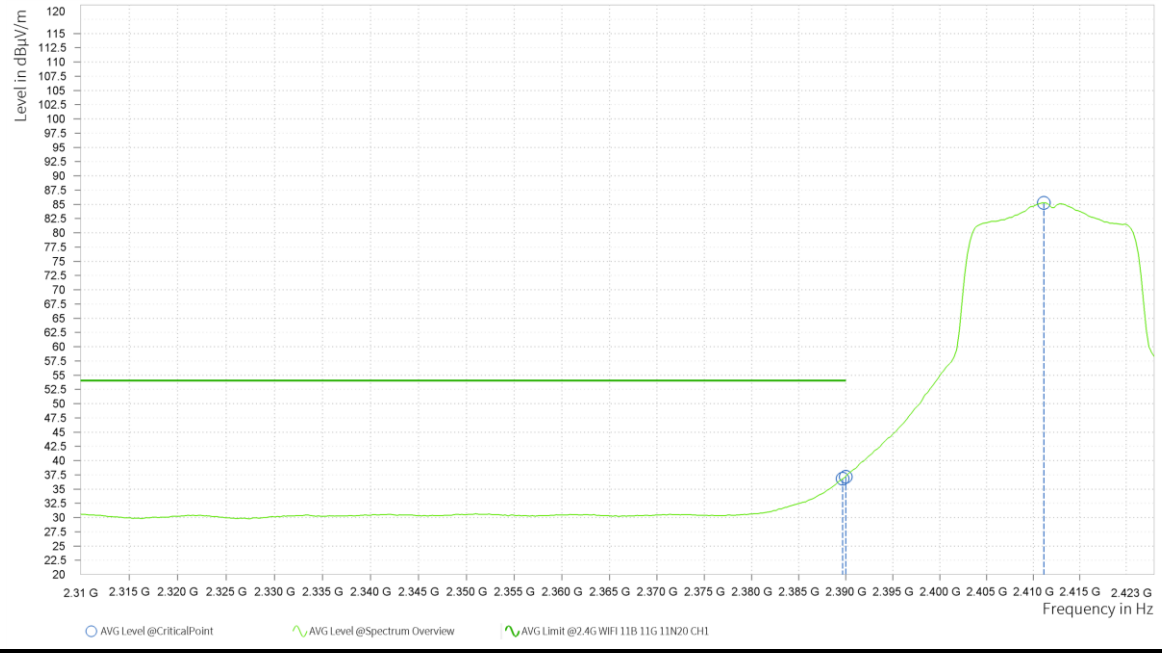
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,389.665 | 40.86 | 54.00 | 13.14 | 6.38 | H | 312.7 | 2.00 |
| 1 | 2,390.000 | 41.20 | 54.00 | 12.80 | 6.39 | H | 312.7 | 2.00 |
| 1 | 2,413.113 | 87.39 | | | 6.79 | H | 359 | 2.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 1 | 2,389.665 | 53.29 | 74.00 | 20.71 | 6.38 | V | 48.6 | 1.00 |
| 1 | 2,390.000 | 54.33 | 74.00 | 19.67 | 6.39 | V | 48.6 | 1.00 |
| 1 | 2,413.395 | 97.78 | | | 6.79 | V | 249.4 | 1.00 |



| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rg | Frequency [MHz] | AVG Level [dBµV/m] | AVG Limit [dBµV/m] | AVG Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
| 1 | 2,389.665 | 36.80 | 54.00 | 17.20 | 6.38 | V | 33 | 1.00 |
| 1 | 2,390.000 | 37.15 | 54.00 | 16.85 | 6.39 | V | 33 | 1.00 |
| 1 | 2,411.135 | 85.27 | | | 6.75 | V | 359 | 2.00 |



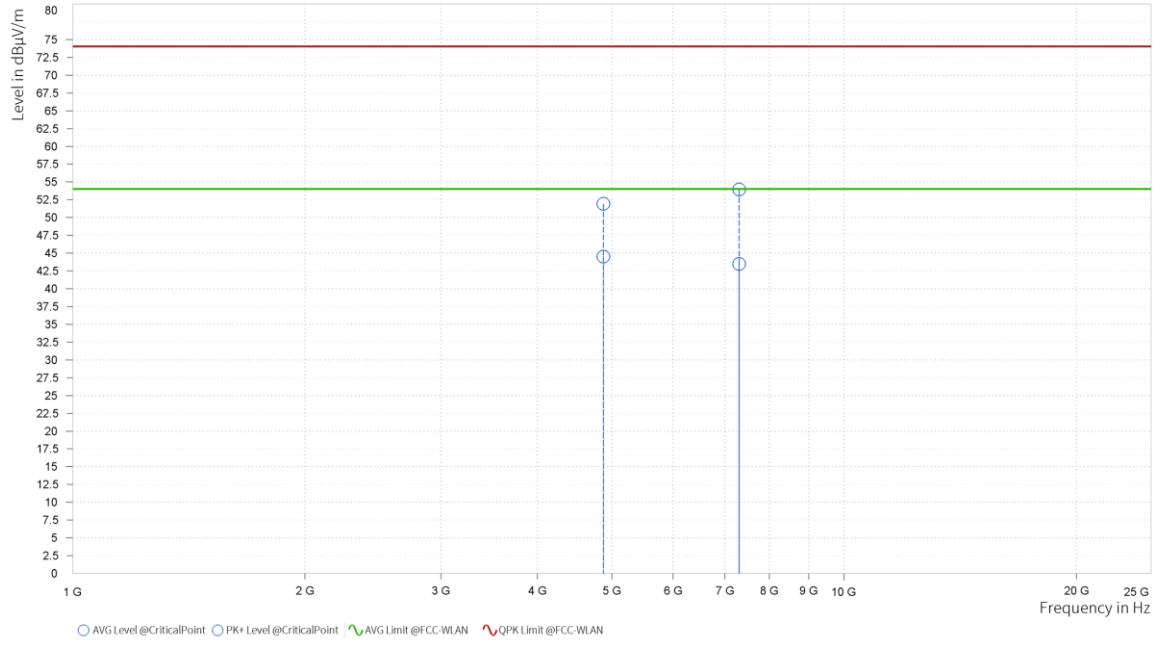

**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2412MHz: Fundamental frequency.

| CHANNEL | TX Channel 6 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

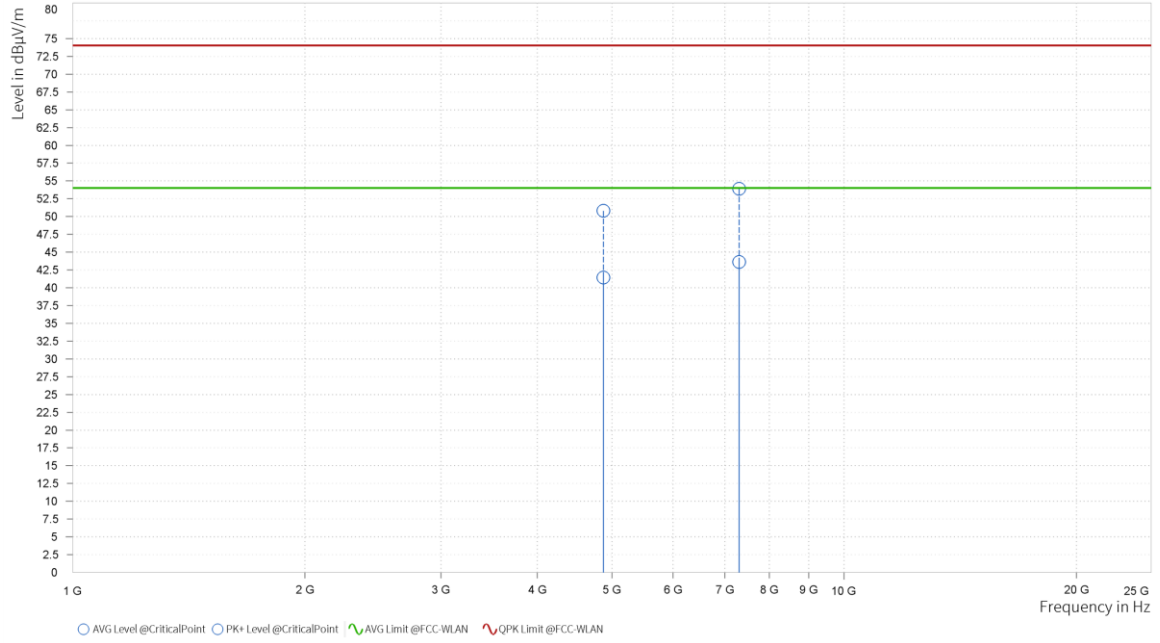
**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| 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 | 4,874.000 | 51.92 | 74.00 | 22.08 | 44.53 | 54.00 | 9.47 | 13.85 | H | 359 | 2.00 |
| 3 | 7,311.000 | 53.92 | 74.00 | 20.08 | 43.50 | 54.00 | 10.50 | 19.48 | H | 0.9 | 2.00 |



**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

| 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 | 4,874.000 | 50.80 | 74.00 | 23.20 | 41.43 | 54.00 | 12.57 | 13.85 | V | 359 | 2.00 |
| 3 | 7,311.000 | 53.88 | 74.00 | 20.12 | 43.60 | 54.00 | 10.40 | 19.48 | V | 359.1 | 1.00 |




**REMARKS:**

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 2437MHz: Fundamental frequency.

| CHANNEL | TX Channel 11 | DETECTOR FUNCTION | Peak (PK) |
|---|---|---|---|
| FREQUENCY RANGE | 1GHz ~ 25GHz | | Average (AV) |

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

| Rg | Frequency [MHz] | PK+ Level [dBµV/m] | PK+ Limit [dBµV/m] | PK+ Margin [dB] | Correction [dB] | Polarization | Azimuth [deg] | Antenna Height [m] |
|---|---|---|---|---|---|---|---|---|
| 2 | 2,463.680 | 99.92 | | | 7.44 | H | 310.4 | 2.00 |
| 2 | 2,483.500 | 50.97 | 74.00 | 23.03 | 7.18 | H | 355 | 2.00 |
| 2 | 2,483.760 | 54.09 | 74.00 | 19.91 | 7.17 | H | 9.9 | 1.00 |