Test Report No.:
FCC2025-0016-RF3

# TEST REPORT

| | | |
|---|---|---|
| **FCC ID** | : | 2AYXT61100004 |
| **Applicant** | : | Eight Sleep Inc |
| **Product Name** | : | Pod Hub |
| **Model No.** | : | 11504 |

## CVC Testing Technology Co., Ltd.

| | | | |
|---|---|---|---|
| **Product Name** | Pod Hub | **Trade Mark** | Eight Sleep |
| **Type/Model** | 11504 | **Sample Status** | / |
| **Applicant** | Eight Sleep Inc | | |
| **Applicant Address** | 915 Broadway STE 1301 New York, New York 10010 | | |
| **Manufacturer** | BoShiJie Technology Co., Ltd | | |
| **Manufacturer Address** | Boshijie Industrial Park, No. 1 Huifeng West Third Road, Zhongkai High-tech Zone, Huizhou City, Guangdong, China. 516006 | | |
| **Factory** | BoShiJie Technology Co., Ltd | | |
| **Factory Address** | Boshijie Industrial Park, No. 1 Huifeng West Third Road, Zhongkai High-tech Zone, Huizhou City, Guangdong, China. 516006 | | |
| **Sample Identification** | 1-1 | **Test Item** | See page 8 |
| **Tested According To** | FCC CFR47 Part 15E<br>ANSI C63.10-2020/Cor1-2023<br>KDB 789033 D02 General UNII Test Procedures New Rules v01r04<br>KDB 662911 D01 Multiple Transmitter Output v02r01<br>KDB905462 D02 UNII DFS Compliance Procedures New Rules v02<br>KDB 905462 D03 UNII Clients Without Radar Detection New Rules v01r02 | | |
| **Receiving Date** | March.19,2025 | **Completing Date** | March.28,2025~April.30,2025 |
| **Test conclusion** | The equipment under test was found to comply with the requirements of the standards applied.<br><br>Final Verdict：Pass.<br><br>Seal of CVC<br><br>Date of issue: **June.25,2025** | | |
| Abbreviations: / Pass= passed Fail = failed N/A= not applicable | | | |
| This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of **CVC**. | | | |

Approved by: **Chen Huawen**

Reviewed by: **Xu Zhenfei**

Tested by: **Li Yueao**

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| FCC2025-0016-RF3 | Original release | June.25,2025 |

# 1. General Product Information

## 1.1 General information

| | |
|---|---|
| Product Name | Pod Hub |
| Model No. | 11504 |
| Additional model | / |
| Power Supply | 110-240V AC 50-60Hz |
| Serial Number(SN) | / |
| specific power settings | IEEE 802.11a: 13<br>IEEE 802.11n(20MHz)/11n(40MHz): 14<br>IEEE 802.11ac(20MHz)/11ac (40MHz)/11ac (80MHz): 14 |
| Antenna Type | FPC antenna |
| Antenna Gain | U-NII-1: Ant1:-1.56 dBi, Ant2:-3.01 dBi (provided by client)<br>U-NII-3: Ant1:2.88 dBi, Ant2:4.07 dBi (provided by client) |
| Beamforming gain | Unsupported |
| Frequency Range | U-NII-1:<br>For 20MHz:5180-5240MHz<br>For 40MHz:5190-5230MHz<br>For 80MHz:5210MHz<br>U-NII-3:<br>For 20MHz:5745-5825MHz<br>For 40MHz:5755-5795MHz<br>For 80MHz:5775MHz |
| Modulation Type | 802.11a/n(HT20/HT40): 64QAM, 16QAM, QPSK, BPSK for OFDM<br>802.11ac(VHT20/VHT40/VHT80): 256QAM,64QAM,16QAM, QPSK,BPSK for OFDM |
| Max. Conducted Power | U-NII-1: 16.22 dBm<br>U-NII-3: 15.38 dBm |
| DFS device type | ☐Master ☐Slave with radar detection ☐Slave without radar detection |
| TPC Function | ☐Support ■Not support |
| TDWR Band | ☐Support ■Not support |
| Operate Temp.Range | -10℃~+70℃ |

Note：
1. The information of the EUT is declared by the manufacturer.
2. The laboratory is not responsible for the product technical specification provided by the client.
3. The product models of this application are: 11504. All the tests carried out on model 11504.
4. EUT photo refer to report (Report NO.:FCC2025-0016-EUT).
5. There are two power supplies, from different manufacturers.

| Power supply information | | |
|---|---|---|
| **No.** | **Manufacturer** | **MODEL** |
| 1 | Meanwell | LOP-400-12 |
| 2 | Megmeet | MAP400-12 |

6. This time, the main engine+bedspread was used for testing, and the test results covered other combinations.
7. There are four ways to sell this product in combination:1)Host+Bed cover,2)Host+Pillow,3)Host+Bed cover+Pillow,4)Host+Bed cover+blanket.

# 2. Test Sites

## 2.1 Test Facilities

The tests and measurements refer to this report were performed by RF testing Lab of CVC Testing Technology Co., Ltd.

Add.: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou,Guangdong,510663, People's Republic of China

Telephone : +86-20-32293888

Fax : +86-20-32293889

FCC(Test firm designation number：CN1282)

IC(Test firm CAB identifier number：CN0103)

CNAS(Test firm designation number：L0095)

## 2.2 Description of Non-standard Method and Deviations

The testing and measurement methods used in this report are applied by all standard methods. Not any non-standard method or deviation from the used standards was used.

## 2.3 List of Test and Measurement Instruments

Refer to **Appendix X**.

# 3. Test Configuration

## 3.1 Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

| Test Mode | Antenna Delivery | Test Channel |
|---|---|---|
| IEEE 802.11A | 1TX / 1RX | 36,44,48,149,157,165 |
| IEEE 802.11N 20 MIMO | 2TX / 2RX | 36,44,48,149,157,165 |
| IEEE 802.11N 40 MIMO | 2TX / 2RX | 38,46,151,159 |
| IEEE 802.11AC 20 MIMO | 2TX / 2RX | 36,44,48,149,157,165 |
| IEEE 802.11AC 40 MIMO | 2TX / 2RX | 38,46,151,159 |
| IEEE 802.11AC 80 MIMO | 2TX / 2RX | 42,155 |

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate and different channels.. Preliminary tests have been done on all the configurations for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates and channels are shown as following table.

| Test Mode | Antenna Delivery | Data Rate | | |
|---|---|---|---|---|
| | | Antenna 1 | Antenna 2 | MIMO |
| IEEE 802.11A | 1TX / 1RX | 6 | 6 | / |
| IEEE 802.11N 20MHz | 2TX / 2RX | MCS 0 | MCS 0 | MCS 8 |
| IEEE 802.11N 40MHz | 2TX / 2RX | MCS 0 | MCS 0 | MCS 8 |
| IEEE 802.11AC 20MHz | 2TX / 2RX | MCS 0 | MCS 0 | MCS 8 |
| IEEE 802.11AC 40MHz | 2TX / 2RX | MCS 0 | MCS 0 | MCS 8 |
| IEEE 802.11AC 80MHz | 2TX / 2RX | MCS 0 | MCS 0 | MCS 8 |

| Test Items | Test Antennas | Test Modes | Test Channels |
|---|---|---|---|
| Maximum conducted output power | Antenna 1, Antenna 2, MIMO | IEEE 802.11A/ IEEE 802.11N 20/ IEEE 802.11N 40/ IEEE 802.11AC 20/ IEEE 802.11AC 40/ IEEE 802.11AC 80 | 36,44,48,149,157,165/ 36,44,48,149,157,165/ 38,46,151,159/ 36,44,48,149,157,165/ 38,46,151,159/ 42,155 |
| Maximum Power spectral density | Antenna 1, Antenna 2, MIMO | IEEE 802.11A/ IEEE 802.11N 20/ IEEE 802.11N 40/ IEEE 802.11AC 20/ IEEE 802.11AC 40/ IEEE 802.11AC 80 | 36,44,48,149,157,165/ 36,44,48,149,157,165/ 38,46,151,159/ 36,44,48,149,157,165/ 38,46,151,159/ 42,155 |
| Unwanted Emissions (Band Edge Measurement) | MIMO | IEEE 802.11AC 20 | 36,48,149,165 |
| Unwanted Emissions (Spurious Emissions) | MIMO | IEEE 802.11AC 20 | 36,44,48,149,157,165 |
| Min Emission Bandwidth and Emission Bandwidth and Occupied Bandwidth | Antenna 1, Antenna 2 | IEEE 802.11A/ IEEE 802.11N 20/ IEEE 802.11N 40/ IEEE 802.11AC 20/ IEEE 802.11AC 40/ IEEE 802.11AC 80 | 36,44,48,149,157,165/ 36,44,48,149,157,165/ 38,46,151,159/ 36,44,48,149,157,165/ 38,46,151,159/ 42,155 |
| Frequency stability | Antenna 1, Antenna 2 | IEEE 802.11A/ IEEE 802.11N 20/ IEEE 802.11N 40/ IEEE 802.11AC 20/ IEEE 802.11AC 40/ IEEE 802.11AC 80 | 36,44,48,149,157,165/ 36,44,48,149,157,165/ 38,46,151,159/ 36,44,48,149,157,165/ 38,46,151,159/ 42,155 |

## 3.2 Duty cycle

Appendix B of WIFI5G_ diagram

# 4. Summary of measurement results

| Summary of measurements of results | Clause in FCC rules | Verdict | Note |
|---|---|---|---|
| Conducted Emissions | 15.207 | PASS | / |
| Maximum conducted output power | 15.407(a) | PASS | Appendix C of WIFI5G_ diagram |
| Maximum Power spectral density | 15.407(a) | PASS | Appendix D of WIFI5G_ diagram |
| Unwanted Emissions | 15.407(b) | PASS | / |
| Min Emission Bandwidth and Emission Bandwidth and Occupied Bandwidth | 15.407(e), 15.407(a) | PASS | Appendix A of WIFI5G_ diagram |
| Frequency stability | 15.407(g) | PASS | Appendix E of WIFI5G_ diagram |
| Dynamic Frequency Selection (DFS) | 15.407(h) | PASS | / |
| Antenna Requirement | 15.203 | PASS | See note 1 |

Note 1: According to 15.203, it is considered sufficient to comply with the provisions of this section.

# 5. Measurement procedure

## 5.1 Conducted Emission

### Ambient condition:

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.2kPa |

### Method of Measurement:

The EUT IS placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.10-2020/Cor1-2023.Connect the AC power line of the EUT to the LISN Use EMI receiver to detect the average and Quasi-peak value. RBW is set to 9kHz, VBW is set to 30kHz The measurement result should include both L line and N line.
The test is in transmitting mode.

### Limits:

| Frequency (MHz) | Conducted Limits(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.<br>Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz. | | |

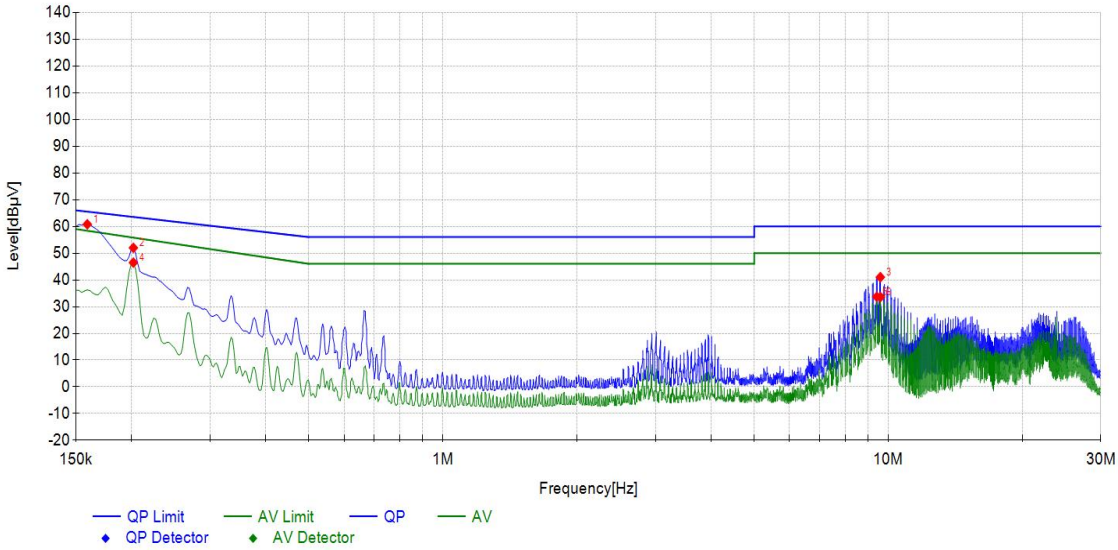
# Test Results:

During the test, the Conducted Emission from 150kHz to 30MHz was carried out in 2 power modes, in all modes of WIFI, on all channels and all antennas. Power supply 1#, 802.11ac20, Channel 36, MIMO are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

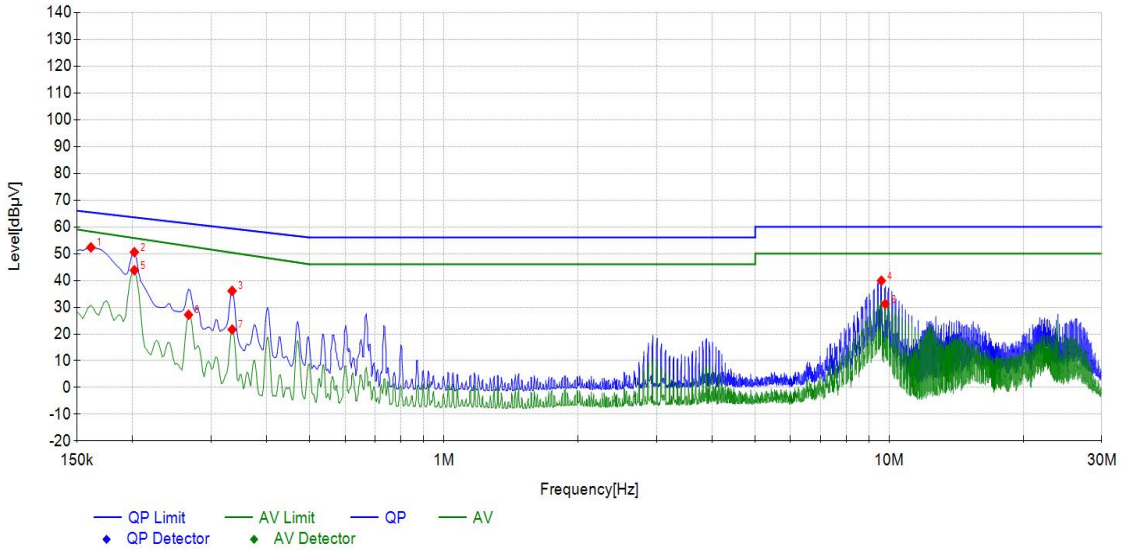
| Radiates Emission | 150k~30MHz |
|---|---|
| Power Line | L |
| Test channel | Worst-Case |

**Suspected List**

| Freq. [MHz] | Factor [dB] | Reading [dBµV] | Level [dBµV] | Limit [dBµV] | Margin [dB] | Detector | Type | Pass/Fail |
|---|---|---|---|---|---|---|---|---|
| 0.159 | 10.29 | 50.49 | 60.78 | 65.52 | 4.74 | QP | L | PASS |
| 0.2018 | 10.28 | 41.71 | 51.99 | 63.54 | 11.55 | QP | L | PASS |
| 9.6 | 10.98 | 30.03 | 41.01 | 60.00 | 18.99 | QP | L | PASS |
| 0.2018 | 10.28 | 36.19 | 46.47 | 55.80 | 9.33 | AV | L | PASS |
| 9.4222 | 10.95 | 22.75 | 33.70 | 50.00 | 16.30 | AV | L | PASS |
| 9.6068 | 10.98 | 22.60 | 33.58 | 50.00 | 16.42 | AV | L | PASS |



| Radiates Emission | 150k~30MHz | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Power Line | N | | | | | | | |
| Test channel | Worst-Case | | | | | | | |
| **Suspected List** | | | | | | | | |
| Freq. [MHz] | Factor [dB] | Reading [dBµV] | Level [dBµV] | Limit [dBµV] | Margin [dB] | Detector | Type | Pass/Fail |
| 0.1612 | 10.27 | 42.05 | 52.32 | 65.40 | 13.08 | QP | N | PASS |
| 0.2018 | 10.28 | 40.25 | 50.53 | 63.54 | 13.01 | QP | N | PASS |
| 0.3345 | 10.27 | 25.81 | 36.08 | 59.34 | 23.26 | QP | N | PASS |
| 9.6 | 10.95 | 28.91 | 39.86 | 60.00 | 20.14 | QP | N | PASS |
| 0.2018 | 10.28 | 33.49 | 43.77 | 55.80 | 12.03 | AV | N | PASS |
| 0.267 | 10.28 | 16.90 | 27.18 | 52.77 | 25.59 | AV | N | PASS |
| 0.3345 | 10.27 | 11.37 | 21.64 | 50.34 | 28.70 | AV | N | PASS |
| 9.7912 | 10.99 | 20.22 | 31.21 | 50.00 | 18.79 | AV | N | PASS |



# 5.2 Unwanted Emission

## Ambient condition:

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.2kPa |

## Method of Measurement:

The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
The antenna 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.
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 (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading.
The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Above 1GHz test procedure as below:
Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter( Above 18GHz the distance is 1 meter and table is 1.5 meter)..
Test the EUT in the lowest channel ,the middle channel ,the Highest channel
The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.
Repeat above procedures until all frequencies measured was complete.

## Limits:

1. For transmitters operating in the 5725-5850 MHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
2. For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).
3. For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).
4. For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

Note: the following formula is used to convert the EIRP to field strength

§1、E[dBμV/m] = EIRP[dBm] - 20 log(d[meters]) + 104.77, where E = field strength and

d = distance at which field strength limit is specified in the rules;

§2、E[dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters

5. Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table.

| Frequency | Limit (μV/m ) | Limit (dBμV/m @3m) | Remark |
|---|---|---|---|
| 0.009MHz-0.490MHz | 2400/F(kHz)@300m | 20lg(24000000/F(kHz)) | Quasi-peak Level |
| 0.490MHz~1.705MHz | 24000/F(kHz)@30m | 20lg(2400000/F(kHz)) | Quasi-peak Level |
| 1.705MHz~30.0MHz | 30@30m | 69.54 | Quasi-peak Level |
| 30MHz-88MHz | 100@3m | 40.0 | Quasi-peak Level |
| 88MHz-216MHz | 150@3m | 43.5 | Quasi-peak Level |
| 216MHz-960MHz | 200@3m | 46.0 | Quasi-peak Level |
| 960MHz-1GHz | 500@3m | 54.0 | Quasi-peak Level |
| Above 1GHz | 500@3m | 54.0 | Average Level |
| | 5000@3m | 74.0 | Peak Level |

## Measurement Data

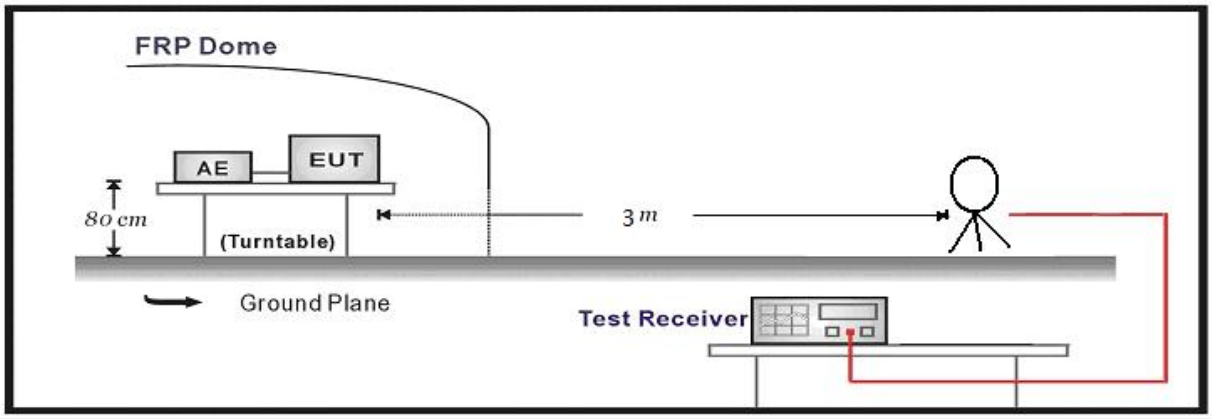
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading - Correct Factor

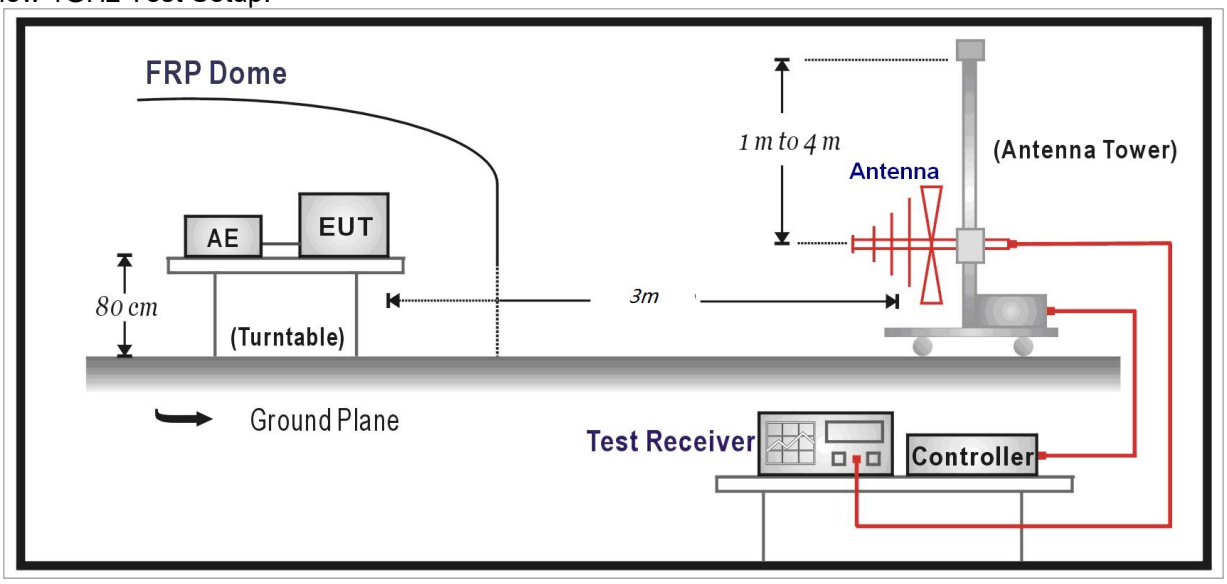
Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor

# Test Setup:

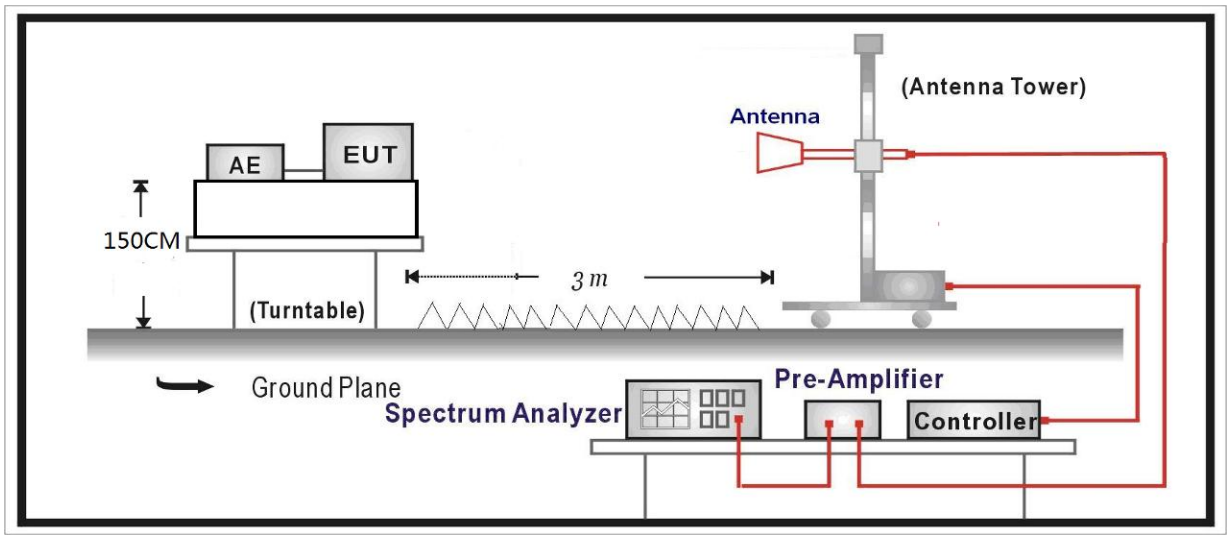
Below 30MHz Test Setup:




Below 1GHz Test Setup:




Above 1GHz Test Setup:



## Measurement Uncertainty：

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

| Frequency | Uncertainty |
|---|---|
| 9KHz-30MHz | 3.55 dB |
| 30MHz-200MHz | 4.19 dB |
| 200MHz-1GHz | 3.63 dB |
| 1GHz-26.5G | 3.68 dB |
| 26.5G-40GHz | 4.76dB |

## 5.2.1 SPURIOUS EMISSIONS:

### 5.2.1.1 Below 1GHz:

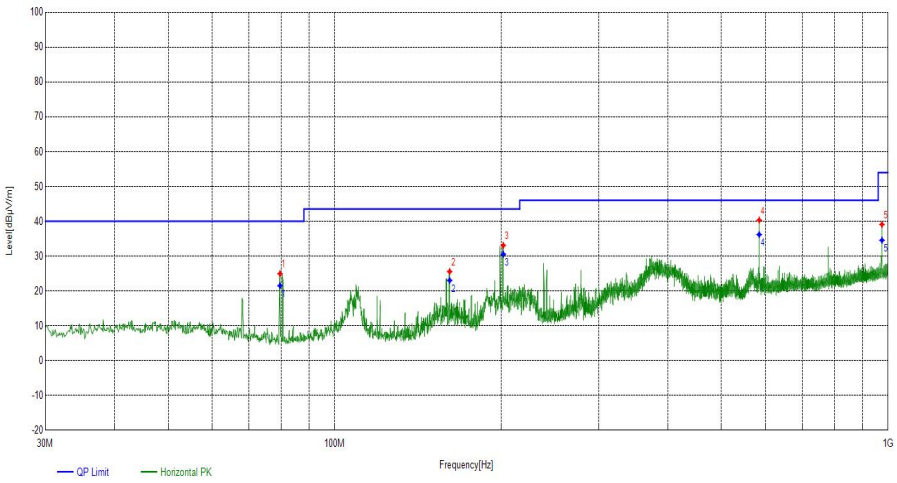
During the test, the Radiates Emission from 9kHz to 1GHz was carried out in 2 power modes, in all modes of WIFI, on all channels and all antennas. Power supply 1#,802.11ac20, Channel 36, MIMO are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

| Radiates Emission | 9k~1G |
|---|---|
| Test channel | Worst-Case |
| Polarity | Horizontal |

| Suspected List | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 79.669 | 8.76 | 16.19 | 24.95 | 40.00 | 15.05 | PK | 100 | 346 | PASS |
| 161.3511 | 10.13 | 15.43 | 25.56 | 43.50 | 17.94 | PK | 100 | 229 | PASS |
| 201.7072 | 12.93 | 20.15 | 33.08 | 43.50 | 10.42 | PK | 100 | 189 | PASS |
| 584.9925 | 21.76 | 18.56 | 40.32 | 46.00 | 5.68 | PK | 100 | 70 | PASS |
| 975.0685 | 26.57 | 12.53 | 39.10 | 54.00 | 14.90 | PK | 100 | 359 | PASS |

Note: 9kHz~30MHz have been test and test data more than 20dB margin.

| Final Data List | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency [MHz] | Factor [dB] | QP Value [dBμV/m] | QP Limit [dBμV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Pass/Fail |
| 79.669 | 8.76 | 21.51 | 40.00 | 18.49 | 325 | 312 | PASS |
| 161.3511 | 10.13 | 23.02 | 43.50 | 20.48 | 216 | 201 | PASS |
| 201.7072 | 12.93 | 30.54 | 43.50 | 12.96 | 198 | 163 | PASS |
| 584.9925 | 21.76 | 36.18 | 46.00 | 9.82 | 56 | 89 | PASS |
| 975.0685 | 26.57 | 34.55 | 54.00 | 19.45 | 298 | 303 | PASS |



| Radiates Emission | 9k~1G |
|---|---|
| Test channel | Worst-Case |
| Polarity | Vertical |

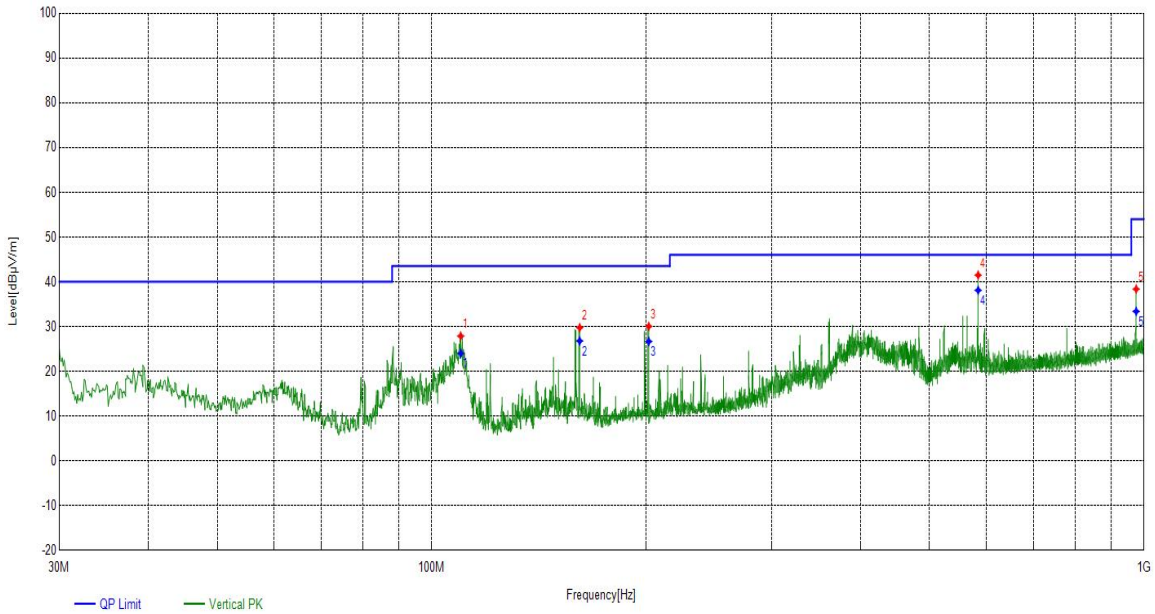
**Suspected List**

| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|
| 109.839 | 11.62 | 16.26 | 27.88 | 43.50 | 15.62 | PK | 100 | 245 | PASS |
| 161.3511 | 10.13 | 19.63 | 29.76 | 43.50 | 13.74 | PK | 100 | 146 | PASS |
| 201.7072 | 12.93 | 17.12 | 30.05 | 43.50 | 13.45 | PK | 100 | 179 | PASS |
| 584.9925 | 21.76 | 19.73 | 41.49 | 46.00 | 4.51 | PK | 100 | 8 | PASS |
| 975.0685 | 26.57 | 11.80 | 38.37 | 54.00 | 15.63 | PK | 100 | 8 | PASS |

Note: 9kHz~30MHz have been test and test data more than 20dB margin.

**Final Data List**

| Frequency [MHz] | Factor [dB] | QP Value [dBμV/m] | QP Limit [dBμV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 109.839 | 11.62 | 24.01 | 43.50 | 19.49 | 286 | 213 | PASS |
| 161.3511 | 10.13 | 26.79 | 43.50 | 16.71 | 216 | 186 | PASS |
| 201.7072 | 12.93 | 26.67 | 43.50 | 16.83 | 297 | 152 | PASS |
| 584.9925 | 21.76 | 38.11 | 46.00 | 7.89 | 128 | 82 | PASS |
| 975.0685 | 26.57 | 33.39 | 54.00 | 20.61 | 96 | 68 | PASS |



### 5.2.1.2 Above 1GHz:

During the test, the Radiates Emission from 1GHz to 40GHz was carried out in 2 power modes, in all modes of WIFI, on all channels and all antennas. Power supply 1#, 802.11ac20, Highest, medium, lowest channels, MIMO are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

#### 5.2.1.2.1 U-NII-1:

| Radiates Emission | Above 1GHz | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Test channel | Lowest | | | | | | | | |
| polarization | Horizontal | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7174.917492 | 9.00 | 35.16 | 44.16 | 74.00 | 29.84 | PK | 150 | 250 | PASS |
| 10328.83288 | 12.79 | 34.47 | 47.26 | 74.00 | 26.74 | PK | 150 | 310 | PASS |
| 14552.05520 | 18.19 | 33.26 | 51.45 | 74.00 | 22.55 | PK | 150 | 350 | PASS |
| 7174.917492 | 9.00 | 23.36 | 32.36 | 54.00 | 21.64 | AV | 150 | 40 | PASS |
| 10328.83288 | 12.79 | 20.86 | 33.65 | 54.00 | 20.35 | AV | 150 | 360 | PASS |
| 14552.05520 | 18.19 | 21.15 | 39.34 | 54.00 | 14.66 | AV | 150 | 10 | PASS |
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Lowest | | | | | | | | |
| polarization | Vertical | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7100.510051 | 8.97 | 35.45 | 44.42 | 74.00 | 29.58 | PK | 150 | 20 | PASS |
| 10376.83768 | 12.86 | 32.99 | 45.85 | 74.00 | 28.15 | PK | 150 | 60 | PASS |
| 14562.85628 | 18.15 | 33.42 | 51.57 | 74.00 | 22.43 | PK | 150 | 260 | PASS |
| 7100.510051 | 8.97 | 24.15 | 33.12 | 54.00 | 20.88 | AV | 150 | 20 | PASS |
| 10376.83768 | 12.86 | 21.41 | 34.27 | 54.00 | 19.73 | AV | 150 | 20 | PASS |
| 14562.85628 | 18.15 | 21.28 | 39.43 | 54.00 | 14.57 | AV | 150 | 150 | PASS |

Note: The emission levels of other frequencies were greater than 20dB margin.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Medium | | | | | | | | |
| polarization | Horizontal | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7047.704771 | 8.96 | 35.89 | 44.85 | 74.00 | 29.15 | PK | 150 | 110 | PASS |
| 10216.02160 | 12.61 | 33.81 | 46.42 | 74.00 | 27.58 | PK | 150 | 200 | PASS |
| 14559.25592 | 18.17 | 33.62 | 51.79 | 74.00 | 22.21 | PK | 150 | 100 | PASS |
| 7047.704771 | 8.96 | 23.25 | 32.21 | 54.00 | 21.79 | AV | 150 | 80 | PASS |
| 10216.02160 | 12.61 | 21.50 | 34.11 | 54.00 | 19.89 | AV | 150 | 20 | PASS |
| 14559.25592 | 18.17 | 23.03 | 41.20 | 54.00 | 12.80 | AV | 150 | 10 | PASS |
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Medium | | | | | | | | |
| polarization | Vertical | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7230.123012 | 9.01 | 36.35 | 45.36 | 74.00 | 28.64 | PK | 150 | 140 | PASS |
| 9785.178518 | 12.40 | 33.42 | 45.82 | 74.00 | 28.18 | PK | 150 | 310 | PASS |
| 14511.25112 | 18.34 | 33.42 | 51.76 | 74.00 | 22.24 | PK | 150 | 290 | PASS |
| 7230.123012 | 9.01 | 23.86 | 32.87 | 54.00 | 21.13 | AV | 150 | 10 | PASS |
| 9785.178518 | 12.40 | 21.29 | 33.69 | 54.00 | 20.31 | AV | 150 | 40 | PASS |
| 14511.25112 | 18.34 | 21.56 | 39.90 | 54.00 | 14.10 | AV | 150 | 10 | PASS |

Note: The emission levels of other frequencies were greater than 20dB margin.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Highest | | | | | | | | |
| polarization | Horizontal | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7126.912691 | 8.98 | 36.09 | 45.07 | 74.00 | 28.93 | PK | 150 | 110 | PASS |
| 10874.88748 | 12.69 | 33.91 | 46.60 | 74.00 | 27.40 | PK | 150 | 30 | PASS |
| 14534.05340 | 18.26 | 33.00 | 51.26 | 74.00 | 22.74 | PK | 150 | 150 | PASS |
| 7126.912691 | 8.98 | 23.69 | 32.67 | 54.00 | 21.33 | AV | 150 | 10 | PASS |
| 10874.88748 | 12.69 | 22.56 | 35.25 | 54.00 | 18.75 | AV | 150 | 10 | PASS |
| 14534.05340 | 18.26 | 21.21 | 39.47 | 54.00 | 14.53 | AV | 150 | 70 | PASS |
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Highest | | | | | | | | |
| polarization | Vertical | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7120.912091 | 8.98 | 35.49 | 44.47 | 74.00 | 29.53 | PK | 150 | 90 | PASS |
| 10326.43264 | 12.78 | 33.56 | 46.34 | 74.00 | 27.66 | PK | 150 | 300 | PASS |
| 14476.44764 | 18.28 | 33.08 | 51.36 | 74.00 | 22.64 | PK | 150 | 100 | PASS |
| 7120.912091 | 8.98 | 23.61 | 32.59 | 54.00 | 21.41 | AV | 150 | 50 | PASS |
| 10326.43264 | 12.78 | 21.74 | 34.52 | 54.00 | 19.48 | AV | 150 | 20 | PASS |
| 14476.44764 | 18.28 | 20.72 | 39.00 | 54.00 | 15.00 | AV | 150 | 70 | PASS |

Note: The emission levels of other frequencies were greater than 20dB margin.

**5.2.1.2.2 U-NII-3:**

| Radiates Emission | Above 1GHz | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Test channel | Lowest | | | | | | | | |
| polarization | Horizontal | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7018.90189 | 8.95 | 35.61 | 44.56 | 74.00 | 29.44 | PK | 150 | 50 | PASS |
| 10274.82748 | 12.70 | 33.91 | 46.61 | 74.00 | 27.39 | PK | 150 | 320 | PASS |
| 14492.04920 | 18.35 | 33.27 | 51.62 | 74.00 | 22.38 | PK | 150 | 260 | PASS |
| 7018.90189 | 8.95 | 23.36 | 32.31 | 54.00 | 21.69 | AV | 150 | 40 | PASS |
| 10274.82748 | 12.70 | 21.33 | 34.03 | 54.00 | 19.97 | AV | 150 | 30 | PASS |
| 14492.04920 | 18.35 | 20.87 | 39.22 | 54.00 | 14.78 | AV | 150 | 20 | PASS |
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Lowest | | | | | | | | |
| polarization | Vertical | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7302.130213 | 8.99 | 36.62 | 45.61 | 74.00 | 28.39 | PK | 150 | 210 | PASS |
| 9920.792079 | 12.38 | 34.18 | 46.56 | 74.00 | 27.44 | PK | 150 | 280 | PASS |
| 14372.03720 | 17.79 | 33.03 | 50.82 | 74.00 | 23.18 | PK | 150 | 280 | PASS |
| 7302.130213 | 8.99 | 23.08 | 32.07 | 54.00 | 21.93 | AV | 150 | 80 | PASS |
| 9920.792079 | 12.38 | 21.26 | 33.64 | 54.00 | 20.36 | AV | 150 | 10 | PASS |
| 14372.03720 | 17.79 | 20.34 | 38.13 | 54.00 | 15.87 | AV | 150 | 220 | PASS |

Note: The emission levels of other frequencies were greater than 20dB margin.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Medium | | | | | | | | |
| polarization | Horizontal | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7129.312931 | 8.98 | 35.20 | 44.18 | 74.00 | 29.82 | PK | 150 | 50 | PASS |
| 9858.385839 | 12.39 | 33.69 | 46.08 | 74.00 | 27.92 | PK | 150 | 30 | PASS |
| 14487.24872 | 18.32 | 33.31 | 51.63 | 74.00 | 22.37 | PK | 150 | 230 | PASS |
| 7129.312931 | 8.98 | 23.42 | 32.40 | 54.00 | 21.60 | AV | 150 | 10 | PASS |
| 9858.385839 | 12.39 | 20.91 | 33.30 | 54.00 | 20.70 | AV | 150 | 40 | PASS |
| 14487.24872 | 18.32 | 21.81 | 40.13 | 54.00 | 13.87 | AV | 150 | 10 | PASS |
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Medium | | | | | | | | |
| polarization | Vertical | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7102.910291 | 8.97 | 35.30 | 44.27 | 74.00 | 29.73 | PK | 150 | 130 | PASS |
| 10451.24512 | 12.86 | 33.66 | 46.52 | 74.00 | 27.48 | PK | 150 | 10 | PASS |
| 14583.25832 | 18.07 | 33.11 | 51.18 | 74.00 | 22.82 | PK | 150 | 280 | PASS |
| 7102.910291 | 8.97 | 23.50 | 32.47 | 54.00 | 21.53 | AV | 150 | 20 | PASS |
| 10451.24512 | 12.86 | 20.87 | 33.73 | 54.00 | 20.27 | AV | 150 | 60 | PASS |
| 14583.25832 | 18.07 | 21.59 | 39.66 | 54.00 | 14.34 | AV | 150 | 30 | PASS |

Note: The emission levels of other frequencies were greater than 20dB margin.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Highest | | | | | | | | |
| polarization | Horizontal | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7810.981098 | 8.42 | 36.75 | 45.17 | 74.00 | 28.83 | PK | 150 | 220 | PASS |
| 10944.49444 | 11.69 | 34.62 | 46.31 | 74.00 | 27.69 | PK | 150 | 30 | PASS |
| 16081.00810 | 16.52 | 32.00 | 48.52 | 74.00 | 25.48 | PK | 150 | 200 | PASS |
| 7810.981098 | 8.42 | 24.41 | 32.83 | 54.00 | 21.17 | AV | 150 | 30 | PASS |
| 10944.49444 | 11.69 | 22.72 | 34.41 | 54.00 | 19.59 | AV | 150 | 50 | PASS |
| 16081.00810 | 16.52 | 19.98 | 36.50 | 54.00 | 17.50 | AV | 150 | 40 | PASS |
| Radiates Emission | Above 1GHz | | | | | | | | |
| Test channel | Highest | | | | | | | | |
| polarization | Vertical | | | | | | | | |
| **Suspected List** | | | | | | | | | |
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/Fail |
| 7666.9667 | 8.37 | 36.64 | 45.01 | 74.00 | 28.99 | PK | 150 | 260 | PASS |
| 10115.2115 | 11.66 | 33.69 | 45.35 | 74.00 | 28.65 | PK | 150 | 30 | PASS |
| 12832.2832 | 12.86 | 33.21 | 46.07 | 74.00 | 27.93 | PK | 150 | 290 | PASS |
| 7662.1662 | 8.37 | 25.83 | 34.20 | 54.00 | 19.80 | AV | 150 | 10 | PASS |
| 10271.2271 | 11.83 | 23.74 | 35.57 | 54.00 | 18.43 | AV | 150 | 10 | PASS |
| 12792.6793 | 12.76 | 22.92 | 35.68 | 54.00 | 18.32 | AV | 150 | 10 | PASS |

Note: The emission levels of other frequencies were greater than 20dB margin.

### 5.2.2 Band edge measurements (Radiates):

## Test Results:

U-NII-1: 5150-5250MHz:

During the test, the Band Edge was performed in WIFI all modes with all channels and all antennas. 802.11ac20, MIMO are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

| | |
|---|---|
| Test mode | 802.11ac20 |
| Test channel | Lowest channel |
| polarization | Horizontal |

| Suspected List | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
| 4892.3892 | 1.23 | 40.23 | 41.46 | 74.00 | 32.54 | PK | 150 | 96 | PASS |
| 5076.9076 | 1.92 | 44.61 | 46.53 | 74.00 | 27.47 | PK | 150 | 109 | PASS |
| 5150.4150 | 2.14 | 57.80 | 59.94 | 74.00 | 14.06 | PK | 150 | 102 | PASS |
| 4892.3892 | 1.23 | 27.94 | 29.17 | 54.00 | 24.83 | AV | 150 | 134 | PASS |
| 5076.9076 | 1.92 | 28.53 | 30.45 | 54.00 | 23.55 | AV | 150 | 109 | PASS |
| 5150.4150 | 2.14 | 39.96 | 42.10 | 54.00 | 11.90 | AV | 150 | 115 | PASS |

| | |
|---|---|
| Test mode | 802.11ac20 |
| Test channel | Lowest channel |
| polarization | Vertical |

| Suspected List | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
| 4831.3831 | 0.98 | 40.61 | 41.59 | 74.00 | 32.41 | PK | 150 | 19 | PASS |
| 4965.3965 | 1.54 | 40.62 | 42.16 | 74.00 | 31.84 | PK | 150 | 124 | PASS |
| 5150.4150 | 2.14 | 52.79 | 54.93 | 74.00 | 19.07 | PK | 150 | 131 | PASS |
| 4831.3831 | 0.98 | 28.13 | 29.11 | 54.00 | 24.89 | AV | 150 | 321 | PASS |
| 4965.3965 | 1.54 | 28.31 | 29.85 | 54.00 | 24.15 | AV | 150 | 354 | PASS |
| 5150.4150 | 2.14 | 34.03 | 36.17 | 54.00 | 17.83 | AV | 150 | 65 | PASS |

| | |
|---|---|
| Test mode | 802.11ac20 |
| Test channel | Highest channel |
| polarization | Horizontal |

**Suspected List**

| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
|---|---|---|---|---|---|---|---|---|---|
| 5250.1862 | 2.69 | 42.36 | 45.05 | 74.00 | 28.95 | PK | 150 | 86 | PASS |
| 5360.9360 | 2.72 | 47.98 | 50.70 | 74.00 | 23.30 | PK | 150 | 180 | PASS |
| 5377.4377 | 2.75 | 42.52 | 45.27 | 74.00 | 28.73 | PK | 150 | 97 | PASS |
| 5250.1862 | 2.69 | 32.72 | 35.41 | 54.00 | 18.59 | AV | 150 | 134 | PASS |
| 5360.9360 | 2.72 | 30.79 | 33.51 | 54.00 | 20.49 | AV | 150 | 354 | PASS |
| 5377.4377 | 2.75 | 28.85 | 31.60 | 54.00 | 22.40 | AV | 150 | 354 | PASS |

| | |
|---|---|
| Test mode | 802.11ac20 |
| Test channel | Highest channel |
| polarization | Vertical |

**Suspected List**

| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
|---|---|---|---|---|---|---|---|---|---|
| 5250.1735 | 2.69 | 43.12 | 45.81 | 74.00 | 28.19 | PK | 150 | 129 | PASS |
| 5375.9375 | 2.75 | 39.24 | 41.99 | 74.00 | 32.01 | PK | 150 | 254 | PASS |
| 5413.9413 | 2.85 | 39.05 | 41.90 | 74.00 | 32.10 | PK | 150 | 51 | PASS |
| 5250.1735 | 2.69 | 33.12 | 35.81 | 54.00 | 18.19 | AV | 150 | 103 | PASS |
| 5375.9375 | 2.75 | 26.76 | 29.51 | 54.00 | 24.49 | AV | 150 | 57 | PASS |
| 5413.9413 | 2.85 | 26.78 | 29.63 | 54.00 | 24.37 | AV | 150 | 228 | PASS |

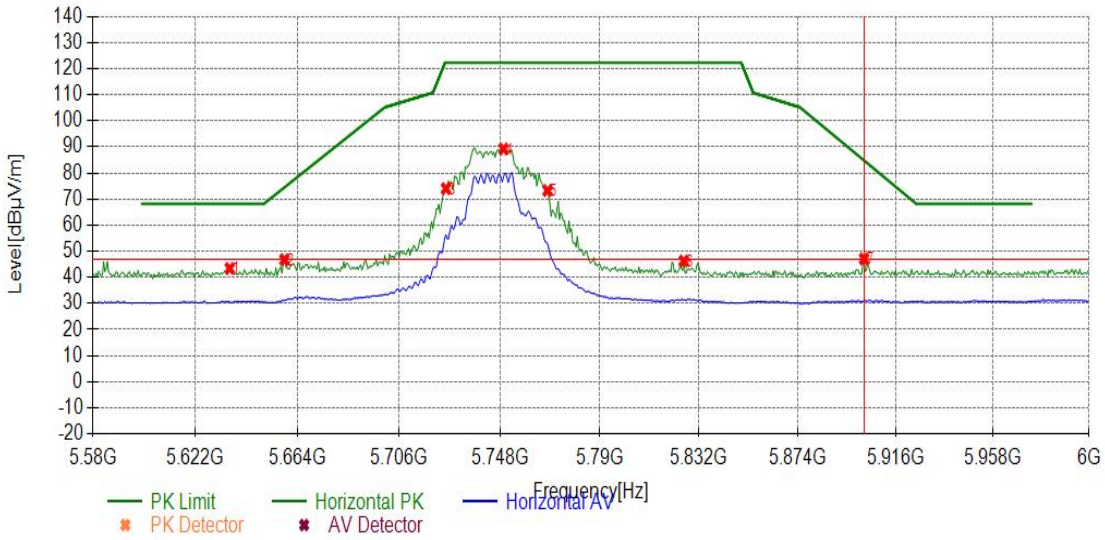
U-NII-3 5725-5850MHz：

During the test, the Band Edge was performed in WIFI all modes with all channels and all antennas. 802.11ac20, MIMO are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

| Test mode | 802.11ac20 |
|---|---|
| Test channel | Lowest channel |
| polarization | Horizontal |

**Suspected List**

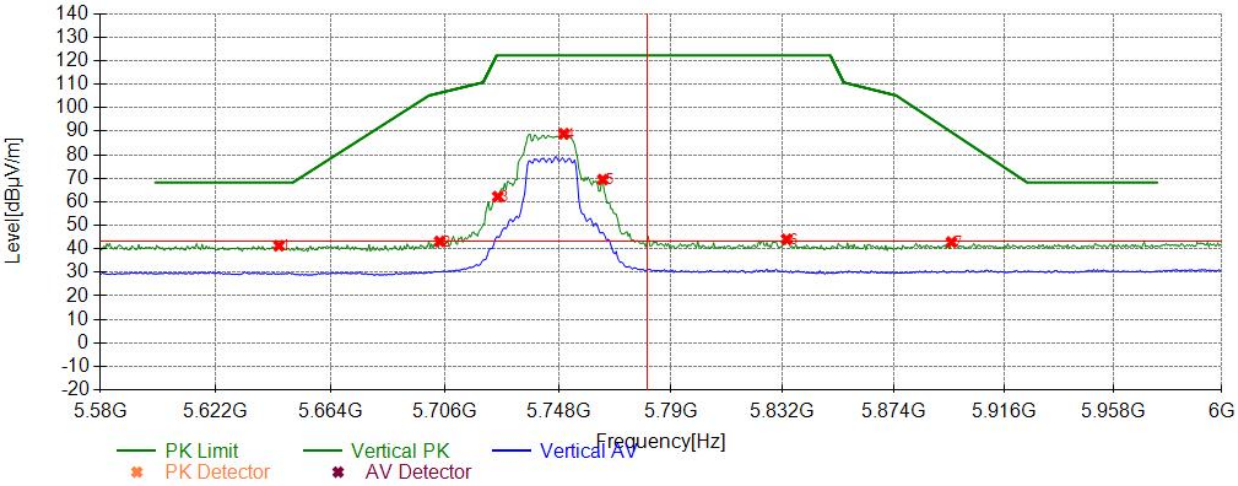
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
|---|---|---|---|---|---|---|---|---|---|
| 5635.9635 | 3.64 | 39.76 | 43.40 | 68.20 | 24.80 | PK | 150 | 90 | PASS |
| 5658.4658 | 3.73 | 43.02 | 46.75 | 74.49 | 27.74 | PK | 150 | 90 | PASS |
| 5725.4725 | 4.02 | 70.02 | 74.04 | 122.20 | 48.16 | PK | 150 | 90 | PASS |
| 5749.4749 | 4.12 | 85.11 | 89.23 | 122.20 | 32.97 | PK | 150 | 169 | PASS |
| 5767.9767 | 4.21 | 69.08 | 73.29 | 122.20 | 48.91 | PK | 150 | 90 | PASS |
| 5825.4825 | 4.46 | 41.83 | 46.29 | 122.20 | 75.91 | PK | 150 | 64 | PASS |
| 5902.4902 | 4.79 | 42.31 | 47.10 | 84.82 | 37.72 | PK | 150 | 90 | PASS |



| Test mode | 802.11ac20 |
|---|---|
| Test channel | Lowest channel |
| polarization | Vertical |

**Suspected List**

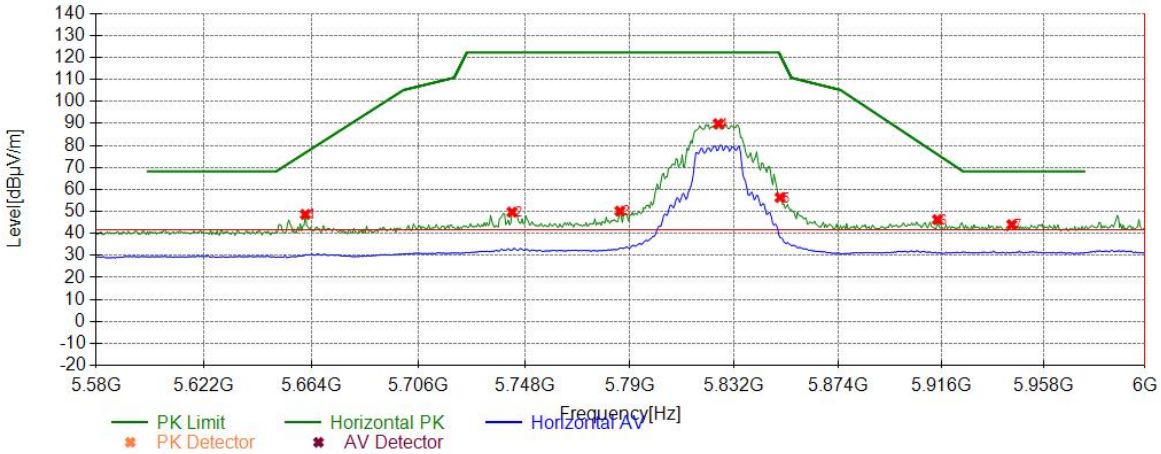
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
|---|---|---|---|---|---|---|---|---|---|
| 5644.9644 | 3.67 | 37.70 | 41.37 | 68.20 | 26.83 | PK | 150 | 89 | PASS |
| 5703.9703 | 3.93 | 39.23 | 43.16 | 106.31 | 63.15 | PK | 150 | 142 | PASS |
| 5725.4725 | 4.02 | 58.17 | 62.19 | 122.20 | 60.01 | PK | 150 | 169 | PASS |
| 5749.9749 | 4.12 | 84.84 | 88.96 | 122.20 | 33.24 | PK | 150 | 155 | PASS |
| 5764.4764 | 4.19 | 65.30 | 69.49 | 122.20 | 52.71 | PK | 150 | 289 | PASS |
| 5833.4833 | 4.49 | 39.56 | 44.05 | 122.20 | 78.15 | PK | 150 | 328 | PASS |
| 5895.9895 | 4.76 | 38.15 | 42.91 | 89.63 | 46.72 | PK | 150 | 308 | PASS |



| Test mode | 802.11ac20 |
|---|---|
| Test channel | Highest channel |
| polarization | Horizontal |

**Suspected List**

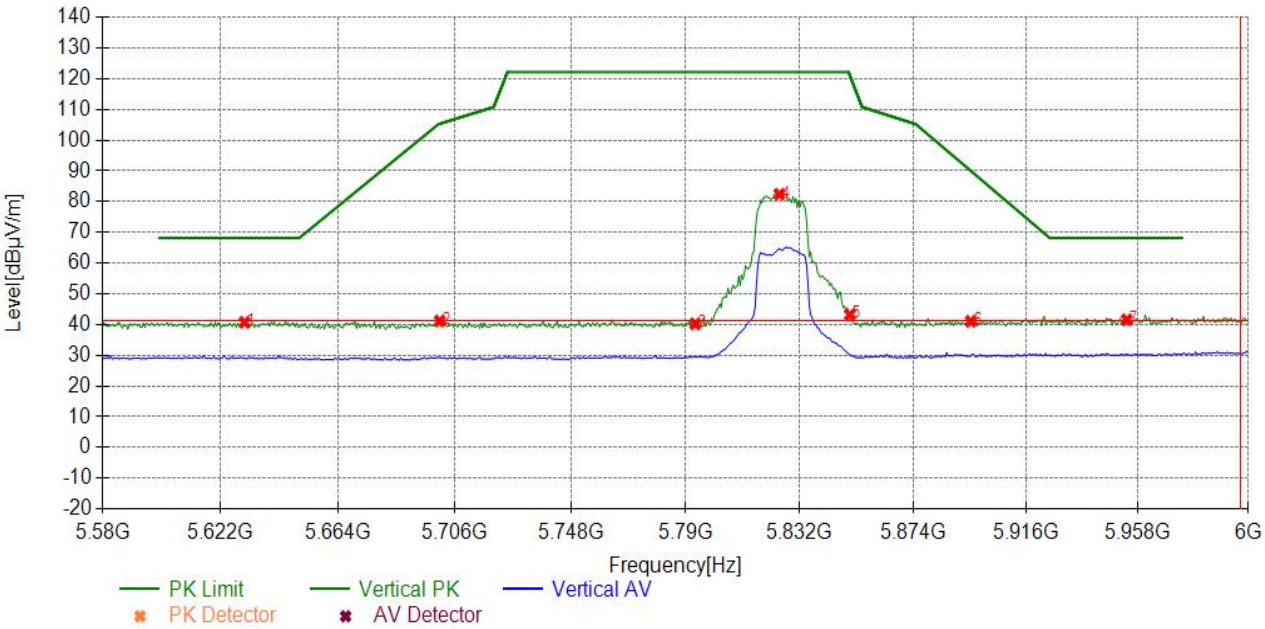
| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
|---|---|---|---|---|---|---|---|---|---|
| 5661.4661 | 3.75 | 44.91 | 48.66 | 76.71 | 28.05 | PK | 150 | 87 | PASS |
| 5742.9742 | 4.09 | 45.61 | 49.70 | 122.20 | 72.50 | PK | 150 | 322 | PASS |
| 5785.9785 | 4.28 | 45.86 | 50.14 | 122.20 | 72.06 | PK | 150 | 87 | PASS |
| 5825.4825 | 4.46 | 85.41 | 89.87 | 122.20 | 32.33 | PK | 150 | 342 | PASS |
| 5850.4850 | 4.56 | 51.79 | 56.35 | 121.09 | 64.74 | PK | 150 | 81 | PASS |
| 5914.4914 | 4.85 | 41.48 | 46.33 | 75.95 | 29.62 | PK | 150 | 48 | PASS |
| 5944.9944 | 4.98 | 39.02 | 44.00 | 68.20 | 24.20 | PK | 150 | 74 | PASS |



| Test mode | 802.11ac20 |
|---|---|
| Test channel | Highest channel |
| polarization | Vertical |

**Suspected List**

| Frequency [MHz] | Factor [dB] | Reading [dBμV/m] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Detector | Height [cm] | Angle deg | Pass/ Fail |
|---|---|---|---|---|---|---|---|---|---|
| 5655.4655 | 3.72 | 39.18 | 42.90 | 72.26 | 29.36 | PK | 150 | 195 | PASS |
| 5747.4747 | 4.12 | 39.17 | 43.29 | 122.20 | 78.91 | PK | 150 | 142 | PASS |
| 5795.9795 | 4.32 | 42.70 | 47.02 | 122.20 | 75.18 | PK | 150 | 84 | PASS |
| 5821.9821 | 4.43 | 84.96 | 89.39 | 122.20 | 32.81 | PK | 150 | 319 | PASS |
| 5850.4850 | 4.56 | 45.93 | 50.49 | 121.09 | 70.60 | PK | 150 | 84 | PASS |
| 5908.9908 | 4.82 | 38.48 | 43.30 | 80.01 | 36.71 | PK | 150 | 338 | PASS |
| 5954.4954 | 5.03 | 37.37 | 42.40 | 68.20 | 25.80 | PK | 150 | 116 | PASS |



# 5.3 Maximum conducted output power

## Ambient condition:

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.2kPa |

## Method of Measurement:

During the process of the testing, The EUT was connected to spectrum analyzer through an external attenuator and a known loss cable. The EUT is max power transmission with proper modulation. Use the Peak detector.

The conducted Power is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

## Limits:

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

| Frequency(MHz) | Antenna Gain(dBi) | | Directional gain | Power Limit Reduction |
|---|---|---|---|---|
| | Antenna 1 | Antenna 2 | | |
| 5150-5250 | -1.56 | -3.01 | 0.76 | 23.98 |
| 5725-5825 | 2.88 | 4.07 | 6.51 | 29.49 |

Refer to KDB662911 D01 Multiple Transmitter Output v02r01.

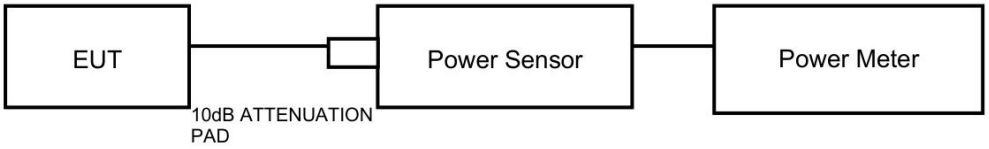
Note：B is the 26 dB emission bandwidth in megahertz.

Directional gain is to be computed as follows:

transmit signals are correlated, then

Directional gain = 10 log[$(10^{G_1/20} + 10^{G_2/20} + ... + 10^{G_N/20})^2 / N_{ANT}$] dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.

## Test Setup:




## Measurement Uncertainty：

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.44 dB.

# 5.4 Min Emission Bandwidth and Emission Bandwidth and Occupied Bandwidth

## Ambient condition:

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.2kPa |

## Method of Measurement:

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

For U-NII-1, set RBW ≈1% OCB kHz, VBW ≥ 3 × RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

For U-NII-3, Set RBW = 100 kHz, VBW ≥ 3 × RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

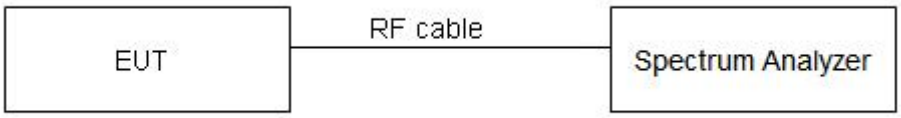
Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

Use the 99 % power bandwidth function of the instrument.

## Limits:

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

## Test Setup:




## Measurement Uncertainty：

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 936 Hz.

# 5.5 Maximum Power Spectral Density

## Ambient condition:

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.2kPa |

## Method of Measurement:

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

Set RBW = 500 kHz, VBW =1.5MHz for the band 5.725-5.85 GHz

Set RBW = 1 MHz, VBW =3MHz for the band 5.150-5.250 GHz

The conducted PSD is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

## Limits:

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

| Frequency Bands/MHz | Limits |
|---|---|
| 5150-5250 | 11dBm/MHz |
| 5.25-5.35 GHz and 5.47-5.725 GHz | 11dBm/MHz |
| 5725-5850 | 30dBm/500kHz |

| Frequency(MHz) | Antenna Gain(dBi) | | Directional gain | Limit |
|---|---|---|---|---|
| | Antenna 1 | Antenna 2 | | |
| 5150-5250 | -1.56 | -3.01 | 0.76 | 11.00dBm/MHz |
| 5725-5825 | 2.88 | 4.07 | 6.51 | 29.49dBm/500kHz |

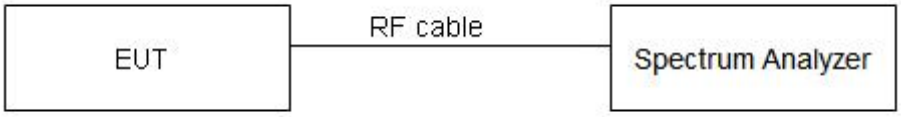
Refer to KDB662911 D01 Multiple Transmitter Output v02r01.

Directional gain is to be computed as follows:

transmit signals are correlated, then

Directional gain = 10 log[$(10^{G_1/20} + 10^{G_2/20} + ... + 10^{G_N/20})^2 / N_{ANT}$] dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.

## Test Setup:




## Measurement Uncertainty：

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.75dB.

# 5.6 Frequency Stability

## Ambient condition:

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.2kPa |

## Method of Measurement:

1. Frequency stability with respect to ambient temperature

a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.

b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.

c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.

e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.

f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

g) Measure the frequency at each of frequencies specified in 5.6.

h) Switch OFF the EUT but do not switch OFF the oscillator heater.

i) Lower the chamber temperature by not more that 10 C, and allow the temperature inside the chamber to stabilize.

j) Repeat step f) through step i) down to the lowest specified temperature.

2. Frequency stability when varying supply voltage

Unless otherwise specified, these tests shall be made at ambient room temperature (+15 C to +25 C). An antenna shall be connected to the antenna output terminals of the EUT if possible. If the EUT is equipped with or uses an adjustable-length antenna, then it shall be fully extended.

a) Supply the EUT with nominal voltage or install a new or fully charged battery in the EUT. Turn ON the EUT and couple its output to a frequency counter or other frequency-measuring instrument.

b) Tune the EUT to one of the number of frequencies required in 5.6. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

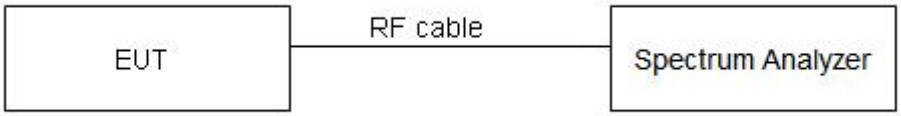
c) Measure the frequency at each of the frequencies specified in 5.6.

d) Repeat the above procedure at 85% and 115% of the nominal supply voltage.

## Limits:

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

## Test Setup:




## Measurement Uncertainty：

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 936 Hz.

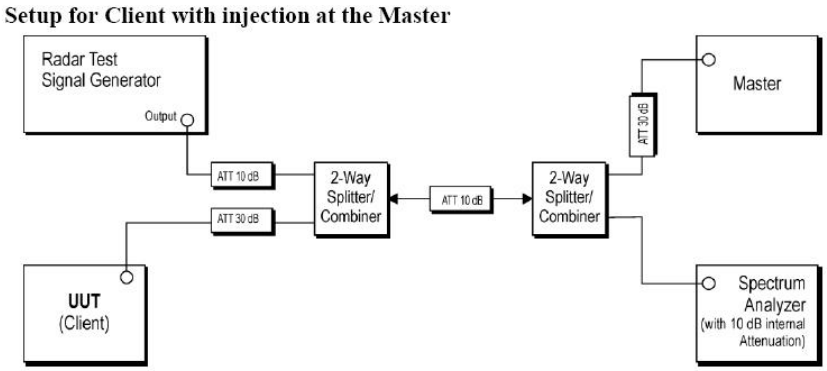
# 5.7 Dynamic Frequency Selection (DFS)

Ambient condition:

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.2kPa |

## 5.7.1 DFS detection threshold level

Test Setup:




Test Results:

Not required

### 5.7.2 UNII Detection Bandwidth

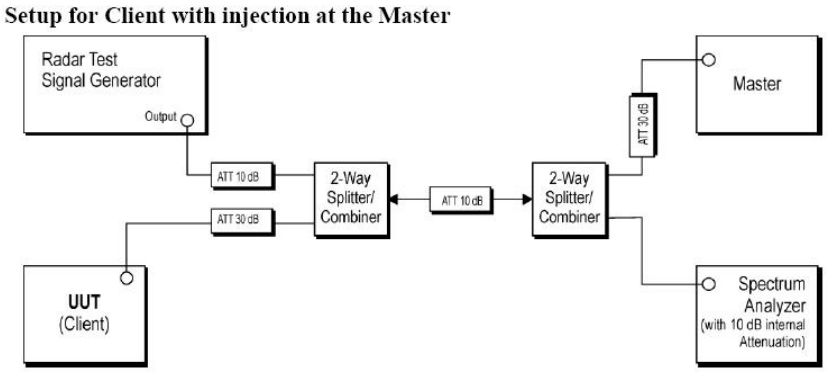
## Method of Measurement:

Refer as KDB905462 D02 UNII DFS Compliance Procedures New Rules v02, clause 7.8.1 for UNII Detection Bandwidth test. During the U-NII Detection Bandwidth detection test, radar type 1 is used and for each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic. The EUT is set up as a standalone device (no associated Client and no traffic). The radar frequency is increased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The highest frequency at which detection is greater than or equal to 90% is denoted as FH. The radar frequency is decreased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The lowest frequency at which detection is greater than or equal to 90% is denoted as FL. UNII Detection Bandwidth = FH -FL

## Limits:

| Channel Bandwidth (MHz) | 99% Power Bandwidth (MHz) | UNII Detection Bandwidth (MHz) |
|---|---|---|
| 20 | N/A | N/A |
| 40 | N/A | N/A |
| 80 | N/A | N/A |
| UNII Detection Bandwidth is minimum 100% of the 99% power bandwidth. A single radar Burst is generated for a minimum of 10 trials, and the response of the UUT is noted. The UUT must detect the Radar Waveform 90% or more of the time. | | |

## Test Setup:




## Test Results:

Not required

### 5.7.3 Channel Availability Check (CAC)

## Method of Measurement:

Refer as KDB905462 D02 UNII DFS Compliance Procedures New Rules v02, clause 7.8.2.1 for Initial Channel Availability Check Time. The EUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the UNII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

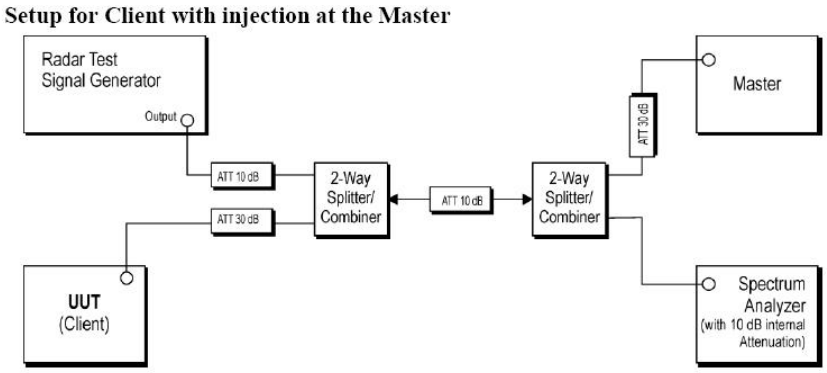
Refer as FCC 06-96 Appendix, clause 7.8.2.2 for Radar Burst at the Beginning of the Channel Availability Check Time. To verify successful radar detection on the selected Channel during a period equal to the Beginning of the Channel Availability Check Time.

Refer as FCC 06-96 Appendix, clause 7.8.2.3 for Radar Burst at the End of the Channel Availability Check Time. To verify successful radar detection on the selected Channel during a period equal to the End of the Channel Availability Check Time.

## Limits:

| Channel Availability Check Limit |
|---|
| ☒The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute (60 sec) on the intended operating frequency. |

## Test Setup:




## Test Results:

Not required

### 5.7.4 In-service Monitoring

## Method of Measurement:

Refer as KDB905462 D02 UNII DFS Compliance Procedures New Rules v02, clause 7.8.3 verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time limits.

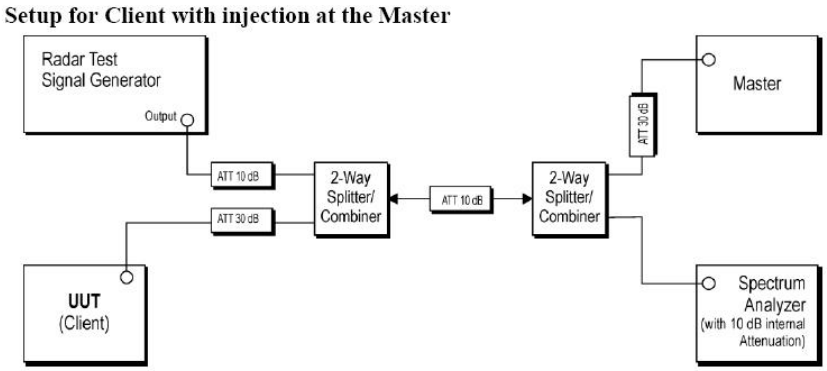
Refer as KDB905462 D02 UNII DFS Compliance Procedures New Rules v02, clause 8.3 verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. One 10 sec plot needs to be reported for the Short Pulse Radar Types 1-4 and one for the Long Pulse Radar Type in a 22 sec plot. And zoom-in a 600 ms plot verified channel closing time for the aggregate transmission time starting from 200ms after the end of the radar signal to the completion of the channel move.

Refer as KDB905462 D02 UNII DFS Compliance Procedures New Rules v02, clause 7.8.3 verified during In-Service Monitoring; Non-Occupancy Period. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Non-Occupancy Period). Compare the Non-Occupancy Period limits.

## Limits:

| **In-service Monitoring Limit** | |
|---|---|
| Channel Move Time | 10 sec |
| Channel Closing Transmission Time | 200 ms + an aggregate of 60 ms over remaining 10 sec periods. |
| Non-occupancy period | Minimum 30 minutes |

# Test Setup:




# Test Results:

Not required

### 5.7.5 Statistical Performance Check

## Method of Measurement:

Refer as KDB905462 D02 UNII DFS Compliance Procedures New Rules v02, clause 7.8.4 for Statistical Performance Check test. Stream the MPEG test file from the Master Device to the Client Device on the test Channel for the entire period of the test. Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Short Pulse Radar Types 1-4 and 6 to ensure detection occurs. Then Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.

## Limits:

| Radar Type | Minimum Percentage of Successful Detection (Pd) | Minimum Trials |
|---|---|---|
| 1 | 60% | 30 |
| 2 | 60% | 30 |
| 3 | 60% | 30 |
| 4 | 60% | 30 |
| Aggregate (Radar Types 1-4) | 80% | 120 |
| 5 | 80% | 30 |
| 6 | 70% | 30 |

The percentage of successful detection is calculated by:

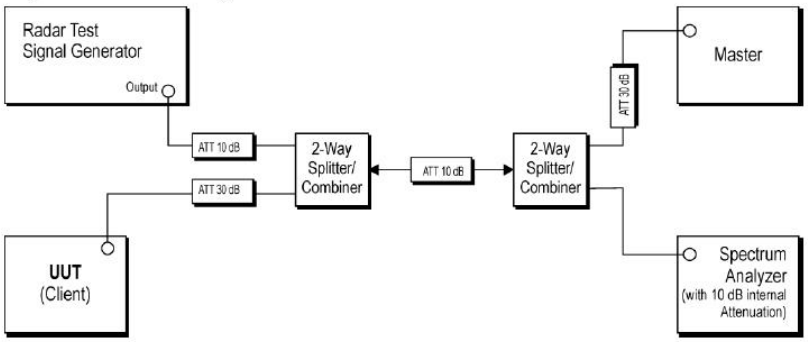
$$\frac{\text{Total Waveform Detections}}{\text{Total Waveform Trails}} \times 100 = \text{Probability of Detection Radar Waveform}$$

In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows:

$$\frac{Pd1+Pd2+Pd3+Pd4}{4}$$

# Test Setup:

**Setup for Client with injection at the Master**




# Test Results:

Not required

# 6. Appendix X

| Test Equipment | Type/Mode | SERIAL NO. | Equipment No. | Manufacturer | Cal. Due |
|---|---|---|---|---|---|
| Communication Shielded Room 2 | 4m*3m*3m | CRTDSWKSR44301 | / | CRT | 2027/04/22 |
| Spectrum Analyzer | FSV40 | 101580 | DZ-000238-3 | R&S | 2026/03/27 |
| RF Radio Frequency Switch | JS0806-2 | 19H9080187 | DZ-000241 | Tonscend | 2026/03/27 |
| Programmable DC Power Supply | E3644A | MY58036222 | DZ-000178 | KEYSIGHT | 2026/04/10 |
| 5m Semi-Anechoic Chamber | SAC-5 | SAC-5-2.0 | EM-000557 | COMTEST | 2027/02/01 |
| Spectrum Analyzer | N9010B | MY57470323 | DZ-000174 | KEYSIGHT | 2026/01/01 |
| EMI Test Receiver | N9038A-508 | MY532290079 | EM-000397 | Agilent | 2025/12/26 |
| EMI Test Receiver | ESR7 | 102235 | EM-000574 | R&S | 2026/01/05 |
| loop antenna | HLA 6121 | 540046 | EM-000546 | TESEQ | 2026/06/02 |
| Broadband Antenna | VULB 9163 | 9163-530 | EM-000342 | SCHWARZBECK | 2026/06/02 |
| Waveguide Horn Antenna | BBHA9170 | 00949 | DZ-000209-2 | SCHWARZBECK | 2025/08/03 |
| Preamplifier | BBV 9721 | 9721-050 | DZ-000209-1 | SCHWARZBECK | 2026/06/02 |
| 5G Bandstop Filters | WRCJV12-4900-5100-5900-6100-50EE | 1 | DZ-000186 | WI | 2025/12/02 |
| Temperature and humidity meter | MHO-C201 | / | DZ-000249-2 | Seconds test | 2025/07/28 |
| Temperature and humidity meter | MHO-C201 | / | DZ-000249-5 | Seconds test | 2025/07/28 |

| Dynacomm | Software Release | Software Developer |
|---|---|---|
| TS1120-3 Test System(Conduction test) | 3.3.38 | Tonscend |
| TS+（5m,Radiation test） | JS32-RE 5.0.0 | Tonscend |

No Body Text Below

# Important

1. The test report is invalid without the official stamp of CVC;
2. Any part photocopies of the test report are forbidden without the written permission from CVC;
3. The test report is invalid without the signatures of Author and Reviewer;
4. The test report is invalid if altered;
5. Objections to the test report must be submitted to CVC within 15 days;
6. Generally, commission test is responsible for the tested samples only;
7. As for the test result, "—" or " N/A" means "not applicable", " / "means "not testing", "P" means "pass" and "F" means "fail".

Address: No.3,Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, China (Test location)
Post Code：510663 Tel：020-32293888
FAX：020 32293889 E-mail：office@cvc.org.cn