

# **FCC REPORT**

## **(UNII)**

**Applicant:** SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD

**Address of Applicant:** A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN CHINA

**Equipment Under Test (EUT)**

Product Name: Smart Phone

Model No.: WP15

Trade mark: OUKITEL

**FCC ID:** 2ANMU-WP15

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart E Section 15.407

**Date of sample receipt:** 17 Jun., 2021

**Date of Test:** 17 Jun., to 28 Jul., 2021

**Date of report issued:** 28 Jul., 2021

**Test Result:** PASS\*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang  
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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## 2 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | 28 Jul., 2021 | Original    |
|             |               |             |
|             |               |             |
|             |               |             |
|             |               |             |

Tested by: Mike.ou  
Test Engineer

Date: 28 Jul., 2021

Reviewed by: Winner Zhang  
Project Engineer

Date: 28 Jul., 2021

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## 4 Test Summary

| Test Item                                                                                                                                                                                                                         | Section in CFR 47                                                                | Test Data             | Test Result |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------|-------------|
| Antenna requirement                                                                                                                                                                                                               | 15.203 & 15.407 (a)                                                              | See Section 6.1       | Pass        |
| AC Power Line Conducted Emission                                                                                                                                                                                                  | 15.207                                                                           | See Section 6.2       | Pass        |
| Duty Cycle                                                                                                                                                                                                                        | ANSI C63.10-2013                                                                 | Appendix A – 5G Wi-Fi | Pass        |
| Conducted Peak Output Power                                                                                                                                                                                                       | 15.407 (a) (1) (iv) & (a) (3)                                                    | Appendix A – 5G Wi-Fi | Pass        |
| 26dB Occupied Bandwidth                                                                                                                                                                                                           | 15.407 (a) (12)                                                                  | Appendix A – 5G Wi-Fi | Pass        |
| 6dB Emission Bandwidth                                                                                                                                                                                                            | 15.407(e)                                                                        | Appendix A – 5G Wi-Fi | Pass        |
| Power Spectral Density                                                                                                                                                                                                            | 15.407 (a) (1) (iv) & (a) (3)                                                    | Appendix A – 5G Wi-Fi | Pass        |
| Band Edge                                                                                                                                                                                                                         | 15.407(b)                                                                        | See Section 6.6       | Pass        |
| Spurious Emission                                                                                                                                                                                                                 | 15.407 (b) & 15.205 & 15.209                                                     | See Section 6.7       | Pass        |
| Frequency Stability                                                                                                                                                                                                               | 15.407(g)                                                                        | Appendix A – 5G Wi-Fi | Pass        |
| <b>Remark:</b><br>1. Pass: The EUT complies with the essential requirements in the standard.<br>2. The cable insertion loss used by “RF Output Power” and other conduction measurement items is 0.5dB (provided by the customer). |                                                                                  |                       |             |
| <b>Test Method:</b>                                                                                                                                                                                                               | ANSI C63.10-2013<br>KDB 789033 D02 General UNII Test Procedures New Rules v02r01 |                       |             |

## 5 General Information

### 5.1 Client Information

|               |                                                                                                |
|---------------|------------------------------------------------------------------------------------------------|
| Applicant:    | SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD                                                 |
| Address:      | A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN CHINA |
| Manufacturer: | SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD                                                 |
| Address:      | A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN CHINA |

### 5.2 General Description of E.U.T.

|                                        |                                                                                                                                     |                                    |                         |               |  |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------|---------------|--|
| Product Name:                          | Smart Phone                                                                                                                         |                                    |                         |               |  |
| Model No.:                             | WP15                                                                                                                                |                                    |                         |               |  |
| Operation Frequency:                   | Band 1: 5150MHz-5250MHz                                                                                                             |                                    | Band 4: 5725MHz-5825MHz |               |  |
| Channel numbers:                       | Band 1:                                                                                                                             | 802.11a/n20/ac20: 4                | 802.11n/ac40: 2         | 802.11ac80: 1 |  |
|                                        | Band 4:                                                                                                                             | 802.11a/n20/ac20: 5                | 802.11n/ac40: 2         | 802.11ac80: 1 |  |
| Channel separation:                    | 20MHz:                                                                                                                              | 802.11a/802.11n-HT20/802.11ac-HT20 |                         |               |  |
|                                        | 40MHz:                                                                                                                              | 802.11n-HT40/802.11ac-HT40         |                         |               |  |
|                                        | 80MHz:                                                                                                                              | 802.11ac-HT80                      |                         |               |  |
| Modulation technology (IEEE 802.11a):  | BPSK, QPSK, 16-QAM, 64-QAM                                                                                                          |                                    |                         |               |  |
| Modulation technology (IEEE 802.11n):  | BPSK, QPSK, 16-QAM, 64-QAM                                                                                                          |                                    |                         |               |  |
| Modulation technology (IEEE 802.11ac): | BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM                                                                                                 |                                    |                         |               |  |
| Data speed (IEEE 802.11a):             | 6Mbps, 9Mbps,12Mbps,18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps                                                                          |                                    |                         |               |  |
| Data speed (IEEE 802.11n20):           | MCS0: 6.5Mbps, MCS1:13Mbps,MCS2:19.5Mbps, MCS3:26Mbps, MCS4:39Mbps, MCS5:52Mbps, MCS6:58.5Mbps, MCS7:65Mbps                         |                                    |                         |               |  |
| Data speed (IEEE 802.11n40):           | MCS0:15Mbps, MCS1:30Mbps, MCS2:45Mbps, MCS3:60Mbps, MCS4:90Mbps, MCS5:120Mbps, MCS6:135Mbps, MCS7:150Mbps                           |                                    |                         |               |  |
| Data speed (IEEE 802.11ac):            | Up to 433.3Mbps                                                                                                                     |                                    |                         |               |  |
| Antenna Type:                          | Internal Antenna                                                                                                                    |                                    |                         |               |  |
| Antenna gain:                          | 1.01dBi                                                                                                                             |                                    |                         |               |  |
| Power supply:                          | Rechargeable Li-ion Polymer Battery DC3.87V, 15600mAh                                                                               |                                    |                         |               |  |
| AC adapter:                            | Model: HJ-FC017K7-US<br>Input: AC100-240V, 50/60Hz 0.6A<br>Output: DC 5.0V, 2.0A or DC 7.0V, 2.0A, or DC 9.0V, 2.0A or DC 12V, 1.5A |                                    |                         |               |  |
| Test Sample Condition:                 | The test samples were provided in good working order with no visible defects.                                                       |                                    |                         |               |  |

| Operation Frequency each of channel |           |                 |           |               |           |
|-------------------------------------|-----------|-----------------|-----------|---------------|-----------|
| Band 1                              |           |                 |           |               |           |
| 802.11a/802.11n/ac-HT20             |           | 802.11n/ac-HT40 |           | 802.11ac-HT80 |           |
| Channel                             | Frequency | Channel         | Frequency | Channel       | Frequency |
| 36                                  | 5180MHz   | 38              | 5190MHz   | 42            | 5210MHz   |
| 40                                  | 5200MHz   | 46              | 5230MHz   |               |           |
| 44                                  | 5220MHz   |                 |           |               |           |
| 48                                  | 5240MHz   |                 |           |               |           |
|                                     |           |                 |           |               |           |
| Band 4                              |           |                 |           |               |           |
| 802.11a/802.11n/ac-HT20             |           | 802.11n/ac-HT40 |           | 802.11ac-HT80 |           |
| Channel                             | Frequency | Channel         | Frequency | Channel       | Frequency |
| 149                                 | 5745MHz   | 151             | 5755MHz   | 155           | 5775MHz   |
| 153                                 | 5765MHz   | 159             | 5795MHz   |               |           |
| 157                                 | 5785MHz   |                 |           |               |           |
| 161                                 | 5805MHz   |                 |           |               |           |
| 165                                 | 5825MHz   |                 |           |               |           |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

| Band 1                  |           |                 |           |               |           |
|-------------------------|-----------|-----------------|-----------|---------------|-----------|
| 802.11a/802.11n/ac-HT20 |           | 802.11n/ac-HT40 |           | 802.11ac-HT80 |           |
| Channel                 | Frequency | Channel         | Frequency | Channel       | Frequency |
| Lowest                  | 5180MHz   | Lowest          | 5190MHz   | Middle        | 5210MHz   |
| Middle                  | 5200MHz   | Highest         | 5230MHz   |               |           |
| Highest                 | 5240MHz   |                 |           |               |           |
|                         |           |                 |           |               |           |
| Band 4                  |           |                 |           |               |           |
| 802.11a/802.11n/ac-HT20 |           | 802.11n/ac-HT40 |           | 802.11ac-HT80 |           |
| Channel                 | Frequency | Channel         | Frequency | Channel       | Frequency |
| Lowest                  | 5745MHz   | Lowest          | 5755MHz   | Middle        | 5775MHz   |
| Middle                  | 5785MHz   | Highest         | 5795MHz   |               |           |
| Highest                 | 5825MHz   |                 |           |               |           |

### 5.3 Test environment and mode

| Operating Environment:                                                                                                                                                                                       |                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Temperature:                                                                                                                                                                                                 | 24.0 °C                                                       |
| Humidity:                                                                                                                                                                                                    | 54 % RH                                                       |
| Atmospheric Pressure:                                                                                                                                                                                        | 1010 mbar                                                     |
| Test mode:                                                                                                                                                                                                   |                                                               |
| Continuously transmitting mode                                                                                                                                                                               | Keep the EUT in 100% duty cycle transmitting with modulation. |
| We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows: |                                                               |
| Per-scan all kind of data rate, and found the follow list were the worst case.                                                                                                                               |                                                               |
| Mode                                                                                                                                                                                                         | Data rate                                                     |
| 802.11a                                                                                                                                                                                                      | 6 Mbps                                                        |
| 802.11n/ac20                                                                                                                                                                                                 | 6.5 Mbps                                                      |
| 802.11n/ac40                                                                                                                                                                                                 | 13.5 Mbps                                                     |
| 802.11ac80                                                                                                                                                                                                   | 29.3 Mbps                                                     |

### 5.4 Description of Support Units

| Manufacturer                                    | Description | Model | Serial Number | FCC ID/DoC |
|-------------------------------------------------|-------------|-------|---------------|------------|
| The EUT has been tested as an independent unit. |             |       |               |            |

### 5.5 Measurement Uncertainty

| Parameters                          | Expanded Uncertainty |
|-------------------------------------|----------------------|
| Conducted Emission (9kHz ~ 30MHz)   | ±1.60 dB (k=2)       |
| Radiated Emission (9kHz ~ 30MHz)    | ±3.12 dB (k=2)       |
| Radiated Emission (30MHz ~ 1000MHz) | ±4.32 dB (k=2)       |
| Radiated Emission (1GHz ~ 18GHz)    | ±5.16 dB (k=2)       |
| Radiated Emission (18GHz ~ 40GHz)   | ±3.20 dB (k=2)       |

### 5.6 Additions to, deviations, or exclusions from the method

|    |
|----|
| No |
|----|

### 5.7 Related Submittal(s) / Grant (s)

|                                                              |
|--------------------------------------------------------------|
| This is an original grant, no related submittals and grants. |
|--------------------------------------------------------------|

## 5.8 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

## 5.9 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website: <http://www.ccis-cb.com>



## 5.10 Test Instruments list

| Test Equipment               | Manufacturer    | Model No.     | Serial No.         | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
|------------------------------|-----------------|---------------|--------------------|----------------------|--------------------------|
| 3m SAC                       | ETS             | 9m*6m*6m      | 966                | 01-19-2021           | 01-18-2024               |
| BiConiLog Antenna            | SCHWARZBECK     | VULB9163      | 497                | 03-03-2021           | 03-02-2022               |
| Biconical Antenna            | SCHWARZBECK     | VUBA9117      | 359                | 06-17-2021           | 06-16-2022               |
| Horn Antenna                 | SCHWARZBECK     | BBHA9120D     | 916                | 03-03-2021           | 03-02-2022               |
| Horn Antenna                 | SCHWARZBECK     | BBHA9120D     | 1805               | 06-17-2021           | 06-16-2022               |
| Horn Antenna                 | SCHWARZBECK     | BBHA 9170     | BBHA9170582        | 11-18-2020           | 11-17-2021               |
| EMI Test Software            | AUDIX           | E3            | Version: 6.110919b |                      |                          |
| Pre-amplifier                | HP              | 8447D         | 2944A09358         | 03-03-2021           | 03-02-2022               |
| Pre-amplifier                | CD              | PAP-1G18      | 11804              | 03-03-2021           | 03-02-2022               |
| Spectrum analyzer            | Rohde & Schwarz | FSP30         | 101454             | 03-03-2021           | 03-02-2022               |
| Spectrum analyzer            | Rohde & Schwarz | FSP40         | 100363             | 11-18-2020           | 11-17-2021               |
| EMI Test Receiver            | Rohde & Schwarz | ESRP7         | 101070             | 03-03-2021           | 03-02-2022               |
| Spectrum Analyzer            | Agilent         | N9020A        | MY50510123         | 11-18-2020           | 11-17-2021               |
| Signal Generator             | Rohde & Schwarz | SMX           | 835454/016         | 03-03-2021           | 03-02-2022               |
| Signal Generator             | R&S             | SMR20         | 1008100050         | 03-03-2021           | 03-02-2022               |
| RF Switch Unit               | MWRFTTEST       | MW200         | N/A                | N/A                  | N/A                      |
| Test Software                | MWRFTTEST       | MTS8200       | Version: 2.0.0.0   |                      |                          |
| Cable                        | ZDECL           | Z108-NJ-NJ-81 | 1608458            | 03-03-2021           | 03-02-2022               |
| Cable                        | MICRO-COAX      | MFR64639      | K10742-5           | 03-03-2021           | 03-02-2022               |
| Cable                        | SUHNER          | SUCOFLEX100   | 58193/4PE          | 03-03-2021           | 03-02-2022               |
| DC Power Supply              | XinNuoEr        | WYK-10020K    | 1409050110020      | 09-25-2020           | 09-24-2021               |
| Temperature Humidity Chamber | HengPu          | HPGDS-500     | 20140828008        | 11-01-2020           | 10-31-2021               |
| Simulated Station            | Rohde & Schwarz | CMW500        | 140493             | 07-22-2020           | 07-21-2021               |
|                              |                 |               |                    | 07-21-2021           | 07-20-2022               |

| Conducted Emission: |                 |            |                    |                      |                          |
|---------------------|-----------------|------------|--------------------|----------------------|--------------------------|
| Test Equipment      | Manufacturer    | Model No.  | Serial No.         | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| EMI Test Receiver   | Rohde & Schwarz | ESCI       | 101189             | 03-03-2021           | 03-02-2022               |
| Pulse Limiter       | SCHWARZBECK     | OSRAM 2306 | 9731               | 03-03-2021           | 03-02-2022               |
| LISN                | CHASE           | MN2050D    | 1447               | 03-03-2021           | 03-02-2022               |
| LISN                | Rohde & Schwarz | ESH3-Z5    | 8438621/010        | 06-17-2021           | 06-16-2022               |
| Cable               | HP              | 10503A     | N/A                | 03-03-2021           | 03-02-2022               |
| EMI Test Software   | AUDIX           | E3         | Version: 6.110919b |                      |                          |

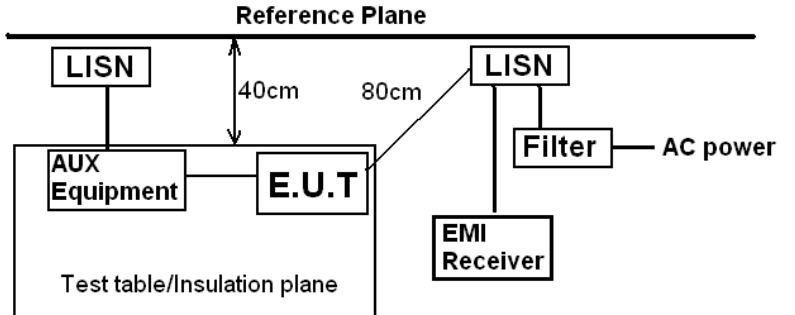
| Conducted method:       |                 |            |                  |                      |                          |
|-------------------------|-----------------|------------|------------------|----------------------|--------------------------|
| Test Equipment          | Manufacturer    | Model No.  | Serial No.       | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| Spectrum Analyzer       | Keysight        | N9010B     | MY60240202       | 11-27-2020           | 11-26-2021               |
| Vector Signal Generator | Keysight        | N5182B     | MY59101009       | 11-27-2020           | 11-26-2021               |
| Analog Signal Generator | Keysight        | N5173B     | MY59100765       | 11-27-2020           | 11-26-2021               |
| Power Detector Box      | MWRF-test       | MW100-PSB  | MW201020JYT      | 11-27-2020           | 11-26-2021               |
| Simulated Station       | Rohde & Schwarz | CMW270     | 102335           | 11-27-2020           | 11-26-2021               |
| RF Control Box          | MWRF-test       | MW100-RFCB | MW200927JYT      | N/A                  | N/A                      |
| PDU                     | MWRF-test       | XY-G10     | N/A              | N/A                  | N/A                      |
| Test Software           | MWRF-tes        | MTS 8310   | Version: 2.0.0.0 |                      |                          |
| DC Power Supply         | Keysight        | E3642A     | MY60296194       | 11-27-2020           | 11-26-2021               |

## 6 Test results and Measurement Data

### 6.1 Antenna requirement

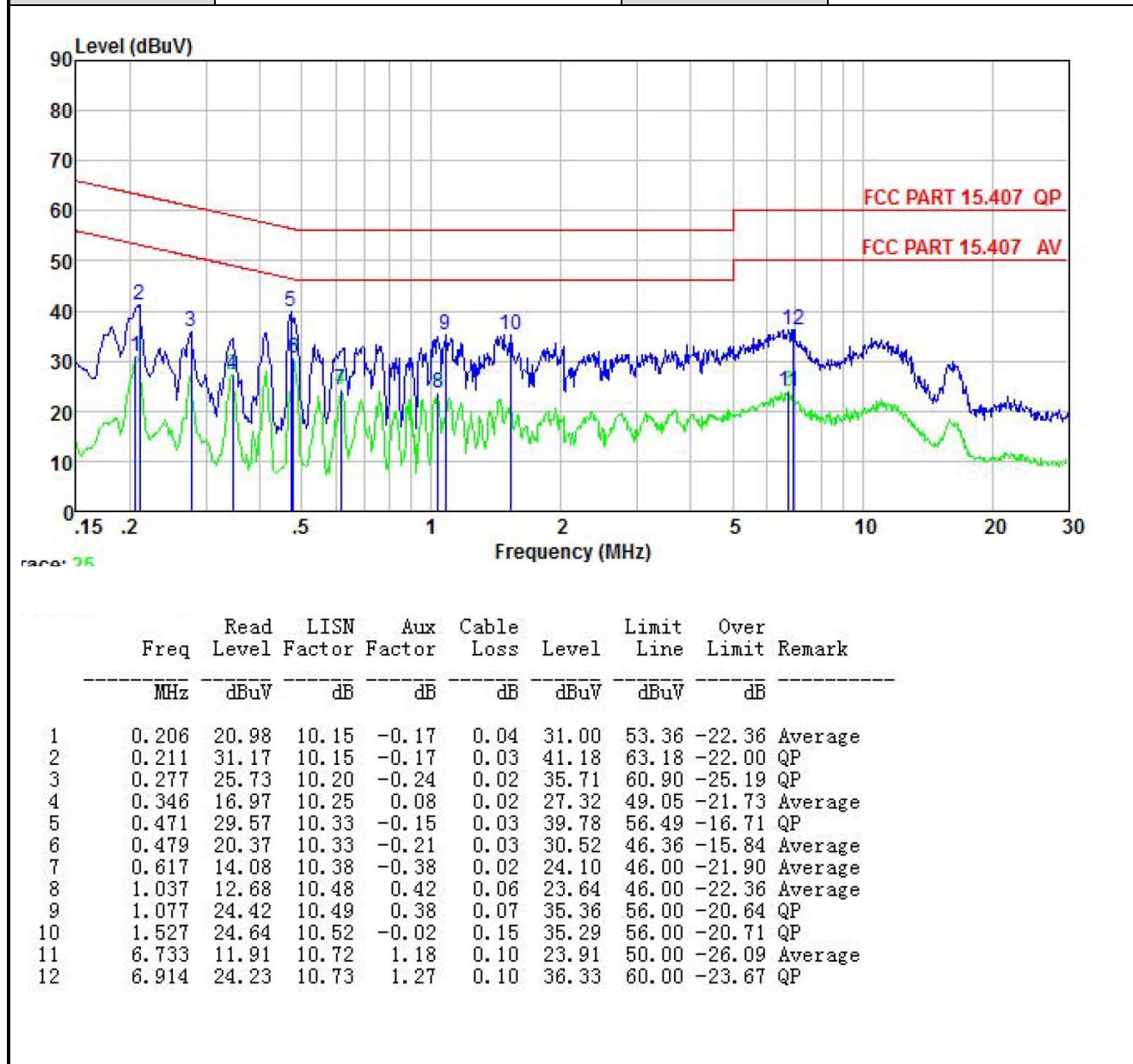
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>Standard requirement:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FCC Part15 E Section 15.203 /407(a) |
| <p>15.203 requirement:<br/>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</p> <p>This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.</p> |                                     |
| <b>E.U.T Antenna:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |
| <p>The Wi-Fi antenna is an Internal antenna which cannot replace by end-user, the best case gain of the antenna is 1.01 dBi.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |

## 6.2 Conducted Emission

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |          |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|
| Test Requirement:                                | FCC Part15 C Section 15.207                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |          |
| Test Frequency Range:                            | 150kHz to 30MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |          |
| Class / Severity:                                | Class B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |          |
| Receiver setup:                                  | RBW=9kHz, VBW=30kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |          |
| Limit:                                           | Frequency range (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Limit (dBUV) |          |
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Quasi-peak   |          |
|                                                  | 0.15-0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 66 to 56*    | 0.15-0.5 |
|                                                  | 0.5-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 56           | 0.5-5    |
|                                                  | 5-30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 60           | 5-30     |
| * Decreases with the logarithm of the frequency. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |          |
| Test procedure                                   | <ol style="list-style-type: none"> <li>The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). It provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</li> <li>Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10(latest version) on conducted measurement.</li> </ol> |              |          |
| Test setup:                                      |  <p>Remark:<br/>E.U.T: Equipment Under Test<br/>LISN: Line Impedance Stabilization Network<br/>Test table height=0.8m</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |          |
| Test Instruments:                                | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |          |
| Test mode:                                       | Refer to section 5.3 for details.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |          |
| Test results:                                    | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |          |

## Measurement Data:

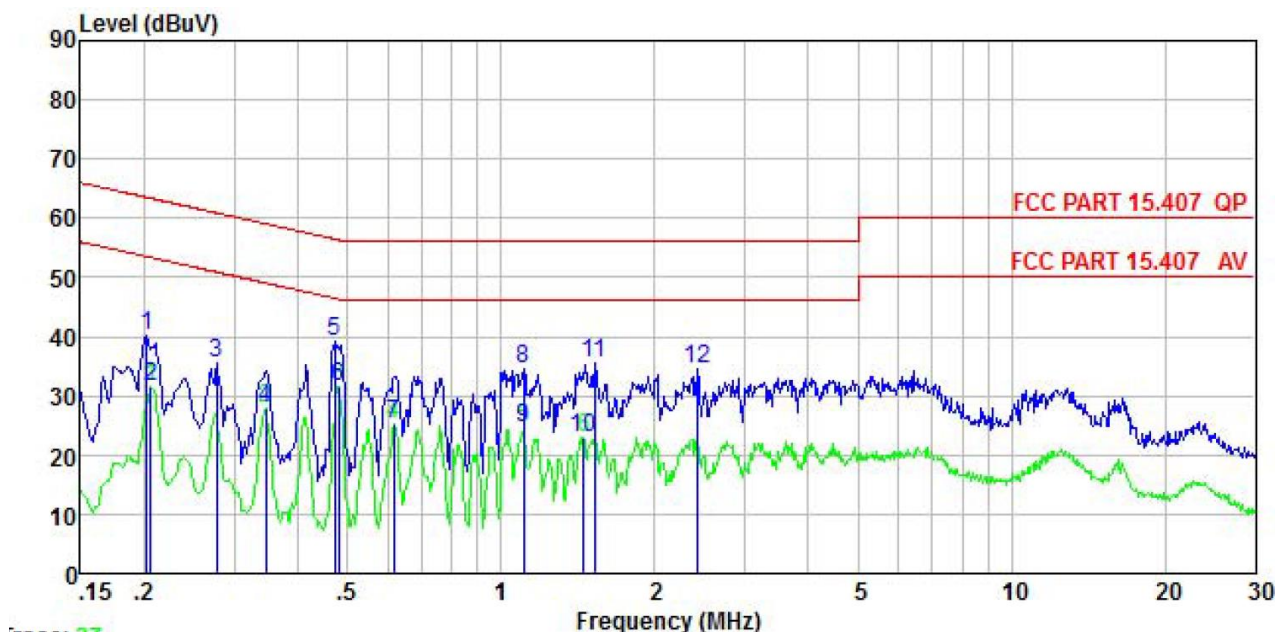
|                 |                  |                |                        |
|-----------------|------------------|----------------|------------------------|
| Product name:   | Smart Phone      | Product model: | WP15                   |
| Test by:        | Mike             | Test mode:     | 5G Wi-Fi Tx mode       |
| Test frequency: | 150 kHz ~ 30 MHz | Phase:         | Line                   |
| Test voltage:   | AC 120 V/60 Hz   | Environment:   | Temp: 22.5°C Humi: 55% |



## Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Aux Factor + Cable Loss.

|                 |                  |                |                        |
|-----------------|------------------|----------------|------------------------|
| Product name:   | Smart Phone      | Product model: | WP15                   |
| Test by:        | Mike             | Test mode:     | 5G Wi-Fi Tx mode       |
| Test frequency: | 150 kHz ~ 30 MHz | Phase:         | Neutral                |
| Test voltage:   | AC 120 V/60 Hz   | Environment:   | Temp: 22.5°C Humi: 55% |



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|    | Freq  | Read Level | LISN Factor | Aux Factor | Cable Loss | Level | Limit Line | Over Limit | Remark  |
|----|-------|------------|-------------|------------|------------|-------|------------|------------|---------|
|    | MHz   | dBuV       | dB          | dB         | dB         | dBuV  | dBuV       | dB         |         |
| 1  | 0.202 | 30.08      | 9.92        | 0.00       | 0.04       | 40.04 | 63.54      | -23.50     | QP      |
| 2  | 0.206 | 21.52      | 9.93        | 0.00       | 0.04       | 31.49 | 53.36      | -21.87     | Average |
| 3  | 0.277 | 25.62      | 9.99        | 0.01       | 0.02       | 35.64 | 60.90      | -25.26     | QP      |
| 4  | 0.346 | 17.86      | 10.06       | -0.03      | 0.02       | 27.91 | 49.05      | -21.14     | Average |
| 5  | 0.471 | 28.98      | 10.18       | 0.01       | 0.03       | 39.20 | 56.49      | -17.29     | QP      |
| 6  | 0.481 | 21.41      | 10.19       | 0.02       | 0.03       | 31.65 | 46.32      | -14.67     | Average |
| 7  | 0.617 | 14.86      | 10.31       | 0.04       | 0.02       | 25.23 | 46.00      | -20.77     | Average |
| 8  | 1.106 | 23.84      | 10.59       | 0.09       | 0.07       | 34.59 | 56.00      | -21.41     | QP      |
| 9  | 1.106 | 13.81      | 10.59       | 0.09       | 0.07       | 24.56 | 46.00      | -21.44     | Average |
| 10 | 1.449 | 12.01      | 10.69       | 0.13       | 0.13       | 22.96 | 46.00      | -23.04     | Average |
| 11 | 1.527 | 24.59      | 10.71       | 0.14       | 0.15       | 35.59 | 56.00      | -20.41     | QP      |
| 12 | 2.422 | 23.41      | 10.85       | 0.24       | 0.14       | 34.64 | 56.00      | -21.36     | QP      |

#### Notes:

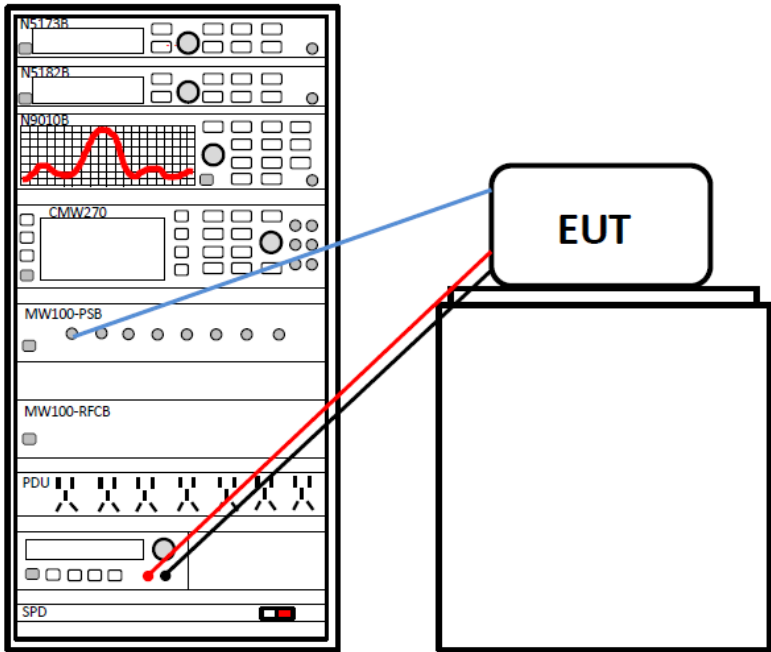
1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Aux Factor + Cable Loss.

### 6.3 Conducted Output Power

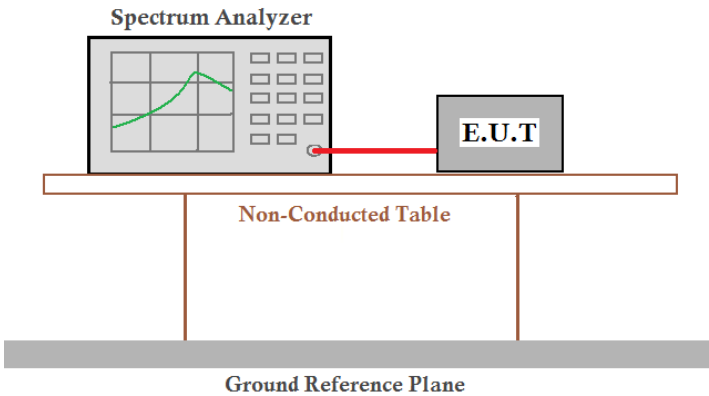
|                   |                                                    |
|-------------------|----------------------------------------------------|
| Test Requirement: | FCC Part15 E Section 15.407 (a) (1) (iv) & (a) (3) |
| Limit:            | Band 1: 24dBm<br>Band 4: 30dBm                     |
| Test setup:       |                                                    |
| Test Instruments: | Refer to section 5.10 for details                  |
| Test mode:        | Refer to section 5.3 for details                   |
| Test results:     | Passed                                             |
| Measurement Data: | <b>Refer to Appendix A - 5G WIFI</b>               |



## 6.4 Occupy Bandwidth

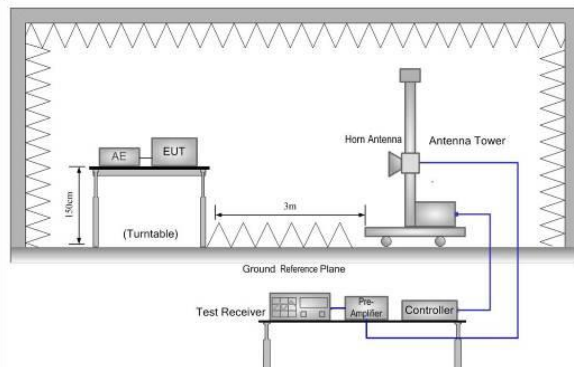
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 E Section 15.407 (a) (12) and Section 15.407 (e)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Limit:            | Band 1/4: N/A (26dB Emission Bandwidth and 99% Occupy Bandwidth)<br>Band 4: >500kHz (6dB Bandwidth)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Test setup:       |  <p>The diagram illustrates the test setup for measuring occupy bandwidth. A rack of test equipment is shown on the left, including a spectrum analyzer (N9010B) displaying a red waveform, a signal generator (CMW270), and other modules (N5173B, N5182B, MW100-PSB, MW100-RFCB, PDU, SPD). A blue line connects the spectrum analyzer to the EUT (Equipment Under Test) on the right. A red line connects the signal generator to the EUT. A black line connects the PDU to the EUT.</p> |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Measurement Data: | <b>Refer to Appendix A - 5G WIFI</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## 6.5 Power Spectral Density

|                   |                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 E Section 15.407 (a) (1) (iv) & (a)(3)                                                                                                                                                                                                                                                                                                                                                |
| Limit:            | Band 1: 11 dBm/MHz<br>Band 4: 30 dBm/500kHz                                                                                                                                                                                                                                                                                                                                                      |
| Test setup:       |  <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by two vertical legs. Below the table is a Ground Reference Plane.</p> |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                 |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                           |
| Measurement Data: | <b>Refer to Appendix A - 5G WIFI</b>                                                                                                                                                                                                                                                                                                                                                             |



## 6.6 Band Edge

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |        |                  |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------|------------------|
| Test Requirement: | FCC Part 15 E Section 15.407 (b)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |        |                  |
| Receiver setup:   | Detector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | RBW                | VBW    | Remark           |
|                   | Quasi-peak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 120kHz             | 300kHz | Quasi-peak Value |
|                   | RMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1MHz               | 3MHz   | Average Value    |
| Limit:            | Band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Limit (dBuV/m @3m) |        | Remark           |
|                   | Band 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 68.20              |        | Peak Value       |
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 54.00              |        | Average Value    |
|                   | Band 4 limit:<br>For transmitters operating in the 5.725-5.85 GHz band:<br>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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |        |                  |
|                   | Remark:<br>1. Band 1 limit:<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2 = 68.2 \text{ dBuV/m}$ , for $EIPR[dBm] = -27 \text{ dBm}$ .<br>2. Band 4 limit:<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2 = 68.2 \text{ dBuV/m}$ , for $EIPR[dBm] = -27 \text{ dBm}$ .<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2 = 105.2 \text{ dBuV/m}$ , for $EIPR[dBm] = 10 \text{ dBm}$ .<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2 = 110.8 \text{ dBuV/m}$ , for $EIPR[dBm] = 15.6 \text{ dBm}$ .<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2 = 122.2 \text{ dBuV/m}$ , for $EIPR[dBm] = 27 \text{ dBm}$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |        |                  |
| Test Procedure:   | <div><div>1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</div><div>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</div><div>3. 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.</div><div>4. 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 was turned from 0 degrees to 360 degrees to find the maximum reading.</div><div>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</div><div>6. 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.</div></div> |                    |        |                  |
| Test setup:       | <div><div></div><div></div><div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |        |                  |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |        |                  |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |        |                  |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |        |                  |

**Measurement Data (worst case):**
**Band 1:**

| Band 1 – 802.11a                                                                                                                                                           |                     |             |                |                     |             |              |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|----------|
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                                    | 40.94               | -4.52       | 36.42          | 68.20               | 31.78       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                                    | 40.21               | -4.52       | 35.69          | 68.20               | 32.51       | Vertical     | Peak     |
| 5150.00                                                                                                                                                                    | 32.71               | -4.52       | 28.19          | 54.00               | 25.81       | Horizontal   | Average  |
| 5150.00                                                                                                                                                                    | 32.72               | -4.52       | 28.20          | 54.00               | 25.80       | Vertical     | Average  |
| Band 1 – 802.11n(HT20)                                                                                                                                                     |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                                    | 39.21               | -2.68       | 36.53          | 68.20               | 31.67       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                                    | 41.35               | -2.68       | 38.67          | 68.20               | 29.53       | Vertical     | Peak     |
| 5350.00                                                                                                                                                                    | 32.48               | -2.68       | 29.80          | 54.00               | 24.20       | Horizontal   | Average  |
| 5350.00                                                                                                                                                                    | 33.01               | -2.68       | 30.33          | 54.00               | 23.67       | Vertical     | Average  |
| Band 1 – 802.11n(HT20)                                                                                                                                                     |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                                    | 40.71               | -4.52       | 36.19          | 68.20               | 32.01       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                                    | 40.07               | -4.52       | 35.55          | 68.20               | 32.65       | Vertical     | Peak     |
| 5150.00                                                                                                                                                                    | 32.79               | -4.52       | 28.27          | 54.00               | 25.73       | Horizontal   | Average  |
| 5150.00                                                                                                                                                                    | 32.41               | -4.52       | 27.89          | 54.00               | 26.11       | Vertical     | Average  |
| Band 1 – 802.11n(HT20)                                                                                                                                                     |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                                    | 38.98               | -2.68       | 36.30          | 68.20               | 31.90       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                                    | 41.13               | -2.68       | 38.45          | 68.20               | 29.75       | Vertical     | Peak     |
| 5350.00                                                                                                                                                                    | 32.76               | -2.68       | 30.08          | 54.00               | 23.92       | Horizontal   | Average  |
| 5350.00                                                                                                                                                                    | 32.56               | -2.68       | 29.88          | 54.00               | 24.12       | Vertical     | Average  |
| <b>Remark:</b><br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |          |

| Band 1 – 802.11n(HT40)                                                                                                                                              |                     |             |                |                     |             |              |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|----------|
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                             | 40.14               | -4.52       | 35.62          | 68.20               | 32.58       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 39.94               | -4.52       | 35.42          | 68.20               | 32.78       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 34.38               | -4.52       | 29.86          | 54.00               | 24.14       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 32.85               | -4.52       | 28.33          | 54.00               | 25.67       | Vertical     | Average  |
| Band 1 – 802.11ac(HT20)                                                                                                                                             |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 39.94               | -2.68       | 37.26          | 68.20               | 30.94       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 40.25               | -2.68       | 37.57          | 68.20               | 30.63       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 32.55               | -2.68       | 29.87          | 54.00               | 24.13       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 32.06               | -2.68       | 29.38          | 54.00               | 24.62       | Vertical     | Average  |
| Band 1 – 802.11ac(HT20)                                                                                                                                             |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                             | 41.07               | -4.52       | 36.55          | 68.20               | 31.65       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 40.16               | -4.52       | 35.64          | 68.20               | 32.56       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 32.23               | -4.52       | 27.71          | 54.00               | 26.29       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 32.43               | -4.52       | 27.91          | 54.00               | 26.09       | Vertical     | Average  |
| Band 1 – 802.11ac(HT20)                                                                                                                                             |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 39.08               | -2.68       | 36.40          | 68.20               | 31.80       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 41.39               | -2.68       | 38.71          | 68.20               | 29.49       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 32.77               | -2.68       | 30.09          | 54.00               | 23.91       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 33.31               | -2.68       | 30.63          | 54.00               | 23.37       | Vertical     | Average  |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |          |

| Band 1 – 802.11ac(HT40)                                                                                                                                             |                     |             |                |                     |             |              |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|----------|
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                             | 40.08               | -4.52       | 35.56          | 68.20               | 32.64       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 39.89               | -4.52       | 35.37          | 68.20               | 32.83       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 34.11               | -4.52       | 29.59          | 54.00               | 24.41       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 33.02               | -4.52       | 28.50          | 54.00               | 25.50       | Vertical     | Average  |
| Band 1 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 39.60               | -2.68       | 36.92          | 68.20               | 31.28       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 40.26               | -2.68       | 37.58          | 68.20               | 30.62       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 32.25               | -2.68       | 29.57          | 54.00               | 24.43       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 32.19               | -2.68       | 29.51          | 54.00               | 24.49       | Vertical     | Average  |
| Band 1 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                             | 41.86               | -4.52       | 37.34          | 68.20               | 30.86       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 40.23               | -4.52       | 35.71          | 68.20               | 32.49       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 35.44               | -4.52       | 30.92          | 54.00               | 23.08       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 32.17               | -4.52       | 27.65          | 54.00               | 26.35       | Vertical     | Average  |
| Band 1 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 41.65               | -2.68       | 38.97          | 68.20               | 29.23       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 39.08               | -2.68       | 36.40          | 68.20               | 31.80       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 34.69               | -2.68       | 32.01          | 54.00               | 21.99       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 32.23               | -2.68       | 29.55          | 54.00               | 24.45       | Vertical     | Average  |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |          |

**Band 4:**

| Band 4 – 802.11a                                                                                                                                                    |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5650.00                                                                                                                                                             | 39.63               | 17.02       | 56.65          | 68.20               | 11.55       | Horizontal   |
| 5700.00                                                                                                                                                             | 39.75               | 17.13       | 56.88          | 105.20              | 48.32       | Horizontal   |
| 5720.00                                                                                                                                                             | 40.71               | 17.21       | 57.92          | 110.80              | 52.88       | Horizontal   |
| 5725.00                                                                                                                                                             | 39.69               | 17.23       | 56.92          | 122.20              | 65.28       | Horizontal   |
| 5650.00                                                                                                                                                             | 40.90               | 17.02       | 57.92          | 68.20               | 10.28       | Vertical     |
| 5700.00                                                                                                                                                             | 39.17               | 17.13       | 56.30          | 105.20              | 48.90       | Vertical     |
| 5720.00                                                                                                                                                             | 40.55               | 17.21       | 57.76          | 110.80              | 53.04       | Vertical     |
| 5725.00                                                                                                                                                             | 39.48               | 17.23       | 56.71          | 122.20              | 65.49       | Vertical     |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5850.00                                                                                                                                                             | 38.54               | 17.55       | 56.09          | 122.20              | 66.11       | Horizontal   |
| 5855.00                                                                                                                                                             | 38.44               | 17.55       | 55.99          | 110.80              | 54.81       | Horizontal   |
| 5875.00                                                                                                                                                             | 39.14               | 17.57       | 56.71          | 105.20              | 48.49       | Horizontal   |
| 5925.00                                                                                                                                                             | 39.22               | 17.37       | 56.59          | 68.20               | 11.61       | Horizontal   |
| 5850.00                                                                                                                                                             | 39.48               | 17.55       | 57.03          | 122.20              | 65.17       | Vertical     |
| 5855.00                                                                                                                                                             | 38.51               | 17.55       | 56.06          | 110.80              | 54.74       | Vertical     |
| 5875.00                                                                                                                                                             | 39.42               | 17.57       | 56.99          | 105.20              | 48.21       | Vertical     |
| 5925.00                                                                                                                                                             | 39.93               | 17.37       | 57.30          | 68.20               | 10.90       | Vertical     |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |

| Band 4 – 802.11n(HT20)                                                                                                                                              |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5650.00                                                                                                                                                             | 39.75               | 17.02       | 56.77          | 68.20               | 11.43       | Horizontal   |
| 5700.00                                                                                                                                                             | 39.85               | 17.13       | 56.98          | 105.20              | 48.22       | Horizontal   |
| 5720.00                                                                                                                                                             | 40.40               | 17.21       | 57.61          | 110.80              | 53.19       | Horizontal   |
| 5725.00                                                                                                                                                             | 39.36               | 17.23       | 56.59          | 122.20              | 65.61       | Horizontal   |
| 5650.00                                                                                                                                                             | 40.57               | 17.02       | 57.59          | 68.20               | 10.61       | Vertical     |
| 5700.00                                                                                                                                                             | 39.65               | 17.13       | 56.78          | 105.20              | 48.42       | Vertical     |
| 5720.00                                                                                                                                                             | 40.13               | 17.21       | 57.34          | 110.80              | 53.46       | Vertical     |
| 5725.00                                                                                                                                                             | 39.50               | 17.23       | 56.73          | 122.20              | 65.47       | Vertical     |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5850.00                                                                                                                                                             | 38.98               | 17.55       | 56.53          | 122.20              | 65.67       | Horizontal   |
| 5855.00                                                                                                                                                             | 38.55               | 17.55       | 56.10          | 110.80              | 54.70       | Horizontal   |
| 5875.00                                                                                                                                                             | 38.79               | 17.57       | 56.36          | 105.20              | 48.84       | Horizontal   |
| 5925.00                                                                                                                                                             | 38.97               | 17.37       | 56.34          | 68.20               | 11.86       | Horizontal   |
| 5850.00                                                                                                                                                             | 39.74               | 17.55       | 57.29          | 122.20              | 64.91       | Vertical     |
| 5855.00                                                                                                                                                             | 39.00               | 17.55       | 56.55          | 110.80              | 54.25       | Vertical     |
| 5875.00                                                                                                                                                             | 39.23               | 17.57       | 56.80          | 105.20              | 48.40       | Vertical     |
| 5925.00                                                                                                                                                             | 39.57               | 17.37       | 56.94          | 68.20               | 11.26       | Vertical     |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |

| Band 4 – 802.11n(HT40)                                                                                                                                              |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5650.00                                                                                                                                                             | 40.98               | 17.02       | 58.00          | 68.20               | 10.20       | Horizontal   |
| 5700.00                                                                                                                                                             | 41.30               | 17.13       | 58.43          | 105.20              | 46.77       | Horizontal   |
| 5720.00                                                                                                                                                             | 45.09               | 17.21       | 62.30          | 110.80              | 48.50       | Horizontal   |
| 5725.00                                                                                                                                                             | 43.78               | 17.23       | 61.01          | 122.20              | 61.19       | Horizontal   |
| 5650.00                                                                                                                                                             | 40.08               | 17.02       | 57.10          | 68.20               | 11.10       | Vertical     |
| 5700.00                                                                                                                                                             | 39.88               | 17.13       | 57.01          | 105.20              | 48.19       | Vertical     |
| 5720.00                                                                                                                                                             | 40.62               | 17.21       | 57.83          | 110.80              | 52.97       | Vertical     |
| 5725.00                                                                                                                                                             | 40.69               | 17.23       | 57.92          | 122.20              | 64.28       | Vertical     |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5850.00                                                                                                                                                             | 39.47               | 17.55       | 57.02          | 122.20              | 65.18       | Horizontal   |
| 5855.00                                                                                                                                                             | 38.75               | 17.55       | 56.30          | 110.80              | 54.50       | Horizontal   |
| 5875.00                                                                                                                                                             | 39.18               | 17.57       | 56.75          | 105.20              | 48.45       | Horizontal   |
| 5925.00                                                                                                                                                             | 39.96               | 17.37       | 57.33          | 68.20               | 10.87       | Horizontal   |
| 5850.00                                                                                                                                                             | 39.74               | 17.55       | 57.29          | 122.20              | 64.91       | Vertical     |
| 5855.00                                                                                                                                                             | 38.68               | 17.55       | 56.23          | 110.80              | 54.57       | Vertical     |
| 5875.00                                                                                                                                                             | 38.38               | 17.57       | 55.95          | 105.20              | 49.25       | Vertical     |
| 5925.00                                                                                                                                                             | 38.52               | 17.37       | 55.89          | 68.20               | 12.31       | Vertical     |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |

| Band 4 – 802.11ac(HT20)                                                                                                                                             |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5650.00                                                                                                                                                             | 39.50               | 17.02       | 56.52          | 68.20               | 11.68       | Horizontal   |
| 5700.00                                                                                                                                                             | 39.78               | 17.13       | 56.91          | 105.20              | 48.29       | Horizontal   |
| 5720.00                                                                                                                                                             | 41.12               | 17.21       | 58.33          | 110.80              | 52.47       | Horizontal   |
| 5725.00                                                                                                                                                             | 39.20               | 17.23       | 56.43          | 122.20              | 65.77       | Horizontal   |
| 5650.00                                                                                                                                                             | 40.93               | 17.02       | 57.95          | 68.20               | 10.25       | Vertical     |
| 5700.00                                                                                                                                                             | 39.47               | 17.13       | 56.60          | 105.20              | 48.60       | Vertical     |
| 5720.00                                                                                                                                                             | 40.19               | 17.21       | 57.40          | 110.80              | 53.40       | Vertical     |
| 5725.00                                                                                                                                                             | 39.82               | 17.23       | 57.05          | 122.20              | 65.15       | Vertical     |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5850.00                                                                                                                                                             | 38.16               | 17.55       | 55.71          | 122.20              | 66.49       | Horizontal   |
| 5855.00                                                                                                                                                             | 38.00               | 17.55       | 55.55          | 110.80              | 55.25       | Horizontal   |
| 5875.00                                                                                                                                                             | 38.96               | 17.57       | 56.53          | 105.20              | 48.67       | Horizontal   |
| 5925.00                                                                                                                                                             | 39.45               | 17.37       | 56.82          | 68.20               | 11.38       | Horizontal   |
| 5850.00                                                                                                                                                             | 39.18               | 17.55       | 56.73          | 122.20              | 65.47       | Vertical     |
| 5855.00                                                                                                                                                             | 38.32               | 17.55       | 55.87          | 110.80              | 54.93       | Vertical     |
| 5875.00                                                                                                                                                             | 39.18               | 17.57       | 56.75          | 105.20              | 48.45       | Vertical     |
| 5925.00                                                                                                                                                             | 39.65               | 17.37       | 57.02          | 68.20               | 11.18       | Vertical     |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |

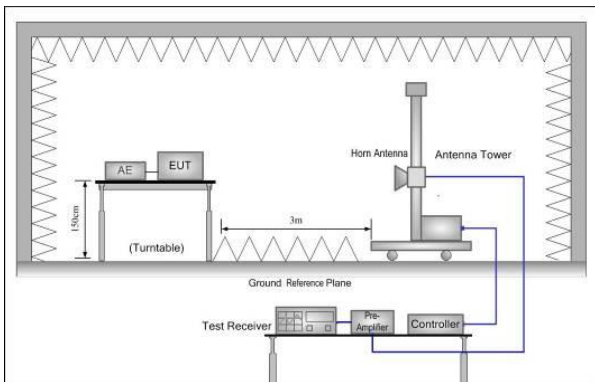


| Band 4 – 802.11ac(HT40)                                                                                                                                             |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5650.00                                                                                                                                                             | 40.68               | 17.02       | 57.70          | 68.20               | 10.50       | Horizontal   |
| 5700.00                                                                                                                                                             | 41.44               | 17.13       | 58.57          | 105.20              | 46.63       | Horizontal   |
| 5720.00                                                                                                                                                             | 44.81               | 17.21       | 62.02          | 110.80              | 48.78       | Horizontal   |
| 5725.00                                                                                                                                                             | 44.12               | 17.23       | 61.35          | 122.20              | 60.85       | Horizontal   |
| 5650.00                                                                                                                                                             | 40.23               | 17.02       | 57.25          | 68.20               | 10.95       | Vertical     |
| 5700.00                                                                                                                                                             | 39.64               | 17.13       | 56.77          | 105.20              | 48.43       | Vertical     |
| 5720.00                                                                                                                                                             | 40.65               | 17.21       | 57.86          | 110.80              | 52.94       | Vertical     |
| 5725.00                                                                                                                                                             | 40.67               | 17.23       | 57.90          | 122.20              | 64.30       | Vertical     |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5850.00                                                                                                                                                             | 39.72               | 17.55       | 57.27          | 122.20              | 64.93       | Horizontal   |
| 5855.00                                                                                                                                                             | 38.26               | 17.55       | 55.81          | 110.80              | 54.99       | Horizontal   |
| 5875.00                                                                                                                                                             | 39.20               | 17.57       | 56.77          | 105.20              | 48.43       | Horizontal   |
| 5925.00                                                                                                                                                             | 39.51               | 17.37       | 56.88          | 68.20               | 11.32       | Horizontal   |
| 5850.00                                                                                                                                                             | 40.01               | 17.55       | 57.56          | 122.20              | 64.64       | Vertical     |
| 5855.00                                                                                                                                                             | 39.17               | 17.55       | 56.72          | 110.80              | 54.08       | Vertical     |
| 5875.00                                                                                                                                                             | 38.14               | 17.57       | 55.71          | 105.20              | 49.49       | Vertical     |
| 5925.00                                                                                                                                                             | 38.55               | 17.37       | 55.92          | 68.20               | 12.28       | Vertical     |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |

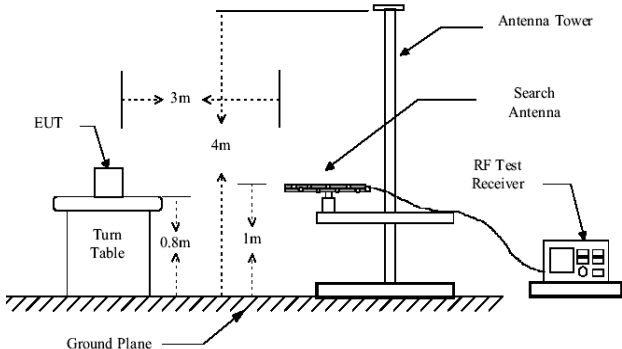
| Band 4 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5650.00                                                                                                                                                             | 39.48               | 17.02       | 56.50          | 68.20               | 11.70       | Horizontal   |
| 5700.00                                                                                                                                                             | 41.19               | 17.13       | 58.32          | 105.20              | 46.88       | Horizontal   |
| 5720.00                                                                                                                                                             | 42.55               | 17.21       | 59.76          | 110.80              | 51.04       | Horizontal   |
| 5725.00                                                                                                                                                             | 45.78               | 17.23       | 63.01          | 122.20              | 59.19       | Horizontal   |
| 5650.00                                                                                                                                                             | 40.46               | 17.02       | 57.48          | 68.20               | 10.72       | Vertical     |
| 5700.00                                                                                                                                                             | 39.92               | 17.13       | 57.05          | 105.20              | 48.15       | Vertical     |
| 5720.00                                                                                                                                                             | 40.15               | 17.21       | 57.36          | 110.80              | 53.44       | Vertical     |
| 5725.00                                                                                                                                                             | 41.05               | 17.23       | 58.28          | 122.20              | 63.92       | Vertical     |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |
| Detector: Peak Value                                                                                                                                                |                     |             |                |                     |             |              |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization |
| 5850.00                                                                                                                                                             | 43.37               | 17.55       | 60.92          | 122.20              | 61.28       | Horizontal   |
| 5855.00                                                                                                                                                             | 40.79               | 17.55       | 58.34          | 110.80              | 52.46       | Horizontal   |
| 5875.00                                                                                                                                                             | 39.23               | 17.57       | 56.80          | 105.20              | 48.40       | Horizontal   |
| 5925.00                                                                                                                                                             | 38.58               | 17.37       | 55.95          | 68.20               | 12.25       | Horizontal   |
| 5850.00                                                                                                                                                             | 40.85               | 17.55       | 58.40          | 122.20              | 63.80       | Vertical     |
| 5855.00                                                                                                                                                             | 40.37               | 17.55       | 57.92          | 110.80              | 52.88       | Vertical     |
| 5875.00                                                                                                                                                             | 40.12               | 17.57       | 57.69          | 105.20              | 47.51       | Vertical     |
| 5925.00                                                                                                                                                             | 37.90               | 17.37       | 55.27          | 68.20               | 12.93       | Vertical     |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |

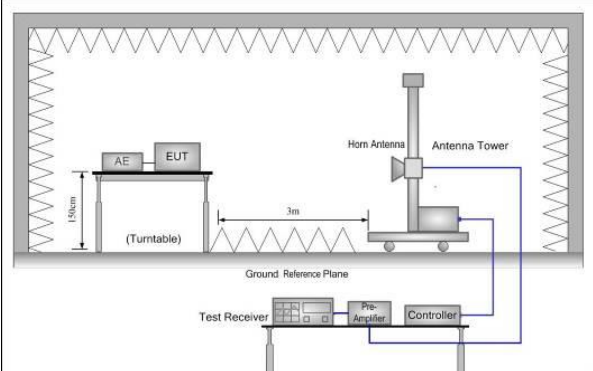
## 6.7 Spurious Emission

### 6.7.1 Restricted Band

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |      |               |               |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------|---------------|---------------|
| Test Requirement:     | FCC Part15 E Section 15.407(b)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |      |               |               |
| Test Frequency Range: | 4.5 GHz to 5.15 GHz and 5.35GHz to 5.46GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |      |               |               |
| Test site:            | Measurement Distance: 3m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |      |               |               |
| Receiver setup:       | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Detector           | RBW  | VBW           | Remark        |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Peak               | 1MHz | 3MHz          | Peak Value    |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RMS                | 1MHz | 3MHz          | Average Value |
| Limit:                | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Limit (dBuV/m @3m) |      | Remark        |               |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 74.00              |      | Peak Value    |               |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 54.00              |      | Average Value |               |
| Test Procedure:       | <div>1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</div> <div>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</div> <div>3. 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.</div> <div>4. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</div> <div>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</div> <div>6. 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.</div> |                    |      |               |               |
| Test setup:           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |      |               |               |
| Test Instruments:     | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |      |               |               |
| Test mode:            | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |      |               |               |
| Test results:         | Passed(Refer to section 6.6)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |      |               |               |

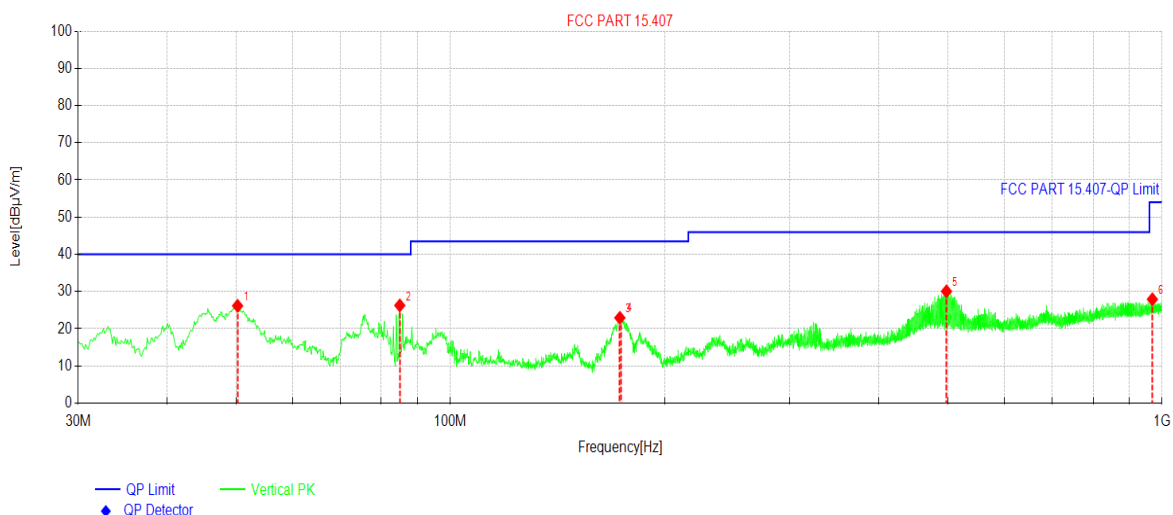
## 6.7.2 Unwanted Emissions out of the Restricted Bands

|                       |                                                                                                                                                                                                                                                                                                                                                        |            |                    |        |                  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|--------|------------------|
| Test Requirement:     | FCC Part15 C Section 15.209 and 15.205                                                                                                                                                                                                                                                                                                                 |            |                    |        |                  |
| Test Frequency Range: | 30MHz to 40GHz                                                                                                                                                                                                                                                                                                                                         |            |                    |        |                  |
| Test site:            | Measurement Distance: 3m                                                                                                                                                                                                                                                                                                                               |            |                    |        |                  |
| Receiver setup:       | Frequency                                                                                                                                                                                                                                                                                                                                              | Detector   | RBW                | VBW    | Remark           |
|                       | 30MHz-1GHz                                                                                                                                                                                                                                                                                                                                             | Quasi-peak | 100kHz             | 300kHz | Quasi-peak Value |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                             | Peak       | 1MHz               | 3MHz   | Peak Value       |
|                       |                                                                                                                                                                                                                                                                                                                                                        | RMS        | 1MHz               | 3MHz   | Average Value    |
| Limit:                | Frequency                                                                                                                                                                                                                                                                                                                                              |            | Limit (dBuV/m @3m) |        | Remark           |
|                       | 30MHz-88MHz                                                                                                                                                                                                                                                                                                                                            |            | 40.0               |        | Quasi-peak Value |
|                       | 88MHz-216MHz                                                                                                                                                                                                                                                                                                                                           |            | 43.5               |        | Quasi-peak Value |
|                       | 216MHz-960MHz                                                                                                                                                                                                                                                                                                                                          |            | 46.0               |        | Quasi-peak Value |
|                       | 960MHz-1GHz                                                                                                                                                                                                                                                                                                                                            |            | 54.0               |        | Quasi-peak Value |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                             |            | 68.20              |        | Peak Value       |
|                       |                                                                                                                                                                                                                                                                                                                                                        |            | 54.00              |        | Average Value    |
|                       | Remark:                                                                                                                                                                                                                                                                                                                                                |            |                    |        |                  |
|                       | Above 1GHz limit:                                                                                                                                                                                                                                                                                                                                      |            |                    |        |                  |
|                       | $E[dB\mu V/m] = EIRP[dBm] + 95.2 = 68.2 \text{ dBuV/m}$ , for $EIPR[dBm] = -27dBm$ .                                                                                                                                                                                                                                                                   |            |                    |        |                  |
| Test Procedure:       | 1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.                                                                                                                                     |            |                    |        |                  |
|                       | 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.                                                                                                                                                                                                             |            |                    |        |                  |
|                       | 3. 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.                                                                                                                        |            |                    |        |                  |
|                       | 4. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading.                                                                                                                     |            |                    |        |                  |
|                       | 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.                                                                                                                                                                                                                                            |            |                    |        |                  |
|                       | 6. 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. |            |                    |        |                  |
|                       |                                                                                                                                                                                                                                                                                                                                                        |            |                    |        |                  |
| Test setup:           | Below 1GHz                                                                                                                                                                                                                                                                                                                                             |            |                    |        |                  |
|                       |                                                                                                                                                                                                                                                                    |            |                    |        |                  |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                             |            |                    |        |                  |

|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
|                   |  |
| Test Instruments: | Refer to section 5.10 for details                                                  |
| Test mode:        | Refer to section 5.3 for details                                                   |
| Test results:     | Passed                                                                             |

**Measurement Data (worst case):**
**Below 1GHz**

|                        |                |                       |                     |
|------------------------|----------------|-----------------------|---------------------|
| <b>Product Name:</b>   | Smart Phone    | <b>Product Model:</b> | WP15                |
| <b>Test By:</b>        | Mike           | <b>Test mode:</b>     | 5G Wi-Fi Tx mode    |
| <b>Test Frequency:</b> | 30 MHz ~ 1 GHz | <b>Polarization:</b>  | Vertical            |
| <b>Test Voltage:</b>   | AC 120/60Hz    | <b>Environment:</b>   | Temp: 24℃ Humi: 57% |

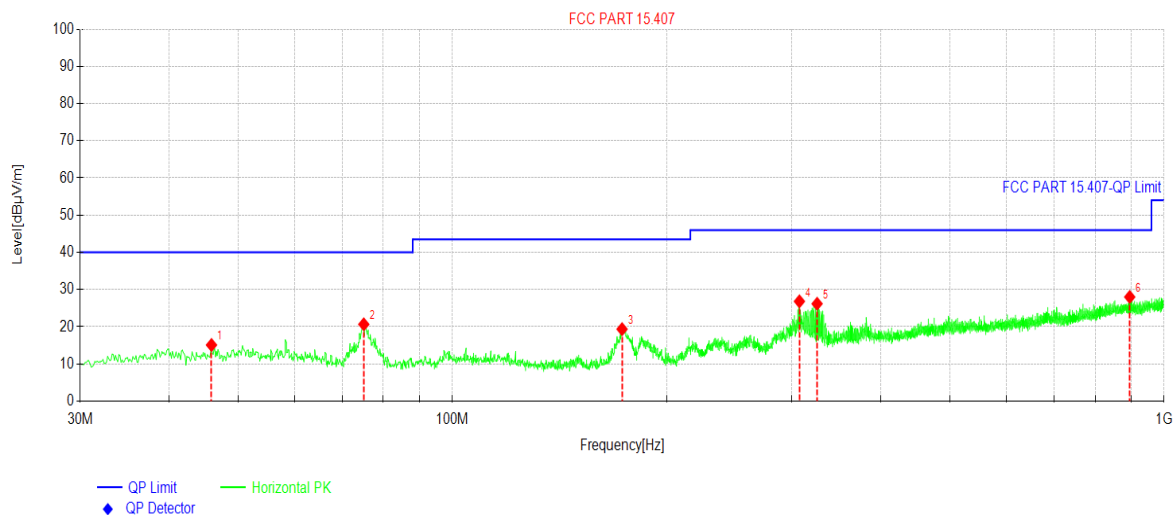

**Suspected Data List**

| NO. | Freq. [MHz] | Reading [dBuV/m] | Level [dBuV/m] | Factor [dB] | Limit [dBuV/m] | Margin [dB] | Trace | Polarity |
|-----|-------------|------------------|----------------|-------------|----------------|-------------|-------|----------|
| 1   | 50.2488     | 43.28            | 26.16          | -17.12      | 40.00          | 13.84       | PK    | Vertical |
| 2   | 84.9263     | 45.85            | 26.27          | -19.58      | 40.00          | 13.73       | PK    | Vertical |
| 3   | 173.075     | 41.76            | 22.93          | -18.83      | 43.50          | 20.57       | PK    | Vertical |
| 4   | 173.560     | 42.02            | 23.19          | -18.83      | 43.50          | 20.31       | PK    | Vertical |
| 5   | 497.903     | 39.60            | 30.06          | -9.54       | 46.00          | 15.94       | PK    | Vertical |
| 6   | 969.202     | 31.21            | 27.92          | -3.29       | 54.00          | 26.08       | PK    | Vertical |

**Remark:**

- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
- The emission levels of other frequencies are very lower than the limit and not show in test report.
- The Aux Factor is a notch filter switch box loss, this item is not used.

|                 |                |                |                     |
|-----------------|----------------|----------------|---------------------|
| Product Name:   | Smart Phone    | Product Model: | WP15                |
| Test By:        | Mike           | Test mode:     | 5G Wi-Fi Tx mode    |
| Test Frequency: | 30 MHz ~ 1 GHz | Polarization:  | Horizontal          |
| Test Voltage:   | AC 120/60Hz    | Environment:   | Temp: 24℃ Humi: 57% |



Suspected Data List

| NO. | Freq. [MHz] | Reading[dBuV/m] | Level[dBuV/m] | Factor[dB] | Limit[dBuV/m] | Margin[dB] | Trace | Polarity   |
|-----|-------------|-----------------|---------------|------------|---------------|------------|-------|------------|
| 1   | 45.8838     | 32.45           | 15.09         | -17.36     | 40.00         | 24.91      | PK    | Horizontal |
| 2   | 75.1050     | 39.86           | 20.65         | -19.21     | 40.00         | 19.35      | PK    | Horizontal |
| 3   | 173.196     | 38.18           | 19.35         | -18.83     | 43.50         | 24.15      | PK    | Horizontal |
| 4   | 307.420     | 40.85           | 26.82         | -14.03     | 46.00         | 19.18      | PK    | Horizontal |
| 5   | 325.486     | 39.55           | 26.18         | -13.37     | 46.00         | 19.82      | PK    | Horizontal |
| 6   | 894.997     | 32.00           | 28.00         | -4.00      | 46.00         | 18.00      | PK    | Horizontal |

## Remark:

- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
- The emission levels of other frequencies are very lower than the limit and not show in test report.
- The Aux Factor is a notch filter switch box loss, this item is not used.

**Above 1GHz:**  
**Band 1:**

| Band 1 – 802.11a                                                                                                                                                           |                     |             |                |                     |             |              |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|---------|
| Test channel: Lowest channel                                                                                                                                               |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10360.00                                                                                                                                                                   | 44.79               | 14.28       | 59.07          | 68.20               | 9.13        | Vertical     | Peak    |
| 10360.00                                                                                                                                                                   | 44.12               | 14.28       | 58.40          | 68.20               | 9.80        | Horizontal   | Peak    |
| 10360.00                                                                                                                                                                   | 36.12               | 14.28       | 50.40          | 54.00               | 3.60        | Vertical     | Average |
| 10360.00                                                                                                                                                                   | 36.71               | 14.28       | 50.99          | 54.00               | 3.01        | Horizontal   | Average |
| Test channel: Middle channel                                                                                                                                               |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10400.00                                                                                                                                                                   | 44.36               | 14.43       | 58.79          | 68.20               | 9.41        | Vertical     | Peak    |
| 10400.00                                                                                                                                                                   | 44.07               | 14.43       | 58.50          | 68.20               | 9.70        | Horizontal   | Peak    |
| 10400.00                                                                                                                                                                   | 35.94               | 14.43       | 50.37          | 54.00               | 3.63        | Vertical     | Average |
| 10400.00                                                                                                                                                                   | 36.66               | 14.43       | 51.09          | 54.00               | 2.91        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                              |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10480.00                                                                                                                                                                   | 44.30               | 14.10       | 58.40          | 68.20               | 9.80        | Vertical     | Peak    |
| 10480.00                                                                                                                                                                   | 44.50               | 14.10       | 58.60          | 68.20               | 9.60        | Horizontal   | Peak    |
| 10480.00                                                                                                                                                                   | 36.03               | 14.10       | 50.13          | 54.00               | 3.87        | Vertical     | Average |
| 10480.00                                                                                                                                                                   | 36.94               | 14.10       | 51.04          | 54.00               | 2.96        | Horizontal   | Average |
| Band 1 – 802.11n(HT20)                                                                                                                                                     |                     |             |                |                     |             |              |         |
| Test channel: Lowest channel                                                                                                                                               |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10360.00                                                                                                                                                                   | 44.62               | 14.28       | 58.90          | 68.20               | 9.30        | Vertical     | Peak    |
| 10360.00                                                                                                                                                                   | 44.75               | 14.28       | 59.03          | 68.20               | 9.17        | Horizontal   | Peak    |
| 10360.00                                                                                                                                                                   | 35.82               | 14.28       | 50.10          | 54.00               | 3.90        | Vertical     | Average |
| 10360.00                                                                                                                                                                   | 37.42               | 14.28       | 51.70          | 54.00               | 2.30        | Horizontal   | Average |
| Test channel: Middle channel                                                                                                                                               |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10400.00                                                                                                                                                                   | 44.68               | 14.43       | 59.11          | 68.20               | 9.09        | Vertical     | Peak    |
| 10400.00                                                                                                                                                                   | 45.08               | 14.43       | 59.51          | 68.20               | 8.69        | Horizontal   | Peak    |
| 10400.00                                                                                                                                                                   | 36.01               | 14.43       | 50.44          | 54.00               | 3.56        | Vertical     | Average |
| 10400.00                                                                                                                                                                   | 36.94               | 14.43       | 51.37          | 54.00               | 2.63        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                              |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10480.00                                                                                                                                                                   | 44.87               | 14.10       | 58.97          | 68.20               | 9.23        | Vertical     | Peak    |
| 10480.00                                                                                                                                                                   | 44.92               | 14.10       | 59.02          | 68.20               | 9.18        | Horizontal   | Peak    |
| 10480.00                                                                                                                                                                   | 35.65               | 14.10       | 49.75          | 54.00               | 4.25        | Vertical     | Average |
| 10480.00                                                                                                                                                                   | 36.97               | 14.10       | 51.07          | 54.00               | 2.93        | Horizontal   | Average |
| <b>Remark:</b><br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |         |



| Band 1 – 802.11n(HT40)                                                                                                                                              |                     |             |                |                     |             |              |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|---------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10380.00                                                                                                                                                            | 45.25               | 14.41       | 59.66          | 68.20               | 8.54        | Vertical     | Peak    |
| 10380.00                                                                                                                                                            | 45.07               | 14.41       | 59.48          | 68.20               | 8.72        | Horizontal   | Peak    |
| 10380.00                                                                                                                                                            | 35.67               | 14.41       | 50.08          | 54.00               | 3.92        | Vertical     | Average |
| 10380.00                                                                                                                                                            | 37.10               | 14.41       | 51.51          | 54.00               | 2.49        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10460.00                                                                                                                                                            | 45.08               | 14.18       | 59.26          | 68.20               | 8.94        | Vertical     | Peak    |
| 10460.00                                                                                                                                                            | 45.33               | 14.18       | 59.51          | 68.20               | 8.69        | Horizontal   | Peak    |
| 10460.00                                                                                                                                                            | 35.18               | 14.18       | 49.36          | 54.00               | 4.64        | Vertical     | Average |
| 10460.00                                                                                                                                                            | 36.68               | 14.18       | 50.86          | 54.00               | 3.14        | Horizontal   | Average |
| Band 1 – 802.11ac(HT20)                                                                                                                                             |                     |             |                |                     |             |              |         |
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10360.00                                                                                                                                                            | 45.02               | 14.28       | 59.30          | 68.20               | 8.90        | Vertical     | Peak    |
| 10360.00                                                                                                                                                            | 45.16               | 14.28       | 59.44          | 68.20               | 8.76        | Horizontal   | Peak    |
| 10360.00                                                                                                                                                            | 35.37               | 14.28       | 49.65          | 54.00               | 4.35        | Vertical     | Average |
| 10360.00                                                                                                                                                            | 37.16               | 14.28       | 51.44          | 54.00               | 2.56        | Horizontal   | Average |
| Test channel: Middle channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10400.00                                                                                                                                                            | 45.10               | 14.43       | 59.53          | 68.20               | 8.67        | Vertical     | Peak    |
| 10400.00                                                                                                                                                            | 45.23               | 14.43       | 59.66          | 68.20               | 8.54        | Horizontal   | Peak    |
| 10400.00                                                                                                                                                            | 35.48               | 14.43       | 49.91          | 54.00               | 4.09        | Vertical     | Average |
| 10400.00                                                                                                                                                            | 37.00               | 14.43       | 51.43          | 54.00               | 2.57        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10480.00                                                                                                                                                            | 45.16               | 14.10       | 59.26          | 68.20               | 8.94        | Vertical     | Peak    |
| 10480.00                                                                                                                                                            | 44.92               | 14.10       | 59.02          | 68.20               | 9.18        | Horizontal   | Peak    |
| 10480.00                                                                                                                                                            | 35.69               | 14.10       | 49.79          | 54.00               | 4.21        | Vertical     | Average |
| 10480.00                                                                                                                                                            | 36.69               | 14.10       | 50.79          | 54.00               | 3.21        | Horizontal   | Average |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |         |

| Band 1 – 802.11ac(HT40)                                                                                                                                             |                     |             |                |                     |             |              |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|---------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10380.00                                                                                                                                                            | 44.41               | 14.41       | 58.82          | 68.20               | 9.38        | Vertical     | Peak    |
| 10380.00                                                                                                                                                            | 45.09               | 14.41       | 59.50          | 68.20               | 8.70        | Horizontal   | Peak    |
| 10380.00                                                                                                                                                            | 35.94               | 14.41       | 50.35          | 54.00               | 3.65        | Vertical     | Average |
| 10380.00                                                                                                                                                            | 37.25               | 14.41       | 51.66          | 54.00               | 2.34        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10460.00                                                                                                                                                            | 44.89               | 14.18       | 59.07          | 68.20               | 9.13        | Vertical     | Peak    |
| 10460.00                                                                                                                                                            | 44.89               | 14.18       | 59.07          | 68.20               | 9.13        | Horizontal   | Peak    |
| 10460.00                                                                                                                                                            | 35.54               | 14.18       | 49.72          | 54.00               | 4.28        | Vertical     | Average |
| 10460.00                                                                                                                                                            | 37.04               | 14.18       | 51.22          | 54.00               | 2.78        | Horizontal   | Average |
| Band 1 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |         |
| Test channel: Middle channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 10420.00                                                                                                                                                            | 44.73               | 14.35       | 59.08          | 68.20               | 9.12        | Vertical     | Peak    |
| 10420.00                                                                                                                                                            | 44.64               | 14.35       | 58.99          | 68.20               | 9.21        | Horizontal   | Peak    |
| 10420.00                                                                                                                                                            | 35.86               | 14.35       | 50.21          | 54.00               | 3.79        | Vertical     | Average |
| 10420.00                                                                                                                                                            | 36.96               | 14.35       | 51.31          | 54.00               | 2.69        | Horizontal   | Average |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |         |

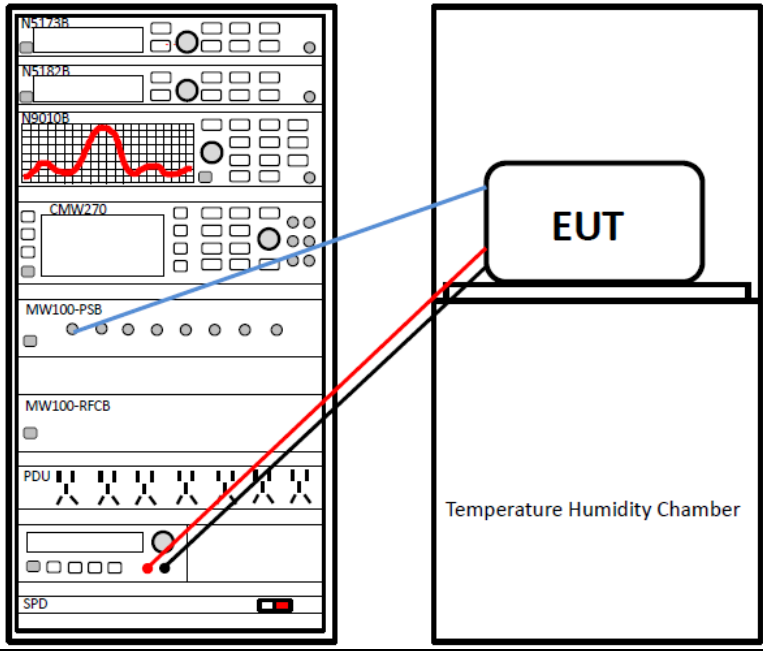
**Band 4:**

| Band 4 – 802.11a                                                                                                                                                           |                     |                |                |                     |             |              |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------|----------------|---------------------|-------------|--------------|---------|
| Test channel: Lowest channel                                                                                                                                               |                     |                |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB)    | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11490.00                                                                                                                                                                   | 45.24               | 16.23          | 61.47          | 74.00               | 12.53       | Vertical     | Peak    |
| 11490.00                                                                                                                                                                   | 44.94               | 16.23          | 61.17          | 74.00               | 12.83       | Horizontal   | Peak    |
| 11490.00                                                                                                                                                                   | 34.89               | 16.23          | 51.12          | 54.00               | 2.88        | Vertical     | Average |
| 11490.00                                                                                                                                                                   | 36.46               | 16.23          | 52.69          | 54.00               | 1.31        | Horizontal   | Average |
| Test channel: Middle channel                                                                                                                                               |                     |                |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Level (dBuV/m) | Factor (dB)    | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11570.00                                                                                                                                                                   | 45.60               | 15.17          | 60.77          | 74.00               | 13.23       | Vertical     | Peak    |
| 11570.00                                                                                                                                                                   | 45.39               | 15.17          | 60.56          | 74.00               | 13.44       | Horizontal   | Peak    |
| 11570.00                                                                                                                                                                   | 34.62               | 15.17          | 49.79          | 54.00               | 4.21        | Vertical     | Average |
| 11570.00                                                                                                                                                                   | 36.12               | 15.17          | 51.29          | 54.00               | 2.71        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                              |                     |                |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB)    | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11650.00                                                                                                                                                                   | 45.74               | 15.92          | 61.66          | 74.00               | 12.34       | Vertical     | Peak    |
| 11650.00                                                                                                                                                                   | 45.22               | 15.92          | 61.14          | 74.00               | 12.86       | Horizontal   | Peak    |
| 11650.00                                                                                                                                                                   | 34.93               | 15.92          | 50.85          | 54.00               | 3.15        | Vertical     | Average |
| 11650.00                                                                                                                                                                   | 36.18               | 15.92          | 52.10          | 54.00               | 1.90        | Horizontal   | Average |
| Band 4 – 802.11n(HT20)                                                                                                                                                     |                     |                |                |                     |             |              |         |
| Test channel: Lowest channel                                                                                                                                               |                     |                |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB)    | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11490.00                                                                                                                                                                   | 45.75               | 16.23          | 61.98          | 74.00               | 12.02       | Vertical     | Peak    |
| 11490.00                                                                                                                                                                   | 45.66               | 16.23          | 61.89          | 74.00               | 12.11       | Horizontal   | Peak    |
| 11490.00                                                                                                                                                                   | 35.30               | 16.23          | 51.53          | 54.00               | 2.47        | Vertical     | Average |
| 11490.00                                                                                                                                                                   | 36.35               | 16.23          | 52.58          | 54.00               | 1.42        | Horizontal   | Average |
| Test channel: Middle channel                                                                                                                                               |                     |                |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB)    | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11570.00                                                                                                                                                                   | 45.89               | 15.17          | 61.06          | 74.00               | 12.94       | Vertical     | Peak    |
| 11570.00                                                                                                                                                                   | 45.80               | 15.17          | 60.97          | 74.00               | 13.03       | Horizontal   | Peak    |
| 11570.00                                                                                                                                                                   | 35.18               | 15.17          | 50.35          | 54.00               | 3.65        | Vertical     | Average |
| 11570.00                                                                                                                                                                   | 36.84               | 15.17          | 52.01          | 54.00               | 1.99        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                              |                     |                |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB)    | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11650.00                                                                                                                                                                   | 45.78               | 15.92          | 61.70          | 74.00               | 12.30       | Vertical     | Peak    |
| 11650.00                                                                                                                                                                   | 46.13               | 15.92          | 62.05          | 74.00               | 11.95       | Horizontal   | Peak    |
| 11650.00                                                                                                                                                                   | 35.29               | 15.92          | 51.21          | 54.00               | 2.79        | Vertical     | Average |
| 11650.00                                                                                                                                                                   | 36.82               | 15.92          | 52.74          | 54.00               | 1.26        | Horizontal   | Average |
| <b>Remark:</b><br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |                |                |                     |             |              |         |

| Band 4 – 802.11n(HT40)                                                                                                                                              |                     |             |                |                     |             |              |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|---------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11510.00                                                                                                                                                            | 44.00               | 16.18       | 60.18          | 74.00               | 13.82       | Vertical     | Peak    |
| 11510.00                                                                                                                                                            | 44.79               | 16.18       | 60.97          | 74.00               | 13.03       | Horizontal   | Peak    |
| 11510.00                                                                                                                                                            | 35.60               | 16.18       | 51.78          | 54.00               | 2.22        | Vertical     | Average |
| 11510.00                                                                                                                                                            | 37.10               | 16.18       | 53.28          | 54.00               | 0.72        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11590.00                                                                                                                                                            | 43.55               | 15.97       | 59.52          | 74.00               | 14.48       | Vertical     | Peak    |
| 11590.00                                                                                                                                                            | 45.21               | 15.97       | 61.18          | 74.00               | 12.82       | Horizontal   | Peak    |
| 11590.00                                                                                                                                                            | 35.62               | 15.97       | 51.59          | 54.00               | 2.41        | Vertical     | Average |
| 11590.00                                                                                                                                                            | 37.36               | 15.97       | 53.33          | 54.00               | 0.67        | Horizontal   | Average |
| Band 4 – 802.11ac(HT20)                                                                                                                                             |                     |             |                |                     |             |              |         |
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11490.00                                                                                                                                                            | 45.34               | 16.23       | 61.57          | 74.00               | 12.43       | Vertical     | Peak    |
| 11490.00                                                                                                                                                            | 45.66               | 16.23       | 61.89          | 74.00               | 12.11       | Horizontal   | Peak    |
| 11490.00                                                                                                                                                            | 35.25               | 16.23       | 51.48          | 54.00               | 2.52        | Vertical     | Average |
| 11490.00                                                                                                                                                            | 37.22               | 16.23       | 53.45          | 54.00               | 0.55        | Horizontal   | Average |
| Test channel: Middle channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11570.00                                                                                                                                                            | 45.56               | 15.17       | 60.73          | 74.00               | 13.27       | Vertical     | Peak    |
| 11570.00                                                                                                                                                            | 45.72               | 15.17       | 60.89          | 74.00               | 13.11       | Horizontal   | Peak    |
| 11570.00                                                                                                                                                            | 35.25               | 15.17       | 50.42          | 54.00               | 3.58        | Vertical     | Average |
| 11570.00                                                                                                                                                            | 37.44               | 15.17       | 52.61          | 54.00               | 1.39        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11650.00                                                                                                                                                            | 45.07               | 15.92       | 60.99          | 74.00               | 13.01       | Vertical     | Peak    |
| 11650.00                                                                                                                                                            | 45.51               | 15.92       | 61.43          | 74.00               | 12.57       | Horizontal   | Peak    |
| 11650.00                                                                                                                                                            | 35.74               | 15.92       | 51.66          | 54.00               | 2.34        | Vertical     | Average |
| 11650.00                                                                                                                                                            | 36.95               | 15.92       | 52.87          | 54.00               | 1.13        | Horizontal   | Average |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |         |

| Band 4 – 802.11ac(HT40)                                                                                                                                             |                     |             |                |                     |             |              |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|---------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11510.00                                                                                                                                                            | 44.70               | 16.18       | 60.88          | 74.00               | 13.12       | Vertical     | Peak    |
| 11510.00                                                                                                                                                            | 45.21               | 16.18       | 61.39          | 74.00               | 12.61       | Horizontal   | Peak    |
| 11510.00                                                                                                                                                            | 35.75               | 16.18       | 51.93          | 54.00               | 2.07        | Vertical     | Average |
| 11510.00                                                                                                                                                            | 37.37               | 16.18       | 53.55          | 54.00               | 0.45        | Horizontal   | Average |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11590.00                                                                                                                                                            | 44.43               | 15.97       | 60.40          | 74.00               | 13.60       | Vertical     | Peak    |
| 11590.00                                                                                                                                                            | 45.26               | 15.97       | 61.23          | 74.00               | 12.77       | Horizontal   | Peak    |
| 11590.00                                                                                                                                                            | 35.43               | 15.97       | 51.40          | 54.00               | 2.60        | Vertical     | Average |
| 11590.00                                                                                                                                                            | 37.48               | 15.97       | 53.45          | 54.00               | 0.55        | Horizontal   | Average |
| Band 4 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |         |
| Test channel: Middle channel                                                                                                                                        |                     |             |                |                     |             |              |         |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Trace   |
| 11550.00                                                                                                                                                            | 44.68               | 16.08       | 60.76          | 74.00               | 13.24       | Vertical     | Peak    |
| 11550.00                                                                                                                                                            | 45.57               | 16.08       | 61.65          | 74.00               | 12.35       | Horizontal   | Peak    |
| 11550.00                                                                                                                                                            | 35.71               | 16.08       | 51.79          | 54.00               | 2.21        | Vertical     | Average |
| 11550.00                                                                                                                                                            | 37.22               | 16.08       | 53.30          | 54.00               | 0.70        | Horizontal   | Average |
| Remark:<br>1. Final Level = Receiver Read level + Factor.<br>2. The emission levels of other frequencies are very lower than the limit and not show in test report. |                     |             |                |                     |             |              |         |

## 6.8 Frequency stability

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part15 E Section 15.407 (g)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Limit:            | 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:       |  <p>The diagram illustrates the test setup. On the left is a rack of test equipment including a signal generator (NS175B), a signal analyzer (NS182B), a spectrum analyzer (NS100B), a power supply (CMW270), a power meter (MW100-PSB), a power meter (MW100-RFCB), a PDU, and a SPD. On the right is a Temperature Humidity Chamber containing the EUT (Equipment Under Test). A blue line connects the signal generator to the EUT, and a red line connects the signal analyzer to the EUT.</p>                                                                 |
| Test procedure:   | <ol style="list-style-type: none"> <li>1. The EUT is installed in an environment test chamber with external power source.</li> <li>2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.</li> <li>3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.</li> <li>4. When temperature is stabled, measure the frequency stability.</li> <li>5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.</li> </ol> |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Test results:     | <b>Refer to Appendix A - 5G WIFI</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |