

# **FCC REPORT**

## **(UNII)**

**Applicant:** INFINIX MOBILITY LIMITED

**Address of Applicant:** FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35  
SHAN MEI STREET FOTAN NT

**Equipment Under Test (EUT)**

Product Name: Mobile Phone

Model No.: X698

Trade mark: Infinix

**FCC ID:** 2AIZN-X698

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

**Date of sample receipt:** 13 Jul., 2021

**Date of Test:** 13 Jul., to 30 Jul., 2021

**Date of report issued:** 02 Aug., 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.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

## 2 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | 02 Aug., 2021 | Original    |
|             |               |             |
|             |               |             |
|             |               |             |
|             |               |             |

Tested by: Mike.ou  
Test Engineer

Date: 02 Aug., 2021

Reviewed by: Winner Zhang  
Project Engineer

Date: 02 Aug., 2021

### 3 Contents

|                                                                   | Page      |
|-------------------------------------------------------------------|-----------|
| <b>1 COVER PAGE.....</b>                                          | <b>1</b>  |
| <b>2 VERSION .....</b>                                            | <b>2</b>  |
| <b>3 CONTENTS .....</b>                                           | <b>3</b>  |
| <b>4 TEST SUMMARY.....</b>                                        | <b>4</b>  |
| <b>5 GENERAL INFORMATION.....</b>                                 | <b>5</b>  |
| 5.1 CLIENT INFORMATION.....                                       | 5         |
| 5.2 GENERAL DESCRIPTION OF E.U.T.....                             | 5         |
| 5.3 TEST ENVIRONMENT AND MODE, AND TEST SAMPLES PLANS .....       | 7         |
| 5.4 DESCRIPTION OF SUPPORT UNITS.....                             | 7         |
| 5.5 MEASUREMENT UNCERTAINTY.....                                  | 7         |
| 5.6 ADDITIONS TO, DEVIATIONS, OR EXCLUSIONS FROM THE METHOD ..... | 7         |
| 5.7 RELATED SUBMITTAL(S) / GRANT (S) .....                        | 7         |
| 5.8 LABORATORY FACILITY .....                                     | 8         |
| 5.9 LABORATORY LOCATION .....                                     | 8         |
| 5.10 TEST INSTRUMENTS LIST .....                                  | 9         |
| <b>6 TEST RESULTS AND MEASUREMENT DATA.....</b>                   | <b>10</b> |
| 6.1 ANTENNA REQUIREMENT .....                                     | 10        |
| 6.2 CONDUCTED EMISSION .....                                      | 11        |
| 6.3 CONDUCTED OUTPUT POWER .....                                  | 14        |
| 6.4 OCCUPY BANDWIDTH .....                                        | 15        |
| 6.5 POWER SPECTRAL DENSITY .....                                  | 16        |
| 6.6 BAND EDGE .....                                               | 17        |
| 6.7 SPURIOUS EMISSION.....                                        | 27        |
| 6.7.1 Restricted Band .....                                       | 27        |
| 6.7.2 Unwanted Emissions out of the Restricted Bands .....        | 28        |
| 6.8 FREQUENCY STABILITY.....                                      | 37        |
| <b>7 TEST SETUP PHOTO.....</b>                                    | <b>38</b> |
| <b>8 EUT CONSTRUCTIONAL DETAILS .....</b>                         | <b>39</b> |

## 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. N/A: Not Applicable.<br>3. 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:    | INFINIX MOBILITY LIMITED                                                                                               |
| Address:      | FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT                                           |
| Manufacturer: | INFINIX MOBILITY LIMITED                                                                                               |
| Address:      | FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT                                           |
| Factory:      | SHENZHEN TECNO TECHNOLOGY CO.,LTD.                                                                                     |
| Address:      | 101, Building 24, Waijing Industrial Park, Fumin Community, Fucheng Street, Longhua District, Shenzhen City, P.R.China |

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

|                                        |                                                                                                             |                                    |              |                         |  |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------|--------------|-------------------------|--|
| Product Name:                          | Mobile Phone                                                                                                |                                    |              |                         |  |
| Model No.:                             | X698                                                                                                        |                                    |              |                         |  |
| Operation Frequency:                   | Band 1: 5150MHz-5250MHz                                                                                     |                                    |              | Band 4: 5725MHz-5825MHz |  |
| Channel numbers:                       | Band 1:                                                                                                     | 802.11a/802.11n20: 4               | 802.11n40: 2 | 802.11ac: 1             |  |
|                                        | Band 4:                                                                                                     | 802.11a/802.11n20: 5               | 802.11n40: 2 | 802.11ac: 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:                          | -0.9 dBi                                                                                                    |                                    |              |                         |  |
| Power supply:                          | Rechargeable Li-ion Polymer Battery DC3.87V, 4900mAh                                                        |                                    |              |                         |  |
| AC adapter:                            | Model: U330XSA<br>Input: AC100-240V, 50/60Hz, 1.5A<br>Output: DC 5.0V=3A or 10V=3.3A                        |                                    |              |                         |  |
| 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, and test samples plans

| 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                                                     |
| Test Samples Plans:                                                                                                                                                                                          |                                                               |
| Samples Number                                                                                                                                                                                               | Used for Test Items                                           |
| 3#                                                                                                                                                                                                           | Conducted measurements test method                            |
| 1#                                                                                                                                                                                                           | Radiated measurements test method                             |
| 1#                                                                                                                                                                                                           | EUT constructional details                                    |
| <i>Remark: JianYan Testing Group Shenzhen Co., Ltd. is only responsible for the test project data of the above samples, and will keep the above samples for a month.</i>                                     |                                                               |

### 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 17025:2017 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                | 06-18-2021           | 06-17-2022               |
| Horn Antenna                 | SCHWARZBECK     | BBHA9120D     | 916                | 03-03-2021           | 03-02-2022               |
| Horn Antenna                 | SCHWARZBECK     | BBHA9120D     | 1805               | 06-18-2021           | 06-17-2022               |
| 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        | 06-18-2021           | 06-17-2022               |
| Cable               | HP              | 10503A     | N/A                | 03-03-2021           | 03-02-2022               |
| EMI Test Software   | AUDIX           | E3         | Version: 6.110919b |                      |                          |

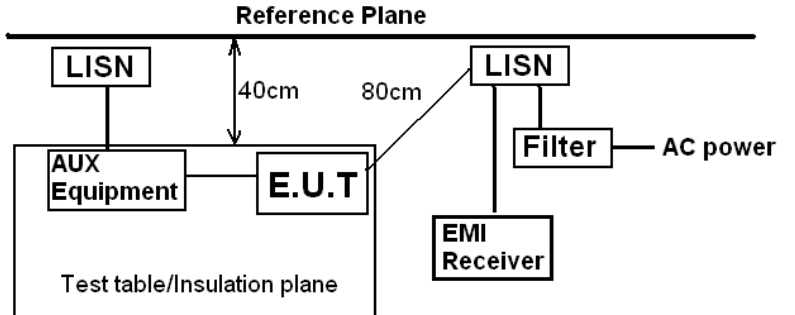
| Conducted method:       |                 |            |                  |                      |                          |
|-------------------------|-----------------|------------|------------------|----------------------|--------------------------|
| Test Equipment          | Manufacturer    | 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

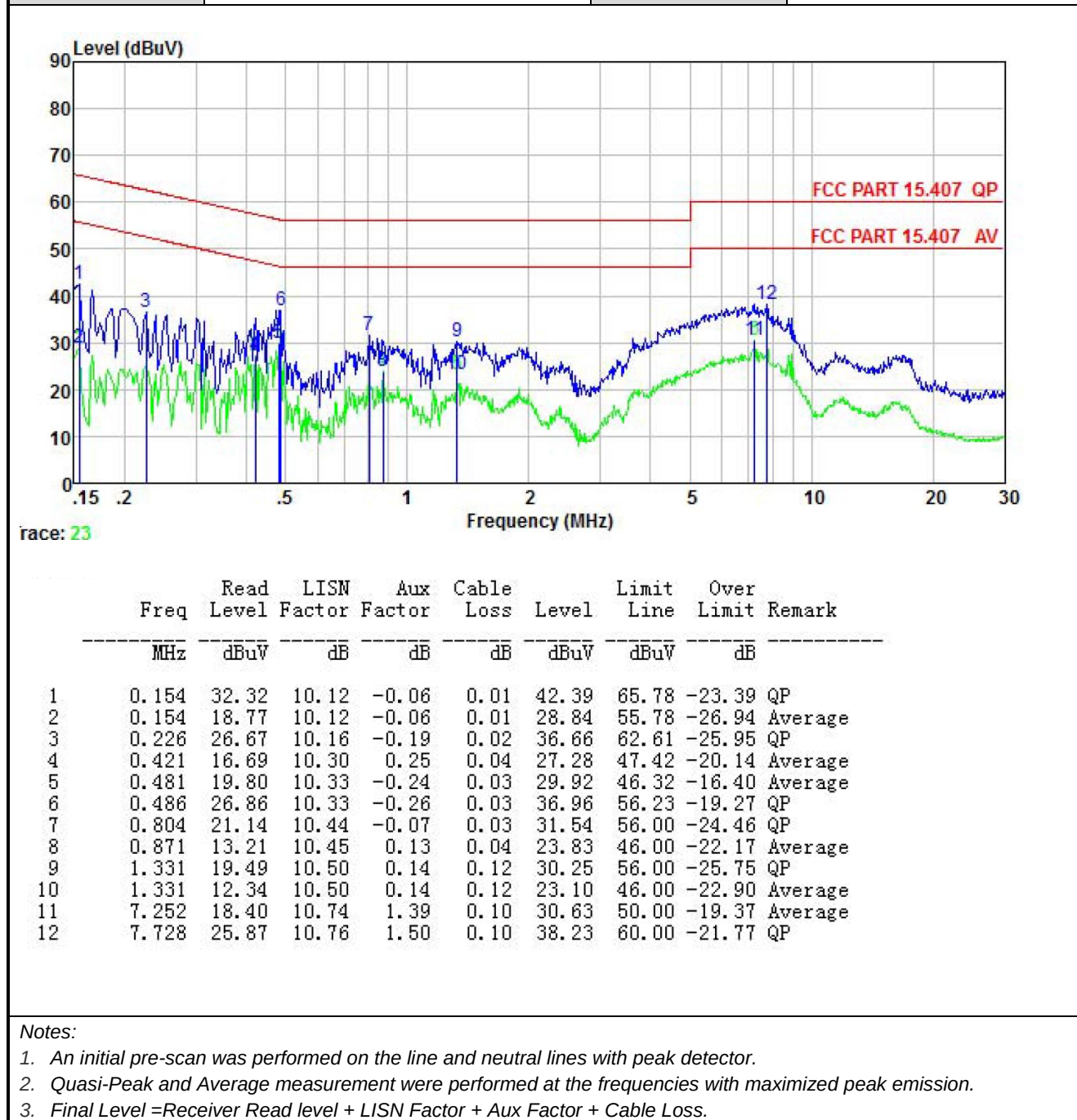
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <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 -0.9 dBi.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |

## 6.2 Conducted Emission

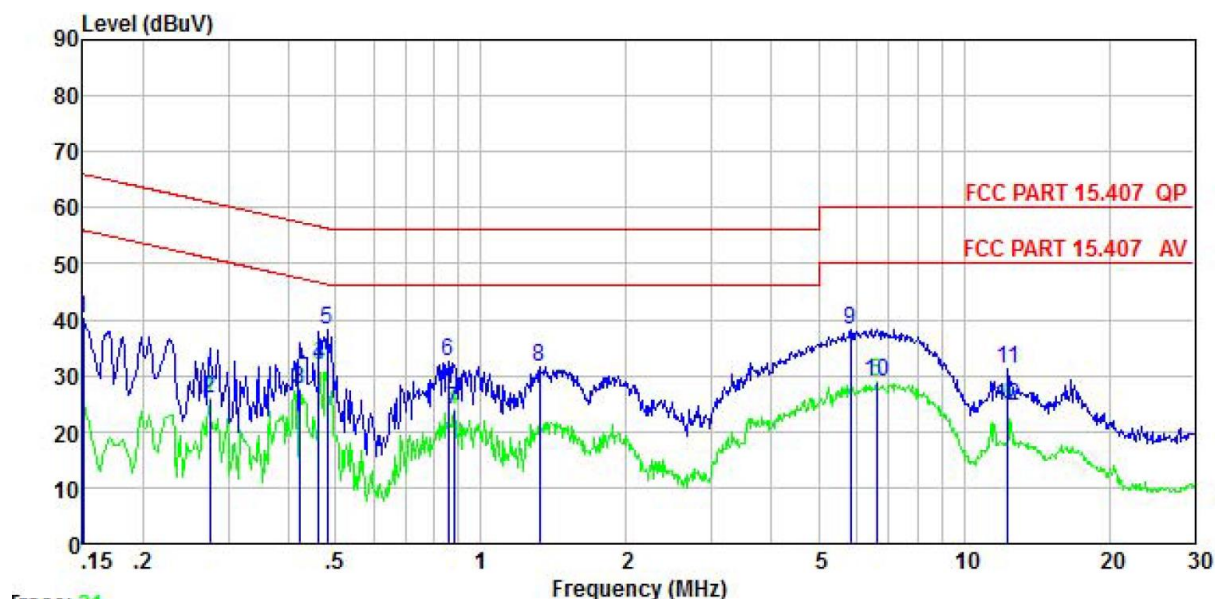
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |          |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|
| 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:   | Mobile Phone     | Product model: | X698                  |
| 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℃ Humi: 55% |



|                 |                  |                |                        |
|-----------------|------------------|----------------|------------------------|
| Product name:   | Mobile Phone     | Product model: | X698                   |
| 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% |

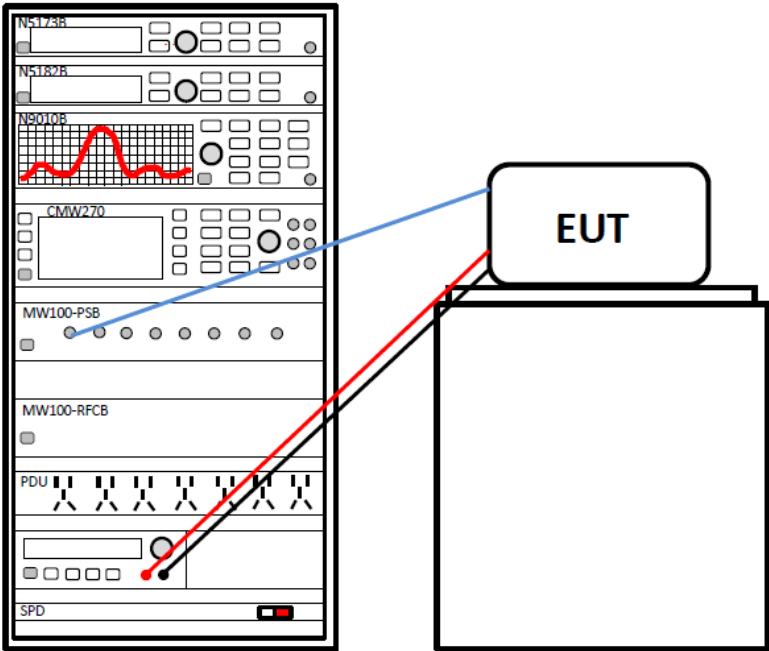


|    | Freq   | Read Level | LISN Factor | Aux Factor | Cable Loss | Level | Limit Line | Over Limit | Remark  |
|----|--------|------------|-------------|------------|------------|-------|------------|------------|---------|
|    | MHz    | dBuV       | dB          | dB         | dB         | dBuV  | dBuV       | dB         |         |
| 1  | 0.150  | 30.16      | 9.89        | 0.01       | 0.01       | 40.07 | 66.00      | -25.93     | QP      |
| 2  | 0.274  | 15.75      | 9.99        | 0.01       | 0.02       | 25.77 | 50.98      | -25.21     | Average |
| 3  | 0.421  | 17.54      | 10.14       | -0.04      | 0.04       | 27.68 | 47.42      | -19.74     | Average |
| 4  | 0.461  | 21.66      | 10.17       | 0.00       | 0.03       | 31.86 | 46.67      | -14.81     | Average |
| 5  | 0.481  | 27.82      | 10.19       | 0.02       | 0.03       | 38.06 | 56.32      | -18.26     | QP      |
| 6  | 0.857  | 21.87      | 10.48       | 0.06       | 0.04       | 32.45 | 56.00      | -23.55     | QP      |
| 7  | 0.880  | 13.28      | 10.49       | 0.07       | 0.04       | 23.88 | 46.00      | -22.12     | Average |
| 8  | 1.324  | 20.63      | 10.66       | 0.12       | 0.11       | 31.52 | 56.00      | -24.48     | QP      |
| 9  | 5.836  | 26.33      | 11.05       | 0.75       | 0.09       | 38.22 | 60.00      | -21.78     | QP      |
| 10 | 6.592  | 16.79      | 11.08       | 0.81       | 0.10       | 28.78 | 50.00      | -21.22     | Average |
| 11 | 12.318 | 17.66      | 11.31       | 2.26       | 0.10       | 31.33 | 60.00      | -28.67     | QP      |
| 12 | 12.318 | 11.00      | 11.31       | 2.26       | 0.10       | 24.67 | 50.00      | -25.33     | Average |

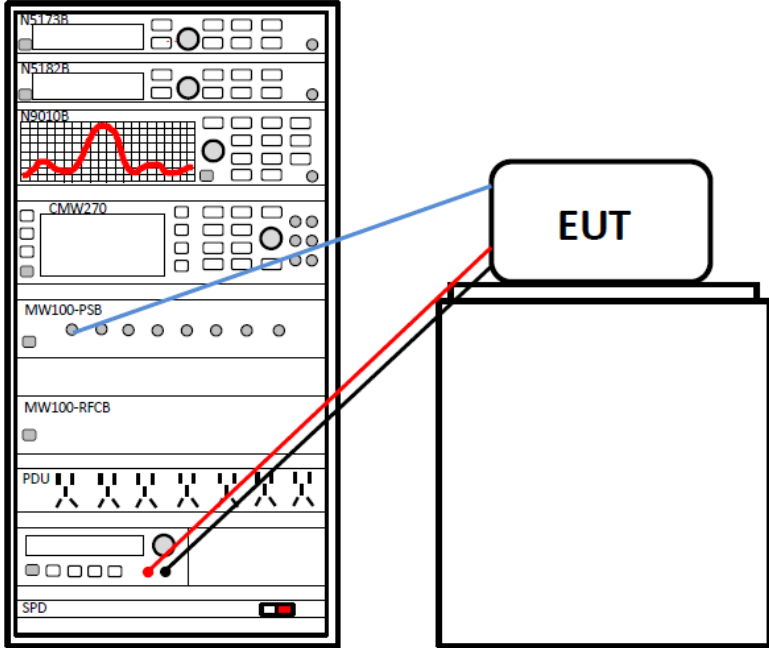
#### Notes:

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.

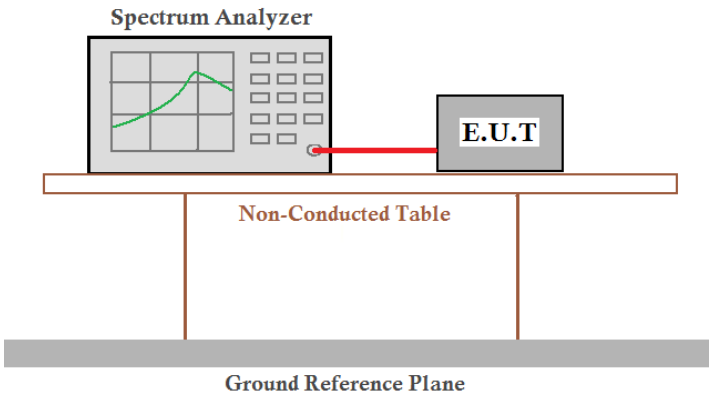
### 6.3 Conducted Output Power

|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
| 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>                                               |

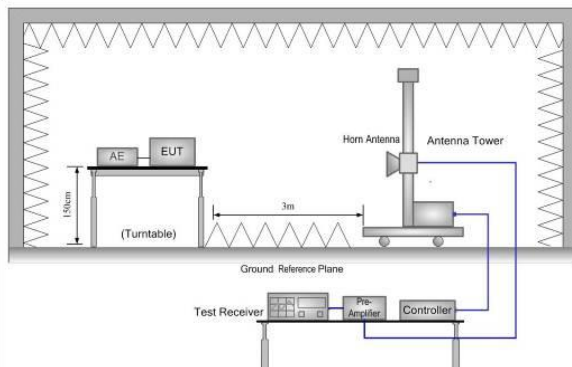
## 6.4 Occupy Bandwidth

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 signal generator (N5173B), a signal analyzer (N5182B), a spectrum analyzer (N9010B) displaying a red waveform, a channel emulator (CMW270), a power supply (MW100-PSB), a radio frequency comb generator (MW100-RFCB), a power distribution unit (PDU), and a safety device (SPD). A blue line connects the signal generator to the EUT (Equipment Under Test), and a red line connects the spectrum analyzer to the EUT. The EUT is represented by a box labeled 'EUT' on the right.</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 $EIPR[dBm]=-27dBm$ .<br>2. Band 4 limit:<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2=68.2 \text{ dBuV/m}$ , for $EIPR[dBm]=-27dBm$ .<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2=105.2 \text{ dBuV/m}$ , for $EIPR[dBm]=10dBm$ .<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2=110.8 \text{ dBuV/m}$ , for $EIPR[dBm]=15.6dBm$ .<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2=122.2 \text{ dBuV/m}$ , for $EIPR[dBm]=27dBm$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |        |                  |
| Test Procedure:   | <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> |                    |        |                  |
| 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 (worst case):**
**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 | Polarity |
| 5150.00                                                                                                                                                                    | 39.99               | -4.52       | 35.47          | 68.20               | 32.73       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                                    | 40.09               | -4.52       | 35.57          | 68.20               | 32.63       | Vertical     | Peak     |
| 5150.00                                                                                                                                                                    | 32.60               | -4.52       | 28.08          | 54.00               | 25.92       | Horizontal   | Average  |
| 5150.00                                                                                                                                                                    | 31.98               | -4.52       | 27.46          | 54.00               | 26.54       | Vertical     | Average  |
| Test channel: Highest channel                                                                                                                                              |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                                    | 39.24               | -2.68       | 36.56          | 68.20               | 31.64       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                                    | 39.26               | -2.68       | 36.58          | 68.20               | 31.62       | Vertical     | Peak     |
| 5350.00                                                                                                                                                                    | 31.32               | -2.68       | 28.64          | 54.00               | 25.36       | Horizontal   | Average  |
| 5350.00                                                                                                                                                                    | 32.47               | -2.68       | 29.79          | 54.00               | 24.21       | Vertical     | 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 | Polarity |
| 5150.00                                                                                                                                                                    | 39.55               | -4.52       | 35.03          | 68.20               | 33.17       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                                    | 40.20               | -4.52       | 35.68          | 68.20               | 32.52       | Vertical     | Peak     |
| 5150.00                                                                                                                                                                    | 32.29               | -4.52       | 27.77          | 54.00               | 26.23       | Horizontal   | Average  |
| 5150.00                                                                                                                                                                    | 32.22               | -4.52       | 27.70          | 54.00               | 26.3        | Vertical     | Average  |
| Test channel: Highest channel                                                                                                                                              |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                            | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                                    | 38.95               | -2.68       | 36.27          | 68.20               | 31.93       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                                    | 39.45               | -2.68       | 36.77          | 68.20               | 31.43       | Vertical     | Peak     |
| 5350.00                                                                                                                                                                    | 31.60               | -2.68       | 28.92          | 54.00               | 25.08       | Horizontal   | Average  |
| 5350.00                                                                                                                                                                    | 32.69               | -2.68       | 30.01          | 54.00               | 23.99       | 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)                                                                                                                                              |                     |             |                |                     |             |              |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|----------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                             | 41.30               | -4.52       | 36.78          | 68.20               | 31.42       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 39.61               | -4.52       | 35.09          | 68.20               | 33.11       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 31.96               | -4.52       | 27.44          | 54.00               | 26.56       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 32.41               | -4.52       | 27.89          | 54.00               | 26.11       | Vertical     | Average  |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 39.14               | -2.68       | 36.46          | 68.20               | 31.74       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 39.07               | -2.68       | 36.39          | 68.20               | 31.81       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 30.94               | -2.68       | 28.26          | 54.00               | 25.74       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 31.73               | -2.68       | 29.05          | 54.00               | 24.95       | Vertical     | 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 | Polarity |
| 5150.00                                                                                                                                                             | 40.04               | -4.52       | 35.52          | 68.20               | 32.68       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 40.23               | -4.52       | 35.71          | 68.20               | 32.49       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 32.61               | -4.52       | 28.09          | 54.00               | 25.91       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 31.72               | -4.52       | 27.20          | 54.00               | 26.8        | Vertical     | Average  |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 39.24               | -2.68       | 36.56          | 68.20               | 31.64       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 38.96               | -2.68       | 36.28          | 68.20               | 31.92       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 31.16               | -2.68       | 28.48          | 54.00               | 25.52       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 32.12               | -2.68       | 29.44          | 54.00               | 24.56       | 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)                                                                                                                                             |                     |             |                |                     |             |              |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|----------|
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                             | 40.90               | -4.52       | 36.38          | 68.20               | 31.82       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 39.71               | -4.52       | 35.19          | 68.20               | 33.01       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 32.19               | -4.52       | 27.67          | 54.00               | 26.33       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 32.06               | -4.52       | 27.54          | 54.00               | 26.46       | Vertical     | Average  |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 39.23               | -2.68       | 36.55          | 68.20               | 31.65       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 39.02               | -2.68       | 36.34          | 68.20               | 31.86       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 30.76               | -2.68       | 28.08          | 54.00               | 25.92       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 32.02               | -2.68       | 29.34          | 54.00               | 24.66       | Vertical     | Average  |
| Band 1 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |          |
| Test channel: Lowest channel                                                                                                                                        |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5150.00                                                                                                                                                             | 41.29               | -4.52       | 36.77          | 68.20               | 31.43       | Horizontal   | Peak     |
| 5150.00                                                                                                                                                             | 43.73               | -4.52       | 39.21          | 68.20               | 28.99       | Vertical     | Peak     |
| 5150.00                                                                                                                                                             | 33.52               | -4.52       | 29.00          | 54.00               | 25.00       | Horizontal   | Average  |
| 5150.00                                                                                                                                                             | 32.84               | -4.52       | 28.32          | 54.00               | 25.68       | Vertical     | Average  |
| Test channel: Highest channel                                                                                                                                       |                     |             |                |                     |             |              |          |
| Frequency (MHz)                                                                                                                                                     | Read Level (dBuV/m) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Margin [dB] | Polarization | Polarity |
| 5350.00                                                                                                                                                             | 39.83               | -2.68       | 37.15          | 68.20               | 31.05       | Horizontal   | Peak     |
| 5350.00                                                                                                                                                             | 37.97               | -2.68       | 35.29          | 68.20               | 32.91       | Vertical     | Peak     |
| 5350.00                                                                                                                                                             | 31.60               | -2.68       | 28.92          | 54.00               | 25.08       | Horizontal   | Average  |
| 5350.00                                                                                                                                                             | 31.54               | -2.68       | 28.86          | 54.00               | 25.14       | 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                                                                                                                                                             | 39.08               | 17.02       | 56.10          | 68.20               | 12.10       | Horizontal   |
| 5700.00                                                                                                                                                             | 39.49               | 17.13       | 56.62          | 105.20              | 48.58       | Horizontal   |
| 5720.00                                                                                                                                                             | 39.24               | 17.21       | 56.45          | 110.80              | 54.35       | Horizontal   |
| 5725.00                                                                                                                                                             | 47.03               | 17.23       | 64.26          | 122.20              | 57.94       | Horizontal   |
| 5650.00                                                                                                                                                             | 39.54               | 17.02       | 56.56          | 68.20               | 11.64       | Vertical     |
| 5700.00                                                                                                                                                             | 39.83               | 17.13       | 56.96          | 105.20              | 48.24       | Vertical     |
| 5720.00                                                                                                                                                             | 39.52               | 17.21       | 56.73          | 110.80              | 54.07       | Vertical     |
| 5725.00                                                                                                                                                             | 42.17               | 17.23       | 59.40          | 122.20              | 62.80       | 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                                                                                                                                                             | 40.92               | 17.55       | 58.47          | 122.20              | 63.73       | Horizontal   |
| 5855.00                                                                                                                                                             | 39.09               | 17.55       | 56.64          | 110.80              | 54.16       | Horizontal   |
| 5875.00                                                                                                                                                             | 41.17               | 17.57       | 58.74          | 105.20              | 46.46       | Horizontal   |
| 5925.00                                                                                                                                                             | 41.41               | 17.37       | 58.78          | 68.20               | 9.42        | Horizontal   |
| 5850.00                                                                                                                                                             | 40.82               | 17.55       | 58.37          | 122.20              | 63.83       | Vertical     |
| 5855.00                                                                                                                                                             | 39.25               | 17.55       | 56.80          | 110.80              | 54.00       | Vertical     |
| 5875.00                                                                                                                                                             | 38.41               | 17.57       | 55.98          | 105.20              | 49.22       | Vertical     |
| 5925.00                                                                                                                                                             | 41.52               | 17.37       | 58.89          | 68.20               | 9.31        | 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 – 802.11n(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                                                                                                                                                             | 39.50               | 17.02       | 56.52          | 68.20               | 11.68       | Horizontal   |
| 5700.00                                                                                                                                                             | 39.77               | 17.13       | 56.90          | 105.20              | 48.30       | Horizontal   |
| 5720.00                                                                                                                                                             | 39.50               | 17.21       | 56.71          | 110.80              | 54.09       | Horizontal   |
| 5725.00                                                                                                                                                             | 46.68               | 17.23       | 63.91          | 122.20              | 58.29       | Horizontal   |
| 5650.00                                                                                                                                                             | 39.62               | 17.02       | 56.64          | 68.20               | 11.56       | Vertical     |
| 5700.00                                                                                                                                                             | 39.80               | 17.13       | 56.93          | 105.20              | 48.27       | Vertical     |
| 5720.00                                                                                                                                                             | 39.29               | 17.21       | 56.50          | 110.80              | 54.30       | Vertical     |
| 5725.00                                                                                                                                                             | 42.49               | 17.23       | 59.72          | 122.20              | 62.48       | 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                                                                                                                                                             | 41.26               | 17.55       | 58.81          | 122.20              | 63.39       | Horizontal   |
| 5855.00                                                                                                                                                             | 38.89               | 17.55       | 56.44          | 110.80              | 54.36       | Horizontal   |
| 5875.00                                                                                                                                                             | 41.41               | 17.57       | 58.98          | 105.20              | 46.22       | Horizontal   |
| 5925.00                                                                                                                                                             | 41.13               | 17.37       | 58.50          | 68.20               | 9.70        | Horizontal   |
| 5850.00                                                                                                                                                             | 40.68               | 17.55       | 58.23          | 122.20              | 63.97       | Vertical     |
| 5855.00                                                                                                                                                             | 39.39               | 17.55       | 56.94          | 110.80              | 53.86       | Vertical     |
| 5875.00                                                                                                                                                             | 38.76               | 17.57       | 56.33          | 105.20              | 48.87       | Vertical     |
| 5925.00                                                                                                                                                             | 41.06               | 17.37       | 58.43          | 68.20               | 9.77        | 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                                                                                                                                                             | 40.81               | 17.02       | 57.83          | 68.20               | 10.37       | Horizontal   |
| 5700.00                                                                                                                                                             | 40.05               | 17.13       | 57.18          | 105.20              | 48.02       | Horizontal   |
| 5720.00                                                                                                                                                             | 48.07               | 17.21       | 65.28          | 110.80              | 45.52       | Horizontal   |
| 5725.00                                                                                                                                                             | 48.55               | 17.23       | 65.78          | 122.20              | 56.42       | Horizontal   |
| 5650.00                                                                                                                                                             | 38.82               | 17.02       | 55.84          | 68.20               | 12.36       | Vertical     |
| 5700.00                                                                                                                                                             | 39.62               | 17.13       | 56.75          | 105.20              | 48.45       | Vertical     |
| 5720.00                                                                                                                                                             | 45.48               | 17.21       | 62.69          | 110.80              | 48.11       | Vertical     |
| 5725.00                                                                                                                                                             | 45.15               | 17.23       | 62.38          | 122.20              | 59.82       | 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                                                                                                                                                             | 42.52               | 17.55       | 60.07          | 122.20              | 62.13       | Horizontal   |
| 5855.00                                                                                                                                                             | 40.95               | 17.55       | 58.50          | 110.80              | 52.30       | Horizontal   |
| 5875.00                                                                                                                                                             | 39.23               | 17.57       | 56.80          | 105.20              | 48.40       | Horizontal   |
| 5925.00                                                                                                                                                             | 40.11               | 17.37       | 57.48          | 68.20               | 10.72       | Horizontal   |
| 5850.00                                                                                                                                                             | 39.56               | 17.55       | 57.11          | 122.20              | 65.09       | Vertical     |
| 5855.00                                                                                                                                                             | 41.07               | 17.55       | 58.62          | 110.80              | 52.18       | Vertical     |
| 5875.00                                                                                                                                                             | 38.92               | 17.57       | 56.49          | 105.20              | 48.71       | Vertical     |
| 5925.00                                                                                                                                                             | 40.22               | 17.37       | 57.59          | 68.20               | 10.61       | 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. |                     |             |                |                     |             |              |

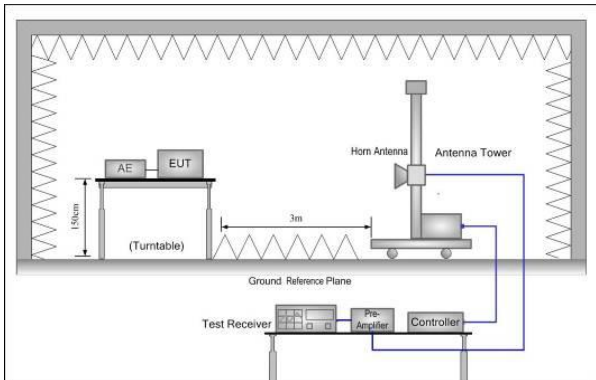
| Band 4 – 802.11ac(HT20)                                                                                                                                             |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| 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                                                                                                                                                             | 38.81               | 17.02       | 55.83          | 68.20               | 12.37       | Horizontal   |
| 5700.00                                                                                                                                                             | 39.93               | 17.13       | 57.06          | 105.20              | 48.14       | Horizontal   |
| 5720.00                                                                                                                                                             | 39.52               | 17.21       | 56.73          | 110.80              | 54.07       | Horizontal   |
| 5725.00                                                                                                                                                             | 46.78               | 17.23       | 64.01          | 122.20              | 58.19       | Horizontal   |
| 5650.00                                                                                                                                                             | 39.40               | 17.02       | 56.42          | 68.20               | 11.78       | Vertical     |
| 5700.00                                                                                                                                                             | 39.58               | 17.13       | 56.71          | 105.20              | 48.49       | Vertical     |
| 5720.00                                                                                                                                                             | 39.33               | 17.21       | 56.54          | 110.80              | 54.26       | Vertical     |
| 5725.00                                                                                                                                                             | 42.24               | 17.23       | 59.47          | 122.20              | 62.73       | 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                                                                                                                                                             | 41.06               | 17.55       | 58.61          | 122.20              | 63.59       | Horizontal   |
| 5855.00                                                                                                                                                             | 39.42               | 17.55       | 56.97          | 110.80              | 53.83       | Horizontal   |
| 5875.00                                                                                                                                                             | 41.03               | 17.57       | 58.60          | 105.20              | 46.60       | Horizontal   |
| 5925.00                                                                                                                                                             | 41.13               | 17.37       | 58.50          | 68.20               | 9.70        | Horizontal   |
| 5850.00                                                                                                                                                             | 40.61               | 17.55       | 58.16          | 122.20              | 64.04       | Vertical     |
| 5855.00                                                                                                                                                             | 39.62               | 17.55       | 57.17          | 110.80              | 53.63       | Vertical     |
| 5875.00                                                                                                                                                             | 38.06               | 17.57       | 55.63          | 105.20              | 49.57       | Vertical     |
| 5925.00                                                                                                                                                             | 41.58               | 17.37       | 58.95          | 68.20               | 9.25        | 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                                                                                                                                                             | 40.48               | 17.02       | 57.50          | 68.20               | 10.70       | Horizontal   |
| 5700.00                                                                                                                                                             | 40.42               | 17.13       | 57.55          | 105.20              | 47.65       | Horizontal   |
| 5720.00                                                                                                                                                             | 48.28               | 17.21       | 65.49          | 110.80              | 45.31       | Horizontal   |
| 5725.00                                                                                                                                                             | 48.21               | 17.23       | 65.44          | 122.20              | 56.76       | Horizontal   |
| 5650.00                                                                                                                                                             | 39.10               | 17.02       | 56.12          | 68.20               | 12.08       | Vertical     |
| 5700.00                                                                                                                                                             | 39.26               | 17.13       | 56.39          | 105.20              | 48.81       | Vertical     |
| 5720.00                                                                                                                                                             | 45.69               | 17.21       | 62.90          | 110.80              | 47.90       | Vertical     |
| 5725.00                                                                                                                                                             | 44.82               | 17.23       | 62.05          | 122.20              | 60.15       | 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                                                                                                                                                             | 42.25               | 17.55       | 59.80          | 122.20              | 62.40       | Horizontal   |
| 5855.00                                                                                                                                                             | 40.47               | 17.55       | 58.02          | 110.80              | 52.78       | Horizontal   |
| 5875.00                                                                                                                                                             | 39.05               | 17.57       | 56.62          | 105.20              | 48.58       | Horizontal   |
| 5925.00                                                                                                                                                             | 40.20               | 17.37       | 57.57          | 68.20               | 10.63       | Horizontal   |
| 5850.00                                                                                                                                                             | 39.23               | 17.55       | 56.78          | 122.20              | 65.42       | Vertical     |
| 5855.00                                                                                                                                                             | 41.20               | 17.55       | 58.75          | 110.80              | 52.05       | Vertical     |
| 5875.00                                                                                                                                                             | 38.56               | 17.57       | 56.13          | 105.20              | 49.07       | Vertical     |
| 5925.00                                                                                                                                                             | 39.94               | 17.37       | 57.31          | 68.20               | 10.89       | 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. |                     |             |                |                     |             |              |

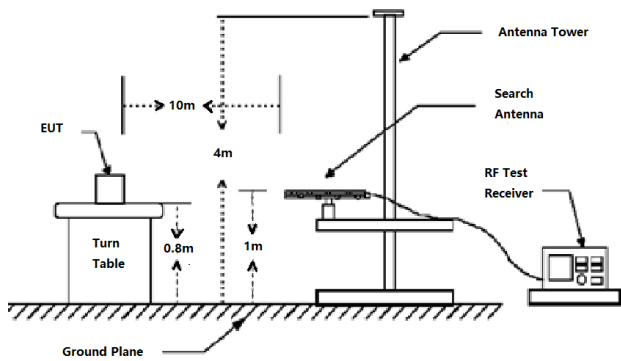
| Band 4 – 802.11ac(HT80)                                                                                                                                             |                     |             |                |                     |             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|----------------|---------------------|-------------|--------------|
| 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                                                                                                                                                             | 40.03               | 17.02       | 57.05          | 68.20               | 11.15       | Horizontal   |
| 5700.00                                                                                                                                                             | 43.39               | 17.13       | 60.52          | 105.20              | 44.68       | Horizontal   |
| 5720.00                                                                                                                                                             | 48.76               | 17.21       | 65.97          | 110.80              | 44.83       | Horizontal   |
| 5725.00                                                                                                                                                             | 52.80               | 17.23       | 70.03          | 122.20              | 52.17       | Horizontal   |
| 5650.00                                                                                                                                                             | 40.22               | 17.02       | 57.24          | 68.20               | 10.96       | Vertical     |
| 5700.00                                                                                                                                                             | 41.54               | 17.13       | 58.67          | 105.20              | 46.53       | Vertical     |
| 5720.00                                                                                                                                                             | 51.07               | 17.21       | 68.28          | 110.80              | 42.52       | Vertical     |
| 5725.00                                                                                                                                                             | 44.84               | 17.23       | 62.07          | 122.20              | 60.13       | 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                                                                                                                                                             | 45.52               | 17.55       | 63.07          | 122.20              | 59.13       | Horizontal   |
| 5855.00                                                                                                                                                             | 43.58               | 17.55       | 61.13          | 110.80              | 49.67       | Horizontal   |
| 5875.00                                                                                                                                                             | 39.60               | 17.57       | 57.17          | 105.20              | 48.03       | Horizontal   |
| 5925.00                                                                                                                                                             | 39.65               | 17.37       | 57.02          | 68.20               | 11.18       | Horizontal   |
| 5850.00                                                                                                                                                             | 40.6                | 17.55       | 58.15          | 122.20              | 64.05       | Vertical     |
| 5855.00                                                                                                                                                             | 40.51               | 17.55       | 58.06          | 110.80              | 52.74       | Vertical     |
| 5875.00                                                                                                                                                             | 39.68               | 17.57       | 57.25          | 105.20              | 47.95       | Vertical     |
| 5925.00                                                                                                                                                             | 40.58               | 17.37       | 57.95          | 68.20               | 10.25       | 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. |                     |             |                |                     |             |              |

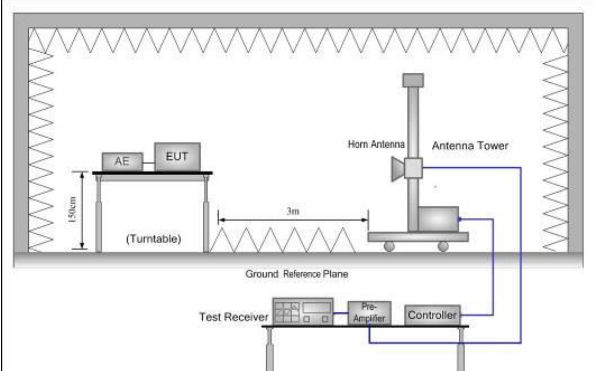
## 6.7 Spurious Emission

### 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: 10m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                    |               |                  |
| 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:<br>Above 1GHz limit:<br>$E[dB\mu V/m] = EIRP[dBm] + 95.2 = 68.2 \text{ dBuV/m}$ , for $EIPR[dBm] = -27dBm$ . |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                    |               |                  |
| Test Procedure:                                                                                                      | <div>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.</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:                                                                                                          | <div>Below 1GHz</div> <div></div> <div>Above 1GHz</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                    |               |                  |

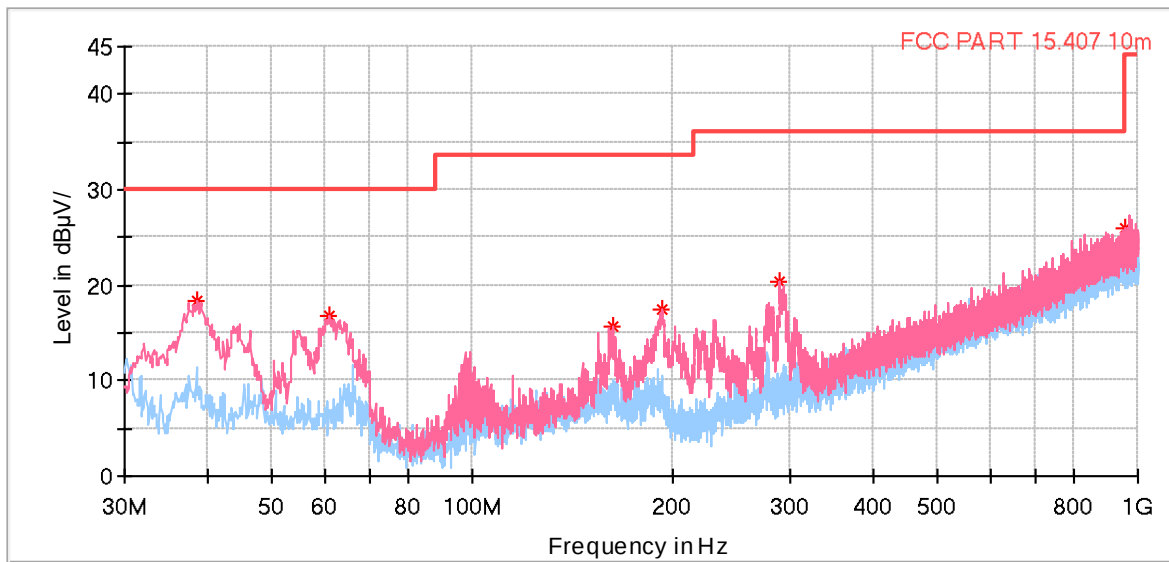
|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
|                   |  |
| Test Instruments: | Refer to section 5.10 for details      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

# Measurement Data (worst case):

## Below 1GHz

|                 |                |                |                       |
|-----------------|----------------|----------------|-----------------------|
| Product Name:   | Mobile Phone   | Product Model: | X698                  |
| Test By:        | Mike           | Test mode:     | 5G Wi-Fi Tx mode      |
| Test Frequency: | 30 MHz ~ 1 GHz | Polarization:  | Vertical & Horizontal |
| Test Voltage:   | AC 120/60Hz    | Environment:   | Temp: 24℃ Humi: 57%   |

Full Spectrum



## Critical\_Freqs

| Frequency<br>(MHz) | MaxPeak<br>(dBμ V/m) | Limit<br>(dBμ V/m) | Margin<br>(dB) | Height<br>(cm) | Pol | Azimuth<br>(deg) | Corr.<br>(dB/m) |
|--------------------|----------------------|--------------------|----------------|----------------|-----|------------------|-----------------|
| 38.536000          | 18.32                | 30.00              | 11.68          | 100.0          | V   | 161.0            | -16.0           |
| 60.846000          | 16.88                | 30.00              | 13.12          | 100.0          | V   | 153.0            | -16.5           |
| 162.793000         | 15.74                | 33.50              | 17.76          | 100.0          | V   | 254.0            | -15.6           |
| 192.378000         | 17.43                | 33.50              | 16.07          | 100.0          | V   | 178.0            | -17.9           |
| 289.572000         | 20.41                | 36.00              | 15.59          | 100.0          | V   | 0.0              | -14.4           |
| 959.163000         | 25.87                | 36.00              | 10.13          | 100.0          | V   | 304.0            | 0.0             |

### Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. 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                                                                                                                                                                   | 44.86               | 14.28       | 59.14          | 68.20               | 9.06        | Vertical     | Peak    |
| 10360.00                                                                                                                                                                   | 44.57               | 14.28       | 58.85          | 68.20               | 9.35        | Horizontal   | Peak    |
| 10360.00                                                                                                                                                                   | 36.75               | 14.28       | 51.03          | 54.00               | 2.97        | Vertical     | Average |
| 10360.00                                                                                                                                                                   | 36.42               | 14.28       | 50.70          | 54.00               | 3.30        | 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                                                                                                                                                                   | 44.67               | 14.43       | 59.10          | 68.20               | 9.10        | Horizontal   | Peak    |
| 10400.00                                                                                                                                                                   | 36.56               | 14.43       | 50.99          | 54.00               | 3.01        | Vertical     | Average |
| 10400.00                                                                                                                                                                   | 36.89               | 14.43       | 51.32          | 54.00               | 2.68        | 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                                                                                                                                                                   | 44.68               | 14.10       | 58.78          | 68.20               | 9.42        | Vertical     | Peak    |
| 10480.00                                                                                                                                                                   | 44.96               | 14.10       | 59.06          | 68.20               | 9.14        | Horizontal   | Peak    |
| 10480.00                                                                                                                                                                   | 36.52               | 14.10       | 50.62          | 54.00               | 3.38        | Vertical     | Average |
| 10480.00                                                                                                                                                                   | 36.61               | 14.10       | 50.71          | 54.00               | 3.29        | 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                                                                                                                                                                   | 45.17               | 14.28       | 59.45          | 68.20               | 8.75        | Vertical     | Peak    |
| 10360.00                                                                                                                                                                   | 45.03               | 14.28       | 59.31          | 68.20               | 8.89        | Horizontal   | Peak    |
| 10360.00                                                                                                                                                                   | 36.19               | 14.28       | 50.47          | 54.00               | 3.53        | Vertical     | Average |
| 10360.00                                                                                                                                                                   | 36.61               | 14.28       | 50.89          | 54.00               | 3.11        | 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                                                                                                                                                                   | 45.63               | 14.43       | 60.06          | 68.20               | 8.14        | Vertical     | Peak    |
| 10400.00                                                                                                                                                                   | 44.66               | 14.43       | 59.09          | 68.20               | 9.11        | Horizontal   | Peak    |
| 10400.00                                                                                                                                                                   | 36.22               | 14.43       | 50.65          | 54.00               | 3.35        | Vertical     | Average |
| 10400.00                                                                                                                                                                   | 36.39               | 14.43       | 50.82          | 54.00               | 3.18        | 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                                                                                                                                                                   | 45.72               | 14.10       | 59.82          | 68.20               | 8.38        | Vertical     | Peak    |
| 10480.00                                                                                                                                                                   | 44.67               | 14.10       | 58.77          | 68.20               | 9.43        | Horizontal   | Peak    |
| 10480.00                                                                                                                                                                   | 36.25               | 14.10       | 50.35          | 54.00               | 3.65        | Vertical     | Average |
| 10480.00                                                                                                                                                                   | 36.58               | 14.10       | 50.68          | 54.00               | 3.32        | 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                                                                                               | 45.51               | 14.41       | 59.92          | 68.20               | 8.28        | Vertical     | Peak    |
| 10380.00                                                                                               | 44.19               | 14.41       | 58.60          | 68.20               | 9.60        | Horizontal   | Peak    |
| 10380.00                                                                                               | 35.66               | 14.41       | 50.07          | 54.00               | 3.93        | Vertical     | Average |
| 10380.00                                                                                               | 36.48               | 14.41       | 50.89          | 54.00               | 3.11        | 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                                                                                               | 45.62               | 14.18       | 59.80          | 68.20               | 8.40        | Vertical     | Peak    |
| 10460.00                                                                                               | 43.81               | 14.18       | 57.99          | 68.20               | 10.21       | Horizontal   | Peak    |
| 10460.00                                                                                               | 35.89               | 14.18       | 50.07          | 54.00               | 3.93        | Vertical     | Average |
| 10460.00                                                                                               | 36.07               | 14.18       | 50.25          | 54.00               | 3.75        | 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                                                                                               | 45.57               | 14.28       | 59.85          | 68.20               | 8.35        | Vertical     | Peak    |
| 10360.00                                                                                               | 44.76               | 14.28       | 59.04          | 68.20               | 9.16        | Horizontal   | Peak    |
| 10360.00                                                                                               | 36.00               | 14.28       | 50.28          | 54.00               | 3.72        | Vertical     | Average |
| 10360.00                                                                                               | 36.79               | 14.28       | 51.07          | 54.00               | 2.93        | 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                                                                                               | 45.82               | 14.43       | 60.25          | 68.20               | 7.95        | Vertical     | Peak    |
| 10400.00                                                                                               | 44.92               | 14.43       | 59.35          | 68.20               | 8.85        | Horizontal   | Peak    |
| 10400.00                                                                                               | 35.58               | 14.43       | 50.01          | 54.00               | 3.99        | Vertical     | Average |
| 10400.00                                                                                               | 36.35               | 14.43       | 50.78          | 54.00               | 3.22        | 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                                                                                               | 45.18               | 14.10       | 59.28          | 68.20               | 8.92        | Vertical     | Peak    |
| 10480.00                                                                                               | 43.79               | 14.10       | 57.89          | 68.20               | 10.31       | Horizontal   | Peak    |
| 10480.00                                                                                               | 35.47               | 14.10       | 49.57          | 54.00               | 4.43        | Vertical     | Average |
| 10480.00                                                                                               | 36.55               | 14.10       | 50.65          | 54.00               | 3.35        | Horizontal   | Average |
| Remark:                                                                                                |                     |             |                |                     |             |              |         |
| 1. Final Level = Receiver Read level + Factor.                                                         |                     |             |                |                     |             |              |         |
| 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                                                                                                                                                            | 45.80               | 14.41       | 60.21          | 68.20               | 7.99        | Vertical     | Peak    |
| 10380.00                                                                                                                                                            | 44.63               | 14.41       | 59.04          | 68.20               | 9.16        | Horizontal   | Peak    |
| 10380.00                                                                                                                                                            | 35.47               | 14.41       | 49.88          | 54.00               | 4.12        | Vertical     | Average |
| 10380.00                                                                                                                                                            | 36.25               | 14.41       | 50.66          | 54.00               | 3.34        | 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                                                                                                                                                            | 46.01               | 14.18       | 60.19          | 68.20               | 8.01        | Vertical     | Peak    |
| 10460.00                                                                                                                                                            | 44.13               | 14.18       | 58.31          | 68.20               | 9.89        | Horizontal   | Peak    |
| 10460.00                                                                                                                                                            | 35.75               | 14.18       | 49.93          | 54.00               | 4.07        | Vertical     | Average |
| 10460.00                                                                                                                                                            | 36.40               | 14.18       | 50.58          | 54.00               | 3.42        | 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                                                                                                                                                            | 45.44               | 14.35       | 59.79          | 68.20               | 8.41        | Vertical     | Peak    |
| 10420.00                                                                                                                                                            | 44.96               | 14.35       | 59.31          | 68.20               | 8.89        | Horizontal   | Peak    |
| 10420.00                                                                                                                                                            | 35.52               | 14.35       | 49.87          | 54.00               | 4.13        | Vertical     | Average |
| 10420.00                                                                                                                                                            | 35.96               | 14.35       | 50.31          | 54.00               | 3.69        | 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. |                     |             |                |                     |             |              |         |

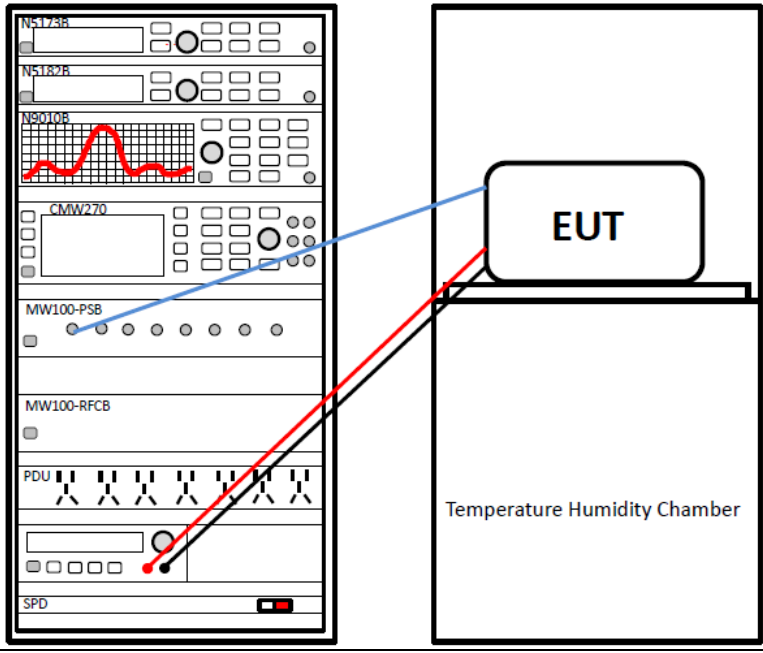
#### Band 4:

| 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                                                                                                                                                                   | 44.96               | 16.23       | 61.19          | 74.00               | 12.81       | Vertical     | Peak    |
| 11490.00                                                                                                                                                                   | 44.07               | 16.23       | 60.30          | 74.00               | 13.70       | Horizontal   | Peak    |
| 11490.00                                                                                                                                                                   | 36.69               | 16.23       | 52.92          | 54.00               | 1.08        | Vertical     | Average |
| 11490.00                                                                                                                                                                   | 36.24               | 16.23       | 52.47          | 54.00               | 1.53        | 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                                                                                                                                                                   | 44.98               | 15.17       | 60.15          | 74.00               | 13.85       | Vertical     | Peak    |
| 11570.00                                                                                                                                                                   | 44.38               | 15.17       | 59.55          | 74.00               | 14.45       | Horizontal   | Peak    |
| 11570.00                                                                                                                                                                   | 37.05               | 15.17       | 52.22          | 54.00               | 1.78        | Vertical     | Average |
| 11570.00                                                                                                                                                                   | 36.27               | 15.17       | 51.44          | 54.00               | 2.56        | 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                                                                                                                                                                   | 44.97               | 15.92       | 60.89          | 74.00               | 13.11       | Vertical     | Peak    |
| 11650.00                                                                                                                                                                   | 44.43               | 15.92       | 60.35          | 74.00               | 13.65       | Horizontal   | Peak    |
| 11650.00                                                                                                                                                                   | 37.01               | 15.92       | 52.93          | 54.00               | 1.07        | Vertical     | Average |
| 11650.00                                                                                                                                                                   | 35.77               | 15.92       | 51.69          | 54.00               | 2.31        | 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                                                                                                                                                                   | 44.74               | 16.23       | 60.97          | 74.00               | 13.03       | Vertical     | Peak    |
| 11490.00                                                                                                                                                                   | 44.24               | 16.23       | 60.47          | 74.00               | 13.53       | Horizontal   | Peak    |
| 11490.00                                                                                                                                                                   | 36.94               | 16.23       | 53.17          | 54.00               | 0.83        | Vertical     | Average |
| 11490.00                                                                                                                                                                   | 35.45               | 16.23       | 51.68          | 54.00               | 2.32        | 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                                                                                                                                                                   | 44.99               | 15.17       | 60.16          | 74.00               | 13.84       | Vertical     | Peak    |
| 11570.00                                                                                                                                                                   | 44.31               | 15.17       | 59.48          | 74.00               | 14.52       | Horizontal   | Peak    |
| 11570.00                                                                                                                                                                   | 36.62               | 15.17       | 51.79          | 54.00               | 2.21        | Vertical     | Average |
| 11570.00                                                                                                                                                                   | 35.82               | 15.17       | 50.99          | 54.00               | 3.01        | 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                                                                                                                                                                   | 44.68               | 15.92       | 60.60          | 74.00               | 13.40       | Vertical     | Peak    |
| 11650.00                                                                                                                                                                   | 44.50               | 15.92       | 60.42          | 74.00               | 13.58       | Horizontal   | Peak    |
| 11650.00                                                                                                                                                                   | 36.94               | 15.92       | 52.86          | 54.00               | 1.14        | Vertical     | Average |
| 11650.00                                                                                                                                                                   | 36.28               | 15.92       | 52.20          | 54.00               | 1.80        | 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                                                                                                                                                            | 44.91               | 16.18       | 61.09          | 74.00               | 12.91       | Vertical     | Peak    |
| 11510.00                                                                                                                                                            | 44.56               | 16.18       | 60.74          | 74.00               | 13.26       | Horizontal   | Peak    |
| 11510.00                                                                                                                                                            | 36.73               | 16.18       | 52.91          | 54.00               | 1.09        | Vertical     | Average |
| 11510.00                                                                                                                                                            | 35.86               | 16.18       | 52.04          | 54.00               | 1.96        | 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                                                                                                                                                            | 44.75               | 15.97       | 60.72          | 74.00               | 13.28       | Vertical     | Peak    |
| 11590.00                                                                                                                                                            | 44.47               | 15.97       | 60.44          | 74.00               | 13.56       | Horizontal   | Peak    |
| 11590.00                                                                                                                                                            | 36.98               | 15.97       | 52.95          | 54.00               | 1.05        | Vertical     | Average |
| 11590.00                                                                                                                                                            | 35.36               | 15.97       | 51.33          | 54.00               | 2.67        | 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                                                                                                                                                            | 44.73               | 16.23       | 60.96          | 74.00               | 13.04       | Vertical     | Peak    |
| 11490.00                                                                                                                                                            | 44.79               | 16.23       | 61.02          | 74.00               | 12.98       | Horizontal   | Peak    |
| 11490.00                                                                                                                                                            | 36.79               | 16.23       | 53.02          | 54.00               | 0.98        | Vertical     | Average |
| 11490.00                                                                                                                                                            | 36.43               | 16.23       | 52.66          | 54.00               | 1.34        | 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                                                                                                                                                            | 44.70               | 15.17       | 59.87          | 74.00               | 14.13       | Vertical     | Peak    |
| 11570.00                                                                                                                                                            | 44.34               | 15.17       | 59.51          | 74.00               | 14.49       | Horizontal   | Peak    |
| 11570.00                                                                                                                                                            | 36.93               | 15.17       | 52.10          | 54.00               | 1.90        | Vertical     | Average |
| 11570.00                                                                                                                                                            | 36.60               | 15.17       | 51.77          | 54.00               | 2.23        | 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                                                                                                                                                            | 44.67               | 15.92       | 60.59          | 74.00               | 13.41       | Vertical     | Peak    |
| 11650.00                                                                                                                                                            | 44.65               | 15.92       | 60.57          | 74.00               | 13.43       | Horizontal   | Peak    |
| 11650.00                                                                                                                                                            | 36.83               | 15.92       | 52.75          | 54.00               | 1.25        | Vertical     | Average |
| 11650.00                                                                                                                                                            | 36.99               | 15.92       | 52.91          | 54.00               | 1.09        | 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                                                                                                                                                            | 45.41               | 16.18       | 61.59          | 74.00               | 12.41       | Vertical     | Peak    |
| 11510.00                                                                                                                                                            | 45.30               | 16.18       | 61.48          | 74.00               | 12.52       | Horizontal   | Peak    |
| 11510.00                                                                                                                                                            | 36.74               | 16.18       | 52.92          | 54.00               | 1.08        | Vertical     | Average |
| 11510.00                                                                                                                                                            | 36.43               | 16.18       | 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   |
| 11590.00                                                                                                                                                            | 45.16               | 15.97       | 61.13          | 74.00               | 12.87       | Vertical     | Peak    |
| 11590.00                                                                                                                                                            | 45.32               | 15.97       | 61.29          | 74.00               | 12.71       | Horizontal   | Peak    |
| 11590.00                                                                                                                                                            | 36.77               | 15.97       | 52.74          | 54.00               | 1.26        | Vertical     | Average |
| 11590.00                                                                                                                                                            | 36.73               | 15.97       | 52.70          | 54.00               | 1.30        | 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                                                                                                                                                            | 45.01               | 16.08       | 61.09          | 74.00               | 12.91       | Vertical     | Peak    |
| 11550.00                                                                                                                                                            | 45.06               | 16.08       | 61.14          | 74.00               | 12.86       | Horizontal   | Peak    |
| 11550.00                                                                                                                                                            | 36.66               | 16.08       | 52.74          | 54.00               | 1.26        | Vertical     | Average |
| 11550.00                                                                                                                                                            | 36.50               | 16.08       | 52.58          | 54.00               | 1.42        | 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, a rack of test equipment is shown, including a spectrum analyzer (N9175B), a signal generator (N9182B), a network analyzer (N9910B), a microwave power source (CMW270), a microwave power splitter (MW100-PSB), a microwave power combiner (MW100-RFCB), a power distribution unit (PDU), and a signal processor (SPD). A red line connects the signal generator to the EUT. A blue line connects the spectrum analyzer to the EUT. The EUT is placed inside a Temperature Humidity Chamber.</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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |