

## RF Test Report

Issued Date: Aug. 31, 2018

Applicant : Netgear Incorporated  
Product Type : Netgear Mobile Hotspot  
Trade Name : NETGEAR  
Model Number : AC797S  
FCC ID : PY318300421  
EUT Rated Voltage : DC 5.0 V, 1.0 A  
Test Voltage : DC 3.5 V / DC 3.8 V / DC 4.35 V  
AC 120 V, 60 Hz  
Receive Date : Jul. 30, 2018  
Test Period : Aug. 16 ~ Aug. 28, 2018  
Applicable Standard : FCC 47 CFR PART 90R  
ANSI/TIA-603-E 2016  
Test Result : Complied

### Testing Laboratory

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Approved By

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(Hai Wang)

Reviewed By

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(Mick Zhang)



### **Revision History**

| Rev. | Issue Date    | Revisions     | Revised By |
|------|---------------|---------------|------------|
| 00   | Aug. 31, 2018 | Initial Issue | Nina Lin   |
|      |               |               |            |
|      |               |               |            |
|      |               |               |            |

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# 1 General Information

## 1.1. EUT Description

|                     |                                                                                            |             |                   |
|---------------------|--------------------------------------------------------------------------------------------|-------------|-------------------|
| Applicant           | Netgear Incorporated<br>350 East Plumeria Drive, San Jose, California, United States 95134 |             |                   |
| Manufacturer        | Netgear Inc.<br>Suite 168 – 10760 Shellbridge Way, Richmond, BC Canada V6X 3H1             |             |                   |
| Product Type        | Netgear Mobile Hotspot                                                                     |             |                   |
| Trade Name          | NETGEAR                                                                                    |             |                   |
| Model Number        | AC797S                                                                                     |             |                   |
| FCC ID              | PY318300421                                                                                |             |                   |
| IMEI No.            | 015253000000651                                                                            |             |                   |
| Operate Band        | Frequency Range (MHz)                                                                      | Modulation  | Channel Bandwidth |
| LTE Band 14         | UL: 788 ~ 798                                                                              | QPSK, 16QAM | 5MHz, 10MHz       |
|                     | DL: 758 ~ 768                                                                              | QPSK, 16QAM |                   |
| Type of Antenna     | Internal IFA Antenna                                                                       |             |                   |
| Antenna Gain        | LTE Band 14                                                                                | -0.05 dBi   |                   |
| Operate Temp. Range | 0 ~ 55 °C                                                                                  |             |                   |

| Band       | Channel Bandwidth | Modulation | Max. RF Output Power | E.R.P. /E.I.R.P. |
|------------|-------------------|------------|----------------------|------------------|
|            |                   |            | (W)                  | (W)              |
| LTE Band14 | 5MHz              | QPSK       | 0.199                | 0.197            |
| LTE Band14 | 5MHz              | 16QAM      | 0.172                | 0.139            |
| LTE Band14 | 10MHz             | QPSK       | 0.200                | 0.190            |
| LTE Band14 | 10MHz             | 16QAM      | 0.167                | 0.129            |

| Band       | Channel Bandwidth | Modulation | Emission Designator<br>Occupied Bandwidth (MHz) |         |
|------------|-------------------|------------|-------------------------------------------------|---------|
|            |                   |            |                                                 |         |
| LTE Band14 | 5MHz              | QPSK       | 4.4713                                          | 4M47G7D |
| LTE Band14 | 5MHz              | 16QAM      | 4.4809                                          | 4M48W7D |
| LTE Band14 | 10MHz             | QPSK       | 8.9190                                          | 8M92G7D |
| LTE Band14 | 10MHz             | 16QAM      | 8.9332                                          | 8M93W7D |

## 1.2. Mode of Operation

Three channels had been tested for each channel bandwidth.

| LTE Band 14       |         |                 |         |                 |
|-------------------|---------|-----------------|---------|-----------------|
| Channel Bandwidth | 5MHz    |                 | 10MHz   |                 |
|                   | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| Low CH            | 23305   | 790.5           | ---     | ---             |
| Middle CH         | 23330   | 793             | 23330   | 793             |
| High CH           | 23255   | 795.5           | ---     | ---             |

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

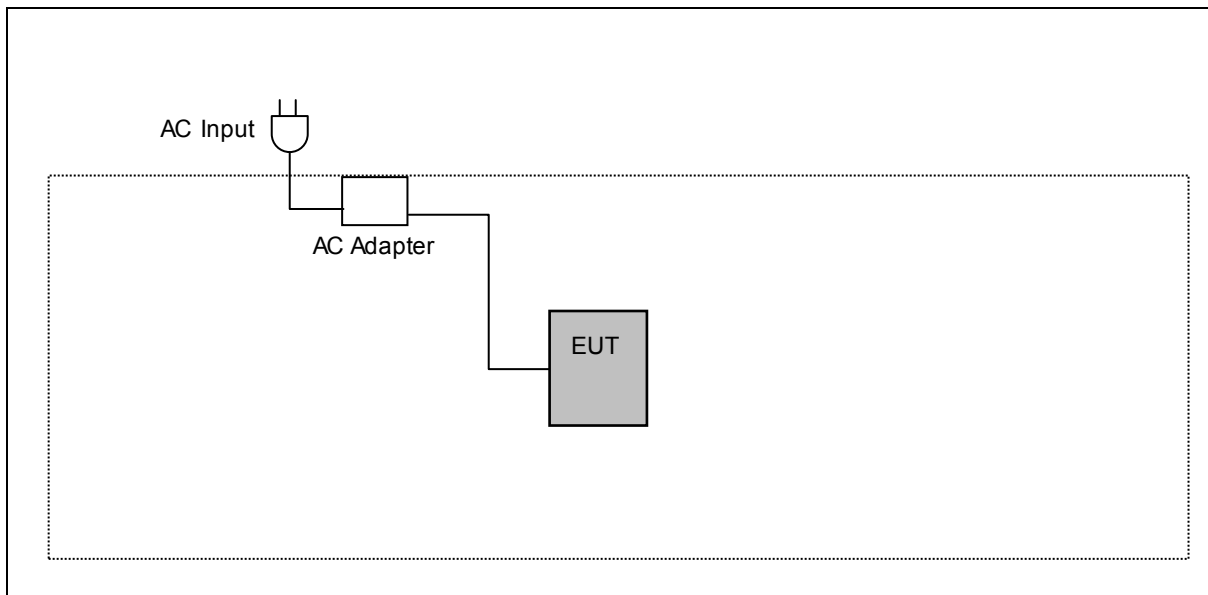
Frequency range investigated for radiated emission: 30 MHz to 26.5 GHz.

| Band        | Channel Bandwidth | Test Modes                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |
|-------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |
| LTE Band 14 | 5 MHz             | <input type="checkbox"/> LTE(RB Size 1, RB Offset 0) Link<br><input type="checkbox"/> LTE(RB Size 1, RB Offset 12) Link<br><input checked="" type="checkbox"/> LTE(RB Size 1, RB Offset 24) Link<br><input type="checkbox"/> LTE(RB Size 12, RB Offset 0) Link<br><input type="checkbox"/> LTE(RB Size 12, RB Offset 6) Link<br><input type="checkbox"/> LTE(RB Size 12, RB Offset 13) Link<br><input type="checkbox"/> LTE(RB Size 25, RB Offset 0) Link  | QPSK |
|             | 10 MHz            | <input checked="" type="checkbox"/> LTE(RB Size 1, RB Offset 0) Link<br><input type="checkbox"/> LTE(RB Size 1, RB Offset 24) Link<br><input type="checkbox"/> LTE(RB Size 1, RB Offset 49) Link<br><input type="checkbox"/> LTE(RB Size 25, RB Offset 0) Link<br><input type="checkbox"/> LTE(RB Size 25, RB Offset 12) Link<br><input type="checkbox"/> LTE(RB Size 25, RB Offset 25) Link<br><input type="checkbox"/> LTE(RB Size 50, RB Offset 0) Link | QPSK |

## 1.3. EUT Test Step

|   |                                                                |
|---|----------------------------------------------------------------|
| 1 | Setup the EUT shown on "Configuration of Test System Details". |
| 2 | Turn on the power of all equipment.                            |
| 3 | EUT run test program test.                                     |

#### 1.4. Configuration of Test System Details



| Devices Description |         |              |              |               |            |
|---------------------|---------|--------------|--------------|---------------|------------|
|                     | Product | Manufacturer | Model Number | Serial Number | Power Cord |
| (1)                 | ---     | ---          | ---          | ---           | ---        |

## 1.5. Test Instruments

For Conducted

Test Period: Aug. 16 ~ Aug. 24, 2018

| Equipment                      | Manufacturer | Model Number           | Serial Number | Cal. Date  | Cal. Cycle |
|--------------------------------|--------------|------------------------|---------------|------------|------------|
| Temperature & Humidity Chamber | TAICHY       | MHU-225LA              | 980729        | 04/16/2018 | 1 year     |
| Power Supply                   | KEITHLEY     | 2303                   | 4045290       | 02/08/2018 | 1 year     |
| Divider                        | Warison      | WDIV-210.5-26.5S<br>20 | WR222AM2B1    | 02/27/2018 | 1 year     |
| EXA Spectrum Analyzer          | Agilent      | N9010A                 | MY48030518    | 11/20/2018 | 1 year     |
| Radio Communication Analyzer   | Anritsu      | MT8820C                | 6201342039    | 12/10/2017 | 1 year     |

For Spurious Radiation

Test Period: Aug. 25 ~ Aug. 28, 2018

| Equipment                          | Manufacturer | Model Number | Serial Number | Cal. Date  | Cal. Cycle |
|------------------------------------|--------------|--------------|---------------|------------|------------|
| Preamplifier<br>(10 kHz~3 GHz)     | EMCI         | EMC001330    | 980300        | 09/19/2017 | 1 year     |
| Preamplifier<br>(0.1 GHz~26.5 GHz) | EMCI         | EMC012645SE  | 980318        | 09/19/2017 | 1 year     |
| Bilog Antenna<br>(30MHz~1.4GHz)    | Schwarzbeck  | VULB 9168    | 672           | 11/15/2017 | 1 year     |
| Horn Antenna<br>(1GHz~18GHz)       | ETS          | 3117         | 00204949      | 11/16/2017 | 1 year     |
| Receiver<br>(3Hz~26.5GHz)          | Keysight     | N9038A       | MY51210179    | 09/19/2017 | 1 year     |
| Spectrum Analyzer<br>(3Hz~43GHz)   | Keysight     | N9030A       | MY55410268    | 09/19/2017 | 1 year     |
| Cable<br>(30MHz~1GHz)              | EMCI         | N/A          | 1066LFC       | 09/19/2017 | 1 year     |
| Cable<br>(1GHz~18GHz)              | EMCI         | N/A          | 160719        | 09/19/2017 | 1 year     |
| Cable<br>(1GHz~18GHz)              | EMCI         | N/A          | 160324        | 09/19/2017 | 1 year     |
| Cable<br>(1GHz~18GHz)              | EMCI         | N/A          | 160322        | 09/19/2017 | 1 year     |
| Loop Antenna                       | EMCI         | LPA600       | 272           | 02/07/2018 | 1 year     |
| Test Site                          | OuHeng       | MFAC3M       | RE-026        | 03/15/2018 | 1 year     |

## 1.6. Test Site Environment

| Items                      | Required (IEC 68-1) | Actual |
|----------------------------|---------------------|--------|
| Temperature (°C)           | 15-35               | 26     |
| Humidity (%RH)             | 25-75               | 60     |
| Barometric pressure (mbar) | 860-1060            | 950    |

| Test Setting Condition |                    |           |
|------------------------|--------------------|-----------|
| L.V.                   | Low Voltage        | DC 3.5 V  |
| N.V.                   | Normal Voltage     | DC 3.8 V  |
| H.V.                   | High Voltage       | DC 4.35 V |
| L.T.                   | Low Temperature    | 0 °C      |
| N.T.                   | Normal Temperature | +25 °C    |
| H.T.                   | High Temperature   | +55 °C    |

## 1.7. Summary of Test Result

| FCC Rule           | Description                                                        | Result |
|--------------------|--------------------------------------------------------------------|--------|
| §2.1046            | Conducted Output Average Power                                     | Pass   |
| §90.542            | Equivalent Isotropic Radiated Power /<br>Equivalent Radiated Power | Pass   |
| §2.1055            | Frequency Stability                                                | Pass   |
| §2.1049            | Emission Bandwidth & Occupied Bandwidth                            | Pass   |
| KDB 971168         | Peak to average ratio                                              | Pass   |
| §2.1051<br>§90.543 | Band Edge                                                          | Pass   |
| §2.1051<br>§90.543 | Conducted Spurious Emissions                                       | Pass   |
| §2.1053<br>§90.543 | Radiated Spurious Emissions                                        | Pass   |



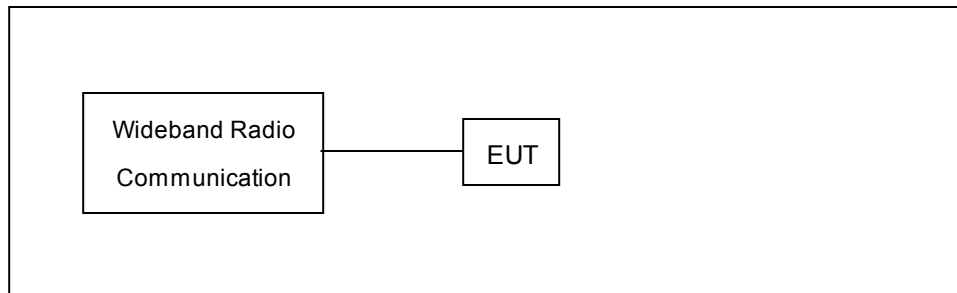
## 2 Measurement Procedure

### 2.1. Conducted Output Average Power Test

#### ■ Limit

N/A

#### ■ Test Setup



#### ■ Test Procedure

- a. The EUT was set up for the maximum power with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

#### ■ Uncertainty

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.

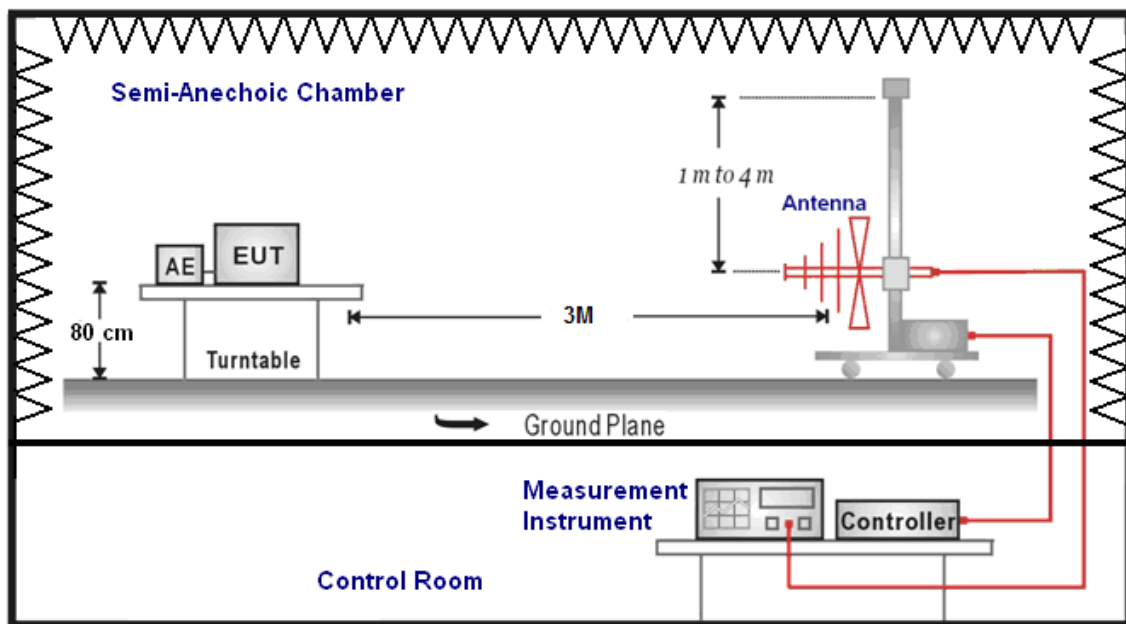
## 2.2. Effective Radiated Power / Equivalent Isotropic Radiated Power Test

### ■ Limit

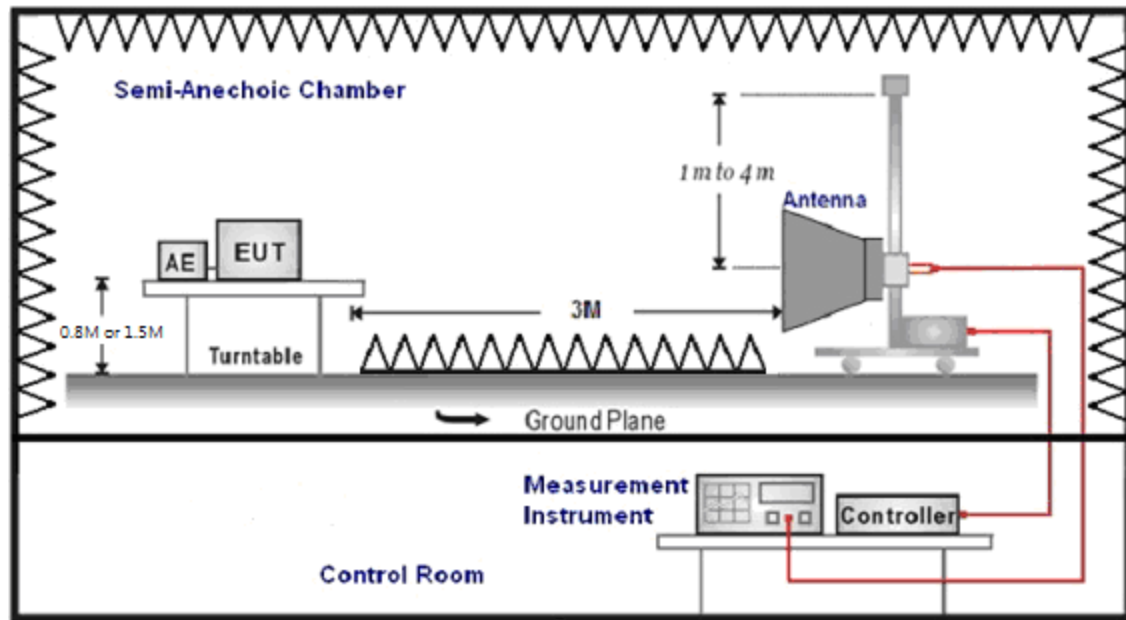
For FCC Part 90.542(7): Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

### ■ Test Setup

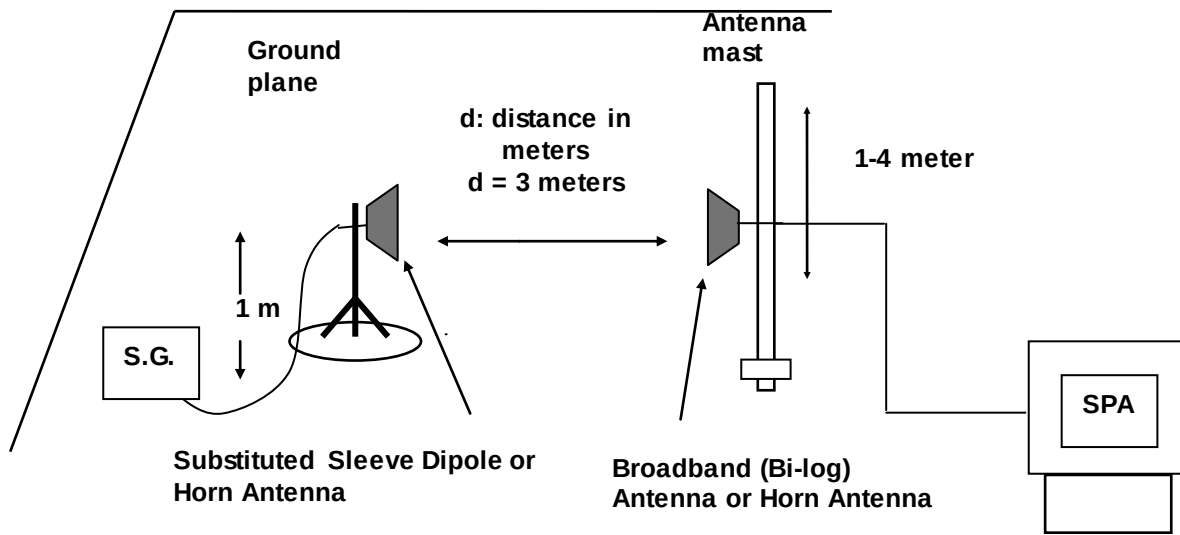
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



### ■ Test Procedure

- a. The EUT was set up for the maximum power with wwan link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- b. E.I.R.P power measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. The substitution antenna (Note:1 & 2) is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- d.  $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- e.  $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

Note: 1. Below 1 GHz Substituted Method Test : Sleeve dipole antenna to Bi-Log Antenna

2. Above 1 GHz Substituted Method Test : Horn antenna to Horn Antenna

### ■ Uncertainty

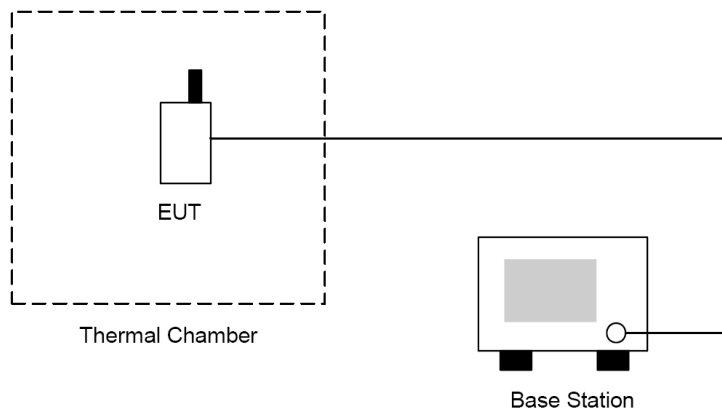
The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is  $\pm 3.072 \text{ dB}$ .

## 2.3. Frequency Stability Test

### ■ Limit

According to the FCC rule shall be tested the frequency stability. The rule is defined that "The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation. The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with the 2.1055(a)(1) -30 °C ~ 50 °C.

### ■ Setup



### ■ Test Procedure

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30 °C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was noted within one minute.
3. With power OFF, the temperature was raised in 10 °C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The EUT was placed in a temperature chamber at  $25 \pm 5$  °C and connected as the following section.
5. The power supply voltage to the EUT was varied from BEP to 115 % of the nominal value measured at the input to the EUT.
6. The temperature tests were performed for the worst case.
7. Test data was recorded.

### ■ Uncertainty

The measurement uncertainty is defined as for Frequency Stability measurement is  $\pm 10$  Hz.

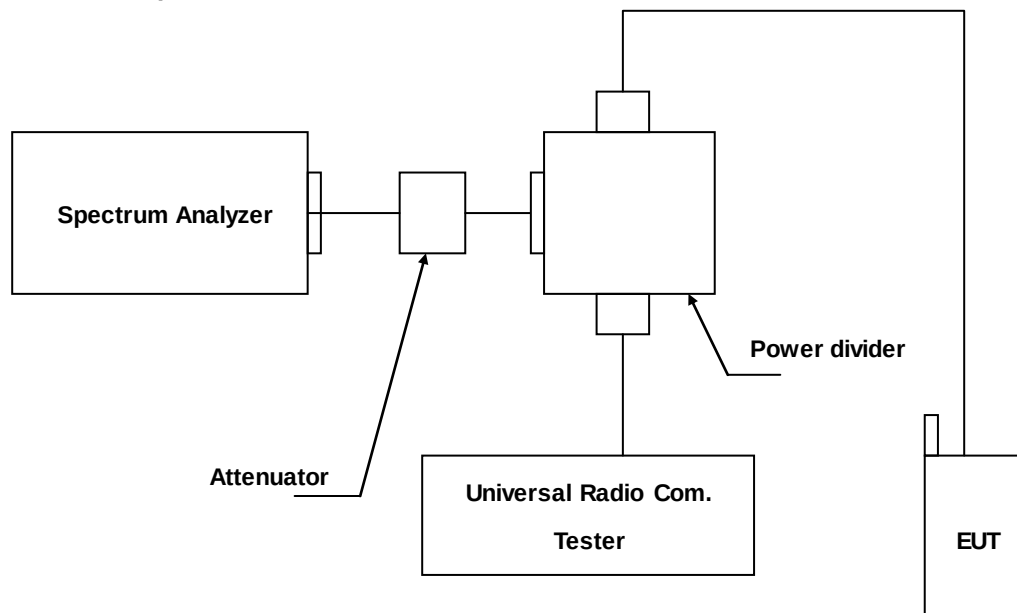
## 2.4. Emission Bandwidth & Occupied Bandwidth Test

### ■ Limit

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

The emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

### ■ Setup



### ■ Test Procedure

- The EUT makes a phone call to the communication simulator. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels. (low, middle and high operational frequency range.)
- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

### ■ Uncertainty

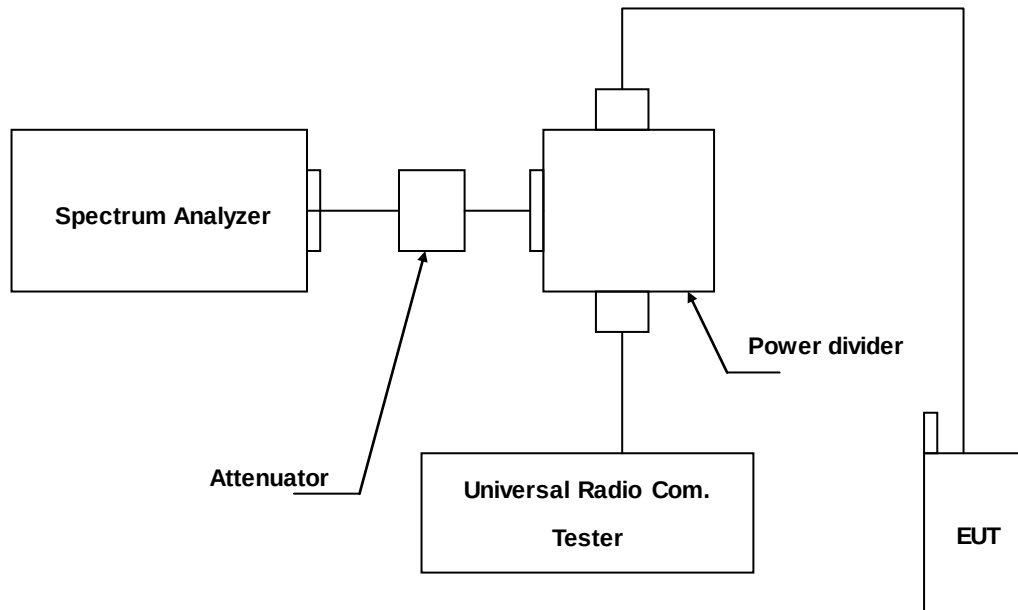
The measurement uncertainty is defined as  $\pm 10$  Hz

## 2.5. Peak to Average Ratio Test

### ■ Limit

In measuring transmissions in this band using an average power technique, the peak to -average ratio (PAR) of the transmission maynot exceed 13 dB.

### ■ Setup



### ■ Test Procedure

- Set resolution/measurement bandwidth signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1 %.

### ■ Uncertainty

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.

## 2.6. Band Edge Test

### ■ Limit

The Band Edge Limit:

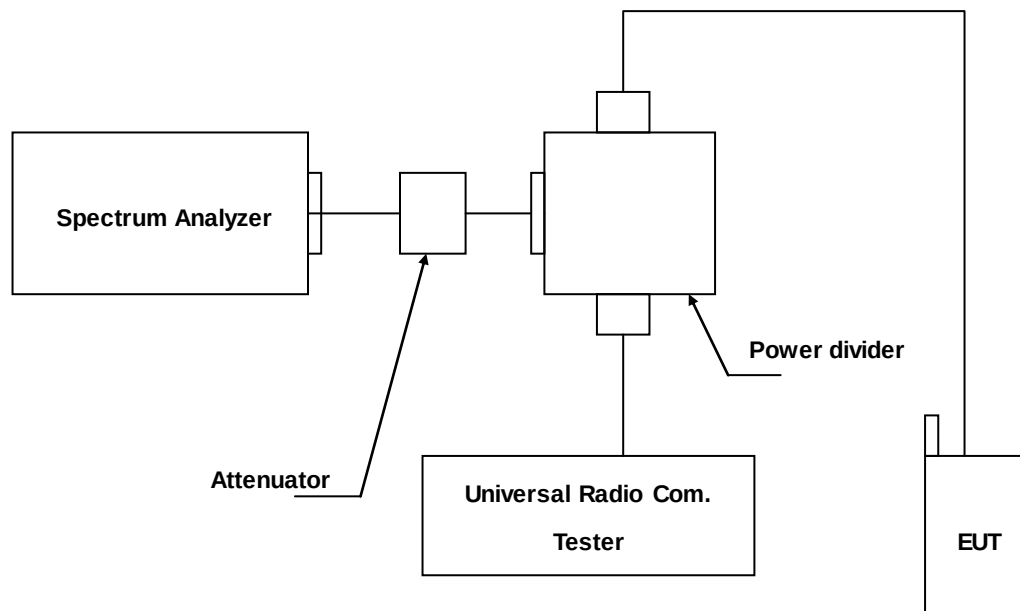
§90.543 (e)(2)

On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations.

§90.543 (e)(3)

On all frequencies between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least  $43 + 10 \log (P)$  dB.

### ■ Setup



### ■ Test Procedure

- The EUT was set up for the maximum peak power with WWAN link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.)
- The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer. This splitter loss and cable loss are the worst loss in the transmitted path track.
- The center frequency of spectrum is the band edge frequency and span is 10 MHz. RB of the resolution bandwidth of at least one percent of the emission bandwidth.
- Record the max trace plot into the test report.

### ■ Uncertainty

The measurement uncertainty is defined as for Conducted Power measurement is 1.2 dB.



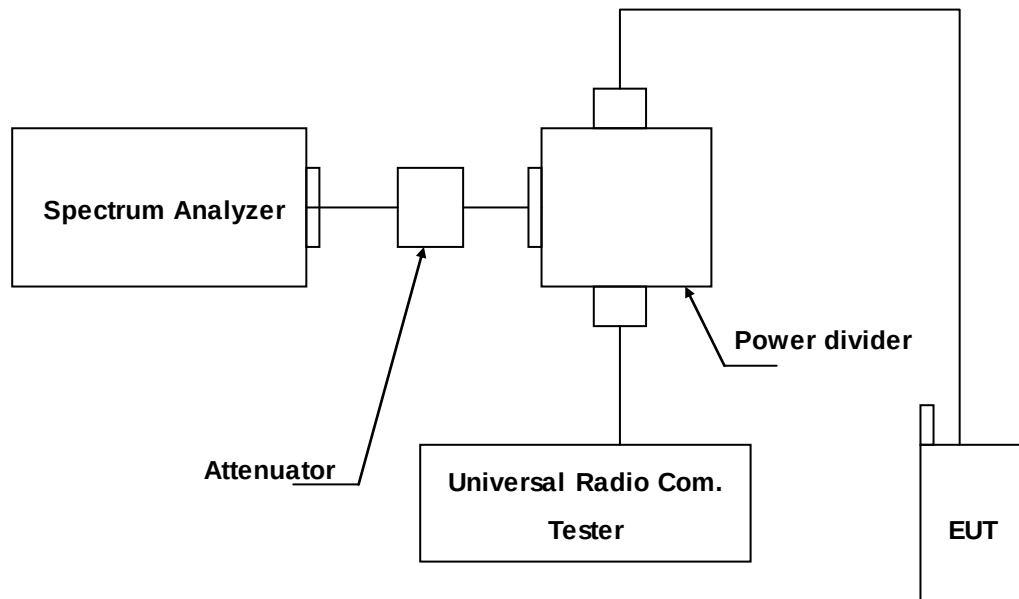
## 2.7. Conducted Spurious Emission Test

### ■ Limit

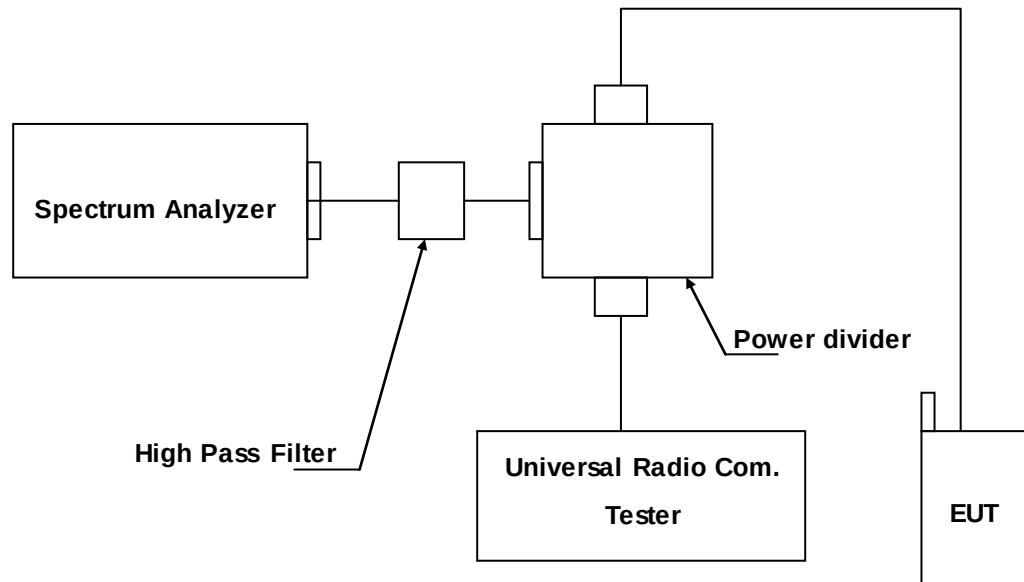
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB. The limit of emission equal to -13 dBm

### ■ Setup

Below 2.8 GHz



Above 2.8 GHz



#### ■ Test Procedure

- The EUT was set up for the maximum peak power with WWAN link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range.).
- The conducted spurious emission used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- When the spectrum scanned from 10 MHz to 2.5 GHz (Band 7 and Band 41: scanned from 10 MHz to 4 GHz), it shall be connected to the band reject filter attenuated the carried frequency. The spectrum set RB=1 MHz, VB=1 MHz.
- When the spectrum scanned from 2.5 GHz to 10<sup>th</sup> harmonic (Band 7 and Band 41: scanned from 4 GHz to 10<sup>th</sup> harmonic). The spectrum set RB=1 MHz, VB=1 MHz.

#### ■ Uncertainty

The measurement uncertainty is evaluated as  $\pm 2.24$  dB.

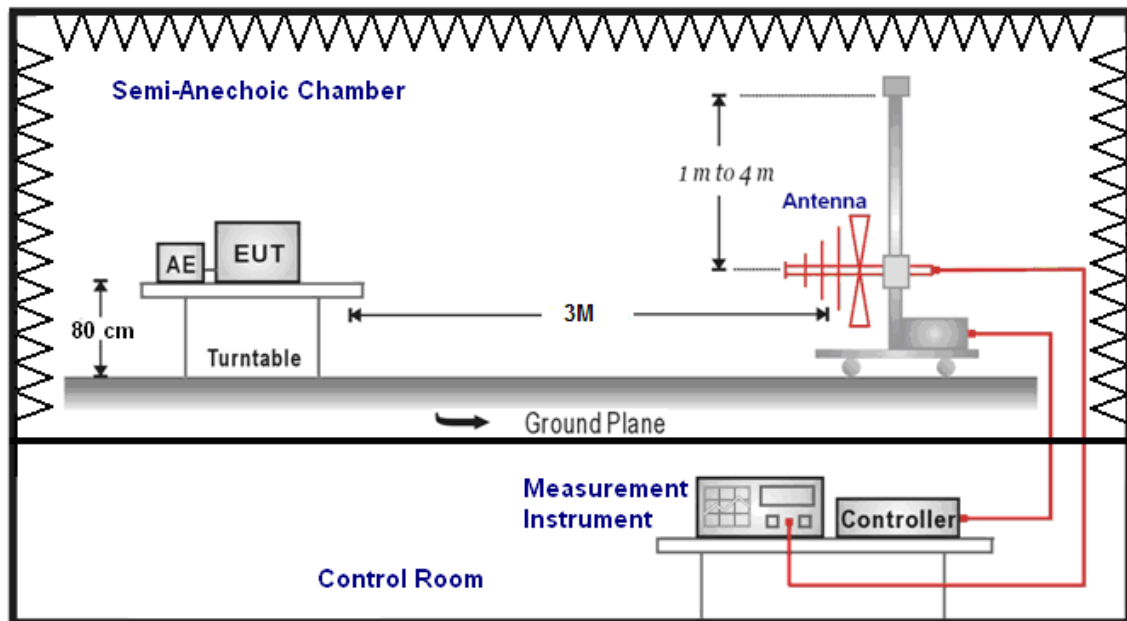
## 2.8. Radiated Emission Test

### ■ Limit

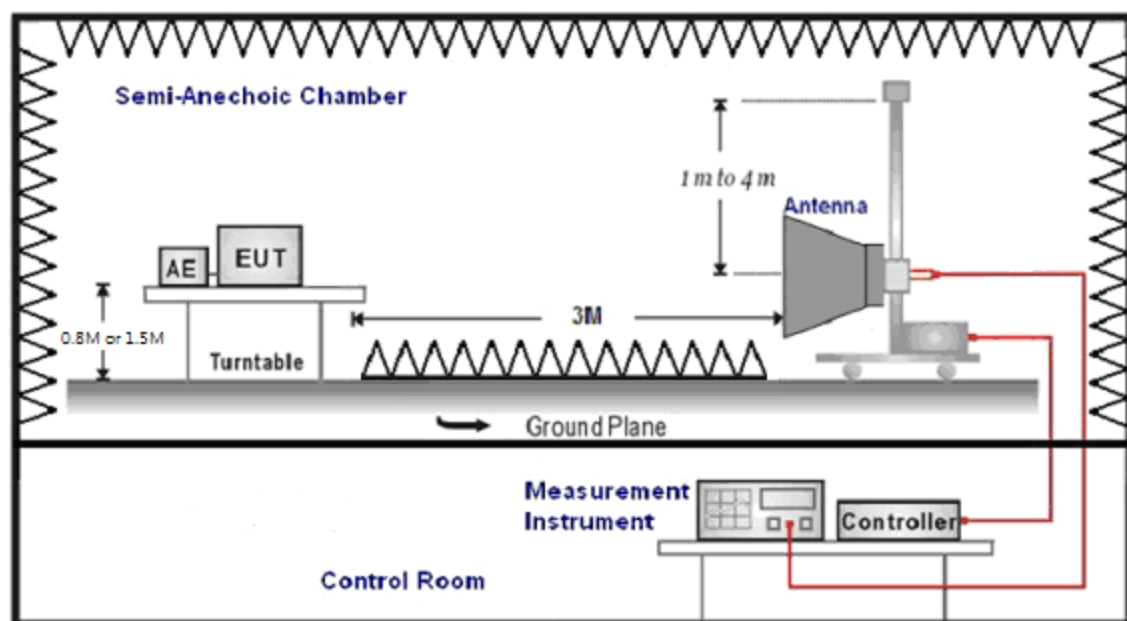
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB. The limit of emission equal to -13 dBm

### ■ Setup

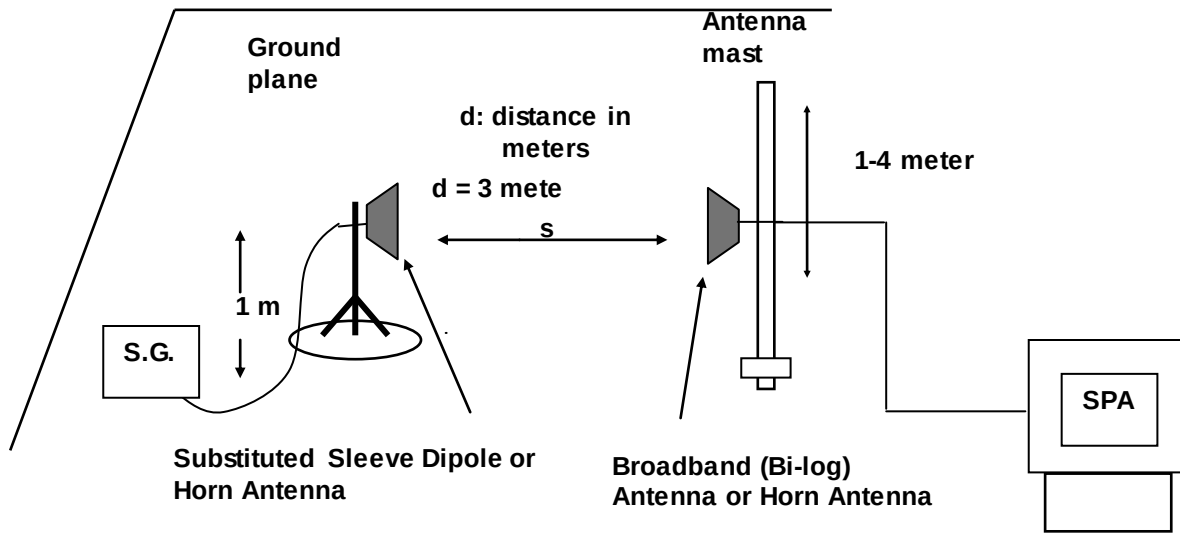
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



#### ■ Test Procedure

- The EUT was set up for the maximum power with wwan link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range).
- Radiation Emission measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution antenna (Note:1 & 2) is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Tum Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- $E.I.R.P. = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
- $E.R.P. = E.I.R.P. - 2.15 \text{ dB}$

Note: 1. Below 1 GHz Substituted Method Test : Sleeve dipole antenna to Bi-Log Antenna

2. Above 1 GHz Substituted Method Test : Horn antenna to Horn Antenn

#### ■ Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is  $\pm 3.072 \text{ dB}$ .

### 3 Test Results

#### Conducted Output Average Power

| Band       | Channel Bandwidth | Modulation | Channel | Frequency (MHz) | RB Configuration |        | Average Power |              |
|------------|-------------------|------------|---------|-----------------|------------------|--------|---------------|--------------|
|            |                   |            |         |                 | Size             | Offset | (dBm)         | (W)          |
| LTE Band14 | 5MHz              | QPSK       | 23305   | 790.5           | 1                | 0      | 22.86         | 0.193        |
|            |                   |            |         |                 | 1                | 12     | 22.92         | 0.196        |
|            |                   |            |         |                 | 1                | 24     | <b>22.99</b>  | <b>0.199</b> |
|            |                   |            |         |                 | 12               | 0      | 22.11         | 0.163        |
|            |                   |            |         |                 | 12               | 6      | 22.07         | 0.161        |
|            |                   |            |         |                 | 12               | 13     | 22.10         | 0.162        |
|            |                   |            |         |                 | 25               | 0      | 22.18         | 0.165        |
|            |                   |            | 23330   | 793.0           | 1                | 0      | 22.95         | 0.197        |
|            |                   |            |         |                 | 1                | 12     | 22.88         | 0.194        |
|            |                   |            |         |                 | 1                | 24     | 22.87         | 0.194        |
|            |                   |            |         |                 | 12               | 0      | 22.09         | 0.162        |
|            |                   |            |         |                 | 12               | 6      | 22.02         | 0.159        |
|            |                   |            |         |                 | 12               | 13     | 21.98         | 0.158        |
|            |                   |            |         |                 | 25               | 0      | 22.02         | 0.159        |
|            |                   |            | 23355   | 795.5           | 1                | 0      | 22.93         | 0.196        |
|            |                   |            |         |                 | 1                | 12     | 22.96         | 0.198        |
|            |                   |            |         |                 | 1                | 24     | 22.94         | 0.197        |
|            |                   |            |         |                 | 12               | 0      | 22.11         | 0.163        |
|            |                   |            |         |                 | 12               | 6      | 22.19         | 0.166        |
|            |                   |            |         |                 | 12               | 13     | 22.11         | 0.163        |
|            |                   |            |         |                 | 25               | 0      | 22.05         | 0.160        |
|            |                   | 16QAM      | 23305   | 790.5           | 1                | 0      | 22.33         | 0.171        |
|            |                   |            |         |                 | 1                | 12     | 22.22         | 0.167        |
|            |                   |            |         |                 | 1                | 24     | 22.27         | 0.169        |
|            |                   |            |         |                 | 12               | 0      | 21.18         | 0.131        |
|            |                   |            |         |                 | 12               | 6      | 21.14         | 0.130        |
|            |                   |            |         |                 | 12               | 13     | 21.16         | 0.131        |
|            |                   |            |         |                 | 25               | 0      | 21.17         | 0.131        |
|            |                   |            | 23330   | 793.0           | 1                | 0      | 22.27         | 0.169        |
|            |                   |            |         |                 | 1                | 12     | 22.17         | 0.165        |
|            |                   |            |         |                 | 1                | 24     | 22.11         | 0.163        |
|            |                   |            |         |                 | 12               | 0      | 21.16         | 0.131        |
|            |                   |            |         |                 | 12               | 6      | 21.09         | 0.129        |
|            |                   |            |         |                 | 12               | 13     | 20.97         | 0.125        |
|            |                   |            |         |                 | 25               | 0      | 21.00         | 0.126        |
|            |                   |            | 23355   | 795.5           | 1                | 0      | <b>22.35</b>  | <b>0.172</b> |
|            |                   |            |         |                 | 1                | 12     | 22.24         | 0.167        |
|            |                   |            |         |                 | 1                | 24     | 22.16         | 0.164        |
|            |                   |            |         |                 | 12               | 0      | 21.11         | 0.129        |
|            |                   |            |         |                 | 12               | 6      | 21.22         | 0.132        |
|            |                   |            |         |                 | 12               | 11     | 21.12         | 0.129        |
|            |                   |            |         |                 | 25               | 0      | 21.07         | 0.128        |

| Band       | Channel Bandwidth | Modulation | Channel | Frequency (MHz) | RB Configuration |        | Average Power |              |
|------------|-------------------|------------|---------|-----------------|------------------|--------|---------------|--------------|
|            |                   |            |         |                 | Size             | Offset | (dBm)         | (W)          |
| LTE Band14 | 10MHz             | QPSK       | 23330   | 793             | 1                | 0      | <b>23.01</b>  | <b>0.200</b> |
|            |                   |            |         |                 | 1                | 24     | 22.92         | 0.196        |
|            |                   |            |         |                 | 1                | 49     | 22.79         | 0.190        |
|            |                   |            |         |                 | 25               | 0      | 21.99         | 0.158        |
|            |                   |            |         |                 | 25               | 12     | 22.06         | 0.161        |
|            |                   |            |         |                 | 25               | 25     | 21.96         | 0.157        |
|            |                   |            |         |                 | 50               | 0      | 22.05         | 0.160        |
|            |                   | 16QAM      | 23330   | 793             | 1                | 0      | <b>22.24</b>  | <b>0.167</b> |
|            |                   |            |         |                 | 1                | 24     | 22.15         | 0.164        |
|            |                   |            |         |                 | 1                | 49     | 22.03         | 0.160        |
|            |                   |            |         |                 | 25               | 0      | 20.99         | 0.126        |
|            |                   |            |         |                 | 25               | 12     | 21.02         | 0.126        |
|            |                   |            |         |                 | 25               | 25     | 20.88         | 0.122        |
|            |                   |            |         |                 | 50               | 0      | 21.04         | 0.127        |

## Effective Radiated Power / Equivalent Isotropic Radiated Power

| Band 14           |            |                 |             |                  |                         |              |              |           |
|-------------------|------------|-----------------|-------------|------------------|-------------------------|--------------|--------------|-----------|
| Channel Bandwidth | Modulation | Frequency (MHz) | Ant. Polar. | Read Level (dBm) | Correction Factor (dBm) | E.R.P.       |              | Limit (W) |
|                   |            |                 |             |                  |                         | (dBm)        | (W)          |           |
| 5M                | QPSK       | 790.5           | H           | 12.57            | 10.37                   | <b>22.94</b> | <b>0.197</b> | ≤ 3       |
|                   |            |                 | V           | 10.13            | 10.37                   | 20.50        | 0.112        | ≤ 3       |
|                   |            | 793.0           | H           | 12.14            | 10.40                   | 22.54        | 0.179        | ≤ 3       |
|                   |            |                 | V           | 9.94             | 10.39                   | 20.33        | 0.108        | ≤ 3       |
|                   |            | 795.5           | H           | 12.32            | 10.44                   | 22.76        | 0.189        | ≤ 3       |
|                   |            |                 | V           | 10.48            | 10.44                   | 20.92        | 0.124        | ≤ 3       |
|                   | 16QAM      | 790.5           | H           | 11.06            | 10.36                   | <b>21.42</b> | <b>0.139</b> | ≤ 3       |
|                   |            |                 | V           | 9.05             | 10.37                   | 19.42        | 0.087        | ≤ 3       |
|                   |            | 793.0           | H           | 10.46            | 10.40                   | 20.86        | 0.122        | ≤ 3       |
|                   |            |                 | V           | 8.83             | 10.41                   | 19.24        | 0.084        | ≤ 3       |
|                   |            | 795.5           | H           | 10.39            | 10.44                   | 20.83        | 0.121        | ≤ 3       |
|                   |            |                 | V           | 8.28             | 10.44                   | 18.72        | 0.074        | ≤ 3       |
| 10M               | QPSK       | 793.0           | H           | 12.40            | 10.38                   | <b>22.78</b> | <b>0.190</b> | ≤ 3       |
|                   |            |                 | V           | 10.32            | 10.38                   | 20.70        | 0.117        | ≤ 3       |
|                   | 16QAM      |                 | H           | 10.71            | 10.38                   | <b>21.09</b> | <b>0.129</b> | ≤ 3       |
|                   |            |                 | V           | 8.86             | 10.37                   | 19.23        | 0.084        | ≤ 3       |

## Radiated Emission

|              |                                      |                      |                |
|--------------|--------------------------------------|----------------------|----------------|
| Standard:    | Part 90R                             | Test Distance:       | 3 m            |
| Test item:   | Harmonic                             | Power:               | AC 120 V/60 Hz |
| Frequency:   | 790.5 MHz                            | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:        | 4 G_BAND 14_5 M_QPSK_CH23305         |                      |                |
| Ant.Polar.:  | Horizontal                           |                      |                |
| Description: | ACAdapter : AD2083329 (30 MHz~1 GHz) |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 58.1300            | -67.89           | -3.25                  | -71.14          | -13.00         | -58.14         | QP     |
| 2   | 93.0500            | -64.91           | -6.45                  | -71.36          | -13.00         | -58.36         | QP     |
| 3   | 175.5000           | -72.51           | -3.41                  | -75.92          | -13.00         | -62.92         | QP     |
| 4   | 308.3900           | -68.31           | -2.32                  | -70.63          | -13.00         | -57.63         | QP     |
| 5   | 676.0200           | -75.76           | 2.92                   | -72.84          | -13.00         | -59.84         | QP     |
| 6   | 940.8300           | -75.12           | 6.44                   | -68.68          | -13.00         | -55.68         | QP     |

|              |                                      |                      |                |
|--------------|--------------------------------------|----------------------|----------------|
| Standard:    | Part 90R                             | Test Distance:       | 3 m            |
| Test item:   | Harmonic                             | Power:               | AC 120 V/60 Hz |
| Frequency:   | 790.5 MHz                            | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:        | 4 G_BAND 14_5 M_QPSK_CH23305         |                      |                |
| Ant.Polar.:  | Vertical                             |                      |                |
| Description: | ACAdapter : AD2083329 (30 MHz~1 GHz) |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 67.8300            | -65.12           | -4.90                  | -70.02          | -13.00         | -57.02         | QP     |
| 2   | 93.0500            | -61.43           | -6.45                  | -67.88          | -13.00         | -54.88         | QP     |
| 3   | 160.9500           | -73.46           | -1.77                  | -75.23          | -13.00         | -62.23         | QP     |
| 4   | 325.8500           | -69.99           | -2.03                  | -72.02          | -13.00         | -59.02         | QP     |
| 5   | 646.9200           | -75.34           | 2.51                   | -72.83          | -13.00         | -59.83         | QP     |
| 6   | 746.8300           | -76.80           | 3.91                   | -72.89          | -13.00         | -59.89         | QP     |





|              |                                      |                      |                |
|--------------|--------------------------------------|----------------------|----------------|
| Standard:    | Part 90R                             | Test Distance:       | 3 m            |
| Test item:   | Harmonic                             | Power:               | AC 120 V/60 Hz |
| Frequency:   | 790.5 MHz                            | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:        | 4 G_BAND 14_5 M_QPSK_CH23305         |                      |                |
| Ant.Polar.:  | Horizontal                           |                      |                |
| Description: | AC Adapter : 2ACS005B (30 MHz~1 GHz) |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 125.0600           | -72.48           | -3.47                  | -75.95          | -13.00         | -62.95         | QP     |
| 2   | 200.7200           | -68.27           | -5.73                  | -74.00          | -13.00         | -61.00         | QP     |
| 3   | 250.1900           | -69.04           | -3.87                  | -72.91          | -13.00         | -59.91         | QP     |
| 4   | 287.0500           | -73.81           | -2.80                  | -76.61          | -13.00         | -63.61         | QP     |
| 5   | 473.2900           | -75.76           | -0.24                  | -76.00          | -13.00         | -63.00         | QP     |
| 6   | 772.0500           | -75.67           | 4.24                   | -71.43          | -13.00         | -58.43         | QP     |

|              |                                      |                      |                |
|--------------|--------------------------------------|----------------------|----------------|
| Standard:    | Part 90R                             | Test Distance:       | 3 m            |
| Test item:   | Harmonic                             | Power:               | AC 120 V/60 Hz |
| Frequency:   | 790.5 MHz                            | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:        | 4 G_BAND 14_5 M_QPSK_CH23305         |                      |                |
| Ant.Polar.:  | Vertical                             |                      |                |
| Description: | AC Adapter : 2ACS005B (30 MHz~1 GHz) |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 77.5300            | -62.14           | -6.47                  | -68.61          | -13.00         | -55.61         | QP     |
| 2   | 175.5000           | -73.50           | -3.41                  | -76.91          | -13.00         | -63.91         | QP     |
| 3   | 250.1900           | -72.99           | -3.87                  | -76.86          | -13.00         | -63.86         | QP     |
| 4   | 351.0700           | -71.24           | -1.82                  | -73.06          | -13.00         | -60.06         | QP     |
| 5   | 602.3000           | -75.47           | 1.71                   | -73.76          | -13.00         | -60.76         | QP     |
| 6   | 966.0500           | -80.22           | 6.64                   | -73.58          | -13.00         | -60.58         | QP     |



|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 790.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23305 |                      |                |
| Ant.Polar.: | Horizontal                   |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1581.000           | -70.82           | 7.35                   | -63.47          | -13.00         | -50.47         | peak   |

|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 790.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23305 |                      |                |
| Ant.Polar.: | Vertical                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1581.000           | -71.49           | 7.35                   | -64.14          | -13.00         | -51.14         | peak   |



|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                      | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                   |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -69.58           | 7.36                   | -62.22          | -13.00         | -49.22         | peak   |

|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                      | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Vertical                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -70.56           | 7.36                   | -63.20          | -13.00         | -50.20         | peak   |



|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 795.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23355 |                      |                |
| Ant.Polar.: | Horizontal                   |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1591.000           | -71.57           | 7.39                   | -64.18          | -13.00         | -51.18         | peak   |

|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 795.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23355 |                      |                |
| Ant.Polar.: | Vertical                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1591.000           | -71.81           | 7.39                   | -64.42          | -13.00         | -51.42         | peak   |



|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 790.5 MHz                     | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23305 |                      |                |
| Ant.Polar.: | Horizontal                    |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1581.000           | -70.75           | 7.35                   | -63.40          | -13.00         | -50.40         | peak   |

|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 790.5 MHz                     | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23305 |                      |                |
| Ant.Polar.: | Vertical                      |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1581.000           | -71.72           | 7.35                   | -64.37          | -13.00         | -51.37         | peak   |



|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                    |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -71.26           | 7.36                   | -63.90          | -13.00         | -50.90         | peak   |

|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Vertical                      |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -71.88           | 7.36                   | -64.52          | -13.00         | -51.52         | peak   |



|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 795.5 MHz                     | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23355 |                      |                |
| Ant.Polar.: | Horizontal                    |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1591.000           | -72.58           | 7.39                   | -65.19          | -13.00         | -52.19         | peak   |

|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 795.5 MHz                     | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23355 |                      |                |
| Ant.Polar.: | Vertical                      |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1591.000           | -70.02           | 7.39                   | -62.63          | -13.00         | -49.63         | peak   |



|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                      | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                   |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -72.70           | 7.36                   | -65.34          | -13.00         | -52.34         | peak   |

|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | Part 90R                     | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                      | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Vertical                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -69.63           | 7.36                   | -62.27          | -13.00         | -49.27         | peak   |





|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                    |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -74.05           | 7.36                   | -66.69          | -13.00         | -53.69         | peak   |

|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | Part 90R                      | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Vertical                      |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.000           | -72.94           | 7.36                   | -65.58          | -13.00         | -52.58         | peak   |



|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                 | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 790.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23305 |                      |                |
| Ant.Polar.: | Horizontal                   |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1581.695           | -67.83           | 6.95                   | -60.88          | -40.00         | -20.88         | peak   |

|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                 | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 790.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23305 |                      |                |
| Ant.Polar.: | Vertical                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1591.487           | -69.41           | 7.00                   | -62.41          | -40.00         | -22.41         | peak   |



|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                 | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                      | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                   |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1580.879           | -70.81           | 6.94                   | -63.87          | -40.00         | -23.87         | peak   |

|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                 | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                      | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Vertical                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1579.655           | -69.78           | 6.95                   | -62.83          | -40.00         | -22.83         | peak   |



|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                 | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 795.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23355 |                      |                |
| Ant.Polar.: | Horizontal                   |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1579.808           | -65.58           | 6.94                   | -58.64          | -40.00         | -18.64         | peak   |

|             |                              |                      |                |
|-------------|------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                 | Test Distance:       | 3 m            |
| Test item:  | Harmonic                     | Power:               | AC 120 V/60 Hz |
| Frequency:  | 795.5 MHz                    | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M_QPSK_CH23355 |                      |                |
| Ant.Polar.: | Vertical                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1602.758           | -66.27           | 7.03                   | -59.24          | -40.00         | -19.24         | peak   |



|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                  | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                    |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1561.703           | -66.50           | 6.88                   | -59.62          | -40.00         | -19.62         | peak   |

|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                  | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_5 M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Vertical                      |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1577.513           | -66.74           | 6.94                   | -59.80          | -40.00         | -19.80         | peak   |



|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                  | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10 M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                    |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1592.354           | -65.97           | 6.99                   | -58.98          | -40.00         | -18.98         | peak   |

|             |                               |                      |                |
|-------------|-------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                  | Test Distance:       | 3 m            |
| Test item:  | Harmonic                      | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                       | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10 M_QPSK_CH23330 |                      |                |
| Ant.Polar.: | Vertical                      |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1571.393           | -65.35           | 6.91                   | -58.44          | -40.00         | -18.44         | peak   |



|             |                                |                      |                |
|-------------|--------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                   | Test Distance:       | 3 m            |
| Test item:  | Harmonic                       | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                        | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10 M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Horizontal                     |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1586.234           | -66.59           | 6.97                   | -59.62          | -40.00         | -19.62         | peak   |

|             |                                |                      |                |
|-------------|--------------------------------|----------------------|----------------|
| Standard:   | FCC Part 90R                   | Test Distance:       | 3 m            |
| Test item:  | Harmonic                       | Power:               | AC 120 V/60 Hz |
| Frequency:  | 793 MHz                        | Temp.(°C)/Hum.(%RH): | 26(°C)/60 %RH  |
| Mode:       | 4 G_BAND 14_10 M-16QAM_CH23330 |                      |                |
| Ant.Polar.: | Vertical                       |                      |                |

| No. | Frequency<br>(MHz) | Reading<br>(dBm) | Correct Factor<br>(dB) | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) | Remark |
|-----|--------------------|------------------|------------------------|-----------------|----------------|----------------|--------|
| 1   | 1575.116           | -66.09           | 6.93                   | -59.16          | -40.00         | -19.16         | peak   |



## **Appendix : Frequency Stability/ Emission Bandwidth & Occupied Bandwidth/ Peak to Average Ratio/ Band Edge/ Conducted Spurious Emission**

The equipment passed the requirement of this clause, the detail results refer to "Test Results\_Band14.