

## Supplemental “CA Mode” Test Report

**Report No.:** RF190401E07-5 R1

**FCC ID:** NKR-LVSK-ODU

**Test Model:** LVSKODU

**Received Date:** Apr. 01, 2019

**Test Date:** May 19 to June 09, 2019

**Issued Date:** July 15, 2019

**Applicant:** Wistron NeWeb Corp.

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

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**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
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**FCC Registration /  
Designation Number:** 723255 / TW2022



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### Release Control Record

| Issue No.        | Description                                            | Date Issued   |
|------------------|--------------------------------------------------------|---------------|
| RF190401E07-5    | Original release.                                      | June 12, 2019 |
| RF190401E07-5 R1 | Add the occupied bandwidth measurement of section 4.3. | July 15, 2019 |

## 1 Certificate of Conformity

**Product:** LVSKODU

**Brand:** WNC

**Test Model:** LVSKODU

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** Wistron NeWeb Corp.

**Test Date:** May 19 to June 09, 2019

**Standards:** FCC Part 22, Subpart H  
FCC Part 24 Subpart E  
FCC Part 27, Subpart F / L  
FCC Part 2

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :**

*Phoenix Huang*

**Date:**

July 15, 2019

Phoenix Huang / Specialist

**Approved by :**

*May Chen*

**Date:**

July 15, 2019

May Chen / Manager

## 2 Summary of Test Results

| Applied Standard: FCC Part 22, FCC Part 24, FCC Part 27 & Part 2 |                                         |        |                                                                                    |
|------------------------------------------------------------------|-----------------------------------------|--------|------------------------------------------------------------------------------------|
| FCC Clause                                                       | Test Item                               | Result | Remarks                                                                            |
| 2.1046<br>24.232                                                 | Equivalent Isotropically Radiated Power | PASS   | Meet the requirement of limit.                                                     |
| 2.1046<br>22.913 (a)                                             | Effective radiated power                |        |                                                                                    |
| 2.1046<br>27.50                                                  | Radiated Power                          |        |                                                                                    |
| 2.1053<br>24.238                                                 | Radiated Spurious Emissions             | PASS   | Meet the requirement of limit.<br>Minimum passing margin is -10.16 dB at 1564 MHz. |
| 2.1053<br>22.917                                                 |                                         |        |                                                                                    |
| 2.1053<br>27.53                                                  |                                         |        |                                                                                    |

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| Measurement                    | Frequency     | Expanded Uncertainty (k=2) ( $\pm$ ) |
|--------------------------------|---------------|--------------------------------------|
| Radiated Emissions up to 1 GHz | 30MHz ~ 1GHz  | 4.9 dB                               |
| Radiated Emissions above 1 GHz | 1GHz ~ 6GHz   | 5.1 dB                               |
|                                | 6GHz ~ 18GHz  | 4.9 dB                               |
|                                | 18GHz ~ 40GHz | 5.2 dB                               |

## 2.2 Test Site and Instruments

### For Radiated Spurious Emissions Test:

| DESCRIPTION & MANUFACTURER                          | MODEL NO.            | SERIAL NO.  | CALIBRATED DATE | CALIBRATED UNTIL |
|-----------------------------------------------------|----------------------|-------------|-----------------|------------------|
| Test Receiver<br>Keysight                           | N9038A               | MY54450088  | July 05, 2018   | July 04, 2019    |
| Pre-Amplifier<br>EMCI                               | EMC001340            | 980142      | Jan. 25, 2019   | Jan. 24, 2020    |
| Loop Antenna<br>Electro-Metrics                     | EM-6879              | 269         | Sep. 07, 2018   | Sep. 06, 2019    |
| RF Cable                                            | NA                   | LOOPCAB-001 | Jan. 14, 2019   | Jan. 13, 2020    |
| RF Cable                                            | NA                   | LOOPCAB-002 | Jan. 14, 2019   | Jan. 13, 2020    |
| Pre-Amplifier<br>Mini-Circuits                      | ZFL-1000VH2B         | AMP-ZFL-01  | Oct. 30, 2018   | Oct. 29, 2019    |
| Trilog Broadband Antenna<br>SCHWARZBECK             | VULB 9168            | 9168-406    | Nov. 22, 2018   | Nov. 21, 2019    |
| RF Cable                                            | 8D                   | 966-4-1     | Mar. 19, 2019   | Mar. 18, 2020    |
| RF Cable                                            | 8D                   | 966-4-2     | Mar. 19, 2019   | Mar. 18, 2020    |
| RF Cable                                            | 8D                   | 966-4-3     | Mar. 19, 2019   | Mar. 18, 2020    |
| Fixed attenuator<br>Mini-Circuits                   | UNAT-5+              | PAD-3m-4-01 | Sep. 27, 2018   | Sep. 26, 2019    |
| Horn Antenna<br>SCHWARZBECK                         | BBHA 9120D           | 9120D-783   | Nov. 25, 2018   | Nov. 24, 2019    |
| Pre-Amplifier<br>EMCI                               | EMC12630SE           | 980385      | Aug. 16, 2018   | Aug. 15, 2019    |
| RF Cable                                            | EMC104-SM-SM-1200    | 160923      | Jan. 28, 2019   | Jan. 27, 2020    |
| RF Cable                                            | 104 RF cable         | 131215      | Jan. 10, 2019   | Jan. 09, 2020    |
| RF Cable                                            | EMC104-SM-SM-6000    | 180418      | May 03, 2019    | May 02, 2020     |
| Pre-Amplifier<br>EMCI                               | EMC184045SE          | 980387      | Jan. 28, 2019   | Jan. 27, 2020    |
| Horn Antenna<br>SCHWARZBECK                         | BBHA 9170            | BBHA9170519 | Nov. 25, 2018   | Nov. 24, 2019    |
| RF Cable                                            | EMC102-KM-KM-1200    | 160924      | Jan. 28, 2019   | Jan. 27, 2020    |
| RF Cable                                            | EMC102-KM-KM-1200    | 160925      | Jan. 28, 2019   | Jan. 27, 2020    |
| Software                                            | ADT_Radiated_V8.7.08 | NA          | NA              | NA               |
| Boresight Antenna Tower &<br>Turn Table<br>Max-Full | MF-7802BS            | MF780208530 | NA              | NA               |

#### Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 4.
3. Loop antenna was used for all emissions below 30 MHz.
4. Tested Date: May 19 to June 09, 2019

**For other test: (Mode 1-7)**

| DESCRIPTION & MANUFACTURER                 | MODEL NO.                        | SERIAL NO.                           | CALIBRATED DATE | CALIBRATED UNTIL |
|--------------------------------------------|----------------------------------|--------------------------------------|-----------------|------------------|
| Spectrum Analyzer R&S                      | FSV40                            | 100964                               | June 20, 2018   | June 19, 2019    |
| Spectrum Analyzer Agilent                  | E4446A                           | MY48250254                           | Nov. 14, 2018   | Nov. 13, 2019    |
| Power meter Anritsu                        | ML2495A                          | 1014008                              | May 13, 2019    | May 12, 2020     |
| Power sensor Anritsu                       | MA2411B                          | 0917122                              | May 13, 2019    | May 12, 2020     |
| Fixed Attenuator Mini-Circuits             | MDCS18N-10                       | MDCS18N-10-01                        | Apr. 15, 2019   | Apr. 14, 2020    |
| AC Power Source Extech Electronics         | 6205                             | 1440452                              | NA              | NA               |
| DC Power Supply Topward                    | 6603D                            | 795558                               | NA              | NA               |
| Temperature & Humidity Chamber Giant Force | GTH-150-40-SP-AR                 | MAA0812-008                          | Jan. 09, 2019   | Jan. 08, 2020    |
| True RMS Clamp Meter FLUKE                 | 325                              | 31130711WS                           | May 22, 2018    | May 21, 2019     |
| ESG Vector signal generator Agilent        | E4438C                           | MY45094468/005<br>506 602 UK6<br>UNJ | Nov. 19, 2018   | Nov. 18, 2019    |
| Mech Switch Absorptive Mini-Circuits       | MSP4TA-18+                       | 0140                                 | Feb. 11, 2019   | Feb. 10, 2020    |
| FXD ATTEN Mini-Circuits                    | BW-S3W2+                         | MN71981                              | Feb. 11, 2019   | Feb. 10, 2020    |
| Software                                   | ADT_RF Test<br>Software V6.6.5.4 | NA                                   | NA              | NA               |

- NOTE:**
1. The test was performed in Oven room 2.
  2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  3. Tested Date: May 19, 2019

**For other test: (Mode 8-12)**

| DESCRIPTION & MANUFACTURER                 | MODEL NO.                        | SERIAL NO.                           | CALIBRATED DATE | CALIBRATED UNTIL |
|--------------------------------------------|----------------------------------|--------------------------------------|-----------------|------------------|
| Spectrum Analyzer R&S                      | FSV40                            | 100964                               | June 20, 2018   | June 19, 2019    |
| Spectrum Analyzer Agilent                  | E4446A                           | MY48250254                           | Nov. 14, 2018   | Nov. 13, 2019    |
| Power meter Anritsu                        | ML2495A                          | 1014008                              | May 13, 2019    | May 12, 2020     |
| Power sensor Anritsu                       | MA2411B                          | 0917122                              | May 13, 2019    | May 12, 2020     |
| Fixed Attenuator Mini-Circuits             | MDCS18N-10                       | MDCS18N-10-01                        | Apr. 15, 2019   | Apr. 14, 2020    |
| AC Power Source Extech Electronics         | 6205                             | 1440452                              | NA              | NA               |
| DC Power Supply Topward                    | 6603D                            | 795558                               | NA              | NA               |
| Temperature & Humidity Chamber Giant Force | GTH-150-40-SP-AR                 | MAA0812-008                          | Jan. 09, 2019   | Jan. 08, 2020    |
| True RMS Clamp Meter FLUKE                 | 325                              | 31130711WS                           | May 21, 2019    | May 20, 2020     |
| ESG Vector signal generator Agilent        | E4438C                           | MY45094468/005<br>506 602 UK6<br>UNJ | Nov. 19, 2018   | Nov. 18, 2019    |
| Mech Switch Absorptive Mini-Circuits       | MSP4TA-18+                       | 0140                                 | Feb. 11, 2019   | Feb. 10, 2020    |
| FXD ATTEN Mini-Circuits                    | BW-S3W2+                         | MN71981                              | Feb. 11, 2019   | Feb. 10, 2020    |
| Software                                   | ADT_RF Test<br>Software V6.6.5.4 | NA                                   | NA              | NA               |

- NOTE:**
1. The test was performed in Oven room 2.
  2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  3. Tested Date: June 09, 2019

### 3 General Information

#### 3.1 General Description of EUT

|                     |                          |                       |
|---------------------|--------------------------|-----------------------|
| Product             | LVSKODU                  |                       |
| Brand               | WNC                      |                       |
| Test Model          | LVSKODU                  |                       |
| Status of EUT       | ENGINEERING SAMPLE       |                       |
| Power Supply Rating | 12Vdc from USB interface |                       |
| Modulation Type     | LTE                      | QPSK, 16QAM, 64QAM    |
| Operating Frequency | LTE Band 2               | 1850.7MHz ~ 1909.3MHz |
|                     | LTE Band 4               | 1710.7 ~ 1754.3 MHz   |
|                     | LTE Band 5               | 824.7MHz ~ 848.3MHz   |
|                     | LTE Band 13              | 779.5 ~ 784.5 MHz     |
|                     | LTE Band 66              | 1710.7 ~ 1779.3MHz    |
| Antenna Type        | Refer to Note            |                       |
| Antenna Connector   | Refer to Note            |                       |
| Accessory Device    | Refer to Note            |                       |
| Data Cable Supplied | NA                       |                       |

Note:

1. The associated devices of EUT information are as below:

| For LVSKIDU |                      |       |                  |                                                                                                 |                                                                                                                              |
|-------------|----------------------|-------|------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| No.         | Product              | Brand | Model No.        | FCC ID                                                                                          | Remark                                                                                                                       |
| 1           | LVSKIDU              | WNC   | LVSKIDU          | NKR-LVSK-IDU                                                                                    | -                                                                                                                            |
| 2           | Adapter              | DELTA | ADP-48GR B       | -                                                                                               | Input: 100-240Vac, 1A, 50-60Hz<br>AC input cable: Unshielded, 1.7m<br>Output: 12Vdc, 4A<br>DC output cable: Unshielded, 2.9m |
| 3           | Battery Cradle       | WNC   | LVSKCRA          | -                                                                                               | Battery Cradle Input: 12Vdc, 4A<br>Battery Cradle Include Battery<br>Battery Output: 3.6Vdc, 3450mAh, 12.42Wh                |
| For LVSKODU |                      |       |                  |                                                                                                 |                                                                                                                              |
| No.         | Product              | Brand | Model No.        | Remark                                                                                          |                                                                                                                              |
| 4           | LVPKROU              | WNC   | LVPK             | Input: 56Vdc, 1.1A (power from POE Adpater)                                                     |                                                                                                                              |
| 5           | POE Adpater          | DELTA | ADP-60HR B       | AC Input: 100-240V, 2.0A, 50-60Hz<br>DC Output: 56Vdc, 1.1A<br>AC input cable: Unshielded, 1.7m |                                                                                                                              |
| 6           | Surge protection box | CITEL | CRMJ8-POE-C6     | Metal case                                                                                      |                                                                                                                              |
| 7           | Surge protection box | CITEL | CRMJ8-POE-C6/WNC | Plastic case                                                                                    |                                                                                                                              |

2. There are WWAN, 5G NR and Bluetooth technology used for the EUT.

3. Simultaneously transmission condition.

| Condition | Technology |                   |           |
|-----------|------------|-------------------|-----------|
| 1         | WWAN       | 5G NR (n260/n261) | Bluetooth |

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

4. The EUT was pre-tested under the following modes:

| For Radiated Emission test                                                                                                              |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Pre-test Mode                                                                                                                           | Description                                                                           |
| Mode A                                                                                                                                  | Power from LVSKIDU                                                                    |
| Mode B                                                                                                                                  | Power from LVPKROU (with Surge protection box and model No.: CRMJ8-POE-C6)            |
| <b>Mode C</b>                                                                                                                           | <b>Power from LVPKROU (with Surge protection box and model No.: CRMJ8-POE-C6/WNC)</b> |
| From the above modes, the worst case was found in <b>Mode C</b> . Therefore only the test data of the mode was recorded in this report. |                                                                                       |

5. The antennas provided to the EUT, please refer to the following table:

| LTE                |                            |                   |                           |                |                   |
|--------------------|----------------------------|-------------------|---------------------------|----------------|-------------------|
| Ant. No.           | Ant. Net Gain (dBi)        | Freq. range (MHz) | Ant. Type                 | Connector Type | Cable Length (mm) |
| 1.ODU-LH1 (Ant. 0) | 3.86                       | 746~894           | IFA                       | NA             | NA                |
|                    |                            | 1710~2200         |                           |                |                   |
| 2.ODU-LH2 (Ant. 2) | 4.55                       | 746~894           | IFA                       | NA             | NA                |
|                    |                            | 1710~2200         |                           |                |                   |
| 3.ODU-H1 (Ant. 3)  | 3.58                       | 1710~2200         | IFA                       | i-pex (MHF)    | 62                |
| 4.ODU-H2 (Ant. 4)  | 2.27                       | 1710~2200         | IFA                       | i-pex (MHF)    | 66                |
| Bluetooth          |                            |                   |                           |                |                   |
| Ant. No.           | Ant. Net Gain (dBi)        | Freq. range (GHz) | Ant. Type                 | Connector Type |                   |
| 5.ODU-BT (Ant. 1)  | 2.69                       | 2.4~2.4835        | IFA                       | NA             |                   |
| 5GNR               |                            |                   |                           |                |                   |
| Ant. No.           | Freq. range (MHz)          |                   | Ant. Type                 | Connector Type |                   |
| 5GNR Antenna       | 27500~28350<br>37000~40000 |                   | Smart patch array Antenna | NA             |                   |

6. This device is UE LTE 4G 1Tx/4Rx device for single carrier within ANT0 can support uplink Band 2/4/5/13/66 and device support Inter-Band carrier aggregation (two carriers) uplink. For device operation on uplink CA mode, changed the transmitter mode by 2Tx within ANT0 and ANT2.

7. The device uplink Inter-Band CA maximum configurations set and below test mode are presented in the report:

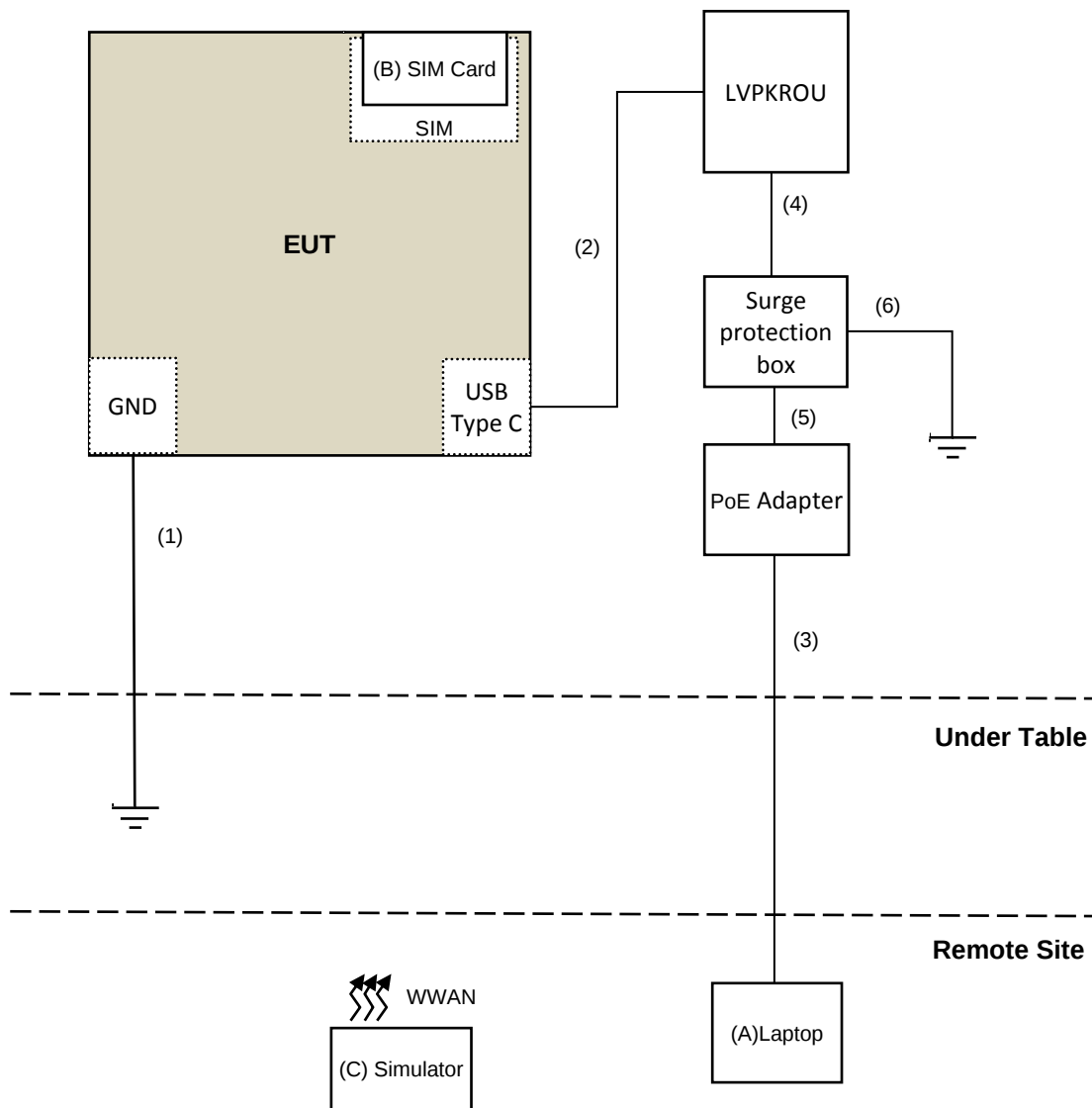
| Test Mode | Description                            |
|-----------|----------------------------------------|
| 1         | CA_PCC Ant 0 Band 2_SCC Ant 2 Band 4   |
| 2         | CA_PCC Ant 0 Band 4_SCC Ant 2 Band 2   |
| 3         | CA_PCC Ant 2 Band 2_SCC Ant 0 Band 13  |
| 4         | CA_PCC Ant 0 Band 13_SCC Ant 2 Band 2  |
| 5         | CA_PCC Ant 0 Band 66_SCC Ant 2 Band 2  |
| 6         | CA_PCC Ant 0 Band 13_SCC Ant 2 Band 4  |
| 7         | CA_PCC Ant 2 Band 66_SCC Ant 0 Band 13 |
| 8         | CA_PCC Ant 2 Band 2_SCC Ant 0 Band 5   |
| 9         | CA_PCC Ant 0 Band 5_SCC Ant 2 Band 2   |
| 10        | CA_PCC Ant 2 Band 4_SCC Ant 0 Band 5   |
| 11        | CA_PCC Ant 0 Band 5_SCC Ant 2 Band 4   |
| 12        | CA_PCC Ant 2 Band 66_SCC Ant 0 Band 5  |

8. This device is LVSKODU that can support carrier aggregation (two carrier) uplink Inter Band contiguous, specification following as below:

| Uplink CA Configurations | LTE Bands | Channel Bandwidths for Carrier [MHz] | Maximum Aggregated Bandwidth [MHz] | Bandwidth Combination Set |
|--------------------------|-----------|--------------------------------------|------------------------------------|---------------------------|
| CA_2A-4A                 | 2         | 1.4, 3, 5, 10, 15, 20                | 40                                 | 0                         |
|                          | 4         | 5, 10, 15, 20                        |                                    |                           |
|                          | 2         | 5, 10                                | 20                                 | 1                         |
|                          | 4         | 5, 10                                |                                    |                           |
|                          | 2         | 5, 10, 15, 20                        | 40                                 | 2                         |
|                          | 4         | 5, 10, 15, 20                        |                                    |                           |
| CA_2A-13A                | 2         | 5, 10, 15, 20                        | 30                                 | 0                         |
|                          | 13        | 10                                   |                                    |                           |
|                          | 2         | 5, 10                                | 20                                 | 1                         |
|                          | 13        | 10                                   |                                    |                           |
| CA_2A-66A                | 2         | 1.4, 3, 5, 10, 15, 20                | 40                                 | 0                         |
|                          | 66        | 5, 10, 15, 20                        |                                    |                           |
|                          | 2         | 5, 10                                | 20                                 | 1                         |
|                          | 66        | 5, 10                                |                                    |                           |
|                          | 2         | 5, 10, 15, 20                        | 40                                 | 2                         |
|                          | 66        | 5, 10, 15, 20                        |                                    |                           |
| CA_4A-13A                | 4         | 5, 10, 15, 20                        | 30                                 | 0                         |
|                          | 13        | 10                                   |                                    |                           |
|                          | 4         | 5, 10                                | 20                                 | 1                         |
|                          | 13        | 10                                   |                                    |                           |
| CA_66A-13A               | 66        | 5, 10, 15, 20                        | 30                                 | 0                         |
|                          | 13        | 10                                   |                                    |                           |
|                          | 66        | 5, 10                                | 20                                 | 1                         |
|                          | 13        | 10                                   |                                    |                           |
| CA_2A-5A                 | 2         | 5, 10, 15, 20                        | 30                                 | 0                         |
|                          | 5         | 5, 10                                |                                    |                           |
|                          | 2         | 5, 10                                | 20                                 | 1                         |
|                          | 5         | 5, 10                                |                                    |                           |
| CA_4A-5A                 | 4         | 5, 10                                | 20                                 | 0                         |
|                          | 5         | 5, 10                                |                                    |                           |
|                          | 4         | 5, 10, 15, 20                        | 30                                 | 1                         |
|                          | 5         | 5, 10                                |                                    |                           |
| CA_66A-5A                | 66        | 5, 10                                | 20                                 | 0                         |
|                          | 5         | 5, 10                                |                                    |                           |
|                          | 66        | 5, 10, 15, 20                        | 30                                 | 1                         |
|                          | 5         | 5, 10                                |                                    |                           |

9. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

### 3.2 Configuration of System under Test



### 3.2.1 Description of Support Units

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

| ID | Product   | Brand    | Model No. | Serial No. | FCC ID  | Remarks         |
|----|-----------|----------|-----------|------------|---------|-----------------|
| A. | Laptop    | DELL     | E6420     | B92T3R1    | FCC DoC | Provided by Lab |
| B. | SIM Card  | NA       | NA        | NA         | NA      | Provided by Lab |
| C. | Simulator | Keysight | E7515A    | MY56030229 | NA      | Provided by Lab |

Note:

1. All power cords of the above support units are non-shielded (1.8m).

| ID | Descriptions     | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks            |
|----|------------------|------|------------|--------------------|--------------|--------------------|
| 1. | GND Cable        | 1    | 3          | No                 | 0            | Provided by Lab    |
| 2. | USB Type C Cable | 1    | 0.38       | No                 | 0            | Supplied by client |
| 3. | RJ-45 Cable      | 1    | 10         | No                 | 0            | Provided by Lab    |
| 4. | RJ-45 Cable      | 1    | 3          | Yes                | 0            | Provided by Lab    |
| 5. | RJ-45 Cable      | 1    | 1          | Yes                | 0            | Provided by Lab    |
| 6. | GND Cable        | 1    | 3          | No                 | 0            | Provided by Lab    |

### 3.3 Test Mode Applicability and Tested Channel Detail

1. Test modes are presented in the report as below, detailed test mode information refer to note 2.

| Test Mode | Description                            |
|-----------|----------------------------------------|
| 1         | CA_PCC Ant 0 Band 2_SCC Ant 2 Band 4   |
| 2         | CA_PCC Ant 0 Band 4_SCC Ant 2 Band 2   |
| 3         | CA_PCC Ant 2 Band 2_SCC Ant 0 Band 13  |
| 4         | CA_PCC Ant 0 Band 13_SCC Ant 2 Band 2  |
| 5         | CA_PCC Ant 0 Band 66_SCC Ant 2 Band 2  |
| 6         | CA_PCC Ant 0 Band 13_SCC Ant 2 Band 4  |
| 7         | CA_PCC Ant 2 Band 66_SCC Ant 0 Band 13 |
| 8         | CA_PCC Ant 2 Band 2_SCC Ant 0 Band 5   |
| 9         | CA_PCC Ant 0 Band 5_SCC Ant 2 Band 2   |
| 10        | CA_PCC Ant 2 Band 4_SCC Ant 0 Band 5   |
| 11        | CA_PCC Ant 0 Band 5_SCC Ant 2 Band 4   |
| 12        | CA_PCC Ant 2 Band 66_SCC Ant 0 Band 5  |

2. The detailed test mode information.

| Test Mode | Test Item                | Modulation | PCC               |                |                     | SCC               |                |                     |
|-----------|--------------------------|------------|-------------------|----------------|---------------------|-------------------|----------------|---------------------|
|           |                          |            | Channel Bandwidth | Tested Channel | Mode                | Channel Bandwidth | Tested Channel | Mode                |
| 1         | EIRP & Radiated Emission | QPSK       | 15 MHz            | 19125          | 1 RB / 0 RB offset  | 15 MHz            | 20175          | 1 RB / 0 RB offset  |
| 2         | EIRP & Radiated Emission | QPSK       | 20 MHz            | 20175          | 1 RB / 50 RB offset | 15 MHz            | 18900          | 1 RB / 0 RB offset  |
| 3         | EIRP & Radiated Emission | QPSK       | 15 MHz            | 18900          | 1 RB / 0 RB offset  | 10 MHz            | 23230          | 1 RB / 0 RB offset  |
| 4         | EIRP & Radiated Emission | QPSK       | 15 MHz            | 23230          | 1 RB / 0 RB offset  | 10 MHz            | 18900          | 1 RB / 0 RB offset  |
| 5         | EIRP & Radiated Emission | QPSK       | 10 MHz            | 132622         | 1 RB / 0 RB offset  | 15 MHz            | 18675          | 1 RB / 74 RB offset |
| 6         | EIRP & Radiated Emission | QPSK       | 10 MHz            | 23230          | 1 RB / 0 RB offset  | 15 MHz            | 20325          | 1 RB / 0 RB offset  |
| 7         | EIRP & Radiated Emission | QPSK       | 10 MHz            | 132622         | 1 RB / 0 RB offset  | 10 MHz            | 23230          | 1 RB / 0 RB offset  |
| 8         | EIRP & Radiated Emission | QPSK       | 15 MHz            | 18900          | 1 RB / 0 RB offset  | 10 MHz            | 20450          | 1 RB / 0 RB offset  |
| 9         | EIRP & Radiated Emission | QPSK       | 10 MHz            | 20450          | 1 RB / 0 RB offset  | 15 MHz            | 18675          | 1 RB / 37 RB offset |
| 10        | EIRP & Radiated Emission | QPSK       | 15 MHz            | 20025          | 1 RB / 74 RB offset | 10 MHz            | 20450          | 1 RB / 24 RB offset |
| 11        | EIRP & Radiated Emission | QPSK       | 10 MHz            | 20450          | 1 RB / 0 RB offset  | 15 MHz            | 20025          | 1 RB / 0 RB offset  |
| 12        | EIRP & Radiated Emission | QPSK       | 10 MHz            | 132022         | 1 RB / 49 RB offset | 10 MHz            | 20450          | 1 RB / 24 RB offset |

**Test Condition:**

| Test Item                       | Environmental Conditions                                | Input Power<br>(System) | Tested By    |
|---------------------------------|---------------------------------------------------------|-------------------------|--------------|
| EIRP/ERP                        | 25deg. C, 60%RH                                         | 120Vac, 60Hz            | Jynuchun Lin |
| Radiated Emission<br>Below 1GHz | 25deg. C, 73%RH,<br>25deg. C, 75%RH,<br>25deg. C, 65%RH | 120Vac, 60Hz            | Robert Cheng |
| Radiated Emission<br>Above 1GHz | 25deg. C, 75%RH,<br>25deg. C, 73%RH                     | 120Vac, 60Hz            | Robert Cheng |

### **3.4 EUT Operating Conditions**

The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

### **3.5 General Description of Applied Standards**

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

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 22, Subpart H**

**FCC 47 CFR Part 24 Subpart E**

**FCC 47 CFR Part 27, Subpart F / L**

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**ANSI/TIA/EIA-603-E 2016**

**ANSI 63.26-2015**

**NOTE:** All test items have been performed and recorded as per the above standards.

## 4 Test Types and Results

### 4.1 Output Power Measurement

#### 4.1.1 Limits of Output Power Measurement

##### For FCC Part 22:

Mobile / Portable station are limited to 7 watts e.r.p.

##### For FCC Part 24:

Mobile / Portable station are limited to 2 watts e.i.r.p.

##### For FCC Part 27:

For section 27.50(d)(4): Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

For section 27.50(b)(10): Portable stations (hand-held devices) operating in the 698-787 MHz band are limited to 3 watts ERP. In the BRS and EBS Band, Mobile and other user stations are limited to 2.0 watts EIRP.

#### 4.1.2 Test Procedures

##### Conducted Power Measurement:

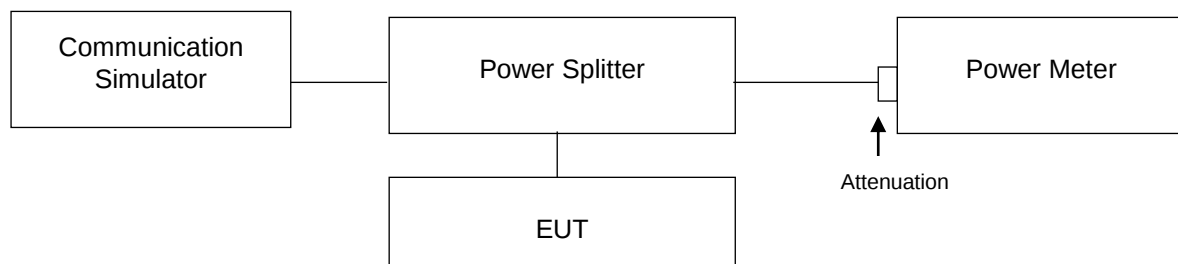
The EUT was set up for the maximum power with WCDMA/LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and difference RB size/ RB offset for difference bandwidth record the power level shown on power meter.

##### EIRP / ERP Measurement:

- EIRP = Conducted Output power level + Antenna gain.
- ERP power can be calculated form EIRP power by subtracting the gain of dipole, ERP power = EIPR power - 2.15dBi.
- ERP = Conducted Output power level + Antenna gain (dBi) - Isotropically Factor (2.15dB)

#### 4.1.3 Test Setup

##### Conducted Power Measurement:



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

#### 4.1.4 Test Results (Mode 1)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                              |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_2A-4A                                        |      | Mode 1: CA_PCC Ant 0 Band 2_SCC Ant 2 Band 4 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 1.4                                          | QPSK           | 1          | 0            | 18607    | 1850.7               | 23.02                                        | 4    | 5           | QPSK           | 1          | 0            | 19975    | 1712.5               | 19.84                                           |
|                                                     |      |                                              |                | 1          | 2            |          |                      | 23.13                                        |      |             |                | 1          | 12           |          |                      | 19.95                                           |
|                                                     |      |                                              |                | 1          | 5            |          |                      | 23.20                                        |      |             |                | 1          | 24           |          |                      | 19.79                                           |
|                                                     | 2    | 1.4                                          | QPSK           | 1          | 0            | 18900    | 1880                 | 23.08                                        | 4    | 5           | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.94                                           |
|                                                     |      |                                              |                | 1          | 2            |          |                      | 22.99                                        |      |             |                | 1          | 12           |          |                      | 19.76                                           |
|                                                     |      |                                              |                | 1          | 5            |          |                      | 23.17                                        |      |             |                | 1          | 24           |          |                      | 19.84                                           |
|                                                     | 2    | 1.4                                          | QPSK           | 1          | 0            | 19193    | 1909.3               | 23.44                                        | 4    | 5           | QPSK           | 1          | 0            | 20375    | 1752.5               | 20.07                                           |
|                                                     |      |                                              |                | 1          | 2            |          |                      | 23.32                                        |      |             |                | 1          | 12           |          |                      | 19.77                                           |
|                                                     |      |                                              |                | 1          | 5            |          |                      | 23.39                                        |      |             |                | 1          | 24           |          |                      | 19.54                                           |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 15                                           | QPSK           | 1          | 0            | 18675    | 1857.5               | 23.04                                        | 4    | 15          | QPSK           | 1          | 0            | 20025    | 1717.5               | 19.95                                           |
|                                                     |      |                                              |                | 1          | 37           |          |                      | 23.07                                        |      |             |                | 1          | 37           |          |                      | 19.85                                           |
|                                                     |      |                                              |                | 1          | 74           |          |                      | 23.22                                        |      |             |                | 1          | 74           |          |                      | 19.81                                           |
|                                                     | 2    | 15                                           | QPSK           | 1          | 0            | 18900    | 1880                 | 22.94                                        | 4    | 15          | QPSK           | 1          | 0            | 20175    | 1732.5               | 20.11                                           |
|                                                     |      |                                              |                | 1          | 37           |          |                      | 23.18                                        |      |             |                | 1          | 37           |          |                      | 19.89                                           |
|                                                     |      |                                              |                | 1          | 74           |          |                      | 23.04                                        |      |             |                | 1          | 74           |          |                      | 19.90                                           |
|                                                     | 2    | 15                                           | QPSK           | 1          | 0            | 19125    | 1902.5               | 23.45                                        | 4    | 15          | QPSK           | 1          | 0            | 20325    | 1747.5               | 19.94                                           |
|                                                     |      |                                              |                | 1          | 37           |          |                      | 23.38                                        |      |             |                | 1          | 37           |          |                      | 19.67                                           |
|                                                     |      |                                              |                | 1          | 74           |          |                      | 23.23                                        |      |             |                | 1          | 74           |          |                      | 19.76                                           |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 20                                           | QPSK           | 1          | 0            | 18625    | 1852.5               | 23.05                                        | 4    | 20          | QPSK           | 1          | 0            | 20000    | 1715                 | 19.87                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 23.00                                        |      |             |                | 1          | 50           |          |                      | 19.84                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 23.16                                        |      |             |                | 1          | 99           |          |                      | 19.79                                           |
|                                                     | 2    | 20                                           | QPSK           | 1          | 0            | 18900    | 1880                 | 22.94                                        | 4    | 20          | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.67                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 23.04                                        |      |             |                | 1          | 50           |          |                      | 19.91                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 23.04                                        |      |             |                | 1          | 99           |          |                      | 19.85                                           |
|                                                     | 2    | 20                                           | QPSK           | 1          | 0            | 19175    | 1907.5               | 23.37                                        | 4    | 20          | QPSK           | 1          | 0            | 20350    | 1750                 | 19.80                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 23.41                                        |      |             |                | 1          | 50           |          |                      | 19.84                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 23.41                                        |      |             |                | 1          | 99           |          |                      | 19.65                                           |

## EIRP / ERP POWER

| Maximum Power         |                       |
|-----------------------|-----------------------|
| PCC Bandwidth         | SCC BW Bandwidth      |
| 15                    | 15                    |
| RB / RB offset        | RB / RB offset        |
| 1/0                   | 1/0                   |
| Freq. (MHz)           | Freq. (MHz)           |
| 1902.5                | 1732.5                |
| Conducted Power (dBm) | Conducted Power (dBm) |
| 23.45                 | 20.11                 |
| Ant Gain (dBi)        | Ant Gain (dBi)        |
| 3.86                  | 4.55                  |
| EIRP (dBm)            | EIRP (dBm)            |
| 27.31                 | 24.66                 |

#### 4.1.5 Test Results (Mode 2)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                              |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_4A-2A                                        |      | Mode 2: CA_PCC Ant 0 Band 4_SCC Ant 2 Band 2 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 4    | 5                                            | QPSK           | 1          | 0            | 19975    | 1712.5               | 24.82                                        | 2    | 1.4         | QPSK           | 1          | 0            | 18607    | 1850.7               | 19.83                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 24.66                                        |      |             |                | 1          | 2            |          |                      | 19.71                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.59                                        |      |             |                | 1          | 5            |          |                      | 19.93                                           |
|                                                     | 4    | 5                                            | QPSK           | 1          | 0            | 20175    | 1732.5               | 24.72                                        | 2    | 1.4         | QPSK           | 1          | 0            | 18900    | 1880                 | 19.96                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 24.89                                        |      |             |                | 1          | 2            |          |                      | 19.80                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.59                                        |      |             |                | 1          | 5            |          |                      | 19.88                                           |
|                                                     | 4    | 5                                            | QPSK           | 1          | 0            | 20375    | 1752.5               | 24.56                                        | 2    | 1.4         | QPSK           | 1          | 0            | 19193    | 1909.3               | 19.64                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 24.76                                        |      |             |                | 1          | 2            |          |                      | 19.65                                           |
| 1                                                   |      |                                              |                | 24         | 24.44        |          |                      | 1                                            |      |             |                | 5          | 19.52        |          |                      |                                                 |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 4    | 20                                           | QPSK           | 1          | 0            | 20000    | 1715                 | 24.84                                        | 2    | 15          | QPSK           | 1          | 0            | 18675    | 1857.5               | 19.85                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 24.59                                        |      |             |                | 1          | 37           |          |                      | 19.79                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 24.58                                        |      |             |                | 1          | 74           |          |                      | 19.74                                           |
|                                                     | 4    | 20                                           | QPSK           | 1          | 0            | 20175    | 1732.5               | 24.91                                        | 2    | 15          | QPSK           | 1          | 0            | 18900    | 1880                 | 20.03                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 24.92                                        |      |             |                | 1          | 37           |          |                      | 19.96                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 24.51                                        |      |             |                | 1          | 74           |          |                      | 19.65                                           |
|                                                     | 4    | 20                                           | QPSK           | 1          | 0            | 20350    | 1750                 | 24.77                                        | 2    | 15          | QPSK           | 1          | 0            | 19125    | 1902.5               | 19.76                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 24.71                                        |      |             |                | 1          | 37           |          |                      | 19.62                                           |
| 1                                                   |      |                                              |                | 99         | 24.42        |          |                      | 1                                            |      |             |                | 74         | 19.64        |          |                      |                                                 |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 4    | 20                                           | QPSK           | 1          | 0            | 20000    | 1715                 | 24.78                                        | 2    | 20          | QPSK           | 1          | 0            | 18625    | 1852.5               | 19.79                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 24.77                                        |      |             |                | 1          | 50           |          |                      | 19.86                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 24.59                                        |      |             |                | 1          | 99           |          |                      | 19.97                                           |
|                                                     | 4    | 20                                           | QPSK           | 1          | 0            | 20175    | 1732.5               | 24.75                                        | 2    | 20          | QPSK           | 1          | 0            | 18900    | 1880                 | 19.94                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 24.71                                        |      |             |                | 1          | 50           |          |                      | 19.95                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 24.54                                        |      |             |                | 1          | 99           |          |                      | 19.79                                           |
|                                                     | 4    | 20                                           | QPSK           | 1          | 0            | 20350    | 1750                 | 24.54                                        | 2    | 20          | QPSK           | 1          | 0            | 19175    | 1907.5               | 19.79                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 24.76                                        |      |             |                | 1          | 50           |          |                      | 19.78                                           |
| 1                                                   |      |                                              |                | 99         | 24.58        |          |                      | 1                                            |      |             |                | 99         | 19.64        |          |                      |                                                 |

## EIRP / ERP POWER

| Maximum Power         |                       |
|-----------------------|-----------------------|
| PCC BW Bandwidth      | SCC BW Bandwidth      |
| 20                    | 15                    |
| RB / RB offset        | RB / RB offset        |
| 1/50                  | 1/0                   |
| Freq. (MHz)           | Freq. (MHz)           |
| 1732.5                | 1880                  |
| Conducted Power (dBm) | Conducted Power (dBm) |
| 24.92                 | 20.03                 |
| Ant Gain (dBi)        | Ant Gain (dBi)        |
| 3.86                  | 4.55                  |
| EIRP (dBm)            | EIRP (dBm)            |
| 28.78                 | 24.58                 |

#### 4.1.6 Test Results (Mode 3)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                               |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|-----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_2A-13A                                       |      | Mode 3: CA_PCC Ant 2 Band 2_SCC Ant 0 Band 13 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 5                                             | QPSK           | 1          | 0            | 18625    | 1852.5               | 19.81                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.85                                           |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 19.79                                        |      |             |                | 1          | 24           |          |                      | 24.45                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 19.72                                        |      |             |                | 1          | 49           |          |                      | 24.43                                           |
|                                                     | 2    | 5                                             | QPSK           | 1          | 0            | 18900    | 1880                 | 20.11                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.79                                           |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 20.05                                        |      |             |                | 1          | 24           |          |                      | 24.68                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 19.68                                        |      |             |                | 1          | 49           |          |                      | 24.56                                           |
|                                                     | 2    | 5                                             | QPSK           | 1          | 0            | 19175    | 1907.5               | 19.79                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.75                                           |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 19.73                                        |      |             |                | 1          | 24           |          |                      | 24.46                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 19.62                                        |      |             |                | 1          | 49           |          |                      | 24.36                                           |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 15                                            | QPSK           | 1          | 0            | 18675    | 1857.5               | 19.94                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.84                                           |
|                                                     |      |                                               |                | 1          | 37           |          |                      | 19.76                                        |      |             |                | 1          | 24           |          |                      | 24.70                                           |
|                                                     |      |                                               |                | 1          | 74           |          |                      | 19.72                                        |      |             |                | 1          | 49           |          |                      | 24.41                                           |
|                                                     | 2    | 15                                            | QPSK           | 1          | 0            | 18900    | 1880                 | 20.13                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.88                                           |
|                                                     |      |                                               |                | 1          | 37           |          |                      | 19.86                                        |      |             |                | 1          | 24           |          |                      | 24.67                                           |
|                                                     |      |                                               |                | 1          | 74           |          |                      | 19.79                                        |      |             |                | 1          | 49           |          |                      | 24.50                                           |
|                                                     | 2    | 15                                            | QPSK           | 1          | 0            | 19125    | 1902.5               | 19.82                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.83                                           |
|                                                     |      |                                               |                | 1          | 37           |          |                      | 19.59                                        |      |             |                | 1          | 24           |          |                      | 24.59                                           |
|                                                     |      |                                               |                | 1          | 74           |          |                      | 19.67                                        |      |             |                | 1          | 49           |          |                      | 24.49                                           |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 20                                            | QPSK           | 1          | 0            | 18700    | 1860                 | 19.75                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.77                                           |
|                                                     |      |                                               |                | 1          | 50           |          |                      | 19.68                                        |      |             |                | 1          | 24           |          |                      | 24.48                                           |
|                                                     |      |                                               |                | 1          | 99           |          |                      | 19.77                                        |      |             |                | 1          | 49           |          |                      | 24.59                                           |
|                                                     | 2    | 20                                            | QPSK           | 1          | 0            | 18900    | 1880                 | 20.12                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.65                                           |
|                                                     |      |                                               |                | 1          | 50           |          |                      | 19.99                                        |      |             |                | 1          | 24           |          |                      | 24.70                                           |
|                                                     |      |                                               |                | 1          | 99           |          |                      | 19.76                                        |      |             |                | 1          | 49           |          |                      | 24.43                                           |
|                                                     | 2    | 20                                            | QPSK           | 1          | 0            | 19100    | 1900                 | 19.74                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.77                                           |
|                                                     |      |                                               |                | 1          | 50           |          |                      | 19.82                                        |      |             |                | 1          | 24           |          |                      | 24.42                                           |
|                                                     |      |                                               |                | 1          | 99           |          |                      | 19.62                                        |      |             |                | 1          | 49           |          |                      | 24.47                                           |

## EIRP / ERP POWER

| Maximum Power         |                       |           |
|-----------------------|-----------------------|-----------|
| PCC BW Bandwidth      | SCC BW Bandwidth      |           |
| 15                    | 10                    |           |
| RB / RB offset        | RB / RB offset        |           |
| 1/0                   | 1/0                   |           |
| Freq. (MHz)           | Freq. (MHz)           |           |
| 1880                  | 782                   |           |
| Conducted Power (dBm) | Conducted Power (dBm) |           |
| 20.13                 | 24.88                 |           |
| Ant Gain (dBi)        | Ant Gain (dBi)        |           |
| 4.55                  | 3.86                  |           |
| EIRP (dBm)            | EIRP (dBm)            | ERP (dBm) |
| 24.68                 | 28.74                 | 26.59     |

#### 4.1.7 Test Results (Mode 4)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                               |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|-----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_13A-2A                                       |      | Mode 4: CA_PCC Ant 0 Band 13_SCC Ant 2 Band 2 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.71                                        | 2    | 5           | QPSK           | 1          | 0            | 18625    | 1852.5               | 20.00                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.52                                        |      |             |                | 1          | 12           |          |                      | 19.61                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.43                                        |      |             |                | 1          | 24           |          |                      | 19.87                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.84                                        | 2    | 5           | QPSK           | 1          | 0            | 18900    | 1880                 | 19.99                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.58                                        |      |             |                | 1          | 12           |          |                      | 19.99                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.35                                        |      |             |                | 1          | 24           |          |                      | 19.82                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.75                                        | 2    | 5           | QPSK           | 1          | 0            | 19175    | 1907.5               | 19.61                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.67                                        |      |             |                | 1          | 12           |          |                      | 19.76                                           |
| 1                                                   |      |                                               |                | 49         | 24.63        |          |                      | 1                                            |      |             |                | 24         | 19.47        |          |                      |                                                 |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.75                                        | 2    | 15          | QPSK           | 1          | 0            | 18675    | 1857.5               | 19.97                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.56                                        |      |             |                | 1          | 37           |          |                      | 19.85                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.53                                        |      |             |                | 1          | 74           |          |                      | 20.00                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.69                                        | 2    | 15          | QPSK           | 1          | 0            | 18900    | 1880                 | 20.01                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.67                                        |      |             |                | 1          | 37           |          |                      | 19.99                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.57                                        |      |             |                | 1          | 74           |          |                      | 19.69                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.85                                        | 2    | 15          | QPSK           | 1          | 0            | 19125    | 1902.5               | 19.61                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.44                                        |      |             |                | 1          | 37           |          |                      | 19.75                                           |
| 1                                                   |      |                                               |                | 49         | 24.49        |          |                      | 1                                            |      |             |                | 74         | 19.62        |          |                      |                                                 |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.75                                        | 2    | 20          | QPSK           | 1          | 0            | 18700    | 1860                 | 19.80                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.57                                        |      |             |                | 1          | 50           |          |                      | 19.62                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.53                                        |      |             |                | 1          | 99           |          |                      | 19.72                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.66                                        | 2    | 20          | QPSK           | 1          | 0            | 18900    | 1880                 | 19.92                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.43                                        |      |             |                | 1          | 50           |          |                      | 19.91                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.50                                        |      |             |                | 1          | 99           |          |                      | 19.75                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.61                                        | 2    | 20          | QPSK           | 1          | 0            | 19100    | 1900                 | 19.77                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.48                                        |      |             |                | 1          | 50           |          |                      | 19.81                                           |
| 1                                                   |      |                                               |                | 49         | 24.45        |          |                      | 1                                            |      |             |                | 99         | 19.64        |          |                      |                                                 |

## EIRP / ERP POWER

| Maximum Power         |           |                       |
|-----------------------|-----------|-----------------------|
| PCC BW Bandwidth      |           | SCC BW Bandwidth      |
| 10                    |           | 15                    |
| RB / RB offset        |           | RB / RB offset        |
| 1/0                   |           | 1/0                   |
| Freq. (MHz)           |           | Freq. (MHz)           |
| 782                   |           | 1880                  |
| Conducted Power (dBm) |           | Conducted Power (dBm) |
| 24.85                 |           | 20.01                 |
| Ant Gain (dBi)        |           | Ant Gain (dBi)        |
| 3.86                  |           | 4.55                  |
| EIRP (dBm)            | ERP (dBm) | EIRP (dBm)            |
| 28.71                 | 26.56     | 24.56                 |

#### 4.1.8 Test Results (Mode 5)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                               |                |            |              |            |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|-----------------------------------------------|----------------|------------|--------------|------------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_66A-2A                                       |      | Mode 5: CA_PCC Ant 0 Band 66_SCC Ant 2 Band 2 |                |            |              |            |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |            |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH   | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 66   | 5                                             | QPSK           | 1          | 0            | 13199<br>7 | 1712.5               | 24.32                                        | 2    | 1.4         | QPSK           | 1          | 0            | 18607    | 1850.7               | 19.80                                           |
|                                                     |      |                                               |                | 1          | 12           |            |                      | 24.75                                        |      |             |                | 1          | 2            |          |                      | 19.77                                           |
|                                                     |      |                                               |                | 1          | 24           |            |                      | 24.56                                        |      |             |                | 1          | 5            |          |                      | 19.89                                           |
|                                                     | 66   | 5                                             | QPSK           | 1          | 0            | 13232<br>2 | 1745                 | 24.61                                        | 2    | 1.4         | QPSK           | 1          | 0            | 18900    | 1880                 | 19.87                                           |
|                                                     |      |                                               |                | 1          | 12           |            |                      | 24.51                                        |      |             |                | 1          | 2            |          |                      | 19.85                                           |
|                                                     |      |                                               |                | 1          | 24           |            |                      | 24.43                                        |      |             |                | 1          | 5            |          |                      | 19.82                                           |
|                                                     | 66   | 5                                             | QPSK           | 1          | 0            | 13264<br>7 | 1777.5               | 24.62                                        | 2    | 1.4         | QPSK           | 1          | 0            | 19193    | 1909.3               | 19.75                                           |
|                                                     |      |                                               |                | 1          | 12           |            |                      | 24.43                                        |      |             |                | 1          | 2            |          |                      | 19.81                                           |
|                                                     |      |                                               |                | 1          | 24           |            |                      | 24.43                                        |      |             |                | 1          | 5            |          |                      | 19.55                                           |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                               |                |            |              |            |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH   | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 66   | 10                                            | QPSK           | 1          | 0            | 13202<br>2 | 1715                 | 24.22                                        | 2    | 15          | QPSK           | 1          | 0            | 18675    | 1857.5               | 19.79                                           |
|                                                     |      |                                               |                | 1          | 24           |            |                      | 24.81                                        |      |             |                | 1          | 37           |          |                      | 19.62                                           |
|                                                     |      |                                               |                | 1          | 49           |            |                      | 24.54                                        |      |             |                | 1          | 74           |          |                      | 20.12                                           |
|                                                     | 66   | 10                                            | QPSK           | 1          | 0            | 13232<br>2 | 1745                 | 24.37                                        | 2    | 15          | QPSK           | 1          | 0            | 18900    | 1880                 | 19.93                                           |
|                                                     |      |                                               |                | 1          | 24           |            |                      | 24.43                                        |      |             |                | 1          | 37           |          |                      | 19.81                                           |
|                                                     |      |                                               |                | 1          | 49           |            |                      | 24.35                                        |      |             |                | 1          | 74           |          |                      | 19.85                                           |
|                                                     | 66   | 10                                            | QPSK           | 1          | 0            | 13262<br>2 | 1775                 | 24.88                                        | 2    | 15          | QPSK           | 1          | 0            | 19125    | 1902.5               | 19.87                                           |
|                                                     |      |                                               |                | 1          | 24           |            |                      | 24.17                                        |      |             |                | 1          | 37           |          |                      | 19.65                                           |
|                                                     |      |                                               |                | 1          | 49           |            |                      | 24.41                                        |      |             |                | 1          | 74           |          |                      | 19.60                                           |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |            |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH   | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 66   | 20                                            | QPSK           | 1          | 0            | 13207<br>2 | 1720                 | 24.42                                        | 2    | 20          | QPSK           | 1          | 0            | 18700    | 1860                 | 19.73                                           |
|                                                     |      |                                               |                | 1          | 50           |            |                      | 24.68                                        |      |             |                | 1          | 50           |          |                      | 19.68                                           |
|                                                     |      |                                               |                | 1          | 99           |            |                      | 24.70                                        |      |             |                | 1          | 99           |          |                      | 19.89                                           |
|                                                     | 66   | 20                                            | QPSK           | 1          | 0            | 13232<br>2 | 1745                 | 24.42                                        | 2    | 20          | QPSK           | 1          | 0            | 18900    | 1880                 | 19.97                                           |
|                                                     |      |                                               |                | 1          | 50           |            |                      | 24.52                                        |      |             |                | 1          | 50           |          |                      | 20.05                                           |
|                                                     |      |                                               |                | 1          | 99           |            |                      | 24.40                                        |      |             |                | 1          | 99           |          |                      | 19.88                                           |
|                                                     | 66   | 20                                            | QPSK           | 1          | 0            | 13257<br>2 | 1770                 | 24.83                                        | 2    | 20          | QPSK           | 1          | 0            | 19100    | 1900                 | 19.66                                           |
|                                                     |      |                                               |                | 1          | 50           |            |                      | 24.28                                        |      |             |                | 1          | 50           |          |                      | 19.80                                           |
|                                                     |      |                                               |                | 1          | 99           |            |                      | 24.54                                        |      |             |                | 1          | 99           |          |                      | 19.54                                           |

## EIRP / ERP POWER

| Maximum Power         |                       |
|-----------------------|-----------------------|
| PCC BW Bandwidth      | SCC BW Bandwidth      |
| 10                    | 15                    |
| RB / RB offset        | RB / RB offset        |
| 1/0                   | 1/74                  |
| Freq. (MHz)           | Freq. (MHz)           |
| 1745                  | 1880                  |
| Conducted Power (dBm) | Conducted Power (dBm) |
| 24.88                 | 20.12                 |
| Ant Gain (dBi)        | Ant Gain (dBi)        |
| 3.86                  | 4.55                  |
| EIRP (dBm)            | EIRP (dBm)            |
| 28.74                 | 24.67                 |

#### 4.1.9 Test Results (Mode 6)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                               |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|-----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_13A-4A                                       |      | Mode 6: CA_PCC Ant 0 Band 13_SCC Ant 2 Band 4 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.72                                        | 4    | 5           | QPSK           | 1          | 0            | 19975    | 1712.5               | 19.89                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.50                                        |      |             |                | 1          | 12           |          |                      | 19.86                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.54                                        |      |             |                | 1          | 24           |          |                      | 19.82                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.79                                        | 4    | 5           | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.70                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.65                                        |      |             |                | 1          | 12           |          |                      | 19.92                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.38                                        |      |             |                | 1          | 24           |          |                      | 19.68                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.64                                        | 4    | 5           | QPSK           | 1          | 0            | 20375    | 1752.5               | 20.04                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.58                                        |      |             |                | 1          | 12           |          |                      | 19.66                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.50                                        |      |             |                | 1          | 24           |          |                      | 19.49                                           |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.76                                        | 4    | 15          | QPSK           | 1          | 0            | 20025    | 1717.5               | 19.67                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.53                                        |      |             |                | 1          | 37           |          |                      | 19.93                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.37                                        |      |             |                | 1          | 74           |          |                      | 19.71                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.89                                        | 4    | 15          | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.90                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.66                                        |      |             |                | 1          | 37           |          |                      | 19.75                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.46                                        |      |             |                | 1          | 74           |          |                      | 19.89                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.82                                        | 4    | 15          | QPSK           | 1          | 0            | 20325    | 1747.5               | 20.06                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.51                                        |      |             |                | 1          | 37           |          |                      | 19.84                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.53                                        |      |             |                | 1          | 74           |          |                      | 19.51                                           |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.87                                        | 4    | 20          | QPSK           | 1          | 0            | 20050    | 1720                 | 19.75                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.49                                        |      |             |                | 1          | 50           |          |                      | 19.88                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.58                                        |      |             |                | 1          | 99           |          |                      | 19.80                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.71                                        | 4    | 20          | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.70                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.57                                        |      |             |                | 1          | 50           |          |                      | 19.83                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.36                                        |      |             |                | 1          | 99           |          |                      | 19.76                                           |
|                                                     | 13   | 10                                            | QPSK           | 1          | 0            | 23230    | 782                  | 24.69                                        | 4    | 20          | QPSK           | 1          | 0            | 20300    | 1745                 | 19.87                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.48                                        |      |             |                | 1          | 50           |          |                      | 19.86                                           |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.53                                        |      |             |                | 1          | 99           |          |                      | 19.65                                           |

## EIRP / ERP POWER

| Maximum Power         |           |                       |
|-----------------------|-----------|-----------------------|
| PCC BW Bandwidth      |           | SCC BW Bandwidth      |
| 10                    |           | 15                    |
| RB / RB offset        |           | RB / RB offset        |
| 1/0                   |           | 1/0                   |
| Freq. (MHz)           |           | Freq. (MHz)           |
| 782                   |           | 1732.5                |
| Conducted Power (dBm) |           | Conducted Power (dBm) |
| 24.89                 |           | 20.06                 |
| Ant Gain (dBi)        |           | Ant Gain (dBi)        |
| 3.86                  |           | 4.55                  |
| EIRP (dBm)            | ERP (dBm) | EIRP (dBm)            |
| 28.75                 | 26.60     | 24.61                 |

#### 4.1.10 Test Results (Mode 7)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                                |                |            |              |            |                      |                                              |      |             |                |            |              |          |                      |                                              |
|-----------------------------------------------------|------|------------------------------------------------|----------------|------------|--------------|------------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|
| LTE CA_66A-13A                                      |      | Mode 7: CA_PCC Ant 2 Band 66_SCC Ant 0 Band 13 |                |            |              |            |                      |                                              |      |             |                |            |              |          |                      |                                              |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                                |                |            |              |            |                      |                                              | SCC  |             |                |            |              |          |                      |                                              |
|                                                     | Band | BW<br>(MHz)                                    | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH   | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 66   | 5                                              | QPSK           | 1          | 0            | 13199<br>7 | 1712.5               | 23.14                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.72                                        |
|                                                     |      |                                                |                | 1          | 12           |            |                      | 22.89                                        |      |             |                | 1          | 24           |          |                      | 24.56                                        |
|                                                     |      |                                                |                | 1          | 24           |            |                      | 23.25                                        |      |             |                | 1          | 49           |          |                      | 24.64                                        |
|                                                     | 66   | 5                                              | QPSK           | 1          | 0            | 13232<br>2 | 1745                 | 23.16                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.64                                        |
|                                                     |      |                                                |                | 1          | 12           |            |                      | 22.97                                        |      |             |                | 1          | 24           |          |                      | 24.48                                        |
|                                                     |      |                                                |                | 1          | 24           |            |                      | 22.91                                        |      |             |                | 1          | 49           |          |                      | 24.45                                        |
|                                                     | 66   | 5                                              | QPSK           | 1          | 0            | 13264<br>7 | 1777.5               | 23.29                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.74                                        |
|                                                     |      |                                                |                | 1          | 12           |            |                      | 22.96                                        |      |             |                | 1          | 24           |          |                      | 24.42                                        |
|                                                     |      |                                                |                | 1          | 24           |            |                      | 23.31                                        |      |             |                | 1          | 49           |          |                      | 24.54                                        |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                                |                |            |              |            |                      |                                              | SCC  |             |                |            |              |          |                      |                                              |
|                                                     | Band | BW<br>(MHz)                                    | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH   | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 66   | 10                                             | QPSK           | 1          | 0            | 13202<br>2 | 1715                 | 23.11                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.73                                        |
|                                                     |      |                                                |                | 1          | 24           |            |                      | 23.01                                        |      |             |                | 1          | 24           |          |                      | 24.71                                        |
|                                                     |      |                                                |                | 1          | 49           |            |                      | 23.10                                        |      |             |                | 1          | 49           |          |                      | 24.47                                        |
|                                                     | 66   | 10                                             | QPSK           | 1          | 0            | 13232<br>2 | 1745                 | 23.23                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.65                                        |
|                                                     |      |                                                |                | 1          | 24           |            |                      | 23.06                                        |      |             |                | 1          | 24           |          |                      | 24.46                                        |
|                                                     |      |                                                |                | 1          | 49           |            |                      | 22.89                                        |      |             |                | 1          | 49           |          |                      | 24.43                                        |
|                                                     | 66   | 10                                             | QPSK           | 1          | 0            | 13262<br>2 | 1775                 | 23.38                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.87                                        |
|                                                     |      |                                                |                | 1          | 24           |            |                      | 22.93                                        |      |             |                | 1          | 24           |          |                      | 24.48                                        |
|                                                     |      |                                                |                | 1          | 49           |            |                      | 23.14                                        |      |             |                | 1          | 49           |          |                      | 24.41                                        |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                                |                |            |              |            |                      |                                              | SCC  |             |                |            |              |          |                      |                                              |
|                                                     | Band | BW<br>(MHz)                                    | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH   | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 66   | 20                                             | QPSK           | 1          | 0            | 13207<br>2 | 1720                 | 23.06                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.78                                        |
|                                                     |      |                                                |                | 1          | 50           |            |                      | 22.85                                        |      |             |                | 1          | 24           |          |                      | 24.62                                        |
|                                                     |      |                                                |                | 1          | 99           |            |                      | 23.23                                        |      |             |                | 1          | 49           |          |                      | 24.46                                        |
|                                                     | 66   | 20                                             | QPSK           | 1          | 0            | 13232<br>2 | 1745                 | 23.05                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.64                                        |
|                                                     |      |                                                |                | 1          | 50           |            |                      | 23.09                                        |      |             |                | 1          | 24           |          |                      | 24.46                                        |
|                                                     |      |                                                |                | 1          | 99           |            |                      | 22.91                                        |      |             |                | 1          | 49           |          |                      | 24.43                                        |
|                                                     | 66   | 20                                             | QPSK           | 1          | 0            | 13257<br>2 | 1770                 | 23.27                                        | 13   | 10          | QPSK           | 1          | 0            | 23230    | 782                  | 24.71                                        |
|                                                     |      |                                                |                | 1          | 50           |            |                      | 23.18                                        |      |             |                | 1          | 24           |          |                      | 24.60                                        |
|                                                     |      |                                                |                | 1          | 99           |            |                      | 23.35                                        |      |             |                | 1          | 49           |          |                      | 24.60                                        |

## EIRP / ERP POWER

| Maximum Power         |                       |           |
|-----------------------|-----------------------|-----------|
| PCC BW Bandwidth      | SCC BW Bandwidth      |           |
| 10                    | 10                    |           |
| RB / RB offset        | RB / RB offset        |           |
| 1/0                   | 1/0                   |           |
| Freq. (MHz)           | Freq. (MHz)           |           |
| 1745                  | 782                   |           |
| Conducted Power (dBm) | Conducted Power (dBm) |           |
| 23.38                 | 24.87                 |           |
| Ant Gain (dBi)        | Ant Gain (dBi)        |           |
| 4.55                  | 3.86                  |           |
| EIRP (dBm)            | EIRP (dBm)            | ERP (dBm) |
| 27.93                 | 28.73                 | 26.58     |

#### 4.1.11 Test Results (Mode 8)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                              |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_2A-5A                                        |      | Mode 8: CA_PCC Ant 2 Band 2_SCC Ant 0 Band 5 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 5                                            | QPSK           | 1          | 0            | 18625    | 1852.5               | 20.00                                        | 5    | 5           | QPSK           | 1          | 0            | 20425    | 826.5                | 24.18                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 20.09                                        |      |             |                | 1          | 12           |          |                      | 24.79                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 19.81                                        |      |             |                | 1          | 24           |          |                      | 24.59                                           |
|                                                     | 2    | 5                                            | QPSK           | 1          | 0            | 18900    | 1880                 | 19.69                                        | 5    | 5           | QPSK           | 1          | 0            | 20525    | 836.5                | 24.27                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 19.79                                        |      |             |                | 1          | 12           |          |                      | 24.33                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 19.83                                        |      |             |                | 1          | 24           |          |                      | 24.19                                           |
|                                                     | 2    | 5                                            | QPSK           | 1          | 0            | 19175    | 1907.5               | 19.72                                        | 5    | 5           | QPSK           | 1          | 0            | 20625    | 846.5                | 24.20                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 19.63                                        |      |             |                | 1          | 12           |          |                      | 24.48                                           |
| 1                                                   |      |                                              |                | 24         | 19.48        |          |                      | 1                                            |      |             |                | 24         | 24.53        |          |                      |                                                 |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 15                                           | QPSK           | 1          | 0            | 18675    | 1857.5               | 19.98                                        | 5    | 10          | QPSK           | 1          | 0            | 20450    | 829                  | 24.81                                           |
|                                                     |      |                                              |                | 1          | 37           |          |                      | 19.89                                        |      |             |                | 1          | 24           |          |                      | 24.63                                           |
|                                                     |      |                                              |                | 1          | 74           |          |                      | 19.68                                        |      |             |                | 1          | 49           |          |                      | 24.60                                           |
|                                                     | 2    | 15                                           | QPSK           | 1          | 0            | 18900    | 1880                 | 20.11                                        | 5    | 10          | QPSK           | 1          | 0            | 20525    | 836.5                | 24.27                                           |
|                                                     |      |                                              |                | 1          | 37           |          |                      | 19.83                                        |      |             |                | 1          | 24           |          |                      | 24.32                                           |
|                                                     |      |                                              |                | 1          | 74           |          |                      | 19.66                                        |      |             |                | 1          | 49           |          |                      | 24.19                                           |
|                                                     | 2    | 15                                           | QPSK           | 1          | 0            | 19125    | 1902.5               | 19.99                                        | 5    | 10          | QPSK           | 1          | 0            | 20600    | 844                  | 24.39                                           |
|                                                     |      |                                              |                | 1          | 37           |          |                      | 19.83                                        |      |             |                | 1          | 24           |          |                      | 24.47                                           |
| 1                                                   |      |                                              |                | 74         | 19.60        |          |                      | 1                                            |      |             |                | 49         | 24.56        |          |                      |                                                 |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 2    | 20                                           | QPSK           | 1          | 0            | 18700    | 1860                 | 19.83                                        | 5    | 10          | QPSK           | 1          | 0            | 20450    | 829                  | 24.38                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 20.07                                        |      |             |                | 1          | 24           |          |                      | 24.57                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 19.68                                        |      |             |                | 1          | 49           |          |                      | 24.33                                           |
|                                                     | 2    | 20                                           | QPSK           | 1          | 0            | 18900    | 1880                 | 19.66                                        | 5    | 10          | QPSK           | 1          | 0            | 20525    | 836.5                | 24.42                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 19.91                                        |      |             |                | 1          | 24           |          |                      | 24.17                                           |
|                                                     |      |                                              |                | 1          | 99           |          |                      | 19.83                                        |      |             |                | 1          | 49           |          |                      | 24.40                                           |
|                                                     | 2    | 20                                           | QPSK           | 1          | 0            | 19100    | 1900                 | 19.95                                        | 5    | 10          | QPSK           | 1          | 0            | 20600    | 844                  | 24.23                                           |
|                                                     |      |                                              |                | 1          | 50           |          |                      | 19.74                                        |      |             |                | 1          | 24           |          |                      | 24.42                                           |
| 1                                                   |      |                                              |                | 99         | 19.46        |          |                      | 1                                            |      |             |                | 49         | 24.76        |          |                      |                                                 |

## EIRP / ERP POWER

| Maximum Power         |                       |           |
|-----------------------|-----------------------|-----------|
| PCC BW Bandwidth      | SCC BW Bandwidth      |           |
| 15                    | 10                    |           |
| RB / RB offset        | RB / RB offset        |           |
| 1/0                   | 1/0                   |           |
| Freq. (MHz)           | Freq. (MHz)           |           |
| 1880                  | 829                   |           |
| Conducted Power (dBm) | Conducted Power (dBm) |           |
| 20.11                 | 24.81                 |           |
| Ant Gain (dBi)        | Ant Gain (dBi)        |           |
| 3.86                  | 4.55                  |           |
| EIRP (dBm)            | EIRP (dBm)            | ERP (dBm) |
| 23.97                 | 29.36                 | 27.21     |

#### 4.1.12 Test Results (Mode 9)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA                        |      |                                              |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_5A-2A                                        |      | Mode 9: CA_PCC Ant 0 Band 5_SCC Ant 2 Band 2 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 5    | 5                                            | QPSK           | 1          | 0            | 20425    | 826.5                | 24.39                                        | 2    | 5           | QPSK           | 1          | 0            | 18625    | 1852.5               | 19.78                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 24.63                                        |      |             |                | 1          | 12           |          |                      | 20.12                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.47                                        |      |             |                | 1          | 24           |          |                      | 19.72                                           |
|                                                     | 5    | 5                                            | QPSK           | 1          | 0            | 20525    | 836.5                | 24.19                                        | 2    | 5           | QPSK           | 1          | 0            | 18900    | 1880                 | 19.73                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 24.35                                        |      |             |                | 1          | 12           |          |                      | 19.84                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.42                                        |      |             |                | 1          | 24           |          |                      | 19.63                                           |
|                                                     | 5    | 5                                            | QPSK           | 1          | 0            | 20625    | 846.5                | 24.14                                        | 2    | 5           | QPSK           | 1          | 0            | 19175    | 1907.5               | 19.83                                           |
|                                                     |      |                                              |                | 1          | 12           |          |                      | 24.60                                        |      |             |                | 1          | 12           |          |                      | 19.81                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.68                                        |      |             |                | 1          | 24           |          |                      | 19.49                                           |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 5    | 10                                           | QPSK           | 1          | 0            | 20450    | 829                  | 24.79                                        | 2    | 15          | QPSK           | 1          | 0            | 18675    | 1857.5               | 20.00                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.67                                        |      |             |                | 1          | 37           |          |                      | 20.15                                           |
|                                                     |      |                                              |                | 1          | 49           |          |                      | 24.37                                        |      |             |                | 1          | 74           |          |                      | 19.70                                           |
|                                                     | 5    | 10                                           | QPSK           | 1          | 0            | 20525    | 836.5                | 24.31                                        | 2    | 15          | QPSK           | 1          | 0            | 18900    | 1880                 | 19.70                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.16                                        |      |             |                | 1          | 37           |          |                      | 19.93                                           |
|                                                     |      |                                              |                | 1          | 49           |          |                      | 24.37                                        |      |             |                | 1          | 74           |          |                      | 19.59                                           |
|                                                     | 5    | 10                                           | QPSK           | 1          | 0            | 20600    | 844                  | 24.23                                        | 2    | 15          | QPSK           | 1          | 0            | 19125    | 1902.5               | 19.81                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.41                                        |      |             |                | 1          | 37           |          |                      | 19.64                                           |
|                                                     |      |                                              |                | 1          | 49           |          |                      | 24.74                                        |      |             |                | 1          | 74           |          |                      | 19.55                                           |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                              |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                  | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 5    | 10                                           | QPSK           | 1          | 0            | 20450    | 829                  | 24.35                                        | 2    | 20          | QPSK           | 1          | 0            | 18700    | 1860                 | 19.89                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.77                                        |      |             |                | 1          | 50           |          |                      | 20.13                                           |
|                                                     |      |                                              |                | 1          | 49           |          |                      | 24.37                                        |      |             |                | 1          | 99           |          |                      | 19.65                                           |
|                                                     | 5    | 10                                           | QPSK           | 1          | 0            | 20525    | 836.5                | 24.23                                        | 2    | 20          | QPSK           | 1          | 0            | 18900    | 1880                 | 19.83                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.31                                        |      |             |                | 1          | 50           |          |                      | 19.77                                           |
|                                                     |      |                                              |                | 1          | 49           |          |                      | 24.47                                        |      |             |                | 1          | 99           |          |                      | 19.59                                           |
|                                                     | 5    | 10                                           | QPSK           | 1          | 0            | 20600    | 844                  | 24.20                                        | 2    | 20          | QPSK           | 1          | 0            | 19100    | 1900                 | 19.72                                           |
|                                                     |      |                                              |                | 1          | 24           |          |                      | 24.42                                        |      |             |                | 1          | 50           |          |                      | 19.68                                           |
|                                                     |      |                                              |                | 1          | 49           |          |                      | 24.59                                        |      |             |                | 1          | 99           |          |                      | 19.56                                           |

## EIRP / ERP POWER

| Maximum Power         |           |                       |
|-----------------------|-----------|-----------------------|
| PCC BW Bandwidth      |           | SCC BW Bandwidth      |
| 10                    |           | 15                    |
| RB / RB offset        |           | RB / RB offset        |
| 1/0                   |           | 1/37                  |
| Freq. (MHz)           |           | Freq. (MHz)           |
| 829                   |           | 1857.5                |
| Conducted Power (dBm) |           | Conducted Power (dBm) |
| 24.79                 |           | 20.15                 |
| Ant Gain (dBi)        |           | Ant Gain (dBi)        |
| 4.55                  |           | 3.86                  |
| EIRP (dBm)            | ERP (dBm) | EIRP (dBm)            |
| 29.34                 | 27.19     | 24.01                 |

## 4.1.13 Test Results (Mode 10)

**CONDUCTED OUTPUT POWER (dBm)**

| Inter Band dis-Contiguous CA                        |      |                                               |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
|-----------------------------------------------------|------|-----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-------------------------------------------------|
| LTE CA_4A-5A                                        |      | Mode 10: CA_PCC Ant 2 Band 4_SCC Ant 0 Band 5 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                 |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 4    | 5                                             | QPSK           | 1          | 0            | 19975    | 1712.5               | 19.74                                        | 5    | 5           | QPSK           | 1          | 0            | 18625    | 1852.5               | 24.42                                           |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 19.85                                        |      |             |                | 1          | 12           |          |                      | 24.69                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 19.97                                        |      |             |                | 1          | 24           |          |                      | 24.35                                           |
|                                                     | 4    | 5                                             | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.81                                        | 5    | 5           | QPSK           | 1          | 0            | 18900    | 1880                 | 24.22                                           |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 20.01                                        |      |             |                | 1          | 12           |          |                      | 24.23                                           |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 19.66                                        |      |             |                | 1          | 24           |          |                      | 24.29                                           |
|                                                     | 4    | 5                                             | QPSK           | 1          | 0            | 20375    | 1752.5               | 19.88                                        | 5    | 5           | QPSK           | 1          | 0            | 19175    | 1907.5               | 24.39                                           |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 19.88                                        |      |             |                | 1          | 12           |          |                      | 24.53                                           |
| 1                                                   |      |                                               |                | 24         | 19.76        |          |                      | 1                                            |      |             |                | 24         | 24.49        |          |                      |                                                 |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 4    | 15                                            | QPSK           | 1          | 0            | 20025    | 1717.5               | 19.85                                        | 5    | 10          | QPSK           | 1          | 0            | 20450    | 829                  | 24.15                                           |
|                                                     |      |                                               |                | 1          | 37           |          |                      | 19.76                                        |      |             |                | 1          | 24           |          |                      | 24.76                                           |
|                                                     |      |                                               |                | 1          | 74           |          |                      | 20.08                                        |      |             |                | 1          | 49           |          |                      | 24.38                                           |
|                                                     | 4    | 15                                            | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.83                                        | 5    | 10          | QPSK           | 1          | 0            | 20525    | 836.5                | 24.22                                           |
|                                                     |      |                                               |                | 1          | 37           |          |                      | 19.96                                        |      |             |                | 1          | 24           |          |                      | 24.10                                           |
|                                                     |      |                                               |                | 1          | 74           |          |                      | 19.87                                        |      |             |                | 1          | 49           |          |                      | 24.26                                           |
|                                                     | 4    | 15                                            | QPSK           | 1          | 0            | 20325    | 1747.5               | 19.63                                        | 5    | 10          | QPSK           | 1          | 0            | 20600    | 844                  | 24.25                                           |
|                                                     |      |                                               |                | 1          | 37           |          |                      | 19.95                                        |      |             |                | 1          | 24           |          |                      | 24.55                                           |
| 1                                                   |      |                                               |                | 74         | 19.75        |          |                      | 1                                            |      |             |                | 49         | 24.61        |          |                      |                                                 |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                 |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-CA<br>Active<br>(dBm) |
|                                                     | 4    | 20                                            | QPSK           | 1          | 0            | 20050    | 1720                 | 19.76                                        | 5    | 10          | QPSK           | 1          | 0            | 20450    | 829                  | 24.44                                           |
|                                                     |      |                                               |                | 1          | 50           |          |                      | 19.67                                        |      |             |                | 1          | 24           |          |                      | 24.68                                           |
|                                                     |      |                                               |                | 1          | 99           |          |                      | 19.97                                        |      |             |                | 1          | 49           |          |                      | 24.34                                           |
|                                                     | 4    | 20                                            | QPSK           | 1          | 0            | 20175    | 1732.5               | 20.02                                        | 5    | 10          | QPSK           | 1          | 0            | 20525    | 836.5                | 24.25                                           |
|                                                     |      |                                               |                | 1          | 50           |          |                      | 19.86                                        |      |             |                | 1          | 24           |          |                      | 24.20                                           |
|                                                     |      |                                               |                | 1          | 99           |          |                      | 19.91                                        |      |             |                | 1          | 49           |          |                      | 24.40                                           |
|                                                     | 4    | 20                                            | QPSK           | 1          | 0            | 20300    | 1745                 | 19.87                                        | 5    | 10          | QPSK           | 1          | 0            | 20600    | 844                  | 24.19                                           |
|                                                     |      |                                               |                | 1          | 50           |          |                      | 19.83                                        |      |             |                | 1          | 24           |          |                      | 24.61                                           |
| 1                                                   |      |                                               |                | 99         | 19.52        |          |                      | 1                                            |      |             |                | 49         | 24.71        |          |                      |                                                 |

## EIRP / ERP POWER

| Maximum Power         |                       |           |
|-----------------------|-----------------------|-----------|
| PCC BW Bandwidth      | SCC BW Bandwidth      |           |
| 15                    | 10                    |           |
| RB / RB offset        | RB / RB offset        |           |
| 1/74                  | 1/24                  |           |
| Freq. (MHz)           | Freq. (MHz)           |           |
| 1717.5                | 829                   |           |
| Conducted Power (dBm) | Conducted Power (dBm) |           |
| 20.08                 | 24.76                 |           |
| Ant Gain (dBi)        | Ant Gain (dBi)        |           |
| 3.86                  | 4.55                  |           |
| EIRP (dBm)            | EIRP (dBm)            | ERP (dBm) |
| 23.94                 | 29.31                 | 27.16     |

## 4.1.14 Test Results (Mode 11)

**CONDUCTED OUTPUT POWER (dBm)**

| Inter Band dis-Contiguous CA                        |      |                                               |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                     |
|-----------------------------------------------------|------|-----------------------------------------------|----------------|------------|--------------|----------|----------------------|----------------------------------------------|------|-------------|----------------|------------|--------------|----------|----------------------|-----------------------------------------------------|
| LTE CA_5A-4A                                        |      | Mode 11: CA_PCC Ant 0 Band 5_SCC Ant 2 Band 4 |                |            |              |          |                      |                                              |      |             |                |            |              |          |                      |                                                     |
| Minimum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                     |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-C<br>A<br>Active<br>(dBm) |
|                                                     | 5    | 5                                             | QPSK           | 1          | 0            | 20425    | 826.5                | 24.25                                        | 4    | 5           | QPSK           | 1          | 0            | 19975    | 1712.5               | 19.39                                               |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 24.68                                        |      |             |                | 1          | 12           |          |                      | 19.42                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.50                                        |      |             |                | 1          | 24           |          |                      | 19.39                                               |
|                                                     | 5    | 5                                             | QPSK           | 1          | 0            | 20525    | 836.5                | 24.27                                        | 4    | 5           | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.39                                               |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 24.21                                        |      |             |                | 1          | 12           |          |                      | 19.21                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.40                                        |      |             |                | 1          | 24           |          |                      | 19.19                                               |
|                                                     | 5    | 5                                             | QPSK           | 1          | 0            | 20625    | 846.5                | 24.26                                        | 4    | 5           | QPSK           | 1          | 0            | 20375    | 1752.5               | 19.27                                               |
|                                                     |      |                                               |                | 1          | 12           |          |                      | 24.55                                        |      |             |                | 1          | 12           |          |                      | 19.32                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.74                                        |      |             |                | 1          | 24           |          |                      | 19.03                                               |
| Worst<br>CA_Band<br>width<br>Combinati<br>on Sets   | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                     |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-C<br>A<br>Active<br>(dBm) |
|                                                     | 5    | 10                                            | QPSK           | 1          | 0            | 20450    | 829                  | 24.75                                        | 4    | 15          | QPSK           | 1          | 0            | 20025    | 1717.5               | 19.26                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.65                                        |      |             |                | 1          | 37           |          |                      | 19.26                                               |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.34                                        |      |             |                | 1          | 74           |          |                      | 19.31                                               |
|                                                     | 5    | 10                                            | QPSK           | 1          | 0            | 20525    | 836.5                | 24.28                                        | 4    | 15          | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.55                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.35                                        |      |             |                | 1          | 37           |          |                      | 19.45                                               |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.42                                        |      |             |                | 1          | 74           |          |                      | 19.21                                               |
|                                                     | 5    | 10                                            | QPSK           | 1          | 0            | 20600    | 844                  | 24.14                                        | 4    | 15          | QPSK           | 1          | 0            | 20325    | 1747.5               | 19.36                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.45                                        |      |             |                | 1          | 37           |          |                      | 19.24                                               |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.66                                        |      |             |                | 1          | 74           |          |                      | 19.03                                               |
| Maximum<br>CA_Band<br>width<br>Combinati<br>on Sets | PCC  |                                               |                |            |              |          |                      |                                              | SCC  |             |                |            |              |          |                      |                                                     |
|                                                     | Band | BW<br>(MHz)                                   | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx Power<br>with<br>UL-CA<br>Active<br>(dBm) | Band | BW<br>(MHz) | Modul<br>ation | RB<br>Size | RB<br>Offset | UL<br>CH | UL<br>Freq.<br>(MHz) | Tx<br>Power<br>with<br>UL-C<br>A<br>Active<br>(dBm) |
|                                                     | 5    | 10                                            | QPSK           | 1          | 0            | 20450    | 829                  | 24.43                                        | 4    | 20          | QPSK           | 1          | 0            | 20050    | 1720                 | 19.27                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.61                                        |      |             |                | 1          | 50           |          |                      | 19.38                                               |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.60                                        |      |             |                | 1          | 99           |          |                      | 19.32                                               |
|                                                     | 5    | 10                                            | QPSK           | 1          | 0            | 20525    | 836.5                | 24.29                                        | 4    | 20          | QPSK           | 1          | 0            | 20175    | 1732.5               | 19.50                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.22                                        |      |             |                | 1          | 50           |          |                      | 19.39                                               |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.35                                        |      |             |                | 1          | 99           |          |                      | 19.42                                               |
|                                                     | 5    | 10                                            | QPSK           | 1          | 0            | 20600    | 844                  | 24.15                                        | 4    | 20          | QPSK           | 1          | 0            | 20300    | 1745                 | 19.41                                               |
|                                                     |      |                                               |                | 1          | 24           |          |                      | 24.49                                        |      |             |                | 1          | 50           |          |                      | 19.42                                               |
|                                                     |      |                                               |                | 1          | 49           |          |                      | 24.71                                        |      |             |                | 1          | 99           |          |                      | 19.20                                               |

## EIRP / ERP POWER

| Maximum Power         |           |                       |
|-----------------------|-----------|-----------------------|
| PCC BW Bandwidth      |           | SCC BW Bandwidth      |
| 10                    |           | 15                    |
| RB / RB offset        |           | RB / RB offset        |
| 1/0                   |           | 1/0                   |
| Freq. (MHz)           |           | Freq. (MHz)           |
| 829                   |           | 1732.5                |
| Conducted Power (dBm) |           | Conducted Power (dBm) |
| 24.75                 |           | 19.55                 |
| Ant Gain (dBi)        |           | Ant Gain (dBi)        |
| 4.55                  |           | 3.86                  |
| EIRP (dBm)            | ERP (dBm) | EIRP (dBm)            |
| 29.30                 | 27.15     | 23.41                 |

#### 4.1.15 Test Results (Mode 12)

#### CONDUCTED OUTPUT POWER (dBm)

| Inter Band dis-Contiguous CA           |      |                                                |            |         |           |        |                |                                  |      |          |            |         |           |       |                |                                  |
|----------------------------------------|------|------------------------------------------------|------------|---------|-----------|--------|----------------|----------------------------------|------|----------|------------|---------|-----------|-------|----------------|----------------------------------|
| LTE CA_66A-5A                          |      | Mode 12: CA_PCC Ant 2 Band 66_SCC Ant 0 Band 5 |            |         |           |        |                |                                  |      |          |            |         |           |       |                |                                  |
| Minimum CA_Band width Combination Sets | PCC  |                                                |            |         |           |        |                |                                  | SCC  |          |            |         |           |       |                |                                  |
|                                        | Band | BW (MHz)                                       | Modulation | RB Size | RB Offset | UL CH  | UL Freq. (MHz) | Tx Power with UL-CA Active (dBm) | Band | BW (MHz) | Modulation | RB Size | RB Offset | UL CH | UL Freq. (MHz) | Tx Power with UL-CA Active (dBm) |
|                                        | 66   | 5                                              | QPSK       | 1       | 0         | 131997 | 1712.5         | 23.03                            | 5    | 5        | QPSK       | 1       | 0         | 20425 | 826.5          | 23.72                            |
|                                        |      |                                                |            | 1       | 12        |        |                | 23.17                            |      |          |            | 1       | 12        |       |                | 24.00                            |
|                                        |      |                                                |            | 1       | 24        |        |                | 23.15                            |      |          |            | 1       | 24        |       |                | 23.88                            |
|                                        | 66   | 5                                              | QPSK       | 1       | 0         | 132322 | 1745           | 22.93                            | 5    | 5        | QPSK       | 1       | 0         | 20525 | 836.5          | 23.92                            |
|                                        |      |                                                |            | 1       | 12        |        |                | 22.95                            |      |          |            | 1       | 12        |       |                | 23.46                            |
|                                        |      |                                                |            | 1       | 24        |        |                | 23.11                            |      |          |            | 1       | 24        |       |                | 23.93                            |
|                                        | 66   | 5                                              | QPSK       | 1       | 0         | 132647 | 1777.5         | 23.05                            | 5    | 5        | QPSK       | 1       | 0         | 20625 | 846.5          | 23.77                            |
|                                        |      |                                                |            | 1       | 12        |        |                | 22.77                            |      |          |            | 1       | 12        |       |                | 24.13                            |
| 1                                      |      |                                                |            | 24      | 23.33     |        |                | 1                                |      |          |            | 24      | 24.00     |       |                |                                  |
| Worst CA_Band width Combination Sets   | PCC  |                                                |            |         |           |        |                |                                  | SCC  |          |            |         |           |       |                |                                  |
|                                        | Band | BW (MHz)                                       | Modulation | RB Size | RB Offset | UL CH  | UL Freq. (MHz) | Tx Power with UL-CA Active (dBm) | Band | BW (MHz) | Modulation | RB Size | RB Offset | UL CH | UL Freq. (MHz) | Tx Power with UL-CA Active (dBm) |
|                                        | 66   | 10                                             | QPSK       | 1       | 0         | 132022 | 1715           | 22.96                            | 5    | 10       | QPSK       | 1       | 0         | 20450 | 829            | 23.75                            |
|                                        |      |                                                |            | 1       | 24        |        |                | 23.13                            |      |          |            | 1       | 24        |       |                | 24.26                            |
|                                        |      |                                                |            | 1       | 49        |        |                | 23.34                            |      |          |            | 1       | 49        |       |                | 23.63                            |
|                                        | 66   | 10                                             | QPSK       | 1       | 0         | 132322 | 1745           | 22.88                            | 5    | 10       | QPSK       | 1       | 0         | 20525 | 836.5          | 23.91                            |
|                                        |      |                                                |            | 1       | 24        |        |                | 23.20                            |      |          |            | 1       | 24        |       |                | 23.71                            |
|                                        |      |                                                |            | 1       | 49        |        |                | 23.10                            |      |          |            | 1       | 49        |       |                | 24.05                            |
|                                        | 66   | 10                                             | QPSK       | 1       | 0         | 132622 | 1775           | 23.15                            | 5    | 10       | QPSK       | 1       | 0         | 20600 | 844            | 23.75                            |
|                                        |      |                                                |            | 1       | 24        |        |                | 22.75                            |      |          |            | 1       | 24        |       |                | 24.01                            |
| 1                                      |      |                                                |            | 49      | 23.29     |        |                | 1                                |      |          |            | 49      | 24.08     |       |                |                                  |
| Maximum CA_Band width Combination Sets | PCC  |                                                |            |         |           |        |                |                                  | SCC  |          |            |         |           |       |                |                                  |
|                                        | Band | BW (MHz)                                       | Modulation | RB Size | RB Offset | UL CH  | UL Freq. (MHz) | Tx Power with UL-CA Active (dBm) | Band | BW (MHz) | Modulation | RB Size | RB Offset | UL CH | UL Freq. (MHz) | Tx Power with UL-CA Active (dBm) |
|                                        | 66   | 20                                             | QPSK       | 1       | 0         | 132072 | 1720           | 23.02                            | 5    | 10       | QPSK       | 1       | 0         | 20450 | 829            | 23.67                            |
|                                        |      |                                                |            | 1       | 50        |        |                | 22.96                            |      |          |            | 1       | 24        |       |                | 24.23                            |
|                                        |      |                                                |            | 1       | 99        |        |                | 23.11                            |      |          |            | 1       | 49        |       |                | 23.62                            |
|                                        | 66   | 20                                             | QPSK       | 1       | 0         | 132322 | 1745           | 22.86                            | 5    | 10       | QPSK       | 1       | 0         | 20525 | 836.5          | 23.62                            |
|                                        |      |                                                |            | 1       | 50        |        |                | 22.92                            |      |          |            | 1       | 24        |       |                | 23.46                            |
|                                        |      |                                                |            | 1       | 99        |        |                | 22.92                            |      |          |            | 1       | 49        |       |                | 23.88                            |
|                                        | 66   | 20                                             | QPSK       | 1       | 0         | 132572 | 1770           | 23.03                            | 5    | 10       | QPSK       | 1       | 0         | 20600 | 844            | 23.79                            |
|                                        |      |                                                |            | 1       | 50        |        |                | 22.80                            |      |          |            | 1       | 24        |       |                | 24.16                            |
| 1                                      |      |                                                |            | 99      | 23.07     |        |                | 1                                |      |          |            | 49      | 24.15     |       |                |                                  |

## EIRP / ERP POWER

| Maximum Power         |                       |           |
|-----------------------|-----------------------|-----------|
| PCC BW Bandwidth      | SCC BW Bandwidth      |           |
| 10                    | 10                    |           |
| RB / RB offset        | RB / RB offset        |           |
| 1/49                  | 1/24                  |           |
| Freq. (MHz)           | Freq. (MHz)           |           |
| 1715                  | 829                   |           |
| Conducted Power (dBm) | Conducted Power (dBm) |           |
| 23.34                 | 24.26                 |           |
| Ant Gain (dBi)        | Ant Gain (dBi)        |           |
| 3.86                  | 4.55                  |           |
| EIRP (dBm)            | EIRP (dBm)            | ERP (dBm) |
| 27.20                 | 28.81                 | 26.66     |

## 4.2 Radiated Emission Measurement

### 4.2.1 Limits of Radiated Emission Measurement

#### For FCC Part 22 & Part 24:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. The emission limit equal to  $-13\text{dBm}$ .

#### For FCC Part 27:

According to FCC 27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $76 + 10 \log(P)$  dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
- (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

According to FCC 27.53(f) For operations in the 746–758 MHz, 775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to  $-70$  dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and  $-80$  dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

According to FCC 27.53(h) AWS emission limits— General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

#### 4.2.2 Test Procedure

- a. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high channel of operational frequency range.)
- b. Substitution method is used for EIRP measurement. In the semi-anechoic chamber, EUT placed on the 0.8m/1.5m 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 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = Read Value (dB $\mu$ V/m) - Correction Factor @ 3m
- d. Correction Factor (dB) @ 3m =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m = -95.26dB

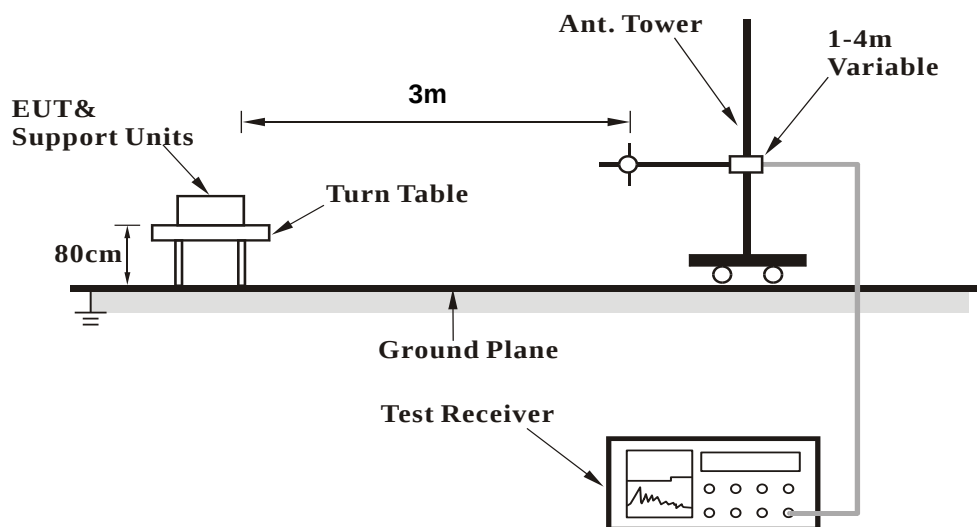
**NOTE:** The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

#### 4.2.3 Deviation from Test Standard

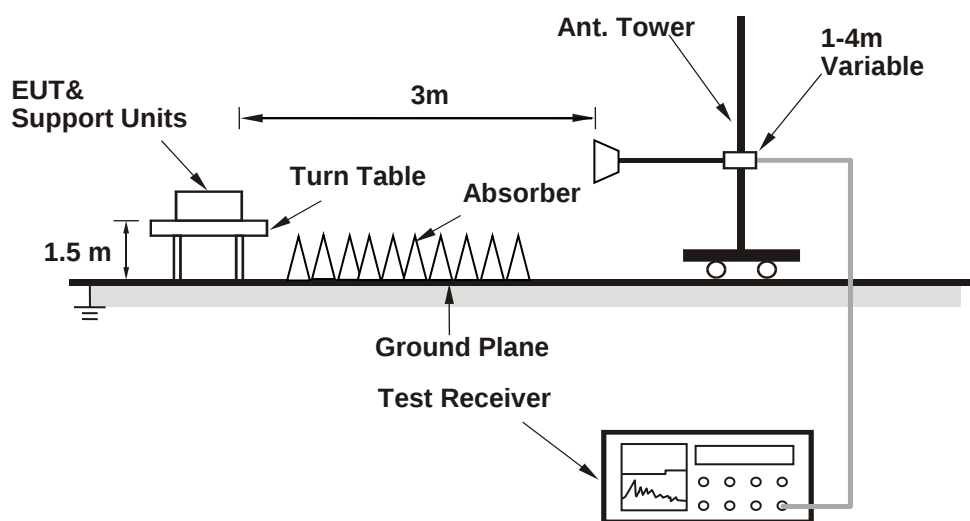
No deviation.

#### 4.2.4 Test Setup

##### <Frequency Range below 1GHz>



##### <Frequency Range above 1GHz>



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

#### 4.2.5 Test Results (Mode 1)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 19125 &<br>TX channel 20175 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 32.39          | 40.61                     | -95.26                    | -54.65        | -13            | -41.65      |
| 2                                                   | 106.63         | 36.2                      | -95.26                    | -59.06        | -13            | -46.06      |
| 3                                                   | 159.87         | 28.26                     | -95.26                    | -67.00        | -13            | -54.00      |
| 4                                                   | 180.96         | 36.34                     | -95.26                    | -58.92        | -13            | -45.92      |
| 5                                                   | 313.41         | 32.25                     | -95.26                    | -63.01        | -13            | -50.01      |
| 6                                                   | 440.42         | 34.82                     | -95.26                    | -60.44        | -13            | -47.44      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 48.67          | 35.93                     | -95.26                    | -59.33        | -13            | -46.33      |
| 2                                                   | 92.18          | 34.31                     | -95.26                    | -60.95        | -13            | -47.95      |
| 3                                                   | 133.99         | 36.98                     | -95.26                    | -58.28        | -13            | -45.28      |
| 4                                                   | 173.3          | 32.14                     | -95.26                    | -63.12        | -13            | -50.12      |
| 5                                                   | 321.42         | 36.27                     | -95.26                    | -58.99        | -13            | -45.99      |
| 6                                                   | 555.98         | 32.09                     | -95.26                    | -63.17        | -13            | -50.17      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @ 3m.

### Above 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 19125 &<br>TX channel 20175 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3805           | 42.64                     | -95.26                    | -52.62        | -13            | -39.62      |
| 2                                                   | 3465           | 42.42                     | -95.26                    | -52.84        | -13            | -39.84      |
| 3                                                   | 5707.5         | 38.37                     | -95.26                    | -56.89        | -13            | -43.89      |
| 4                                                   | 5197.5         | 44.48                     | -95.26                    | -50.78        | -13            | -37.78      |
| 5                                                   | 7610           | 37.97                     | -95.26                    | -57.29        | -13            | -44.29      |
| 6                                                   | 6930           | 48.2                      | -95.26                    | -47.06        | -13            | -34.06      |
| 7                                                   | 9512.5         | 38.96                     | -95.26                    | -56.30        | -13            | -43.30      |
| 8                                                   | 8662.5         | 43.51                     | -95.26                    | -51.75        | -13            | -38.75      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3805           | 33.14                     | -95.26                    | -62.12        | -13            | -49.12      |
| 2                                                   | 3465           | 42.38                     | -95.26                    | -52.88        | -13            | -39.88      |
| 3                                                   | 5707.5         | 39.29                     | -95.26                    | -55.97        | -13            | -42.97      |
| 4                                                   | 5197.5         | 42.06                     | -95.26                    | -53.20        | -13            | -40.20      |
| 5                                                   | 7610           | 41.1                      | -95.26                    | -54.16        | -13            | -41.16      |
| 6                                                   | 6930           | 44.61                     | -95.26                    | -50.65        | -13            | -37.65      |
| 7                                                   | 9512.5         | 38.97                     | -95.26                    | -56.29        | -13            | -43.29      |
| 8                                                   | 8662.5         | 41.66                     | -95.26                    | -53.60        | -13            | -40.60      |

#### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.6 Test Results (Mode 2)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20175 &<br>TX channel 18900 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 37.09          | 39.69                     | -95.26                    | -55.57        | -13            | -42.57      |
| 2                                                   | 109.88         | 36.65                     | -95.26                    | -58.61        | -13            | -45.61      |
| 3                                                   | 165.14         | 27.88                     | -95.26                    | -67.38        | -13            | -54.38      |
| 4                                                   | 181.32         | 35.03                     | -95.26                    | -60.23        | -13            | -47.23      |
| 5                                                   | 321.67         | 31.38                     | -95.26                    | -63.88        | -13            | -50.88      |
| 6                                                   | 448.57         | 35.33                     | -95.26                    | -59.93        | -13            | -46.93      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 56.37          | 39.36                     | -95.26                    | -55.90        | -13            | -42.90      |
| 2                                                   | 94.53          | 34.44                     | -95.26                    | -60.82        | -13            | -47.82      |
| 3                                                   | 141.32         | 39.64                     | -95.26                    | -55.62        | -13            | -42.62      |
| 4                                                   | 175.14         | 32.28                     | -95.26                    | -62.98        | -13            | -49.98      |
| 5                                                   | 321.19         | 35.35                     | -95.26                    | -59.91        | -13            | -46.91      |
| 6                                                   | 562.45         | 30.74                     | -95.26                    | -64.52        | -13            | -51.52      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @ 3m.

# Above 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20175 &<br>TX channel 18900 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3465           | 39.96                     | -95.26                    | -55.30        | -13            | -42.30      |
| 2                                                   | 3760           | 45.48                     | -95.26                    | -49.78        | -13            | -36.78      |
| 3                                                   | 5197.5         | 36.65                     | -95.26                    | -58.61        | -13            | -45.61      |
| 4                                                   | 5640           | 45.77                     | -95.26                    | -49.49        | -13            | -36.49      |
| 5                                                   | 6930           | 35.63                     | -95.26                    | -59.63        | -13            | -46.63      |
| 6                                                   | 7520           | 44.22                     | -95.26                    | -51.04        | -13            | -38.04      |
| 7                                                   | 8662.5         | 38.76                     | -95.26                    | -56.50        | -13            | -43.50      |
| 8                                                   | 9400           | 42.88                     | -95.26                    | -52.38        | -13            | -39.38      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3465           | 35.55                     | -95.26                    | -59.71        | -13            | -46.71      |
| 2                                                   | 3760           | 40.61                     | -95.26                    | -54.65        | -13            | -41.65      |
| 3                                                   | 5197.5         | 42.65                     | -95.26                    | -52.61        | -13            | -39.61      |
| 4                                                   | 5640           | 40.59                     | -95.26                    | -54.67        | -13            | -41.67      |
| 5                                                   | 6930           | 43.71                     | -95.26                    | -51.55        | -13            | -38.55      |
| 6                                                   | 7520           | 44.77                     | -95.26                    | -50.49        | -13            | -37.49      |
| 7                                                   | 8662.5         | 42.94                     | -95.26                    | -52.32        | -13            | -39.32      |
| 8                                                   | 9400           | 40.81                     | -95.26                    | -54.45        | -13            | -41.45      |

## Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) - 104.8; where D is the measurement distance @ 3m.

#### 4.2.7 Test Results (Mode 3)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 18900 &<br>TX channel 23230 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 43.37          | 38.31                     | -95.26                    | -56.95        | -13            | -43.95      |
| 2                                                   | 114.2          | 36.79                     | -95.26                    | -58.47        | -13            | -45.47      |
| 3                                                   | 168.91         | 28.84                     | -95.26                    | -66.42        | -13            | -53.42      |
| 4                                                   | 184.54         | 34.48                     | -95.26                    | -60.78        | -13            | -47.78      |
| 5                                                   | 323.72         | 30.44                     | -95.26                    | -64.82        | -13            | -51.82      |
| 6                                                   | 454.32         | 36.17                     | -95.26                    | -59.09        | -13            | -46.09      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 57.85          | 39.45                     | -95.26                    | -55.81        | -13            | -42.81      |
| 2                                                   | 98.22          | 35.7                      | -95.26                    | -59.56        | -13            | -46.56      |
| 3                                                   | 141.88         | 41.09                     | -95.26                    | -54.17        | -13            | -41.17      |
| 4                                                   | 179.91         | 34.25                     | -95.26                    | -61.01        | -13            | -48.01      |
| 5                                                   | 327.71         | 35.35                     | -95.26                    | -59.91        | -13            | -46.91      |
| 6                                                   | 570.64         | 28.99                     | -95.26                    | -66.27        | -13            | -53.27      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @ 3m.

# Above 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 18900 &<br>TX channel 23230 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3760           | 41.41                     | -95.26                    | -53.85        | -13            | -40.85      |
| 2                                                   | 1564           | 45.1                      | -95.26                    | -50.16        | -40            | -10.16      |
| 3                                                   | 5640           | 41.51                     | -95.26                    | -53.75        | -13            | -40.75      |
| 4                                                   | 2346           | 42.02                     | -95.26                    | -53.24        | -13            | -40.24      |
| 5                                                   | 7520           | 36.75                     | -95.26                    | -58.51        | -13            | -45.51      |
| 6                                                   | 3128           | 48.6                      | -95.26                    | -46.66        | -13            | -33.66      |
| 7                                                   | 9400           | 38.97                     | -95.26                    | -56.29        | -13            | -43.29      |
| 8                                                   | 3910           | 44.26                     | -95.26                    | -51.00        | -13            | -38.00      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3760           | 31.53                     | -95.26                    | -63.73        | -13            | -50.73      |
| 2                                                   | 1564           | 39.25                     | -95.26                    | -56.01        | -40            | -16.01      |
| 3                                                   | 5640           | 38.47                     | -95.26                    | -56.79        | -13            | -43.79      |
| 4                                                   | 2346           | 42.33                     | -95.26                    | -52.93        | -13            | -39.93      |
| 5                                                   | 7520           | 42.92                     | -95.26                    | -52.34        | -13            | -39.34      |
| 6                                                   | 3128           | 42.5                      | -95.26                    | -52.76        | -13            | -39.76      |
| 7                                                   | 9400           | 39.01                     | -95.26                    | -56.25        | -13            | -43.25      |
| 8                                                   | 3910           | 40.82                     | -95.26                    | -54.44        | -13            | -41.44      |

## Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) - 104.8; where D is the measurement distance @ 3m.

#### 4.2.8 Test Results (Mode 4)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 23230 &<br>TX channel 18900 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 42.1           | 37.24                     | -95.26                    | -58.02        | -13            | -45.02      |
| 2                                                   | 115.96         | 36.74                     | -95.26                    | -58.52        | -13            | -45.52      |
| 3                                                   | 173.15         | 27.66                     | -95.26                    | -67.60        | -13            | -54.60      |
| 4                                                   | 187.86         | 33.2                      | -95.26                    | -62.06        | -13            | -49.06      |
| 5                                                   | 319.65         | 30.62                     | -95.26                    | -64.64        | -13            | -51.64      |
| 6                                                   | 456.57         | 35.07                     | -95.26                    | -60.19        | -13            | -47.19      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 59.82          | 39.2                      | -95.26                    | -56.06        | -13            | -43.06      |
| 2                                                   | 95.49          | 36.69                     | -95.26                    | -58.57        | -13            | -45.57      |
| 3                                                   | 137.55         | 41.54                     | -95.26                    | -53.72        | -13            | -40.72      |
| 4                                                   | 178.03         | 34.82                     | -95.26                    | -60.44        | -13            | -47.44      |
| 5                                                   | 323.74         | 34.9                      | -95.26                    | -60.36        | -13            | -47.36      |
| 6                                                   | 569.92         | 29.66                     | -95.26                    | -65.60        | -13            | -52.60      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

### Above 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 23230 &<br>TX channel 18900 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1564           | 37.27                     | -95.26                    | -57.99        | -40            | -17.99      |
| 2                                                   | 3760           | 44.01                     | -95.26                    | -51.25        | -13            | -38.25      |
| 3                                                   | 2346           | 37.91                     | -95.26                    | -57.35        | -13            | -44.35      |
| 4                                                   | 5640           | 40.82                     | -95.26                    | -54.44        | -13            | -41.44      |
| 5                                                   | 3128           | 36.85                     | -95.26                    | -58.41        | -13            | -45.41      |
| 6                                                   | 7520           | 46.08                     | -95.26                    | -49.18        | -13            | -36.18      |
| 7                                                   | 3910           | 38.87                     | -95.26                    | -56.39        | -13            | -43.39      |
| 8                                                   | 9400           | 39.49                     | -95.26                    | -55.77        | -13            | -42.77      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1564           | 33.98                     | -95.26                    | -61.28        | -40            | -21.28      |
| 2                                                   | 3760           | 40.32                     | -95.26                    | -54.94        | -13            | -41.94      |
| 3                                                   | 2346           | 40.17                     | -95.26                    | -55.09        | -13            | -42.09      |
| 4                                                   | 5640           | 38.62                     | -95.26                    | -56.64        | -13            | -43.64      |
| 5                                                   | 3128           | 42.14                     | -95.26                    | -53.12        | -13            | -40.12      |
| 6                                                   | 7520           | 41.48                     | -95.26                    | -53.78        | -13            | -40.78      |
| 7                                                   | 3910           | 40.43                     | -95.26                    | -54.83        | -13            | -41.83      |
| 8                                                   | 9400           | 38.7                      | -95.26                    | -56.56        | -13            | -43.56      |

#### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.9 Test Results (Mode 5)

##### Below 1GHz

|         |                                         |                 |                |
|---------|-----------------------------------------|-----------------|----------------|
| Channel | TX channel 132622 &<br>TX channel 18675 | Frequency Range | Below 1000 MHz |
|---------|-----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 46.34          | 36.35                     | -95.26                    | -58.91        | -13            | -45.91      |
| 2                                                   | 120.28         | 37.55                     | -95.26                    | -57.71        | -13            | -44.71      |
| 3                                                   | 170.71         | 28.67                     | -95.26                    | -66.59        | -13            | -53.59      |
| 4                                                   | 188.74         | 33.89                     | -95.26                    | -61.37        | -13            | -48.37      |
| 5                                                   | 320.36         | 29.31                     | -95.26                    | -65.95        | -13            | -52.95      |
| 6                                                   | 456.6          | 35.09                     | -95.26                    | -60.17        | -13            | -47.17      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 58.25          | 39.53                     | -95.26                    | -55.73        | -13            | -42.73      |
| 2                                                   | 94.79          | 36.8                      | -95.26                    | -58.46        | -13            | -45.46      |
| 3                                                   | 136.3          | 42.83                     | -95.26                    | -52.43        | -13            | -39.43      |
| 4                                                   | 174.5          | 33.53                     | -95.26                    | -61.73        | -13            | -48.73      |
| 5                                                   | 323.77         | 35.61                     | -95.26                    | -59.65        | -13            | -46.65      |
| 6                                                   | 567.55         | 28.68                     | -95.26                    | -66.58        | -13            | -53.58      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

# Above 1GHz

|         |                                         |                 |                |
|---------|-----------------------------------------|-----------------|----------------|
| Channel | TX channel 132622 &<br>TX channel 18675 | Frequency Range | Above 1000 MHz |
|---------|-----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3550           | 38.64                     | -95.26                    | -56.62        | -13            | -43.62      |
| 2                                                   | 3715           | 43.69                     | -95.26                    | -51.57        | -13            | -38.57      |
| 3                                                   | 5325           | 39.17                     | -95.26                    | -56.09        | -13            | -43.09      |
| 4                                                   | 5572.5         | 40.96                     | -95.26                    | -54.30        | -13            | -41.30      |
| 5                                                   | 7100           | 37.11                     | -95.26                    | -58.15        | -13            | -45.15      |
| 6                                                   | 7430           | 45.9                      | -95.26                    | -49.36        | -13            | -36.36      |
| 7                                                   | 8875           | 38.66                     | -95.26                    | -56.60        | -13            | -43.60      |
| 8                                                   | 9287.5         | 40.19                     | -95.26                    | -55.07        | -13            | -42.07      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3550           | 33.18                     | -95.26                    | -62.08        | -13            | -49.08      |
| 2                                                   | 3715           | 39.2                      | -95.26                    | -56.06        | -13            | -43.06      |
| 3                                                   | 5325           | 40.03                     | -95.26                    | -55.23        | -13            | -42.23      |
| 4                                                   | 5572.5         | 38.64                     | -95.26                    | -56.62        | -13            | -43.62      |
| 5                                                   | 7100           | 40.2                      | -95.26                    | -55.06        | -13            | -42.06      |
| 6                                                   | 7430           | 40.83                     | -95.26                    | -54.43        | -13            | -41.43      |
| 7                                                   | 8875           | 39.63                     | -95.26                    | -55.63        | -13            | -42.63      |
| 8                                                   | 9287.5         | 38.61                     | -95.26                    | -56.65        | -13            | -43.65      |

## Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.10 Test Results (Mode 6)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 23230 &<br>TX channel 20325 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 48.21          | 37.67                     | -95.26                    | -57.59        | -13            | -44.59      |
| 2                                                   | 116.71         | 38.45                     | -95.26                    | -56.81        | -13            | -43.81      |
| 3                                                   | 168.84         | 29.94                     | -95.26                    | -65.32        | -13            | -52.32      |
| 4                                                   | 184.24         | 32.95                     | -95.26                    | -62.31        | -13            | -49.31      |
| 5                                                   | 323.17         | 29.47                     | -95.26                    | -65.79        | -13            | -52.79      |
| 6                                                   | 457.82         | 35.06                     | -95.26                    | -60.20        | -13            | -47.20      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 60.58          | 39.67                     | -95.26                    | -55.59        | -13            | -42.59      |
| 2                                                   | 92.42          | 37.3                      | -95.26                    | -57.96        | -13            | -44.96      |
| 3                                                   | 137.69         | 42.21                     | -95.26                    | -53.05        | -13            | -40.05      |
| 4                                                   | 177.68         | 33.02                     | -95.26                    | -62.24        | -13            | -49.24      |
| 5                                                   | 320.97         | 36.2                      | -95.26                    | -59.06        | -13            | -46.06      |
| 6                                                   | 566.76         | 28.33                     | -95.26                    | -66.93        | -13            | -53.93      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @ 3m.

**Above 1GHz**

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 23230 &<br>TX channel 20325 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1564           | 37.17                     | -95.26                    | -58.09        | -40            | -18.09      |
| 2                                                   | 3495           | 44.32                     | -95.26                    | -50.94        | -13            | -37.94      |
| 3                                                   | 2346           | 37.85                     | -95.26                    | -57.41        | -13            | -44.41      |
| 4                                                   | 5242.5         | 41.6                      | -95.26                    | -53.66        | -13            | -40.66      |
| 5                                                   | 3128           | 36.87                     | -95.26                    | -58.39        | -13            | -45.39      |
| 6                                                   | 6990           | 44.29                     | -95.26                    | -50.97        | -13            | -37.97      |
| 7                                                   | 3910           | 40.1                      | -95.26                    | -55.16        | -13            | -42.16      |
| 8                                                   | 8737.5         | 40.56                     | -95.26                    | -54.70        | -13            | -41.70      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1564           | 32.57                     | -95.26                    | -62.69        | -40            | -22.69      |
| 2                                                   | 3495           | 39.38                     | -95.26                    | -55.88        | -13            | -42.88      |
| 3                                                   | 2346           | 39.55                     | -95.26                    | -55.71        | -13            | -42.71      |
| 4                                                   | 5242.5         | 36.85                     | -95.26                    | -58.41        | -13            | -45.41      |
| 5                                                   | 3128           | 41.21                     | -95.26                    | -54.05        | -13            | -41.05      |
| 6                                                   | 6990           | 40.21                     | -95.26                    | -55.05        | -13            | -42.05      |
| 7                                                   | 3910           | 39.91                     | -95.26                    | -55.35        | -13            | -42.35      |
| 8                                                   | 8737.5         | 40.81                     | -95.26                    | -54.45        | -13            | -41.45      |

**Remarks:**

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.11 Test Results (Mode 7)

##### Below 1GHz

|         |                                         |                 |                |
|---------|-----------------------------------------|-----------------|----------------|
| Channel | TX channel 132622 &<br>TX channel 23230 | Frequency Range | Below 1000 MHz |
|---------|-----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 44.37          | 38.64                     | -95.26                    | -56.62        | -13            | -43.62      |
| 2                                                   | 119.53         | 37.75                     | -95.26                    | -57.51        | -13            | -44.51      |
| 3                                                   | 170.33         | 29.6                      | -95.26                    | -65.66        | -13            | -52.66      |
| 4                                                   | 182.97         | 33.87                     | -95.26                    | -61.39        | -13            | -48.39      |
| 5                                                   | 325.33         | 28.62                     | -95.26                    | -66.64        | -13            | -53.64      |
| 6                                                   | 458.19         | 36.27                     | -95.26                    | -58.99        | -13            | -45.99      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 58.03          | 38.91                     | -95.26                    | -56.35        | -13            | -43.35      |
| 2                                                   | 95.75          | 36.04                     | -95.26                    | -59.22        | -13            | -46.22      |
| 3                                                   | 137.07         | 43.1                      | -95.26                    | -52.16        | -13            | -39.16      |
| 4                                                   | 173.52         | 33.72                     | -95.26                    | -61.54        | -13            | -48.54      |
| 5                                                   | 321.56         | 36.61                     | -95.26                    | -58.65        | -13            | -45.65      |
| 6                                                   | 563.09         | 28.02                     | -95.26                    | -67.24        | -13            | -54.24      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @ 3m.

# Above 1GHz

|         |                                         |                 |                |
|---------|-----------------------------------------|-----------------|----------------|
| Channel | TX channel 132622 &<br>TX channel 23230 | Frequency Range | Above 1000 MHz |
|---------|-----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3550           | 38.33                     | -95.26                    | -56.93        | -13            | -43.93      |
| 2                                                   | 1564           | 42.31                     | -95.26                    | -52.95        | -40            | -12.95      |
| 3                                                   | 5325           | 36.8                      | -95.26                    | -58.46        | -13            | -45.46      |
| 4                                                   | 2346           | 41.45                     | -95.26                    | -53.81        | -13            | -40.81      |
| 5                                                   | 7100           | 35.13                     | -95.26                    | -60.13        | -13            | -47.13      |
| 6                                                   | 3128           | 45.52                     | -95.26                    | -49.74        | -13            | -36.74      |
| 7                                                   | 8875           | 40.04                     | -95.26                    | -55.22        | -13            | -42.22      |
| 8                                                   | 3910           | 41.27                     | -95.26                    | -53.99        | -13            | -40.99      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3550           | 33.45                     | -95.26                    | -61.81        | -13            | -48.81      |
| 2                                                   | 1564           | 39.54                     | -95.26                    | -55.72        | -40            | -15.72      |
| 3                                                   | 5325           | 39.08                     | -95.26                    | -56.18        | -13            | -43.18      |
| 4                                                   | 2346           | 37.76                     | -95.26                    | -57.50        | -13            | -44.50      |
| 5                                                   | 7100           | 42.53                     | -95.26                    | -52.73        | -13            | -39.73      |
| 6                                                   | 3128           | 40.42                     | -95.26                    | -54.84        | -13            | -41.84      |
| 7                                                   | 8875           | 38.79                     | -95.26                    | -56.47        | -13            | -43.47      |
| 8                                                   | 3910           | 39.47                     | -95.26                    | -55.79        | -13            | -42.79      |

## Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) - 104.8; where D is the measurement distance @ 3m.

#### 4.2.12 Test Results (Mode 8)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 18900 &<br>TX channel 20450 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 34.45          | 39.79                     | -95.26                    | -55.47        | -13            | -42.47      |
| 2                                                   | 111.33         | 36.68                     | -95.26                    | -58.58        | -13            | -45.58      |
| 3                                                   | 161.34         | 32.53                     | -95.26                    | -62.73        | -13            | -49.73      |
| 4                                                   | 184.03         | 39.7                      | -95.26                    | -55.56        | -13            | -42.56      |
| 5                                                   | 318.22         | 35.83                     | -95.26                    | -59.43        | -13            | -46.43      |
| 6                                                   | 442.26         | 37.57                     | -95.26                    | -57.69        | -13            | -44.69      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 56.19          | 37.78                     | -95.26                    | -57.48        | -13            | -44.48      |
| 2                                                   | 100.01         | 33.41                     | -95.26                    | -61.85        | -13            | -48.85      |
| 3                                                   | 138.24         | 38.42                     | -95.26                    | -56.84        | -13            | -43.84      |
| 4                                                   | 176.07         | 33.82                     | -95.26                    | -61.44        | -13            | -48.44      |
| 5                                                   | 322.32         | 36.59                     | -95.26                    | -58.67        | -13            | -45.67      |
| 6                                                   | 560.54         | 35.31                     | -95.26                    | -59.95        | -13            | -46.95      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

### Above 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 18900 &<br>TX channel 20450 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3760           | 41.17                     | -95.26                    | -54.09        | -13            | -41.09      |
| 2                                                   | 1658           | 44.72                     | -95.26                    | -50.54        | -13            | -37.54      |
| 3                                                   | 5640           | 36.86                     | -95.26                    | -58.40        | -13            | -45.40      |
| 4                                                   | 2487           | 45.81                     | -95.26                    | -49.45        | -13            | -36.45      |
| 5                                                   | 7520           | 38.47                     | -95.26                    | -56.79        | -13            | -43.79      |
| 6                                                   | 3316           | 45.52                     | -95.26                    | -49.74        | -13            | -36.74      |
| 7                                                   | 9400           | 43.67                     | -95.26                    | -51.59        | -13            | -38.59      |
| 8                                                   | 4145           | 42.52                     | -95.26                    | -52.74        | -13            | -39.74      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3760           | 35.13                     | -95.26                    | -60.13        | -13            | -47.13      |
| 2                                                   | 1658           | 39.12                     | -95.26                    | -56.14        | -13            | -43.14      |
| 3                                                   | 5640           | 41.57                     | -95.26                    | -53.69        | -13            | -40.69      |
| 4                                                   | 2487           | 41.55                     | -95.26                    | -53.71        | -13            | -40.71      |
| 5                                                   | 7520           | 43.87                     | -95.26                    | -51.39        | -13            | -38.39      |
| 6                                                   | 3316           | 45.04                     | -95.26                    | -50.22        | -13            | -37.22      |
| 7                                                   | 9400           | 43.69                     | -95.26                    | -51.57        | -13            | -38.57      |
| 8                                                   | 4145           | 41.22                     | -95.26                    | -54.04        | -13            | -41.04      |

#### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.13 Test Results (Mode 9)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20450 &<br>TX channel 18675 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 38.84          | 38.97                     | -95.26                    | -56.29        | -13            | -43.29      |
| 2                                                   | 113.77         | 37.61                     | -95.26                    | -57.65        | -13            | -44.65      |
| 3                                                   | 164.99         | 31.32                     | -95.26                    | -63.94        | -13            | -50.94      |
| 4                                                   | 185.59         | 41.22                     | -95.26                    | -54.04        | -13            | -41.04      |
| 5                                                   | 321.76         | 39.26                     | -95.26                    | -56.00        | -13            | -43.00      |
| 6                                                   | 447.16         | 41.59                     | -95.26                    | -53.67        | -13            | -40.67      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 59.57          | 39.7                      | -95.26                    | -55.56        | -13            | -42.56      |
| 2                                                   | 107.45         | 35.11                     | -95.26                    | -60.15        | -13            | -47.15      |
| 3                                                   | 142.58         | 37.59                     | -95.26                    | -57.67        | -13            | -44.67      |
| 4                                                   | 179.63         | 36.65                     | -95.26                    | -58.61        | -13            | -45.61      |
| 5                                                   | 328.86         | 36.46                     | -95.26                    | -58.80        | -13            | -45.80      |
| 6                                                   | 565.41         | 35.33                     | -95.26                    | -59.93        | -13            | -46.93      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

**Above 1GHz**

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20450 &<br>TX channel 18675 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1658           | 42.58                     | -95.26                    | -52.68        | -13            | -39.68      |
| 2                                                   | 3715           | 46.22                     | -95.26                    | -49.04        | -13            | -36.04      |
| 3                                                   | 2487           | 40.07                     | -95.26                    | -55.19        | -13            | -42.19      |
| 4                                                   | 5572.5         | 45.08                     | -95.26                    | -50.18        | -13            | -37.18      |
| 5                                                   | 3316           | 39.93                     | -95.26                    | -55.33        | -13            | -42.33      |
| 6                                                   | 7430           | 43.69                     | -95.26                    | -51.57        | -13            | -38.57      |
| 7                                                   | 4145           | 39.79                     | -95.26                    | -55.47        | -13            | -42.47      |
| 8                                                   | 9287.5         | 40.1                      | -95.26                    | -55.16        | -13            | -42.16      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1658           | 33.12                     | -95.26                    | -62.14        | -13            | -49.14      |
| 2                                                   | 3715           | 43.03                     | -95.26                    | -52.23        | -13            | -39.23      |
| 3                                                   | 2487           | 40.73                     | -95.26                    | -54.53        | -13            | -41.53      |
| 4                                                   | 5572.5         | 38.03                     | -95.26                    | -57.23        | -13            | -44.23      |
| 5                                                   | 3316           | 41.76                     | -95.26                    | -53.50        | -13            | -40.50      |
| 6                                                   | 7430           | 44.46                     | -95.26                    | -50.80        | -13            | -37.80      |
| 7                                                   | 4145           | 40.41                     | -95.26                    | -54.85        | -13            | -41.85      |
| 8                                                   | 9287.5         | 38.91                     | -95.26                    | -56.35        | -13            | -43.35      |

**Remarks:**

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.14 Test Results (Mode 10)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20025 &<br>TX channel 20450 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 46.01          | 42.15                     | -95.26                    | -53.11        | -13            | -40.11      |
| 2                                                   | 118.08         | 40.15                     | -95.26                    | -55.11        | -13            | -42.11      |
| 3                                                   | 170.53         | 33.64                     | -95.26                    | -61.62        | -13            | -48.62      |
| 4                                                   | 189.37         | 41.72                     | -95.26                    | -53.54        | -13            | -40.54      |
| 5                                                   | 326.81         | 39.25                     | -95.26                    | -56.01        | -13            | -43.01      |
| 6                                                   | 446.69         | 41.27                     | -95.26                    | -53.99        | -13            | -40.99      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 63.69          | 39.54                     | -95.26                    | -55.72        | -13            | -42.72      |
| 2                                                   | 115.11         | 33.66                     | -95.26                    | -61.60        | -13            | -48.60      |
| 3                                                   | 145.43         | 41.64                     | -95.26                    | -53.62        | -13            | -40.62      |
| 4                                                   | 183.64         | 35.55                     | -95.26                    | -59.71        | -13            | -46.71      |
| 5                                                   | 329.98         | 35.17                     | -95.26                    | -60.09        | -13            | -47.09      |
| 6                                                   | 567.34         | 39.5                      | -95.26                    | -55.76        | -13            | -42.76      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) - 104.8; where D is the measurement distance @ 3m.

**Above 1GHz**

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20025 &<br>TX channel 20450 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3435           | 38.07                     | -95.26                    | -57.19        | -13            | -44.19      |
| 2                                                   | 1658           | 45.2                      | -95.26                    | -50.06        | -13            | -37.06      |
| 3                                                   | 5152.5         | 41.13                     | -95.26                    | -54.13        | -13            | -41.13      |
| 4                                                   | 2487           | 43.57                     | -95.26                    | -51.69        | -13            | -38.69      |
| 5                                                   | 6870           | 40.25                     | -95.26                    | -55.01        | -13            | -42.01      |
| 6                                                   | 3316           | 46.46                     | -95.26                    | -48.80        | -13            | -35.80      |
| 7                                                   | 8587.5         | 39.24                     | -95.26                    | -56.02        | -13            | -43.02      |
| 8                                                   | 4145           | 41.81                     | -95.26                    | -53.45        | -13            | -40.45      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3435           | 33.19                     | -95.26                    | -62.07        | -13            | -49.07      |
| 2                                                   | 1658           | 44.48                     | -95.26                    | -50.78        | -13            | -37.78      |
| 3                                                   | 5152.5         | 39.71                     | -95.26                    | -55.55        | -13            | -42.55      |
| 4                                                   | 2487           | 39.21                     | -95.26                    | -56.05        | -13            | -43.05      |
| 5                                                   | 6870           | 40.8                      | -95.26                    | -54.46        | -13            | -41.46      |
| 6                                                   | 3316           | 41.97                     | -95.26                    | -53.29        | -13            | -40.29      |
| 7                                                   | 8587.5         | 39.9                      | -95.26                    | -55.36        | -13            | -42.36      |
| 8                                                   | 4145           | 44.22                     | -95.26                    | -51.04        | -13            | -38.04      |

**Remarks:**

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.15 Test Results (Mode 11)

##### Below 1GHz

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20450 &<br>TX channel 20175 | Frequency Range | Below 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 35.14          | 44.11                     | -95.26                    | -51.15        | -13            | -38.15      |
| 2                                                   | 115.15         | 36.16                     | -95.26                    | -59.10        | -13            | -46.10      |
| 3                                                   | 166.58         | 32.45                     | -95.26                    | -62.81        | -13            | -49.81      |
| 4                                                   | 186.85         | 41.53                     | -95.26                    | -53.73        | -13            | -40.73      |
| 5                                                   | 318.08         | 39.08                     | -95.26                    | -56.18        | -13            | -43.18      |
| 6                                                   | 449.75         | 40.73                     | -95.26                    | -54.53        | -13            | -41.53      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 58.27          | 40.32                     | -95.26                    | -54.94        | -13            | -41.94      |
| 2                                                   | 106.28         | 33.82                     | -95.26                    | -61.44        | -13            | -48.44      |
| 3                                                   | 141.95         | 38.5                      | -95.26                    | -56.76        | -13            | -43.76      |
| 4                                                   | 182.84         | 36.25                     | -95.26                    | -59.01        | -13            | -46.01      |
| 5                                                   | 326.94         | 35.27                     | -95.26                    | -59.99        | -13            | -46.99      |
| 6                                                   | 562.45         | 37.4                      | -95.26                    | -57.86        | -13            | -44.86      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

**Above 1GHz**

|         |                                        |                 |                |
|---------|----------------------------------------|-----------------|----------------|
| Channel | TX channel 20450 &<br>TX channel 20175 | Frequency Range | Above 1000 MHz |
|---------|----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1658           | 37.71                     | -95.26                    | -57.55        | -13            | -44.55      |
| 2                                                   | 3465           | 44.83                     | -95.26                    | -50.43        | -13            | -37.43      |
| 3                                                   | 2487           | 37.34                     | -95.26                    | -57.92        | -13            | -44.92      |
| 4                                                   | 5197.5         | 43.65                     | -95.26                    | -51.61        | -13            | -38.61      |
| 5                                                   | 3316           | 37.87                     | -95.26                    | -57.39        | -13            | -44.39      |
| 6                                                   | 6930           | 49.07                     | -95.26                    | -46.19        | -13            | -33.19      |
| 7                                                   | 4145           | 40.24                     | -95.26                    | -55.02        | -13            | -42.02      |
| 8                                                   | 8662.5         | 40.8                      | -95.26                    | -54.46        | -13            | -41.46      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 1658           | 32.93                     | -95.26                    | -62.33        | -13            | -49.33      |
| 2                                                   | 3465           | 40.97                     | -95.26                    | -54.29        | -13            | -41.29      |
| 3                                                   | 2487           | 39.54                     | -95.26                    | -55.72        | -13            | -42.72      |
| 4                                                   | 5197.5         | 39.23                     | -95.26                    | -56.03        | -13            | -43.03      |
| 5                                                   | 3316           | 45.46                     | -95.26                    | -49.80        | -13            | -36.80      |
| 6                                                   | 6930           | 44.95                     | -95.26                    | -50.31        | -13            | -37.31      |
| 7                                                   | 4145           | 43.34                     | -95.26                    | -51.92        | -13            | -38.92      |
| 8                                                   | 8662.5         | 40.11                     | -95.26                    | -55.15        | -13            | -42.15      |

## Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

#### 4.2.16 Test Results (Mode 12)

##### Below 1GHz

|         |                                         |                 |                |
|---------|-----------------------------------------|-----------------|----------------|
| Channel | TX channel 132022 &<br>TX channel 20450 | Frequency Range | Below 1000 MHz |
|---------|-----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 35.07          | 38.46                     | -95.26                    | -56.80        | -13            | -43.80      |
| 2                                                   | 114.96         | 38.17                     | -95.26                    | -57.09        | -13            | -44.09      |
| 3                                                   | 169.37         | 31.12                     | -95.26                    | -64.14        | -13            | -51.14      |
| 4                                                   | 191.83         | 38.92                     | -95.26                    | -56.34        | -13            | -43.34      |
| 5                                                   | 325.67         | 35.44                     | -95.26                    | -59.82        | -13            | -46.82      |
| 6                                                   | 443.62         | 40.53                     | -95.26                    | -54.73        | -13            | -41.73      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 57.5           | 38.75                     | -95.26                    | -56.51        | -13            | -43.51      |
| 2                                                   | 100            | 33.41                     | -95.26                    | -61.85        | -13            | -48.85      |
| 3                                                   | 144.53         | 42.48                     | -95.26                    | -52.78        | -13            | -39.78      |
| 4                                                   | 176.64         | 35.91                     | -95.26                    | -59.35        | -13            | -46.35      |
| 5                                                   | 324.08         | 40.87                     | -95.26                    | -54.39        | -13            | -41.39      |
| 6                                                   | 560.14         | 34.08                     | -95.26                    | -61.18        | -13            | -48.18      |

##### Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @ 3m.

# Above 1GHz

|         |                                         |                 |                |
|---------|-----------------------------------------|-----------------|----------------|
| Channel | TX channel 132022 &<br>TX channel 20450 | Frequency Range | Above 1000 MHz |
|---------|-----------------------------------------|-----------------|----------------|

| Antenna Polarity & Test Distance: Horizontal at 3 M |                |                           |                           |               |                |             |
|-----------------------------------------------------|----------------|---------------------------|---------------------------|---------------|----------------|-------------|
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3430           | 40.7                      | -95.26                    | -54.56        | -13            | -41.56      |
| 2                                                   | 1658           | 44.95                     | -95.26                    | -50.31        | -13            | -37.31      |
| 3                                                   | 5145           | 40.34                     | -95.26                    | -54.92        | -13            | -41.92      |
| 4                                                   | 2487           | 40.79                     | -95.26                    | -54.47        | -13            | -41.47      |
| 5                                                   | 6860           | 37.6                      | -95.26                    | -57.66        | -13            | -44.66      |
| 6                                                   | 3316           | 47.58                     | -95.26                    | -47.68        | -13            | -34.68      |
| 7                                                   | 8575           | 41.46                     | -95.26                    | -53.80        | -13            | -40.80      |
| 8                                                   | 4145           | 39.51                     | -95.26                    | -55.75        | -13            | -42.75      |
| Antenna Polarity & Test Distance: Vertical at 3 M   |                |                           |                           |               |                |             |
| No.                                                 | Freq.<br>(MHz) | Reading<br>(dB $\mu$ V/m) | Correction Factor<br>(dB) | EIRP<br>(dBm) | Limit<br>(dBm) | Margin (dB) |
| 1                                                   | 3430           | 33.2                      | -95.26                    | -62.06        | -13            | -49.06      |
| 2                                                   | 1658           | 42.58                     | -95.26                    | -52.68        | -13            | -39.68      |
| 3                                                   | 5145           | 39.96                     | -95.26                    | -55.30        | -13            | -42.30      |
| 4                                                   | 2487           | 41.83                     | -95.26                    | -53.43        | -13            | -40.43      |
| 5                                                   | 6860           | 41.82                     | -95.26                    | -53.44        | -13            | -40.44      |
| 6                                                   | 3316           | 40.46                     | -95.26                    | -54.80        | -13            | -41.80      |
| 7                                                   | 8575           | 40.22                     | -95.26                    | -55.04        | -13            | -42.04      |
| 8                                                   | 4145           | 41.53                     | -95.26                    | -53.73        | -13            | -40.73      |

## Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB  $\mu$  V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) =  $20\log(D) - 104.8$ ; where D is the measurement distance @ 3m.

### 4.3 Occupied Bandwidth Measurement

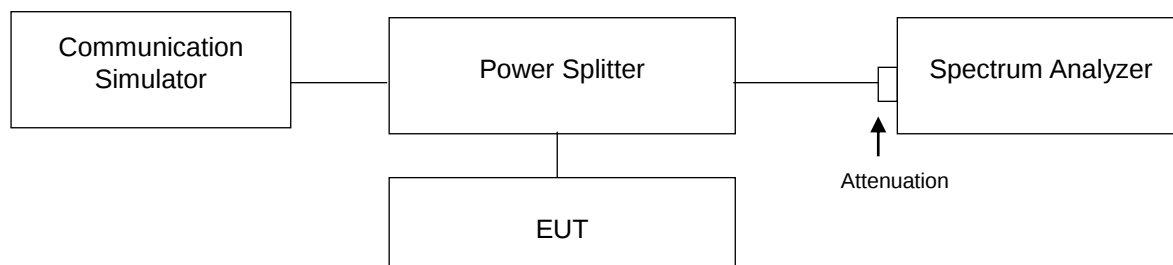
#### 4.3.1 Test Procedure

All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The bandwidth of the fundamental frequency was measured by spectrum analyzer with  $RBW \geq 1\% \times OBW$  and  $VBW \geq 3 \times VBW$ .

#### Occupied Bandwidth Measurement:

Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

#### 4.3.2 Test Setup



#### 4.3.3 Test Result

##### Mode 1: CA\_PCC Ant 0 Band 2\_SCC Ant 2 Band 4

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 2                            | 1.4         | QPSK       | 1.09               | 4    | 5           | QPSK       | 4.52               | 5.61                        |
|                              | 15          | QPSK       | 13.53              |      | 15          | QPSK       | 13.5               | 27.03                       |
|                              | 20          | QPSK       | 18.04              |      | 20          | QPSK       | 18                 | 36.04                       |

##### Mode 2: CA\_PCC Ant 0 Band 4\_SCC Ant 2 Band 2

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 4                            | 5           | QPSK       | 4.52               | 2    | 1.4         | QPSK       | 1.09               | 5.61                        |
|                              | 20          | QPSK       | 18.04              |      | 15          | QPSK       | 13.53              | 31.57                       |
|                              | 20          | QPSK       | 18.04              |      | 20          | QPSK       | 18                 | 36.04                       |

##### Mode 3: CA\_PCC Ant 2 Band 2\_SCC Ant 0 Band 13

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 2                            | 5           | QPSK       | 4.52               | 13   | 10          | QPSK       | 9                  | 13.52                       |
|                              | 15          | QPSK       | 13.53              |      | 10          | QPSK       | 9                  | 22.53                       |
|                              | 20          | QPSK       | 18                 |      | 10          | QPSK       | 9                  | 27                          |

##### Mode 4: CA\_PCC Ant 0 Band 13\_SCC Ant 2 Band 2

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 13                           | 10          | QPSK       | 9                  | 2    | 5           | QPSK       | 1.09               | 10.09                       |
|                              | 10          | QPSK       | 9                  |      | 15          | QPSK       | 13.53              | 22.53                       |
|                              | 10          | QPSK       | 9                  |      | 20          | QPSK       | 18                 | 27                          |

**Mode 5: CA\_PCC Ant 0 Band 66\_SCC Ant 2 Band 2**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 66                           | 5           | QPSK       | 4.52               | 2    | 1.4         | QPSK       | 1.09               | 5.61                        |
|                              | 10          | QPSK       | 9.02               |      | 15          | QPSK       | 13.53              | 22.55                       |
|                              | 20          | QPSK       | 18.04              |      | 20          | QPSK       | 18                 | 36.04                       |

**Mode 6: CA\_PCC Ant 0 Band 13\_SCC Ant 2 Band 4**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 13                           | 10          | QPSK       | 9                  | 4    | 5           | QPSK       | 4.52               | 13.52                       |
|                              | 10          | QPSK       | 9                  |      | 15          | QPSK       | 13.5               | 22.5                        |
|                              | 10          | QPSK       | 9                  |      | 20          | QPSK       | 18                 | 27                          |

**Mode 7: CA\_PCC Ant 2 Band 66\_SCC Ant 0 Band 13**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 66                           | 5           | QPSK       | 4.52               | 13   | 10          | QPSK       | 9                  | 13.52                       |
|                              | 10          | QPSK       | 9.02               |      | 10          | QPSK       | 9                  | 18.02                       |
|                              | 20          | QPSK       | 18                 |      | 10          | QPSK       | 9                  | 27                          |

**Mode 8: CA\_PCC Ant 2 Band 2\_SCC Ant 0 Band 5**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 2                            | 5           | QPSK       | 4.52               | 5    | 5           | QPSK       | 4.51               | 9.03                        |
|                              | 15          | QPSK       | 13.53              |      | 10          | QPSK       | 9.02               | 22.55                       |
|                              | 20          | QPSK       | 18                 |      | 10          | QPSK       | 9.02               | 27.02                       |

**Mode 9: CA\_PCC Ant 0 Band 5\_SCC Ant 2 Band 2**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 5                            | 5           | QPSK       | 4.51               | 2    | 5           | QPSK       | 4.52               | 9.03                        |
|                              | 10          | QPSK       | 9.02               |      | 15          | QPSK       | 13.53              | 22.55                       |
|                              | 10          | QPSK       | 9.02               |      | 20          | QPSK       | 18                 | 27.02                       |

**Mode 10: CA\_PCC Ant 2 Band 4\_SCC Ant 0 Band 5**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 4                            | 5           | QPSK       | 4.52               | 5    | 5           | QPSK       | 4.51               | 9.03                        |
|                              | 15          | QPSK       | 13.5               |      | 10          | QPSK       | 9.02               | 22.52                       |
|                              | 20          | QPSK       | 18                 |      | 10          | QPSK       | 9.02               | 27.02                       |

**Mode 11: CA\_PCC Ant 0 Band 5\_SCC Ant 2 Band 4**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 5                            | 5           | QPSK       | 4.51               | 4    | 5           | QPSK       | 4.52               | 9.03                        |
|                              | 10          | QPSK       | 9.02               |      | 15          | QPSK       | 13.5               | 22.52                       |
|                              | 10          | QPSK       | 9.02               |      | 20          | QPSK       | 18                 | 27.02                       |

**Mode 12: CA\_PCC Ant 2 Band 66\_SCC Ant 0 Band 5**

| Inter Band dis-Contiguous CA |             |            |                    |      |             |            |                    |                             |
|------------------------------|-------------|------------|--------------------|------|-------------|------------|--------------------|-----------------------------|
| PCC                          |             |            |                    | SCC  |             |            |                    | Total<br>OBW<br>BW<br>(MHz) |
| Band                         | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) | Band | BW<br>(MHz) | Modulation | OBW<br>BW<br>(MHz) |                             |
| 66                           | 5           | QPSK       | 4.52               | 5    | 5           | QPSK       | 4.51               | 9.03                        |
|                              | 10          | QPSK       | 9.02               |      | 10          | QPSK       | 9.02               | 18.04                       |
|                              | 20          | QPSK       | 18                 |      | 10          | QPSK       | 9.02               | 27.02                       |

## 5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

## Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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