



# FCC Radio Test Report

## FCC ID: ZMOSC228GL

This report concerns: Original Grant

**Project No.** : 2403G086  
**Equipment** : LTE Module  
**Brand Name** : Fibocom  
**Test Model** : SC228-GL  
**Series Model** : N/A  
**Applicant** : Fibocom Wireless Inc.  
**Address** : 1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China  
**Manufacturer** : Fibocom Wireless Inc.  
**Address** : 1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China  
**Factory** : Fibocom Wireless Inc.  
**Address** : 1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China  
**Date of Receipt** : Mar. 14, 2024  
**Date of Test** : Mar. 14, 2024 ~ Jun. 13, 2024  
Sep. 29, 2024  
**Issued Date** : Sep. 30, 2024  
**Report Version** : R01  
**Test Sample** : Engineering Sample No.: SSL20240314104 for radiated, SSL20240314102 for conducted.  
**Standard(s)** : 47 CFR FCC Part 27 Subpart L, 47 CFR FCC Part 27 Subpart M  
47 CFR FCC Part 27 Subpart N, 47 CFR FCC Part 27 Subpart H  
47 CFR FCC Part 27 Subpart F, 47 CFR FCC Part 2

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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**Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL's** reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**.

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**BTL's** laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

**BTL** is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

**Limitation**

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

| <b>Table of Contents</b>                                | <b>Page</b> |
|---------------------------------------------------------|-------------|
| <b>REPORT ISSUED HISTORY</b>                            | <b>5</b>    |
| <b>1 . APPLICABLE STANDARDS</b>                         | <b>6</b>    |
| <b>2 . SUMMARY OF TEST RESULTS</b>                      | <b>6</b>    |
| 2.1 TEST FACILITY                                       | 7           |
| 2.2 MEASUREMENT UNCERTAINTY                             | 7           |
| 2.3 TEST ENVIRONMENT CONDITIONS                         | 8           |
| <b>3 . GENERAL INFORMATION</b>                          | <b>9</b>    |
| 3.1 GENERAL DESCRIPTION OF EUT                          | 9           |
| 3.2 DESCRIPTION OF TEST MODES                           | 15          |
| 3.3 BLOCK DIGRAM SHOWING THECONFIGURATIONOFSYSTEMTESTED | 24          |
| 2.4 DESCRIPTION OF SUPPORT UNITS                        | 24          |
| <b>4 . TEST RESULT</b>                                  | <b>25</b>   |
| 4.1 OUTPUT POWER MEASUREMENT                            | 25          |
| 4.1.1 LIMIT                                             | 25          |
| 4.1.2 TEST PROCEDURE                                    | 25          |
| 4.1.3 TEST SETUP LAYOUT                                 | 26          |
| 4.1.4 TEST DEVIATION                                    | 26          |
| 4.1.5 TEST RESULTS                                      | 26          |
| 4.2 OCCUPIED BANDWIDTH MEASUREMENT                      | 27          |
| 4.2.1 TEST PROCEDURE                                    | 27          |
| 4.2.2 TEST SETUP LAYOUT                                 | 27          |
| 4.2.3 TEST DEVIATION                                    | 27          |
| 4.2.4 TEST RESULTS                                      | 27          |
| 4.3 CONDUCTED SPURIOUS EMISSIONS MEASUREMENT            | 28          |
| 4.3.1 LIMIT                                             | 28          |
| 4.3.2 TEST PROCEDURES                                   | 28          |
| 4.3.3 TEST SETUP LAYOUT                                 | 28          |
| 4.3.4 TEST DEVIATION                                    | 28          |
| 4.3.5 TEST RESULTS                                      | 28          |
| 4.4 RADIATED SPURIOUS EMISSIONS MEASUREMENT             | 29          |
| 4.4.1 LIMIT                                             | 29          |
| 4.4.2 TEST PROCEDURES                                   | 29          |
| 4.4.3 TEST SETUP LAYOUT                                 | 30          |
| 4.4.4 TEST RESULTS (9KHZ TO 30MHZ)                      | 31          |
| 4.4.5 TEST RESULTS (30MHZ TO 1000MHZ)                   | 31          |
| 4.4.6 TEST RESULTS (ABOVE 1000MHZ)                      | 31          |
| 4.5 BAND EDGE MEASUREMENT                               | 32          |
| 4.5.1 LIMIT                                             | 32          |

| <b>Table of Contents</b>                                 | <b>Page</b> |
|----------------------------------------------------------|-------------|
| 4.5.2 TEST PROCEDURES                                    | 33          |
| 4.5.3 TEST SETUP LAYOUT                                  | 33          |
| 4.5.4 TEST DEVIATION                                     | 33          |
| 4.5.5 TEST RESULTS                                       | 33          |
| 4.6 PEAK TO AVERAGE RATIO MEASUREMENT                    | 34          |
| 4.6.1 LIMIT                                              | 34          |
| 4.6.2 TEST PROCEDURES                                    | 34          |
| 4.6.3 TEST SETUP LAYOUT                                  | 34          |
| 4.6.4 TEST DEVIATION                                     | 34          |
| 4.6.5 TEST RESULTS                                       | 34          |
| 4.7 FREQUENCY STABILITY MEASUREMENT                      | 35          |
| 4.7.1 LIMIT                                              | 35          |
| 4.7.2 TEST PROCEDURES                                    | 35          |
| 4.7.3 TEST SETUP LAYOUT                                  | 35          |
| 4.7.4 TEST DEVIATION                                     | 35          |
| 4.7.5 TEST RESULTS                                       | 35          |
| 4. LIST OF MEASUREMENT EQUIPMENTS                        | 36          |
| 5. EUT TEST PHOTO                                        | 39          |
| APPENDIX A - OUTPUT POWER                                | 42          |
| APPENDIX B - OCCUPIED BANDWIDTH                          | 81          |
| APPENDIX C - CONDUCTED SPURIOUS EMISSIONS                | 119         |
| APPENDIX D - RADIATED SPURIOUS EMISSIONS (9KHZ TO 30MHZ) | 130         |
| APPENDIX E - RADIATED SPURIOUS EMISSIONS (30MHZ TO 1GHZ) | 132         |
| APPENDIX F - RADIATED SPURIOUS EMISSIONS (ABOVE 1GHZ)    | 144         |
| APPENDIX G - BAND EDGE                                   | 169         |
| APPENDIX H - PEAK TO AVERAGE RATIO                       | 207         |
| APPENDIX I - FREQUENCY STABILITY                         | 245         |

### REPORT ISSUED HISTORY

| Report No.          | Version | Description            | Issued Date   | Note    |
|---------------------|---------|------------------------|---------------|---------|
| BTL-FCCP-3-2403G086 | R00     | Original Report.       | Sep. 23, 2024 | Invalid |
| BTL-FCCP-3-2403G086 | R01     | Modified the comments. | Sep. 30, 2024 | Valid   |

## 1. APPLICABLE STANDARDS

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

ANSI C63.26-2015

The following reference test guidance is not within the scope of accreditation of A2LA:

FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

| FCC Part 27 Subpart L, M, N, H, F & Part 2                             |                                                                    |          |        |
|------------------------------------------------------------------------|--------------------------------------------------------------------|----------|--------|
| Standard(s) Section                                                    | Test Item                                                          | Judgment | Remark |
| 2.1046                                                                 | Output Power                                                       | PASS     | -----  |
| 27.50(d)(4)<br>27.50(c)(10)<br>27.50(b)(10)<br>27.50(h)(2)             | Equivalent Isotropic Radiated Power &<br>Equivalent Radiated Power | PASS     | -----  |
| 2.1049                                                                 | Occupied Bandwidth                                                 | PASS     | -----  |
| 2.1051<br>27.53(h)<br>27.53(g)<br>27.53(c)(2)(f)<br>27.53(m)(4)&(m)(6) | Conducted Spurious Emissions                                       | PASS     | -----  |
| 2.1053<br>27.53(h)<br>27.53(m)(4)&(m)(6)                               | Radiated Spurious Emissions                                        | PASS     | -----  |
| 2.1051<br>27.53(h)<br>27.53(g)<br>27.53(c)(2)(f)<br>27.53(m)(4)&(m)(6) | Band Edge Measurements                                             | PASS     | -----  |
| 27.50(d)(5)                                                            | Peak To Average Ratio                                              | PASS     | -----  |
| 2.1055<br>27.54                                                        | Frequency Stability                                                | PASS     | -----  |

Note:

(1) "N/A" denotes test is not applicable in this test report.

## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of Room 108, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan City, Guangdong, People's Republic of China.  
BTL's Registration Number for FCC: 747969  
BTL's Designation Number for FCC: CN1377

## 2.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))  
The BTL measurement uncertainty as below table:

### A. Radiated Measurement:

| Test Site | Method | Measurement Frequency Range | $U_i$ (dB) |
|-----------|--------|-----------------------------|------------|
| SSL-CB01  | CISPR  | 9kHz ~ 30MHz                | 2.74       |

| Test Site        | Method | Measurement Frequency Range | Ant.<br>H / V | $U_i$ (dB) |
|------------------|--------|-----------------------------|---------------|------------|
| SSL-CB01<br>(3m) | CISPR  | 30MHz ~ 200MHz              | V             | 4.70       |
|                  |        | 30MHz ~ 200MHz              | H             | 3.56       |
|                  |        | 200MHz ~ 1,000MHz           | V             | 4.92       |
|                  |        | 200MHz ~ 1,000MHz           | H             | 4.54       |

| Test Site        | Method | Measurement Frequency Range | $U_i$ (dB) |
|------------------|--------|-----------------------------|------------|
| SSL-CB01<br>(3m) | CISPR  | 1GHz ~ 6GHz                 | 4.56       |
|                  |        | 6GHz ~ 18GHz                | 5.14       |

| Test Site        | Method | Measurement Frequency Range | $U_i$ (dB) |
|------------------|--------|-----------------------------|------------|
| SSL-CB01<br>(1m) | CISPR  | 18 ~ 26.5 GHz               | 3.30       |
|                  |        | 26.5 ~ 40 GHz               | 3.82       |

### B. Other Measurement:

| Parameter            | Uncertainty |
|----------------------|-------------|
| Spectrum Bandwidth   | ±1.74%      |
| Maximum Output Power | ±0.87dB     |
| Frequency Stability  | ±53.10 Hz   |
| Temperature          | ±0.48 °C    |
| Humidity             | ±1.37 %     |

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

### 2.3 TEST ENVIRONMENT CONDITIONS

| Test Item                                           | Temperature         | Humidity | Test Voltage        | Tested By      | Test Date                                                         |
|-----------------------------------------------------|---------------------|----------|---------------------|----------------|-------------------------------------------------------------------|
| Output Power & ERP                                  | 24°C                | 41%      | DC 3.8V             | Gavin Ge       | Mar. 14, 2024~<br>Apr. 01, 2024                                   |
| Occupied Bandwidth                                  | 24°C                | 41%      | DC 3.8V             | Gavin Ge       | Mar. 14, 2024~<br>Apr. 01, 2024                                   |
| Conducted Spurious Emissions                        | 24°C                | 41%      | DC 3.8V             | Gavin Ge       | Mar. 14, 2024~<br>Apr. 01, 2024<br>Apr. 11, 2024<br>Jun. 13, 2024 |
| Radiated Spurious Emissions<br>(9 kHz to 30 MHz)    | 24°C                | 54%      | DC 3.8V             | Hayden<br>Chen | Apr. 03, 2024                                                     |
| Radiated Spurious Emissions<br>(30 MHz to 1000 MHz) | 23°C                | 50%      | DC 3.8V             | Max Wang       | Mar. 22, 2024~<br>Mar. 31, 2024                                   |
| Radiated Spurious Emissions<br>(Above 1000 MHz)     | 23°C                | 50-55%   | DC 3.8V             | Max Wang       | Mar. 19, 2024~<br>Mar. 31, 2024                                   |
|                                                     | 23°C                | 45%      | DC 3.8V             | Nolan<br>Zhang | Sep. 29, 2024                                                     |
| Band Edge                                           | 24°C                | 41%      | DC 3.8V             | Gavin Ge       | Mar. 14, 2024~<br>Apr. 01, 2024                                   |
| Peak to Average Ratio                               | 24°C                | 41%      | DC 3.8V             | Gavin Ge       | Mar. 14, 2024~<br>Apr. 01, 2024                                   |
| Frequency Stability                                 | Normal &<br>Extreme | 41%      | Normal &<br>Extreme | Gavin Ge       | Mar. 14, 2024~<br>Apr. 01, 2024                                   |

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

|                     |                                                 |                         |                                        |
|---------------------|-------------------------------------------------|-------------------------|----------------------------------------|
| Equipment           | LTE Module                                      |                         |                                        |
| Brand Name          | Fibocom                                         |                         |                                        |
| Test Model          | SC228-GL                                        |                         |                                        |
| Series Model        | N/A                                             |                         |                                        |
| Model Difference(s) | N/A                                             |                         |                                        |
| Hardware Version    | V1.1                                            |                         |                                        |
| Software Version    | SC228-GL-T16.12.034                             |                         |                                        |
| Power Source        | DC voltage supplied from external power supply. |                         |                                        |
| Power Rating        | DC 3.5V - 4.35V, Typical: 3.8V                  |                         |                                        |
| IMEI No.            | Radiated                                        | 864712070000□49         |                                        |
|                     | Conducted                                       | 864712070000927         |                                        |
| Modulation Type     | WCDMA/HSDPA/HSUPA                               |                         | UL: QPSK,16QAM<br>DL: QPSK,16QAM,64QAM |
|                     | LTE                                             |                         | UL: QPSK,16QAM<br>DL: QPSK,16QAM,64QAM |
| Max. EIRP<br>(dBm)  | WCDMA Band IV                                   |                         | QPSK 26.87                             |
|                     | HSDPA Band IV                                   |                         | QPSK 25.38                             |
|                     | HSUPA Band IV                                   |                         | QPSK 25.53                             |
|                     | LTE                                             | Channel Bandwidth (MHz) | QPSK 16QAM                             |
|                     | Band 4                                          | 1.4                     | 26.51 25.73                            |
|                     |                                                 | 3                       | 26.48 25.76                            |
|                     |                                                 | 5                       | 26.60 25.87                            |
|                     |                                                 | 10                      | 26.87 26.09                            |
|                     |                                                 | 15                      | 26.41 25.85                            |
|                     |                                                 | 20                      | 26.43 25.87                            |
|                     | Band 7                                          | 5                       | 25.51 24.70                            |
|                     |                                                 | 10                      | 25.51 24.75                            |
|                     |                                                 | 15                      | 25.45 24.63                            |
|                     |                                                 | 20                      | 25.67 24.96                            |
|                     | Band 38                                         | 5                       | 24.87 24.17                            |
|                     |                                                 | 10                      | 25.04 24.50                            |
|                     |                                                 | 15                      | 25.56 24.88                            |
|                     |                                                 | 20                      | 25.40 24.75                            |
|                     | Band 41                                         | 5                       | 25.46 24.80                            |
|                     |                                                 | 10                      | 25.33 24.69                            |
|                     |                                                 | 15                      | 26.22 25.67                            |
|                     |                                                 | 20                      | 26.22 25.69                            |
|                     | Band 66                                         | 1.4                     | 26.07 25.35                            |
|                     |                                                 | 3                       | 26.09 25.41                            |
|                     |                                                 | 5                       | 26.29 25.62                            |
|                     |                                                 | 10                      | 26.45 25.73                            |
|                     |                                                 | 15                      | 23.13 22.47                            |
|                     |                                                 | 20                      | 26.24 25.65                            |

| Max. ERP | LTE     | Channel Bandwidth (MHz) | QPSK  | 16QAM |
|----------|---------|-------------------------|-------|-------|
|          | Band 12 | 1.4                     | 22.49 | 21.89 |
|          |         | 3                       | 22.51 | 21.87 |
|          |         | 5                       | 22.61 | 21.91 |
|          |         | 10                      | 22.67 | 21.94 |
|          | Band 13 | 5                       | 22.84 | 22.25 |
|          |         | 10                      | 22.84 | 21.73 |
|          | Band 17 | 5                       | 22.38 | 21.78 |
|          |         | 10                      | 22.47 | 21.88 |
|          | Band 71 | 5                       | 22.73 | 22.04 |
|          |         | 10                      | 22.85 | 22.18 |
|          |         | 15                      | 22.37 | 21.88 |
|          |         | 20                      | 22.34 | 22.03 |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

| WCDMA Band IV(UL: 1712.4-1752.6MHz, DL: 2112.4-2152.6MHz) |        |                           |        |                             |
|-----------------------------------------------------------|--------|---------------------------|--------|-----------------------------|
| Test Frequency ID                                         | UARFCN | Frequency of Uplink (MHz) | UARFCN | Frequency of Downlink (MHz) |
| Low Range                                                 | 1312   | 1712.4                    | 1537   | 2112.4                      |
| Mid Range                                                 | 1413   | 1732.6                    | 1638   | 2132.6                      |
| High Range                                                | 1513   | 1752.6                    | 1738   | 2152.6                      |

| LTE Band 4(UL: 1710-1755MHz, DL: 2110-2155MHz) |                  |                 |                           |                 |                             |
|------------------------------------------------|------------------|-----------------|---------------------------|-----------------|-----------------------------|
| Test Frequency ID                              | Bandwidth (MHz)  | N <sub>UL</sub> | Frequency of Uplink (MHz) | N <sub>DL</sub> | Frequency of Downlink (MHz) |
| Low Range                                      | 1.4              | 19957           | 1710.7                    | 1957            | 2110.7                      |
|                                                | 3                | 19965           | 1711.5                    | 1965            | 2111.5                      |
|                                                | 5                | 19975           | 1712.5                    | 1975            | 2112.5                      |
|                                                | 10               | 20000           | 1715                      | 2000            | 2115                        |
|                                                | 15               | 20025           | 1717.5                    | 2025            | 2117.5                      |
|                                                | 20               | 20050           | 1720                      | 2050            | 2120                        |
| Mid Range                                      | 1.4/3/5/10/15/20 | 20175           | 1732.5                    | 2175            | 2132.5                      |
| High Range                                     | 1.4              | 20393           | 1754.3                    | 2393            | 2154.3                      |
|                                                | 3                | 20385           | 1753.5                    | 2385            | 2153.5                      |
|                                                | 5                | 20375           | 1752.5                    | 2375            | 2152.5                      |
|                                                | 10               | 20350           | 1750                      | 2350            | 2150                        |
|                                                | 15               | 20325           | 1747.5                    | 2325            | 2147.5                      |
|                                                | 20               | 20300           | 1740                      | 2300            | 2145                        |

| LTE Band 7(UL: 2500-2570MHz, DL: 2620-2690MHz) |                 |                 |                           |                 |                             |
|------------------------------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------------------|
| Test Frequency ID                              | Bandwidth (MHz) | N <sub>UL</sub> | Frequency of Uplink (MHz) | N <sub>DL</sub> | Frequency of Downlink (MHz) |
| Low Range                                      | 5               | 20775           | 2502.5                    | 2775            | 2622.5                      |
|                                                | 10              | 20800           | 2505                      | 2800            | 2625                        |
|                                                | 15              | 20825           | 2507.5                    | 2825            | 2627.5                      |
|                                                | 20              | 20850           | 2510                      | 2850            | 2630                        |
| Mid Range                                      | 5/10/15/20      | 21100           | 2535                      | 3100            | 2655                        |
| High Range                                     | 5               | 21425           | 2567.5                    | 3425            | 2687.5                      |
|                                                | 10              | 21400           | 2565                      | 3400            | 2685                        |
|                                                | 15              | 21375           | 2562.5                    | 3375            | 2682.5                      |
|                                                | 20              | 21350           | 2560                      | 3350            | 2680                        |

| LTE Band 12(UL: 699-716 MHz, DL: 729-746MHz) |                 |                 |                           |                 |                             |
|----------------------------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------------------|
| Test Frequency ID                            | Bandwidth (MHz) | N <sub>UL</sub> | Frequency of Uplink (MHz) | N <sub>DL</sub> | Frequency of Downlink (MHz) |
| Low Range                                    | 1.4             | 23017           | 699.7                     | 5017            | 729.7                       |
|                                              | 3               | 23025           | 700.5                     | 5025            | 730.5                       |
|                                              | 5               | 23035           | 701.5                     | 5035            | 731.5                       |
|                                              | 10              | 23060           | 704.0                     | 5060            | 734                         |
| Mid Range                                    | 1.4/3/5/10      | 23095           | 707.5                     | 5095            | 737.5                       |
| High Range                                   | 1.4             | 23173           | 715.3                     | 5173            | 745.3                       |
|                                              | 3               | 23165           | 714.5                     | 5165            | 744.5                       |
|                                              | 5               | 23155           | 713.5                     | 5155            | 743.5                       |
|                                              | 10              | 23130           | 711.0                     | 5130            | 741                         |

| LTE Band 13(UL: 777-787MHz, DL: 746-756MHz) |                 |                 |                           |                 |                             |
|---------------------------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------------------|
| Test Frequency ID                           | Bandwidth (MHz) | N <sub>UL</sub> | Frequency of Uplink (MHz) | N <sub>DL</sub> | Frequency of Downlink (MHz) |
| Low Range                                   | 5               | 23205           | 779.5                     | 5205            | 748.5                       |
| Mid Range                                   | 5/10            | 23230           | 782.0                     | 5230            | 751                         |
| High Range                                  | 5               | 23255           | 784.5                     | 5255            | 753.5                       |

| LTE Band 17(UL: 704-716 MHz, DL: 734-746MHz) |                 |                 |                           |                 |                             |
|----------------------------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------------------|
| Test Frequency ID                            | Bandwidth (MHz) | N <sub>UL</sub> | Frequency of Uplink (MHz) | N <sub>DL</sub> | Frequency of Downlink (MHz) |
| Low Range                                    | 5               | 23755           | 706.5                     | 5755            | 736.5                       |
|                                              | 10              | 23780           | 709                       | 5780            | 739                         |
| Mid Range                                    | 5/10            | 23790           | 710                       | 5790            | 740                         |
| High Range                                   | 5               | 23825           | 713.5                     | 5825            | 743.5                       |
|                                              | 10              | 23800           | 711                       | 5800            | 741                         |

| LTE Band 38(UL/DL: 2570-2620MHz) |                 |        |                             |
|----------------------------------|-----------------|--------|-----------------------------|
| Test Frequency ID                | Bandwidth (MHz) | EARFCN | Frequency (UL and DL) (MHz) |
| Low Range                        | 5               | 37775  | 2572.5                      |
|                                  | 10              | 37800  | 2575                        |
|                                  | 15              | 37825  | 2577.5                      |
|                                  | 20              | 37850  | 2580                        |
| Mid Range                        | 5/10/15/20      | 38000  | 2600                        |
| High Range                       | 5               | 38225  | 2617.5                      |
|                                  | 10              | 38200  | 2615                        |
|                                  | 15              | 38175  | 2612.5                      |
|                                  | 20              | 38150  | 2610                        |

| LTE Band 41(UL/DL: 2496-2690MHz) |                 |        |                             |
|----------------------------------|-----------------|--------|-----------------------------|
| Test Frequency ID                | Bandwidth (MHz) | EARFCN | Frequency (UL and DL) (MHz) |
| Low Range                        | 5               | 39675  | 2498.5                      |
|                                  | 10              | 39700  | 2501.0                      |
|                                  | 15              | 39725  | 2503.5                      |
|                                  | 20              | 39750  | 2506.0                      |
| Mid Range                        | 5/10/15/20      | 40620  | 2593                        |
| High Range                       | 5               | 41565  | 2687.5                      |
|                                  | 10              | 41540  | 2685.0                      |
|                                  | 15              | 41515  | 2682.5                      |
|                                  | 20              | 41490  | 2680.0                      |

| LTE Band 66(UL: 1710-1780MHz, DL: 2110-2200MHz) |                  |                 |                           |                 |                             |
|-------------------------------------------------|------------------|-----------------|---------------------------|-----------------|-----------------------------|
| Test Frequency ID                               | Bandwidth (MHz)  | N <sub>UL</sub> | Frequency of Uplink (MHz) | N <sub>DL</sub> | Frequency of Downlink (MHz) |
| Low Range                                       | 1.4              | 131979          | 1710.7                    | 66443           | 2110.7                      |
|                                                 | 3                | 131987          | 1711.5                    | 66451           | 2111.5                      |
|                                                 | 5                | 131997          | 1712.5                    | 66461           | 2112.5                      |
|                                                 | 10               | 132022          | 1715                      | 66486           | 2115                        |
|                                                 | 15               | 132047          | 1717.5                    | 66511           | 2117.5                      |
|                                                 | 20               | 132072          | 1720                      | 66536           | 2120                        |
| Mid Range                                       | 1.4/3/5/10/15/20 | 132322          | 1745                      | 66786           | 2145                        |
| High Range                                      | 1.4              | 132665          | 1779.3                    | 67129           | 2179.3                      |
|                                                 | 3                | 132657          | 1778.5                    | 67121           | 2178.5                      |
|                                                 | 5                | 132647          | 1777.5                    | 67111           | 2177.5                      |
|                                                 | 10               | 132622          | 1775                      | 67086           | 2175                        |
|                                                 | 15               | 132597          | 1772.5                    | 67061           | 2172.5                      |
|                                                 | 20               | 132572          | 1770                      | 67036           | 2170                        |

| LTE Band 71(UL: 663-698MHz, DL: 617-652MHz) |                 |                 |                           |                 |                             |
|---------------------------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------------------|
| Test Frequency ID                           | Bandwidth (MHz) | N <sub>UL</sub> | Frequency of Uplink (MHz) | N <sub>DL</sub> | Frequency of Downlink (MHz) |
| Low Range                                   | 5               | 133147          | 665.5                     | 68611           | 619.5                       |
|                                             | 10              | 133172          | 668                       | 68636           | 622                         |
|                                             | 15              | 133197          | 670.5                     | 68661           | 624.5                       |
|                                             | 20              | 133222          | 673                       | 68686           | 627                         |
| Mid Range                                   | 5/10/15         | 133297          | 680.5                     | 68761           | 634.5                       |
|                                             | 20              | 133322          | 683                       | 68786           | 637                         |
| High Range                                  | 5               | 133447          | 695.5                     | 68911           | 649.5                       |
|                                             | 10              | 133422          | 693                       | 68886           | 647                         |
|                                             | 15              | 133397          | 690.5                     | 68861           | 644.5                       |
|                                             | 20              | 133372          | 688                       | 68836           | 642                         |

## 3. Table for Filed Antenna:

| Manufacturer                                                  | P/N      | Antenna Type | Connector  | Gain (dBi) | Note          |
|---------------------------------------------------------------|----------|--------------|------------|------------|---------------|
| Shenzhen<br>Bogesi<br>Communication<br>Technology Co.,<br>Ltd | GHT-019A | Dipole       | SMA Male J | 2.98       | WCDMA Band IV |
|                                                               |          |              |            | 2.98       | LTE Band 4    |
|                                                               |          |              |            | 2.21       | LTE Band 7    |
|                                                               |          |              |            | 1.61       | LTE Band 12   |
|                                                               |          |              |            | 1.83       | LTE Band 13   |
|                                                               |          |              |            | 1.58       | LTE Band 17   |
|                                                               |          |              |            | 1.71       | LTE Band 38   |
|                                                               |          |              |            | 2.21       | LTE Band 41   |
|                                                               |          |              |            | 2.98       | LTE Band 66   |
|                                                               |          |              |            | 1.61       | LTE Band 71   |

Note: The antenna gain is provided by the manufacturer.

### 3.2 DESCRIPTION OF TEST MODES

Following mode(s) is (were) found to be the worst case(s) and selected for the final test.

| WCDMA BAND IV MODE           |                   |                  |                     |
|------------------------------|-------------------|------------------|---------------------|
| Test Item                    | Available Channel | Tested Channel   | Mode                |
| Output Power & EIRP          | 1312 to 1513      | 1312, 1413, 1513 | WCDMA, HSDPA, HSUPA |
| Occupied Bandwidth           | 1312 to 1513      | 1312, 1413, 1513 | WCDMA               |
| Conducted Spurious Emissions | 1312 to 1513      | 1413             | WCDMA               |
| Radiated Spurious Emissions  | 1312 to 1513      | 1413             | WCDMA               |
| Band Edge                    | 1312 to 1513      | 1312, 1513       | WCDMA               |
| Peak To Average Ratio        | 1312 to 1513      | 1312, 1413, 1513 | WCDMA               |
| Frequency Stability          | 1312 to 1513      | 1312, 1513       | WCDMA               |

| LTE BAND 4 MODE              |                   |                     |                   |             |                |
|------------------------------|-------------------|---------------------|-------------------|-------------|----------------|
| Test Item                    | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode           |
| Output Power & EIRP          | 19957 to 20393    | 19957, 20175, 20393 | 1.4MHz            | QPSK, 16QAM | 1RB/3RB/6RB    |
|                              | 19965 to 20385    | 19965, 20175, 20385 | 3MHz              | QPSK, 16QAM | 1RB/8RB/15RB   |
|                              | 19975 to 20375    | 19975, 20175, 20375 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB  |
|                              | 20000 to 20350    | 20000, 20175, 20350 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB  |
|                              | 20025 to 20325    | 20025, 20175, 20325 | 15MHz             | QPSK, 16QAM | 1RB/36RB/75RB  |
|                              | 20050 to 20300    | 20050, 20175, 20300 | 20MHz             | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth           | 19957 to 20393    | 19957, 20175, 20393 | 1.4MHz            | QPSK, 16QAM | 6RB            |
|                              | 19965 to 20385    | 19965, 20175, 20385 | 3MHz              | QPSK, 16QAM | 15RB           |
|                              | 19975 to 20375    | 19975, 20175, 20375 | 5MHz              | QPSK, 16QAM | 25RB           |
|                              | 20000 to 20350    | 20000, 20175, 20350 | 10MHz             | QPSK, 16QAM | 50RB           |
|                              | 20025 to 20325    | 20025, 20175, 20325 | 15MHz             | QPSK, 16QAM | 75RB           |
|                              | 20050 to 20300    | 20050, 20175, 20300 | 20MHz             | QPSK, 16QAM | 100RB          |
| Conducted Spurious Emissions | 19957 to 20393    | 20175               | 1.4MHz            | QPSK        | 1RB            |
|                              | 19975 to 20375    | 20175               | 5MHz              | QPSK        | 1RB            |
|                              | 20050 to 20300    | 20175               | 20MHz             | QPSK        | 1RB            |
| Radiated Spurious Emissions  | 19957 to 20393    | 20175               | 1.4MHz            | QPSK        | 1RB            |
|                              | 19975 to 20375    | 20175               | 5MHz              | QPSK        | 1RB            |
|                              | 20050 to 20300    | 20175               | 20MHz             | QPSK        | 1RB            |
| Band Edge                    | 19957 to 20393    | 19957, 20393        | 1.4MHz            | QPSK        | 1RB/6RB        |
|                              | 19965 to 20385    | 19965, 20385        | 3MHz              | QPSK        | 1RB/15RB       |
|                              | 19975 to 20375    | 19975, 20375        | 5MHz              | QPSK        | 1RB/25RB       |
|                              | 20000 to 20350    | 20000, 20350        | 10MHz             | QPSK        | 1RB/50RB       |
|                              | 20025 to 20325    | 20025, 20325        | 15MHz             | QPSK        | 1RB/75RB       |
|                              | 20050 to 20300    | 20050, 20300        | 20MHz             | QPSK        | 1RB/100RB      |
| Peak To Average Ratio        | 19957 to 20393    | 19957, 20175, 20393 | 1.4MHz            | QPSK, 16QAM | 1RB            |
|                              | 19965 to 20385    | 19965, 20175, 20385 | 3MHz              | QPSK, 16QAM | 1RB            |
|                              | 19975 to 20375    | 19975, 20175, 20375 | 5MHz              | QPSK, 16QAM | 1RB            |
|                              | 20000 to 20350    | 20000, 20175, 20350 | 10MHz             | QPSK, 16QAM | 1RB            |
|                              | 20025 to 20325    | 20025, 20175, 20325 | 15MHz             | QPSK, 16QAM | 1RB            |
|                              | 20050 to 20300    | 20050, 20175, 20300 | 20MHz             | QPSK, 16QAM | 1RB            |
| Frequency Stability          | 20050 to 20300    | 20050, 20300        | 20MHz             | QPSK        | 100RB          |

| LTE BAND 7 MODE              |                   |                     |                   |             |                |
|------------------------------|-------------------|---------------------|-------------------|-------------|----------------|
| Test Item                    | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode           |
| Output Power & EIRP          | 20775 to 21425    | 20775, 21100, 21425 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB  |
|                              | 20800 to 21400    | 20800, 21100, 21400 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB  |
|                              | 20825 to 21375    | 20825, 21100, 21375 | 15MHz             | QPSK, 16QAM | 1RB/36RB/75RB  |
|                              | 20850 to 21350    | 20850, 21100, 21350 | 20MHz             | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth           | 20775 to 21425    | 20775, 21100, 21425 | 5MHz              | QPSK, 16QAM | 25RB           |
|                              | 20800 to 21400    | 20800, 21100, 21400 | 10MHz             | QPSK, 16QAM | 50RB           |
|                              | 20825 to 21375    | 20825, 21100, 21375 | 15MHz             | QPSK, 16QAM | 75RB           |
|                              | 20850 to 21350    | 20850, 21100, 21350 | 20MHz             | QPSK, 16QAM | 100RB          |
| Conducted Spurious Emissions | 20775 to 21425    | 21100               | 5MHz              | QPSK        | 1RB            |
|                              | 20850 to 21350    | 21100               | 20MHz             | QPSK        | 1RB            |
| Radiated Spurious Emissions  | 20775 to 21425    | 21100               | 5MHz              | QPSK        | 1RB            |
|                              | 20850 to 21350    | 21100               | 20MHz             | QPSK        | 1RB            |
| Band Edge                    | 20775 to 21425    | 20775, 21425        | 5MHz              | QPSK        | 1RB/25RB       |
|                              | 20800 to 21400    | 20800, 21400        | 10MHz             | QPSK        | 1RB/50RB       |
|                              | 20825 to 21375    | 20825, 21375        | 15MHz             | QPSK        | 1RB/75RB       |
|                              | 20850 to 21350    | 20850, 21350        | 20MHz             | QPSK        | 1RB/100RB      |
| Peak To Average Ratio        | 20775 to 21425    | 20775, 21100, 21425 | 5MHz              | QPSK, 16QAM | 1RB            |
|                              | 20800 to 21400    | 20800, 21100, 21400 | 10MHz             | QPSK, 16QAM | 1RB            |
|                              | 20825 to 21375    | 20825, 21100, 21375 | 15MHz             | QPSK, 16QAM | 1RB            |
|                              | 20850 to 21350    | 20850, 21100, 21350 | 20MHz             | QPSK, 16QAM | 1RB            |
| Frequency Stability          | 20850 to 21350    | 20850, 21350        | 20MHz             | QPSK        | 100RB          |

| LTE BAND 12 MODE      |                   |                     |                   |             |               |
|-----------------------|-------------------|---------------------|-------------------|-------------|---------------|
| Test Item             | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode          |
| Output Power & ERP    | 23017 to 23173    | 23017, 23095, 23173 | 1.4MHz            | QPSK, 16QAM | 1RB/3RB/6RB   |
|                       | 23025 to 23165    | 23025, 23095, 23165 | 3MHz              | QPSK, 16QAM | 1RB/8RB/15RB  |
|                       | 23035 to 23155    | 23035, 23095, 23155 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB |
|                       | 23060 to 23130    | 23060, 23095, 23130 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB |
| Frequency Stability   | 23060 to 23130    | 23060,23130         | 10MHz             | QPSK        | 50RB          |
| Occupied Bandwidth    | 23017 to 23173    | 23017, 23095, 23173 | 1.4MHz            | QPSK, 16QAM | 6RB           |
|                       | 23025 to 23165    | 23025, 23095, 23165 | 3MHz              | QPSK, 16QAM | 15RB          |
|                       | 23035 to 23155    | 23035, 23095, 23155 | 5MHz              | QPSK, 16QAM | 25RB          |
|                       | 23060 to 23130    | 23060, 23095, 23130 | 10MHz             | QPSK, 16QAM | 50RB          |
| Peak to Average Ratio | 23017 to 23173    | 23017, 23095, 23173 | 1.4MHz            | QPSK, 16QAM | 1RB           |
|                       | 23025 to 23165    | 23025, 23095, 23165 | 3MHz              | QPSK, 16QAM | 1RB           |
|                       | 23035 to 23155    | 23035, 23095, 23155 | 5MHz              | QPSK, 16QAM | 1RB           |
|                       | 23060 to 23130    | 23060, 23095, 23130 | 10MHz             | QPSK, 16QAM | 1RB           |
| Band Edge             | 23017 to 23173    | 23017,23173         | 1.4MHz            | QPSK        | 1RB/6RB       |
|                       | 23025 to 23165    | 23025,23165         | 3MHz              | QPSK        | 1RB/15RB      |
|                       | 23035 to 23155    | 23035,23155         | 5MHz              | QPSK        | 1RB/25RB      |
|                       | 23060 to 23130    | 23060,23130         | 10MHz             | QPSK        | 1RB/50RB      |
| Conducted Emission    | 23017 to 23173    | 23095               | 1.4MHz            | QPSK        | 1RB           |
|                       | 23025 to 23165    | 23095               | 3MHz              | QPSK        | 1RB           |
|                       | 23035 to 23155    | 23095               | 5MHz              | QPSK        | 1RB           |
|                       | 23060 to 23130    | 23095               | 10MHz             | QPSK        | 1RB           |
| Radiated Emission     | 23017 to 23173    | 23095               | 1.4MHz            | QPSK        | 1RB           |
|                       | 23017 to 23173    | 23095               | 5MHz              | QPSK        | 1RB           |
|                       | 23060 to 23130    | 23095               | 10MHz             | QPSK        | 1RB           |

| LTE BAND 13 MODE      |                   |                     |                   |             |               |
|-----------------------|-------------------|---------------------|-------------------|-------------|---------------|
| Test Item             | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode          |
| Output Power & ERP    | 23205 to 23255    | 23205, 23230, 23255 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB |
|                       | 23230             | 23230               | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB |
| Occupied Bandwidth    | 23205 to 23255    | 23205, 23230, 23255 | 5MHz              | QPSK, 16QAM | 25RB          |
|                       | 23230             | 23230               | 10MHz             | QPSK, 16QAM | 50RB          |
| Band Edge             | 23205 to 23255    | 23205, 23255        | 5MHz              | QPSK        | 1RB/25RB      |
|                       | 23230             | 23230               | 10MHz             | QPSK        | 1RB/50RB      |
| Conducted Emission    | 23205 to 23255    | 23230               | 5MHz              | QPSK        | 1RB           |
|                       | 23230             | 23230               | 10MHz             | QPSK        | 1RB           |
| Radiated Emission     | 23205 to 23255    | 23230               | 5MHz              | QPSK        | 1RB           |
|                       | 23230             | 23230               | 10MHz             | QPSK        | 1RB           |
| Peak to Average Ratio | 23205 to 23255    | 23205, 23230, 23255 | 5MHz              | QPSK, 16QAM | 1RB           |
|                       | 23230             | 23230               | 10MHz             | QPSK, 16QAM | 1RB           |
| Frequency Stability   | 23230             | 23230               | 10MHz             | QPSK        | 50RB          |

| LTE BAND 17 MODE             |                   |                     |                   |             |               |
|------------------------------|-------------------|---------------------|-------------------|-------------|---------------|
| Test Item                    | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode          |
| Output Power & ERP           | 23755 to 23825    | 23755, 23790, 23825 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB |
|                              | 23780 to 23800    | 23780, 23790, 23800 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB |
| Occupied Bandwidth           | 23755 to 23825    | 23755, 23790, 23825 | 5MHz              | QPSK, 16QAM | 25RB          |
|                              | 23780 to 23800    | 23780, 23790, 23800 | 10MHz             | QPSK, 16QAM | 50RB          |
| Conducted Spurious Emissions | 23755 to 23825    | 23790               | 5MHz              | QPSK        | 1RB           |
|                              | 23780 to 23800    | 23790               | 20MHz             | QPSK        | 1RB           |
| Radiated Spurious Emissions  | 23755 to 23825    | 23790               | 5MHz              | QPSK        | 1RB           |
|                              | 23780 to 23800    | 23790               | 20MHz             | QPSK        | 1RB           |
| Band Edge                    | 23755 to 23825    | 23755, 23825        | 5MHz              | QPSK        | 1RB/25RB      |
|                              | 23780 to 23800    | 23780, 23800        | 10MHz             | QPSK        | 1RB/50RB      |
| Peak to Average Ratio        | 23755 to 23825    | 23755, 23790, 23825 | 5MHz              | QPSK, 16QAM | 1RB           |
|                              | 23780 to 23800    | 23780, 23790, 23800 | 10MHz             | QPSK, 16QAM | 1RB           |
| Frequency Stability          | 23780 to 23800    | 23780, 23800        | 10MHz             | QPSK        | 50RB          |

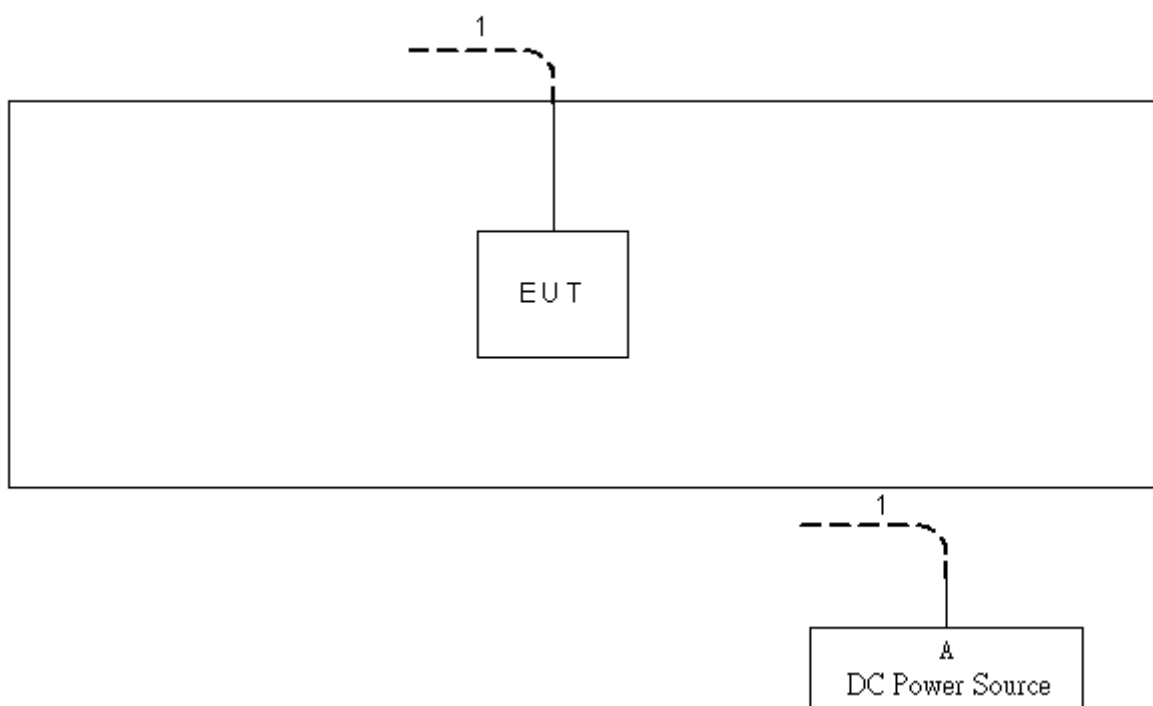
| LTE BAND 38 MODE             |                   |                     |                   |             |                |
|------------------------------|-------------------|---------------------|-------------------|-------------|----------------|
| Test Item                    | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode           |
| Output Power & EIRP          | 37775 to 38225    | 37775, 38000, 38225 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB  |
|                              | 37800 to 38200    | 37800, 38000, 38200 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB  |
|                              | 37825 to 38175    | 37825, 38000, 38175 | 15MHz             | QPSK, 16QAM | 1RB/36RB/75RB  |
|                              | 37850 to 38150    | 37850, 38000, 38150 | 20MHz             | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth           | 37775 to 38225    | 37775, 38000, 38225 | 5MHz              | QPSK, 16QAM | 25RB           |
|                              | 37800 to 38200    | 37800, 38000, 38200 | 10MHz             | QPSK, 16QAM | 50RB           |
|                              | 37825 to 38175    | 37825, 38000, 38175 | 15MHz             | QPSK, 16QAM | 75RB           |
|                              | 37850 to 38150    | 37850, 38000, 38150 | 20MHz             | QPSK, 16QAM | 100RB          |
| Conducted Spurious Emissions | 37850 to 38150    | 38000               | 5MHz              | QPSK        | 1RB            |
|                              | 37850 to 38150    | 38000               | 20MHz             | QPSK        | 1RB            |
| Radiated Spurious Emissions  | 37850 to 38150    | 38000               | 5MHz              | QPSK        | 1RB            |
|                              | 37850 to 38150    | 38000               | 20MHz             | QPSK        | 1RB            |
| Band Edge                    | 37775 to 38225    | 37775, 38225        | 5MHz              | QPSK        | 1RB/25RB       |
|                              | 37800 to 38200    | 37800, 38200        | 10MHz             | QPSK        | 1RB/50RB       |
|                              | 37825 to 38175    | 37825, 38175        | 15MHz             | QPSK        | 1RB/75RB       |
|                              | 37850 to 38150    | 37850, 38150        | 20MHz             | QPSK        | 1RB/100RB      |
| Peak to Average Ratio        | 37775 to 38225    | 37775, 38000, 38225 | 5MHz              | QPSK, 16QAM | 1RB            |
|                              | 37800 to 38200    | 37800, 38000, 38200 | 10MHz             | QPSK, 16QAM | 1RB            |
|                              | 37825 to 38175    | 37825, 38000, 38175 | 15MHz             | QPSK, 16QAM | 1RB            |
|                              | 37850 to 38150    | 37850, 38000, 38150 | 20MHz             | QPSK, 16QAM | 1RB            |
| Frequency Stability          | 37850 to 38150    | 37850, 38150        | 20MHz             | QPSK        | 100RB          |

| LTE BAND 41 MODE             |                   |                     |                   |             |                |
|------------------------------|-------------------|---------------------|-------------------|-------------|----------------|
| Test Item                    | Available Channel | Tested Channel      | Channel Bandwidth | Modulation  | Mode           |
| Output Power & EIRP          | 39675 to 41565    | 39675, 40620, 41565 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB  |
|                              | 39700 to 41540    | 39700, 40620, 41540 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB  |
|                              | 39725 to 41515    | 39725, 40620, 41515 | 15MHz             | QPSK, 16QAM | 1RB/36RB/75RB  |
|                              | 39750 to 41490    | 39750, 40620, 41490 | 20MHz             | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth           | 39675 to 41565    | 39675, 40620, 41565 | 5MHz              | QPSK, 16QAM | 25RB           |
|                              | 39700 to 41540    | 39700, 40620, 41540 | 10MHz             | QPSK, 16QAM | 50RB           |
|                              | 39725 to 41515    | 39725, 40620, 41515 | 15MHz             | QPSK, 16QAM | 75RB           |
|                              | 39750 to 41490    | 39750, 40620, 41490 | 20MHz             | QPSK, 16QAM | 100RB          |
| Conducted Spurious Emissions | 39675 to 41565    | 40620               | 5MHz              | QPSK        | 1RB            |
|                              | 39750 to 41490    | 40620               | 20MHz             | QPSK        | 1RB            |
| Radiated Spurious Emissions  | 39675 to 41565    | 40620               | 5MHz              | QPSK        | 1RB            |
|                              | 39750 to 41490    | 40620               | 20MHz             | QPSK        | 1RB            |
| Band Edge                    | 39675 to 41565    | 39675, 41565        | 5MHz              | QPSK        | 1RB/25RB       |
|                              | 39700 to 41540    | 39700, 41540        | 10MHz             | QPSK        | 1RB/50RB       |
|                              | 39725 to 41515    | 39725, 41515        | 15MHz             | QPSK        | 1RB/75RB       |
|                              | 39750 to 41490    | 39750, 41490        | 20MHz             | QPSK        | 1RB/100RB      |
| Peak to Average Ratio        | 39675 to 41565    | 39675, 40620, 41565 | 5MHz              | QPSK, 16QAM | 1RB            |
|                              | 39700 to 41540    | 39700, 40620, 41540 | 10MHz             | QPSK, 16QAM | 1RB            |
|                              | 39725 to 41515    | 39725, 40620, 41515 | 15MHz             | QPSK, 16QAM | 1RB            |
|                              | 39750 to 41490    | 39750, 40620, 41490 | 20MHz             | QPSK, 16QAM | 1RB            |
| Frequency Stability          | 39750 to 41490    | 39750, 41490        | 20MHz             | QPSK        | 100RB          |

| LTE BAND 66 MODE             |                   |                        |                   |             |                |
|------------------------------|-------------------|------------------------|-------------------|-------------|----------------|
| Test Item                    | Available Channel | Tested Channel         | Channel Bandwidth | Modulation  | Mode           |
| Output Power & EIRP          | 131979 to 132665  | 131979, 132322, 132665 | 1.4MHz            | QPSK, 16QAM | 1RB/3RB/6RB    |
|                              | 131987 to 132657  | 131987, 132322, 132657 | 3MHz              | QPSK, 16QAM | 1RB/8RB/15RB   |
|                              | 131997 to 132647  | 131997, 132322, 132647 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB  |
|                              | 132022 to 132622  | 132022, 132322, 132622 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB  |
|                              | 132047 to 132597  | 132047, 132322, 132597 | 15MHz             | QPSK, 16QAM | 1RB/36RB/75RB  |
|                              | 132072 to 132572  | 132072, 132322, 132572 | 20MHz             | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth           | 131979 to 132665  | 131979, 132322, 132665 | 1.4MHz            | QPSK, 16QAM | 6RB            |
|                              | 131987 to 132657  | 131987, 132322, 132657 | 3MHz              | QPSK, 16QAM | 15RB           |
|                              | 131997 to 132647  | 131997, 132322, 132647 | 5MHz              | QPSK, 16QAM | 25RB           |
|                              | 132022 to 132622  | 132022, 132322, 132622 | 10MHz             | QPSK, 16QAM | 50RB           |
|                              | 132047 to 132597  | 132047, 132322, 132597 | 15MHz             | QPSK, 16QAM | 75 RB          |
|                              | 132072 to 132572  | 132072, 132322, 132572 | 20MHz             | QPSK, 16QAM | 100RB          |
| Conducted Spurious Emissions | 131979 to 132665  | 132322                 | 1.4MHz            | QPSK        | 1RB            |
|                              | 131997 to 132647  | 132322                 | 5MHz              | QPSK        | 1RB            |
|                              | 132072 to 132572  | 132322                 | 20MHz             | QPSK        | 1RB            |
| Radiated Spurious Emissions  | 131979 to 132665  | 132322                 | 1.4MHz            | QPSK        | 1RB            |
|                              | 131997 to 132647  | 132322                 | 5MHz              | QPSK        | 1RB            |
|                              | 132072 to 132572  | 132322                 | 20MHz             | QPSK        | 1RB            |
| Band Edge                    | 131979 to 132665  | 131979, 132665         | 1.4MHz            | QPSK        | 1RB/6RB        |
|                              | 131987 to 132657  | 131987, 132657         | 3MHz              | QPSK        | 1RB/15RB       |
|                              | 131997 to 132647  | 131997, 132647         | 5MHz              | QPSK        | 1RB/25RB       |
|                              | 132022 to 132622  | 132022, 132622         | 10MHz             | QPSK        | 1RB/50RB       |
|                              | 132047 to 132597  | 132047, 132597         | 15MHz             | QPSK        | 1RB/75RB       |
|                              | 132072 to 132572  | 132072, 132572         | 20MHz             | QPSK        | 1RB/100RB      |
| Peak to Average Ratio        | 131979 to 132665  | 131979, 132322, 132665 | 1.4MHz            | QPSK, 16QAM | 1RB/3RB/6RB    |
|                              | 131987 to 132657  | 131987, 132322, 132657 | 3MHz              | QPSK, 16QAM | 1RB/8RB/15RB   |
|                              | 131997 to 132647  | 131997, 132322, 132647 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB  |
|                              | 132022 to 132622  | 132022, 132322, 132622 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB  |
|                              | 132047 to 132597  | 132047, 132322, 132597 | 15MHz             | QPSK, 16QAM | 1RB/36RB/75RB  |
|                              | 132072 to 132572  | 132072, 132322, 132572 | 20MHz             | QPSK, 16QAM | 1RB/50RB/100RB |
| Frequency Stability          | 132072 to 132572  | 132072, 132572         | 20MHz             | QPSK        | 100RB          |

| LTE BAND 71 MODE             |                   |                        |                   |             |                |
|------------------------------|-------------------|------------------------|-------------------|-------------|----------------|
| Test Item                    | Available Channel | Tested Channel         | Channel Bandwidth | Modulation  | Mode           |
| Output Power & ERP           | 133147 to 133447  | 133147, 133297, 133447 | 5MHz              | QPSK, 16QAM | 1RB/12RB/25RB  |
|                              | 133172 to 133422  | 133172, 133297, 133422 | 10MHz             | QPSK, 16QAM | 1RB/25RB/50RB  |
|                              | 133197 to 133397  | 133197, 133297, 133397 | 15MHz             | QPSK, 16QAM | 1RB/36RB/75RB  |
|                              | 133222 to 133372  | 133222, 133322, 133372 | 20MHz             | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth           | 133147 to 133447  | 133147, 133297, 133447 | 5MHz              | QPSK, 16QAM | 25RB           |
|                              | 133172 to 133422  | 133172, 133297, 133422 | 10MHz             | QPSK, 16QAM | 50RB           |
|                              | 133197 to 133397  | 133197, 133297, 133397 | 15MHz             | QPSK, 16QAM | 75RB           |
|                              | 133222 to 133372  | 133222, 133322, 133372 | 20MHz             | QPSK, 16QAM | 100RB          |
| Conducted Spurious Emissions | 133147 to 133447  | 133297                 | 5MHz              | QPSK        | 1RB            |
|                              | 133172 to 133422  | 133297                 | 20MHz             | QPSK        | 1RB            |
| Radiated Spurious Emissions  | 133197 to 133397  | 133297                 | 5MHz              | QPSK        | 1RB            |
|                              | 133222 to 133372  | 133322                 | 20MHz             | QPSK        | 1RB            |
| Band Edge                    | 133147 to 133447  | 133147, 133447         | 5MHz              | QPSK        | 1RB/25RB       |
|                              | 133172 to 133422  | 133172, 133422         | 10MHz             | QPSK        | 1RB/50RB       |
|                              | 133197 to 133397  | 133197, 133397         | 15MHz             | QPSK        | 1RB/75RB       |
|                              | 133222 to 133372  | 133222, 133372         | 20MHz             | QPSK        | 1RB/100RB      |
| Peak to Average Ratio        | 133147 to 133447  | 133147, 133297, 133447 | 5MHz              | QPSK, 16QAM | 1RB            |
|                              | 133172 to 133422  | 133172, 133297, 133422 | 10MHz             | QPSK, 16QAM | 1RB            |
|                              | 133197 to 133397  | 133197, 133297, 133397 | 15MHz             | QPSK, 16QAM | 1RB            |
|                              | 133222 to 133372  | 133222, 133322, 133372 | 20MHz             | QPSK, 16QAM | 1RB            |
| Frequency Stability          | 133222 to 133372  | 133222, 133372         | 20MHz             | QPSK        | 100RB          |

### 3.3 BLOCK DIGRAM SHOWING THECONFIGURATIONOFSYSTEMTESTED



### 2.4 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.

| Item | Equipment       | Mfr/Brand  | Model/Type No. | Series No. |
|------|-----------------|------------|----------------|------------|
| A    | DC Power Source | TRUE-POWER | GPC30300N      | N/A        |

| Item | Cable Type | Shielded Type | Ferrite Core | Length |
|------|------------|---------------|--------------|--------|
| 1    | DC Cable   | NO            | NO           | 10m    |

## **4. TEST RESULT**

### **4.1 OUTPUT POWER MEASUREMENT**

#### **4.1.1 LIMIT**

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.

Mobile stations of BRS/EBS are operating in the 2496–2690 MHz band limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

Control stations and mobile stations transmitting in the 746–757 MHz, 776–788 MHz, and 805–806 MHz bands and fixed stations transmitting in the 787–788 MHz and 805–806 MHz bands are limited to 30 watts ERP.

Portable stations (hand-held devices) transmitting in the 746–757 MHz, 776–788 MHz, and 805–806 MHz bands are limited to 3 watts ERP.

Control and mobile stations in the 698–746 MHz band are limited to 30 watts ERP.

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698–746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

For mobile and portable stations transmitting in the 2305–2315 MHz band or the 2350–2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305–2315 MHz and 2350–2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305–2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

#### **4.1.2 TEST PROCEDURE**

The testing follows FCC KDB 971168 v03r01 Section 5 or ANSI C63.26-2015 Section 5.2.

##### **EIRP:**

$$\text{EIRP} = \text{Output Power} + \text{Antenan gain}$$

##### **ERP:**

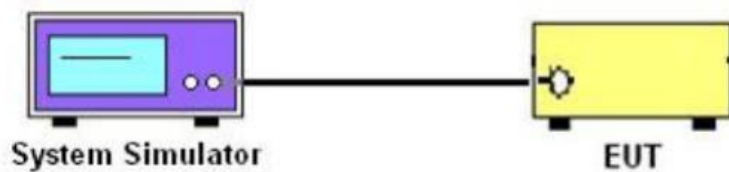
$$\text{ERP} = \text{EIRP} - 2.15$$

##### **Output Power:**

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

#### 4.1.3 TEST SETUP LAYOUT

Output Power Measurement



#### 4.1.4 TEST DEVIATION

No deviation.

#### 4.1.5 TEST RESULTS

Please refer to the APPENDIX A.

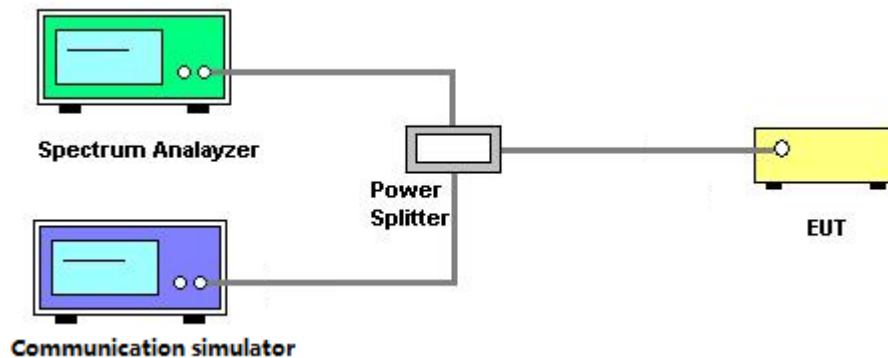
## 4.2 OCCUPIED BANDWIDTH MEASUREMENT

### 4.2.1 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 4 or ANSI C63.26-2015 Section 5.4.

1. The EUT makes a call to the communication simulator. 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. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3.  $RBW = (1\% \sim 5\%) \cdot EBW$   
 $VBW \geq 3 \cdot RBW$
4. Set spectrum analyzer with Peak detector.

### 4.2.2 TEST SETUP LAYOUT



### 4.2.3 TEST DEVIATION

No deviation.

### 4.2.4 TEST RESULTS

Please refer to the APPENDIX B.

### 4.3 CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

#### 4.3.1 LIMIT

For operations in the 600MHz band and 698 -746 MHz band, 776-788 MHz band, 1710-1755 MHz band: 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 -13dBm.

For operations in the 2496 -2690 MHz band:

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  $55 + 10 \log(P)$  dB. The emission limit equal to -25dBm.

For operations in the 2305-2315 MHz and 2350-2360 MHz bands:

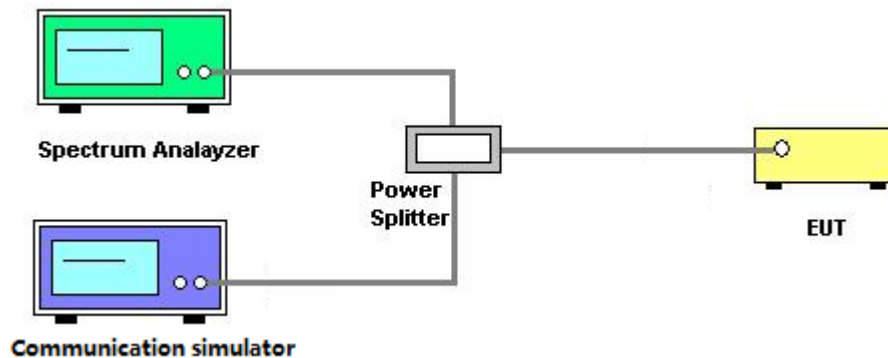
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $70 + 10 \log(P)$  dB. The emission limit equal to -40dBm.

#### 4.3.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6 or ANSI C63.26-2015 Section 5.7.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW>=1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with Peak or RMS detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

#### 4.3.3 TEST SETUP LAYOUT



#### 4.3.4 TEST DEVIATION

No deviation.

#### 4.3.5 TEST RESULTS

Please refer to the APPENDIX C.

#### 4.4 RADIATED SPURIOUS EMISSIONS MEASUREMENT

##### 4.4.1 LIMIT

For band 4,12,13,17,71,66,85, 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 -13dBm.

For Band 13, the 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 (-40dBm/MHz) equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW (-50dBm) EIRP for discrete emissions of less than 700 Hz bandwidth.

For Band 7, 38,41, 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  $55 + 10 \log(P)$  dB. The emission limit equal to -25dBm.

For Band 30,40, 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  $70 + 10 \log(P)$  dB. The emission limit equal to -40dBm.

$E \text{ (dB}\mu\text{V/m)} = \text{EIRP (dBm)} - 20 \log D + 104.8$ ; where D is the measurement distance in meters. The emission limit equal to 82.26dB $\mu$ V/m or 70.26dB $\mu$ V/m or 55.26dB $\mu$ V/m.

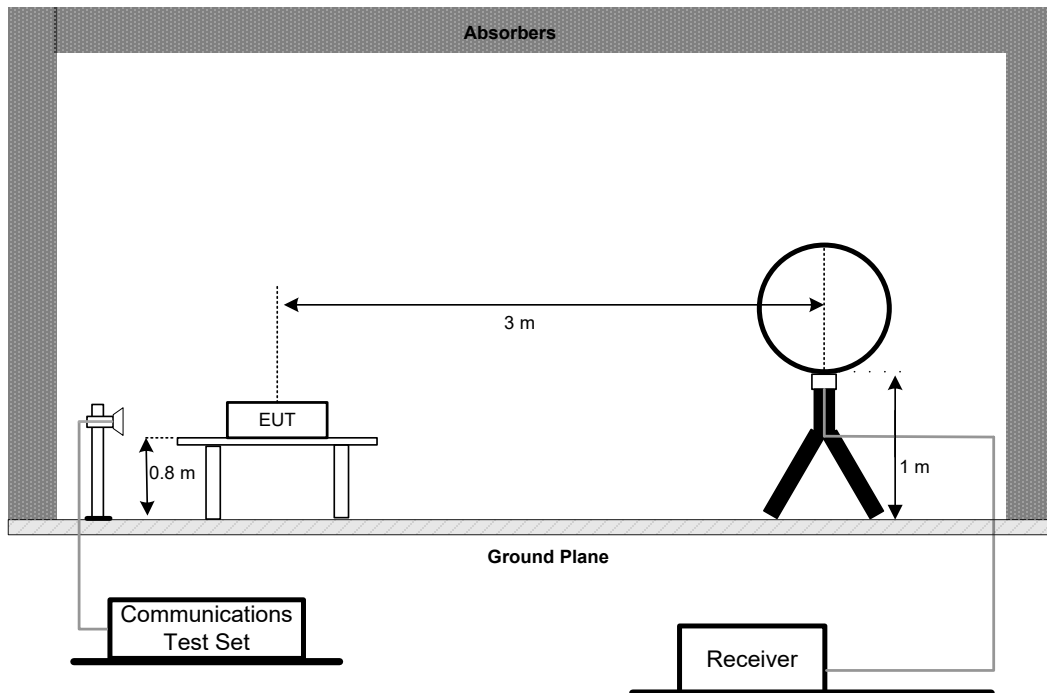
##### 4.4.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.2 or ANSI C63.26-2015 Section 5.5.

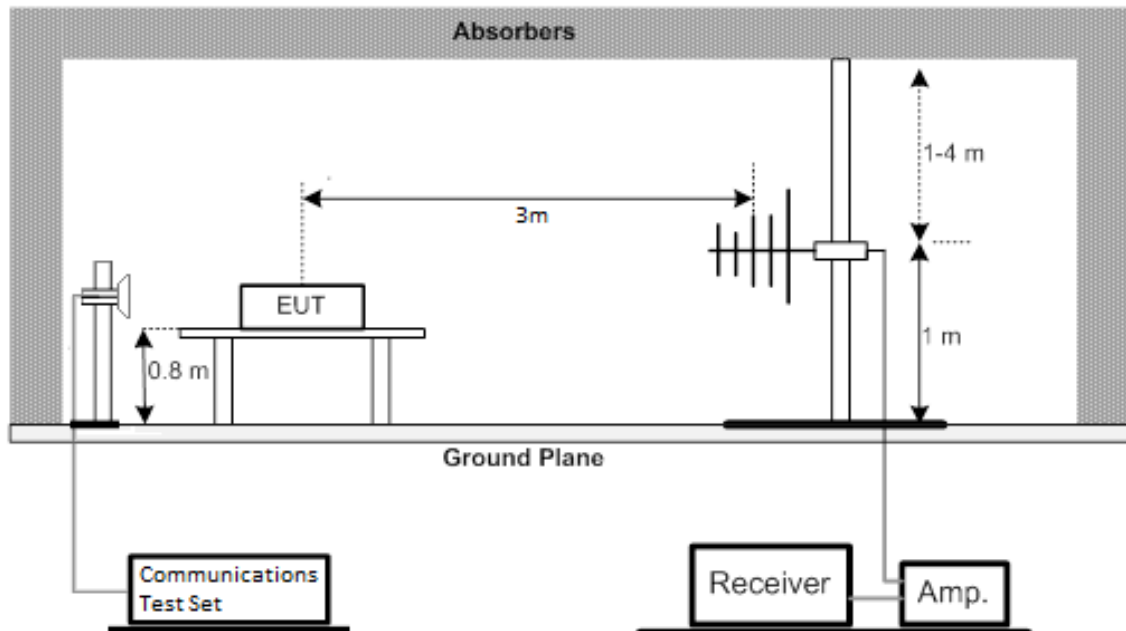
1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
4. Start the test, rotate the table 360° to find the worst Angle, maintain the worst Angle, raise the antenna to 1-4m to find the worst height, maintain the worst height, then rotate the table to determine the final worst Angle, grab the spectrum diagram.
5. EUT shall be placed in accordance with X,Y,Z as required by Figure 5 in ANSI C63.26. Repeat Step 5 above to find the worst placement. Test all bands according to the worst placement.
6. Then EIRP is then converted to field strength as follows in Equation
7.  $E \text{ (dB}\mu\text{V/m)} = \text{EIRP (dBm)} - 20 \log(D) + 104.8$ ; where D is the measurement distance (in the far field region) in m. The emission limit equal to 82.26dB $\mu$ V/m or 70.26dB $\mu$ V/m or 55.26dB $\mu$ V/m.

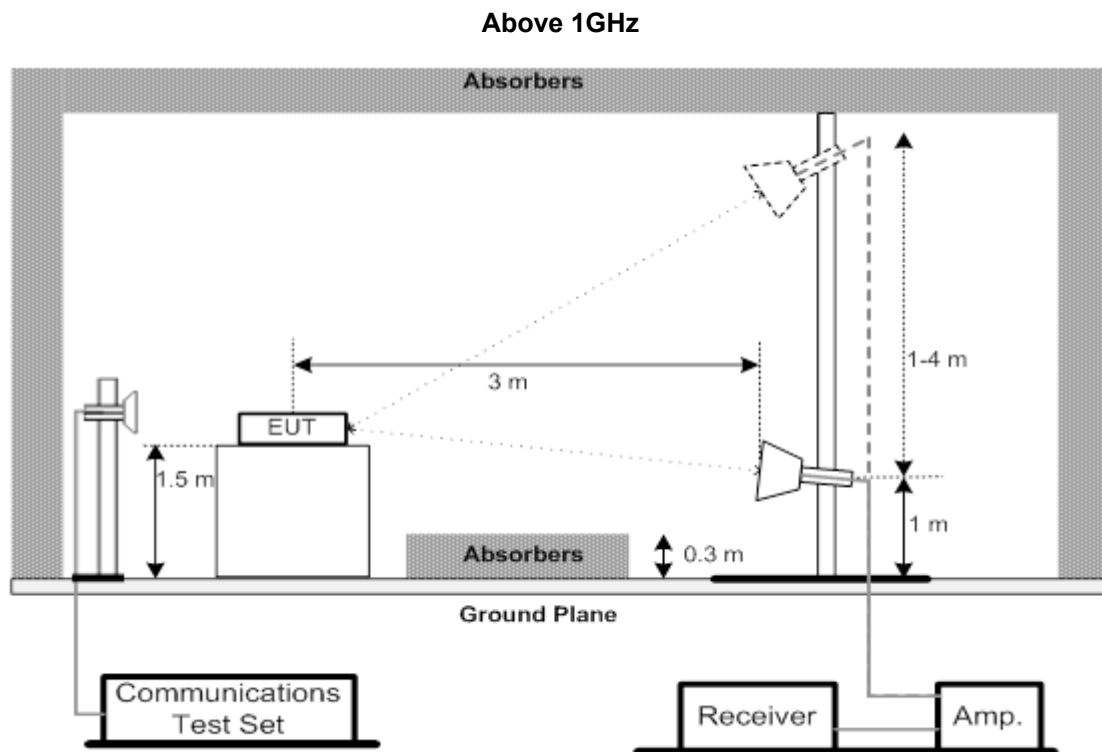
## 4.4.3 TEST SETUP LAYOUT

### Below 30MHz



### 30MHz to 1GHz





#### 4.4.4 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the APPENDIX D.

#### 4.4.5 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the APPENDIX E.

#### 4.4.6 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the APPENDIX F.

## 4.5 BAND EDGE MEASUREMENT

### 4.5.1 LIMIT

For operations in the 776-788 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power  $P(\text{Watts})$  in a 100 kHz bandwidth. 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. In addition, the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power,  $P$  (dBW), by at least  $65 + 10 \log_{10} p(\text{watts})$ , dB, for mobile and portable equipment.

For operations in the 600MHz band and 698 -746 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power  $P(\text{Watts})$  in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

For operations in the 1710 – 1755 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power  $P(\text{Watts})$  in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:

(i) By a factor of

not less than:  $43 + 10 \log (P)$  dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation,

not less than  $55 + 10 \log (P)$  dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz,

not less than  $61 + 10 \log (P)$  dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz,

and not less than  $67 + 10 \log (P)$  dB on all frequencies between 2328 and 2337 MHz;

(ii) By a factor of

not less than  $43 + 10 \log (P)$  dB on all frequencies between 2300 and 2305 MHz,

$55 + 10 \log (P)$  dB on all frequencies between 2296 and 2300 MHz,

$61 + 10 \log (P)$  dB on all frequencies between 2292 and 2296 MHz,

$67 + 10 \log (P)$  dB on all frequencies between 2288 and 2292 MHz, and  $70 + 10 \log (P)$  dB below 2288 MHz;

(iii) By a factor of not less than  $43 + 10 \log (P)$  dB on all frequencies between 2360 and 2365 MHz,

and not less than  $70 + 10 \log (P)$  dB above 2365 MHz.

For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:

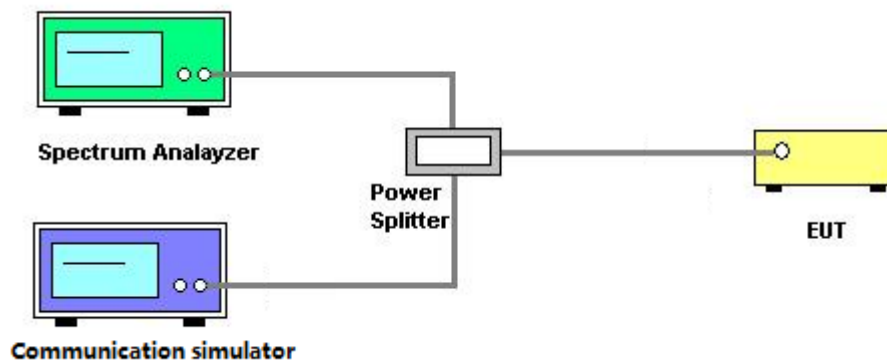
- (i) By a factor of not less than:  $43 + 10 \log (P)$  dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than  $55 + 10 \log (P)$  dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than  $61 + 10 \log (P)$  dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than  $67 + 10 \log (P)$  dB on all frequencies between 2328 and 2337 MHz;
- (ii) By a factor of not less than  $43 + 10 \log (P)$  dB on all frequencies between 2300 and 2305 MHz,  $55 + 10 \log (P)$  dB on all frequencies between 2296 and 2300 MHz,  $61 + 10 \log (P)$  dB on all frequencies between 2292 and 2296 MHz,  $67 + 10 \log (P)$  dB on all frequencies between 2288 and 2292 MHz, and  $70 + 10 \log (P)$  dB below 2288 MHz;
- (iii) By a factor of not less than  $43 + 10 \log (P)$  dB on all frequencies between 2360 and 2365 MHz, and not less than  $70 + 10 \log (P)$  dB above 2365 MHz.

## 4.5.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6 or ANSI C63.26-2015 Section 5.7.

1. All measurements were done at low and high operational frequency range.
2. Record the max trace plot into the test report.

## 4.5.3 TEST SETUP LAYOUT



## 4.5.4 TEST DEVIATION

No deviation.

## 4.5.5 TEST RESULTS

Please refer to the APPENDIX G.

## 4.6 PEAK TO AVERAGE RATIO MEASUREMENT

### 4.6.1 LIMIT

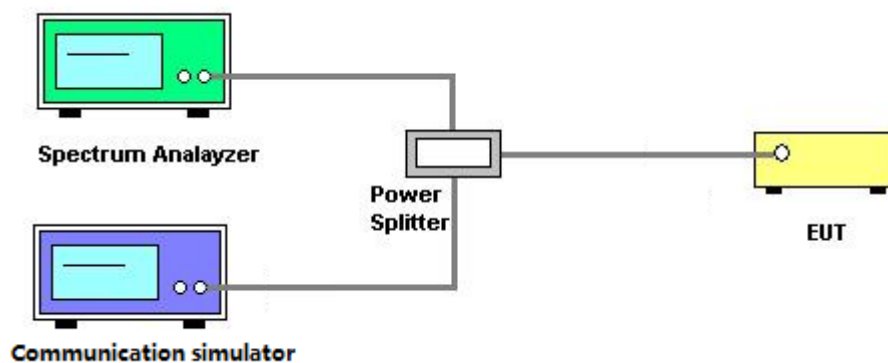
In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

### 4.6.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 5.7 or ANSI C63.26-2015 Section 5.2.6.

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

### 4.6.3 TEST SETUP LAYOUT



### 4.6.4 TEST DEVIATION

No deviation.

### 4.6.5 TEST RESULTS

Please refer to the APPENDIX H.

## 4.7 FREQUENCY STABILITY MEASUREMENT

### 4.7.1 LIMIT

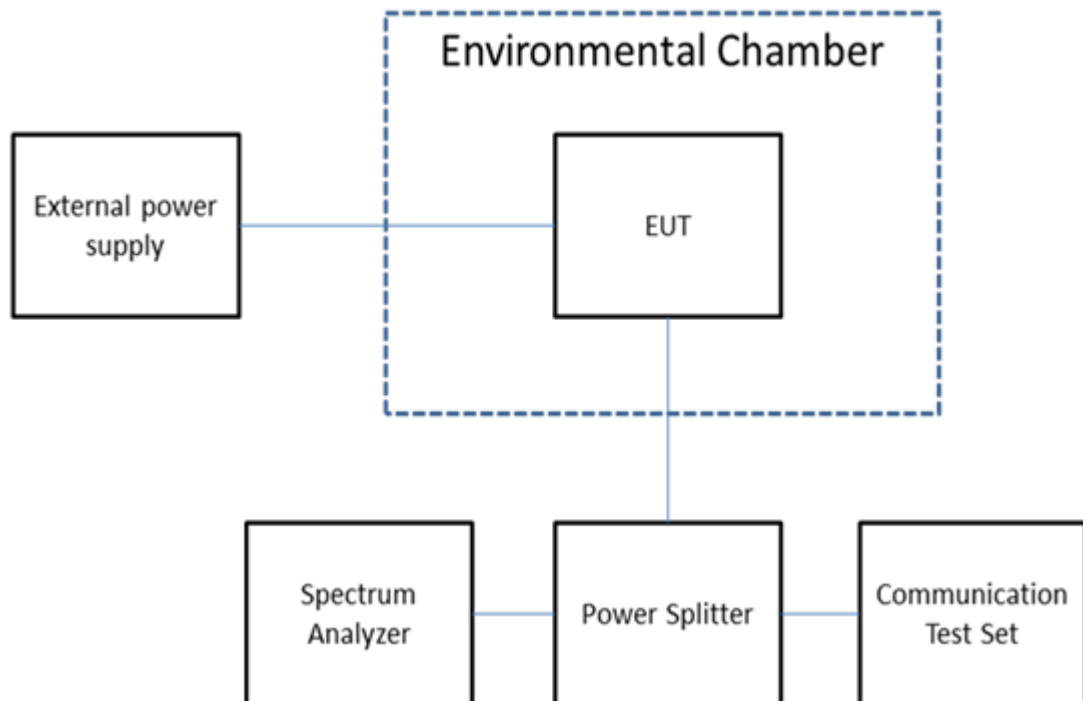
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

### 4.7.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 9 or ANSI C63.26-2015 Section 5.6.

1. A reference point shall be established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as  $f_L$  and  $f_H$  respectively. The worst-case frequency offset determined in the above methods shall be added or subtracted from the values of  $f_L$  and  $f_H$  and the resulting frequencies must remain within the band.
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to  $-30^{\circ}\text{C}$  and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in  $10^{\circ}\text{C}$  step up to  $50^{\circ}\text{C}$ . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

### 4.7.3 TEST SETUP LAYOUT



### 4.7.4 TEST DEVIATION

No deviation.

### 4.7.5 TEST RESULTS

Please refer to the APPENDIX I.

#### 4. LIST OF MEASUREMENT EQUIPMENTS

| Radiated Emissions - 9 kHz to 30 MHz |                      |              |                           |            |                  |
|--------------------------------------|----------------------|--------------|---------------------------|------------|------------------|
| Item                                 | Kind of Equipment    | Manufacturer | Type No.                  | Serial No. | Calibrated until |
| 1                                    | Active Loop Antenna  | Schwarzbeck  | FMZB 1513-60              | 25         | Mar. 30, 2025    |
| 2                                    | MXE EMI Receiver     | Keysight     | N9038A                    | MY56400091 | Dec. 22, 2024    |
| 3                                    | Cable                | N/A          | RW2350-3.8A-N<br>MBM-1.5M | N/A        | Jun. 10, 2024    |
| 4                                    | Measurement Software | Farad        | EZ-EMC<br>Ver.NB-03A1-01  | N/A        | N/A              |
| 5                                    | 966 Chamber room     | ETS          | 9*6*6                     | N/A        | Jul. 11, 2024    |

| Radiated Emissions - 30 MHz to 1 GHz |                          |                   |                          |            |                  |
|--------------------------------------|--------------------------|-------------------|--------------------------|------------|------------------|
| Item                                 | Kind of Equipment        | Manufacturer      | Type No.                 | Serial No. | Calibrated until |
| 1                                    | Trilog-Broadband Antenna | Schwarzbeck       | VULB9168                 | 01269      | May 15, 2024     |
| 2                                    | Attenuator               | EMCI              | EMCI-N-6-06              | AN-N0697   | May 15, 2024     |
| 3                                    | MXE EMI Receiver         | Keysight          | N9038A                   | MY59050118 | Sep. 26, 2024    |
| 4                                    | Preamplifier             | EMC<br>INSTRUMENT | EMC001330                | 980825     | Jan. 19, 2025    |
| 5                                    | Cable                    | EMC<br>INSTRUMENT | EMCCFD400-N<br>M-NM-2500 | N/A        | Jun. 08, 2024    |
| 6                                    | Cable                    | EMC<br>INSTRUMENT | EMCCFD400-N<br>M-NM-7000 | N/A        | Jun. 08, 2024    |
| 7                                    | Cable                    | EMC<br>INSTRUMENT | EMCCFD400-N<br>M-NM-3000 | N/A        | Jun. 08, 2024    |
| 8                                    | Measurement Software     | Farad             | EZ-EMC<br>Ver.NB-03A1-01 | N/A        | N/A              |
| 9                                    | 966 Chamber room         | Tai He            | 9*6*6<br>(NSA&VSWR)      | N/A        | Jun. 07, 2024    |

| Radiated Emissions - Above 1 GHz |                                            |                   |                           |            |                  |
|----------------------------------|--------------------------------------------|-------------------|---------------------------|------------|------------------|
| Item                             | Kind of Equipment                          | Manufacturer      | Type No.                  | Serial No. | Calibrated until |
| 1                                | MXE EMI Receiver                           | Keysight          | N9038A                    | MY59050118 | Sep. 26, 2024    |
| 2                                | Measurement Software                       | Farad             | EZ-EMC<br>Ver.NB-03A1-01  | N/A        | N/A              |
| 3                                | Preamplifier                               | EMC<br>INSTRUMENT | EMC118A45SE               | 980739     | Jan. 19, 2025    |
| 4                                | Cable                                      | EMC<br>INSTRUMENT | EMC104-SM-SM-1<br>0000    | N/A        | Jun. 08, 2024    |
| 5                                | Cable                                      | EMC<br>INSTRUMENT | EMC104-SM-SM-3<br>000     | N/A        | Jun. 08, 2024    |
| 6                                | Cable                                      | EMC<br>INSTRUMENT | EMC104-SM-SM-8<br>00      | N/A        | Jun. 08, 2024    |
| 7                                | Double Ridged<br>Broadband Horn<br>Antenna | RF SPIN           | DRH18-E                   | 210106A18E | Jul. 04, 2024    |
| 8                                | Preamplifier                               | EMC<br>INSTRUMENT | EMC184045SE               | 980793     | Jan. 19, 2025    |
| 9                                | Cable                                      | EMC<br>INSTRUMENT | EMC101G-KM-KM-<br>800     | N/A        | Aug. 13, 2024    |
| 10                               | Cable                                      | EMC<br>INSTRUMENT | EMC101G-KM-KM-<br>6000    | N/A        | Aug. 13, 2024    |
| 11                               | Broad-Band Horn<br>Antenna                 | Schwarzbeck       | BBHA9170                  | 01046      | Jul. 05, 2024    |
| 12                               | Band Reject Filter                         | COM-MW            | ZHPF6-C3000-180<br>00-174 | 7213126    | Jul. 07, 2024    |
| 13                               | Band Reject Filter                         | COM-MW            | ZHPF6-M6500-180<br>00-547 | 7213124    | Jul. 07, 2024    |
| 14                               | Attenuator                                 | Talent Microwave  | ATT-18G2W-10              | N/A        | N/A              |
| 15                               | 966 Chamber room                           | Tai He            | 9*6*6<br>(NSA&VSWR)       | N/A        | Jun. 07, 2024    |

| Radiated Emissions - Above 1 GHz (Test Date: Sep. 29, 2024) |                                           |                   |                          |            |                  |
|-------------------------------------------------------------|-------------------------------------------|-------------------|--------------------------|------------|------------------|
| Item                                                        | Kind of Equipment                         | Manufacturer      | Type No.                 | Serial No. | Calibrated until |
| 1                                                           | Cable                                     | EMC<br>INSTRUMENT | EMC104-35M-35M-<br>4000  | 230607     | Aug. 13, 2025    |
| 2                                                           | Cable                                     | EMC<br>INSTRUMENT | EMC104-35M-35M-<br>1000  | 230608     | Aug. 13, 2025    |
| 3                                                           | MXE EMI Receiver                          | Keysight          | N9038A                   | MY59050118 | Jun. 28, 2025    |
| 4                                                           | Preamplifier                              | EMC<br>INSTRUMENT | EMC184045SE              | 980793     | Jan. 19, 2025    |
| 5                                                           | Broad-Band Horn<br>Antenna                | Schwarzbeck       | BBHA9170                 | 01046      | Jul. 22, 2025    |
| 6                                                           | Measurement<br>Software                   | Farad             | EZ-EMC<br>Ver.NB-03A1-01 | N/A        | N/A              |
| 7                                                           | Wideband Radio<br>Communication<br>Tester | R&S               | CWM 500                  | 104462     | Jun. 28, 2025    |

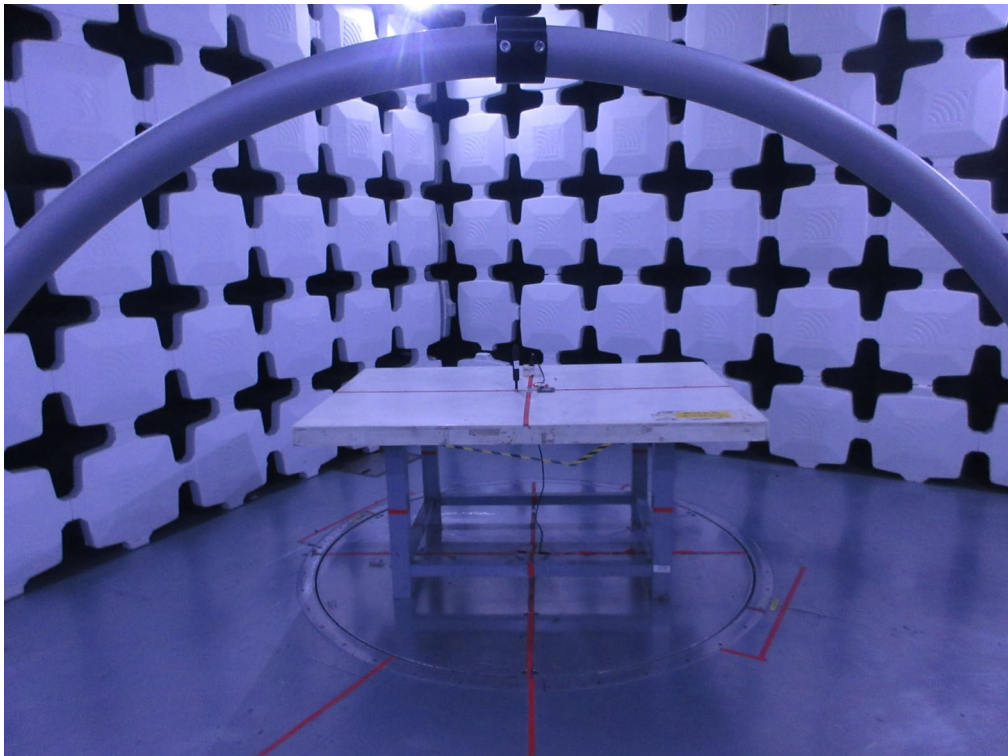
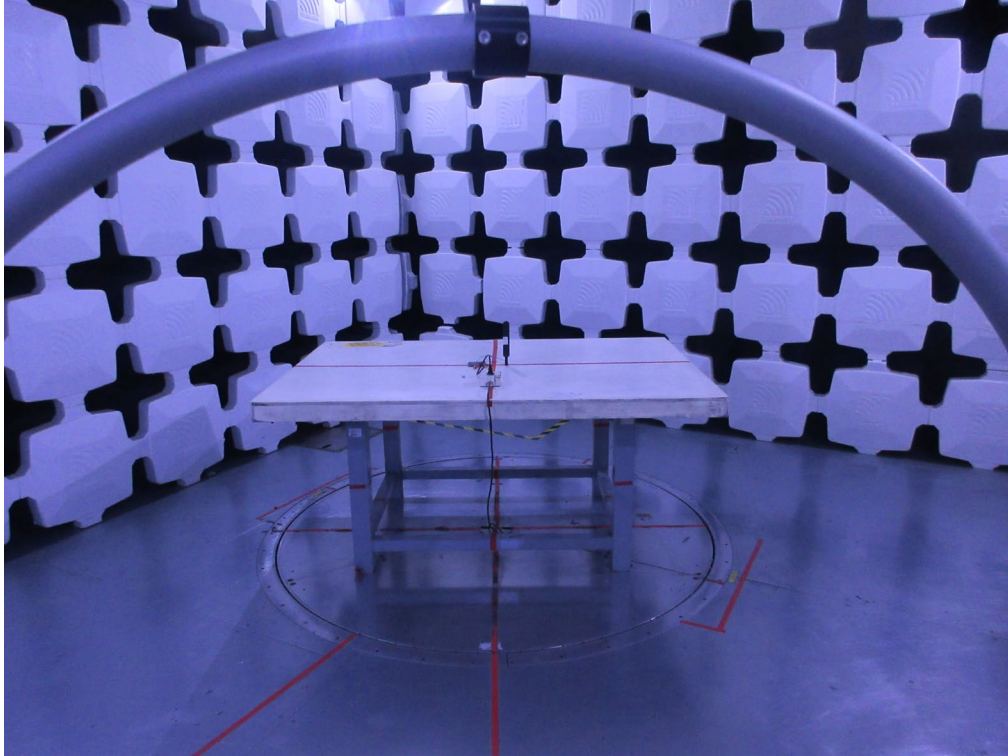
| Conducted Measurement |                                     |                      |          |                        |                  |
|-----------------------|-------------------------------------|----------------------|----------|------------------------|------------------|
| Item                  | Kind of Equipment                   | Manufacturer         | Type No. | Serial No.             | Calibrated until |
| 1                     | Wideband Radio Communication Tester | R&S                  | CWM 500  | 131463                 | Jan. 19, 2025    |
| 2                     | Signal Analyzer                     | R&S                  | FSV 40   | 100948                 | Jul. 07, 2024    |
| 3                     | Temperature Chamber                 | ESPEC                | SU-242   | 93018786               | Jul. 07, 2024    |
| 4                     | MXA Signal Analyzer                 | Agilent Technologies | N9020A   | MY49100060             | Jul. 07, 2024    |
| 5                     | DC Source meter                     | Iteck                | IT6154   | 00610412676820100<br>1 | Jul. 08, 2024    |

Remark: "N/A" denotes no model name, serial no. or calibration specified.  
All calibration period of equipment list is one year.

## 5. EUT TEST PHOTO

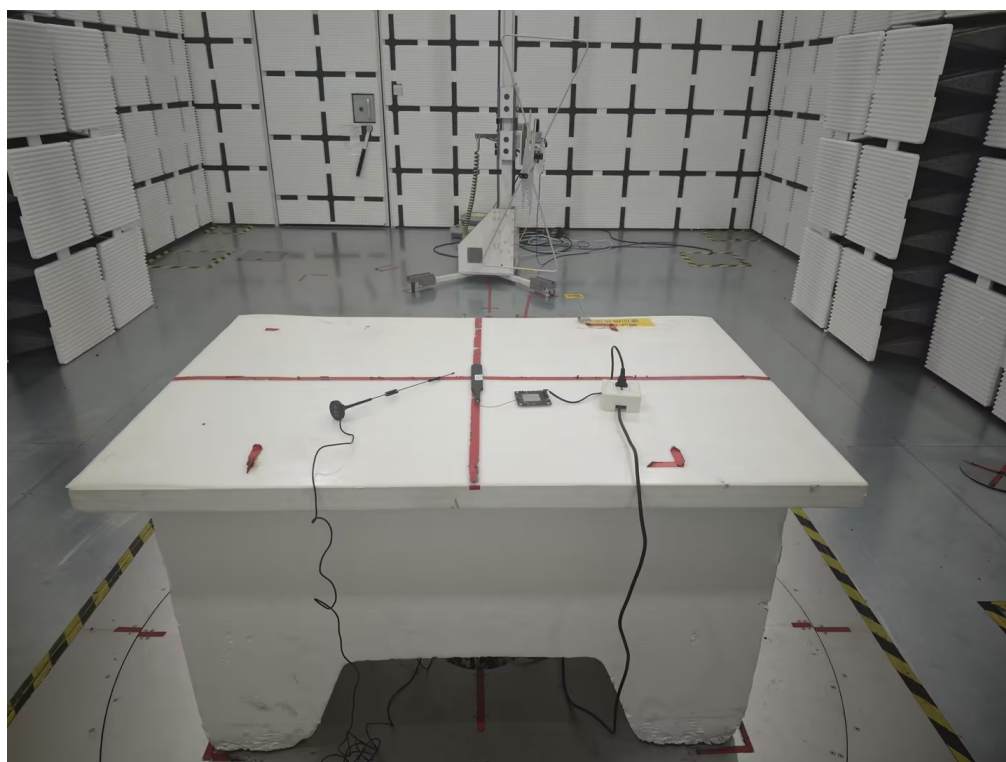
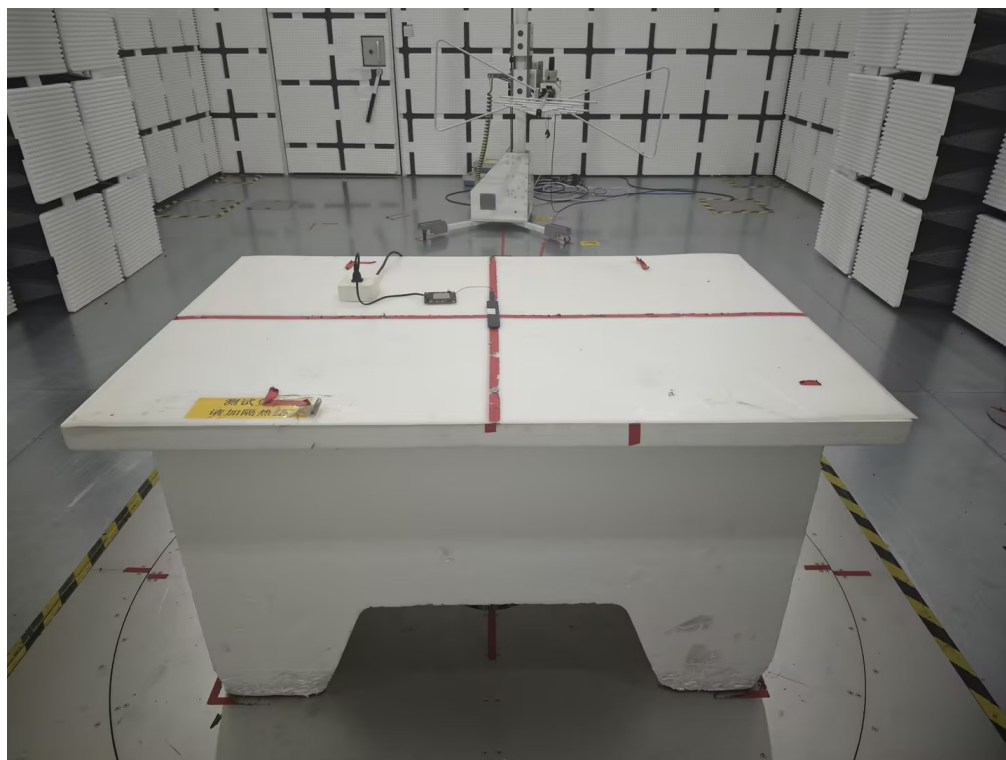
### Radiated Emissions Test Photos

9 kHz to 30 MHz



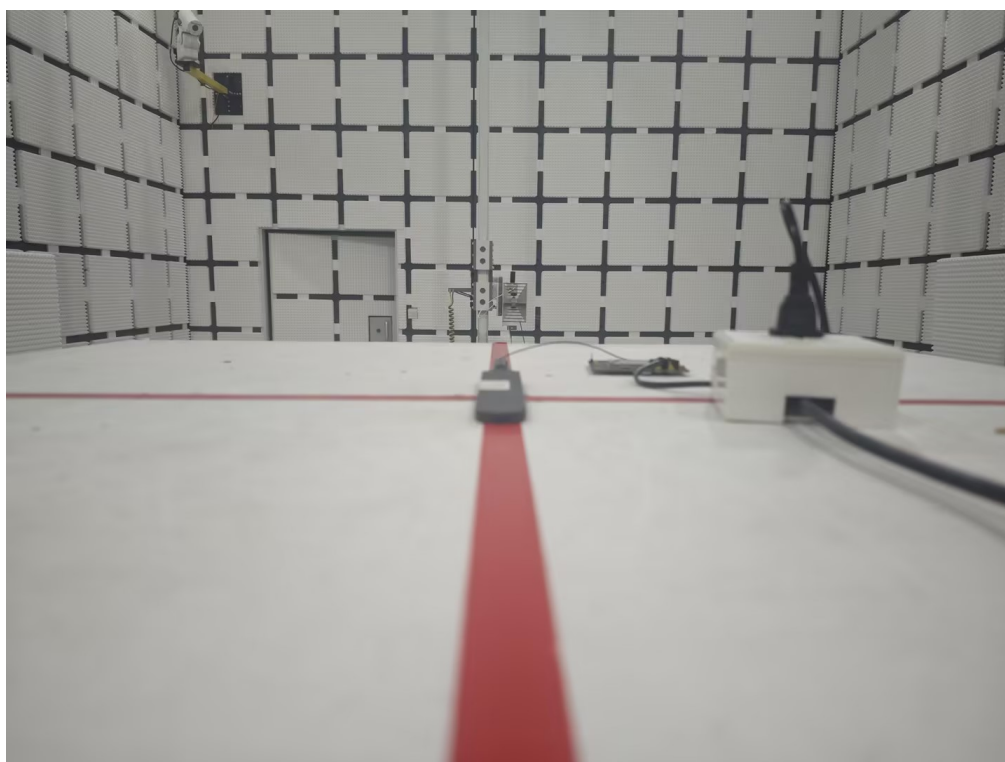
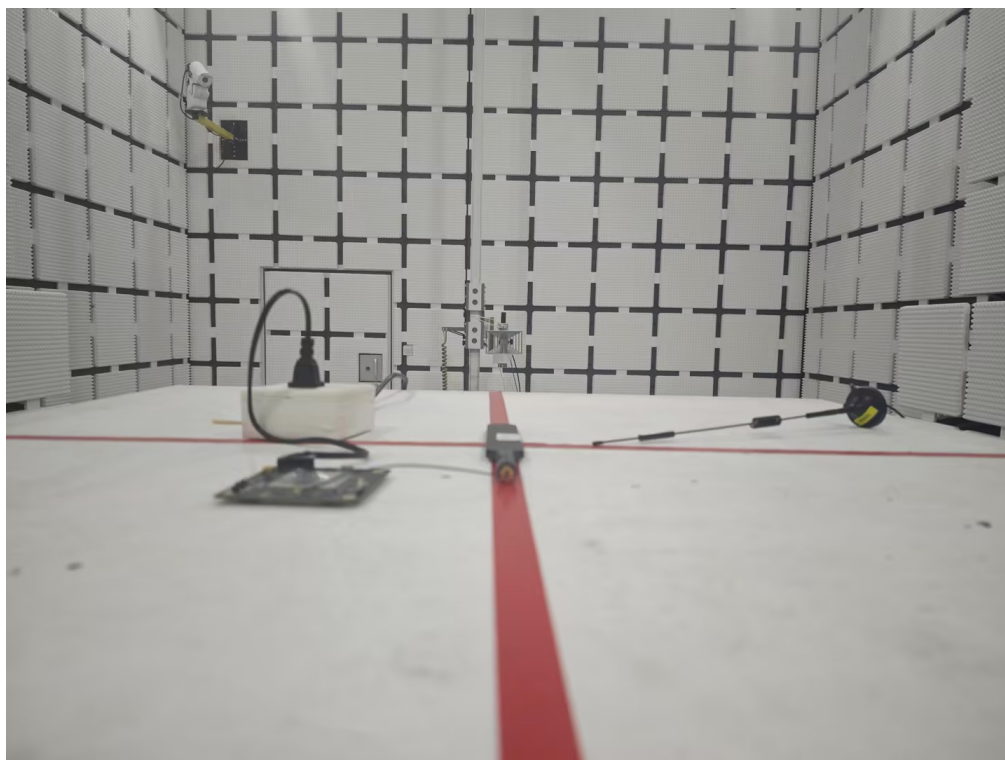
# Radiated Emissions Test Photos

30 MHz to 1 GHz



## Radiated Emissions Test Photos

### Above 1 GHz



## APPENDIX A - OUTPUT POWER

### Output Power(dBm)

| Modulation | Band            | WCDMA Band IV |           |           |
|------------|-----------------|---------------|-----------|-----------|
|            | Tx Channel      | 1312CH        | 1413CH    | 1513CH    |
|            | Frequency       | 1712.4MHz     | 1732.6MHz | 1752.6MHz |
| QPSK       | RMC 12.2K       | 23.19         | 23.77     | 23.89     |
|            | RMC 64K         | 23.1          | 23.67     | 23.81     |
|            | RMC 144K        | 23.05         | 23.62     | 23.76     |
|            | RMC 384K        | 23.04         | 23.63     | 23.77     |
|            | HSDPA Subtest-1 | 21.82         | 22.28     | 22.35     |
|            | HSDPA Subtest-2 | 21.81         | 22.32     | 22.4      |
|            | HSDPA Subtest-3 | 21.28         | 21.83     | 21.9      |
|            | HSDPA Subtest-4 | 21.27         | 21.82     | 21.89     |
|            | HSUPA Subtest-1 | 21.67         | 22.3      | 22.45     |
|            | HSUPA Subtest-2 | 19.52         | 20.24     | 20.36     |
|            | HSUPA Subtest-3 | 20.6          | 21.29     | 21.42     |
|            | HSUPA Subtest-4 | 19.49         | 20.21     | 20.32     |
|            | HSUPA Subtest-5 | 21.75         | 22.44     | 22.55     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 19957CH   | 20175CH   | 20393CH   |
|               |            |         |           | 1710.7MHz | 1732.5MHz | 1754.3MHz |
| 4 / 1.4MHz    | QPSK       | 1       | 0         | 23.31     | 23.34     | 23.46     |
|               |            | 1       | 2         | 23.37     | 23.32     | 23.53     |
|               |            | 1       | 5         | 23.25     | 23.39     | 23.38     |
|               |            | 3       | 0         | 23.32     | 23.22     | 23.36     |
|               |            | 3       | 1         | 23.37     | 23.27     | 23.46     |
|               |            | 3       | 2         | 23.21     | 23.33     | 23.41     |
|               |            | 6       | 0         | 22.21     | 22.32     | 22.39     |
|               | 16QAM      | 1       | 0         | 22.69     | 22.29     | 22.50     |
|               |            | 1       | 2         | 22.75     | 22.23     | 22.54     |
|               |            | 1       | 5         | 22.63     | 22.38     | 22.48     |
|               |            | 3       | 0         | 22.48     | 22.41     | 22.46     |
|               |            | 3       | 1         | 22.51     | 22.49     | 22.48     |
|               |            | 3       | 2         | 22.37     | 22.48     | 22.46     |
|               |            | 6       | 0         | 21.20     | 21.54     | 21.54     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 19965CH   | 20175CH   | 20385CH   |
|               |            |         |           | 1711.5MHz | 1732.5MHz | 1753.5MHz |
| 4 / 3MHz      | QPSK       | 1       | 0         | 23.26     | 23.48     | 23.47     |
|               |            | 1       | 7         | 23.26     | 23.41     | 23.50     |
|               |            | 1       | 14        | 23.28     | 23.42     | 23.44     |
|               |            | 8       | 0         | 22.32     | 22.39     | 22.40     |
|               |            | 8       | 4         | 22.27     | 22.39     | 22.48     |
|               |            | 8       | 7         | 22.26     | 22.44     | 22.45     |
|               |            | 15      | 0         | 22.22     | 22.45     | 22.44     |
|               | 16QAM      | 1       | 0         | 22.26     | 22.72     | 22.51     |
|               |            | 1       | 7         | 22.19     | 22.78     | 22.51     |
|               |            | 1       | 14        | 22.22     | 22.69     | 22.40     |
|               |            | 8       | 0         | 21.46     | 21.41     | 21.47     |
|               |            | 8       | 4         | 21.39     | 21.40     | 21.54     |
|               |            | 8       | 7         | 21.37     | 21.44     | 21.49     |
|               |            | 15      | 0         | 21.29     | 21.41     | 21.46     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 19975CH   | 20175CH   | 20375CH   |
|               |            |         |           | 1712.5MHz | 1732.5MHz | 1752.5MHz |
| 4 / 5MHz      | QPSK       | 1       | 0         | 23.55     | 23.62     | 23.56     |
|               |            | 1       | 13        | 23.50     | 23.58     | 23.50     |
|               |            | 1       | 24        | 23.49     | 23.54     | 23.53     |
|               |            | 12      | 0         | 22.38     | 22.43     | 22.51     |
|               |            | 12      | 6         | 22.44     | 22.40     | 22.44     |
|               |            | 12      | 11        | 22.33     | 22.43     | 22.41     |
|               |            | 25      | 0         | 22.41     | 22.50     | 22.43     |
|               | 16QAM      | 1       | 0         | 22.56     | 22.89     | 22.56     |
|               |            | 1       | 13        | 22.52     | 22.85     | 22.50     |
|               |            | 1       | 24        | 22.51     | 22.75     | 22.55     |
|               |            | 12      | 0         | 21.39     | 21.52     | 21.56     |
|               |            | 12      | 6         | 21.41     | 21.46     | 21.50     |
|               |            | 12      | 11        | 21.37     | 21.51     | 21.45     |
|               |            | 25      | 0         | 21.34     | 21.49     | 21.38     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH    | High CH |
|---------------|------------|---------|-----------|---------|-----------|---------|
|               |            |         |           | 20000CH | 20175CH   | 20350CH |
|               |            |         |           | 1715MHz | 1732.5MHz | 1750MHz |
| 4 / 10MHz     | QPSK       | 1       | 0         | 23.56   | 23.68     | 23.58   |
|               |            | 1       | 25        | 23.31   | 23.49     | 23.34   |
|               |            | 1       | 49        | 23.78   | 23.89     | 23.87   |
|               |            | 25      | 0         | 22.43   | 22.36     | 22.40   |
|               |            | 25      | 13        | 22.36   | 22.51     | 22.39   |
|               |            | 25      | 25        | 22.50   | 22.55     | 22.55   |
|               |            | 50      | 0         | 22.43   | 22.53     | 22.41   |
|               | 16QAM      | 1       | 0         | 22.47   | 22.99     | 22.62   |
|               |            | 1       | 25        | 22.18   | 22.70     | 22.34   |
|               |            | 1       | 49        | 22.61   | 23.11     | 22.84   |
|               |            | 25      | 0         | 21.34   | 21.31     | 21.55   |
|               |            | 25      | 13        | 21.31   | 21.41     | 21.51   |
|               |            | 25      | 25        | 21.41   | 21.40     | 21.59   |
|               |            | 50      | 0         | 21.31   | 21.47     | 21.46   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 20025CH   | 20175CH   | 20325CH   |
|               |            |         |           | 1717.5MHz | 1732.5MHz | 1747.5MHz |
| 4 / 15MHz     | QPSK       | 1       | 0         | 23.13     | 23.25     | 23.19     |
|               |            | 1       | 38        | 23.22     | 23.43     | 23.38     |
|               |            | 1       | 74        | 23.09     | 23.29     | 23.24     |
|               |            | 36      | 0         | 22.22     | 22.30     | 22.35     |
|               |            | 36      | 18        | 22.37     | 22.36     | 22.34     |
|               |            | 36      | 39        | 22.26     | 22.37     | 22.35     |
|               |            | 75      | 0         | 22.17     | 22.38     | 22.30     |
|               | 16QAM      | 1       | 0         | 22.12     | 22.65     | 22.67     |
|               |            | 1       | 38        | 22.19     | 22.81     | 22.87     |
|               |            | 1       | 74        | 22.05     | 22.68     | 22.72     |
|               |            | 36      | 0         | 21.23     | 21.39     | 21.36     |
|               |            | 36      | 18        | 21.36     | 21.41     | 21.34     |
|               |            | 36      | 39        | 21.29     | 21.42     | 21.36     |
|               |            | 75      | 0         | 21.22     | 21.41     | 21.33     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH    | High CH |
|---------------|------------|---------|-----------|---------|-----------|---------|
|               |            |         |           | 20050CH | 20175CH   | 20300CH |
|               |            |         |           | 1720MHz | 1732.5MHz | 1740MHz |
| 4 / 20MHz     | QPSK       | 1       | 0         | 22.77   | 22.94     | 22.92   |
|               |            | 1       | 50        | 23.35   | 23.45     | 23.40   |
|               |            | 1       | 99        | 23.12   | 23.07     | 23.16   |
|               |            | 50      | 0         | 22.11   | 22.22     | 22.16   |
|               |            | 50      | 25        | 22.24   | 22.39     | 22.33   |
|               |            | 50      | 50        | 22.20   | 22.28     | 22.21   |
|               |            | 100     | 0         | 22.16   | 22.32     | 22.23   |
|               | 16QAM      | 1       | 0         | 22.26   | 22.36     | 22.41   |
|               |            | 1       | 50        | 22.78   | 22.78     | 22.89   |
|               |            | 1       | 99        | 22.54   | 22.48     | 22.65   |
|               |            | 50      | 0         | 21.16   | 21.17     | 21.26   |
|               |            | 50      | 25        | 21.31   | 21.41     | 21.42   |
|               |            | 50      | 50        | 21.27   | 21.30     | 21.29   |
|               |            | 100     | 0         | 21.21   | 21.30     | 21.31   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 20775CH   | 21100CH | 21425CH   |
|               |            |         |           | 2502.5MHz | 2535MHz | 2567.5MHz |
| 7 / 5MHz      | QPSK       | 1       | 0         | 23.15     | 23.12   | 23.08     |
|               |            | 1       | 13        | 23.30     | 23.02   | 23.03     |
|               |            | 1       | 24        | 23.28     | 22.99   | 23.03     |
|               |            | 12      | 0         | 22.21     | 22.04   | 22.00     |
|               |            | 12      | 6         | 22.21     | 22.03   | 21.99     |
|               |            | 12      | 11        | 22.17     | 22.04   | 21.99     |
|               |            | 25      | 0         | 22.19     | 22.03   | 21.97     |
|               | 16QAM      | 1       | 0         | 22.29     | 22.30   | 22.49     |
|               |            | 1       | 13        | 22.30     | 22.19   | 22.45     |
|               |            | 1       | 24        | 22.26     | 22.13   | 22.40     |
|               |            | 12      | 0         | 21.32     | 21.09   | 21.12     |
|               |            | 12      | 6         | 21.30     | 21.11   | 21.12     |
|               |            | 12      | 11        | 21.25     | 21.08   | 21.09     |
|               |            | 25      | 0         | 21.19     | 21.02   | 21.01     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|---------|-----------|---------|---------|---------|
|               |            |         |           | 20800CH | 21100CH | 21400CH |
|               |            |         |           | 2505MHz | 2535MHz | 2565MHz |
| 7 / 10MHz     | QPSK       | 1       | 0         | 23.30   | 23.20   | 23.05   |
|               |            | 1       | 25        | 23.15   | 23.01   | 22.87   |
|               |            | 1       | 49        | 23.28   | 23.03   | 22.96   |
|               |            | 25      | 0         | 22.20   | 22.10   | 21.96   |
|               |            | 25      | 13        | 22.18   | 21.97   | 21.93   |
|               |            | 25      | 25        | 22.14   | 21.96   | 21.88   |
|               |            | 50      | 0         | 22.19   | 21.98   | 21.95   |
|               | 16QAM      | 1       | 0         | 22.29   | 22.54   | 22.11   |
|               |            | 1       | 25        | 22.14   | 22.36   | 21.92   |
|               |            | 1       | 49        | 22.22   | 22.38   | 22.02   |
|               |            | 25      | 0         | 21.23   | 21.14   | 21.02   |
|               |            | 25      | 13        | 21.21   | 21.04   | 21.00   |
|               |            | 25      | 25        | 21.19   | 20.97   | 20.98   |
|               |            | 50      | 0         | 21.18   | 21.05   | 20.96   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 20825CH   | 21100CH | 21375CH   |
|               |            |         |           | 2507.5MHz | 2535MHz | 2562.5MHz |
| 7 / 15MHz     | QPSK       | 1       | 0         | 23.10     | 22.93   | 22.74     |
|               |            | 1       | 38        | 23.24     | 23.02   | 22.92     |
|               |            | 1       | 74        | 22.98     | 22.72   | 22.65     |
|               |            | 36      | 0         | 22.29     | 22.00   | 21.88     |
|               |            | 36      | 18        | 22.32     | 22.05   | 21.94     |
|               |            | 36      | 39        | 22.27     | 21.93   | 21.84     |
|               |            | 75      | 0         | 22.28     | 21.94   | 21.91     |
|               | 16QAM      | 1       | 0         | 22.05     | 22.37   | 22.17     |
|               |            | 1       | 38        | 22.19     | 22.42   | 22.29     |
|               |            | 1       | 74        | 22.00     | 22.15   | 22.08     |
|               |            | 36      | 0         | 21.34     | 21.08   | 20.87     |
|               |            | 36      | 18        | 21.39     | 21.09   | 20.97     |
|               |            | 36      | 39        | 21.30     | 20.97   | 20.84     |
|               |            | 75      | 0         | 21.28     | 21.04   | 20.83     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|---------|-----------|---------|---------|---------|
|               |            |         |           | 20850CH | 21100CH | 21350CH |
|               |            |         |           | 2510MHz | 2535MHz | 2560MHz |
| 7 / 20MHz     | QPSK       | 1       | 0         | 23.06   | 22.84   | 22.62   |
|               |            | 1       | 50        | 23.46   | 22.95   | 22.83   |
|               |            | 1       | 99        | 23.01   | 22.52   | 22.52   |
|               |            | 50      | 0         | 22.26   | 22.05   | 21.83   |
|               |            | 50      | 25        | 22.27   | 22.02   | 21.89   |
|               |            | 50      | 50        | 22.20   | 21.86   | 21.79   |
|               |            | 100     | 0         | 22.17   | 21.90   | 21.81   |
|               | 16QAM      | 1       | 0         | 22.55   | 22.35   | 22.02   |
|               |            | 1       | 50        | 22.75   | 22.48   | 22.25   |
|               |            | 1       | 99        | 22.40   | 22.06   | 21.90   |
|               |            | 50      | 0         | 21.28   | 21.09   | 20.83   |
|               |            | 50      | 25        | 21.30   | 21.05   | 20.93   |
|               |            | 50      | 50        | 21.22   | 20.85   | 20.81   |
|               |            | 100     | 0         | 21.26   | 20.94   | 20.83   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|---------|-----------|----------|----------|----------|
|               |            |         |           | 23017CH  | 23095CH  | 23173CH  |
|               |            |         |           | 699.7MHz | 707.5MHz | 715.3MHz |
| 12 / 1.4MHz   | QPSK       | 1       | 0         | 22.92    | 22.80    | 22.96    |
|               |            | 1       | 2         | 22.99    | 22.85    | 23.03    |
|               |            | 1       | 5         | 22.84    | 22.85    | 22.89    |
|               |            | 3       | 0         | 22.94    | 22.83    | 22.92    |
|               |            | 3       | 1         | 22.95    | 22.91    | 22.97    |
|               |            | 3       | 2         | 22.93    | 22.89    | 22.87    |
|               |            | 6       | 0         | 21.89    | 21.84    | 21.86    |
|               | 16QAM      | 1       | 0         | 22.38    | 21.87    | 22.07    |
|               |            | 1       | 2         | 22.43    | 21.92    | 22.09    |
|               |            | 1       | 5         | 22.32    | 21.95    | 22.02    |
|               |            | 3       | 0         | 22.12    | 22.03    | 22.02    |
|               |            | 3       | 1         | 22.17    | 22.08    | 22.04    |
|               |            | 3       | 2         | 22.10    | 22.06    | 21.93    |
|               |            | 6       | 0         | 20.83    | 21.05    | 21.04    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|---------|-----------|----------|----------|----------|
|               |            |         |           | 23025CH  | 23095CH  | 23165CH  |
|               |            |         |           | 700.5MHz | 707.5MHz | 714.5MHz |
| 12 / 3MHz     | QPSK       | 1       | 0         | 22.90    | 22.94    | 23.05    |
|               |            | 1       | 7         | 22.89    | 22.96    | 23.05    |
|               |            | 1       | 14        | 22.91    | 22.89    | 22.97    |
|               |            | 8       | 0         | 21.96    | 21.92    | 22.04    |
|               |            | 8       | 4         | 21.87    | 21.88    | 22.00    |
|               |            | 8       | 7         | 21.88    | 21.92    | 22.00    |
|               |            | 15      | 0         | 21.87    | 21.87    | 21.97    |
|               | 16QAM      | 1       | 0         | 21.94    | 22.40    | 22.09    |
|               |            | 1       | 7         | 21.91    | 22.41    | 22.07    |
|               |            | 1       | 14        | 21.91    | 22.35    | 21.95    |
|               |            | 8       | 0         | 21.09    | 21.03    | 21.04    |
|               |            | 8       | 4         | 21.02    | 20.97    | 21.01    |
|               |            | 8       | 7         | 21.01    | 20.97    | 21.06    |
|               |            | 15      | 0         | 20.90    | 20.90    | 20.92    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|---------|-----------|----------|----------|----------|
|               |            |         |           | 23035CH  | 23095CH  | 23155CH  |
|               |            |         |           | 701.5MHz | 707.5MHz | 713.5MHz |
| 12 / 5MHz     | QPSK       | 1       | 0         | 23.07    | 22.90    | 23.10    |
|               |            | 1       | 13        | 23.06    | 22.93    | 23.15    |
|               |            | 1       | 24        | 22.99    | 22.96    | 22.98    |
|               |            | 12      | 0         | 21.88    | 21.92    | 21.95    |
|               |            | 12      | 6         | 21.93    | 21.87    | 22.04    |
|               |            | 12      | 11        | 21.95    | 21.95    | 22.01    |
|               |            | 25      | 0         | 21.91    | 21.89    | 22.01    |
|               | 16QAM      | 1       | 0         | 22.13    | 22.38    | 22.20    |
|               |            | 1       | 13        | 22.16    | 22.43    | 22.20    |
|               |            | 1       | 24        | 22.11    | 22.45    | 22.05    |
|               |            | 12      | 0         | 20.98    | 21.05    | 21.07    |
|               |            | 12      | 6         | 21.01    | 21.00    | 21.12    |
|               |            | 12      | 11        | 21.04    | 21.05    | 21.07    |
|               |            | 25      | 0         | 20.92    | 20.92    | 20.97    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH   | High CH |
|---------------|------------|---------|-----------|---------|----------|---------|
|               |            |         |           | 23060CH | 23095CH  | 23130CH |
|               |            |         |           | 704MHz  | 707.5MHz | 711MHz  |
| 12 / 10MHz    | QPSK       | 1       | 0         | 23.11   | 23.16    | 23.21   |
|               |            | 1       | 25        | 22.87   | 22.94    | 22.97   |
|               |            | 1       | 49        | 23.05   | 23.12    | 22.97   |
|               |            | 25      | 0         | 21.99   | 21.95    | 21.91   |
|               |            | 25      | 13        | 21.86   | 21.93    | 21.86   |
|               |            | 25      | 25        | 21.95   | 21.99    | 21.90   |
|               |            | 50      | 0         | 21.98   | 21.92    | 21.98   |
|               | 16QAM      | 1       | 0         | 22.17   | 22.48    | 22.28   |
|               |            | 1       | 25        | 21.89   | 22.22    | 22.07   |
|               |            | 1       | 49        | 22.02   | 22.39    | 21.96   |
|               |            | 25      | 0         | 20.97   | 20.96    | 20.98   |
|               |            | 25      | 13        | 20.86   | 20.98    | 20.99   |
|               |            | 25      | 25        | 20.96   | 21.01    | 21.03   |
|               |            | 50      | 0         | 20.95   | 20.95    | 21.03   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH  | High CH  |
|---------------|------------|---------|-----------|----------|---------|----------|
|               |            |         |           | CH23205  | CH23230 | CH23255  |
|               |            |         |           | 779.5MHz | 782MHz  | 784.5MHz |
| 13 / 5MHz     | QPSK       | 1       | 0         | 22.98    | 22.95   | 23.00    |
|               |            | 1       | 13        | 22.85    | 22.94   | 23.10    |
|               |            | 1       | 24        | 22.90    | 23.00   | 23.16    |
|               |            | 12      | 0         | 21.84    | 21.91   | 21.95    |
|               |            | 12      | 6         | 21.81    | 21.93   | 22.07    |
|               |            | 12      | 11        | 21.74    | 21.98   | 22.05    |
|               |            | 25      | 0         | 21.84    | 21.95   | 21.95    |
|               | 16QAM      | 1       | 0         | 21.96    | 22.09   | 22.38    |
|               |            | 1       | 13        | 21.89    | 22.08   | 22.45    |
|               |            | 1       | 24        | 21.98    | 22.12   | 22.57    |
|               |            | 12      | 0         | 20.97    | 20.99   | 21.03    |
|               |            | 12      | 6         | 20.88    | 21.02   | 21.09    |
|               |            | 12      | 11        | 20.79    | 21.02   | 21.09    |
|               |            | 25      | 0         | 20.76    | 20.95   | 21.00    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Mid CH  |
|---------------|------------|---------|-----------|---------|
|               |            |         |           | CH23230 |
|               |            |         |           | 782MHz  |
| 13 / 10MHz    | QPSK       | 1       | 0         | 23.11   |
|               |            | 1       | 25        | 22.90   |
|               |            | 1       | 49        | 23.16   |
|               |            | 25      | 0         | 21.99   |
|               |            | 25      | 13        | 21.93   |
|               |            | 25      | 25        | 21.92   |
|               |            | 50      | 0         | 22.05   |
|               | 16QAM      | 1       | 0         | 22.03   |
|               |            | 1       | 25        | 21.81   |
|               |            | 1       | 49        | 22.05   |
|               |            | 25      | 0         | 20.96   |
|               |            | 25      | 13        | 20.85   |
|               |            | 25      | 25        | 20.95   |
|               |            | 50      | 0         | 20.98   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH  | High CH  |
|---------------|------------|---------|-----------|----------|---------|----------|
|               |            |         |           | 23755CH  | 23790CH | 23825CH  |
|               |            |         |           | 706.5MHz | 710MHz  | 713.5MHz |
| 17 / 5MHz     | QPSK       | 1       | 0         | 22.93    | 22.86   | 22.81    |
|               |            | 1       | 13        | 22.92    | 22.80   | 22.87    |
|               |            | 1       | 24        | 22.95    | 22.80   | 22.81    |
|               |            | 12      | 0         | 21.90    | 21.81   | 21.76    |
|               |            | 12      | 6         | 21.87    | 21.77   | 21.87    |
|               |            | 12      | 11        | 21.86    | 21.82   | 21.75    |
|               |            | 25      | 0         | 21.88    | 21.77   | 21.84    |
|               | 16QAM      | 1       | 0         | 21.98    | 22.03   | 22.28    |
|               |            | 1       | 13        | 22.00    | 22.00   | 22.35    |
|               |            | 1       | 24        | 21.97    | 21.99   | 22.20    |
|               |            | 12      | 0         | 20.94    | 20.90   | 20.91    |
|               |            | 12      | 6         | 20.92    | 20.88   | 20.96    |
|               |            | 12      | 11        | 20.92    | 20.93   | 20.92    |
|               |            | 25      | 0         | 20.75    | 20.81   | 20.89    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|---------|-----------|---------|---------|---------|
|               |            |         |           | 23780CH | 23790CH | 23800CH |
|               |            |         |           | 709MHz  | 710MHz  | 711MHz  |
| 17 / 10MHz    | QPSK       | 1       | 0         | 23.04   | 23.03   | 23.01   |
|               |            | 1       | 25        | 22.76   | 22.81   | 22.76   |
|               |            | 1       | 49        | 22.88   | 22.88   | 22.81   |
|               |            | 25      | 0         | 21.93   | 21.80   | 21.86   |
|               |            | 25      | 13        | 21.88   | 21.78   | 21.77   |
|               |            | 25      | 25        | 21.81   | 21.85   | 21.78   |
|               |            | 50      | 0         | 21.89   | 21.86   | 21.91   |
|               | 16QAM      | 1       | 0         | 22.09   | 22.13   | 22.45   |
|               |            | 1       | 25        | 21.76   | 21.83   | 22.11   |
|               |            | 1       | 49        | 21.87   | 21.89   | 22.27   |
|               |            | 25      | 0         | 20.94   | 20.87   | 20.96   |
|               |            | 25      | 13        | 20.84   | 20.87   | 20.84   |
|               |            | 25      | 25        | 20.82   | 20.90   | 20.84   |
|               |            | 50      | 0         | 20.88   | 20.87   | 20.95   |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 37775CH   | 38000CH | 38225CH   |
|               |            |          |           | 2572.5MHz | 2593MHz | 2617.5MHz |
| 38 / 5MHz     | QPSK       | 1        | 0         | 23.27     | 22.97   | 22.92     |
|               |            | 1        | 13        | 23.19     | 22.89   | 22.85     |
|               |            | 1        | 24        | 23.14     | 22.83   | 22.79     |
|               |            | 12       | 0         | 22.21     | 22.01   | 21.86     |
|               |            | 12       | 6         | 22.17     | 22.03   | 21.84     |
|               |            | 12       | 11        | 22.17     | 22.05   | 21.83     |
|               |            | 25       | 0         | 22.19     | 22.06   | 21.84     |
|               | 16QAM      | 1        | 0         | 22.57     | 22.44   | 22.19     |
|               |            | 1        | 13        | 22.51     | 22.43   | 22.14     |
|               |            | 1        | 24        | 22.42     | 22.33   | 22.09     |
|               |            | 12       | 0         | 21.21     | 21.15   | 20.94     |
|               |            | 12       | 6         | 21.16     | 21.15   | 20.88     |
|               |            | 12       | 11        | 21.14     | 21.11   | 20.91     |
|               |            | 25       | 0         | 21.17     | 21.02   | 20.87     |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|----------|-----------|---------|---------|---------|
|               |            |          |           | 37800CH | 38000CH | 38200CH |
|               |            |          |           | 2575MHz | 2593MHz | 2615MHz |
| 38 / 10MHz    | QPSK       | 1        | 0         | 23.29   | 23.22   | 23.44   |
|               |            | 1        | 25        | 23.05   | 23.05   | 23.00   |
|               |            | 1        | 49        | 23.33   | 23.41   | 23.28   |
|               |            | 25       | 0         | 22.18   | 22.04   | 22.01   |
|               |            | 25       | 13        | 22.15   | 22.08   | 21.94   |
|               |            | 25       | 25        | 22.18   | 22.04   | 21.93   |
|               |            | 50       | 0         | 22.23   | 22.06   | 21.93   |
|               | 16QAM      | 1        | 0         | 22.89   | 22.43   | 22.62   |
|               |            | 1        | 25        | 22.54   | 22.31   | 22.36   |
|               |            | 1        | 49        | 22.90   | 22.65   | 22.57   |
|               |            | 25       | 0         | 21.25   | 21.00   | 20.99   |
|               |            | 25       | 13        | 21.19   | 21.09   | 20.93   |
|               |            | 25       | 25        | 21.23   | 21.10   | 20.91   |
|               |            | 50       | 0         | 21.27   | 21.08   | 20.94   |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 37825CH   | 38000CH | 38175CH   |
|               |            |          |           | 2577.5MHz | 2593MHz | 2612.5MHz |
| 38 / 15MHz    | QPSK       | 1        | 0         | 23.96     | 23.65   | 23.12     |
|               |            | 1        | 38        | 23.86     | 23.47   | 22.88     |
|               |            | 1        | 74        | 23.61     | 22.98   | 22.58     |
|               |            | 36       | 0         | 22.96     | 22.67   | 22.13     |
|               |            | 36       | 18        | 22.92     | 22.60   | 22.06     |
|               |            | 36       | 39        | 22.77     | 22.32   | 21.86     |
|               |            | 75       | 0         | 22.81     | 22.49   | 21.96     |
|               | 16QAM      | 1        | 0         | 23.28     | 22.95   | 22.68     |
|               |            | 1        | 38        | 23.17     | 22.78   | 22.47     |
|               |            | 1        | 74        | 22.90     | 22.29   | 22.17     |
|               |            | 36       | 0         | 22.03     | 21.70   | 21.16     |
|               |            | 36       | 18        | 22.00     | 21.64   | 21.09     |
|               |            | 36       | 39        | 21.84     | 21.36   | 20.89     |
|               |            | 75       | 0         | 21.86     | 21.55   | 21.01     |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|----------|-----------|---------|---------|---------|
|               |            |          |           | 37850CH | 38000CH | 38150CH |
|               |            |          |           | 2580MHz | 2593MHz | 2610MHz |
| 38 / 20MHz    | QPSK       | 1        | 0         | 23.80   | 23.69   | 23.25   |
|               |            | 1        | 50        | 23.71   | 23.50   | 22.87   |
|               |            | 1        | 99        | 23.24   | 22.88   | 22.57   |
|               |            | 50       | 0         | 22.87   | 22.65   | 22.27   |
|               |            | 50       | 25        | 22.81   | 22.54   | 22.01   |
|               |            | 50       | 50        | 22.52   | 22.27   | 21.81   |
|               |            | 100      | 0         | 22.73   | 22.47   | 22.03   |
|               | 16QAM      | 1        | 0         | 23.15   | 22.87   | 22.73   |
|               |            | 1        | 50        | 23.06   | 22.69   | 22.36   |
|               |            | 1        | 99        | 22.59   | 22.09   | 22.06   |
|               |            | 50       | 0         | 21.89   | 21.69   | 21.31   |
|               |            | 50       | 25        | 21.84   | 21.58   | 21.07   |
|               |            | 50       | 50        | 21.56   | 21.31   | 20.88   |
|               |            | 100      | 0         | 21.76   | 21.51   | 21.07   |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 39675CH   | 40620CH | 41565CH   |
|               |            |          |           | 2498.5MHz | 2593MHz | 2687.5MHz |
| 41 / 5MHz     | QPSK       | 1        | 0         | 23.25     | 22.85   | 22.86     |
|               |            | 1        | 13        | 23.21     | 22.95   | 22.81     |
|               |            | 1        | 24        | 23.20     | 22.78   | 22.79     |
|               |            | 12       | 0         | 22.18     | 21.91   | 21.78     |
|               |            | 12       | 6         | 22.14     | 21.92   | 21.78     |
|               |            | 12       | 11        | 22.17     | 21.95   | 21.80     |
|               |            | 25       | 0         | 22.18     | 21.95   | 21.85     |
|               | 16QAM      | 1        | 0         | 22.55     | 22.22   | 22.21     |
|               |            | 1        | 13        | 22.56     | 22.24   | 22.21     |
|               |            | 1        | 24        | 22.59     | 22.13   | 22.22     |
|               |            | 12       | 0         | 21.29     | 20.93   | 20.95     |
|               |            | 12       | 6         | 21.29     | 20.95   | 20.94     |
|               |            | 12       | 11        | 21.28     | 20.97   | 20.89     |
|               |            | 25       | 0         | 21.18     | 20.99   | 20.84     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 39700CH   | 40620CH | 41540CH   |
|               |            |          |           | 2501.0MHz | 2593MHz | 2685.0MHz |
| 41 / 10MHz    | QPSK       | 1        | 0         | 22.96     | 22.75   | 23.05     |
|               |            | 1        | 25        | 23.07     | 23.00   | 23.12     |
|               |            | 1        | 49        | 22.95     | 22.85   | 22.90     |
|               |            | 25       | 0         | 22.17     | 21.87   | 21.85     |
|               |            | 25       | 13        | 22.20     | 21.98   | 21.80     |
|               |            | 25       | 25        | 22.07     | 21.81   | 21.77     |
|               |            | 50       | 0         | 22.20     | 21.87   | 21.72     |
|               | 16QAM      | 1        | 0         | 22.28     | 22.19   | 22.20     |
|               |            | 1        | 25        | 22.48     | 22.38   | 22.18     |
|               |            | 1        | 49        | 22.28     | 22.24   | 22.15     |
|               |            | 25       | 0         | 21.17     | 20.85   | 20.83     |
|               |            | 25       | 13        | 21.22     | 20.95   | 20.83     |
|               |            | 25       | 25        | 21.10     | 20.87   | 20.78     |
|               |            | 50       | 0         | 21.18     | 20.90   | 20.75     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 39725CH   | 40620CH | 41515CH   |
|               |            |          |           | 2503.5MHz | 2593MHz | 2682.5MHz |
| 41 / 15MHz    | QPSK       | 1        | 0         | 23.58     | 24.01   | 23.39     |
|               |            | 1        | 38        | 23.45     | 23.62   | 23.38     |
|               |            | 1        | 74        | 23.15     | 23.09   | 22.98     |
|               |            | 36       | 0         | 22.47     | 22.76   | 22.36     |
|               |            | 36       | 18        | 22.47     | 22.70   | 22.32     |
|               |            | 36       | 39        | 22.30     | 22.39   | 22.31     |
|               |            | 75       | 0         | 22.40     | 22.60   | 22.40     |
|               | 16QAM      | 1        | 0         | 23.00     | 23.46   | 22.80     |
|               |            | 1        | 38        | 22.86     | 23.07   | 22.79     |
|               |            | 1        | 74        | 22.55     | 22.55   | 22.40     |
|               |            | 36       | 0         | 21.52     | 21.80   | 21.47     |
|               |            | 36       | 18        | 21.53     | 21.76   | 21.43     |
|               |            | 36       | 39        | 21.34     | 21.44   | 21.42     |
|               |            | 75       | 0         | 21.47     | 21.67   | 21.49     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 39750CH   | 40620CH | 41490CH   |
|               |            |          |           | 2506.0MHz | 2593MHz | 2680.0MHz |
| 41 / 20MHz    | QPSK       | 1        | 0         | 23.62     | 24.01   | 23.27     |
|               |            | 1        | 50        | 23.43     | 23.61   | 23.30     |
|               |            | 1        | 99        | 22.99     | 22.92   | 22.95     |
|               |            | 50       | 0         | 22.45     | 22.85   | 22.35     |
|               |            | 50       | 25        | 22.35     | 22.72   | 22.33     |
|               |            | 50       | 50        | 22.21     | 22.31   | 22.32     |
|               |            | 100      | 0         | 22.41     | 22.64   | 22.20     |
|               | 16QAM      | 1        | 0         | 23.00     | 23.48   | 22.57     |
|               |            | 1        | 50        | 22.82     | 23.08   | 22.60     |
|               |            | 1        | 99        | 22.39     | 22.39   | 22.27     |
|               |            | 50       | 0         | 21.52     | 21.90   | 21.44     |
|               |            | 50       | 25        | 21.42     | 21.79   | 21.40     |
|               |            | 50       | 50        | 21.28     | 21.35   | 21.40     |
|               |            | 100      | 0         | 21.47     | 21.69   | 21.28     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 131979CH  | 132322CH | 132665CH  |
|               |            |          |           | 1710.7MHz | 1745MHz  | 1779.3MHz |
| 66 / 1.4MHz   | QPSK       | 1        | 0         | 22.92     | 23.02    | 22.99     |
|               |            | 1        | 2         | 23.00     | 23.09    | 22.91     |
|               |            | 1        | 5         | 22.96     | 22.97    | 22.68     |
|               |            | 3        | 0         | 22.89     | 22.99    | 22.88     |
|               |            | 3        | 1         | 22.93     | 23.02    | 22.84     |
|               |            | 3        | 2         | 22.90     | 22.97    | 22.67     |
|               |            | 6        | 0         | 21.85     | 21.93    | 21.96     |
|               | 16QAM      | 1        | 0         | 22.00     | 22.33    | 21.97     |
|               |            | 1        | 2         | 22.01     | 22.37    | 21.98     |
|               |            | 1        | 5         | 22.02     | 22.31    | 21.87     |
|               |            | 3        | 0         | 21.94     | 22.21    | 22.09     |
|               |            | 3        | 1         | 21.96     | 22.22    | 22.17     |
|               |            | 3        | 2         | 21.95     | 22.14    | 22.05     |
|               |            | 6        | 0         | 21.03     | 20.90    | 21.09     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 131987CH  | 132322CH | 132657CH  |
|               |            |          |           | 1711.5MHz | 1745MHz  | 1778.5MHz |
| 66 / 3MHz     | QPSK       | 1        | 0         | 22.90     | 23.11    | 23.09     |
|               |            | 1        | 7         | 22.94     | 23.07    | 22.97     |
|               |            | 1        | 14        | 22.87     | 22.98    | 22.50     |
|               |            | 8        | 0         | 21.93     | 22.02    | 22.00     |
|               |            | 8        | 4         | 21.97     | 22.01    | 22.02     |
|               |            | 8        | 7         | 21.84     | 21.96    | 22.02     |
|               |            | 15       | 0         | 21.94     | 21.99    | 21.97     |
|               | 16QAM      | 1        | 0         | 21.88     | 22.43    | 22.07     |
|               |            | 1        | 7         | 21.85     | 22.37    | 21.99     |
|               |            | 1        | 14        | 21.82     | 22.30    | 21.78     |
|               |            | 8        | 0         | 21.03     | 21.13    | 21.06     |
|               |            | 8        | 4         | 21.07     | 21.11    | 21.07     |
|               |            | 8        | 7         | 20.94     | 21.09    | 21.04     |
|               |            | 15       | 0         | 20.99     | 21.02    | 20.98     |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 131997CH  | 132322CH | 132647CH  |
|               |            |          |           | 1712.5MHz | 1745MHz  | 1777.5MHz |
| 66 / 5MHz     | QPSK       | 1        | 0         | 23.09     | 23.31    | 23.08     |
|               |            | 1        | 13        | 23.00     | 23.11    | 23.05     |
|               |            | 1        | 24        | 22.92     | 23.07    | 22.45     |
|               |            | 12       | 0         | 21.99     | 22.08    | 22.13     |
|               |            | 12       | 6         | 21.92     | 22.03    | 22.08     |
|               |            | 12       | 11        | 21.91     | 22.00    | 22.06     |
|               |            | 25       | 0         | 21.91     | 22.05    | 22.04     |
|               | 16QAM      | 1        | 0         | 22.17     | 22.64    | 22.14     |
|               |            | 1        | 13        | 22.11     | 22.53    | 22.08     |
|               |            | 1        | 24        | 22.06     | 22.47    | 21.75     |
|               |            | 12       | 0         | 21.06     | 21.24    | 21.13     |
|               |            | 12       | 6         | 20.97     | 21.20    | 21.04     |
|               |            | 12       | 11        | 21.01     | 21.13    | 21.02     |
|               |            | 25       | 0         | 20.89     | 21.13    | 20.96     |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 132022CH | 132322CH | 132622CH |
|               |            |          |           | 1715MHz  | 1745MHz  | 1775MHz  |
| 66 / 10MHz    | QPSK       | 1        | 0         | 22.22    | 22.40    | 22.33    |
|               |            | 1        | 25        | 22.86    | 23.00    | 22.94    |
|               |            | 1        | 49        | 23.28    | 23.47    | 22.14    |
|               |            | 25       | 0         | 21.85    | 21.99    | 21.96    |
|               |            | 25       | 13        | 21.96    | 22.08    | 22.04    |
|               |            | 25       | 25        | 22.02    | 22.10    | 22.17    |
|               |            | 50       | 0         | 21.93    | 22.03    | 21.97    |
|               | 16QAM      | 1        | 0         | 21.21    | 21.73    | 21.34    |
|               |            | 1        | 25        | 21.81    | 22.32    | 21.92    |
|               |            | 1        | 49        | 22.21    | 22.75    | 21.40    |
|               |            | 25       | 0         | 20.85    | 21.01    | 20.98    |
|               |            | 25       | 13        | 20.95    | 21.08    | 21.11    |
|               |            | 25       | 25        | 21.05    | 21.05    | 21.18    |
|               |            | 50       | 0         | 20.92    | 21.05    | 21.00    |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 132047CH  | 132322CH | 132597CH  |
|               |            |          |           | 1717.5MHz | 1745MHz  | 1772.5MHz |
| 66 / 15MHz    | QPSK       | 1        | 0         | 23.01     | 23.13    | 23.07     |
|               |            | 1        | 38        | 22.85     | 22.90    | 22.93     |
|               |            | 1        | 74        | 22.96     | 22.85    | 22.36     |
|               |            | 36       | 0         | 21.99     | 21.89    | 21.96     |
|               |            | 36       | 18        | 21.92     | 21.88    | 21.96     |
|               |            | 36       | 39        | 21.88     | 21.82    | 21.88     |
|               |            | 75       | 0         | 21.86     | 21.83    | 21.88     |
|               | 16QAM      | 1        | 0         | 22.01     | 22.46    | 22.47     |
|               |            | 1        | 38        | 21.84     | 22.26    | 22.33     |
|               |            | 1        | 74        | 21.93     | 22.21    | 22.02     |
|               |            | 36       | 0         | 20.99     | 20.93    | 20.97     |
|               |            | 36       | 18        | 20.95     | 20.95    | 20.99     |
|               |            | 36       | 39        | 20.90     | 20.85    | 20.92     |
|               |            | 75       | 0         | 20.86     | 20.86    | 20.93     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 132072CH | 132322CH | 132572CH |
|               |            |          |           | 1720MHz  | 1745MHz  | 1770MHz  |
| 66 / 20MHz    | QPSK       | 1        | 0         | 22.61    | 22.57    | 22.52    |
|               |            | 1        | 50        | 22.97    | 22.87    | 22.88    |
|               |            | 1        | 99        | 23.26    | 22.98    | 22.29    |
|               |            | 50       | 0         | 21.83    | 21.77    | 21.77    |
|               |            | 50       | 25        | 21.95    | 21.88    | 21.89    |
|               |            | 50       | 50        | 21.90    | 21.83    | 21.88    |
|               |            | 100      | 0         | 21.83    | 21.81    | 21.83    |
|               | 16QAM      | 1        | 0         | 22.05    | 22.04    | 21.88    |
|               |            | 1        | 50        | 22.46    | 22.34    | 22.19    |
|               |            | 1        | 99        | 22.67    | 22.49    | 21.93    |
|               |            | 50       | 0         | 20.87    | 20.81    | 20.75    |
|               |            | 50       | 25        | 21.01    | 20.92    | 20.89    |
|               |            | 50       | 50        | 20.92    | 20.87    | 20.88    |
|               |            | 100      | 0         | 20.91    | 20.80    | 20.81    |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133147CH | 133297CH | 133447CH |
|               |            |          |           | 665.5MHz | 680.5MHz | 695.5MHz |
| 71 / 5MHz     | QPSK       | 1        | 0         | 23.23    | 23.11    | 23.06    |
|               |            | 1        | 13        | 23.27    | 23.09    | 23.04    |
|               |            | 1        | 24        | 23.25    | 23.07    | 23.00    |
|               |            | 12       | 0         | 22.12    | 22.02    | 22.09    |
|               |            | 12       | 6         | 22.15    | 22.04    | 22.02    |
|               |            | 12       | 11        | 22.12    | 21.98    | 21.99    |
|               |            | 25       | 0         | 22.15    | 22.03    | 22.03    |
|               | 16QAM      | 1        | 0         | 22.24    | 22.23    | 22.58    |
|               |            | 1        | 13        | 22.33    | 22.23    | 22.57    |
|               |            | 1        | 24        | 22.31    | 22.23    | 22.50    |
|               |            | 12       | 0         | 21.24    | 21.12    | 21.22    |
|               |            | 12       | 6         | 21.22    | 21.13    | 21.17    |
|               |            | 12       | 11        | 21.20    | 21.06    | 21.14    |
|               |            | 25       | 0         | 21.11    | 21.07    | 21.10    |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133172CH | 133297CH | 133422CH |
|               |            |          |           | 668MHz   | 680.5MHz | 693MHz   |
| 71 / 10MHz    | QPSK       | 1        | 0         | 22.10    | 22.07    | 22.02    |
|               |            | 1        | 25        | 23.03    | 23.02    | 23.02    |
|               |            | 1        | 49        | 23.33    | 23.36    | 23.39    |
|               |            | 25       | 0         | 21.94    | 21.82    | 21.85    |
|               |            | 25       | 13        | 22.07    | 22.07    | 22.10    |
|               |            | 25       | 25        | 22.10    | 22.10    | 22.10    |
|               |            | 50       | 0         | 21.98    | 21.96    | 21.95    |
|               | 16QAM      | 1        | 0         | 21.09    | 21.47    | 21.15    |
|               |            | 1        | 25        | 21.99    | 22.40    | 22.09    |
|               |            | 1        | 49        | 22.30    | 22.72    | 22.31    |
|               |            | 25       | 0         | 20.95    | 20.88    | 20.96    |
|               |            | 25       | 13        | 21.12    | 21.11    | 21.15    |
|               |            | 25       | 25        | 21.13    | 21.12    | 21.22    |
|               |            | 50       | 0         | 21.01    | 20.99    | 21.01    |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133197CH | 133297CH | 133397CH |
|               |            |          |           | 670.5MHz | 680.5MHz | 690.5MHz |
| 71 / 15MHz    | QPSK       | 1        | 0         | 22.48    | 22.44    | 22.41    |
|               |            | 1        | 38        | 22.90    | 22.89    | 22.91    |
|               |            | 1        | 74        | 22.57    | 22.71    | 22.59    |
|               |            | 36       | 0         | 21.64    | 21.65    | 21.59    |
|               |            | 36       | 18        | 21.93    | 21.86    | 21.90    |
|               |            | 36       | 39        | 21.75    | 21.73    | 21.82    |
|               |            | 75       | 0         | 21.77    | 21.72    | 21.71    |
|               | 16QAM      | 1        | 0         | 21.50    | 21.87    | 21.90    |
|               |            | 1        | 38        | 21.99    | 22.34    | 22.42    |
|               |            | 1        | 74        | 21.70    | 22.07    | 22.11    |
|               |            | 36       | 0         | 20.69    | 20.70    | 20.57    |
|               |            | 36       | 18        | 20.99    | 20.92    | 20.90    |
|               |            | 36       | 39        | 20.82    | 20.74    | 20.78    |
|               |            | 75       | 0         | 20.78    | 20.75    | 20.70    |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133222CH | 133322CH | 133372CH |
|               |            |          |           | 673MHz   | 683MHz   | 688MHz   |
| 71 / 20MHz    | QPSK       | 1        | 0         | 21.56    | 21.62    | 21.52    |
|               |            | 1        | 50        | 22.88    | 22.88    | 22.87    |
|               |            | 1        | 99        | 22.57    | 22.62    | 22.54    |
|               |            | 50       | 0         | 21.41    | 21.39    | 21.28    |
|               |            | 50       | 25        | 21.91    | 21.83    | 21.81    |
|               |            | 50       | 50        | 21.75    | 21.72    | 21.70    |
|               |            | 100      | 0         | 21.66    | 21.56    | 21.54    |
|               | 16QAM      | 1        | 0         | 21.17    | 21.26    | 21.27    |
|               |            | 1        | 50        | 22.53    | 22.45    | 22.57    |
|               |            | 1        | 99        | 22.14    | 22.22    | 22.18    |
|               |            | 50       | 0         | 20.51    | 20.46    | 20.44    |
|               |            | 50       | 25        | 20.94    | 20.89    | 20.96    |
|               |            | 50       | 50        | 20.76    | 20.80    | 20.81    |
|               |            | 100      | 0         | 20.70    | 20.57    | 20.58    |

| EIRP (dBm) |                 |               |           |           |
|------------|-----------------|---------------|-----------|-----------|
| Modulation | Band            | WCDMA Band IV |           |           |
|            | Tx Channel      | 1312CH        | 1413CH    | 1513CH    |
|            | Frequency       | 1712.4MHz     | 1732.6MHz | 1752.6MHz |
| QPSK       | RMC 12.2K       | 26.17         | 26.75     | 26.87     |
|            | RMC 64K         | 26.08         | 26.65     | 26.79     |
|            | RMC 144K        | 26.03         | 26.60     | 26.74     |
|            | RMC 384K        | 26.02         | 26.61     | 26.75     |
|            | HSDPA Subtest-1 | 24.80         | 25.26     | 25.33     |
|            | HSDPA Subtest-2 | 24.79         | 25.30     | 25.38     |
|            | HSDPA Subtest-3 | 24.26         | 24.81     | 24.88     |
|            | HSDPA Subtest-4 | 24.25         | 24.80     | 24.87     |
|            | HSUPA Subtest-1 | 24.65         | 25.28     | 25.43     |
|            | HSUPA Subtest-2 | 22.50         | 23.22     | 23.34     |
|            | HSUPA Subtest-3 | 23.58         | 24.27     | 24.40     |
|            | HSUPA Subtest-4 | 22.47         | 23.19     | 23.30     |
|            | HSUPA Subtest-5 | 24.73         | 25.42     | 25.53     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 19957CH   | 20175CH   | 20393CH   |
|               |            |         |           | 1710.7MHz | 1732.5MHz | 1754.3MHz |
| 4 / 1.4MHz    | QPSK       | 1       | 0         | 26.29     | 26.32     | 26.44     |
|               |            | 1       | 2         | 26.35     | 26.30     | 26.51     |
|               |            | 1       | 5         | 26.23     | 26.37     | 26.36     |
|               |            | 3       | 0         | 26.30     | 26.20     | 26.34     |
|               |            | 3       | 1         | 26.35     | 26.25     | 26.44     |
|               |            | 3       | 2         | 26.19     | 26.31     | 26.39     |
|               |            | 6       | 0         | 25.19     | 25.30     | 25.37     |
|               | 16QAM      | 1       | 0         | 25.67     | 25.27     | 25.48     |
|               |            | 1       | 2         | 25.73     | 25.21     | 25.52     |
|               |            | 1       | 5         | 25.61     | 25.36     | 25.46     |
|               |            | 3       | 0         | 25.46     | 25.39     | 25.44     |
|               |            | 3       | 1         | 25.49     | 25.47     | 25.46     |
|               |            | 3       | 2         | 25.35     | 25.46     | 25.44     |
|               |            | 6       | 0         | 24.18     | 24.52     | 24.52     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 19965CH   | 20175CH   | 20385CH   |
|               |            |         |           | 1711.5MHz | 1732.5MHz | 1753.5MHz |
| 4 / 3MHz      | QPSK       | 1       | 0         | 26.24     | 26.46     | 26.45     |
|               |            | 1       | 7         | 26.24     | 26.39     | 26.48     |
|               |            | 1       | 14        | 26.26     | 26.40     | 26.42     |
|               |            | 8       | 0         | 25.30     | 25.37     | 25.38     |
|               |            | 8       | 4         | 25.25     | 25.37     | 25.46     |
|               |            | 8       | 7         | 25.24     | 25.42     | 25.43     |
|               |            | 15      | 0         | 25.20     | 25.43     | 25.42     |
|               | 16QAM      | 1       | 0         | 25.24     | 25.70     | 25.49     |
|               |            | 1       | 7         | 25.17     | 25.76     | 25.49     |
|               |            | 1       | 14        | 25.20     | 25.67     | 25.38     |
|               |            | 8       | 0         | 24.44     | 24.39     | 24.45     |
|               |            | 8       | 4         | 24.37     | 24.38     | 24.52     |
|               |            | 8       | 7         | 24.35     | 24.42     | 24.47     |
|               |            | 15      | 0         | 24.27     | 24.39     | 24.44     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 19975CH   | 20175CH   | 20375CH   |
|               |            |         |           | 1712.5MHz | 1732.5MHz | 1752.5MHz |
| 4 / 5MHz      | QPSK       | 1       | 0         | 26.53     | 26.60     | 26.54     |
|               |            | 1       | 13        | 26.48     | 26.56     | 26.48     |
|               |            | 1       | 24        | 26.47     | 26.52     | 26.51     |
|               |            | 12      | 0         | 25.36     | 25.41     | 25.49     |
|               |            | 12      | 6         | 25.42     | 25.38     | 25.42     |
|               |            | 12      | 11        | 25.31     | 25.41     | 25.39     |
|               |            | 25      | 0         | 25.39     | 25.48     | 25.41     |
|               | 16QAM      | 1       | 0         | 25.54     | 25.87     | 25.54     |
|               |            | 1       | 13        | 25.50     | 25.83     | 25.48     |
|               |            | 1       | 24        | 25.49     | 25.73     | 25.53     |
|               |            | 12      | 0         | 24.37     | 24.50     | 24.54     |
|               |            | 12      | 6         | 24.39     | 24.44     | 24.48     |
|               |            | 12      | 11        | 24.35     | 24.49     | 24.43     |
|               |            | 25      | 0         | 24.32     | 24.47     | 24.36     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH    | High CH |
|---------------|------------|---------|-----------|---------|-----------|---------|
|               |            |         |           | 20000CH | 20175CH   | 20350CH |
|               |            |         |           | 1715MHz | 1732.5MHz | 1750MHz |
| 4 / 10MHz     | QPSK       | 1       | 0         | 26.54   | 26.66     | 26.56   |
|               |            | 1       | 25        | 26.29   | 26.47     | 26.32   |
|               |            | 1       | 49        | 26.76   | 26.87     | 26.85   |
|               |            | 25      | 0         | 25.41   | 25.34     | 25.38   |
|               |            | 25      | 13        | 25.34   | 25.49     | 25.37   |
|               |            | 25      | 25        | 25.48   | 25.53     | 25.53   |
|               |            | 50      | 0         | 25.41   | 25.51     | 25.39   |
|               | 16QAM      | 1       | 0         | 25.45   | 25.97     | 25.60   |
|               |            | 1       | 25        | 25.16   | 25.68     | 25.32   |
|               |            | 1       | 49        | 25.59   | 26.09     | 25.82   |
|               |            | 25      | 0         | 24.32   | 24.29     | 24.53   |
|               |            | 25      | 13        | 24.29   | 24.39     | 24.49   |
|               |            | 25      | 25        | 24.39   | 24.38     | 24.57   |
|               |            | 50      | 0         | 24.29   | 24.45     | 24.44   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH    | High CH   |
|---------------|------------|---------|-----------|-----------|-----------|-----------|
|               |            |         |           | 20025CH   | 20175CH   | 20325CH   |
|               |            |         |           | 1717.5MHz | 1732.5MHz | 1747.5MHz |
| 4 / 15MHz     | QPSK       | 1       | 0         | 26.11     | 26.23     | 26.17     |
|               |            | 1       | 38        | 26.20     | 26.41     | 26.36     |
|               |            | 1       | 74        | 26.07     | 26.27     | 26.22     |
|               |            | 36      | 0         | 25.20     | 25.28     | 25.33     |
|               |            | 36      | 18        | 25.35     | 25.34     | 25.32     |
|               |            | 36      | 39        | 25.24     | 25.35     | 25.33     |
|               |            | 75      | 0         | 25.15     | 25.36     | 25.28     |
|               | 16QAM      | 1       | 0         | 25.10     | 25.63     | 25.65     |
|               |            | 1       | 38        | 25.17     | 25.79     | 25.85     |
|               |            | 1       | 74        | 25.03     | 25.66     | 25.70     |
|               |            | 36      | 0         | 24.21     | 24.37     | 24.34     |
|               |            | 36      | 18        | 24.34     | 24.39     | 24.32     |
|               |            | 36      | 39        | 24.27     | 24.40     | 24.34     |
|               |            | 75      | 0         | 24.20     | 24.39     | 24.31     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH    | High CH |
|---------------|------------|---------|-----------|---------|-----------|---------|
|               |            |         |           | 20050CH | 20175CH   | 20300CH |
|               |            |         |           | 1720MHz | 1732.5MHz | 1740MHz |
| 4 / 20MHz     | QPSK       | 1       | 0         | 25.75   | 25.92     | 25.90   |
|               |            | 1       | 50        | 26.33   | 26.43     | 26.38   |
|               |            | 1       | 99        | 26.10   | 26.05     | 26.14   |
|               |            | 50      | 0         | 25.09   | 25.20     | 25.14   |
|               |            | 50      | 25        | 25.22   | 25.37     | 25.31   |
|               |            | 50      | 50        | 25.18   | 25.26     | 25.19   |
|               |            | 100     | 0         | 25.14   | 25.30     | 25.21   |
|               | 16QAM      | 1       | 0         | 25.24   | 25.34     | 25.39   |
|               |            | 1       | 50        | 25.76   | 25.76     | 25.87   |
|               |            | 1       | 99        | 25.52   | 25.46     | 25.63   |
|               |            | 50      | 0         | 24.14   | 24.15     | 24.24   |
|               |            | 50      | 25        | 24.29   | 24.39     | 24.40   |
|               |            | 50      | 50        | 24.25   | 24.28     | 24.27   |
|               |            | 100     | 0         | 24.19   | 24.28     | 24.29   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 20775CH   | 21100CH | 21425CH   |
|               |            |         |           | 2502.5MHz | 2535MHz | 2567.5MHz |
| 7 / 5MHz      | QPSK       | 1       | 0         | 25.36     | 25.33   | 25.29     |
|               |            | 1       | 13        | 25.51     | 25.23   | 25.24     |
|               |            | 1       | 24        | 25.49     | 25.20   | 25.24     |
|               |            | 12      | 0         | 24.42     | 24.25   | 24.21     |
|               |            | 12      | 6         | 24.42     | 24.24   | 24.20     |
|               |            | 12      | 11        | 24.38     | 24.25   | 24.20     |
|               |            | 25      | 0         | 24.40     | 24.24   | 24.18     |
|               | 16QAM      | 1       | 0         | 24.50     | 24.51   | 24.70     |
|               |            | 1       | 13        | 24.51     | 24.40   | 24.66     |
|               |            | 1       | 24        | 24.47     | 24.34   | 24.61     |
|               |            | 12      | 0         | 23.53     | 23.30   | 23.33     |
|               |            | 12      | 6         | 23.51     | 23.32   | 23.33     |
|               |            | 12      | 11        | 23.46     | 23.29   | 23.30     |
|               |            | 25      | 0         | 23.40     | 23.23   | 23.22     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|---------|-----------|---------|---------|---------|
|               |            |         |           | 20800CH | 21100CH | 21400CH |
|               |            |         |           | 2505MHz | 2535MHz | 2565MHz |
| 7 / 10MHz     | QPSK       | 1       | 0         | 25.51   | 25.41   | 25.26   |
|               |            | 1       | 25        | 25.36   | 25.22   | 25.08   |
|               |            | 1       | 49        | 25.49   | 25.24   | 25.17   |
|               |            | 25      | 0         | 24.41   | 24.31   | 24.17   |
|               |            | 25      | 13        | 24.39   | 24.18   | 24.14   |
|               |            | 25      | 25        | 24.35   | 24.17   | 24.09   |
|               |            | 50      | 0         | 24.40   | 24.19   | 24.16   |
|               | 16QAM      | 1       | 0         | 24.50   | 24.75   | 24.32   |
|               |            | 1       | 25        | 24.35   | 24.57   | 24.13   |
|               |            | 1       | 49        | 24.43   | 24.59   | 24.23   |
|               |            | 25      | 0         | 23.44   | 23.35   | 23.23   |
|               |            | 25      | 13        | 23.42   | 23.25   | 23.21   |
|               |            | 25      | 25        | 23.40   | 23.18   | 23.19   |
|               |            | 50      | 0         | 23.39   | 23.26   | 23.17   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 20825CH   | 21100CH | 21375CH   |
|               |            |         |           | 2507.5MHz | 2535MHz | 2562.5MHz |
| 7 / 15MHz     | QPSK       | 1       | 0         | 25.31     | 25.14   | 24.95     |
|               |            | 1       | 38        | 25.45     | 25.23   | 25.13     |
|               |            | 1       | 74        | 25.19     | 24.93   | 24.86     |
|               |            | 36      | 0         | 24.50     | 24.21   | 24.09     |
|               |            | 36      | 18        | 24.53     | 24.26   | 24.15     |
|               |            | 36      | 39        | 24.48     | 24.14   | 24.05     |
|               |            | 75      | 0         | 24.49     | 24.15   | 24.12     |
|               | 16QAM      | 1       | 0         | 24.26     | 24.58   | 24.38     |
|               |            | 1       | 38        | 24.40     | 24.63   | 24.50     |
|               |            | 1       | 74        | 24.21     | 24.36   | 24.29     |
|               |            | 36      | 0         | 23.55     | 23.29   | 23.08     |
|               |            | 36      | 18        | 23.60     | 23.30   | 23.18     |
|               |            | 36      | 39        | 23.51     | 23.18   | 23.05     |
|               |            | 75      | 0         | 23.49     | 23.25   | 23.04     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|---------|-----------|---------|---------|---------|
|               |            |         |           | 20850CH | 21100CH | 21350CH |
|               |            |         |           | 2510MHz | 2535MHz | 2560MHz |
| 7 / 20MHz     | QPSK       | 1       | 0         | 25.27   | 25.05   | 24.83   |
|               |            | 1       | 50        | 25.67   | 25.16   | 25.04   |
|               |            | 1       | 99        | 25.22   | 24.73   | 24.73   |
|               |            | 50      | 0         | 24.47   | 24.26   | 24.04   |
|               |            | 50      | 25        | 24.48   | 24.23   | 24.10   |
|               |            | 50      | 50        | 24.41   | 24.07   | 24.00   |
|               |            | 100     | 0         | 24.38   | 24.11   | 24.02   |
|               | 16QAM      | 1       | 0         | 24.76   | 24.56   | 24.23   |
|               |            | 1       | 50        | 24.96   | 24.69   | 24.46   |
|               |            | 1       | 99        | 24.61   | 24.27   | 24.11   |
|               |            | 50      | 0         | 23.49   | 23.30   | 23.04   |
|               |            | 50      | 25        | 23.51   | 23.26   | 23.14   |
|               |            | 50      | 50        | 23.43   | 23.06   | 23.02   |
|               |            | 100     | 0         | 23.47   | 23.15   | 23.04   |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 37775CH   | 38000CH | 38225CH   |
|               |            |          |           | 2572.5MHz | 2593MHz | 2617.5MHz |
| 38 / 5MHz     | QPSK       | 1        | 0         | 24.87     | 24.57   | 24.52     |
|               |            | 1        | 13        | 24.79     | 24.49   | 24.45     |
|               |            | 1        | 24        | 24.74     | 24.43   | 24.39     |
|               |            | 12       | 0         | 23.81     | 23.61   | 23.46     |
|               |            | 12       | 6         | 23.77     | 23.63   | 23.44     |
|               |            | 12       | 11        | 23.77     | 23.65   | 23.43     |
|               |            | 25       | 0         | 23.79     | 23.66   | 23.44     |
|               | 16QAM      | 1        | 0         | 24.17     | 24.04   | 23.79     |
|               |            | 1        | 13        | 24.11     | 24.03   | 23.74     |
|               |            | 1        | 24        | 24.02     | 23.93   | 23.69     |
|               |            | 12       | 0         | 22.81     | 22.75   | 22.54     |
|               |            | 12       | 6         | 22.76     | 22.75   | 22.48     |
|               |            | 12       | 11        | 22.74     | 22.71   | 22.51     |
|               |            | 25       | 0         | 22.77     | 22.62   | 22.47     |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|----------|-----------|---------|---------|---------|
|               |            |          |           | 37800CH | 38000CH | 38200CH |
|               |            |          |           | 2575MHz | 2593MHz | 2615MHz |
| 38 / 10MHz    | QPSK       | 1        | 0         | 24.89   | 24.82   | 25.04   |
|               |            | 1        | 25        | 24.65   | 24.65   | 24.60   |
|               |            | 1        | 49        | 24.93   | 25.01   | 24.88   |
|               |            | 25       | 0         | 23.78   | 23.64   | 23.61   |
|               |            | 25       | 13        | 23.75   | 23.68   | 23.54   |
|               |            | 25       | 25        | 23.78   | 23.64   | 23.53   |
|               |            | 50       | 0         | 23.83   | 23.66   | 23.53   |
|               | 16QAM      | 1        | 0         | 24.49   | 24.03   | 24.22   |
|               |            | 1        | 25        | 24.14   | 23.91   | 23.96   |
|               |            | 1        | 49        | 24.50   | 24.25   | 24.17   |
|               |            | 25       | 0         | 22.85   | 22.60   | 22.59   |
|               |            | 25       | 13        | 22.79   | 22.69   | 22.53   |
|               |            | 25       | 25        | 22.83   | 22.70   | 22.51   |
|               |            | 50       | 0         | 22.87   | 22.68   | 22.54   |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|----------|-----------|-----------|---------|-----------|
|               |            |          |           | 37825CH   | 38000CH | 38175CH   |
|               |            |          |           | 2577.5MHz | 2593MHz | 2612.5MHz |
| 38 / 15MHz    | QPSK       | 1        | 0         | 25.56     | 25.25   | 24.72     |
|               |            | 1        | 38        | 25.46     | 25.07   | 24.48     |
|               |            | 1        | 74        | 25.21     | 24.58   | 24.18     |
|               |            | 36       | 0         | 24.56     | 24.27   | 23.73     |
|               |            | 36       | 18        | 24.52     | 24.20   | 23.66     |
|               |            | 36       | 39        | 24.37     | 23.92   | 23.46     |
|               |            | 75       | 0         | 24.41     | 24.09   | 23.56     |
|               | 16QAM      | 1        | 0         | 24.88     | 24.55   | 24.28     |
|               |            | 1        | 38        | 24.77     | 24.38   | 24.07     |
|               |            | 1        | 74        | 24.50     | 23.89   | 23.77     |
|               |            | 36       | 0         | 23.63     | 23.30   | 22.76     |
|               |            | 36       | 18        | 23.60     | 23.24   | 22.69     |
|               |            | 36       | 39        | 23.44     | 22.96   | 22.49     |
|               |            | 75       | 0         | 23.46     | 23.15   | 22.61     |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|----------|-----------|---------|---------|---------|
|               |            |          |           | 37850CH | 38000CH | 38150CH |
|               |            |          |           | 2580MHz | 2593MHz | 2610MHz |
| 38 / 20MHz    | QPSK       | 1        | 0         | 25.40   | 25.29   | 24.85   |
|               |            | 1        | 50        | 25.31   | 25.10   | 24.47   |
|               |            | 1        | 99        | 24.84   | 24.48   | 24.17   |
|               |            | 50       | 0         | 24.47   | 24.25   | 23.87   |
|               |            | 50       | 25        | 24.41   | 24.14   | 23.61   |
|               |            | 50       | 50        | 24.12   | 23.87   | 23.41   |
|               |            | 100      | 0         | 24.33   | 24.07   | 23.63   |
|               | 16QAM      | 1        | 0         | 24.75   | 24.47   | 24.33   |
|               |            | 1        | 50        | 24.66   | 24.29   | 23.96   |
|               |            | 1        | 99        | 24.19   | 23.69   | 23.66   |
|               |            | 50       | 0         | 23.49   | 23.29   | 22.91   |
|               |            | 50       | 25        | 23.44   | 23.18   | 22.67   |
|               |            | 50       | 50        | 23.16   | 22.91   | 22.48   |
|               |            | 100      | 0         | 23.36   | 23.11   | 22.67   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 39675CH   | 40620CH | 41565CH   |
|               |            |         |           | 2498.5MHz | 2593MHz | 2687.5MHz |
| 41 / 5MHz     | QPSK       | 1       | 0         | 25.46     | 25.06   | 25.07     |
|               |            | 1       | 13        | 25.42     | 25.16   | 25.02     |
|               |            | 1       | 24        | 25.41     | 24.99   | 25.00     |
|               |            | 12      | 0         | 24.39     | 24.12   | 23.99     |
|               |            | 12      | 6         | 24.35     | 24.13   | 23.99     |
|               |            | 12      | 11        | 24.38     | 24.16   | 24.01     |
|               |            | 25      | 0         | 24.39     | 24.16   | 24.06     |
|               | 16QAM      | 1       | 0         | 24.76     | 24.43   | 24.42     |
|               |            | 1       | 13        | 24.77     | 24.45   | 24.42     |
|               |            | 1       | 24        | 24.80     | 24.34   | 24.43     |
|               |            | 12      | 0         | 23.50     | 23.14   | 23.16     |
|               |            | 12      | 6         | 23.50     | 23.16   | 23.15     |
|               |            | 12      | 11        | 23.49     | 23.18   | 23.10     |
|               |            | 25      | 0         | 23.39     | 23.20   | 23.05     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 39700CH   | 40620CH | 41540CH   |
|               |            |         |           | 2501.0MHz | 2593MHz | 2685.0MHz |
| 41 / 10MHz    | QPSK       | 1       | 0         | 25.17     | 24.96   | 25.26     |
|               |            | 1       | 25        | 25.28     | 25.21   | 25.33     |
|               |            | 1       | 49        | 25.16     | 25.06   | 25.11     |
|               |            | 25      | 0         | 24.38     | 24.08   | 24.06     |
|               |            | 25      | 13        | 24.41     | 24.19   | 24.01     |
|               |            | 25      | 25        | 24.28     | 24.02   | 23.98     |
|               |            | 50      | 0         | 24.41     | 24.08   | 23.93     |
|               | 16QAM      | 1       | 0         | 24.49     | 24.40   | 24.41     |
|               |            | 1       | 25        | 24.69     | 24.59   | 24.39     |
|               |            | 1       | 49        | 24.49     | 24.45   | 24.36     |
|               |            | 25      | 0         | 23.38     | 23.06   | 23.04     |
|               |            | 25      | 13        | 23.43     | 23.16   | 23.04     |
|               |            | 25      | 25        | 23.31     | 23.08   | 22.99     |
|               |            | 50      | 0         | 23.39     | 23.11   | 22.96     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 39725CH   | 40620CH | 41515CH   |
|               |            |         |           | 2503.5MHz | 2593MHz | 2682.5MHz |
| 41 / 15MHz    | QPSK       | 1       | 0         | 25.79     | 26.22   | 25.60     |
|               |            | 1       | 38        | 25.66     | 25.83   | 25.59     |
|               |            | 1       | 74        | 25.36     | 25.30   | 25.19     |
|               |            | 36      | 0         | 24.68     | 24.97   | 24.57     |
|               |            | 36      | 18        | 24.68     | 24.91   | 24.53     |
|               |            | 36      | 39        | 24.51     | 24.60   | 24.52     |
|               |            | 75      | 0         | 24.61     | 24.81   | 24.61     |
|               | 16QAM      | 1       | 0         | 25.21     | 25.67   | 25.01     |
|               |            | 1       | 38        | 25.07     | 25.28   | 25.00     |
|               |            | 1       | 74        | 24.76     | 24.76   | 24.61     |
|               |            | 36      | 0         | 23.73     | 24.01   | 23.68     |
|               |            | 36      | 18        | 23.74     | 23.97   | 23.64     |
|               |            | 36      | 39        | 23.55     | 23.65   | 23.63     |
|               |            | 75      | 0         | 23.68     | 23.88   | 23.70     |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH    | Mid CH  | High CH   |
|---------------|------------|---------|-----------|-----------|---------|-----------|
|               |            |         |           | 39750CH   | 40620CH | 41490CH   |
|               |            |         |           | 2506.0MHz | 2593MHz | 2680.0MHz |
| 41 / 20MHz    | QPSK       | 1       | 0         | 25.83     | 26.22   | 25.48     |
|               |            | 1       | 50        | 25.64     | 25.82   | 25.51     |
|               |            | 1       | 99        | 25.20     | 25.13   | 25.16     |
|               |            | 50      | 0         | 24.66     | 25.06   | 24.56     |
|               |            | 50      | 25        | 24.56     | 24.93   | 24.54     |
|               |            | 50      | 50        | 24.42     | 24.52   | 24.53     |
|               |            | 100     | 0         | 24.62     | 24.85   | 24.41     |
|               | 16QAM      | 1       | 0         | 25.21     | 25.69   | 24.78     |
|               |            | 1       | 50        | 25.03     | 25.29   | 24.81     |
|               |            | 1       | 99        | 24.60     | 24.60   | 24.48     |
|               |            | 50      | 0         | 23.73     | 24.11   | 23.65     |
|               |            | 50      | 25        | 23.63     | 24.00   | 23.61     |
|               |            | 50      | 50        | 23.49     | 23.56   | 23.61     |
|               |            | 100     | 0         | 23.68     | 23.90   | 23.49     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 131979CH  | 132322CH | 132665CH  |
|               |            |          |           | 1710.7MHz | 1745MHz  | 1779.3MHz |
| 66 / 1.4MHz   | QPSK       | 1        | 0         | 25.90     | 26.00    | 25.97     |
|               |            | 1        | 2         | 25.98     | 26.07    | 25.89     |
|               |            | 1        | 5         | 25.94     | 25.95    | 25.66     |
|               |            | 3        | 0         | 25.87     | 25.97    | 25.86     |
|               |            | 3        | 1         | 25.91     | 26.00    | 25.82     |
|               |            | 3        | 2         | 25.88     | 25.95    | 25.65     |
|               |            | 6        | 0         | 24.83     | 24.91    | 24.94     |
|               | 16QAM      | 1        | 0         | 24.98     | 25.31    | 24.95     |
|               |            | 1        | 2         | 24.99     | 25.35    | 24.96     |
|               |            | 1        | 5         | 25.00     | 25.29    | 24.85     |
|               |            | 3        | 0         | 24.92     | 25.19    | 25.07     |
|               |            | 3        | 1         | 24.94     | 25.20    | 25.15     |
|               |            | 3        | 2         | 24.93     | 25.12    | 25.03     |
|               |            | 6        | 0         | 24.01     | 23.88    | 24.07     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 131987CH  | 132322CH | 132657CH  |
|               |            |          |           | 1711.5MHz | 1745MHz  | 1778.5MHz |
| 66 / 3MHz     | QPSK       | 1        | 0         | 25.88     | 26.09    | 26.07     |
|               |            | 1        | 7         | 25.92     | 26.05    | 25.95     |
|               |            | 1        | 14        | 25.85     | 25.96    | 25.48     |
|               |            | 8        | 0         | 24.91     | 25.00    | 24.98     |
|               |            | 8        | 4         | 24.95     | 24.99    | 25.00     |
|               |            | 8        | 7         | 24.82     | 24.94    | 25.00     |
|               |            | 15       | 0         | 24.92     | 24.97    | 24.95     |
|               | 16QAM      | 1        | 0         | 24.86     | 25.41    | 25.05     |
|               |            | 1        | 7         | 24.83     | 25.35    | 24.97     |
|               |            | 1        | 14        | 24.80     | 25.28    | 24.76     |
|               |            | 8        | 0         | 24.01     | 24.11    | 24.04     |
|               |            | 8        | 4         | 24.05     | 24.09    | 24.05     |
|               |            | 8        | 7         | 23.92     | 24.07    | 24.02     |
|               |            | 15       | 0         | 23.97     | 24.00    | 23.96     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 131997CH  | 132322CH | 132647CH  |
|               |            |          |           | 1712.5MHz | 1745MHz  | 1777.5MHz |
| 66 / 5MHz     | QPSK       | 1        | 0         | 26.07     | 26.29    | 26.06     |
|               |            | 1        | 13        | 25.98     | 26.09    | 26.03     |
|               |            | 1        | 24        | 25.90     | 26.05    | 25.43     |
|               |            | 12       | 0         | 24.97     | 25.06    | 25.11     |
|               |            | 12       | 6         | 24.90     | 25.01    | 25.06     |
|               |            | 12       | 11        | 24.89     | 24.98    | 25.04     |
|               |            | 25       | 0         | 24.89     | 25.03    | 25.02     |
|               | 16QAM      | 1        | 0         | 25.15     | 25.62    | 25.12     |
|               |            | 1        | 13        | 25.09     | 25.51    | 25.06     |
|               |            | 1        | 24        | 25.04     | 25.45    | 24.73     |
|               |            | 12       | 0         | 24.04     | 24.22    | 24.11     |
|               |            | 12       | 6         | 23.95     | 24.18    | 24.02     |
|               |            | 12       | 11        | 23.99     | 24.11    | 24.00     |
|               |            | 25       | 0         | 23.87     | 24.11    | 23.94     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 132022CH | 132322CH | 132622CH |
|               |            |          |           | 1715MHz  | 1745MHz  | 1775MHz  |
| 66 / 10MHz    | QPSK       | 1        | 0         | 25.20    | 25.38    | 25.31    |
|               |            | 1        | 25        | 25.84    | 25.98    | 25.92    |
|               |            | 1        | 49        | 26.26    | 26.45    | 25.12    |
|               |            | 25       | 0         | 24.83    | 24.97    | 24.94    |
|               |            | 25       | 13        | 24.94    | 25.06    | 25.02    |
|               |            | 25       | 25        | 25.00    | 25.08    | 25.15    |
|               |            | 50       | 0         | 24.91    | 25.01    | 24.95    |
|               | 16QAM      | 1        | 0         | 24.19    | 24.71    | 24.32    |
|               |            | 1        | 25        | 24.79    | 25.30    | 24.90    |
|               |            | 1        | 49        | 25.19    | 25.73    | 24.38    |
|               |            | 25       | 0         | 23.83    | 23.99    | 23.96    |
|               |            | 25       | 13        | 23.93    | 24.06    | 24.09    |
|               |            | 25       | 25        | 24.03    | 24.03    | 24.16    |
|               |            | 50       | 0         | 23.90    | 24.03    | 23.98    |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH    | Mid CH   | High CH   |
|---------------|------------|----------|-----------|-----------|----------|-----------|
|               |            |          |           | 132047CH  | 132322CH | 132597CH  |
|               |            |          |           | 1717.5MHz | 1745MHz  | 1772.5MHz |
| 66 / 15MHz    | QPSK       | 1        | 0         | 23.01     | 23.13    | 23.07     |
|               |            | 1        | 38        | 22.85     | 22.90    | 22.93     |
|               |            | 1        | 74        | 22.96     | 22.85    | 22.36     |
|               |            | 36       | 0         | 21.99     | 21.89    | 21.96     |
|               |            | 36       | 18        | 21.92     | 21.88    | 21.96     |
|               |            | 36       | 39        | 21.88     | 21.82    | 21.88     |
|               |            | 75       | 0         | 21.86     | 21.83    | 21.88     |
|               | 16QAM      | 1        | 0         | 22.01     | 22.46    | 22.47     |
|               |            | 1        | 38        | 21.84     | 22.26    | 22.33     |
|               |            | 1        | 74        | 21.93     | 22.21    | 22.02     |
|               |            | 36       | 0         | 20.99     | 20.93    | 20.97     |
|               |            | 36       | 18        | 20.95     | 20.95    | 20.99     |
|               |            | 36       | 39        | 20.90     | 20.85    | 20.92     |
|               |            | 75       | 0         | 20.86     | 20.86    | 20.93     |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 132072CH | 132322CH | 132572CH |
|               |            |          |           | 1720MHz  | 1745MHz  | 1770MHz  |
| 66 / 20MHz    | QPSK       | 1        | 0         | 25.59    | 25.55    | 25.50    |
|               |            | 1        | 50        | 25.95    | 25.85    | 25.86    |
|               |            | 1        | 99        | 26.24    | 25.96    | 25.27    |
|               |            | 50       | 0         | 24.81    | 24.75    | 24.75    |
|               |            | 50       | 25        | 24.93    | 24.86    | 24.87    |
|               |            | 50       | 50        | 24.88    | 24.81    | 24.86    |
|               |            | 100      | 0         | 24.81    | 24.79    | 24.81    |
|               | 16QAM      | 1        | 0         | 25.03    | 25.02    | 24.86    |
|               |            | 1        | 50        | 25.44    | 25.32    | 25.17    |
|               |            | 1        | 99        | 25.65    | 25.47    | 24.91    |
|               |            | 50       | 0         | 23.85    | 23.79    | 23.73    |
|               |            | 50       | 25        | 23.99    | 23.90    | 23.87    |
|               |            | 50       | 50        | 23.90    | 23.85    | 23.86    |
|               |            | 100      | 0         | 23.89    | 23.78    | 23.79    |

**ERP (dBm)**

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|---------|-----------|----------|----------|----------|
|               |            |         |           | 23017CH  | 23095CH  | 23173CH  |
|               |            |         |           | 699.7MHz | 707.5MHz | 715.3MHz |
| 12 / 1.4MHz   | QPSK       | 1       | 0         | 22.38    | 22.26    | 22.42    |
|               |            | 1       | 2         | 22.45    | 22.31    | 22.49    |
|               |            | 1       | 5         | 22.30    | 22.31    | 22.35    |
|               |            | 3       | 0         | 22.40    | 22.29    | 22.38    |
|               |            | 3       | 1         | 22.41    | 22.37    | 22.43    |
|               |            | 3       | 2         | 22.39    | 22.35    | 22.33    |
|               |            | 6       | 0         | 21.35    | 21.30    | 21.32    |
|               | 16QAM      | 1       | 0         | 21.84    | 21.33    | 21.53    |
|               |            | 1       | 2         | 21.89    | 21.38    | 21.55    |
|               |            | 1       | 5         | 21.78    | 21.41    | 21.48    |
|               |            | 3       | 0         | 21.58    | 21.49    | 21.48    |
|               |            | 3       | 1         | 21.63    | 21.54    | 21.50    |
|               |            | 3       | 2         | 21.56    | 21.52    | 21.39    |
|               |            | 6       | 0         | 20.29    | 20.51    | 20.50    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|---------|-----------|----------|----------|----------|
|               |            |         |           | 23025CH  | 23095CH  | 23165CH  |
|               |            |         |           | 700.5MHz | 707.5MHz | 714.5MHz |
| 12 / 3MHz     | QPSK       | 1       | 0         | 22.36    | 22.40    | 22.51    |
|               |            | 1       | 7         | 22.35    | 22.42    | 22.51    |
|               |            | 1       | 14        | 22.37    | 22.35    | 22.43    |
|               |            | 8       | 0         | 21.42    | 21.38    | 21.50    |
|               |            | 8       | 4         | 21.33    | 21.34    | 21.46    |
|               |            | 8       | 7         | 21.34    | 21.38    | 21.46    |
|               |            | 15      | 0         | 21.33    | 21.33    | 21.43    |
|               | 16QAM      | 1       | 0         | 21.40    | 21.86    | 21.55    |
|               |            | 1       | 7         | 21.37    | 21.87    | 21.53    |
|               |            | 1       | 14        | 21.37    | 21.81    | 21.41    |
|               |            | 8       | 0         | 20.55    | 20.49    | 20.50    |
|               |            | 8       | 4         | 20.48    | 20.43    | 20.47    |
|               |            | 8       | 7         | 20.47    | 20.43    | 20.52    |
|               |            | 15      | 0         | 20.36    | 20.36    | 20.38    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|---------|-----------|----------|----------|----------|
|               |            |         |           | 23035CH  | 23095CH  | 23155CH  |
|               |            |         |           | 701.5MHz | 707.5MHz | 713.5MHz |
| 12 / 5MHz     | QPSK       | 1       | 0         | 22.53    | 22.36    | 22.56    |
|               |            | 1       | 13        | 22.52    | 22.39    | 22.61    |
|               |            | 1       | 24        | 22.45    | 22.42    | 22.44    |
|               |            | 12      | 0         | 21.34    | 21.38    | 21.41    |
|               |            | 12      | 6         | 21.39    | 21.33    | 21.50    |
|               |            | 12      | 11        | 21.41    | 21.41    | 21.47    |
|               |            | 25      | 0         | 21.37    | 21.35    | 21.47    |
|               | 16QAM      | 1       | 0         | 21.59    | 21.84    | 21.66    |
|               |            | 1       | 13        | 21.62    | 21.89    | 21.66    |
|               |            | 1       | 24        | 21.57    | 21.91    | 21.51    |
|               |            | 12      | 0         | 20.44    | 20.51    | 20.53    |
|               |            | 12      | 6         | 20.47    | 20.46    | 20.58    |
|               |            | 12      | 11        | 20.50    | 20.51    | 20.53    |
|               |            | 25      | 0         | 20.38    | 20.38    | 20.43    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH   | High CH |
|---------------|------------|---------|-----------|---------|----------|---------|
|               |            |         |           | 23060CH | 23095CH  | 23130CH |
|               |            |         |           | 704MHz  | 707.5MHz | 711MHz  |
| 12 / 10MHz    | QPSK       | 1       | 0         | 22.57   | 22.62    | 22.67   |
|               |            | 1       | 25        | 22.33   | 22.40    | 22.43   |
|               |            | 1       | 49        | 22.51   | 22.58    | 22.43   |
|               |            | 25      | 0         | 21.45   | 21.41    | 21.37   |
|               |            | 25      | 13        | 21.32   | 21.39    | 21.32   |
|               |            | 25      | 25        | 21.41   | 21.45    | 21.36   |
|               |            | 50      | 0         | 21.44   | 21.38    | 21.44   |
|               | 16QAM      | 1       | 0         | 21.63   | 21.94    | 21.74   |
|               |            | 1       | 25        | 21.35   | 21.68    | 21.53   |
|               |            | 1       | 49        | 21.48   | 21.85    | 21.42   |
|               |            | 25      | 0         | 20.43   | 20.42    | 20.44   |
|               |            | 25      | 13        | 20.32   | 20.44    | 20.45   |
|               |            | 25      | 25        | 20.42   | 20.47    | 20.49   |
|               |            | 50      | 0         | 20.41   | 20.41    | 20.49   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH  | High CH  |
|---------------|------------|---------|-----------|----------|---------|----------|
|               |            |         |           | CH23205  | CH23230 | CH23255  |
|               |            |         |           | 779.5MHz | 782MHz  | 784.5MHz |
| 13 / 5MHz     | QPSK       | 1       | 0         | 22.66    | 22.63   | 22.68    |
|               |            | 1       | 13        | 22.53    | 22.62   | 22.78    |
|               |            | 1       | 24        | 22.58    | 22.68   | 22.84    |
|               |            | 12      | 0         | 21.52    | 21.59   | 21.63    |
|               |            | 12      | 6         | 21.49    | 21.61   | 21.75    |
|               |            | 12      | 11        | 21.42    | 21.66   | 21.73    |
|               |            | 25      | 0         | 21.52    | 21.63   | 21.63    |
|               | 16QAM      | 1       | 0         | 21.64    | 21.77   | 22.06    |
|               |            | 1       | 13        | 21.57    | 21.76   | 22.13    |
|               |            | 1       | 24        | 21.66    | 21.80   | 22.25    |
|               |            | 12      | 0         | 20.65    | 20.67   | 20.71    |
|               |            | 12      | 6         | 20.56    | 20.70   | 20.77    |
|               |            | 12      | 11        | 20.47    | 20.70   | 20.77    |
|               |            | 25      | 0         | 20.44    | 20.63   | 20.68    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Mid CH  |
|---------------|------------|---------|-----------|---------|
|               |            |         |           | CH23230 |
|               |            |         |           | 782MHz  |
| 13 / 10MHz    | QPSK       | 1       | 0         | 22.79   |
|               |            | 1       | 25        | 22.58   |
|               |            | 1       | 49        | 22.84   |
|               |            | 25      | 0         | 21.67   |
|               |            | 25      | 13        | 21.61   |
|               |            | 25      | 25        | 21.60   |
|               |            | 50      | 0         | 21.73   |
|               | 16QAM      | 1       | 0         | 21.71   |
|               |            | 1       | 25        | 21.49   |
|               |            | 1       | 49        | 21.73   |
|               |            | 25      | 0         | 20.64   |
|               |            | 25      | 13        | 20.53   |
|               |            | 25      | 25        | 20.63   |
|               |            | 50      | 0         | 20.66   |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH   | Mid CH  | High CH  |
|---------------|------------|---------|-----------|----------|---------|----------|
|               |            |         |           | 23755CH  | 23790CH | 23825CH  |
|               |            |         |           | 706.5MHz | 710MHz  | 713.5MHz |
| 17 / 5MHz     | QPSK       | 1       | 0         | 22.36    | 22.29   | 22.24    |
|               |            | 1       | 13        | 22.35    | 22.23   | 22.30    |
|               |            | 1       | 24        | 22.38    | 22.23   | 22.24    |
|               |            | 12      | 0         | 21.33    | 21.24   | 21.19    |
|               |            | 12      | 6         | 21.30    | 21.20   | 21.30    |
|               |            | 12      | 11        | 21.29    | 21.25   | 21.18    |
|               |            | 25      | 0         | 21.31    | 21.20   | 21.27    |
|               | 16QAM      | 1       | 0         | 21.41    | 21.46   | 21.71    |
|               |            | 1       | 13        | 21.43    | 21.43   | 21.78    |
|               |            | 1       | 24        | 21.40    | 21.42   | 21.63    |
|               |            | 12      | 0         | 20.37    | 20.33   | 20.34    |
|               |            | 12      | 6         | 20.35    | 20.31   | 20.39    |
|               |            | 12      | 11        | 20.35    | 20.36   | 20.35    |
|               |            | 25      | 0         | 20.18    | 20.24   | 20.32    |

| LTE Band / BW | Modulation | RB Size | RB Offset | Low CH  | Mid CH  | High CH |
|---------------|------------|---------|-----------|---------|---------|---------|
|               |            |         |           | 23780CH | 23790CH | 23800CH |
|               |            |         |           | 709MHz  | 710MHz  | 711MHz  |
| 17 / 10MHz    | QPSK       | 1       | 0         | 22.47   | 22.46   | 22.44   |
|               |            | 1       | 25        | 22.19   | 22.24   | 22.19   |
|               |            | 1       | 49        | 22.31   | 22.31   | 22.24   |
|               |            | 25      | 0         | 21.36   | 21.23   | 21.29   |
|               |            | 25      | 13        | 21.31   | 21.21   | 21.20   |
|               |            | 25      | 25        | 21.24   | 21.28   | 21.21   |
|               |            | 50      | 0         | 21.32   | 21.29   | 21.34   |
|               | 16QAM      | 1       | 0         | 21.52   | 21.56   | 21.88   |
|               |            | 1       | 25        | 21.19   | 21.26   | 21.54   |
|               |            | 1       | 49        | 21.30   | 21.32   | 21.70   |
|               |            | 25      | 0         | 20.37   | 20.30   | 20.39   |
|               |            | 25      | 13        | 20.27   | 20.30   | 20.27   |
|               |            | 25      | 25        | 20.25   | 20.33   | 20.27   |
|               |            | 50      | 0         | 20.31   | 20.30   | 20.38   |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133147CH | 133297CH | 133447CH |
|               |            |          |           | 665.5MHz | 680.5MHz | 695.5MHz |
| 71 / 5MHz     | QPSK       | 1        | 0         | 22.69    | 22.57    | 22.52    |
|               |            | 1        | 13        | 22.73    | 22.55    | 22.50    |
|               |            | 1        | 24        | 22.71    | 22.53    | 22.46    |
|               |            | 12       | 0         | 21.58    | 21.48    | 21.55    |
|               |            | 12       | 6         | 21.61    | 21.50    | 21.48    |
|               |            | 12       | 11        | 21.58    | 21.44    | 21.45    |
|               |            | 25       | 0         | 21.61    | 21.49    | 21.49    |
|               | 16QAM      | 1        | 0         | 21.70    | 21.69    | 22.04    |
|               |            | 1        | 13        | 21.79    | 21.69    | 22.03    |
|               |            | 1        | 24        | 21.77    | 21.69    | 21.96    |
|               |            | 12       | 0         | 20.70    | 20.58    | 20.68    |
|               |            | 12       | 6         | 20.68    | 20.59    | 20.63    |
|               |            | 12       | 11        | 20.66    | 20.52    | 20.60    |
|               |            | 25       | 0         | 20.57    | 20.53    | 20.56    |

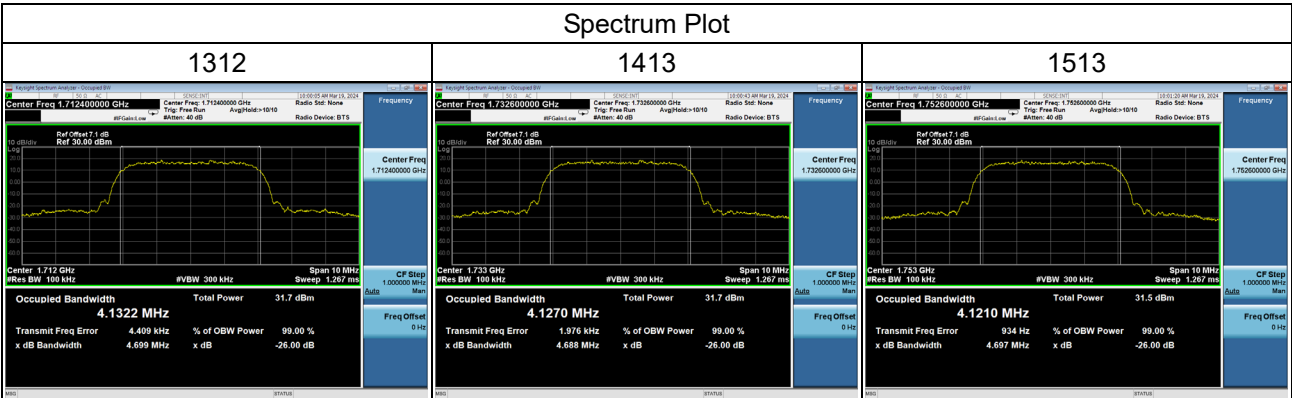
| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133172CH | 133297CH | 133422CH |
|               |            |          |           | 668MHz   | 680.5MHz | 693MHz   |
| 71 / 10MHz    | QPSK       | 1        | 0         | 21.56    | 21.53    | 21.48    |
|               |            | 1        | 25        | 22.49    | 22.48    | 22.48    |
|               |            | 1        | 49        | 22.79    | 22.82    | 22.85    |
|               |            | 25       | 0         | 21.40    | 21.28    | 21.31    |
|               |            | 25       | 13        | 21.53    | 21.53    | 21.56    |
|               |            | 25       | 25        | 21.56    | 21.56    | 21.56    |
|               |            | 50       | 0         | 21.44    | 21.42    | 21.41    |
|               | 16QAM      | 1        | 0         | 20.55    | 20.93    | 20.61    |
|               |            | 1        | 25        | 21.45    | 21.86    | 21.55    |
|               |            | 1        | 49        | 21.76    | 22.18    | 21.77    |
|               |            | 25       | 0         | 20.41    | 20.34    | 20.42    |
|               |            | 25       | 13        | 20.58    | 20.57    | 20.61    |
|               |            | 25       | 25        | 20.59    | 20.58    | 20.68    |
|               |            | 50       | 0         | 20.47    | 20.45    | 20.47    |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133197CH | 133297CH | 133397CH |
|               |            |          |           | 670.5MHz | 680.5MHz | 690.5MHz |
| 71 / 15MHz    | QPSK       | 1        | 0         | 21.94    | 21.90    | 21.87    |
|               |            | 1        | 38        | 22.36    | 22.35    | 22.37    |
|               |            | 1        | 74        | 22.03    | 22.17    | 22.05    |
|               |            | 36       | 0         | 21.10    | 21.11    | 21.05    |
|               |            | 36       | 18        | 21.39    | 21.32    | 21.36    |
|               |            | 36       | 39        | 21.21    | 21.19    | 21.28    |
|               |            | 75       | 0         | 21.23    | 21.18    | 21.17    |
|               | 16QAM      | 1        | 0         | 20.96    | 21.33    | 21.36    |
|               |            | 1        | 38        | 21.45    | 21.80    | 21.88    |
|               |            | 1        | 74        | 21.16    | 21.53    | 21.57    |
|               |            | 36       | 0         | 20.15    | 20.16    | 20.03    |
|               |            | 36       | 18        | 20.45    | 20.38    | 20.36    |
|               |            | 36       | 39        | 20.28    | 20.20    | 20.24    |
|               |            | 75       | 0         | 20.24    | 20.21    | 20.16    |

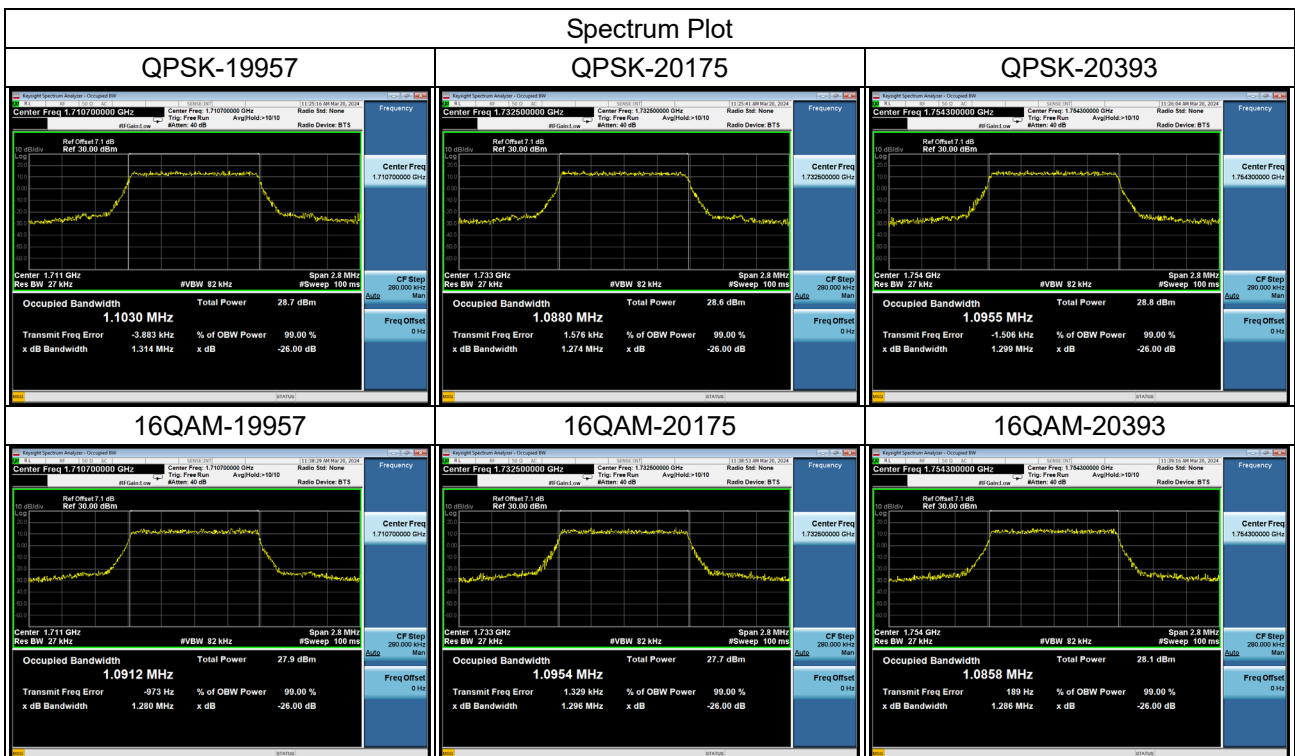
| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH   | Mid CH   | High CH  |
|---------------|------------|----------|-----------|----------|----------|----------|
|               |            |          |           | 133222CH | 133322CH | 133372CH |
|               |            |          |           | 673MHz   | 683MHz   | 688MHz   |
| 71 / 20MHz    | QPSK       | 1        | 0         | 21.02    | 21.08    | 20.98    |
|               |            | 1        | 50        | 22.34    | 22.34    | 22.33    |
|               |            | 1        | 99        | 22.03    | 22.08    | 22.00    |
|               |            | 50       | 0         | 20.87    | 20.85    | 20.74    |
|               |            | 50       | 25        | 21.37    | 21.29    | 21.27    |
|               |            | 50       | 50        | 21.21    | 21.18    | 21.16    |
|               |            | 100      | 0         | 21.12    | 21.02    | 21.00    |
|               | 16QAM      | 1        | 0         | 20.63    | 20.72    | 20.73    |
|               |            | 1        | 50        | 21.99    | 21.91    | 22.03    |
|               |            | 1        | 99        | 21.60    | 21.68    | 21.64    |
|               |            | 50       | 0         | 19.97    | 19.92    | 19.90    |
|               |            | 50       | 25        | 20.40    | 20.35    | 20.42    |
|               |            | 50       | 50        | 20.22    | 20.26    | 20.27    |
|               |            | 100      | 0         | 20.16    | 20.03    | 20.04    |

## APPENDIX B - OCCUPIED BANDWIDTH

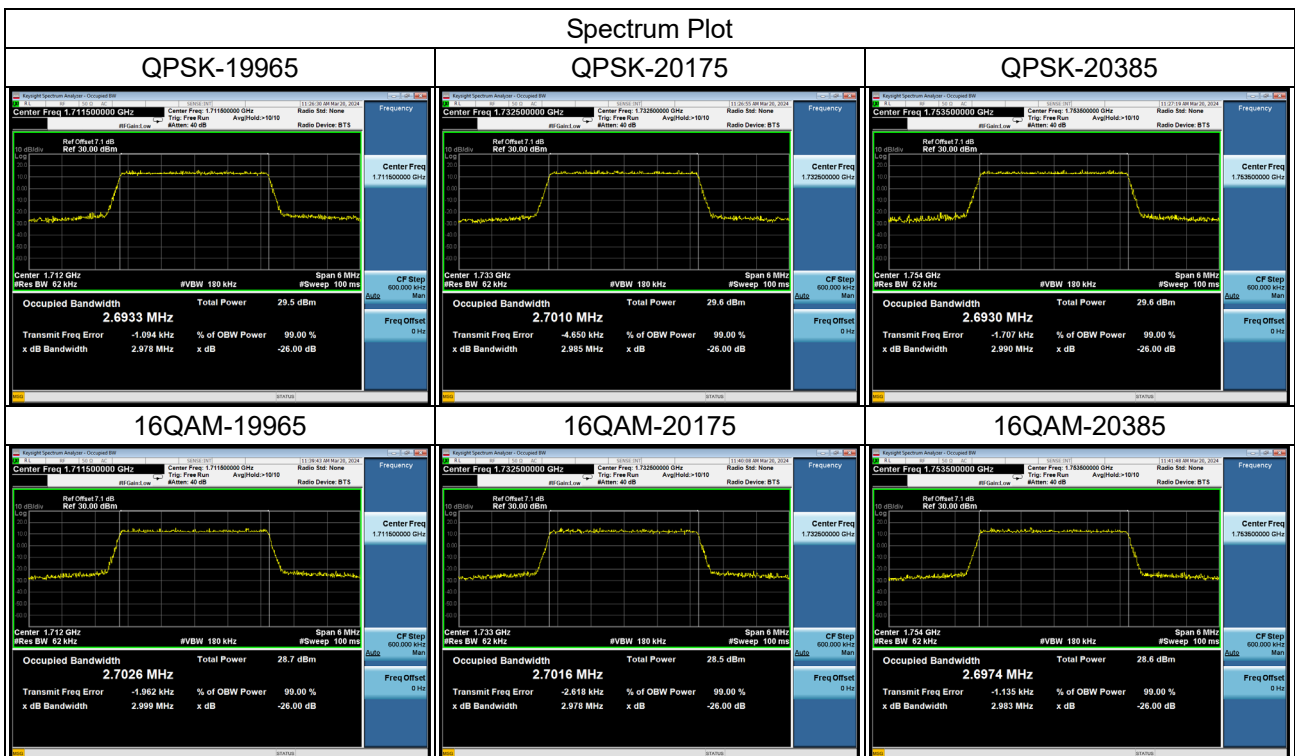
| WCDMA Band IV_WCDMA |                 |                              |                      |
|---------------------|-----------------|------------------------------|----------------------|
| Channel             | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) |
|                     |                 | QPSK                         | QPSK                 |
| 1312                | 1712.4          | 4.1322                       | 4.699                |
| 1413                | 1732.6          | 4.1270                       | 4.688                |
| 1513                | 1752.6          | 4.1210                       | 4.697                |



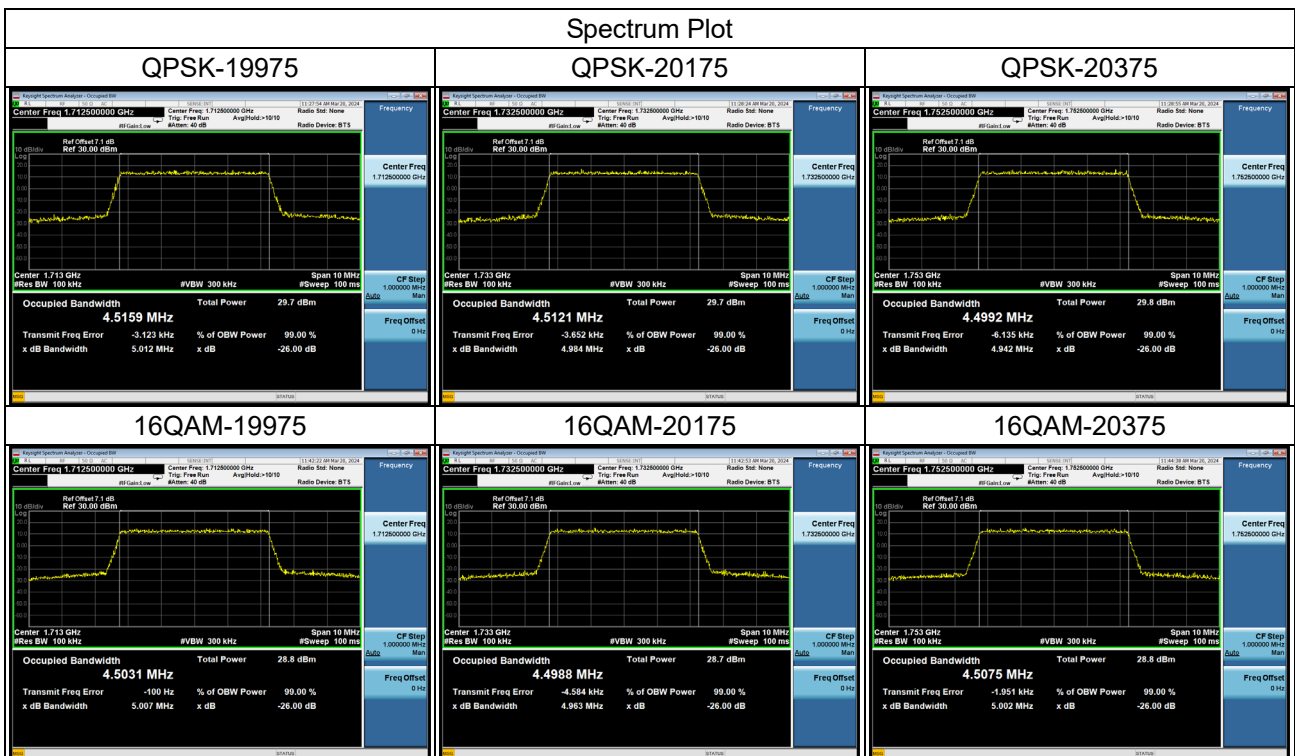
| LTE Band 4_1.4MHz |                 |                              |        |                      |       |
|-------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel           | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                   |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 19957             | 1710.7          | 1.1030                       | 1.0912 | 1.314                | 1.280 |
| 20175             | 1732.5          | 1.0880                       | 1.0954 | 1.274                | 1.296 |
| 20393             | 1754.3          | 1.0955                       | 1.0858 | 1.299                | 1.286 |



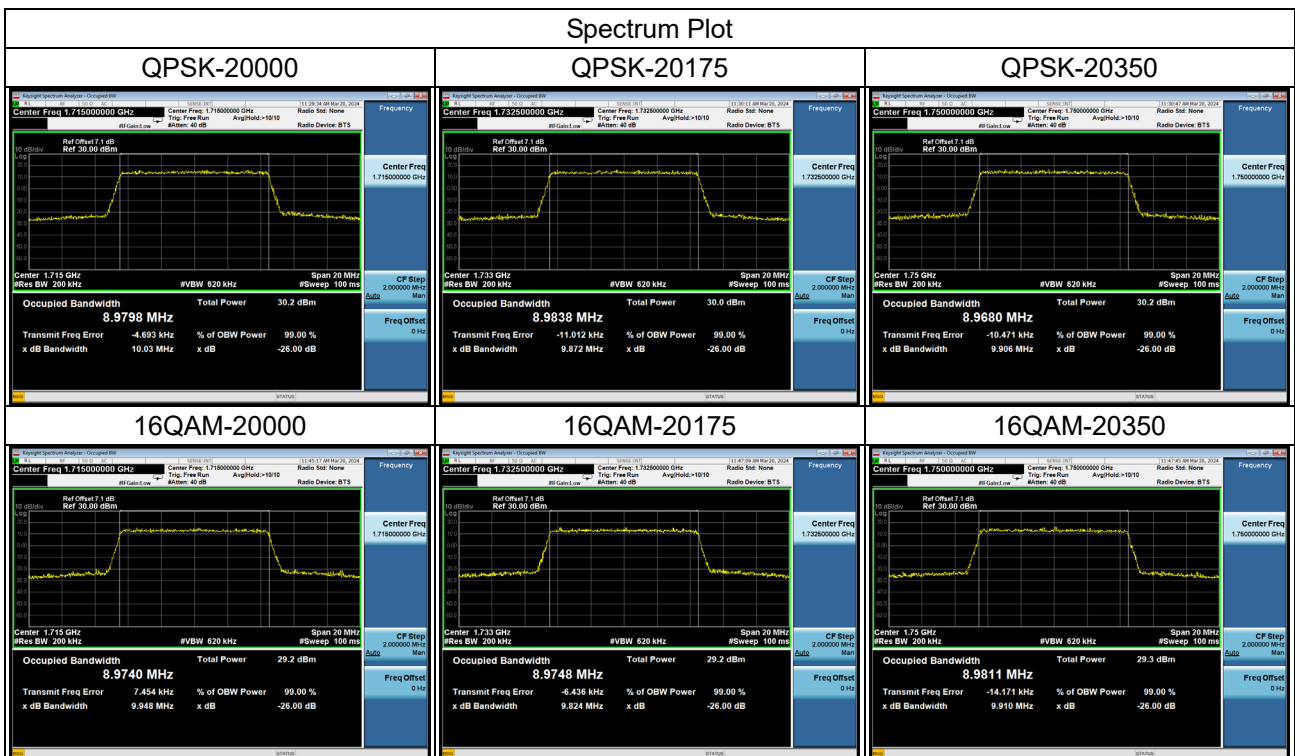
| LTE Band 4_3MHz |                 |                              |        |                      |       |
|-----------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel         | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                 |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 19965           | 1711.5          | 2.6933                       | 2.7026 | 2.978                | 2.999 |
| 20175           | 1732.5          | 2.7010                       | 2.7016 | 2.985                | 2.978 |
| 20385           | 1753.5          | 2.6930                       | 2.6974 | 2.990                | 2.983 |



| LTE Band 4_5MHz |                 |                              |        |                      |       |
|-----------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel         | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                 |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 19975           | 1712.5          | 4.5159                       | 4.5031 | 5.012                | 5.007 |
| 20175           | 1732.5          | 4.5121                       | 4.4988 | 4.984                | 4.963 |
| 20375           | 1752.5          | 4.4992                       | 4.5075 | 4.942                | 5.002 |



| LTE Band 4_10MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20000            | 1715            | 8.9798                       | 8.9740 | 10.03                | 9.948 |
| 20175            | 1732.5          | 8.9838                       | 8.9748 | 9.872                | 9.824 |
| 20350            | 1715            | 8.9680                       | 8.9811 | 9.906                | 9.910 |



| LTE Band 4_15MHz |                 |                              |        |                      |       |
|------------------|-----------------|------------------------------|--------|----------------------|-------|
| Channel          | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |        | 26dB Bandwidth (MHz) |       |
|                  |                 | QPSK                         | 16QAM  | QPSK                 | 16QAM |
| 20025            | 1717.5          | 13.466                       | 13.439 | 14.69                | 14.74 |
| 20175            | 1732.5          | 13.447                       | 13.454 | 14.69                | 14.63 |
| 20325            | 1747.5          | 13.443                       | 13.462 | 14.68                | 14.61 |

