

## TEST REPORT

**Applicant:** INGENICO

**Address:** 9 Avenue de la gare - Rovaltain TGV, BP25156, Valence Cedex 9,  
26958 ,France

**Product Name:** Smart POS Terminal

**FCC ID:** XKB-DX4LOBCLWB

**Standard(s):** 47 CFR Part 2, 47 CFR Part 22, Subpart H  
47 CFR Part 24, Subpart E  
47 CFR Part 27  
ANSI C63.26-2015

**Report Number:** 2402Y99420E-RF-00EA1

**Report Date:** 2025/2/13

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

*Pedro Yun*

**Reviewed By:** Pedro Yun

Title: Project Engineer

*Gavin Xu*

**Approved By:** Gavin Xu

Title: RF Supervisor

---

**Bay Area Compliance Laboratories Corp. (Dongguan)**  
No.12, Pulong East 1<sup>st</sup> Road, Tangxia Town, Dongguan, Guangdong, China

Tel: +86-769-86858888

Fax: +86-769-86858891

[www.baclcorp.com.cn](http://www.baclcorp.com.cn)

Note: The information marked ▲ is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report cannot be reproduced except in full, without prior written approval of the Company. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0. This report may contain data that are not covered by the accreditation scope and shall be marked with ★. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government. Each test item follows the test standard(s) without deviation.

## CONTENTS

|                                                                |           |
|----------------------------------------------------------------|-----------|
| <b>DOCUMENT REVISION HISTORY .....</b>                         | <b>4</b>  |
| <b>1. GENERAL INFORMATION .....</b>                            | <b>5</b>  |
| 1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....   | 5         |
| 1.2 ACCESSORY INFORMATION.....                                 | 5         |
| 1.3 OPERATION VOLTAGE( $V_{DC}$ )▲: .....                      | 6         |
| 1.4 TRANSMISSION ANTENNA INFORMATION▲ .....                    | 6         |
| 1.5 EQUIPMENT MODIFICATIONS .....                              | 6         |
| <b>2. SUMMARY OF TEST RESULTS .....</b>                        | <b>7</b>  |
| <b>3. DESCRIPTION OF TEST CONFIGURATION .....</b>              | <b>8</b>  |
| 3.1 EUT OPERATION CONDITION: .....                             | 8         |
| 3.2 SUPPORT EQUIPMENT LIST AND DETAILS .....                   | 12        |
| 3.3 SUPPORT CABLE LIST AND DETAILS .....                       | 12        |
| 3.4 BLOCK DIAGRAM OF TEST SETUP .....                          | 12        |
| 3.5 TEST FACILITY.....                                         | 13        |
| 3.6 MEASUREMENT UNCERTAINTY .....                              | 13        |
| <b>4. REQUIREMENTS AND TEST PROCEDURES .....</b>               | <b>14</b> |
| 4.1 APPLICABLE STANDARD FOR PART 22 SUBPART H: .....           | 14        |
| 4.2 APPLICABLE STANDARD FOR PART 24 SUBPART E: .....           | 15        |
| 4.3 APPLICABLE STANDARD FOR PART 27: .....                     | 16        |
| 4.4 TEST METHOD: .....                                         | 19        |
| <b>5. Test DATA AND RESULTS.....</b>                           | <b>22</b> |
| 5.1 ANTENNA PORT TEST DATA AND RESULTS FOR GSM 850 BAND:.....  | 22        |
| 5.2 ANTENNA PORT TEST DATA AND RESULTS FOR GSM 1900 BAND:..... | 24        |
| 5.3 ANTENNA PORT TEST DATA AND RESULTS FOR WCDMA BAND 2: ..... | 26        |
| 5.4 ANTENNA PORT TEST DATA AND RESULTS FOR WCDMA BAND 4: ..... | 28        |
| 5.5 ANTENNA PORT TEST DATA AND RESULTS FOR WCDMA BAND 5: ..... | 30        |
| 5.6 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 2.....     | 33        |
| 5.7 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 4.....     | 36        |
| 5.8 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 5.....     | 41        |
| 5.9 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 7.....     | 44        |

|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <b>5.10 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 12.....</b> | <b>47</b> |
| <b>5.11 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 17.....</b> | <b>50</b> |
| <b>5.12 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 41.....</b> | <b>52</b> |
| <b>5.13 ANTENNA PORT TEST DATA AND RESULTS FOR LTE BAND 66.....</b> | <b>55</b> |
| <b>5.14 RADIATED SPURIOUS EMISSIONS.....</b>                        | <b>58</b> |
| <b>EXHIBIT A - EUT PHOTOGRAPHS.....</b>                             | <b>76</b> |
| <b>EXHIBIT B - TEST SETUP PHOTOGRAPHS .....</b>                     | <b>77</b> |

DOCUMENT REVISION HISTORY

| Revision Number | Report Number        | Description of Revision | Date of Revision |
|-----------------|----------------------|-------------------------|------------------|
| 1.0             | 2402Y99420E-RF-00EA1 | Original Report         | 2025/2/13        |

# 1. GENERAL INFORMATION

## 1.1 Product Description for Equipment under Test (EUT)

|                                   |                                                                                                                                                                                                                                 |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EUT Name:</b>                  | Smart POS Terminal                                                                                                                                                                                                              |
| <b>EUT Model:</b>                 | AXIUM DX4000                                                                                                                                                                                                                    |
| <b>Operation Bands and modes:</b> | GPRS/EDGE: 850/1900<br>WCDMA: Band 2/4/5<br>LTE: Band 2/4/5/7/12/17/41/66                                                                                                                                                       |
| <b>Modulation Type:</b>           | GMSK, 8PSK, BPSK, QPSK, 16QAM                                                                                                                                                                                                   |
| <b>Rated Input Voltage:</b>       | 5Vdc from adapter or 7.2/7.4Vdc from battery                                                                                                                                                                                    |
| <b>Serial Number:</b>             | For Radiated Spurious Emissions test:<br>2TOQ-1 (Configuration 1#: Screen 2#)<br>2TOQ-2 (Configuration 2#: Screen 1#)<br>For RF Conducted test:<br>2TOQ-3 (Configuration 1#: Screen 2#)<br>2TOQ-4 (Configuration 2#: Screen 1#) |
| <b>EUT Received Date:</b>         | 2024/10/16                                                                                                                                                                                                                      |
| <b>EUT Received Status:</b>       | Good                                                                                                                                                                                                                            |

## 1.2 Accessory Information

Adapter Information:

| Accessory Description | Manufacturer                                  | Model             | Parameters                                            |
|-----------------------|-----------------------------------------------|-------------------|-------------------------------------------------------|
| Adapter 1#            | Xiamen Keli Electronics Co., Ltd              | SW-0983           | Input: 100-240Vac 50/60Hz0.5A<br>Output: 5.0Vdc 2.0A  |
| Adapter 2#            | Jiangxi Jian Aohai Technology Co., Ltd        | A319-050200U-US2  | Input: 100-240Vac 50/60Hz0.5A<br>Output: 5.0Vdc 2.0A  |
| Adapter 3#            | Xiamen Keli Electronics Co., Ltd              | KL-WD050200U      | Input: 100-240Vac 50/60Hz0.5A<br>Output: 5.0Vdc 2.0A  |
| Adapter 4# (New)      | SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD | KA1602-0502000DEU | Input: 100-240Vac 50/60Hz0.35A<br>Output: 5.0Vdc 2.0A |

Battery Information:

| No.                  | Manufacturer                                                   | Model      | Rated Voltage/Capacity                       |
|----------------------|----------------------------------------------------------------|------------|----------------------------------------------|
| Battery 1#           | XinyuGanfeng Electronics Co.,Ltd.                              | LD1865N    | DC 7.4V Typical<br>Capacity:2200mAh/16.28Wh  |
| Battery 2# (Updated) | XinyuGanfeng Electronics Co.,Ltd.                              | LD18650P   | 7.2Vdc, Typical<br>Capacity:3350mAh, 24.12Wh |
| Battery 3# (Updated) | SCUD (Fujian) Electronics CO.,LTD.                             | LD18650K-1 | 7.2Vdc, Typical<br>Capacity:3350mAh, 24.12Wh |
| Battery 4# (New)     | Dongguan Veken Battery Co.,Ltd.<br>(Battery cell suplier: BAK) | LD18650N   | 7.2Vdc, Typical<br>Capacity:2200mAh, 15.84Wh |
| Battery 5# (New)     | Dongguan Veken Battery Co.,Ltd.<br>(Battery cell suplier: EVE) | LD18650N   | 7.2Vdc, Typical<br>Capacity:2200mAh, 15.84Wh |

Screen Information:

| No.            | Manufacturer                                           | Model    |
|----------------|--------------------------------------------------------|----------|
| Screen 1#      | GuangDonghongbosheng Optoelectronic Technology Co.,Ltd | MDT0500M |
| Screen 2#(New) | Shenzhen Great Prospect Optoelectronics Co.,Ltd.       | MDT0500N |

**1.3 Operation Voltage( $V_{DC}$ )▲:**

|         |      |         |     |          |     |
|---------|------|---------|-----|----------|-----|
| Lowest: | 6.95 | Normal: | 7.2 | Highest: | 8.4 |
|---------|------|---------|-----|----------|-----|

**1.4 Transmission Antenna Information▲**

| Manufacturer                                                                                     | Antenna Type | Operation Bands | Antenna Frequency Range (MHz) | Antenna Gain (Gr) (dBi) | Lc (dB) |
|--------------------------------------------------------------------------------------------------|--------------|-----------------|-------------------------------|-------------------------|---------|
| Fuzhou ZHONGTIANXUN communication technology Co., Ltd                                            | FPC          | GSM850          | 824-849                       | -1.13                   | 0.2     |
|                                                                                                  |              | PCS1900         | 1850-1910                     | 0.45                    | 0.3     |
|                                                                                                  |              | WCDMA B2        | 1850-1910                     | 0.45                    | 0.3     |
|                                                                                                  |              | WCDMA B4        | 1710-1755                     | 1.81                    | 0.3     |
|                                                                                                  |              | WCDMA B5        | 824-849                       | -1.13                   | 0.2     |
|                                                                                                  |              | LTE B2          | 1850-1910                     | 0.45                    | 0.3     |
|                                                                                                  |              | LTE B4          | 1710-1755                     | 1.81                    | 0.3     |
|                                                                                                  |              | LTE B5          | 824-849                       | -1.13                   | 0.2     |
|                                                                                                  |              | LTE B7          | 2500-2570                     | 2.65                    | 0.4     |
|                                                                                                  |              | LTE B12         | 699-716                       | -3.94                   | 0.2     |
|                                                                                                  |              | LTE B17         | 704-716                       | -3.94                   | 0.2     |
|                                                                                                  |              | LTE B41         | 2496-2690                     | 2.67                    | 0.4     |
|                                                                                                  |              | LTE B66         | 1710-1780                     | 1.81                    | 0.3     |
| Note: Lc= Signal Attenuation in the connecting cable between the transmitter and antenna, in dB. |              |                 |                               |                         |         |

**1.5 Equipment Modifications**

No modifications are made to the EUT during all test items.

## 2. SUMMARY OF TEST RESULTS

| Rules                                                   | Description of Test                                                    | Result         |
|---------------------------------------------------------|------------------------------------------------------------------------|----------------|
| FCC§2.1046;<br>§ 22.913;§ 24.232;<br>§27.50;            | RF Output Power                                                        | Compliant      |
| FCC§ 2.1047                                             | Modulation Characteristics                                             | Not Applicable |
| FCC§ 2.1049;<br>§ 22.905, §22.917;<br>§ 24.238; §27.53; | Occupied Bandwidth                                                     | Note*          |
| FCC§ 2.1051;§ 22.917;<br>§ 24.238; §27.53;              | Spurious Emissions at Antenna Terminal                                 | Note*          |
| FCC§ 22.917; § 24.238;<br>§27.53;                       | Out of band emission, Band Edge                                        | Note*          |
| FCC§ 2.1055;§ 22.355;<br>§ 24.235; §27.54;              | Frequency stability vs. temperature<br>Frequency stability vs. voltage | Note*          |
| FCC§ 2.1053§ 22.917;<br>§ 24.238; §27.53;               | Radiated Spurious Emission                                             | Compliant      |

Note 1: This is Class II permissive change application based on the original device, model: AXIUM DX4000, FCC ID: XKB-DX4LOBCLWB, please refer to report No.: CR221263969-00E<sup>▲</sup>, issued by China Certification ICT Co., Ltd (Dongguan) on 2023/4/23, which was provided by the manufacturer<sup>▲</sup>. Differences between the previous device and the current one are stated and guaranteed by the manufacturer, as following:

1. Add new Veken-2200mAh battery pack (2 different cells).
2. PCB upgrading with new Charge IC.
3. Add a new configuration with front camera.
4. Add a new Display.
5. WWAN Main Antenna changed.
6. Remove the Flypower adapter and add KEYU Multi-plug adapter..
7. Updated the label of current battery packs (LD18650P& LD18650k-1& LD18650N).
8. Changed battery protection circuit of LD18650k-1 and LD18650P.
9. Add the appearance color of the EUT.
10. Capacitors of NFC circuit adjusted.

The Bay Area Compliance Laboratories Corp. (Dongguan) is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.

Note 2: Per NFC report, powered by Battery 5# was the worst, so only performed it.

Note\*: Please refer to report No.: CR221263969-00E<sup>▲</sup>.

### 3. ESCRIPTION OF TEST CONFIGURATION

#### 3.1 EUT Operation Condition:

|                                                                                                                           |                                                               |
|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>EUT Operation Mode:</b>                                                                                                | The system was configured for testing in each operation mode. |
| <b>Equipment Modifications:</b>                                                                                           | No                                                            |
| <b>EUT Exercise Software:</b>                                                                                             | No                                                            |
| The maximum power was configured per 3GPP Standard for each operation modes as below setting:                             |                                                               |
| GPRS/EGPRS                                                                                                                |                                                               |
| Function: Menu select > GSM Mobile Station > GSM 850/1900                                                                 |                                                               |
| Press Connection control to choose the different menus                                                                    |                                                               |
| Press RESET > choose all the reset all settings                                                                           |                                                               |
| Connection Press Signal Off to turn off the signal and change settings                                                    |                                                               |
| Network Support > GPRS or GPRS + EGSM                                                                                     |                                                               |
| Main Service > Packet Data                                                                                                |                                                               |
| Service selection > Test Mode A – Auto Slot Config. off                                                                   |                                                               |
| MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting     |                                                               |
| > Slot configuration > Uplink/Gamma                                                                                       |                                                               |
| > 33 dBm for GPRS 850                                                                                                     |                                                               |
| > 30 dBm for GPRS 1900                                                                                                    |                                                               |
| > 27 dBm for EGPRS 850                                                                                                    |                                                               |
| > 26 dBm for EGPRS 1900                                                                                                   |                                                               |
| BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel                                   |                                                               |
| Frequency Offset > + 0 Hz                                                                                                 |                                                               |
| Mode > BCCH and TCH                                                                                                       |                                                               |
| BCCH Level > -85 dBm (May need to adjust if link is not stable)                                                           |                                                               |
| BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel] |                                                               |
| Channel Type > Off                                                                                                        |                                                               |
| P0 > 4 dB                                                                                                                 |                                                               |
| Slot Config > Unchanged (if already set under MS signal)                                                                  |                                                               |
| TCH > choose desired test channel                                                                                         |                                                               |
| Hopping > Off                                                                                                             |                                                               |
| Main Timeslot > 3                                                                                                         |                                                               |
| Network Coding Scheme > CS4 (GPRS) and MCS5 (EGPRS)                                                                       |                                                               |
| Bit Stream > 2E9-1 PSR Bit Stream                                                                                         |                                                               |
| AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input                                                  |                                                               |
| Connection Press Signal on to turn on the signal and change settings                                                      |                                                               |

**WCDMA**

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

|                                | <b>Mode</b>                      | <b>HSUPA</b>                                                                                                                                 | <b>HSUPA</b> | <b>HSUPA</b>                                         | <b>HSUPA</b> | <b>HSUPA</b>                                                                                                                                 |
|--------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|                                | <b>Subset</b>                    | <b>1</b>                                                                                                                                     | <b>2</b>     |                                                      | <b>4</b>     | <b>5</b>                                                                                                                                     |
| <b>WCDMA General Settings</b>  | Loopback Mode                    | Test Mode 1                                                                                                                                  |              |                                                      |              |                                                                                                                                              |
|                                | Rel99 RMC                        | 12.2kbps RMC                                                                                                                                 |              |                                                      |              |                                                                                                                                              |
|                                | HSDPA FRC                        | H-Set1                                                                                                                                       |              |                                                      |              |                                                                                                                                              |
|                                | HSUPA Test                       | HSUPA Loopback                                                                                                                               |              |                                                      |              |                                                                                                                                              |
|                                | Power Control Algorithm          | Algorithm2                                                                                                                                   |              |                                                      |              |                                                                                                                                              |
|                                | $\beta_c$                        | 11/15                                                                                                                                        | 6/15         | 15/15                                                | 2/15         | 15/15                                                                                                                                        |
|                                | $\beta_d$                        | 15/15                                                                                                                                        | 15/15        | 9 15                                                 | 1 / 5        | 0                                                                                                                                            |
|                                | $\beta_{ec}$                     | 20 /225                                                                                                                                      | 12/15        | 30 15                                                | 2/15         | 5/15                                                                                                                                         |
|                                | $\beta_c / \beta_d$              | 11/15                                                                                                                                        | 6/15         | 15/9                                                 | 2/15         | -                                                                                                                                            |
|                                | $\beta_{hs}$                     | 22/15                                                                                                                                        | 12/15        | 30 15                                                | 4/15         | 5/15                                                                                                                                         |
|                                | CM(dB)                           | 1.0                                                                                                                                          | 3.0          | 2.0                                                  | 3.0          | 1.0                                                                                                                                          |
|                                | PR(dB)                           | 0                                                                                                                                            | 2            | 1                                                    | 2            | 0                                                                                                                                            |
| <b>HSDPA Specific Settings</b> | DACK                             | 8                                                                                                                                            |              |                                                      |              |                                                                                                                                              |
|                                | DNAK                             | 8                                                                                                                                            |              |                                                      |              |                                                                                                                                              |
|                                | DCQI                             | 8                                                                                                                                            |              |                                                      |              |                                                                                                                                              |
|                                | Ack-Nack repetition factor       | 3                                                                                                                                            |              |                                                      |              |                                                                                                                                              |
|                                | CQI Feedback                     | 4ms                                                                                                                                          |              |                                                      |              |                                                                                                                                              |
|                                | CQI Repetition Factor            | 2                                                                                                                                            |              |                                                      |              |                                                                                                                                              |
|                                | $A_{hs} = \beta_{hs} / \beta_c$  | 30/15                                                                                                                                        |              |                                                      |              |                                                                                                                                              |
| <b>HSUPA Specific Settings</b> | DE-DPCCH                         | 6                                                                                                                                            |              | 8                                                    | 5            | 7                                                                                                                                            |
|                                | DHARQ                            | 0                                                                                                                                            | 0            | 0                                                    | 0            | 0                                                                                                                                            |
|                                | AG Index                         | 20                                                                                                                                           | 12           | 15                                                   | 17           | 21                                                                                                                                           |
|                                | ETFCI                            | 75                                                                                                                                           | 67           | 92                                                   | 71           | 81                                                                                                                                           |
|                                | Associated Max UL Data Rate k ps | 242.1                                                                                                                                        | 174.9        | 482.8                                                | 205.8        | 308.9                                                                                                                                        |
|                                | Referenc E_F 1                   | E-TFCI 11 E<br>E-TFCI PO 4<br>E-TFCI 67<br>E-TFCI PO 18<br>E-TFCI 71<br>E-TFCI PO23<br>E-TFCI 75<br>E-TFCI PO26<br>E-TFCI 81<br>E-TFCI PO 27 |              | E-TFCI 11<br>E-TFCI PO4<br>E-TFCI 92<br>E-TFCI PO 18 |              | E-TFCI 11 E<br>E-TFCI PO 4<br>E-TFCI 67<br>E-TFCI PO 18<br>E-TFCI 71<br>E-TFCI PO23<br>E-TFCI 75<br>E-TFCI PO26<br>E-TFCI 81<br>E-TFCI PO 27 |
|                                |                                  |                                                                                                                                              |              |                                                      |              |                                                                                                                                              |
|                                |                                  |                                                                                                                                              |              |                                                      |              |                                                                                                                                              |

**LTE (FDD):**

The following tests were conducted according to the test requirements in 3GPP TS36.101

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3**

| Modulation | Channel bandwidth / Transmission bandwidth (RB) |         |       |        |        |        | MPR (dB) |
|------------|-------------------------------------------------|---------|-------|--------|--------|--------|----------|
|            | 1.4 MHz                                         | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz |          |
| QPSK       | > 5                                             | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 1      |
| 16 QAM     | ≤ 5                                             | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 1      |
| 64 QAM     | > 5                                             | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 2      |

The allowed A-MPR values specified below in Table 6.2.4-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS\_01".

**Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)**

| Network Signalling value | Requirements (sub-clause) | E-UTRA Band              | Channel bandwidth (MHz) | Resources Blocks ( $N_{RB}$ ) | A-MPR (dB)    |
|--------------------------|---------------------------|--------------------------|-------------------------|-------------------------------|---------------|
| NS_01                    | 6.6.2.1.1                 | Table 5.5-1              | 1.4, 3, 5, 10, 15, 20   | Table 5.6-1                   | NA            |
| NS_03                    | 6.6.2.2.1                 | 2, 4, 10, 23, 25, 35, 36 | 3                       | > 5                           | ≤ 1           |
|                          |                           |                          | 5                       | > 6                           | ≤ 1           |
|                          |                           |                          | 10                      | > 6                           | ≤ 1           |
|                          |                           |                          | 15                      | > 8                           | ≤ 1           |
|                          |                           |                          | 20                      | > 10                          | ≤ 1           |
| NS_04                    | 6.6.2.2.2                 | 41                       | 5                       | > 6                           | ≤ 1           |
|                          |                           |                          | 10, 15, 20              | See Table 6.2.4-4             |               |
| NS_05                    | 6.6.3.3.1                 | 1                        | 10, 15, 20              | ≥ 50                          | ≤ 1           |
| NS_06                    | 6.6.2.2.3                 | 12, 13, 14, 17           | 1.4, 3, 5, 10           | Table 5.6-1                   | n/a           |
| NS_07                    | 6.6.2.2.3                 | 13                       | 10                      | Table 6.2.4-2                 | Table 6.2.4-2 |
|                          | 6.6.3.3.2                 |                          |                         |                               |               |
| NS_08                    | 6.6.3.3.3                 | 19                       | 10, 15                  | > 44                          | ≤ 3           |
| NS_09                    | 6.6.3.3.4                 | 21                       | 10, 15                  | > 40                          | ≤ 1           |
|                          |                           |                          |                         | > 55                          | ≤ 2           |
| NS_10                    |                           | 20                       | 15, 20                  | Table 6.2.4-3                 | Table 6.2.4-3 |
| NS_11                    | 6.6.2.2.1                 | 23 <sup>1</sup>          | 1.4, 3, 5, 10           | Table 6.2.4-5                 | Table 6.2.4-5 |
| ..                       |                           |                          |                         |                               |               |
| NS_32                    | -                         | -                        | -                       | -                             | -             |

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.

**LTE(TDD):**

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

| Special subframe configuration | Normal cyclic prefix in downlink |                                | UpPTS                            |                   | Extended cyclic prefix in downlink |                                  |
|--------------------------------|----------------------------------|--------------------------------|----------------------------------|-------------------|------------------------------------|----------------------------------|
|                                | DwPTS                            | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink | DwPTS             | Normal cyclic prefix in uplink     | Extended cyclic prefix in uplink |
| 0                              | $6592 \cdot T_s$                 | $2192 \cdot T_s$               | $2560 \cdot T_s$                 | $7680 \cdot T_s$  | $2192 \cdot T_s$                   | $2560 \cdot T_s$                 |
| 1                              | $19760 \cdot T_s$                |                                |                                  | $20480 \cdot T_s$ |                                    |                                  |
| 2                              | $21952 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$ |                                    |                                  |
| 3                              | $24144 \cdot T_s$                |                                |                                  | $25600 \cdot T_s$ |                                    |                                  |
| 4                              | $26336 \cdot T_s$                | $4384 \cdot T_s$               | $5120 \cdot T_s$                 | $7680 \cdot T_s$  | $4384 \cdot T_s$                   | $5120 \cdot T_s$                 |
| 5                              | $6592 \cdot T_s$                 |                                |                                  | $20480 \cdot T_s$ |                                    |                                  |
| 6                              | $19760 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$ |                                    |                                  |
| 7                              | $21952 \cdot T_s$                |                                |                                  | $12800 \cdot T_s$ |                                    |                                  |
| 8                              | $24144 \cdot T_s$                |                                |                                  | -                 | -                                  | -                                |
| 9                              | $13168 \cdot T_s$                |                                |                                  | -                 | -                                  | -                                |

Table 4.2-2: Uplink-downlink configurations.

| Uplink-downlink configuration | Downlink-to-Uplink Switch-point periodicity | Subframe number |   |   |   |   |   |   |   |   |   |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D |

**Calculated Duty Cycle**

| Uplink-Downlink Configuration | Downlink-to-Uplink Switch-point Periodicity | Subframe Number |   |   |   |   |   |   |   |   |   | Calculated Duty Cycle (%) |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---------------------------|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                           |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U | 63.33                     |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D | 43.33                     |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D | 23.33                     |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D | 31.67                     |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D | 21.67                     |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D | 11.67                     |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D | 53.33                     |

Calculated Duty Cycle = Extended cyclic prefix in uplink  $\times (T_s) \times \# \text{ of S} + \# \text{ of U}$

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle =  $5120 \times [1/(15000 \times 2048)] \times 2 + 6 \text{ ms} = 63.33\%$

where

$T_s = 1/(15000 \times 2048)$  seconds

### 3.2 Support Equipment List and Details

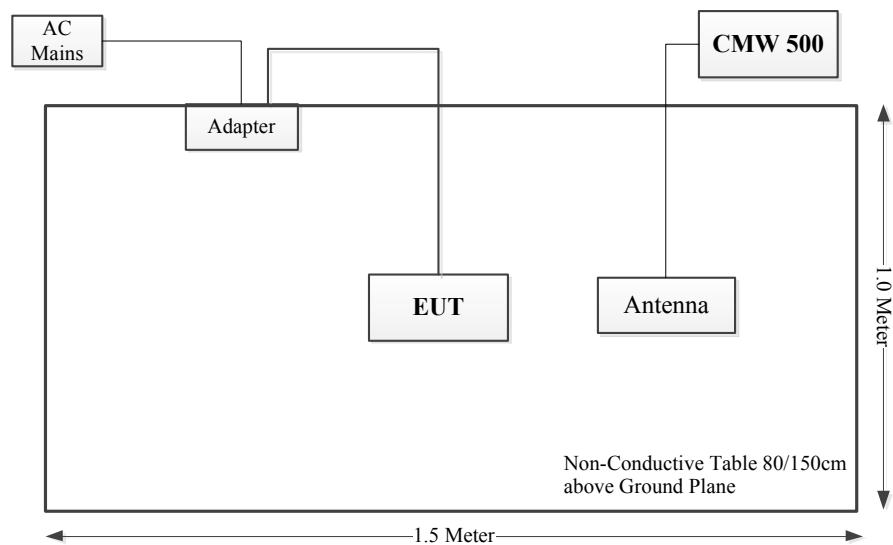
| Manufacturer | Description                         | Model   | Serial Number |
|--------------|-------------------------------------|---------|---------------|
| R&S          | Wideband Radio Communication Tester | CMW500  | 144976        |
| Unknown      | Antenna                             | Unknown | Unknown       |

### 3.3 Support Cable List and Details

| Cable Description | Shielding Type | Ferrite Core | Length (m) | From Port | To     |
|-------------------|----------------|--------------|------------|-----------|--------|
| USB Cable         | No             | No           | 1          | Adapter   | EUT    |
| Signal Cable      | No             | No           | 3          | Antenna   | CMW500 |

### 3.4 Block Diagram of Test Setup

Radiated Spurious Emission:



### 3.5 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

### 3.6 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

| Parameter                         | Measurement Uncertainty                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Occupied Channel Bandwidth        | ±5 %                                                                                                                               |
| RF output power, conducted        | ±0.61dB                                                                                                                            |
| Power Spectral Density, conducted | ±0.61 dB                                                                                                                           |
| Unwanted Emissions, radiated      | 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB |
| Unwanted Emissions, conducted     | ±2.47 dB                                                                                                                           |
| Temperature                       | ±1 °C                                                                                                                              |
| Humidity                          | ±5%                                                                                                                                |
| DC and low frequency voltages     | ±0.4%                                                                                                                              |
| Duty Cycle                        | 1%                                                                                                                                 |
| RF Frequency                      | ±0.082×10 <sup>-6</sup>                                                                                                            |

## 4. REQUIREMENTS AND TEST PROCEDURES

---

### 4.1 Applicable Standard For Part 22 Subpart H:

#### 4.1.1 RF Output Power

FCC §22.913

(a)(5) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7watts.

(d) *Power measurement.* Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-to-average ratio (PAR) of the transmission must not exceed 13 dB. Power measurements for base transmitters and repeaters must be made in accordance with either of the following:

- (1) A Commission-approved average power technique (see FCC Laboratory's Knowledge Database); or
- (2) For purposes of this section, peak transmit power must be measured over an interval of continuous transmission using instrumentation calibrated in terms of an rms equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

#### 4.1.2 Spurious Emissions

FCC §22.917

(a) Out of band emissions. 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.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a reference bandwidth as follows:

- (1) In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy, provided that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
- (2) In the spectrum above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz

## 4.2 Applicable Standard For Part 24 Subpart E:

### 4.2.1 RF Output Power

FCC §24.232

(c) Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

(d) Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. 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.

### 4.2.2 Spurious Emissions

FCC §24.238

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(a) Out of band emissions. 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.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(c) Alternative out of band emission limit. Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) Interference caused by out of band emissions. If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

### 4.3 Applicable Standard For Part 27:

#### 4.3.1 RF Output Power

FCC §27.50

(a)(3) *Mobile and portable stations.*

(i) 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.

(ii) Mobile and portable stations are not permitted to transmit in the 2315-2320 MHz and 2345-2350 MHz bands.

(iii) *Automatic transmit power control.* Mobile and portable stations transmitting in the 2305-2315 MHz band or in the 2350-2360 MHz band must employ automatic transmit power control when operating so the stations operate with the minimum power necessary for successful communications.

(iv) *Prohibition on external vehicle-mounted antennas.* The use of external vehicle-mounted antennas for mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band is prohibited.

(b)(10) 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.

(c)(10) 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.

(d)(4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

(h) The following power limits shall apply in the BRS and EBS:

(2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

#### 4.3.2 Spurious Emissions

FCC §27.53

(a) For operations in the 2305-2320 MHz band and the 2345-2360 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:

(4) 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.

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

(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;

(3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $76 + 10 \log (P)$  dB in a 6.25 kHz band segment, for base and fixed stations;

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to – 70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and – 80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. 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.

(h) AWS emission limits

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

(m)(4) 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 than  $43 + 10 \log (P)$  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.

#### 4.4 Test Method:

##### 4.4.1 Transmitter output power, e.r.p. and e.i.r.p

According to CFR Part 2.1046, ANSI C63.26-2015 Section 5.2.5.5:

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_C$$

where:

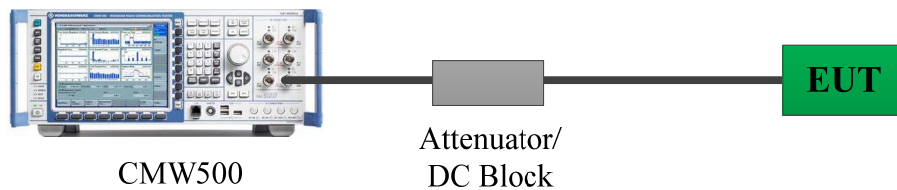
ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as  $P_{\text{Meas}}$ , typically dBW or dBm);

$P_{\text{Meas}}$  = measured transmitter output power or PSD, in dBm or dBW;

$G_T$  = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

#### Test Setup Block:

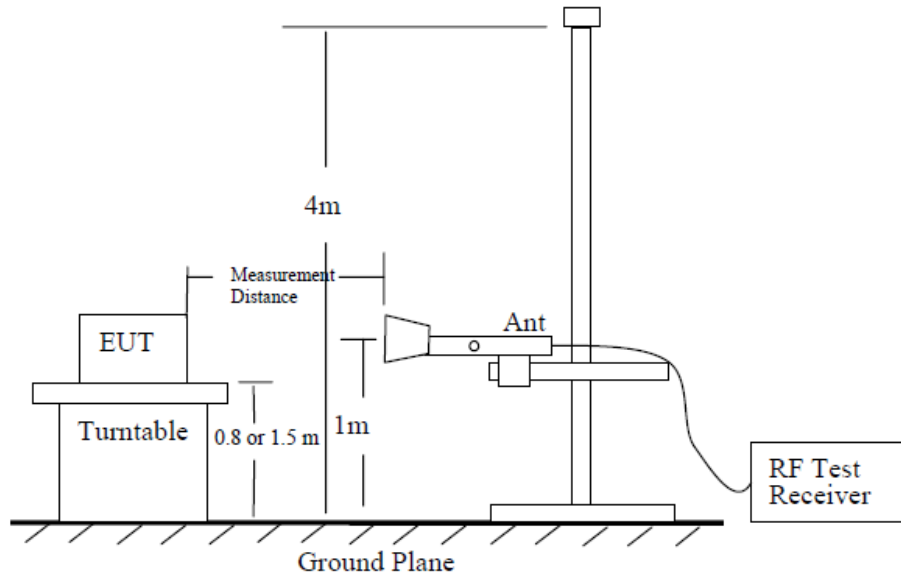


Note: The Insertion loss of the RF cable and coaxial Attenuator was offset into the Reading of CMW500.

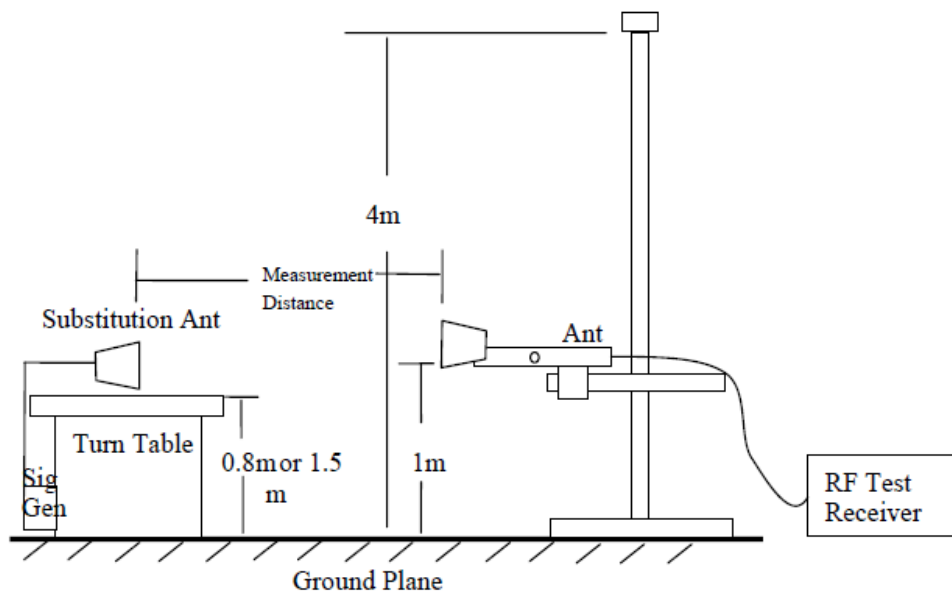
#### 4.4.2 Transmitter unwanted emissions- Radiated Spurious emissions

According to ANSI C63.26-2015 Section 5.5.3:

**Test setup:**



**Figure 6—Test site-up for radiated ERP and/or EIRP measurements**



**Figure 7—Substitution method set-up for radiated emission**

**Test Procedure:**

- a) Place the EUT in the center of the turntable. The EUT shall be configured to transmit into the standard non-radiating load (for measuring radiated spurious emissions), connected with cables of minimal length unless specified otherwise. If the EUT uses an adjustable antenna, the antenna shall be positioned to the length that produces the worst case emission at the fundamental operating frequency.
- b) Each emission under consideration shall be evaluated:
  - 1) Raise and lower the measurement antenna in accordance 5.5.2, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
  - 2) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
  - 3) Return the turntable to the azimuth where the highest emission amplitude level was observed.
  - 4) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
  - 5) Record the measured emission amplitude level and frequency using the appropriate RBW.
- c) Repeat step b) for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- d) Set-up the substitution measurement with the reference point of the substitution antenna located as near as possible to where the center of the EUT radiating element was located during the initial EUT measurement.
- e) Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
- f) Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
- g) For each emission that was detected and measured in the initial test [i.e., in step b) and step c)]:
  - 1) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
  - 2) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step b) and step c).
  - 3) Record the output power level of the signal generator when equivalence is achieved in step 2).
- h) Repeat step e) through step g) with the measurement antenna oriented in the opposite polarization.
- i) Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:
 
$$P_e = P_s(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$$
 where
 

$P_e$  = equivalent emission power in dBm  
 $P_s$  = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.
- j) Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:  $\text{gain (dBd)} = \text{gain (dBi)} - 2.15 \text{ dB}$ . If necessary, the antenna gain can be calculated from calibrated antenna factor information
- k) Provide the complete measurement results as a part of the test report.

5. Test DATA AND RESULTS

5.1 Antenna Port Test Data and Results for GSM 850 band:

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

Environmental Conditions:

|                      |      |                              |    |                        |       |
|----------------------|------|------------------------------|----|------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|------------------------|-------|

Test Equipment List and Details:

| Manufacturer | Description                            | Model           | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|-----------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500          | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

*\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

| Operation<br>Modes | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|--------------------|------------------------------|------------------------------|-------------------------------|
| GPRS               | 824.2                        | 836.6                        | 848.8                         |
| EDGE               | 824.2                        | 836.6                        | 848.8                         |

**Test Data:****FCC§2.1046;§ 22.913 (a):RF Output Power**

| Test Mode    | Conducted Peak Output Power(dBm) |                |                 | Maximum ERP (dBm) | ERP Limit (dBm) |
|--------------|----------------------------------|----------------|-----------------|-------------------|-----------------|
|              | Lowest Channel                   | Middle Channel | Highest Channel |                   |                 |
| GPRS 1 Slot  | 32.8                             | 32.65          | 32.77           | 29.32             | 38.45           |
| GPRS 2 Slots | 30.74                            | 30.69          | 30.75           | 27.27             | 38.45           |
| GPRS 3 Slots | 28.69                            | 28.78          | 28.72           | 25.3              | 38.45           |
| GPRS 4 Slots | 26.57                            | 26.6           | 26.61           | 23.13             | 38.45           |
| EDGE 1 Slot  | 28.9                             | 28.61          | 28.39           | 25.42             | 38.45           |
| EDGE 2 Slots | 26.99                            | 26.52          | 26.45           | 23.51             | 38.45           |
| EDGE 3 Slots | 24.88                            | 24.61          | 24.54           | 21.4              | 38.45           |
| EDGE 4 Slots | 22.95                            | 22.64          | 22.61           | 19.47             | 38.45           |

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

**Result:****Pass**

**5.2 Antenna Port Test Data and Results for GSM 1900 band:**

|                |                |              |              |
|----------------|----------------|--------------|--------------|
| Serial Number: | 2TOQ-3, 2TOQ-4 | Test Date:   | 2025/2/12    |
| Test Site:     | RF             | Test Mode:   | Transmitting |
| Tester:        | Loge Long      | Test Result: | <b>Pass</b>  |

**Environmental Conditions:**

|                      |      |                              |    |                           |       |
|----------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|---------------------------|-------|

**Test Equipment List and Details:**

| Manufacturer | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

*\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**Test Frequency For Each Mode:**

| Operation<br>Modes | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|--------------------|------------------------------|------------------------------|-------------------------------|
| GPRS               | 1850.2                       | 1880                         | 1909.8                        |
| EDGE               | 1850.2                       | 1880                         | 1909.8                        |

**Test Data:****Screen 1#****FCC§2.1046;§ 24.232 (c):RF Output Power**

| Test Mode    | Conducted Peak Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|--------------|----------------------------------|----------------|-----------------|--------------------|------------------|
|              | Lowest Channel                   | Middle Channel | Highest Channel |                    |                  |
| GPRS 1 Slot  | 30.96                            | 30.95          | 30.85           | 31.11              | 33               |
| GPRS 2 Slots | 28.95                            | 29.03          | 28.89           | 29.18              | 33               |
| GPRS 3 Slots | 27.13                            | 26.9           | 26.82           | 27.28              | 33               |
| GPRS 4 Slots | 24.98                            | 24.9           | 24.84           | 25.13              | 33               |
| EDGE 1 Slot  | 28.89                            | 28.71          | 28.65           | 29.04              | 33               |
| EDGE 2 Slots | 26.96                            | 26.8           | 26.53           | 27.11              | 33               |
| EDGE 3 Slots | 24.87                            | 24.83          | 24.51           | 25.02              | 33               |
| EDGE 4 Slots | 22.98                            | 22.88          | 22.47           | 23.13              | 33               |

Note: EIRP=Conducted Power(dBm) - Lc(dB) + G<sub>T</sub>(dBi)**Result:****Pass****Spot Check:****Screen 2#****FCC§2.1046;§ 24.232 (c):RF Output Power**

| Test Mode    | Conducted Peak Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|--------------|----------------------------------|----------------|-----------------|--------------------|------------------|
|              | Lowest Channel                   | Middle Channel | Highest Channel |                    |                  |
| GPRS 1 Slot  | 30.98                            | 30.93          | 30.86           | 31.13              | 33               |
| GPRS 2 Slots | 29.01                            | 28.91          | 28.8            | 29.16              | 33               |
| GPRS 3 Slots | 27.13                            | 26.97          | 26.91           | 27.28              | 33               |
| GPRS 4 Slots | 25                               | 24.9           | 24.97           | 25.15              | 33               |
| EDGE 1 Slot  | 28.75                            | 28.85          | 28.66           | 29                 | 33               |
| EDGE 2 Slots | 26.95                            | 26.84          | 26.65           | 27.1               | 33               |
| EDGE 3 Slots | 24.99                            | 24.78          | 24.57           | 25.14              | 33               |
| EDGE 4 Slots | 22.92                            | 22.9           | 22.55           | 23.07              | 33               |

Note: EIRP=Conducted Power(dBm) - Lc(dB) + G<sub>T</sub>(dBi)**Result:****Pass**

5.3 Antenna Port Test Data and Results for WCDMA Band 2:

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

|                           |      |                           |    |                        |       |
|---------------------------|------|---------------------------|----|------------------------|-------|
| Environmental Conditions: |      |                           |    |                        |       |
| Temperature:<br>(°C)      | 21.4 | Relative Humidity:<br>(%) | 59 | ATM Pressure:<br>(kPa) | 101.1 |

|                                                                                                                                                                                                                   |                                     |                 |               |                  |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------|---------------|------------------|----------------------|
| Test Equipment List and Details:                                                                                                                                                                                  |                                     |                 |               |                  |                      |
| Manufacturer                                                                                                                                                                                                      | Description                         | Model           | Serial Number | Calibration Date | Calibration Due Date |
| R&S                                                                                                                                                                                                               | Wideband Radio Communication Tester | CMW500          | 144976        | 2024/9/5         | 2025/9/4             |
| Eastsheep                                                                                                                                                                                                         | Coaxial Attenuator                  | 5W-N-JK-6G-10dB | F-08-EM488    | 2024/6/7         | 2025/6/6             |
| * Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI). |                                     |                 |               |                  |                      |

|                               |                        |                        |                         |
|-------------------------------|------------------------|------------------------|-------------------------|
| Test Frequency For Each Mode: |                        |                        |                         |
| Operation Modes               | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
| WCDMA                         | 1852.4                 | 1880                   | 1907.6                  |

**Test Data:****FCC§2.1046;§ 24.232****RF Output Power:**

| Test Mode          | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|--------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                    | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| WCDMA R99          | 22.79                               | 22.68          | 23.33           | 23.48              | 33               |
| HSDPA Subtest 1    | 22.67                               | 22.49          | 22.63           | 22.82              | 33               |
| HSDPA Subtest 2    | 22.44                               | 22.26          | 23.08           | 23.23              | 33               |
| HSDPA Subtest 3    | 22.36                               | 22.61          | 23.2            | 23.35              | 33               |
| HSDPA Subtest 4    | 22.1                                | 22.56          | 22.56           | 22.71              | 33               |
| HSUPA Subtest 1    | 22.62                               | 22.7           | 23.58           | 23.73              | 33               |
| HSUPA Subtest 2    | 22.6                                | 22.39          | 23.17           | 23.32              | 33               |
| HSUPA Subtest 3    | 22.39                               | 22.44          | 23.25           | 23.4               | 33               |
| HSUPA Subtest 4    | 22.24                               | 22.86          | 22.66           | 23.01              | 33               |
| HSUPA Subtest 5    | 22.11                               | 22.15          | 23.03           | 23.18              | 33               |
| DC-HSDPA Subtest 1 | 22.86                               | 22.92          | 23.4            | 23.55              | 33               |
| DC-HSDPA Subtest 2 | 22.65                               | 22.88          | 22.74           | 23.03              | 33               |
| DC-HSDPA Subtest 3 | 22.52                               | 23.14          | 22.59           | 23.29              | 33               |
| DC-HSDPA Subtest 4 | 22.23                               | 22.65          | 22.96           | 23.11              | 33               |
| HSPA+ Subtest 1    | 22.09                               | 22.46          | 22.58           | 22.73              | 33               |

Note: EIRP=Conducted Power(dBm) - Lc(dB) + G<sub>T</sub>(dBi)**Result:****Pass**

**5.4 Antenna Port Test Data and Results for WCDMA Band 4:**

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | #REF!        |

**Environmental Conditions:**

|                      |      |                              |    |                           |       |
|----------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|---------------------------|-------|

**Test Equipment List and Details:**

| Manufacturer | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Frequency For Each Mode:**

| Operation<br>Modes | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|--------------------|------------------------------|------------------------------|-------------------------------|
| WCDMA              | 1712.4                       | 1732.6                       | 1752.6                        |

**Test Data:****FCC§2.1046;§27.50(d)(4)****RF Output Power:**

| Test Mode                                                       | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-----------------------------------------------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                                                                 | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| WCDMA R99                                                       | 23                                  | 23.28          | 23.36           | 24.87              | 30               |
| HSDPA Subtest 1                                                 | 22.34                               | 22.76          | 23.32           | 24.83              | 30               |
| HSDPA Subtest 2                                                 | 22.43                               | 22.18          | 22.85           | 24.36              | 30               |
| HSDPA Subtest 3                                                 | 22.22                               | 22.43          | 22.74           | 24.25              | 30               |
| HSDPA Subtest 4                                                 | 21.99                               | 21.99          | 22.85           | 24.36              | 30               |
| HSUPA Subtest 1                                                 | 22.87                               | 23.14          | 23.28           | 24.79              | 30               |
| HSUPA Subtest 2                                                 | 22.39                               | 22.94          | 23.16           | 24.67              | 30               |
| HSUPA Subtest 3                                                 | 22.36                               | 22.42          | 23.16           | 24.67              | 30               |
| HSUPA Subtest 4                                                 | 22.05                               | 22.68          | 22.65           | 24.19              | 30               |
| HSUPA Subtest 5                                                 | 21.86                               | 22.4           | 22.88           | 24.39              | 30               |
| DC-HSDPA Subtest 1                                              | 22.55                               | 22.58          | 23.55           | 25.06              | 30               |
| DC-HSDPA Subtest 2                                              | 22.46                               | 22.71          | 22.42           | 24.22              | 30               |
| DC-HSDPA Subtest 3                                              | 22.44                               | 22.52          | 22.63           | 24.14              | 30               |
| DC-HSDPA Subtest 4                                              | 22.13                               | 22.14          | 22.35           | 23.86              | 30               |
| HSPA+ Subtest 1                                                 | 21.83                               | 22.42          | 22.82           | 24.33              | 30               |
| Note: EIRP=Conducted Power(dBm) - Lc(dB) + G <sub>T</sub> (dBi) |                                     |                |                 |                    |                  |
|                                                                 |                                     |                |                 | <b>Result:</b>     | <b>Pass</b>      |

**5.5 Antenna Port Test Data and Results for WCDMA Band 5:**

|                |                |              |              |
|----------------|----------------|--------------|--------------|
| Serial Number: | 2TOQ-3, 2TOQ-4 | Test Date:   | 2025/2/12    |
| Test Site:     | RF             | Test Mode:   | Transmitting |
| Tester:        | Loge Long      | Test Result: | Pass         |

**Environmental Conditions:**

|                      |      |                              |    |                           |       |
|----------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|---------------------------|-------|

**Test Equipment List and Details:**

| Manufacturer | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Frequency:**

| Operation<br>Modes | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|--------------------|------------------------------|------------------------------|-------------------------------|
| WCDMA              | 826.4                        | 836.6                        | 846.6                         |

**Test Data:****Screen 1#****FCC§2.1046;§ 22.913 (a)****RF Output Power:**

| Test Mode                                                                                                            | Conducted Average Output Power(dBm) |                |                 | Maximum ERP (dBm) | ERP Limit (dBm) |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------|-----------------|-------------------|-----------------|
|                                                                                                                      | Lowest Channel                      | Middle Channel | Highest Channel |                   |                 |
| WCDMA R99                                                                                                            | 22.37                               | 22.52          | 22.97           | 19.49             | 38.45           |
| HSDPA Subtest 1                                                                                                      | 22.39                               | 22.46          | 23.26           | 19.78             | 38.45           |
| HSDPA Subtest 2                                                                                                      | 22.17                               | 22.06          | 22.9            | 19.42             | 38.45           |
| HSDPA Subtest 3                                                                                                      | 21.99                               | 21.91          | 21.96           | 18.51             | 38.45           |
| HSDPA Subtest 4                                                                                                      | 21.82                               | 21.89          | 22.76           | 19.28             | 38.45           |
| HSUPA Subtest 1                                                                                                      | 22.88                               | 22.94          | 23.04           | 19.56             | 38.45           |
| HSUPA Subtest 2                                                                                                      | 22.67                               | 22.89          | 22.93           | 19.45             | 38.45           |
| HSUPA Subtest 3                                                                                                      | 22.42                               | 22.53          | 23.34           | 19.86             | 38.45           |
| HSUPA Subtest 4                                                                                                      | 22.25                               | 23.05          | 22.38           | 19.57             | 38.45           |
| HSUPA Subtest 5                                                                                                      | 22.09                               | 22.49          | 22.75           | 19.27             | 38.45           |
| DC-HSDPA Subtest 1                                                                                                   | 22.81                               | 22.91          | 23.28           | 19.8              | 38.45           |
| DC-HSDPA Subtest 2                                                                                                   | 22.42                               | 22.86          | 23.34           | 19.86             | 38.45           |
| DC-HSDPA Subtest 3                                                                                                   | 22.35                               | 22.45          | 23.11           | 19.63             | 38.45           |
| DC-HSDPA Subtest 4                                                                                                   | 22.3                                | 23.01          | 22.42           | 19.53             | 38.45           |
| HSPA+ Subtest 1                                                                                                      | 22.03                               | 21.96          | 22.26           | 18.78             | 38.45           |
| Note:<br>ERP= Conducted Power(dBm) - Lc(dB) + G <sub>T</sub> (dBd)<br>G <sub>T</sub> (dBd)=G <sub>T</sub> (dBi)-2.15 |                                     |                |                 |                   |                 |
|                                                                                                                      |                                     |                |                 | <b>Result:</b>    | <b>Pass</b>     |

**Spot Check:****Screen 2#****FCC§2.1046;§ 22.913 (a)****RF Output Power:**

| Test Mode          | Conducted Average Output Power(dBm) |                |                 | Maximum ERP (dBm) | ERP Limit (dBm) |
|--------------------|-------------------------------------|----------------|-----------------|-------------------|-----------------|
|                    | Lowest Channel                      | Middle Channel | Highest Channel |                   |                 |
| WCDMA R99          | 22.38                               | 22.44          | 22.93           | 19.45             | 38.45           |
| HSDPA Subtest 1    | 22.43                               | 22.42          | 23.32           | 19.84             | 38.45           |
| HSDPA Subtest 2    | 22.19                               | 22.05          | 22.92           | 19.44             | 38.45           |
| HSDPA Subtest 3    | 21.97                               | 21.87          | 22              | 18.52             | 38.45           |
| HSDPA Subtest 4    | 21.83                               | 21.82          | 22.73           | 19.25             | 38.45           |
| HSUPA Subtest 1    | 22.8                                | 23.03          | 22.93           | 19.55             | 38.45           |
| HSUPA Subtest 2    | 22.67                               | 22.84          | 22.79           | 19.36             | 38.45           |
| HSUPA Subtest 3    | 22.54                               | 22.51          | 23.34           | 19.86             | 38.45           |
| HSUPA Subtest 4    | 22.34                               | 23             | 22.33           | 19.52             | 38.45           |
| HSUPA Subtest 5    | 22.1                                | 22.46          | 22.87           | 19.39             | 38.45           |
| DC-HSDPA Subtest 1 | 22.8                                | 23.03          | 23.28           | 19.8              | 38.45           |
| DC-HSDPA Subtest 2 | 22.39                               | 22.91          | 23.35           | 19.87             | 38.45           |
| DC-HSDPA Subtest 3 | 22.25                               | 22.41          | 23.03           | 19.55             | 38.45           |
| DC-HSDPA Subtest 4 | 22.22                               | 23.08          | 22.35           | 19.6              | 38.45           |
| HSPA+ Subtest 1    | 22.04                               | 22.02          | 22.35           | 18.87             | 38.45           |

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

**Result:****Pass**

5.6 Antenna Port Test Data and Results for LTE Band 2

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

| Environmental Conditions: |      |                           |    |                        |       |
|---------------------------|------|---------------------------|----|------------------------|-------|
| Temperature:<br>(°C)      | 21.4 | Relative Humidity:<br>(%) | 59 | ATM Pressure:<br>(kPa) | 101.1 |

| Test Equipment List and Details:                                                                                                                                                                                  |                                     |                 |               |                  |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------|---------------|------------------|----------------------|
| Manufacturer                                                                                                                                                                                                      | Description                         | Model           | Serial Number | Calibration Date | Calibration Due Date |
| R&S                                                                                                                                                                                                               | Wideband Radio Communication Tester | CMW500          | 144976        | 2024/9/5         | 2025/9/4             |
| Eastsheep                                                                                                                                                                                                         | Coaxial Attenuator                  | 5W-N-JK-6G-10dB | F-08-EM488    | 2024/6/7         | 2025/6/6             |
| * Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI). |                                     |                 |               |                  |                      |

| Test Frequency For Each Mode: |                        |                        |                         |
|-------------------------------|------------------------|------------------------|-------------------------|
| Operation Bandwidth           | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
| 1.4MHz                        | 1850.7                 | 1880                   | 1909.3                  |
| 3MHz                          | 1851.5                 | 1880                   | 1908.5                  |
| 5MHz                          | 1852.5                 | 1880                   | 1907.5                  |
| 10MHz                         | 1855                   | 1880                   | 1905                    |
| 15MHz                         | 1857.5                 | 1880                   | 1902.5                  |
| 20MHz                         | 1860                   | 1880                   | 1900                    |

**Test Data:****FCC§2.1046;§ 24.232****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| 1.4MHz QPSK                 | RB1#0                      | 22.67                               | 22.98          | 22.8            | 23.21              | 33               |
|                             | RB1#3                      | 22.81                               | 22.98          | 22.9            |                    |                  |
|                             | RB1#5                      | 22.9                                | 23.06          | 22.99           |                    |                  |
|                             | RB3#0                      | 22.92                               | 22.84          | 22.8            |                    |                  |
|                             | RB3#3                      | 22.98                               | 22.78          | 22.93           |                    |                  |
|                             | RB6#0                      | 21.88                               | 21.79          | 21.82           |                    |                  |
| 1.4MHz 16QAM                | RB1#0                      | 21.65                               | 22.27          | 21.97           | 22.58              | 33               |
|                             | RB1#3                      | 21.66                               | 22.34          | 22.1            |                    |                  |
|                             | RB1#5                      | 21.77                               | 22.43          | 22.06           |                    |                  |
|                             | RB3#0                      | 22.08                               | 21.77          | 22.17           |                    |                  |
|                             | RB3#3                      | 21.98                               | 21.94          | 22.08           |                    |                  |
|                             | RB6#0                      | 21.16                               | 21.18          | 21.16           |                    |                  |
| 3MHz QPSK                   | RB1#0                      | 22.76                               | 22.74          | 22.68           | 22.99              | 33               |
|                             | RB1#8                      | 22.78                               | 22.83          | 22.74           |                    |                  |
|                             | RB1#14                     | 22.84                               | 22.75          | 22.73           |                    |                  |
|                             | RB6#0                      | 21.85                               | 21.83          | 21.84           |                    |                  |
|                             | RB6#9                      | 21.98                               | 21.78          | 21.79           |                    |                  |
|                             | RB15#0                     | 21.75                               | 21.75          | 21.83           |                    |                  |
| 3MHz 16QAM                  | RB1#0                      | 22.69                               | 21.79          | 22.29           | 22.97              | 33               |
|                             | RB1#8                      | 22.68                               | 21.68          | 22.32           |                    |                  |
|                             | RB1#14                     | 22.82                               | 21.67          | 22.28           |                    |                  |
|                             | RB6#0                      | 21.01                               | 20.92          | 20.88           |                    |                  |
|                             | RB6#9                      | 21.01                               | 21.03          | 20.85           |                    |                  |
|                             | RB15#0                     | 20.98                               | 20.97          | 21.02           |                    |                  |
| 5MHz QPSK                   | RB1#0                      | 22.77                               | 22.76          | 22.83           | 23.09              | 33               |
|                             | RB1#13                     | 22.88                               | 22.72          | 22.75           |                    |                  |
|                             | RB1#24                     | 22.94                               | 22.75          | 22.68           |                    |                  |
|                             | RB15#0                     | 21.83                               | 21.83          | 21.83           |                    |                  |
|                             | RB15#10                    | 21.75                               | 21.76          | 21.74           |                    |                  |
|                             | RB25#0                     | 21.75                               | 21.75          | 21.85           |                    |                  |
| 5MHz 16QAM                  | RB1#0                      | 21.93                               | 21.44          | 20.98           | 22.26              | 33               |
|                             | RB1#13                     | 22.06                               | 21.6           | 21              |                    |                  |
|                             | RB1#24                     | 22.11                               | 21.6           | 21              |                    |                  |
|                             | RB15#0                     | 20.84                               | 20.93          | 20.98           |                    |                  |
|                             | RB15#10                    | 20.85                               | 21.03          | 21              |                    |                  |
|                             | RB25#0                     | 21                                  | 20.9           | 21.07           |                    |                  |
| 10MHz QPSK                  | RB1#0                      | 22.84                               | 22.76          | 22.8            | 23.12              | 33               |
|                             | RB1#25                     | 22.93                               | 22.73          | 22.7            |                    |                  |

|                                                    |         |       |       |       |         |      |
|----------------------------------------------------|---------|-------|-------|-------|---------|------|
|                                                    | RB1#49  | 22.97 | 22.85 | 22.78 |         |      |
|                                                    | RB25#0  | 21.88 | 21.78 | 21.9  |         |      |
|                                                    | RB25#25 | 21.98 | 21.94 | 21.83 |         |      |
|                                                    | RB50#0  | 21.83 | 21.79 | 21.86 |         |      |
| 10MHz 16QAM                                        | RB1#0   | 22.09 | 21.24 | 22.05 | 22.33   | 33   |
|                                                    | RB1#25  | 22.17 | 21.23 | 22.18 |         |      |
|                                                    | RB1#49  | 22.04 | 21.27 | 22.06 |         |      |
|                                                    | RB25#0  | 21.15 | 21.1  | 20.97 |         |      |
|                                                    | RB25#25 | 21.15 | 21.21 | 20.92 |         |      |
|                                                    | RB50#0  | 21.17 | 20.99 | 21.05 |         |      |
| 15MHz QPSK                                         | RB1#0   | 22.99 | 22.67 | 22.75 | 23.14   | 33   |
|                                                    | RB1#38  | 22.99 | 22.85 | 22.74 |         |      |
|                                                    | RB1#74  | 22.94 | 22.79 | 22.81 |         |      |
|                                                    | RB36#0  | 21.9  | 21.78 | 21.87 |         |      |
|                                                    | RB36#39 | 21.91 | 21.7  | 21.79 |         |      |
|                                                    | RB75#0  | 21.82 | 21.76 | 21.87 |         |      |
| 15MHz 16QAM                                        | RB1#0   | 22.01 | 22.26 | 22.11 | 22.47   | 33   |
|                                                    | RB1#38  | 22.04 | 22.32 | 22.09 |         |      |
|                                                    | RB1#74  | 22.1  | 22.31 | 22.15 |         |      |
|                                                    | RB36#0  | 21.12 | 21.01 | 20.97 |         |      |
|                                                    | RB36#39 | 21.16 | 20.95 | 20.99 |         |      |
|                                                    | RB75#0  | 21.07 | 20.94 | 21.1  |         |      |
| 20MHz QPSK                                         | RB1#0   | 22.9  | 22.7  | 22.8  | 23.23   | 33   |
|                                                    | RB1#50  | 23    | 22.79 | 22.76 |         |      |
|                                                    | RB1#99  | 23.08 | 22.92 | 22.91 |         |      |
|                                                    | RB50#0  | 21.88 | 21.77 | 21.88 |         |      |
|                                                    | RB50#50 | 21.96 | 21.9  | 21.91 |         |      |
|                                                    | RB100#0 | 21.9  | 21.77 | 21.84 |         |      |
| 20MHz 16QAM                                        | RB1#0   | 21.97 | 22.59 | 21.99 | 22.97   | 33   |
|                                                    | RB1#50  | 21.9  | 22.67 | 22.01 |         |      |
|                                                    | RB1#99  | 21.89 | 22.82 | 22.2  |         |      |
|                                                    | RB50#0  | 21    | 20.93 | 21.01 |         |      |
|                                                    | RB50#50 | 20.92 | 20.95 | 21.11 |         |      |
|                                                    | RB100#0 | 21.06 | 21.04 | 20.97 |         |      |
| Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi) |         |       |       |       |         |      |
|                                                    |         |       |       |       | Result: | Pass |

**5.7 Antenna Port Test Data and Results for LTE Band 4**

|                |                |              |              |
|----------------|----------------|--------------|--------------|
| Serial Number: | 2TOQ-3, 2TOQ-4 | Test Date:   | 2025/2/12    |
| Test Site:     | RF             | Test Mode:   | Transmitting |
| Tester:        | Loge Long      | Test Result: | Pass         |

**Environmental Conditions:**

|                      |      |                              |    |                           |       |
|----------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|---------------------------|-------|

**Test Equipment List and Details:**

| Manufacturer | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Frequency For Each Mode:**

| Operation<br>Bandwidth | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|------------------------|------------------------------|------------------------------|-------------------------------|
| 1.4MHz                 | 1710.7                       | 1732.5                       | 1754.3                        |
| 3MHz                   | 1711.5                       | 1732.5                       | 1753.5                        |
| 5MHz                   | 1712.5                       | 1732.5                       | 1752.5                        |
| 10MHz                  | 1715                         | 1732.5                       | 1750                          |
| 15MHz                  | 1717.5                       | 1732.5                       | 1747.5                        |
| 20MHz                  | 1720                         | 1732.5                       | 1745                          |

**Test Data:****Screen 1#****FCC§2.1046;§ 27.50(d)(4)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| 1.4MHz QPSK                 | RB1#0                      | 22                                  | 21.85          | 22.05           | 23.61              | 30               |
|                             | RB1#3                      | 22.02                               | 21.86          | 22.07           |                    |                  |
|                             | RB1#5                      | 22.08                               | 21.75          | 22.05           |                    |                  |
|                             | RB3#0                      | 22.1                                | 21.99          | 22              |                    |                  |
|                             | RB3#3                      | 22.08                               | 21.87          | 22.04           |                    |                  |
|                             | RB6#0                      | 21.02                               | 20.96          | 20.96           |                    |                  |
| 1.4MHz 16QAM                | RB1#0                      | 21.3                                | 20.4           | 21.83           | 23.34              | 30               |
|                             | RB1#3                      | 21.19                               | 20.42          | 21.74           |                    |                  |
|                             | RB1#5                      | 21.18                               | 20.37          | 21.82           |                    |                  |
|                             | RB3#0                      | 21.2                                | 20.97          | 21.2            |                    |                  |
|                             | RB3#3                      | 21.33                               | 20.78          | 21.19           |                    |                  |
|                             | RB6#0                      | 20.41                               | 20.07          | 20.19           |                    |                  |
| 3MHz QPSK                   | RB1#0                      | 21.99                               | 21.87          | 21.76           | 23.53              | 30               |
|                             | RB1#8                      | 22.02                               | 21.93          | 21.84           |                    |                  |
|                             | RB1#14                     | 22.02                               | 21.47          | 21.77           |                    |                  |
|                             | RB6#0                      | 21.12                               | 20.97          | 20.98           |                    |                  |
|                             | RB6#9                      | 21.24                               | 20.92          | 20.84           |                    |                  |
|                             | RB15#0                     | 21.03                               | 20.91          | 21.03           |                    |                  |
| 3MHz 16QAM                  | RB1#0                      | 21.77                               | 20.78          | 21.11           | 23.35              | 30               |
|                             | RB1#8                      | 21.84                               | 20.82          | 21.14           |                    |                  |
|                             | RB1#14                     | 21.79                               | 20.84          | 21.03           |                    |                  |
|                             | RB6#0                      | 20.32                               | 20.3           | 20.06           |                    |                  |
|                             | RB6#9                      | 20.3                                | 20.23          | 20.03           |                    |                  |
|                             | RB15#0                     | 20.17                               | 20.18          | 20.17           |                    |                  |
| 5MHz QPSK                   | RB1#0                      | 22.22                               | 21.95          | 21.82           | 23.73              | 30               |
|                             | RB1#13                     | 22.07                               | 21.88          | 21.95           |                    |                  |
|                             | RB1#24                     | 22.17                               | 21.12          | 21.99           |                    |                  |
|                             | RB15#0                     | 21.12                               | 20.88          | 21.03           |                    |                  |
|                             | RB15#10                    | 21.06                               | 20.87          | 20.99           |                    |                  |
|                             | RB25#0                     | 21.05                               | 21.01          | 21.11           |                    |                  |
| 5MHz 16QAM                  | RB1#0                      | 21.21                               | 20.63          | 20.27           | 22.93              | 30               |
|                             | RB1#13                     | 21.42                               | 20.71          | 20.45           |                    |                  |
|                             | RB1#24                     | 21.36                               | 20.72          | 20.55           |                    |                  |
|                             | RB15#0                     | 20.03                               | 20.18          | 20.23           |                    |                  |
|                             | RB15#10                    | 20.09                               | 20.17          | 20.16           |                    |                  |
|                             | RB25#0                     | 20.3                                | 20.08          | 20.35           |                    |                  |
| 10MHz QPSK                  | RB1#0                      | 22.12                               | 21.94          | 20.95           | 23.63              | 30               |

|                                                    |         |       |       |       |         |      |
|----------------------------------------------------|---------|-------|-------|-------|---------|------|
|                                                    | RB1#25  | 22.08 | 21.94 | 21.95 |         |      |
|                                                    | RB1#49  | 22.07 | 21.29 | 22.01 |         |      |
|                                                    | RB25#0  | 21.19 | 21.01 | 20.9  |         |      |
|                                                    | RB25#25 | 21.08 | 20.83 | 21.12 |         |      |
|                                                    | RB50#0  | 21.17 | 20.96 | 21    |         |      |
| 10MHz 16QAM                                        | RB1#0   | 21.21 | 20.44 | 21.21 | 22.85   | 30   |
|                                                    | RB1#25  | 21.28 | 20.44 | 21.32 |         |      |
|                                                    | RB1#49  | 21.31 | 20.51 | 21.34 |         |      |
|                                                    | RB25#0  | 20.26 | 20.25 | 20.17 |         |      |
|                                                    | RB25#25 | 20.22 | 20.22 | 20.07 |         |      |
|                                                    | RB50#0  | 20.34 | 20.15 | 20.16 |         |      |
| 15MHz QPSK                                         | RB1#0   | 22.08 | 21.94 | 20.83 | 23.64   | 30   |
|                                                    | RB1#38  | 22.13 | 21.84 | 21.5  |         |      |
|                                                    | RB1#74  | 22.09 | 20.76 | 22.02 |         |      |
|                                                    | RB36#0  | 21.1  | 21.08 | 21    |         |      |
|                                                    | RB36#39 | 21.02 | 20.96 | 21.09 |         |      |
|                                                    | RB75#0  | 21.05 | 21.04 | 21.01 |         |      |
| 15MHz 16QAM                                        | RB1#0   | 21.28 | 21.37 | 21.27 | 22.9    | 30   |
|                                                    | RB1#38  | 21.3  | 21.39 | 21.34 |         |      |
|                                                    | RB1#74  | 21.22 | 21.14 | 21.35 |         |      |
|                                                    | RB36#0  | 20.32 | 20.15 | 20.23 |         |      |
|                                                    | RB36#39 | 20.22 | 20.16 | 20.33 |         |      |
|                                                    | RB75#0  | 20.26 | 20.25 | 20.25 |         |      |
| 20MHz QPSK                                         | RB1#0   | 22.22 | 21.97 | 21.5  | 23.73   | 30   |
|                                                    | RB1#50  | 22.16 | 21.88 | 21.04 |         |      |
|                                                    | RB1#99  | 22.1  | 21.09 | 22.21 |         |      |
|                                                    | RB50#0  | 21.2  | 21.08 | 20.85 |         |      |
|                                                    | RB50#50 | 21.05 | 20.94 | 21.03 |         |      |
|                                                    | RB100#0 | 21.08 | 20.96 | 20.96 |         |      |
| 20MHz 16QAM                                        | RB1#0   | 21.1  | 21.93 | 20.57 | 23.44   | 30   |
|                                                    | RB1#50  | 21.12 | 21.69 | 20.79 |         |      |
|                                                    | RB1#99  | 21.14 | 21.64 | 20.78 |         |      |
|                                                    | RB50#0  | 20.28 | 20.14 | 20.13 |         |      |
|                                                    | RB50#50 | 20.19 | 20.17 | 20.11 |         |      |
|                                                    | RB100#0 | 20.13 | 20.25 | 20.1  |         |      |
| Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi) |         |       |       |       |         |      |
|                                                    |         |       |       |       | Result: | Pass |

**Spot check:****Screen 2#****FCC§2.1046;§ 27.50(d)(4)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| 1.4MHz QPSK                 | RB1#0                      | 22.02                               | 21.84          | 22              | 23.63              | 30               |
|                             | RB1#3                      | 22.02                               | 21.79          | 22.08           |                    |                  |
|                             | RB1#5                      | 22.12                               | 21.74          | 22              |                    |                  |
|                             | RB3#0                      | 22.12                               | 22.03          | 21.96           |                    |                  |
|                             | RB3#3                      | 22.03                               | 21.86          | 21.95           |                    |                  |
|                             | RB6#0                      | 21.03                               | 20.95          | 20.84           |                    |                  |
| 1.4MHz 16QAM                | RB1#0                      | 21.21                               | 20.31          | 21.73           | 23.39              | 30               |
|                             | RB1#3                      | 21.22                               | 20.4           | 21.72           |                    |                  |
|                             | RB1#5                      | 21.21                               | 20.47          | 21.88           |                    |                  |
|                             | RB3#0                      | 21.23                               | 20.88          | 21.19           |                    |                  |
|                             | RB3#3                      | 21.35                               | 20.74          | 21.25           |                    |                  |
|                             | RB6#0                      | 20.33                               | 20.13          | 20.1            |                    |                  |
| 3MHz QPSK                   | RB1#0                      | 22.04                               | 21.89          | 21.82           | 23.55              | 30               |
|                             | RB1#8                      | 21.96                               | 21.87          | 21.77           |                    |                  |
|                             | RB1#14                     | 22.04                               | 21.61          | 21.72           |                    |                  |
|                             | RB6#0                      | 21.1                                | 20.86          | 20.94           |                    |                  |
|                             | RB6#9                      | 21.14                               | 20.97          | 20.88           |                    |                  |
|                             | RB15#0                     | 21.04                               | 20.97          | 21.09           |                    |                  |
| 3MHz 16QAM                  | RB1#0                      | 21.69                               | 20.72          | 21.13           | 23.38              | 30               |
|                             | RB1#8                      | 21.87                               | 20.78          | 21.14           |                    |                  |
|                             | RB1#14                     | 21.79                               | 20.84          | 21.07           |                    |                  |
|                             | RB6#0                      | 20.27                               | 20.27          | 20.08           |                    |                  |
|                             | RB6#9                      | 20.21                               | 20.32          | 20.08           |                    |                  |
|                             | RB15#0                     | 20.15                               | 20.22          | 20.15           |                    |                  |
| 5MHz QPSK                   | RB1#0                      | 22.23                               | 21.9           | 21.87           | 23.74              | 30               |
|                             | RB1#13                     | 22.16                               | 21.83          | 22.05           |                    |                  |
|                             | RB1#24                     | 22.21                               | 21.1           | 21.98           |                    |                  |
|                             | RB15#0                     | 21.07                               | 20.96          | 21.05           |                    |                  |
|                             | RB15#10                    | 21.12                               | 20.92          | 20.99           |                    |                  |
|                             | RB25#0                     | 20.96                               | 20.99          | 21.1            |                    |                  |
| 5MHz 16QAM                  | RB1#0                      | 21.28                               | 20.62          | 20.39           | 22.88              | 30               |
|                             | RB1#13                     | 21.3                                | 20.68          | 20.54           |                    |                  |
|                             | RB1#24                     | 21.37                               | 20.69          | 20.53           |                    |                  |
|                             | RB15#0                     | 20.04                               | 20.16          | 20.24           |                    |                  |
|                             | RB15#10                    | 20.14                               | 20.18          | 20.18           |                    |                  |
|                             | RB25#0                     | 20.18                               | 20.07          | 20.3            |                    |                  |
| 10MHz QPSK                  | RB1#0                      | 22.09                               | 21.93          | 20.98           | 23.6               | 30               |

Page 40 of 77

**5.8 Antenna Port Test Data and Results for LTE Band 5**

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

**Environmental Conditions:**

|                      |      |                              |    |                           |       |
|----------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|---------------------------|-------|

**Test Equipment List and Details:**

| Manufacturer | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Frequency For Each Mode:**

| Operation<br>Bandwidth | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|------------------------|------------------------------|------------------------------|-------------------------------|
| 1.4MHz                 | 824.7                        | 836.5                        | 848.3                         |
| 3MHz                   | 825.5                        | 836.5                        | 847.5                         |
| 5MHz                   | 826.5                        | 836.5                        | 846.5                         |
| 10MHz                  | 829                          | 836.5                        | 844                           |

**Test Data:****FCC§2.1046;§ 22.913 (a)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum ERP (dBm) | ERP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|-------------------|-----------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                   |                 |
| 1.4MHz QPSK                 | RB1#0                      | 22.71                               | 22.6           | 22.8            | 19.59             | 38.45           |
|                             | RB1#3                      | 22.83                               | 22.73          | 22.97           |                   |                 |
|                             | RB1#5                      | 22.79                               | 22.75          | 22.94           |                   |                 |
|                             | RB3#0                      | 23.07                               | 22.93          | 22.74           |                   |                 |
|                             | RB3#3                      | 22.99                               | 22.98          | 22.89           |                   |                 |
|                             | RB6#0                      | 22.01                               | 21.82          | 21.83           |                   |                 |
| 1.4MHz 16QAM                | RB1#0                      | 22.71                               | 21.53          | 21.82           | 19.23             | 38.45           |
|                             | RB1#3                      | 22.58                               | 21.5           | 22.04           |                   |                 |
|                             | RB1#5                      | 22.68                               | 21.59          | 21.98           |                   |                 |
|                             | RB3#0                      | 21.97                               | 21.98          | 21.62           |                   |                 |
|                             | RB3#3                      | 21.88                               | 21.95          | 21.99           |                   |                 |
|                             | RB6#0                      | 21.01                               | 20.97          | 21.14           |                   |                 |
| 3MHz QPSK                   | RB1#0                      | 22.73                               | 22.62          | 22.75           | 19.46             | 38.45           |
|                             | RB1#8                      | 22.94                               | 22.73          | 22.69           |                   |                 |
|                             | RB1#14                     | 22.72                               | 22.8           | 22.9            |                   |                 |
|                             | RB6#0                      | 22                                  | 21.98          | 21.74           |                   |                 |
|                             | RB6#9                      | 21.98                               | 21.98          | 21.87           |                   |                 |
|                             | RB15#0                     | 22.05                               | 21.81          | 21.7            |                   |                 |
| 3MHz 16QAM                  | RB1#0                      | 22.7                                | 21.58          | 21.96           | 19.22             | 38.45           |
|                             | RB1#8                      | 22.63                               | 21.52          | 22              |                   |                 |
|                             | RB1#14                     | 22.62                               | 21.49          | 22.28           |                   |                 |
|                             | RB6#0                      | 21.04                               | 21.18          | 20.83           |                   |                 |
|                             | RB6#9                      | 21.03                               | 21.09          | 20.9            |                   |                 |
|                             | RB15#0                     | 21.01                               | 21.03          | 21.03           |                   |                 |
| 5MHz QPSK                   | RB1#0                      | 22.89                               | 22.5           | 22.68           | 19.41             | 38.45           |
|                             | RB1#13                     | 22.84                               | 22.71          | 22.71           |                   |                 |
|                             | RB1#24                     | 22.87                               | 22.82          | 22.88           |                   |                 |
|                             | RB15#0                     | 21.95                               | 21.82          | 21.72           |                   |                 |
|                             | RB15#10                    | 21.96                               | 21.9           | 21.71           |                   |                 |
|                             | RB25#0                     | 21.92                               | 21.84          | 21.7            |                   |                 |
| 5MHz 16QAM                  | RB1#0                      | 22.08                               | 21.54          | 20.79           | 18.6              | 38.45           |
|                             | RB1#13                     | 21.91                               | 21.63          | 20.76           |                   |                 |
|                             | RB1#24                     | 21.99                               | 21.71          | 20.87           |                   |                 |
|                             | RB15#0                     | 20.89                               | 21             | 20.93           |                   |                 |
|                             | RB15#10                    | 20.83                               | 21.08          | 21              |                   |                 |
|                             | RB25#0                     | 20.95                               | 20.86          | 21.02           |                   |                 |
| 10MHz QPSK                  | RB1#0                      | 23.03                               | 22.75          | 22.61           | 19.55             | 38.45           |
|                             | RB1#25                     | 22.97                               | 22.85          | 22.74           |                   |                 |

|                                                                                                                      |         |       |       |       |         |       |
|----------------------------------------------------------------------------------------------------------------------|---------|-------|-------|-------|---------|-------|
|                                                                                                                      | RB1#49  | 23.02 | 22.86 | 22.84 |         |       |
|                                                                                                                      | RB25#0  | 21.92 | 21.93 | 21.71 |         |       |
|                                                                                                                      | RB25#25 | 21.93 | 21.99 | 21.73 |         |       |
|                                                                                                                      | RB50#0  | 22.06 | 21.88 | 21.85 |         |       |
| 10MHz 16QAM                                                                                                          | RB1#0   | 22.03 | 21.41 | 22.02 | 18.64   | 38.45 |
|                                                                                                                      | RB1#25  | 22.12 | 21.5  | 22.09 |         |       |
|                                                                                                                      | RB1#49  | 21.99 | 21.31 | 21.99 |         |       |
|                                                                                                                      | RB25#0  | 21.02 | 21.08 | 20.96 |         |       |
|                                                                                                                      | RB25#25 | 21.06 | 21.11 | 20.94 |         |       |
|                                                                                                                      | RB50#0  | 21.02 | 20.98 | 21.01 |         |       |
| Note:<br>ERP= Conducted Power(dBm) - Lc(dB) + G <sub>T</sub> (dBd)<br>G <sub>T</sub> (dBd)=G <sub>T</sub> (dBi)-2.15 |         |       |       |       |         |       |
|                                                                                                                      |         |       |       |       | Result: | Pass  |

5.9 Antenna Port Test Data and Results for LTE Band 7

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

| Environmental Conditions: |      |                           |    |                        |       |
|---------------------------|------|---------------------------|----|------------------------|-------|
| Temperature:<br>(°C)      | 21.4 | Relative Humidity:<br>(%) | 59 | ATM Pressure:<br>(kPa) | 101.1 |

| Test Equipment List and Details:                                                                                                                                                                                  |                                     |                 |               |                  |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------|---------------|------------------|----------------------|
| Manufacturer                                                                                                                                                                                                      | Description                         | Model           | Serial Number | Calibration Date | Calibration Due Date |
| R&S                                                                                                                                                                                                               | Wideband Radio Communication Tester | CMW500          | 144976        | 2024/9/5         | 2025/9/4             |
| Eastsheep                                                                                                                                                                                                         | Coaxial Attenuator                  | 5W-N-JK-6G-10dB | F-08-EM488    | 2024/6/7         | 2025/6/6             |
| * Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI). |                                     |                 |               |                  |                      |

| Test Frequency For Each Mode: |                        |                        |                         |
|-------------------------------|------------------------|------------------------|-------------------------|
| Operation Bandwidth           | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
| 5MHz                          | 2502.5                 | 2535                   | 2567.5                  |
| 10MHz                         | 2505                   | 2535                   | 2565                    |
| 15MHz                         | 2507.5                 | 2535                   | 2562.5                  |
| 20MHz                         | 2510                   | 2535                   | 2560                    |

**Test Data:****FCC§2.1046;§ 27.50(h)(2)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| 5MHz QPSK                   | RB1#0                      | 21.89                               | 21.84          | 19.83           | 24.14              | 33               |
|                             | RB1#13                     | 21.8                                | 21.84          | 20              |                    |                  |
|                             | RB1#24                     | 21.69                               | 21.66          | 19.46           |                    |                  |
|                             | RB15#0                     | 20.79                               | 20.81          | 19.91           |                    |                  |
|                             | RB15#10                    | 20.77                               | 20.85          | 19.86           |                    |                  |
|                             | RB25#0                     | 20.85                               | 20.73          | 19.74           |                    |                  |
| 5MHz 16QAM                  | RB1#0                      | 20.87                               | 20.52          | 19.51           | 23.15              | 33               |
|                             | RB1#13                     | 20.9                                | 20.42          | 19.78           |                    |                  |
|                             | RB1#24                     | 20.88                               | 20.6           | 19.31           |                    |                  |
|                             | RB15#0                     | 19.75                               | 19.95          | 19.94           |                    |                  |
|                             | RB15#10                    | 19.81                               | 19.98          | 19.84           |                    |                  |
|                             | RB25#0                     | 19.95                               | 19.92          | 19.76           |                    |                  |
| 10MHz QPSK                  | RB1#0                      | 21.73                               | 21.76          | 20.3            | 24.12              | 33               |
|                             | RB1#25                     | 21.85                               | 21.87          | 20.05           |                    |                  |
|                             | RB1#49                     | 21.71                               | 21.87          | 20.01           |                    |                  |
|                             | RB25#0                     | 20.84                               | 20.79          | 20.19           |                    |                  |
|                             | RB25#25                    | 20.9                                | 20.99          | 20.08           |                    |                  |
|                             | RB50#0                     | 20.76                               | 20.92          | 20.16           |                    |                  |
| 10MHz 16QAM                 | RB1#0                      | 20.99                               | 20.47          | 20.61           | 23.37              | 33               |
|                             | RB1#25                     | 20.92                               | 20.35          | 20.4            |                    |                  |
|                             | RB1#49                     | 21.12                               | 20.45          | 20.37           |                    |                  |
|                             | RB25#0                     | 20.01                               | 20.05          | 20.15           |                    |                  |
|                             | RB25#25                    | 20.12                               | 20.19          | 20.06           |                    |                  |
|                             | RB50#0                     | 19.98                               | 20.04          | 20.01           |                    |                  |
| 15MHz QPSK                  | RB1#0                      | 21.78                               | 21.88          | 21.1            | 24.18              | 33               |
|                             | RB1#38                     | 21.58                               | 21.8           | 20.16           |                    |                  |
|                             | RB1#74                     | 21.5                                | 21.93          | 19.68           |                    |                  |
|                             | RB36#0                     | 20.95                               | 20.95          | 20.67           |                    |                  |
|                             | RB36#39                    | 20.77                               | 20.91          | 19.96           |                    |                  |
|                             | RB75#0                     | 20.96                               | 20.72          | 20.37           |                    |                  |
| 15MHz 16QAM                 | RB1#0                      | 21.11                               | 21.36          | 21.19           | 23.72              | 33               |
|                             | RB1#38                     | 21.12                               | 21.26          | 20.51           |                    |                  |
|                             | RB1#74                     | 21.23                               | 21.47          | 20.05           |                    |                  |
|                             | RB36#0                     | 20.03                               | 20.03          | 20.3            |                    |                  |
|                             | RB36#39                    | 20.07                               | 19.99          | 19.92           |                    |                  |
|                             | RB75#0                     | 20.04                               | 20.1           | 20.2            |                    |                  |
| 20MHz QPSK                  | RB1#0                      | 21.75                               | 21.68          | 21.9            | 24.19              | 33               |
|                             | RB1#50                     | 21.43                               | 21.83          | 20.41           |                    |                  |

|                                                                 |         |       |       |       |         |      |
|-----------------------------------------------------------------|---------|-------|-------|-------|---------|------|
|                                                                 | RB1#99  | 21.94 | 21.88 | 20.23 |         |      |
|                                                                 | RB50#0  | 20.77 | 20.81 | 21    |         |      |
|                                                                 | RB50#50 | 20.73 | 20.9  | 20.14 |         |      |
|                                                                 | RB100#0 | 20.93 | 20.81 | 20.67 |         |      |
| 20MHz 16QAM                                                     | RB1#0   | 20.93 | 21.71 | 21    | 24.06   | 33   |
|                                                                 | RB1#50  | 21    | 21.71 | 20.63 |         |      |
|                                                                 | RB1#99  | 21.09 | 21.81 | 20.42 |         |      |
|                                                                 | RB50#0  | 20.01 | 19.88 | 20.21 |         |      |
|                                                                 | RB50#50 | 19.99 | 20.07 | 20.17 |         |      |
|                                                                 | RB100#0 | 19.84 | 20.08 | 20.18 |         |      |
| Note: EIRP=Conducted Power(dBm) - Lc(dB) + G <sub>T</sub> (dBi) |         |       |       |       |         |      |
|                                                                 |         |       |       |       | Result: | Pass |

5.10 Antenna Port Test Data and Results for LTE Band 12

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

| Environmental Conditions: |      |                              |    |                           |       |
|---------------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C)      | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |

| Test Equipment List and Details:                                                                                                                                                                                  |                                        |                     |                  |                     |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| Manufacturer                                                                                                                                                                                                      | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
| R&S                                                                                                                                                                                                               | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep                                                                                                                                                                                                         | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |
| * Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI). |                                        |                     |                  |                     |                         |

| Test Frequency For Each Mode: |                              |                              |                               |
|-------------------------------|------------------------------|------------------------------|-------------------------------|
| Operation<br>Bandwidth        | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
| 1.4MHz                        | 699.7                        | 707.5                        | 715.3                         |
| 3MHz                          | 700.5                        | 707.5                        | 714.5                         |
| 5MHz                          | 701.5                        | 707.5                        | 713.5                         |
| 10MHz                         | 704                          | 707.5                        | 711                           |

**Test Data:****FCC§2.1046;§ 27.50(c) (10)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum ERP (dBm) | ERP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|-------------------|-----------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                   |                 |
| 1.4MHz QPSK                 | RB1#0                      | 22.24                               | 22.42          | 22.46           | 16.21             | 34.77           |
|                             | RB1#3                      | 22.37                               | 22.38          | 22.42           |                   |                 |
|                             | RB1#5                      | 22.32                               | 22.32          | 22.35           |                   |                 |
|                             | RB3#0                      | 22.38                               | 22.47          | 22.49           |                   |                 |
|                             | RB3#3                      | 22.42                               | 22.31          | 22.5            |                   |                 |
|                             | RB6#0                      | 21.49                               | 21.41          | 21.48           |                   |                 |
| 1.4MHz 16QAM                | RB1#0                      | 22.21                               | 20.85          | 21.9            | 15.96             | 34.77           |
|                             | RB1#3                      | 22.18                               | 20.9           | 21.86           |                   |                 |
|                             | RB1#5                      | 22.25                               | 20.92          | 21.92           |                   |                 |
|                             | RB3#0                      | 21.36                               | 21.16          | 21.47           |                   |                 |
|                             | RB3#3                      | 21.19                               | 21.25          | 21.51           |                   |                 |
|                             | RB6#0                      | 20.39                               | 20.48          | 20.75           |                   |                 |
| 3MHz QPSK                   | RB1#0                      | 22.31                               | 22.33          | 22.43           | 16.28             | 34.77           |
|                             | RB1#8                      | 22.39                               | 22.28          | 22.57           |                   |                 |
|                             | RB1#14                     | 22.51                               | 22.34          | 22.43           |                   |                 |
|                             | RB6#0                      | 21.57                               | 21.41          | 21.53           |                   |                 |
|                             | RB6#9                      | 21.42                               | 21.38          | 21.47           |                   |                 |
|                             | RB15#0                     | 21.38                               | 21.29          | 21.58           |                   |                 |
| 3MHz 16QAM                  | RB1#0                      | 22.17                               | 20.98          | 21.79           | 16.01             | 34.77           |
|                             | RB1#8                      | 22.26                               | 20.94          | 21.78           |                   |                 |
|                             | RB1#14                     | 22.3                                | 21.07          | 21.77           |                   |                 |
|                             | RB6#0                      | 20.54                               | 20.68          | 20.57           |                   |                 |
|                             | RB6#9                      | 20.45                               | 20.66          | 20.53           |                   |                 |
|                             | RB15#0                     | 20.48                               | 20.38          | 20.56           |                   |                 |
| 5MHz QPSK                   | RB1#0                      | 22.37                               | 22.34          | 22.42           | 16.19             | 34.77           |
|                             | RB1#13                     | 22.36                               | 22.27          | 22.44           |                   |                 |
|                             | RB1#24                     | 22.33                               | 22.41          | 22.48           |                   |                 |
|                             | RB15#0                     | 21.43                               | 21.33          | 21.5            |                   |                 |
|                             | RB15#10                    | 21.4                                | 21.43          | 21.52           |                   |                 |
|                             | RB25#0                     | 21.52                               | 21.53          | 21.44           |                   |                 |
| 5MHz 16QAM                  | RB1#0                      | 21.44                               | 20.89          | 20.54           | 15.26             | 34.77           |
|                             | RB1#13                     | 21.55                               | 21.01          | 20.63           |                   |                 |
|                             | RB1#24                     | 21.45                               | 20.96          | 20.5            |                   |                 |
|                             | RB15#0                     | 20.37                               | 20.47          | 20.66           |                   |                 |
|                             | RB15#10                    | 20.41                               | 20.56          | 20.67           |                   |                 |
|                             | RB25#0                     | 20.51                               | 20.29          | 20.64           |                   |                 |
| 10MHz QPSK                  | RB1#0                      | 22.34                               | 22.43          | 22.2            | 16.18             | 34.77           |
|                             | RB1#25                     | 22.42                               | 22.3           | 22.25           |                   |                 |

|             |         |       |       |       |       |       |
|-------------|---------|-------|-------|-------|-------|-------|
|             | RB1#49  | 22.46 | 22.47 | 22.37 |       |       |
|             | RB25#0  | 21.45 | 21.34 | 21.41 |       |       |
|             | RB25#25 | 21.36 | 21.39 | 21.53 |       |       |
|             | RB50#0  | 21.38 | 21.49 | 21.5  |       |       |
| 10MHz 16QAM | RB1#0   | 21.46 | 20.79 | 21.36 | 15.43 | 34.77 |
|             | RB1#25  | 21.42 | 20.87 | 21.54 |       |       |
|             | RB1#49  | 21.45 | 20.92 | 21.72 |       |       |
|             | RB25#0  | 20.43 | 20.55 | 20.45 |       |       |
|             | RB25#25 | 20.49 | 20.69 | 20.52 |       |       |
|             | RB50#0  | 20.45 | 20.39 | 20.55 |       |       |

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G<sub>T</sub>(dBd)G<sub>T</sub>(dBd)=G<sub>T</sub>(dBi)-2.15**Result:****Pass**

5.11 Antenna Port Test Data and Results for LTE Band 17

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

| Environmental Conditions: |      |                           |    |                        |       |
|---------------------------|------|---------------------------|----|------------------------|-------|
| Temperature:<br>(°C)      | 21.4 | Relative Humidity:<br>(%) | 59 | ATM Pressure:<br>(kPa) | 101.1 |

| Test Equipment List and Details:                                                                                                                                                                                  |                                     |                 |               |                  |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------|---------------|------------------|----------------------|
| Manufacturer                                                                                                                                                                                                      | Description                         | Model           | Serial Number | Calibration Date | Calibration Due Date |
| R&S                                                                                                                                                                                                               | Wideband Radio Communication Tester | CMW500          | 144976        | 2024/9/5         | 2025/9/4             |
| Eastsheep                                                                                                                                                                                                         | Coaxial Attenuator                  | 5W-N-JK-6G-10dB | F-08-EM488    | 2024/6/7         | 2025/6/6             |
| * Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI). |                                     |                 |               |                  |                      |

| Test Frequency For Each Mode: |                        |                        |                         |
|-------------------------------|------------------------|------------------------|-------------------------|
| Operation Bandwidth           | Lowest Frequency (MHz) | Middle Frequency (MHz) | Highest Frequency (MHz) |
| 5MHz                          | 706.5                  | 710                    | 713.5                   |
| 10MHz                         | 709                    | 710                    | 711                     |

**Test Data:****FCC§2.1046;§ 27.50(c) (10)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum ERP (dBm) | ERP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|-------------------|-----------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                   |                 |
| 5MHz QPSK                   | RB1#0                      | 22.38                               | 22.15          | 22.37           | 16.13             | 34.77           |
|                             | RB1#13                     | 22.27                               | 22.25          | 22.38           |                   |                 |
|                             | RB1#24                     | 22.42                               | 22.32          | 22.4            |                   |                 |
|                             | RB15#0                     | 21.42                               | 21.34          | 21.41           |                   |                 |
|                             | RB15#10                    | 21.36                               | 21.28          | 21.43           |                   |                 |
|                             | RB25#0                     | 21.37                               | 21.4           | 21.52           |                   |                 |
| 5MHz 16QAM                  | RB1#0                      | 21.41                               | 20.9           | 20.52           | 15.14             | 34.77           |
|                             | RB1#13                     | 21.29                               | 20.95          | 20.64           |                   |                 |
|                             | RB1#24                     | 21.43                               | 21.06          | 20.6            |                   |                 |
|                             | RB15#0                     | 20.38                               | 20.6           | 20.54           |                   |                 |
|                             | RB15#10                    | 20.34                               | 20.59          | 20.56           |                   |                 |
|                             | RB25#0                     | 20.4                                | 20.41          | 20.64           |                   |                 |
| 10MHz QPSK                  | RB1#0                      | 22.38                               | 22.34          | 22.33           | 16.36             | 34.77           |
|                             | RB1#25                     | 22.36                               | 22.45          | 22.33           |                   |                 |
|                             | RB1#49                     | 22.65                               | 22.45          | 22.44           |                   |                 |
|                             | RB25#0                     | 21.26                               | 21.3           | 21.37           |                   |                 |
|                             | RB25#25                    | 21.5                                | 21.52          | 21.49           |                   |                 |
|                             | RB50#0                     | 21.31                               | 21.4           | 21.4            |                   |                 |
| 10MHz 16QAM                 | RB1#0                      | 21.41                               | 20.91          | 21.45           | 15.35             | 34.77           |
|                             | RB1#25                     | 21.36                               | 20.96          | 21.49           |                   |                 |
|                             | RB1#49                     | 21.64                               | 21.02          | 21.59           |                   |                 |
|                             | RB25#0                     | 20.37                               | 20.6           | 20.42           |                   |                 |
|                             | RB25#25                    | 20.72                               | 20.69          | 20.57           |                   |                 |
|                             | RB50#0                     | 20.55                               | 20.54          | 20.52           |                   |                 |

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

**Result:****Pass**

5.12 Antenna Port Test Data and Results for LTE Band 41

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

Environmental Conditions:

|                      |      |                              |    |                           |       |
|----------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|---------------------------|-------|

Test Equipment List and Details:

| Manufacturer | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

*\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

| Operation<br>Bandwidth | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|------------------------|------------------------------|------------------------------|-------------------------------|
| 5MHz                   | 2498.5                       | 2593                         | 2687.5                        |
| 10MHz                  | 2501                         | 2593                         | 2685                          |
| 15MHz                  | 2503.5                       | 2593                         | 2682.5                        |
| 20MHz                  | 2506                         | 2593                         | 2680                          |

**Test Data:****FCC§2.1046;§ 27.50(h)(2)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| 5MHz QPSK                   | RB1#0                      | 22.04                               | 22.16          | 22.09           | 24.78              | 33               |
|                             | RB1#13                     | 22.03                               | 22.22          | 22.51           |                    |                  |
|                             | RB1#24                     | 22.02                               | 22.24          | 22.14           |                    |                  |
|                             | RB15#0                     | 20.82                               | 21.36          | 21.48           |                    |                  |
|                             | RB15#10                    | 20.89                               | 21.33          | 21.5            |                    |                  |
|                             | RB25#0                     | 20.84                               | 21.34          | 21.47           |                    |                  |
| 5MHz 16QAM                  | RB1#0                      | 21.27                               | 21.07          | 22.02           | 24.29              | 33               |
|                             | RB1#13                     | 21.15                               | 21             | 21.66           |                    |                  |
|                             | RB1#24                     | 21.44                               | 21.29          | 21.55           |                    |                  |
|                             | RB15#0                     | 20.28                               | 20.67          | 20.77           |                    |                  |
|                             | RB15#10                    | 20.17                               | 20.69          | 20.84           |                    |                  |
|                             | RB25#0                     | 20.36                               | 20.44          | 20.83           |                    |                  |
| 10MHz QPSK                  | RB1#0                      | 22.14                               | 22.4           | 22.3            | 24.86              | 33               |
|                             | RB1#25                     | 22.21                               | 22.49          | 22.54           |                    |                  |
|                             | RB1#49                     | 22.05                               | 22.47          | 22.59           |                    |                  |
|                             | RB25#0                     | 21.11                               | 21.41          | 21.69           |                    |                  |
|                             | RB25#25                    | 21.14                               | 21.49          | 21.72           |                    |                  |
|                             | RB50#0                     | 21.07                               | 21.49          | 21.6            |                    |                  |
| 10MHz 16QAM                 | RB1#0                      | 21.63                               | 22.06          | 21.74           | 24.33              | 33               |
|                             | RB1#25                     | 21.3                                | 21.98          | 21.66           |                    |                  |
|                             | RB1#49                     | 21.22                               | 22.02          | 21.75           |                    |                  |
|                             | RB25#0                     | 20.37                               | 20.7           | 20.79           |                    |                  |
|                             | RB25#25                    | 20.33                               | 20.72          | 20.93           |                    |                  |
|                             | RB50#0                     | 20.38                               | 20.62          | 20.89           |                    |                  |
| 15MHz QPSK                  | RB1#0                      | 22.03                               | 22.09          | 22.33           | 24.71              | 33               |
|                             | RB1#38                     | 22.03                               | 22.3           | 22.43           |                    |                  |
|                             | RB1#74                     | 22.19                               | 22.12          | 22.44           |                    |                  |
|                             | RB36#0                     | 21.15                               | 21.51          | 21.75           |                    |                  |
|                             | RB36#39                    | 21.24                               | 21.48          | 21.79           |                    |                  |
|                             | RB75#0                     | 21.01                               | 21.47          | 21.67           |                    |                  |
| 15MHz 16QAM                 | RB1#0                      | 21.58                               | 21.75          | 21.83           | 24.11              | 33               |
|                             | RB1#38                     | 21.24                               | 21.65          | 21.69           |                    |                  |
|                             | RB1#74                     | 21.78                               | 21.7           | 21.84           |                    |                  |
|                             | RB36#0                     | 20.35                               | 20.54          | 20.77           |                    |                  |
|                             | RB36#39                    | 20.37                               | 20.54          | 20.84           |                    |                  |
|                             | RB75#0                     | 20.27                               | 20.57          | 20.86           |                    |                  |
| 20MHz QPSK                  | RB1#0                      | 21.98                               | 22.48          | 22.49           | 25.05              | 33               |
|                             | RB1#50                     | 22.07                               | 22.53          | 22.48           |                    |                  |

|                                                                 |         |       |       |         |       |    |
|-----------------------------------------------------------------|---------|-------|-------|---------|-------|----|
|                                                                 | RB1#99  | 22.03 | 22.54 | 22.78   |       |    |
|                                                                 | RB50#0  | 21.04 | 21.34 | 21.6    |       |    |
|                                                                 | RB50#50 | 21.02 | 21.5  | 21.7    |       |    |
|                                                                 | RB100#0 | 21.01 | 21.31 | 21.49   |       |    |
| 20MHz 16QAM                                                     | RB1#0   | 20.66 | 21.95 | 21.89   | 24.35 | 33 |
|                                                                 | RB1#50  | 20.87 | 22.04 | 22.08   |       |    |
|                                                                 | RB1#99  | 20.79 | 21.99 | 21.95   |       |    |
|                                                                 | RB50#0  | 20.13 | 20.57 | 20.8    |       |    |
|                                                                 | RB50#50 | 20.17 | 20.62 | 20.85   |       |    |
|                                                                 | RB100#0 | 20.01 | 20.59 | 20.77   |       |    |
| Note: EIRP=Conducted Power(dBm) - Lc(dB) + G <sub>T</sub> (dBi) |         |       |       |         |       |    |
|                                                                 |         |       |       | Result: | Pass  |    |

5.13 Antenna Port Test Data and Results for LTE Band 66

|                |           |              |              |
|----------------|-----------|--------------|--------------|
| Serial Number: | 2TOQ-3    | Test Date:   | 2025/2/12    |
| Test Site:     | RF        | Test Mode:   | Transmitting |
| Tester:        | Loge Long | Test Result: | Pass         |

Environmental Conditions:

|                      |      |                              |    |                           |       |
|----------------------|------|------------------------------|----|---------------------------|-------|
| Temperature:<br>(°C) | 21.4 | Relative<br>Humidity:<br>(%) | 59 | ATM<br>Pressure:<br>(kPa) | 101.1 |
|----------------------|------|------------------------------|----|---------------------------|-------|

Test Equipment List and Details:

| Manufacturer | Description                            | Model               | Serial<br>Number | Calibration<br>Date | Calibration<br>Due Date |
|--------------|----------------------------------------|---------------------|------------------|---------------------|-------------------------|
| R&S          | Wideband Radio<br>Communication Tester | CMW500              | 144976           | 2024/9/5            | 2025/9/4                |
| Eastsheep    | Coaxial Attenuator                     | 5W-N-JK-6G-<br>10dB | F-08-EM488       | 2024/6/7            | 2025/6/6                |

*\* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

| Operation<br>Bandwidth | Lowest<br>Frequency<br>(MHz) | Middle<br>Frequency<br>(MHz) | Highest<br>Frequency<br>(MHz) |
|------------------------|------------------------------|------------------------------|-------------------------------|
| 1.4MHz                 | 1710.7                       | 1745                         | 1779.3                        |
| 3MHz                   | 1711.5                       | 1745                         | 1778.5                        |
| 5MHz                   | 1712.5                       | 1745                         | 1777.5                        |
| 10MHz                  | 1715                         | 1745                         | 1775                          |
| 15MHz                  | 1717.5                       | 1745                         | 1772.5                        |
| 20MHz                  | 1720                         | 1745                         | 1770                          |

**Test Data:****FCC§2.1046;§ 27.50(d)(4)****RF Output Power:**

| Test Bandwidth & Modulation | Resource Block & RB offset | Conducted Average Output Power(dBm) |                |                 | Maximum EIRP (dBm) | EIRP Limit (dBm) |
|-----------------------------|----------------------------|-------------------------------------|----------------|-----------------|--------------------|------------------|
|                             |                            | Lowest Channel                      | Middle Channel | Highest Channel |                    |                  |
| 1.4MHz QPSK                 | RB1#0                      | 21.98                               | 21.8           | 22.21           | 23.72              | 30               |
|                             | RB1#3                      | 21.99                               | 21.91          | 22.13           |                    |                  |
|                             | RB1#5                      | 21.97                               | 21.93          | 22.12           |                    |                  |
|                             | RB3#0                      | 22.04                               | 21.87          | 22.04           |                    |                  |
|                             | RB3#3                      | 22.1                                | 21.9           | 22.03           |                    |                  |
|                             | RB6#0                      | 20.97                               | 20.82          | 21.1            |                    |                  |
| 1.4MHz 16QAM                | RB1#0                      | 20.93                               | 21.76          | 21.22           | 23.27              | 30               |
|                             | RB1#3                      | 20.89                               | 21.76          | 21.23           |                    |                  |
|                             | RB1#5                      | 20.86                               | 21.71          | 21.31           |                    |                  |
|                             | RB3#0                      | 21.14                               | 21.05          | 21.28           |                    |                  |
|                             | RB3#3                      | 21.21                               | 21.1           | 21.33           |                    |                  |
|                             | RB6#0                      | 20.33                               | 19.98          | 20.3            |                    |                  |
| 3MHz QPSK                   | RB1#0                      | 21.98                               | 21.61          | 21.9            | 23.49              | 30               |
|                             | RB1#8                      | 21.9                                | 21.78          | 21.85           |                    |                  |
|                             | RB1#14                     | 21.9                                | 21.67          | 21.97           |                    |                  |
|                             | RB6#0                      | 21.1                                | 20.81          | 21.11           |                    |                  |
|                             | RB6#9                      | 21.09                               | 20.83          | 21.04           |                    |                  |
|                             | RB15#0                     | 21.11                               | 20.86          | 21.22           |                    |                  |
| 3MHz 16QAM                  | RB1#0                      | 21.78                               | 20.93          | 21.62           | 23.29              | 30               |
|                             | RB1#8                      | 21.69                               | 20.78          | 21.43           |                    |                  |
|                             | RB1#14                     | 21.7                                | 20.77          | 21.52           |                    |                  |
|                             | RB6#0                      | 20.24                               | 20.23          | 20.22           |                    |                  |
|                             | RB6#9                      | 20.16                               | 20.26          | 20.11           |                    |                  |
|                             | RB15#0                     | 20.17                               | 20.13          | 20.28           |                    |                  |
| 5MHz QPSK                   | RB1#0                      | 21.97                               | 21.15          | 22.01           | 23.66              | 30               |
|                             | RB1#13                     | 22.03                               | 21.65          | 22.15           |                    |                  |
|                             | RB1#24                     | 22.1                                | 21.41          | 21.99           |                    |                  |
|                             | RB15#0                     | 20.96                               | 20.79          | 21.2            |                    |                  |
|                             | RB15#10                    | 20.96                               | 20.76          | 21.08           |                    |                  |
|                             | RB25#0                     | 21.04                               | 20.8           | 21.12           |                    |                  |
| 5MHz 16QAM                  | RB1#0                      | 21.23                               | 20.69          | 20.28           | 22.84              | 30               |
|                             | RB1#13                     | 21.3                                | 20.68          | 20.32           |                    |                  |
|                             | RB1#24                     | 21.33                               | 20.7           | 20.28           |                    |                  |
|                             | RB15#0                     | 20.06                               | 20.04          | 20.31           |                    |                  |
|                             | RB15#10                    | 20.13                               | 20.03          | 20.36           |                    |                  |
|                             | RB25#0                     | 20.26                               | 19.96          | 20.31           |                    |                  |
| 10MHz QPSK                  | RB1#0                      | 22.1                                | 21.37          | 21.93           | 23.61              | 30               |
|                             | RB1#25                     | 22.04                               | 21.56          | 21.88           |                    |                  |

|                                                    |         |       |       |       |         |      |
|----------------------------------------------------|---------|-------|-------|-------|---------|------|
|                                                    | RB1#49  | 22.08 | 21.94 | 21.97 |         |      |
|                                                    | RB25#0  | 20.97 | 20.74 | 21.04 |         |      |
|                                                    | RB25#25 | 21    | 20.83 | 20.99 |         |      |
|                                                    | RB50#0  | 20.98 | 20.87 | 21.03 |         |      |
| 10MHz 16QAM                                        | RB1#0   | 21.24 | 20.51 | 21.32 | 22.96   | 30   |
|                                                    | RB1#25  | 21.19 | 20.53 | 21.34 |         |      |
|                                                    | RB1#49  | 21.33 | 20.44 | 21.45 |         |      |
|                                                    | RB25#0  | 20.29 | 20.12 | 20.13 |         |      |
|                                                    | RB25#25 | 20.26 | 20.03 | 20.22 |         |      |
|                                                    | RB50#0  | 20.27 | 20.03 | 20.25 |         |      |
| 15MHz QPSK                                         | RB1#0   | 22.07 | 21.57 | 21.84 | 23.65   | 30   |
|                                                    | RB1#38  | 22.04 | 21.52 | 21.91 |         |      |
|                                                    | RB1#74  | 22.14 | 21.87 | 22.01 |         |      |
|                                                    | RB36#0  | 21.06 | 20.85 | 21.05 |         |      |
|                                                    | RB36#39 | 21.09 | 20.83 | 21.11 |         |      |
|                                                    | RB75#0  | 21.03 | 20.74 | 21.05 |         |      |
| 15MHz 16QAM                                        | RB1#0   | 21.2  | 21.26 | 21.29 | 22.85   | 30   |
|                                                    | RB1#38  | 21.28 | 21.3  | 21.34 |         |      |
|                                                    | RB1#74  | 21.27 | 21.25 | 21.33 |         |      |
|                                                    | RB36#0  | 20.28 | 19.94 | 20.22 |         |      |
|                                                    | RB36#39 | 20.33 | 20.05 | 20.31 |         |      |
|                                                    | RB75#0  | 20.34 | 19.98 | 20.35 |         |      |
| 20MHz QPSK                                         | RB1#0   | 22.14 | 21.96 | 21.98 | 23.65   | 30   |
|                                                    | RB1#50  | 22.09 | 21.3  | 22.04 |         |      |
|                                                    | RB1#99  | 22.09 | 21.84 | 22    |         |      |
|                                                    | RB50#0  | 21.07 | 20.81 | 20.87 |         |      |
|                                                    | RB50#50 | 20.98 | 20.9  | 21.07 |         |      |
|                                                    | RB100#0 | 21.07 | 20.81 | 21    |         |      |
| 20MHz 16QAM                                        | RB1#0   | 21.09 | 21.72 | 21.07 | 23.23   | 30   |
|                                                    | RB1#50  | 21.01 | 21.52 | 21.2  |         |      |
|                                                    | RB1#99  | 21.05 | 21.54 | 21.37 |         |      |
|                                                    | RB50#0  | 20.26 | 20.02 | 20.21 |         |      |
|                                                    | RB50#50 | 20.21 | 19.9  | 20.19 |         |      |
|                                                    | RB100#0 | 20.26 | 20.04 | 20.21 |         |      |
| Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi) |         |       |       |       |         |      |
|                                                    |         |       |       |       | Result: | Pass |

**5.14 Radiated Spurious Emissions**

|                |                        |              |              |
|----------------|------------------------|--------------|--------------|
| Serial Number: | 2TOQ-1, 2TOQ-2         | Test Date:   | 2024/10/25   |
| Test Site:     | Chamber 10m, Chamber B | Test Mode:   | Transmitting |
| Tester:        | Leesin Xiang, Leo Xiao | Test Result: | Pass         |

**Environmental Conditions:**

|                      |           |                           |       |                           |       |
|----------------------|-----------|---------------------------|-------|---------------------------|-------|
| Temperature:<br>(°C) | 25.5~26.8 | Relative Humidity:<br>(%) | 32~50 | ATM<br>Pressure:<br>(kPa) | 100.9 |
|----------------------|-----------|---------------------------|-------|---------------------------|-------|

**Test Equipment List and Details:**

| Manufacturer   | Description               | Model               | Serial Number | Calibration Date | Calibration Due Date |
|----------------|---------------------------|---------------------|---------------|------------------|----------------------|
| 30MHz~1000MHz  |                           |                     |               |                  |                      |
| Sunol Sciences | Hybrid Antenna            | JB3                 | A060611-1     | 2023/9/6         | 2026/9/5             |
| Narda          | Coaxial Attenuator        | 779-6dB             | 04269         | 2023/9/6         | 2026/9/5             |
| Unknown        | Coaxial Cable             | C-NJNJ-50           | C-1000-01     | 2024/7/1         | 2025/6/30            |
| Unknown        | Coaxial Cable             | C-NJNJ-50           | C-0400-04     | 2024/7/1         | 2025/6/30            |
| Unknown        | Coaxial Cable             | C-NJNJ-50           | C-0530-01     | 2024/7/1         | 2025/6/30            |
| Sonoma         | Amplifier                 | 310N                | 185914        | 2024/8/26        | 2025/8/25            |
| R&S            | EMI Test Receiver         | ESCI                | 100224        | 2024/8/26        | 2025/8/25            |
| EMCO           | Adjustable Dipole Antenna | 3121C               | 9109-753      | N/A              | N/A                  |
| Micro-Coax     | Coaxial Cable             | UFA210B             | 99G1448       | 2024/9/5         | 2025/9/4             |
| Agilent        | Signal Generator          | E8247C              | MY43321350    | 2024/9/5         | 2025/9/4             |
| E-Microwave    | Band Rejection Filter     | OBF-ZP-703-748-SMAF | OE01902425    | 2024/6/7         | 2025/6/6             |
| Sinoscite      | Band Rejection Filter     | BSF824-862MS        | 1438001       | 2024/6/7         | 2025/6/6             |
| Sinoscite      | Band Rejection Filter     | BSF880-915MN        | 0382003       | 2024/6/11        | 2025/6/10            |

| Manufacturer          | Description                         | Model                     | Serial Number        | Calibration Date | Calibration Due Date |
|-----------------------|-------------------------------------|---------------------------|----------------------|------------------|----------------------|
| Above 1GHz            |                                     |                           |                      |                  |                      |
| ETS-Lindgren          | Horn Antenna                        | 3115                      | 000 527 35           | 2023/9/7         | 2026/9/6             |
| AH                    | Horn Antenna                        | SAS-571                   | 1177                 | 2023/2/22        | 2026/2/21            |
| Ducommun Technologies | Horn Antenna                        | ARH-4223-02               | 1007726-02<br>1304   | 2023/2/22        | 2026/2/21            |
| Ducommun Technologies | Horn Antenna                        | ARH-4223-02               | 1007726-03<br>1304   | 2023/2/22        | 2026/2/21            |
| Ducommun Technologies | Horn Antenna                        | ARH-2823-02               | 1007726-01<br>1302   | 2023/2/22        | 2026/2/21            |
| Ducommun Technologies | Horn Antenna                        | ARH-2823-02               | 1007726-02<br>1302   | 2023/2/22        | 2026/2/21            |
| Xinhang Macrowave     | Coaxial Cable                       | XH750A-N/J-SMA/J-10M      | 20231117004<br>#0001 | 2023/11/17       | 2024/11/16           |
| Micro-Coax            | Coaxial Cable                       | UFA210B                   | 99G1448              | 2024/9/5         | 2025/9/4             |
| Xinhang Macrowave     | Coaxial Cable                       | XH360A-2.92/J-2.92/J-6M-A | 20231208001<br>#0001 | 2023/12/11       | 2024/12/10           |
| Agilent               | Signal Generator                    | E8247C                    | MY43321350           | 2024/9/5         | 2025/9/4             |
| AH                    | Preamplifier                        | PAM-0118P                 | 469                  | 2024/4/15        | 2025/4/14            |
| AH                    | Preamplifier                        | PAM-1840VH                | 191                  | 2024/9/5         | 2025/9/4             |
| R&S                   | Spectrum Analyzer                   | FSV40                     | 101944               | 2024/9/6         | 2025/9/5             |
| R&S                   | Wideband Radio Communication Tester | CMW500                    | 147473               | 2024/9/5         | 2025/9/4             |

\* *Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

#### Test Data:

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

**Screen 2#**  
**Cellular Band (30MHz-10GHz)**

| Frequency<br>(MHz)         | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                            |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| GSM 850 Frequency:824.2MHz |                |                               |                               |                              |                    |                            |                |                |
| 456.80                     | H              | 41.67                         | -64.34                        | 0.00                         | 0.36               | -64.70                     | -13.00         | 51.70          |
| 460.68                     | V              | 40.52                         | -62.75                        | 0.00                         | 0.36               | -63.11                     | -13.00         | 50.11          |
| 1648.40                    | H              | 87.17                         | -37.96                        | 10.44                        | 0.71               | -28.23                     | -13.00         | 15.23          |
| 1648.40                    | V              | 84.46                         | -41.27                        | 10.44                        | 0.71               | -31.54                     | -13.00         | 18.54          |
| 2472.60                    | H              | 76.77                         | -46.01                        | 12.88                        | 1.25               | -34.38                     | -13.00         | 21.38          |
| 2472.60                    | V              | 71.37                         | -51.46                        | 12.88                        | 1.25               | -39.83                     | -13.00         | 26.83          |
| 3296.80                    | H              | 66.56                         | -52.83                        | 13.60                        | 1.59               | -40.82                     | -13.00         | 27.82          |
| 3296.80                    | V              | 66.10                         | -53.29                        | 13.60                        | 1.59               | -41.28                     | -13.00         | 28.28          |
| GSM 850 Frequency:836.6MHz |                |                               |                               |                              |                    |                            |                |                |
| 455.72                     | H              | 42.42                         | -63.60                        | 0.00                         | 0.36               | -63.96                     | -13.00         | 50.96          |
| 461.50                     | V              | 40.73                         | -62.53                        | 0.00                         | 0.36               | -62.89                     | -13.00         | 49.89          |
| 1673.20                    | H              | 85.82                         | -38.93                        | 10.61                        | 0.73               | -29.05                     | -13.00         | 16.05          |
| 1673.20                    | V              | 83.56                         | -41.79                        | 10.61                        | 0.73               | -31.91                     | -13.00         | 18.91          |
| 2509.80                    | H              | 75.43                         | -47.45                        | 13.11                        | 1.25               | -35.59                     | -13.00         | 22.59          |
| 2509.80                    | V              | 77.95                         | -44.95                        | 13.11                        | 1.25               | -33.09                     | -13.00         | 20.09          |
| 3346.40                    | H              | 65.23                         | -53.98                        | 13.83                        | 1.61               | -41.76                     | -13.00         | 28.76          |
| 3346.40                    | V              | 64.76                         | -54.50                        | 13.83                        | 1.61               | -42.28                     | -13.00         | 29.28          |
| GSM 850 Frequency:848.8MHz |                |                               |                               |                              |                    |                            |                |                |
| 448.72                     | H              | 41.77                         | -64.35                        | 0.00                         | 0.37               | -64.72                     | -13.00         | 51.72          |
| 465.35                     | V              | 41.00                         | -62.21                        | 0.00                         | 0.36               | -62.57                     | -13.00         | 49.57          |
| 1697.60                    | H              | 84.32                         | -40.05                        | 10.78                        | 0.75               | -30.02                     | -13.00         | 17.02          |
| 1697.60                    | V              | 83.39                         | -41.58                        | 10.78                        | 0.75               | -31.55                     | -13.00         | 18.55          |
| 2546.40                    | H              | 76.82                         | -46.05                        | 13.15                        | 1.27               | -34.17                     | -13.00         | 21.17          |
| 2546.40                    | V              | 80.58                         | -42.43                        | 13.15                        | 1.27               | -30.55                     | -13.00         | 17.55          |
| 3395.20                    | H              | 63.22                         | -55.77                        | 14.08                        | 1.64               | -43.33                     | -13.00         | 30.33          |
| 3395.20                    | V              | 64.14                         | -54.95                        | 14.08                        | 1.64               | -42.51                     | -13.00         | 29.51          |

**PCS Band (30MHz-20GHz)**

| Frequency<br>(MHz)           | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                              |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| GSM 1900 Frequency:1850.2MHz |                |                               |                               |                              |                    |                            |                |                |
| 475.53                       | H              | 42.63                         | -63.12                        | 0.00                         | 0.36               | -63.48                     | -13.00         | 50.48          |
| 454.42                       | V              | 40.55                         | -62.81                        | 0.00                         | 0.36               | -63.17                     | -13.00         | 50.17          |
| 3700.40                      | H              | 55.55                         | -63.02                        | 14.00                        | 1.83               | -50.85                     | -13.00         | 37.85          |
| 3700.40                      | V              | 59.21                         | -59.34                        | 14.00                        | 1.83               | -47.17                     | -13.00         | 34.17          |
| 5550.60                      | H              | 55.54                         | -58.57                        | 13.95                        | 1.27               | -45.89                     | -13.00         | 32.89          |
| 5550.60                      | V              | 60.58                         | -53.38                        | 13.95                        | 1.27               | -40.70                     | -13.00         | 27.70          |
| GSM 1900 Frequency:1880MHz   |                |                               |                               |                              |                    |                            |                |                |
| 463.87                       | H              | 43.31                         | -62.60                        | 0.00                         | 0.36               | -62.96                     | -13.00         | 49.96          |
| 455.22                       | V              | 40.57                         | -62.78                        | 0.00                         | 0.36               | -63.14                     | -13.00         | 50.14          |
| 3760.00                      | H              | 55.87                         | -61.97                        | 13.76                        | 1.63               | -49.84                     | -13.00         | 36.84          |
| 3760.00                      | V              | 60.52                         | -57.19                        | 13.76                        | 1.63               | -45.06                     | -13.00         | 32.06          |
| 5640.00                      | H              | 56.80                         | -56.92                        | 14.02                        | 1.31               | -44.21                     | -13.00         | 31.21          |
| 5640.00                      | V              | 59.27                         | -54.34                        | 14.02                        | 1.31               | -41.63                     | -13.00         | 28.63          |
| GSM 1900 Frequency:1909.8MHz |                |                               |                               |                              |                    |                            |                |                |
| 472.58                       | H              | 42.89                         | -62.90                        | 0.00                         | 0.36               | -63.26                     | -13.00         | 50.26          |
| 449.51                       | V              | 42.11                         | -61.32                        | 0.00                         | 0.37               | -61.69                     | -13.00         | 48.69          |
| 3819.60                      | H              | 56.41                         | -60.86                        | 13.56                        | 1.50               | -48.80                     | -13.00         | 35.80          |
| 3819.60                      | V              | 61.20                         | -55.88                        | 13.56                        | 1.50               | -43.82                     | -13.00         | 30.82          |
| 5729.40                      | H              | 56.26                         | -57.76                        | 13.96                        | 1.31               | -45.11                     | -13.00         | 32.11          |
| 5729.40                      | V              | 58.82                         | -55.17                        | 13.96                        | 1.31               | -42.52                     | -13.00         | 29.52          |

**WCDMA Band 2(30MHz-20GHz):**

| Frequency<br>(MHz)                | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-----------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                   |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| WCDMA Band 2 Frequency:1852.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 251.26                            | H              | 45.50                         | -63.76                        | 0.00                         | 0.27               | -64.03                     | -13.00         | 51.03          |
| 460.48                            | V              | 43.16                         | -60.12                        | 0.00                         | 0.36               | -60.48                     | -13.00         | 47.48          |
| 3704.80                           | H              | 48.34                         | -70.18                        | 13.98                        | 1.81               | -58.01                     | -13.00         | 45.01          |
| 3704.80                           | V              | 49.04                         | -69.45                        | 13.98                        | 1.81               | -57.28                     | -13.00         | 44.28          |
| 5557.20                           | H              | 49.23                         | -64.82                        | 13.97                        | 1.27               | -52.12                     | -13.00         | 39.12          |
| 5557.20                           | V              | 50.40                         | -63.50                        | 13.97                        | 1.27               | -50.80                     | -13.00         | 37.80          |
| WCDMA Band 2 Frequency:1880MHz    |                |                               |                               |                              |                    |                            |                |                |
| 249.47                            | H              | 45.71                         | -63.58                        | 0.00                         | 0.27               | -63.85                     | -13.00         | 50.85          |
| 452.08                            | V              | 42.82                         | -60.58                        | 0.00                         | 0.36               | -60.94                     | -13.00         | 47.94          |
| 3760.00                           | H              | 48.20                         | -69.64                        | 13.76                        | 1.63               | -57.51                     | -13.00         | 44.51          |
| 3760.00                           | V              | 48.82                         | -68.89                        | 13.76                        | 1.63               | -56.76                     | -13.00         | 43.76          |
| 5640.00                           | H              | 48.70                         | -65.02                        | 14.02                        | 1.31               | -52.31                     | -13.00         | 39.31          |
| 5640.00                           | V              | 48.61                         | -65.00                        | 14.02                        | 1.31               | -52.29                     | -13.00         | 39.29          |
| WCDMA Band 2 Frequency:1907.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 253.05                            | H              | 46.03                         | -63.21                        | 0.00                         | 0.27               | -63.48                     | -13.00         | 50.48          |
| 446.82                            | V              | 43.58                         | -59.89                        | 0.00                         | 0.37               | -60.26                     | -13.00         | 47.26          |
| 3815.20                           | H              | 47.51                         | -69.78                        | 13.57                        | 1.50               | -57.71                     | -13.00         | 44.71          |
| 3815.20                           | V              | 48.98                         | -68.12                        | 13.57                        | 1.50               | -56.05                     | -13.00         | 43.05          |
| 5722.80                           | H              | 48.59                         | -65.40                        | 13.95                        | 1.32               | -52.77                     | -13.00         | 39.77          |
| 5722.80                           | V              | 48.39                         | -65.55                        | 13.95                        | 1.32               | -52.92                     | -13.00         | 39.92          |

**WCDMA Band 4(30MHz-20GHz):**

| Frequency<br>(MHz)                | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-----------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                   |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| WCDMA Band 4 Frequency:1712.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 254.44                            | H              | 44.99                         | -64.23                        | 0.00                         | 0.27               | -64.50                     | -13.00         | 51.50          |
| 457.72                            | V              | 42.62                         | -60.70                        | 0.00                         | 0.36               | -61.06                     | -13.00         | 48.06          |
| 3424.80                           | H              | 50.89                         | -68.01                        | 14.03                        | 1.63               | -55.61                     | -13.00         | 42.61          |
| 3424.80                           | V              | 52.74                         | -66.23                        | 14.03                        | 1.63               | -53.83                     | -13.00         | 40.83          |
| 5137.20                           | H              | 49.25                         | -67.25                        | 13.94                        | 1.39               | -54.70                     | -13.00         | 41.70          |
| 5137.20                           | V              | 48.49                         | -67.93                        | 13.94                        | 1.39               | -55.38                     | -13.00         | 42.38          |
| WCDMA Band 4 Frequency:1732.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 236.82                            | H              | 45.60                         | -63.93                        | 0.00                         | 0.25               | -64.18                     | -13.00         | 51.18          |
| 445.80                            | V              | 42.64                         | -60.84                        | 0.00                         | 0.37               | -61.21                     | -13.00         | 48.21          |
| 3465.20                           | H              | 48.73                         | -70.05                        | 13.90                        | 1.62               | -57.77                     | -13.00         | 44.77          |
| 3465.20                           | V              | 47.87                         | -70.94                        | 13.90                        | 1.62               | -58.66                     | -13.00         | 45.66          |
| 5197.80                           | H              | 48.76                         | -67.61                        | 14.00                        | 1.52               | -55.13                     | -13.00         | 42.13          |
| 5197.80                           | V              | 48.63                         | -67.81                        | 14.00                        | 1.52               | -55.33                     | -13.00         | 42.33          |
| WCDMA Band 4 Frequency:1752.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 258.40                            | H              | 44.46                         | -64.71                        | 0.00                         | 0.28               | -64.99                     | -13.00         | 51.99          |
| 450.47                            | V              | 42.72                         | -60.70                        | 0.00                         | 0.36               | -61.06                     | -13.00         | 48.06          |
| 3505.20                           | H              | 46.82                         | -71.88                        | 13.82                        | 1.60               | -59.66                     | -13.00         | 46.66          |
| 3505.20                           | V              | 46.83                         | -71.87                        | 13.82                        | 1.60               | -59.65                     | -13.00         | 46.65          |
| 5257.80                           | H              | 48.15                         | -68.58                        | 14.17                        | 1.31               | -55.72                     | -13.00         | 42.72          |
| 5257.80                           | V              | 48.07                         | -68.74                        | 14.17                        | 1.31               | -55.88                     | -13.00         | 42.88          |

**WCDMA Band 5(30MHz-10GHz):**

| Frequency<br>(MHz)               | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                  |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| WCDMA Band 5 Frequency:826.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 261.44                           | H              | 46.31                         | -62.83                        | 0.00                         | 0.28               | -63.11                     | -13.00         | 50.11          |
| 452.23                           | V              | 43.50                         | -59.89                        | 0.00                         | 0.36               | -60.25                     | -13.00         | 47.25          |
| 1652.80                          | H              | 47.06                         | -78.00                        | 10.47                        | 0.72               | -68.25                     | -13.00         | 55.25          |
| 1652.80                          | V              | 47.76                         | -77.90                        | 10.47                        | 0.72               | -68.15                     | -13.00         | 55.15          |
| 2479.20                          | H              | 48.23                         | -74.57                        | 12.93                        | 1.25               | -62.89                     | -13.00         | 49.89          |
| 2479.20                          | V              | 47.69                         | -75.15                        | 12.93                        | 1.25               | -63.47                     | -13.00         | 50.47          |
| 3305.60                          | H              | 47.44                         | -71.95                        | 13.63                        | 1.59               | -59.91                     | -13.00         | 46.91          |
| 3305.60                          | V              | 47.90                         | -71.50                        | 13.63                        | 1.59               | -59.46                     | -13.00         | 46.46          |
| WCDMA Band 5 Frequency:836.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 246.82                           | H              | 45.81                         | -63.53                        | 0.00                         | 0.26               | -63.79                     | -13.00         | 50.79          |
| 470.50                           | V              | 42.79                         | -60.35                        | 0.00                         | 0.36               | -60.71                     | -13.00         | 47.71          |
| 1673.20                          | H              | 47.61                         | -77.14                        | 10.61                        | 0.73               | -67.26                     | -13.00         | 54.26          |
| 1673.20                          | V              | 47.49                         | -77.86                        | 10.61                        | 0.73               | -67.98                     | -13.00         | 54.98          |
| 2509.80                          | H              | 47.92                         | -74.96                        | 13.11                        | 1.25               | -63.10                     | -13.00         | 50.10          |
| 2509.80                          | V              | 48.80                         | -74.10                        | 13.11                        | 1.25               | -62.24                     | -13.00         | 49.24          |
| 3346.40                          | H              | 47.40                         | -71.81                        | 13.83                        | 1.61               | -59.59                     | -13.00         | 46.59          |
| 3346.40                          | V              | 48.02                         | -71.24                        | 13.83                        | 1.61               | -59.02                     | -13.00         | 46.02          |
| WCDMA Band 5 Frequency:846.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 243.85                           | H              | 46.33                         | -63.07                        | 0.00                         | 0.26               | -63.33                     | -13.00         | 50.33          |
| 465.28                           | V              | 43.13                         | -60.08                        | 0.00                         | 0.36               | -60.44                     | -13.00         | 47.44          |
| 1693.20                          | H              | 47.76                         | -76.68                        | 10.75                        | 0.75               | -66.68                     | -13.00         | 53.68          |
| 1693.20                          | V              | 47.25                         | -77.79                        | 10.75                        | 0.75               | -67.79                     | -13.00         | 54.79          |
| 2539.80                          | H              | 47.53                         | -75.34                        | 13.14                        | 1.27               | -63.47                     | -13.00         | 50.47          |
| 2539.80                          | V              | 46.43                         | -76.56                        | 13.14                        | 1.27               | -64.69                     | -13.00         | 51.69          |
| 3386.40                          | H              | 47.60                         | -71.43                        | 14.03                        | 1.63               | -59.03                     | -13.00         | 46.03          |
| 3386.40                          | V              | 47.63                         | -71.49                        | 14.03                        | 1.63               | -59.09                     | -13.00         | 46.09          |

**LTE Bands:**

(The Worst modulation and bandwidth was below)

**LTE Band 2(30MHz-20GHz):**

| Frequency<br>(MHz)                     | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                        |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 1.4MHz, QPSK,Frequency:1850.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 447.10                                 | H              | 45.47                         | -60.67                        | 0.00                         | 0.37               | -61.04                     | -13.00         | 48.04          |
| 454.86                                 | V              | 43.57                         | -59.79                        | 0.00                         | 0.36               | -60.15                     | -13.00         | 47.15          |
| 3701.40                                | H              | 54.07                         | -64.49                        | 13.99                        | 1.83               | -52.33                     | -13.00         | 39.33          |
| 3701.40                                | V              | 54.65                         | -63.89                        | 13.99                        | 1.83               | -51.73                     | -13.00         | 38.73          |
| 5552.10                                | H              | 50.22                         | -63.88                        | 13.96                        | 1.27               | -51.19                     | -13.00         | 38.19          |
| 5552.10                                | V              | 49.95                         | -64.00                        | 13.96                        | 1.27               | -51.31                     | -13.00         | 38.31          |
| 1RB, 1.4MHz, QPSK,Frequency:1880 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 447.78                                 | H              | 46.20                         | -59.93                        | 0.00                         | 0.37               | -60.30                     | -13.00         | 47.30          |
| 456.72                                 | V              | 44.11                         | -59.22                        | 0.00                         | 0.36               | -59.58                     | -13.00         | 46.58          |
| 3760.00                                | H              | 52.13                         | -65.71                        | 13.76                        | 1.63               | -53.58                     | -13.00         | 40.58          |
| 3760.00                                | V              | 53.56                         | -64.15                        | 13.76                        | 1.63               | -52.02                     | -13.00         | 39.02          |
| 5640.00                                | H              | 50.35                         | -63.37                        | 14.02                        | 1.31               | -50.66                     | -13.00         | 37.66          |
| 5640.00                                | V              | 50.26                         | -63.35                        | 14.02                        | 1.31               | -50.64                     | -13.00         | 37.64          |
| 1RB, 1.4MHz, QPSK,Frequency:1909.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 448.74                                 | H              | 45.29                         | -60.83                        | 0.00                         | 0.37               | -61.20                     | -13.00         | 48.20          |
| 456.38                                 | V              | 44.33                         | -59.01                        | 0.00                         | 0.36               | -59.37                     | -13.00         | 46.37          |
| 3818.60                                | H              | 51.54                         | -65.73                        | 13.56                        | 1.50               | -53.67                     | -13.00         | 40.67          |
| 3818.60                                | V              | 54.98                         | -62.11                        | 13.56                        | 1.50               | -50.05                     | -13.00         | 37.05          |
| 5727.90                                | H              | 50.05                         | -63.96                        | 13.96                        | 1.31               | -51.31                     | -13.00         | 38.31          |
| 5727.90                                | V              | 50.93                         | -63.05                        | 13.96                        | 1.31               | -50.40                     | -13.00         | 37.40          |

**LTE Band 4(30MHz-20GHz):**

| Frequency<br>(MHz)                     | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                        |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 1.4MHz, QPSK,Frequency:1710.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 445.82                                 | H              | 46.27                         | -59.89                        | 0.00                         | 0.37               | -60.26                     | -13.00         | 47.26          |
| 458.24                                 | V              | 43.00                         | -60.31                        | 0.00                         | 0.36               | -60.67                     | -13.00         | 47.67          |
| 3421.40                                | H              | 52.34                         | -66.57                        | 14.04                        | 1.63               | -54.16                     | -13.00         | 41.16          |
| 3421.40                                | V              | 55.60                         | -63.38                        | 14.04                        | 1.63               | -50.97                     | -13.00         | 37.97          |
| 5132.10                                | H              | 52.70                         | -63.81                        | 13.93                        | 1.37               | -51.25                     | -13.00         | 38.25          |
| 5132.10                                | V              | 51.75                         | -64.67                        | 13.93                        | 1.37               | -52.11                     | -13.00         | 39.11          |
| 1RB, 1.4MHz, QPSK,Frequency:1732.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 442.71                                 | H              | 45.44                         | -60.76                        | 0.00                         | 0.37               | -61.13                     | -13.00         | 48.13          |
| 453.16                                 | V              | 42.76                         | -60.62                        | 0.00                         | 0.36               | -60.98                     | -13.00         | 47.98          |
| 3465.00                                | H              | 51.47                         | -67.31                        | 13.91                        | 1.62               | -55.02                     | -13.00         | 42.02          |
| 3465.00                                | V              | 53.62                         | -65.19                        | 13.91                        | 1.62               | -52.90                     | -13.00         | 39.90          |
| 5197.50                                | H              | 51.40                         | -64.97                        | 14.00                        | 1.52               | -52.49                     | -13.00         | 39.49          |
| 5197.50                                | V              | 50.45                         | -65.99                        | 14.00                        | 1.52               | -53.51                     | -13.00         | 40.51          |
| 1RB, 1.4MHz, QPSK,Frequency:1754.3MHz  |                |                               |                               |                              |                    |                            |                |                |
| 447.06                                 | H              | 46.72                         | -59.42                        | 0.00                         | 0.37               | -59.79                     | -13.00         | 46.79          |
| 452.29                                 | V              | 43.29                         | -60.10                        | 0.00                         | 0.36               | -60.46                     | -13.00         | 47.46          |
| 3508.60                                | H              | 52.51                         | -66.20                        | 13.83                        | 1.60               | -53.97                     | -13.00         | 40.97          |
| 3508.60                                | V              | 54.79                         | -63.92                        | 13.83                        | 1.60               | -51.69                     | -13.00         | 38.69          |
| 5262.90                                | H              | 50.67                         | -66.10                        | 14.19                        | 1.29               | -53.20                     | -13.00         | 40.20          |
| 5262.90                                | V              | 49.62                         | -67.23                        | 14.19                        | 1.29               | -54.33                     | -13.00         | 41.33          |

**LTE Band 5(30MHz-10GHz):**

| Frequency<br>(MHz)                      | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-----------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                         |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 1.4MHz, QPSK, Frequency: 824.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 441.06                                  | H              | 46.15                         | -60.07                        | 0.00                         | 0.37               | -60.44                     | -13.00         | 47.44          |
| 451.77                                  | V              | 42.08                         | -61.32                        | 0.00                         | 0.36               | -61.68                     | -13.00         | 48.68          |
| 1649.40                                 | H              | 61.39                         | -63.72                        | 10.45                        | 0.71               | -53.98                     | -13.00         | 40.98          |
| 1649.40                                 | V              | 56.81                         | -68.90                        | 10.45                        | 0.71               | -59.16                     | -13.00         | 46.16          |
| 2474.10                                 | H              | 48.36                         | -74.42                        | 12.89                        | 1.25               | -62.78                     | -13.00         | 49.78          |
| 2474.10                                 | V              | 49.56                         | -73.27                        | 12.89                        | 1.25               | -61.63                     | -13.00         | 48.63          |
| 3298.80                                 | H              | 49.41                         | -70.00                        | 13.60                        | 1.59               | -57.99                     | -13.00         | 44.99          |
| 3298.80                                 | V              | 48.58                         | -70.83                        | 13.60                        | 1.59               | -58.82                     | -13.00         | 45.82          |
| 1RB, 1.4MHz, QPSK, Frequency: 836.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 440.82                                  | H              | 45.43                         | -60.80                        | 0.00                         | 0.37               | -61.17                     | -13.00         | 48.17          |
| 461.20                                  | V              | 43.39                         | -59.88                        | 0.00                         | 0.36               | -60.24                     | -13.00         | 47.24          |
| 1673.00                                 | H              | 62.89                         | -61.86                        | 10.61                        | 0.73               | -51.98                     | -13.00         | 38.98          |
| 1673.00                                 | V              | 58.82                         | -66.53                        | 10.61                        | 0.73               | -56.65                     | -13.00         | 43.65          |
| 2509.50                                 | H              | 52.85                         | -70.03                        | 13.11                        | 1.25               | -58.17                     | -13.00         | 45.17          |
| 2509.50                                 | V              | 51.61                         | -71.29                        | 13.11                        | 1.25               | -59.43                     | -13.00         | 46.43          |
| 3346.00                                 | H              | 48.73                         | -70.48                        | 13.83                        | 1.61               | -58.26                     | -13.00         | 45.26          |
| 3346.00                                 | V              | 48.42                         | -70.84                        | 13.83                        | 1.61               | -58.62                     | -13.00         | 45.62          |
| 1RB, 1.4MHz, QPSK, Frequency: 848.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 433.97                                  | H              | 45.74                         | -60.58                        | 0.00                         | 0.37               | -60.95                     | -13.00         | 47.95          |
| 462.88                                  | V              | 43.10                         | -60.14                        | 0.00                         | 0.36               | -60.50                     | -13.00         | 47.50          |
| 1696.60                                 | H              | 63.82                         | -60.56                        | 10.78                        | 0.75               | -50.53                     | -13.00         | 37.53          |
| 1696.60                                 | V              | 60.92                         | -64.06                        | 10.78                        | 0.75               | -54.03                     | -13.00         | 41.03          |
| 2544.90                                 | H              | 56.58                         | -66.29                        | 13.14                        | 1.27               | -54.42                     | -13.00         | 41.42          |
| 2544.90                                 | V              | 56.72                         | -66.29                        | 13.14                        | 1.27               | -54.42                     | -13.00         | 41.42          |
| 3393.20                                 | H              | 48.43                         | -70.57                        | 14.07                        | 1.64               | -58.14                     | -13.00         | 45.14          |
| 3393.20                                 | V              | 48.32                         | -70.77                        | 14.07                        | 1.64               | -58.34                     | -13.00         | 45.34          |

**LTE Band 7(30MHz-26GHz):**

| Frequency<br>(MHz)                     | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                        |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 5MHz, QPSK, Frequency: 2502.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 440.14                                 | H              | 46.28                         | -59.96                        | 0.00                         | 0.37               | -60.33                     | -25.00         | 35.33          |
| 450.40                                 | V              | 43.15                         | -60.27                        | 0.00                         | 0.36               | -60.63                     | -25.00         | 35.63          |
| 5005.00                                | H              | 55.41                         | -62.24                        | 14.00                        | 1.43               | -49.67                     | -25.00         | 24.67          |
| 5005.00                                | V              | 58.16                         | -59.25                        | 14.00                        | 1.43               | -46.68                     | -25.00         | 21.68          |
| 7507.50                                | H              | 48.67                         | -60.46                        | 13.20                        | 1.33               | -48.59                     | -25.00         | 23.59          |
| 7507.50                                | V              | 48.84                         | -60.77                        | 13.20                        | 1.33               | -48.90                     | -25.00         | 23.90          |
| 1RB, 5MHz, QPSK, Frequency: 2535 MHz   |                |                               |                               |                              |                    |                            |                |                |
| 438.97                                 | H              | 45.08                         | -61.17                        | 0.00                         | 0.37               | -61.54                     | -25.00         | 36.54          |
| 461.17                                 | V              | 42.40                         | -60.87                        | 0.00                         | 0.36               | -61.23                     | -25.00         | 36.23          |
| 5070.00                                | H              | 55.59                         | -61.32                        | 13.93                        | 1.34               | -48.73                     | -25.00         | 23.73          |
| 5070.00                                | V              | 56.30                         | -60.42                        | 13.93                        | 1.34               | -47.83                     | -25.00         | 22.83          |
| 7605.00                                | H              | 48.53                         | -60.88                        | 13.21                        | 1.40               | -49.07                     | -25.00         | 24.07          |
| 7605.00                                | V              | 48.37                         | -61.44                        | 13.21                        | 1.40               | -49.63                     | -25.00         | 24.63          |
| 1RB, 5MHz, QPSK, Frequency: 2567.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 440.36                                 | H              | 46.37                         | -59.86                        | 0.00                         | 0.37               | -60.23                     | -25.00         | 35.23          |
| 453.30                                 | V              | 42.82                         | -60.56                        | 0.00                         | 0.36               | -60.92                     | -25.00         | 35.92          |
| 5135.00                                | H              | 55.41                         | -61.09                        | 13.94                        | 1.38               | -48.53                     | -25.00         | 23.53          |
| 5135.00                                | V              | 55.77                         | -60.65                        | 13.94                        | 1.38               | -48.09                     | -25.00         | 23.09          |
| 7702.50                                | H              | 46.89                         | -62.80                        | 13.40                        | 1.47               | -50.87                     | -25.00         | 25.87          |
| 7702.50                                | V              | 47.87                         | -62.14                        | 13.40                        | 1.47               | -50.21                     | -25.00         | 25.21          |

**LTE Band 12(30MHz-10GHz):**

| 1RB, 1.4MHz, QPSK, Frequency: 699.7 MHz |             |                         |                         |                        |                 |                      |             |             |
|-----------------------------------------|-------------|-------------------------|-------------------------|------------------------|-----------------|----------------------|-------------|-------------|
| Frequency (MHz)                         | Polar (H/V) | Receiver Reading (dBμV) | Substituted Method      |                        |                 | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|                                         |             |                         | Substituted Level (dBm) | Antenna Gain (dBd/dBi) | Cable Loss (dB) |                      |             |             |
| 423.40                                  | H           | 44.61                   | -61.86                  | 0.00                   | 0.37            | -62.23               | -13.00      | 49.23       |
| 459.77                                  | V           | 42.27                   | -61.02                  | 0.00                   | 0.36            | -61.38               | -13.00      | 48.38       |
| 1399.40                                 | H           | 57.86                   | -66.34                  | 9.00                   | 1.20            | -58.54               | -13.00      | 45.54       |
| 1399.40                                 | V           | 58.59                   | -66.21                  | 9.00                   | 1.20            | -58.41               | -13.00      | 45.41       |
| 2099.10                                 | H           | 56.11                   | -67.37                  | 11.41                  | 1.10            | -57.06               | -13.00      | 44.06       |
| 2099.10                                 | V           | 58.40                   | -65.08                  | 11.41                  | 1.10            | -54.77               | -13.00      | 41.77       |
| 2798.80                                 | H           | 48.68                   | -73.42                  | 13.10                  | 1.36            | -61.68               | -13.00      | 48.68       |
| 2798.80                                 | V           | 48.76                   | -73.54                  | 13.10                  | 1.36            | -61.80               | -13.00      | 48.80       |
| 1RB, 1.4MHz,QPSK, Frequency:707.5 MHz   |             |                         |                         |                        |                 |                      |             |             |
| 442.82                                  | H           | 46.50                   | -59.70                  | 0.00                   | 0.37            | -60.07               | -13.00      | 47.07       |
| 468.64                                  | V           | 42.63                   | -60.53                  | 0.00                   | 0.36            | -60.89               | -13.00      | 47.89       |
| 1415.00                                 | H           | 60.68                   | -63.81                  | 9.08                   | 1.22            | -55.95               | -13.00      | 42.95       |
| 1415.00                                 | V           | 58.52                   | -66.49                  | 9.08                   | 1.22            | -58.63               | -13.00      | 45.63       |
| 2122.50                                 | H           | 59.96                   | -63.48                  | 11.27                  | 1.11            | -53.32               | -13.00      | 40.32       |
| 2122.50                                 | V           | 58.63                   | -64.79                  | 11.27                  | 1.11            | -54.63               | -13.00      | 41.63       |
| 2830.00                                 | H           | 48.23                   | -73.44                  | 13.34                  | 1.36            | -61.46               | -13.00      | 48.46       |
| 2830.00                                 | V           | 48.64                   | -73.26                  | 13.34                  | 1.36            | -61.28               | -13.00      | 48.28       |
| 1RB, 1.4MHz,QPSK, Frequency: 715.3 MHz  |             |                         |                         |                        |                 |                      |             |             |
| 441.52                                  | H           | 46.49                   | -59.73                  | 0.00                   | 0.37            | -60.10               | -13.00      | 47.10       |
| 455.55                                  | V           | 44.03                   | -59.32                  | 0.00                   | 0.36            | -59.68               | -13.00      | 46.68       |
| 1430.60                                 | H           | 61.97                   | -62.82                  | 9.15                   | 1.25            | -54.92               | -13.00      | 41.92       |
| 1430.60                                 | V           | 56.91                   | -68.32                  | 9.15                   | 1.25            | -60.42               | -13.00      | 47.42       |
| 2145.90                                 | H           | 61.28                   | -62.13                  | 11.12                  | 1.12            | -52.13               | -13.00      | 39.13       |
| 2145.90                                 | V           | 61.65                   | -61.72                  | 11.12                  | 1.12            | -51.72               | -13.00      | 38.72       |
| 2861.20                                 | H           | 48.72                   | -72.51                  | 13.59                  | 1.35            | -60.27               | -13.00      | 47.27       |
| 2861.20                                 | V           | 48.05                   | -73.44                  | 13.59                  | 1.35            | -61.20               | -13.00      | 48.20       |

**LTE Band 17(30MHz-10GHz):**

| Frequency<br>(MHz)                   | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                      |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 5MHz,QPSK, Frequency: 706.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 443.35                               | H              | 46.24                         | -59.95                        | 0.00                         | 0.37               | -60.32                     | -13.00         | 47.32          |
| 471.00                               | V              | 43.44                         | -59.69                        | 0.00                         | 0.36               | -60.05                     | -13.00         | 47.05          |
| 1413.00                              | H              | 58.66                         | -65.79                        | 9.07                         | 1.22               | -57.94                     | -13.00         | 44.94          |
| 1413.00                              | V              | 56.96                         | -68.02                        | 9.07                         | 1.22               | -60.17                     | -13.00         | 47.17          |
| 2119.50                              | H              | 61.74                         | -61.70                        | 11.28                        | 1.11               | -51.53                     | -13.00         | 38.53          |
| 2119.50                              | V              | 64.17                         | -59.25                        | 11.28                        | 1.11               | -49.08                     | -13.00         | 36.08          |
| 2826.00                              | H              | 48.37                         | -73.36                        | 13.31                        | 1.36               | -61.41                     | -13.00         | 48.41          |
| 2826.00                              | V              | 48.81                         | -73.15                        | 13.31                        | 1.36               | -61.20                     | -13.00         | 48.20          |
| 1RB, 5MHz,QPSK, Frequency:710 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 436.87                               | H              | 46.08                         | -60.20                        | 0.00                         | 0.37               | -60.57                     | -13.00         | 47.57          |
| 458.18                               | V              | 42.82                         | -60.49                        | 0.00                         | 0.36               | -60.85                     | -13.00         | 47.85          |
| 1420.00                              | H              | 58.44                         | -66.14                        | 9.10                         | 1.23               | -58.27                     | -13.00         | 45.27          |
| 1420.00                              | V              | 55.57                         | -69.51                        | 9.10                         | 1.23               | -61.64                     | -13.00         | 48.64          |
| 2130.00                              | H              | 59.74                         | -63.69                        | 11.22                        | 1.11               | -53.58                     | -13.00         | 40.58          |
| 2130.00                              | V              | 58.65                         | -64.75                        | 11.22                        | 1.11               | -54.64                     | -13.00         | 41.64          |
| 2840.00                              | H              | 48.84                         | -72.69                        | 13.42                        | 1.36               | -60.63                     | -13.00         | 47.63          |
| 2840.00                              | V              | 48.66                         | -73.11                        | 13.42                        | 1.36               | -61.05                     | -13.00         | 48.05          |
| 1RB, 5MHz,QPSK, Frequency: 713.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 442.50                               | H              | 45.70                         | -60.50                        | 0.00                         | 0.37               | -60.87                     | -13.00         | 47.87          |
| 463.82                               | V              | 43.32                         | -59.91                        | 0.00                         | 0.36               | -60.27                     | -13.00         | 47.27          |
| 1427.00                              | H              | 58.98                         | -65.74                        | 9.14                         | 1.24               | -57.84                     | -13.00         | 44.84          |
| 1427.00                              | V              | 55.24                         | -69.94                        | 9.14                         | 1.24               | -62.04                     | -13.00         | 49.04          |
| 2140.50                              | H              | 58.81                         | -64.61                        | 11.16                        | 1.12               | -54.57                     | -13.00         | 41.57          |
| 2140.50                              | V              | 62.39                         | -60.99                        | 11.16                        | 1.12               | -50.95                     | -13.00         | 37.95          |
| 2854.00                              | H              | 48.51                         | -72.82                        | 13.53                        | 1.35               | -60.64                     | -13.00         | 47.64          |
| 2854.00                              | V              | 47.60                         | -73.99                        | 13.53                        | 1.35               | -61.81                     | -13.00         | 48.81          |

**LTE Band 41(30MHz-27GHz):**

| Frequency<br>(MHz)                    | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|---------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                       |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 5MHz,QPSK, Frequency: 2498.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 450.42                                | H              | 45.97                         | -60.12                        | 0.00                         | 0.36               | -60.48                     | -25.00         | 35.48          |
| 463.44                                | V              | 42.78                         | -60.46                        | 0.00                         | 0.36               | -60.82                     | -25.00         | 35.82          |
| 4997.00                               | H              | 56.48                         | -61.19                        | 14.00                        | 1.44               | -48.63                     | -25.00         | 23.63          |
| 4997.00                               | V              | 56.89                         | -60.52                        | 14.00                        | 1.44               | -47.96                     | -25.00         | 22.96          |
| 7495.50                               | H              | 47.62                         | -61.50                        | 13.20                        | 1.32               | -49.62                     | -25.00         | 24.62          |
| 7495.50                               | V              | 47.61                         | -62.00                        | 13.20                        | 1.32               | -50.12                     | -25.00         | 25.12          |
| 1RB, 5MHz,QPSK, Frequency:2593 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 445.25                                | H              | 44.99                         | -61.18                        | 0.00                         | 0.37               | -61.55                     | -25.00         | 36.55          |
| 475.30                                | V              | 42.46                         | -60.61                        | 0.00                         | 0.36               | -60.97                     | -25.00         | 35.97          |
| 5186.00                               | H              | 56.22                         | -60.17                        | 13.99                        | 1.50               | -47.68                     | -25.00         | 22.68          |
| 5186.00                               | V              | 57.16                         | -59.28                        | 13.99                        | 1.50               | -46.79                     | -25.00         | 21.79          |
| 7779.00                               | H              | 48.67                         | -61.24                        | 13.32                        | 1.53               | -49.45                     | -25.00         | 24.45          |
| 7779.00                               | V              | 50.74                         | -59.43                        | 13.32                        | 1.53               | -47.64                     | -25.00         | 22.64          |
| 1RB, 5MHz,QPSK, Frequency: 2687.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 442.29                                | H              | 45.70                         | -60.51                        | 0.00                         | 0.37               | -60.88                     | -25.00         | 35.88          |
| 457.41                                | V              | 44.00                         | -59.32                        | 0.00                         | 0.36               | -59.68                     | -25.00         | 34.68          |
| 5375.00                               | H              | 55.66                         | -58.97                        | 14.15                        | 1.38               | -46.20                     | -25.00         | 21.20          |
| 5375.00                               | V              | 57.61                         | -57.01                        | 14.15                        | 1.38               | -44.24                     | -25.00         | 19.24          |
| 8062.50                               | H              | 49.10                         | -61.21                        | 13.34                        | 1.72               | -49.59                     | -25.00         | 24.59          |
| 8062.50                               | V              | 52.82                         | -57.56                        | 13.34                        | 1.72               | -45.94                     | -25.00         | 20.94          |

**LTE Band 66(30MHz-20GHz):**

| Frequency<br>(MHz)                      | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|-----------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                         |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 1.4MHz,QPSK, Frequency: 1710.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 435.84                                  | H              | 45.39                         | -60.91                        | 0.00                         | 0.37               | -61.28                     | -13.00         | 48.28          |
| 479.10                                  | V              | 43.20                         | -59.81                        | 0.00                         | 0.36               | -60.17                     | -13.00         | 47.17          |
| 3421.40                                 | H              | 53.56                         | -65.35                        | 14.04                        | 1.63               | -52.94                     | -13.00         | 39.94          |
| 3421.40                                 | V              | 52.73                         | -66.25                        | 14.04                        | 1.63               | -53.84                     | -13.00         | 40.84          |
| 5132.10                                 | H              | 50.64                         | -65.87                        | 13.93                        | 1.37               | -53.31                     | -13.00         | 40.31          |
| 5132.10                                 | V              | 49.84                         | -66.58                        | 13.93                        | 1.37               | -54.02                     | -13.00         | 41.02          |
| 1RB, 1.4MHz,QPSK, Frequency:1745 MHz    |                |                               |                               |                              |                    |                            |                |                |
| 447.49                                  | H              | 46.13                         | -60.00                        | 0.00                         | 0.37               | -60.37                     | -13.00         | 47.37          |
| 469.77                                  | V              | 44.21                         | -58.94                        | 0.00                         | 0.36               | -59.30                     | -13.00         | 46.30          |
| 3490.00                                 | H              | 55.27                         | -63.43                        | 13.83                        | 1.61               | -51.21                     | -13.00         | 38.21          |
| 3490.00                                 | V              | 54.28                         | -64.43                        | 13.83                        | 1.61               | -52.21                     | -13.00         | 39.21          |
| 5235.00                                 | H              | 50.16                         | -66.43                        | 14.11                        | 1.40               | -53.72                     | -13.00         | 40.72          |
| 5235.00                                 | V              | 51.75                         | -64.92                        | 14.11                        | 1.40               | -52.21                     | -13.00         | 39.21          |
| 1RB, 1.4MHz,QPSK, Frequency: 1779.3 MHz |                |                               |                               |                              |                    |                            |                |                |
| 436.82                                  | H              | 45.89                         | -60.39                        | 0.00                         | 0.37               | -60.76                     | -13.00         | 47.76          |
| 481.22                                  | V              | 43.37                         | -59.61                        | 0.00                         | 0.36               | -59.97                     | -13.00         | 46.97          |
| 3558.60                                 | H              | 55.67                         | -63.24                        | 13.98                        | 1.55               | -50.81                     | -13.00         | 37.81          |
| 3558.60                                 | V              | 53.56                         | -65.35                        | 13.98                        | 1.55               | -52.92                     | -13.00         | 39.92          |
| 5337.90                                 | H              | 52.70                         | -63.11                        | 14.22                        | 1.26               | -50.15                     | -13.00         | 37.15          |
| 5337.90                                 | V              | 51.25                         | -64.59                        | 14.22                        | 1.26               | -51.63                     | -13.00         | 38.63          |

**Spot Check:****Screen 1#  
Cellular Band (30MHz-20GHz)**

| Frequency<br>(MHz)           | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                              |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| GSM 1900 Frequency:1850.2MHz |                |                               |                               |                              |                    |                            |                |                |
| 475.16                       | H              | 42.85                         | -62.90                        | 0.00                         | 0.36               | -63.26                     | -13.00         | 50.26          |
| 454.67                       | V              | 40.54                         | -62.82                        | 0.00                         | 0.36               | -63.18                     | -13.00         | 50.18          |
| 3700.40                      | H              | 56.57                         | -62.00                        | 14.00                        | 1.83               | -49.83                     | -13.00         | 36.83          |
| 3700.40                      | V              | 58.81                         | -59.74                        | 14.00                        | 1.83               | -47.57                     | -13.00         | 34.57          |
| 5550.60                      | H              | 56.58                         | -57.53                        | 13.95                        | 1.27               | -44.85                     | -13.00         | 31.85          |
| 5550.60                      | V              | 59.50                         | -54.46                        | 13.95                        | 1.27               | -41.78                     | -13.00         | 28.78          |
| GSM 1900 Frequency:1880MHz   |                |                               |                               |                              |                    |                            |                |                |
| 463.82                       | H              | 43.42                         | -62.49                        | 0.00                         | 0.36               | -62.85                     | -13.00         | 49.85          |
| 455.21                       | V              | 40.46                         | -62.89                        | 0.00                         | 0.36               | -63.25                     | -13.00         | 50.25          |
| 3760.00                      | H              | 55.46                         | -62.38                        | 13.76                        | 1.63               | -50.25                     | -13.00         | 37.25          |
| 3760.00                      | V              | 58.20                         | -59.51                        | 13.76                        | 1.63               | -47.38                     | -13.00         | 34.38          |
| 5640.00                      | H              | 56.81                         | -56.91                        | 14.02                        | 1.31               | -44.20                     | -13.00         | 31.20          |
| 5640.00                      | V              | 59.26                         | -54.35                        | 14.02                        | 1.31               | -41.64                     | -13.00         | 28.64          |
| GSM 1900 Frequency:1909.8MHz |                |                               |                               |                              |                    |                            |                |                |
| 472.65                       | H              | 43.00                         | -62.79                        | 0.00                         | 0.36               | -63.15                     | -13.00         | 50.15          |
| 449.33                       | V              | 42.00                         | -61.43                        | 0.00                         | 0.37               | -61.80                     | -13.00         | 48.80          |
| 3819.60                      | H              | 57.88                         | -59.39                        | 13.56                        | 1.50               | -47.33                     | -13.00         | 34.33          |
| 3819.60                      | V              | 60.21                         | -56.87                        | 13.56                        | 1.50               | -44.81                     | -13.00         | 31.81          |
| 5729.40                      | H              | 56.83                         | -57.19                        | 13.96                        | 1.31               | -44.54                     | -13.00         | 31.54          |
| 5729.40                      | V              | 58.55                         | -55.44                        | 13.96                        | 1.31               | -42.79                     | -13.00         | 29.79          |

**WCDMA Band 5(30MHz-10GHz):**

| Frequency<br>(MHz)               | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                  |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| WCDMA Band 5 Frequency:826.4 MHz |                |                               |                               |                              |                    |                            |                |                |
| 261.49                           | H              | 46.42                         | -62.72                        | 0.00                         | 0.28               | -63.00                     | -13.00         | 50.00          |
| 452.56                           | V              | 43.39                         | -60.00                        | 0.00                         | 0.36               | -60.36                     | -13.00         | 47.36          |
| 1652.80                          | H              | 47.21                         | -77.85                        | 10.47                        | 0.72               | -68.10                     | -13.00         | 55.10          |
| 1652.80                          | V              | 47.50                         | -78.16                        | 10.47                        | 0.72               | -68.41                     | -13.00         | 55.41          |
| 2479.20                          | H              | 48.48                         | -74.32                        | 12.93                        | 1.25               | -62.64                     | -13.00         | 49.64          |
| 2479.20                          | V              | 47.64                         | -75.20                        | 12.93                        | 1.25               | -63.52                     | -13.00         | 50.52          |
| 3305.60                          | H              | 47.65                         | -71.74                        | 13.63                        | 1.59               | -59.70                     | -13.00         | 46.70          |
| 3305.60                          | V              | 47.57                         | -71.83                        | 13.63                        | 1.59               | -59.79                     | -13.00         | 46.79          |
| WCDMA Band 5 Frequency:836.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 246.07                           | H              | 45.92                         | -63.43                        | 0.00                         | 0.26               | -63.69                     | -13.00         | 50.69          |
| 470.12                           | V              | 42.68                         | -60.46                        | 0.00                         | 0.36               | -60.82                     | -13.00         | 47.82          |
| 1673.20                          | H              | 47.29                         | -77.46                        | 10.61                        | 0.73               | -67.58                     | -13.00         | 54.58          |
| 1673.20                          | V              | 47.59                         | -77.76                        | 10.61                        | 0.73               | -67.88                     | -13.00         | 54.88          |
| 2509.80                          | H              | 47.82                         | -75.06                        | 13.11                        | 1.25               | -63.20                     | -13.00         | 50.20          |
| 2509.80                          | V              | 47.22                         | -75.68                        | 13.11                        | 1.25               | -63.82                     | -13.00         | 50.82          |
| 3346.40                          | H              | 47.85                         | -71.36                        | 13.83                        | 1.61               | -59.14                     | -13.00         | 46.14          |
| 3346.40                          | V              | 48.42                         | -70.84                        | 13.83                        | 1.61               | -58.62                     | -13.00         | 45.62          |
| WCDMA Band 5 Frequency:846.6MHz  |                |                               |                               |                              |                    |                            |                |                |
| 243.69                           | H              | 46.44                         | -62.96                        | 0.00                         | 0.26               | -63.22                     | -13.00         | 50.22          |
| 465.33                           | V              | 43.02                         | -60.19                        | 0.00                         | 0.36               | -60.55                     | -13.00         | 47.55          |
| 1693.20                          | H              | 47.67                         | -76.77                        | 10.75                        | 0.75               | -66.77                     | -13.00         | 53.77          |
| 1693.20                          | V              | 47.74                         | -77.30                        | 10.75                        | 0.75               | -67.30                     | -13.00         | 54.30          |
| 2539.80                          | H              | 47.46                         | -75.41                        | 13.14                        | 1.27               | -63.54                     | -13.00         | 50.54          |
| 2539.80                          | V              | 47.56                         | -75.43                        | 13.14                        | 1.27               | -63.56                     | -13.00         | 50.56          |
| 3386.40                          | H              | 47.63                         | -71.40                        | 14.03                        | 1.63               | -59.00                     | -13.00         | 46.00          |
| 3386.40                          | V              | 47.50                         | -71.62                        | 14.03                        | 1.63               | -59.22                     | -13.00         | 46.22          |

**LTE Bands:**

(The Worst modulation and bandwidth was below)

**LTE Band 4(30MHz-20GHz):**

| Frequency<br>(MHz)                     | Polar<br>(H/V) | Receiver<br>Reading<br>(dBμV) | Substituted Method            |                              |                    | Absolute<br>Level<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|----------------------------------------|----------------|-------------------------------|-------------------------------|------------------------------|--------------------|----------------------------|----------------|----------------|
|                                        |                |                               | Substituted<br>Level<br>(dBm) | Antenna<br>Gain<br>(dBd/dBi) | Cable Loss<br>(dB) |                            |                |                |
| 1RB, 1.4MHz, QPSK,Frequency:1710.7 MHz |                |                               |                               |                              |                    |                            |                |                |
| 445.45                                 | H              | 46.38                         | -59.78                        | 0.00                         | 0.37               | -60.15                     | -13.00         | 47.15          |
| 458.81                                 | V              | 42.89                         | -60.41                        | 0.00                         | 0.36               | -60.77                     | -13.00         | 47.77          |
| 3421.40                                | H              | 53.19                         | -65.72                        | 14.04                        | 1.63               | -53.31                     | -13.00         | 40.31          |
| 3421.40                                | V              | 55.75                         | -63.23                        | 14.04                        | 1.63               | -50.82                     | -13.00         | 37.82          |
| 5132.10                                | H              | 52.82                         | -63.69                        | 13.93                        | 1.37               | -51.13                     | -13.00         | 38.13          |
| 5132.10                                | V              | 50.31                         | -66.11                        | 13.93                        | 1.37               | -53.55                     | -13.00         | 40.55          |
| 1RB, 1.4MHz, QPSK,Frequency:1732.5 MHz |                |                               |                               |                              |                    |                            |                |                |
| 442.24                                 | H              | 45.55                         | -60.66                        | 0.00                         | 0.37               | -61.03                     | -13.00         | 48.03          |
| 453.76                                 | V              | 42.65                         | -60.72                        | 0.00                         | 0.36               | -61.08                     | -13.00         | 48.08          |
| 3465.00                                | H              | 51.20                         | -67.58                        | 13.91                        | 1.62               | -55.29                     | -13.00         | 42.29          |
| 3465.00                                | V              | 53.29                         | -65.52                        | 13.91                        | 1.62               | -53.23                     | -13.00         | 40.23          |
| 5197.50                                | H              | 51.24                         | -65.13                        | 14.00                        | 1.52               | -52.65                     | -13.00         | 39.65          |
| 5197.50                                | V              | 50.51                         | -65.93                        | 14.00                        | 1.52               | -53.45                     | -13.00         | 40.45          |
| 1RB, 1.4MHz, QPSK,Frequency:1754.3MHz  |                |                               |                               |                              |                    |                            |                |                |
| 447.02                                 | H              | 46.83                         | -59.31                        | 0.00                         | 0.37               | -59.68                     | -13.00         | 46.68          |
| 452.57                                 | V              | 43.18                         | -60.21                        | 0.00                         | 0.36               | -60.57                     | -13.00         | 47.57          |
| 3508.60                                | H              | 52.70                         | -66.01                        | 13.83                        | 1.60               | -53.78                     | -13.00         | 40.78          |
| 3508.60                                | V              | 55.76                         | -62.95                        | 13.83                        | 1.60               | -50.72                     | -13.00         | 37.72          |
| 5262.90                                | H              | 50.72                         | -66.05                        | 14.19                        | 1.29               | -53.15                     | -13.00         | 40.15          |
| 5262.90                                | V              | 50.53                         | -66.32                        | 14.19                        | 1.29               | -53.42                     | -13.00         | 40.42          |

Note:

- 1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
- 2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
- 3) Margin = Limit-Absolute Level

## **EXHIBIT A - EUT PHOTOGRAPHS**

---

Please refer to the attachment 2402Y99420E-RF-A1-EXP EUT EXTERNAL PHOTOGRAPHS and 2402Y99420E-RF-A1-INP EUT INTERNAL PHOTOGRAPHS

## **EXHIBIT B - TEST SETUP PHOTOGRAPHS**

---

Please refer to the attachment 2402Y99420E-RF-00EA1-TSP TEST SETUP PHOTOGRAPHS.

**\*\*\*\*\* END OF REPORT \*\*\*\*\***