

# FCC Test Report

Report No.:AGC08454190803FE07

**FCC ID** : 2AUKT-ULTRALONG

**APPLICATION PURPOSE** : Class II Permissive Change

**PRODUCT DESIGNATION** : Pallet Tracker

**BRAND NAME** : N/A

**MODEL NAME** : Ultra Long, Ultra Wide, Ultra Wide QP, Ultra Medium,  
Ultra Thin, Ultra Short, Ultra B

**APPLICANT** : CHEP

**DATE OF ISSUE** : Sep. 24, 2019

**STANDARD(S)** : FCC Part 22 Rules  
FCC Part 24 Rules  
FCC Part 27 Rules  
FCC Part 90S- 2016

**REPORT VERSION** : V1.0

Attestation of **Global Compliance (Shenzhen) Co., Ltd.**

**CAUTION:**

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

**REPORT REVISE RECORD**

| Report Version | Revise Time | Issued Date   | Valid Version | Notes                      |
|----------------|-------------|---------------|---------------|----------------------------|
| V1.0           | /           | Sep. 24, 2019 | Valid         | Class II Permissive Change |

**Note:** In this report, the test results refer to the Certificate number (172181287/AA/00), report with item (No. RXA1706-0199RF01R1, RXA1706-0199RF02R1, RXA1706-0199RF03R1 ), brand name (Quectel), model name (BG96), Hardware version (R1.0) and Software version (BG96MAR02A02 M1G); Re-evaluate the radiated output power and radiated spurs of the complete machine using this module and compare the differences.



## TABLE OF CONTENTS

|                                             |           |
|---------------------------------------------|-----------|
| <b>1. VERIFICATION OF COMPLIANCE</b>        | <b>4</b>  |
| <b>2. GENERAL INFORMATION</b>               | <b>5</b>  |
| 2.1 PRODUCT DESCRIPTION                     | 5         |
| 2.3 RELATED SUBMITTAL(S) / GRANT (S)        | 7         |
| 2.4 TEST METHODOLOGY                        | 7         |
| 2.5 TEST FACILITY                           | 8         |
| 2.5 SPECIAL ACCESSORIES                     | 10        |
| 2.6 EQUIPMENT MODIFICATIONS                 | 10        |
| <b>3. SYSTEM TEST CONFIGURATION</b>         | <b>11</b> |
| 3.1 EUT CONFIGURATION                       | 11        |
| 3.2 EUT EXERCISE                            | 11        |
| 3.3 GENERAL TECHNICAL REQUIREMENTS          | 11        |
| 3.4 CONFIGURATION OF EUT SYSTEM             | 12        |
| <b>4. SUMMARY OF TEST RESULTS</b>           | <b>13</b> |
| <b>5. DESCRIPTION OF TEST MODES</b>         | <b>14</b> |
| <b>6. RADIATED OUTPUT POWER</b>             | <b>20</b> |
| 6.1 MEASUREMENT METHOD                      | 20        |
| 6.2 PROVISIONS APPLICABLE                   | 22        |
| 6.3 Measurement Result                      | 23        |
| <b>7. SPURIOUS EMISSION</b>                 | <b>36</b> |
| 7.1 CONDUCTED SPURIOUS EMISSION             | 36        |
| 7.2 RADIATED SPURIOUS EMISSION              | 39        |
| <b>APPENDIX D PHOTOGRAPHS OF TEST SETUP</b> | <b>49</b> |

## 1. VERIFICATION OF COMPLIANCE

|                                 |                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Applicant</b>                | CHEP                                                                                               |
| <b>Address</b>                  | 10-18, Higashi-kanda 2-chome Chiyoda-ku, Tokyo, Japan                                              |
| <b>Manufacturer</b>             | Travis GT b.v.                                                                                     |
| <b>Address</b>                  | Stationsplein 45, 3013 AK Rotterdam, The Netherlands, Rotterdam, Netherlands                       |
| <b>Factory</b>                  | SHENZHEN HUNGPHONE TECHNOLOGY CO., LTD                                                             |
| <b>Address</b>                  | F3-4, Block B6, XuJingChang Industry Park, Fuyong, Bao'an, Shenzhen, China                         |
| <b>Product Designation</b>      | Pallet Tracker                                                                                     |
| <b>Brand Name</b>               | N/A                                                                                                |
| <b>Test Model</b>               | Ultra Long                                                                                         |
| <b>Serial Model</b>             | Ultra Wide, Ultra Wide QP, Ultra Medium, Ultra Thin, Ultra Short, Ultra B                          |
| <b>Difference Description</b>   | Number of Battery in each model are different, however, the supply voltage remains the same @ 3.0V |
| <b>Date of test</b>             | June 18, 2019~Sep. 24, 2019                                                                        |
| <b>Deviation</b>                | None                                                                                               |
| <b>Condition of Test Sample</b> | Normal                                                                                             |

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI/TIA-603-E-2016. The sample tested as described in this report is in compliance with the FCC Rules Part 22, 24, 27 and Part 90S. The test results of this report relate only to the tested sample identified in this report.

Prepared By



Jeast Zhan  
(Project Engineer)

Sep. 24, 2019

Reviewed By



Max Zhang  
(Reviewer)

Sep. 24, 2019

Approved By



Forrest Lei  
(Authorized Officer)

Sep. 24, 2019

## 2. GENERAL INFORMATION

### 2.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                            |  |  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Radio System Type:          | LTE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                            |  |  |
| Frequency Bands:            | <input checked="" type="checkbox"/> FDD Band 2 <input checked="" type="checkbox"/> FDD Band 4 <input checked="" type="checkbox"/> FDD Band 5 <input checked="" type="checkbox"/> FDD Band 12<br><input checked="" type="checkbox"/> FDD Band 13 <input checked="" type="checkbox"/> FDD Band 26 (U.S. Bands)<br><input checked="" type="checkbox"/> FDD Band 1 <input checked="" type="checkbox"/> FDD Band 3 <input checked="" type="checkbox"/> FDD Band 8 <input checked="" type="checkbox"/> FDD Band 20<br><input checked="" type="checkbox"/> FDD Band 28 (Non-U.S. Bands) |                                                                                                                                                                            |  |  |
| Frequency Range             | LTE Band 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Transmission (TX): 1850 to 1909.9 MHz                                                                                                                                      |  |  |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Receiving (RX): 1930 to 1989.9 MHz                                                                                                                                         |  |  |
|                             | LTE Band 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Transmission (TX): 1710 to 1754.9MHz                                                                                                                                       |  |  |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Receiving (RX): 2110 to 2154.9MHz                                                                                                                                          |  |  |
|                             | LTE Band 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Transmission (TX): 824 to 848.9 MHz                                                                                                                                        |  |  |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Receiving (RX): 869 to 893.9 MHz                                                                                                                                           |  |  |
|                             | LTE Band 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Transmission (TX): 699 to 715.9MHz                                                                                                                                         |  |  |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Receiving (RX): 729 to 745.9MHz                                                                                                                                            |  |  |
|                             | LTE Band 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Transmission (TX): 777 to 786.9MHz                                                                                                                                         |  |  |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Receiving (RX): 746 to 755.9MHz                                                                                                                                            |  |  |
| LTE Band 26                 | Transmission (TX): 824 to 848.3MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                            |  |  |
|                             | Receiving (RX): 869 to 894MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                            |  |  |
| LTE Band 26                 | Transmission (TX): 815.5 to 822.5MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                            |  |  |
|                             | Receiving (RX): 859.7 to 864MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                            |  |  |
| Supported Channel Bandwidth | LTE Band 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> 1.4 MHz <input checked="" type="checkbox"/> 3 MHz <input checked="" type="checkbox"/> 5 MHz                                            |  |  |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> 10 MHz <input checked="" type="checkbox"/> 15 MHz <input checked="" type="checkbox"/> 20 MHz                                           |  |  |
|                             | LTE Band 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> 1.4 MHz <input checked="" type="checkbox"/> 3 MHz <input checked="" type="checkbox"/> 5 MHz                                            |  |  |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> 10 MHz <input checked="" type="checkbox"/> 15 MHz <input checked="" type="checkbox"/> 20 MHz                                           |  |  |
|                             | LTE Band 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> 1.4 MHz <input checked="" type="checkbox"/> 3 MHz <input checked="" type="checkbox"/> 5 MHz <input checked="" type="checkbox"/> 10 MHz |  |  |
|                             | LTE Band 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> 1.4 MHz <input checked="" type="checkbox"/> 3 MHz <input checked="" type="checkbox"/> 5 MHz <input checked="" type="checkbox"/> 10 MHz |  |  |
| LTE Band 13                 | <input checked="" type="checkbox"/> 5 MHz <input checked="" type="checkbox"/> 10 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                            |  |  |
| LTE Band 26                 | <input checked="" type="checkbox"/> 1.4 MHz <input checked="" type="checkbox"/> 3 MHz <input checked="" type="checkbox"/> 5 MHz <input checked="" type="checkbox"/> 10 MHz                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            |  |  |
|                             | <input checked="" type="checkbox"/> 15 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            |  |  |
| Hardware Version            | Rev 2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                            |  |  |
| Software Version            | 01.02.0027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            |  |  |
| Antenna:                    | CHIP Antenna                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                            |  |  |
| Type of Modulation          | QPSK/16QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            |  |  |
| Antenna gain:               | Band 2: 2.50dBi; Band 4: 2.78dBi; Band 5: 1.95dBi; Band 12:2.25dBi;<br>Band 13:1.77dBi; Band 26:2.14dBi                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                            |  |  |

|                                                                                                                                                                     |                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Power Supply:                                                                                                                                                       | DC 3.8V by battery              |
| Single Card:                                                                                                                                                        | GSM/ LTE Card Slot              |
| Extreme Vol. Limits:                                                                                                                                                | DC3.23V to 4.35V (Normal: 3.8V) |
| Temperature range                                                                                                                                                   | -10°C to +40°C                  |
| <b>Note1:</b> The High Voltage DC4.35V and Low Voltage DC3.23V were declared by manufacturer, The EUT couldn't be operating normally with higher or lower voltage.. |                                 |



### 2.3 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID:2AUKT-ULTRALONG** , filing to comply with the FCC Part 22, Part 24, Part 27 and Part 90S requirements

### 2.4 TEST METHODOLOGY

The radiated emission testing was performed according to the procedures of ANSI/TIA-603-E-2016, and FCC KDB 971168 D01 Power Means License Digital Systems V03R01.



## 2.5 TEST FACILITY

|                                          |                                                                                                                                          |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Site</b>                         | Attestation of Global Compliance (Shenzhen) Co., Ltd                                                                                     |
| <b>Location</b>                          | 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China |
| <b>Designation Number</b>                | CN1259                                                                                                                                   |
| <b>FCC Test Firm Registration Number</b> | 975832                                                                                                                                   |
| <b>A2LA Cert. No.</b>                    | 5054.02                                                                                                                                  |
| <b>Description</b>                       | Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA                                                                |

## ALL TEST EQUIPMENT LIST

| Equipment                    | Manufacturer | Model       | S/N        | Cal. Date     | Cal. Due      |
|------------------------------|--------------|-------------|------------|---------------|---------------|
| TEST RECEIVER                | R&S          | ESPI        | 101206     | Jun.12, 2019  | Jun.11, 2020  |
| LISN                         | R&S          | ESH2-Z5     | 100086     | Aug.26, 2019  | Aug.25, 2020  |
| TEST RECEIVER                | R&S          | ESCI        | 10096      | Jun.12, 2019  | Jun.11, 2020  |
| EXA Signal Analyzer          | Agilent      | N9010A      | MY53470504 | Dec.20, 2018  | Dec.18, 2019  |
| Horn antenna                 | SCHWARZBECK  | BBHA 9170   | #768       | Sep.21, 2017  | Sep.20, 2019  |
| Horn antenna                 | SCHWARZBECK  | BBHA 9170   | #768       | Sep.19, 2019  | Sep.18, 2021  |
| preamplifier                 | ChengYi      | EMC184045SE | 980508     | Oct. 31, 2018 | Oct. 30, 2019 |
| Double-Ridged Waveguide Horn | ETS LINDGREN | 3117        | 00034609   | May.17, 2019  | May.16, 2021  |
| Broadband Preamplifier       | SCHWARZBECK  | BBV 9718    | 9718-205   | Jun.12, 2019  | Jun.11, 2020  |
| ANTENNA                      | SCHWARZBECK  | VULB9168    | D69250     | Sep.28, 2017  | Sep.27, 2019  |
| ANTENNA                      | SCHWARZBECK  | VULB9168    | D69250     | Sep.26, 2019  | Sep.25, 2021  |
| SIGNAL ANALYZER              | Agilent      | N9020A      | MY52090123 | Sep. 20, 2018 | Sep. 19, 2019 |
| SIGNAL ANALYZER              | Agilent      | N9020A      | MY52090123 | Sep. 18, 2019 | Sep. 17, 2020 |
| USB Wideband Power Sensor    | Agilent      | U2021XA     | MY54110007 | Sep. 20, 2018 | Sep. 19, 2019 |
| USB Wideband Power Sensor    | Agilent      | U2021XA     | MY54110007 | Sep. 18, 2019 | Sep. 17, 2020 |
| Wireless communication test  | R&S          | CMW500      | 120909     | July 11, 2019 | July 10, 2020 |

|                |         |              |     |              |              |
|----------------|---------|--------------|-----|--------------|--------------|
| Power Splitter | Agilent | 11636A       | 34  | Jun.12, 2019 | Jun.11, 2020 |
| Attenuator     | JFW     | 50FHC-006-50 | N/A | Jun.12, 2019 | Jun.11, 2020 |



## 2.5 SPECIAL ACCESSORIES

The battery was supplied by the applicant were used as accessories and being tested with EUT intended for FCC grant together.

## 2.6 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.



### 3. SYSTEM TEST CONFIGURATION

#### 3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

#### 3.2 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

#### 3.3 GENERAL TECHNICAL REQUIREMENTS

| Item Number | Item Description  |                            | FCC Rules                                                              |
|-------------|-------------------|----------------------------|------------------------------------------------------------------------|
| 1           | Output Power      | Radiated Output Power      | 22.913(a)(2)/24.232(c)/27.50(d)(4)/27.50(b)(10)/20.50(c)(10)/90.635(b) |
| 2           | Spurious Emission | Radiated spurious emission | 2.1051/22.917(a)/24.238(a) 27.53(h)/ 27.53(g)/ 90.691                  |

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different.



### 3.4 CONFIGURATION OF EUT SYSTEM

Fig. 2-1 Configuration of EUT System



Table 2-1 Equipment Used in EUT System

| Item | Equipment      | Model No.  | ID or Specification | Remark |
|------|----------------|------------|---------------------|--------|
| 1    | Pallet Tracker | Ultra Long | 2AUKT-ULTRALONG     | EUT    |

\*\*\*Note: All the accessories have been used during the test. The following “EUT” in setup diagram means EUT system.

#### 4. SUMMARY OF TEST RESULTS

| Item Number | Item Description  |                            | FCC Rules                                                              | Result |
|-------------|-------------------|----------------------------|------------------------------------------------------------------------|--------|
| 1           | Output Power      | Radiated Output Power      | 22.913(a)(2)/24.232(c)/27.50(d)(4)/27.50(b)(10)/20.50(c)(10)/90.635(b) | Pass   |
| 2           | Spurious Emission | Radiated Spurious Emission | 2.1051/22.917(a)/24.238(a)27.53(h)/ 27.53(g)/90.691                    | Pass   |



## 5. DESCRIPTION OF TEST MODES

During the testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication Tester (CMW 500) to ensure max power transmission and proper modulation. Three channels (The top channel, the middle channel and the bottom channel) were chosen for testing on both LTE frequency band.

The worst condition was recorded in the test report if no other modes test data.

| Test Mode | Test Modes Description       |
|-----------|------------------------------|
| LTE       | LTE system, QPSK modulation  |
| LTE       | LTE system, 16QAM modulation |

| Test Mode  | TX / RX   | RF Channel    |               |               |
|------------|-----------|---------------|---------------|---------------|
|            |           | Low (B)       | Middle (M)    | High (T)      |
| LTE Band 2 | TX (1.4M) | Channel 18607 | Channel 18900 | Channel 19193 |
|            |           | 1850.7 MHz    | 1880 MHz      | 1909.3 MHz    |
|            | TX (3M)   | Channel 18615 | Channel 18900 | Channel 19185 |
|            |           | 1851.5 MHz    | 1880 MHz      | 1908.5 MHz    |
|            | TX (5M)   | Channel 18625 | Channel 18900 | Channel 19175 |
|            |           | 1852.5 MHz    | 1880 MHz      | 1907.5 MHz    |
|            | TX (10M)  | Channel 18650 | Channel 18900 | Channel 19150 |
|            |           | 1855.0 MHz    | 1880 MHz      | 1905.0 MHz    |
|            | TX (20M)  | Channel 18700 | Channel 18900 | Channel 19100 |
|            |           | 1860.0 MHz    | 1880 MHz      | 1900.0 MHz    |
|            | RX (1.4M) | Channel 607   | Channel 900   | Channel 1193  |
|            |           | 1930.7 MHz    | 1960 MHz      | 1989.3 MHz    |
|            | RX (3M)   | Channel 615   | Channel 900   | Channel 1185  |
|            |           | 1931.5 MHz    | 1960 MHz      | 1988.5 MHz    |
|            | RX (5M)   | Channel 625   | Channel 900   | Channel 1175  |
|            |           | 1932.5 MHz    | 1960 MHz      | 1987.5 MHz    |
|            | RX (10M)  | Channel 650   | Channel 900   | Channel 1150  |
|            |           | 1935 MHz      | 1960 MHz      | 1985 MHz      |
|            | RX (20M)  | Channel 700   | Channel 900   | Channel 1100  |
|            |           | 1940.0 MHz    | 1960 MHz      | 1980 MHz      |



| Test Mode  | TX / RX   | RF Channel    |               |               |
|------------|-----------|---------------|---------------|---------------|
|            |           | Low (B)       | Middle (M)    | High (T)      |
| LTE Band 4 | TX (1.4M) | Channel 19957 | Channel 20175 | Channel 20393 |
|            |           | 1710.7MHz     | 1732.5 MHz    | 1754.3 MHz    |
|            | TX (3M)   | Channel 19965 | Channel 20175 | Channel 20385 |
|            |           | 1711.5 MHz    | 1732.5 MHz    | 1753.5 MHz    |
|            | TX (5M)   | Channel 19975 | Channel 20175 | Channel 20375 |
|            |           | 1712.5 MHz    | 1732.5 MHz    | 1752.5 MHz    |
|            | TX (10M)  | Channel 20000 | Channel 20175 | Channel 20350 |
|            |           | 1715.0 MHz    | 1732.5 MHz    | 1750.0 MHz    |
|            | TX (15M)  | Channel 20025 | Channel 20175 | Channel 20325 |
|            |           | 1717.5 MHz    | 1732.5 MHz    | 1747.5 MHz    |
|            | TX (20M)  | Channel 20050 | Channel 20175 | Channel 20300 |
|            |           | 1720.0 MHz    | 1732.5 MHz    | 1745.0MHz     |
|            | RX (1.4M) | Channel 1957  | Channel 2175  | Channel 2393  |
|            |           | 2110.7 MHz    | 2132.5 MHz    | 2154.3 MHz    |
|            | RX (3M)   | Channel 1965  | Channel 2175  | Channel 2385  |
|            |           | 2111.5 MHz    | 2132.5 MHz    | 2153.5 MHz    |
|            | RX (5M)   | Channel 1975  | Channel 2175  | Channel 2375  |
|            |           | 2112.5 MHz    | 2132.5 MHz    | 2152.5 MHz    |
|            | RX (10M)  | Channel 2000  | Channel 2175  | Channel 2350  |
|            |           | 2115.0 MHz    | 2132.5 MHz    | 2150.0 MHz    |
|            | RX (15M)  | Channel 2025  | Channel 2175  | Channel 2325  |
|            |           | 2117.5 MHz    | 2132.5 MHz    | 2147.5 MHz    |
|            | RX (20M)  | Channel 2050  | Channel 2175  | Channel 2300  |
|            |           | 2120.0 MHz    | 2132.5 MHz    | 2145.0 MHz    |



| Test Mode  | TX / RX   | RF Channel    |               |               |
|------------|-----------|---------------|---------------|---------------|
|            |           | Low (B)       | Middle (M)    | High (T)      |
| LTE Band 5 | TX (1.4M) | Channel 20407 | Channel 20525 | Channel 20643 |
|            |           | 824.7 MHz     | 836.5 MHz     | 848.3 MHz     |
|            | TX (3M)   | Channel 20415 | Channel 20525 | Channel 20635 |
|            |           | 825.5 MHz     | 836.5 MHz     | 847.5 MHz     |
|            | TX (5M)   | Channel 20425 | Channel 20525 | Channel 20625 |
|            |           | 826.5 MHz     | 836.5 MHz     | 846.5 MHz     |
|            | TX (10M)  | Channel 20450 | Channel 20525 | Channel 20600 |
|            |           | 829 MHz       | 836.5 MHz     | 844 MHz       |
|            | RX (1.4M) | Channel 2404  | Channel 2525  | Channel 2463  |
|            |           | 869.4 MHz     | 881.5 MHz     | 893.3 MHz     |
|            | RX (3M)   | Channel 2415  | Channel 2525  | Channel 2635  |
|            |           | 870.5 MHz     | 881.5 MHz     | 892.5 MHz     |
|            | RX (5M)   | Channel 2425  | Channel 2525  | Channel 2625  |
|            |           | 871.5 MHz     | 881.5 MHz     | 891.5 MHz     |
|            | RX (10M)  | Channel 2450  | Channel 2525  | Channel 2600  |
|            |           | 874 MHz       | 881.5 MHz     | 889 MHz       |

| Test Mode   | TX / RX   | RF Channel    |               |               |
|-------------|-----------|---------------|---------------|---------------|
|             |           | Low (B)       | Middle (M)    | High (T)      |
| LTE Band 12 | TX (1.4M) | Channel 23017 | Channel 23095 | Channel 23173 |
|             |           | 699.7 MHz     | 707.5 MHz     | 715.3 MHz     |
|             | TX (3M)   | Channel 23025 | Channel 23095 | Channel 23165 |
|             |           | 700.5 MHz     | 707.5 MHz     | 714.5 MHz     |
|             | TX (5M)   | Channel 23035 | Channel 23095 | Channel 23155 |
|             |           | 701.5 MHz     | 707.5 MHz     | 713.5 MHz     |
|             | TX (10M)  | Channel 23060 | Channel 23095 | Channel 23130 |
|             |           | 704.0 MHz     | 707.5 MHz     | 711.0 MHz     |
|             | RX (1.4M) | Channel 5017  | Channel 5095  | Channel 5173  |
|             |           | 729.7 MHz     | 737.5 MHz     | 745.3 MHz     |
|             | RX (3M)   | Channel 5025  | Channel 5095  | Channel 5165  |
|             |           | 730.5 MHz     | 737.5 MHz     | 744.5 MHz     |
|             | RX (5M)   | Channel 5035  | Channel 5095  | Channel 5155  |
|             |           | 731.5 MHz     | 737.5 MHz     | 743.5 MHz     |
|             | RX (10M)  | Channel 5060  | Channel 5095  | Channel 5130  |
|             |           | 734.0 MHz     | 737.5 MHz     | 741.0 MHz     |

|             | TX / RX  | RF Channel    |               |               |
|-------------|----------|---------------|---------------|---------------|
|             |          | Low (B)       | Middle (M)    | High (T)      |
| LTE Band 13 | TX (5M)  | Channel 5205  | Channel 23230 | Channel 23255 |
|             |          | 779.5 MHz     | 782.0 MHz     | 784.5 MHz     |
|             | TX (10M) | Channel 23230 | Channel 23230 | Channel 23230 |
|             |          | 782.0 MHz     | 782.0 MHz     | 782.0 MHz     |
|             | RX (5M)  | Channel 5205  | Channel 5230  | Channel 5255  |
|             |          | 748.5 MHz     | 751.0 MHz     | 753.5 MHz     |
|             | RX (10M) | Channel 5230  | Channel 5230  | Channel 5230  |
|             |          | 751.0 MHz     | 751.0 MHz     | 751.0 MHz     |



| Test Mode   | TX / RX   | RF Channel    |               |               |
|-------------|-----------|---------------|---------------|---------------|
|             |           | Low (B)       | Middle (M)    | High (T)      |
| LTE Band 26 | TX (1.4M) | Channel 26797 | Channel 26915 | Channel 27033 |
|             |           | 824.7 MHz     | 836.5 MHz     | 848.3 MHz     |
|             |           | N/A           | N/A           | N/A           |
|             |           | N/A           | N/A           | N/A           |
|             | TX (3M)   | Channel 26805 | Channel 26915 | Channel 27025 |
|             |           | 825.5 MHz     | 836.5 MHz     | 847.5 MHz     |
|             |           | Channel 26705 | Channel 26740 | Channel 27775 |
|             |           | 815.5MHz      | 819MHz        | 822.5MHz      |
|             | TX (5M)   | Channel 26815 | Channel 26915 | Channel 27015 |
|             |           | 826.5 MHz     | 836.5 MHz     | 846.5 MHz     |
|             |           | Channel 26715 | Channel 26740 | Channel 26765 |
|             |           | 816.5 MHz     | 819MHz        | 821.5MHz      |
|             | TX (10M)  | Channel 26840 | Channel 26915 | Channel 26990 |
|             |           | 829 MHz       | 836.5 MHz     | 844 MHz       |
|             |           | /             | Channel 26740 | /             |
|             |           | /             | 819MHz        | /             |
|             | TX (15M)  | Channel 26865 | Channel 26915 | Channel 26965 |
|             |           | 831.5 MHz     | 836.5 MHz     | 841.5 MHz     |
|             | RX (1.4M) | Channel 8797  | Channel 8915  | Channel 9033  |
|             |           | 869.7 MHz     | 881.5 MHz     | 893.3 MHz     |
|             |           | N/A           | N/A           | N/A           |
|             |           | N/A           | N/A           | N/A           |
|             | RX (3M)   | Channel 8805  | Channel 8915  | Channel 9025  |
|             |           | 870.5 MHz     | 881.5 MHz     | 892.5 MHz     |
|             |           | Channel 26705 | Channel 26740 | Channel 27775 |
|             |           | 860.5MHz      | 819MHz        | 867.5MHz      |
|             | RX (5M)   | Channel 8815  | Channel 8915  | Channel 9015  |
|             |           | 871.5 MHz     | 881.5 MHz     | 891.5 MHz     |
|             |           | Channel 26715 | Channel 26740 | Channel 26765 |
|             |           | 861.5MHz      | 864MHz        | 866.5MHz      |
|             | RX (10M)  | Channel 8840  | Channel 8915  | Channel 8990  |
|             |           | 874 MHz       | 881.5 MHz     | 889 MHz       |
|             |           | /             | Channel 26740 | /             |
|             |           | /             | 864MHz        | /             |



|  |          |              |              |              |
|--|----------|--------------|--------------|--------------|
|  | RX (15M) | Channel 8865 | Channel 8915 | Channel 8965 |
|  |          | 876.5 MHz    | 881.5 MHz    | 886.5 MHz    |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.  
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline: 400 089 2118

## 6. RADIATED OUTPUT POWER

### 6.1 MEASUREMENT METHOD

The measurements procedures specified in ANSI/TIA-603-E-2016 were applied.

- 1 In an anechoic antenna test chamber, a half-wave dipole antenna for the frequency band of interest is placed at the reference centre of the chamber. An RF Signal source for the frequency band of interest is connected to the dipole with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A known (measured) power ( $P_{in}$ ) is applied to the input of the dipole, and the power received ( $P_r$ ) at the chamber's probe antenna is recorded.
- 2 The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established as  $AR_{pl} = P_{in} + 2.15 - P_r$ . The  $AR_{pl}$  is the attenuation of "reference path loss", and including the gain of receive antenna, the cable loss and the air loss. The measurement results are obtained as described below:  $Power = P_{Mea} + AR_{pl}$
- 3 The EUT is substituted for the dipole at the reference centre of the chamber and a scan is performed to obtain the radiation pattern.
- 4 From the radiation pattern, the co-ordinates where the maximum antenna gain occurs are identified.
- 5 The EUT is then put into continuously transmitting mode at its maximum power level.
- 6 Power mode measurements are performed with the receiving antenna placed at the coordinates determined in Step 3 to determine the output power as defined in Rule 27.50(d)(4). The "reference path loss" from Step1 is added to this result.
- 7 This value is EIRP since the measurement is calibrated using a half-wave dipole antenna of known gain (2.15 dBi) and known input power ( $P_{in}$ ).
- 8 ERP can be calculated from EIRP by subtracting the gain of the dipole,  $ERP = EIRP - 2.15dBi$ .

#### Test Setup

NOTE: Effective radiated power (ERP) refers to the radiation power output of the EUT, assuming all emissions are radiated from half-wave dipole antennas.



Step 1: Pre-test

---

Measurement  
System

Step 2: Substitution method to verify the maximum ERP

---

Measurement  
System

Signal  
Generator

## 6.2 PROVISIONS APPLICABLE

This is the test for the maximum radiated power from the EUT. Rule Part 24.232(c) specifies, "Mobile/portable stations are limited to 2 watts e.i.r.p.

| Mode        | FCC Part Section(s) | Nominal Peak Power          |
|-------------|---------------------|-----------------------------|
| LTE Band 2  | 24.229(b)           | $\leq 33\text{dBm}$ (2W)    |
| LTE Band 4  | 27.50(h)            | $\leq 30\text{dBm}$ (1W)    |
| LTE Band 5  | 22.905(a)           | $\leq 38.45\text{dBm}$ (7W) |
| LTE Band 12 | 27.50(c)            | $\leq 34.77\text{dBm}$ (3W) |
| LTE Band 13 | 27.50(b)            | $\leq 34.77\text{dBm}$ (3W) |
| LTE Band 26 | 22.905(a)           | $\leq 38.45\text{dBm}$ (7W) |
| LTE Band 26 | 90.635(b)           | $\leq 50\text{dBm}$ (100W)  |



### 6. 3 Measurement Result

#### EIRP for LTE Band 2

| Frequency | Channel Bandwidth | Mode.  | RB   | Substituted level | Antenna Polarization | Antenna Gain correction | Cable Loss | Absolute Level | Limit (dBm) |
|-----------|-------------------|--------|------|-------------------|----------------------|-------------------------|------------|----------------|-------------|
| 1850.7    | 1.4               | QPSK   | 1/0  | 9.37              | V                    | 7.95                    | 0.79       | 16.53          | 33          |
| 1880.0    | 1.4               | QPSK   | 1/0  | 6.58              | V                    | 7.95                    | 0.79       | 13.74          | 33          |
| 1909.3    | 1.4               | QPSK   | 1/0  | 6.51              | V                    | 7.95                    | 0.79       | 13.67          | 33          |
| 1850.7    | 1.4               | QPSK   | 1/0  | 8.56              | H                    | 7.95                    | 0.79       | 15.72          | 33          |
| 1880.0    | 1.4               | QPSK   | 1/0  | 7.51              | H                    | 7.95                    | 0.79       | 14.67          | 33          |
| 1909.3    | 1.4               | QPSK   | 1/0  | 8.25              | H                    | 7.95                    | 0.79       | 15.41          | 33          |
| 1850.7    | 1.4               | 16-QAM | 1/5  | 7.13              | V                    | 7.95                    | 0.79       | 14.29          | 33          |
| 1880.0    | 1.4               | 16-QAM | 1/0  | 8.94              | V                    | 7.95                    | 0.79       | 16.1           | 33          |
| 1909.3    | 1.4               | 16-QAM | 1/0  | 7.44              | V                    | 7.95                    | 0.79       | 14.6           | 33          |
| 1850.7    | 1.4               | 16-QAM | 1/5  | 7.45              | H                    | 7.95                    | 0.79       | 14.61          | 33          |
| 1880.0    | 1.4               | 16-QAM | 1/0  | 6.67              | H                    | 7.95                    | 0.79       | 13.83          | 33          |
| 1909.3    | 1.4               | 16-QAM | 1/0  | 9.40              | H                    | 7.95                    | 0.79       | 16.56          | 33          |
| 1851.5    | 3                 | QPSK   | 1/0  | 6.32              | V                    | 7.95                    | 0.79       | 13.48          | 33          |
| 1880.0    | 3                 | QPSK   | 1/0  | 8.75              | V                    | 7.95                    | 0.79       | 15.91          | 33          |
| 1908.5    | 3                 | QPSK   | 1/0  | 9.03              | V                    | 7.95                    | 0.79       | 16.19          | 33          |
| 1851.5    | 3                 | QPSK   | 1/0  | 6.86              | H                    | 7.95                    | 0.79       | 14.02          | 33          |
| 1880.0    | 3                 | QPSK   | 1/0  | 8.69              | H                    | 7.95                    | 0.79       | 15.85          | 33          |
| 1908.5    | 3                 | QPSK   | 1/0  | 7.56              | H                    | 7.95                    | 0.79       | 14.72          | 33          |
| 1851.5    | 3                 | 16-QAM | 1/0  | 9.17              | V                    | 7.95                    | 0.79       | 16.33          | 33          |
| 1880.0    | 3                 | 16-QAM | 1/0  | 8.81              | V                    | 7.95                    | 0.79       | 15.97          | 33          |
| 1908.5    | 3                 | 16-QAM | 1/0  | 6.86              | V                    | 7.95                    | 0.79       | 14.02          | 33          |
| 1851.5    | 3                 | 16-QAM | 1/0  | 7.18              | H                    | 7.95                    | 0.79       | 14.34          | 33          |
| 1880.0    | 3                 | 16-QAM | 1/0  | 12.59             | H                    | 7.95                    | 0.79       | 19.75          | 33          |
| 1908.5    | 3                 | 16-QAM | 1/0  | 13.17             | H                    | 7.95                    | 0.79       | 20.33          | 33          |
| 1852.5    | 5                 | QPSK   | 1/0  | 15.11             | V                    | 7.95                    | 0.79       | 22.27          | 33          |
| 1880.0    | 5                 | QPSK   | 1/0  | 14.13             | V                    | 7.95                    | 0.79       | 21.29          | 33          |
| 1907.5    | 5                 | QPSK   | 1/24 | 15.88             | V                    | 7.95                    | 0.79       | 23.04          | 33          |
| 1852.5    | 5                 | QPSK   | 1/0  | 13.81             | H                    | 7.95                    | 0.79       | 20.97          | 33          |
| 1880.0    | 5                 | QPSK   | 1/0  | 8.76              | H                    | 7.95                    | 0.79       | 15.92          | 33          |
| 1907.5    | 5                 | QPSK   | 1/24 | 7.65              | H                    | 7.95                    | 0.79       | 14.81          | 33          |
| 1852.5    | 5                 | 16-QAM | 1/0  | 8.81              | V                    | 7.95                    | 0.79       | 15.97          | 33          |
| 1880.0    | 5                 | 16-QAM | 1/0  | 6.68              | V                    | 7.95                    | 0.79       | 13.84          | 33          |
| 1907.5    | 5                 | 16-QAM | 1/24 | 5.66              | V                    | 7.95                    | 0.79       | 12.82          | 33          |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

|        |    |        |      |       |   |      |      |       |    |
|--------|----|--------|------|-------|---|------|------|-------|----|
| 1852.5 | 5  | 16-QAM | 1/0  | 9.93  | H | 7.95 | 0.79 | 17.09 | 33 |
| 1880.0 | 5  | 16-QAM | 1/0  | 9.31  | H | 7.95 | 0.79 | 16.47 | 33 |
| 1907.5 | 5  | 16-QAM | 1/24 | 7.80  | H | 7.95 | 0.79 | 14.96 | 33 |
| 1855   | 10 | QPSK   | 1/0  | 7.37  | V | 7.95 | 0.79 | 14.53 | 33 |
| 1880   | 10 | QPSK   | 1/49 | 8.69  | V | 7.95 | 0.79 | 15.85 | 33 |
| 1905   | 10 | QPSK   | 1/0  | 7.21  | V | 7.95 | 0.79 | 14.37 | 33 |
| 1855   | 10 | QPSK   | 1/0  | 6.10  | H | 7.95 | 0.79 | 13.26 | 33 |
| 1880   | 10 | QPSK   | 1/49 | 6.84  | H | 7.95 | 0.79 | 14    | 33 |
| 1905   | 10 | QPSK   | 1/0  | 8.01  | H | 7.95 | 0.79 | 15.17 | 33 |
| 1855   | 10 | 16-QAM | 1/0  | 9.19  | V | 7.95 | 0.79 | 16.35 | 33 |
| 1880   | 10 | 16-QAM | 1/49 | 6.98  | V | 7.95 | 0.79 | 14.14 | 33 |
| 1905   | 10 | 16-QAM | 1/0  | 6.91  | V | 7.95 | 0.79 | 14.07 | 33 |
| 1855   | 10 | 16-QAM | 1/0  | 6.54  | H | 7.95 | 0.79 | 13.7  | 33 |
| 1880   | 10 | 16-QAM | 1/49 | 6.97  | H | 7.95 | 0.79 | 14.13 | 33 |
| 1905   | 10 | 16-QAM | 1/0  | 7.47  | H | 7.95 | 0.79 | 14.63 | 33 |
| 1857.5 | 15 | QPSK   | 1/0  | 8.74  | V | 7.95 | 0.79 | 15.9  | 33 |
| 1880   | 15 | QPSK   | 1/74 | 10.65 | V | 7.95 | 0.79 | 17.81 | 33 |
| 1902.5 | 15 | QPSK   | 1/0  | 11.91 | V | 7.95 | 0.79 | 19.07 | 33 |
| 1857.5 | 15 | QPSK   | 1/0  | 11.22 | H | 7.95 | 0.79 | 18.38 | 33 |
| 1880   | 15 | QPSK   | 1/74 | 9.34  | H | 7.95 | 0.79 | 16.5  | 33 |
| 1902.5 | 15 | QPSK   | 1/0  | 9.56  | H | 7.95 | 0.79 | 16.72 | 33 |
| 1857.5 | 15 | 16-QAM | 1/0  | 8.43  | V | 7.95 | 0.79 | 15.59 | 33 |
| 1880   | 15 | 16-QAM | 1/74 | 11.01 | V | 7.95 | 0.79 | 18.17 | 33 |
| 1902.5 | 15 | 16-QAM | 1/0  | 7.04  | V | 7.95 | 0.79 | 14.2  | 33 |
| 1857.5 | 15 | 16-QAM | 1/0  | 8.03  | H | 7.95 | 0.79 | 15.19 | 33 |
| 1880   | 15 | 16-QAM | 1/74 | 10.50 | H | 7.95 | 0.79 | 17.66 | 33 |
| 1902.5 | 15 | 16-QAM | 1/0  | 7.22  | H | 7.95 | 0.79 | 14.38 | 33 |
| 1860   | 20 | QPSK   | 1/99 | 9.26  | V | 7.95 | 0.79 | 16.42 | 33 |
| 1880   | 20 | QPSK   | 1/99 | 10.27 | V | 7.95 | 0.79 | 17.43 | 33 |
| 1900   | 20 | QPSK   | 1/0  | 9.45  | V | 7.95 | 0.79 | 16.61 | 33 |
| 1860   | 20 | QPSK   | 1/99 | 7.59  | H | 7.95 | 0.79 | 14.75 | 33 |
| 1880   | 20 | QPSK   | 1/99 | 10.69 | H | 7.95 | 0.79 | 17.85 | 33 |
| 1900   | 20 | QPSK   | 1/0  | 8.74  | H | 7.95 | 0.79 | 15.9  | 33 |
| 1860   | 20 | 16-QAM | 1/99 | 7.82  | V | 7.95 | 0.79 | 14.98 | 33 |
| 1880   | 20 | 16-QAM | 1/99 | 10.78 | V | 7.95 | 0.79 | 17.94 | 33 |
| 1900   | 20 | 16-QAM | 1/0  | 9.59  | V | 7.95 | 0.79 | 16.75 | 33 |
| 1860   | 20 | 16-QAM | 1/99 | 8.47  | H | 7.95 | 0.79 | 15.63 | 33 |

|      |    |        |      |      |   |      |      |       |    |
|------|----|--------|------|------|---|------|------|-------|----|
| 1880 | 20 | 16-QAM | 1/99 | 8.35 | H | 7.95 | 0.79 | 15.51 | 33 |
| 1900 | 20 | 16-QAM | 1/0  | 7.35 | H | 7.95 | 0.79 | 14.51 | 33 |



### EIRP for LTE Band 4

| Frequency | Channel Bandwidth | Mode.  | RB   | Substituted level | Antenna Polarization | Antenna Gain correction | Cable Loss | Absolute Level | Limit (dBm) |
|-----------|-------------------|--------|------|-------------------|----------------------|-------------------------|------------|----------------|-------------|
| 1710.7    | 1.4               | QPSK   | 1/0  | 11.77             | V                    | 7.95                    | 0.79       | 18.93          | 30          |
| 1732.5    | 1.4               | QPSK   | 1/0  | 11.54             | V                    | 7.95                    | 0.79       | 18.7           | 30          |
| 1754.3    | 1.4               | QPSK   | 1/0  | 11.45             | V                    | 7.95                    | 0.79       | 18.61          | 30          |
| 1710.7    | 1.4               | QPSK   | 1/0  | 11.43             | H                    | 7.95                    | 0.79       | 18.59          | 30          |
| 1732.5    | 1.4               | QPSK   | 1/0  | 9.88              | H                    | 7.95                    | 0.79       | 17.04          | 30          |
| 1754.3    | 1.4               | QPSK   | 1/0  | 9.48              | H                    | 7.95                    | 0.79       | 16.64          | 30          |
| 1710.7    | 1.4               | 16-QAM | 1/5  | 11.30             | V                    | 7.95                    | 0.79       | 18.46          | 30          |
| 1732.5    | 1.4               | 16-QAM | 1/0  | 10.75             | V                    | 7.95                    | 0.79       | 17.91          | 30          |
| 1754.3    | 1.4               | 16-QAM | 1/0  | 10.96             | V                    | 7.95                    | 0.79       | 18.12          | 30          |
| 1710.7    | 1.4               | 16-QAM | 1/5  | 11.04             | H                    | 7.95                    | 0.79       | 18.2           | 30          |
| 1732.5    | 1.4               | 16-QAM | 1/0  | 10.52             | H                    | 7.95                    | 0.79       | 17.68          | 30          |
| 1754.3    | 1.4               | 16-QAM | 1/0  | 11.81             | H                    | 7.95                    | 0.79       | 18.97          | 30          |
| 1711.5    | 3                 | QPSK   | 1/0  | 11.18             | V                    | 7.95                    | 0.79       | 18.34          | 30          |
| 1732.5    | 3                 | QPSK   | 1/0  | 11.33             | V                    | 7.95                    | 0.79       | 18.49          | 30          |
| 1753.5    | 3                 | QPSK   | 1/0  | 11.18             | V                    | 7.95                    | 0.79       | 18.34          | 30          |
| 1711.5    | 3                 | QPSK   | 1/0  | 10.01             | H                    | 7.95                    | 0.79       | 17.17          | 30          |
| 1732.5    | 3                 | QPSK   | 1/0  | 10.40             | H                    | 7.95                    | 0.79       | 17.56          | 30          |
| 1753.5    | 3                 | QPSK   | 1/0  | 12.11             | H                    | 7.95                    | 0.79       | 19.27          | 30          |
| 1711.5    | 3                 | 16-QAM | 1/0  | 11.81             | V                    | 7.95                    | 0.79       | 18.97          | 30          |
| 1732.5    | 3                 | 16-QAM | 1/0  | 11.20             | V                    | 7.95                    | 0.79       | 18.36          | 30          |
| 1753.5    | 3                 | 16-QAM | 1/0  | 10.03             | V                    | 7.95                    | 0.79       | 17.19          | 30          |
| 1711.5    | 3                 | 16-QAM | 1/0  | 10.23             | H                    | 7.95                    | 0.79       | 17.39          | 30          |
| 1732.5    | 3                 | 16-QAM | 1/0  | 13.81             | H                    | 7.95                    | 0.79       | 20.97          | 30          |
| 1753.5    | 3                 | 16-QAM | 1/0  | 12.78             | H                    | 7.95                    | 0.79       | 19.94          | 30          |
| 1712.5    | 5                 | QPSK   | 1/0  | 13.12             | V                    | 7.95                    | 0.79       | 20.28          | 30          |
| 1732.5    | 5                 | QPSK   | 1/0  | 13.42             | V                    | 7.95                    | 0.79       | 20.58          | 30          |
| 1752.5    | 5                 | QPSK   | 1/24 | 10.60             | V                    | 7.95                    | 0.79       | 17.76          | 30          |
| 1712.5    | 5                 | QPSK   | 1/0  | 11.50             | H                    | 7.95                    | 0.79       | 18.66          | 30          |
| 1732.5    | 5                 | QPSK   | 1/0  | 10.43             | H                    | 7.95                    | 0.79       | 17.59          | 30          |
| 1752.5    | 5                 | QPSK   | 1/24 | 12.25             | H                    | 7.95                    | 0.79       | 19.41          | 30          |
| 1712.5    | 5                 | 16-QAM | 1/0  | 10.20             | V                    | 7.95                    | 0.79       | 17.36          | 30          |
| 1732.5    | 5                 | 16-QAM | 1/0  | 11.86             | V                    | 7.95                    | 0.79       | 19.02          | 30          |
| 1752.5    | 5                 | 16-QAM | 1/24 | 12.51             | V                    | 7.95                    | 0.79       | 19.67          | 30          |
| 1712.5    | 5                 | 16-QAM | 1/0  | 9.91              | H                    | 7.95                    | 0.79       | 17.07          | 30          |
| 1732.5    | 5                 | 16-QAM | 1/0  | 10.59             | H                    | 7.95                    | 0.79       | 17.75          | 30          |
| 1752.5    | 5                 | 16-QAM | 1/24 | 12.18             | H                    | 7.95                    | 0.79       | 19.34          | 30          |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

|        |    |        |      |       |   |      |      |       |    |
|--------|----|--------|------|-------|---|------|------|-------|----|
| 1715   | 10 | QPSK   | 1/0  | 11.43 | V | 7.95 | 0.79 | 18.59 | 30 |
| 1732.5 | 10 | QPSK   | 1/49 | 10.03 | V | 7.95 | 0.79 | 17.19 | 30 |
| 1750   | 10 | QPSK   | 1/0  | 10.04 | V | 7.95 | 0.79 | 17.2  | 30 |
| 1715   | 10 | QPSK   | 1/0  | 11.89 | H | 7.95 | 0.79 | 19.05 | 30 |
| 1732.5 | 10 | QPSK   | 1/49 | 11.64 | H | 7.95 | 0.79 | 18.8  | 30 |
| 1750   | 10 | QPSK   | 1/0  | 10.65 | H | 7.95 | 0.79 | 17.81 | 30 |
| 1715   | 10 | 16-QAM | 1/0  | 10.35 | V | 7.95 | 0.79 | 17.51 | 30 |
| 1732.5 | 10 | 16-QAM | 1/49 | 10.71 | V | 7.95 | 0.79 | 17.87 | 30 |
| 1750   | 10 | 16-QAM | 1/0  | 11.55 | V | 7.95 | 0.79 | 18.71 | 30 |
| 1715   | 10 | 16-QAM | 1/0  | 11.69 | H | 7.95 | 0.79 | 18.85 | 30 |
| 1732.5 | 10 | 16-QAM | 1/49 | 10.81 | H | 7.95 | 0.79 | 17.97 | 30 |
| 1750   | 10 | 16-QAM | 1/0  | 10.45 | H | 7.95 | 0.79 | 17.61 | 30 |
| 1717.5 | 15 | QPSK   | 1/0  | 9.69  | V | 7.95 | 0.79 | 16.85 | 30 |
| 1732.5 | 15 | QPSK   | 1/74 | 10.20 | V | 7.95 | 0.79 | 17.36 | 30 |
| 1747.5 | 15 | QPSK   | 1/0  | 11.50 | V | 7.95 | 0.79 | 18.66 | 30 |
| 1717.5 | 15 | QPSK   | 1/0  | 10.32 | H | 7.95 | 0.79 | 17.48 | 30 |
| 1732.5 | 15 | QPSK   | 1/74 | 9.58  | H | 7.95 | 0.79 | 16.74 | 30 |
| 1747.5 | 15 | QPSK   | 1/0  | 10.97 | H | 7.95 | 0.79 | 18.13 | 30 |
| 1717.5 | 15 | 16-QAM | 1/0  | 10.53 | V | 7.95 | 0.79 | 17.69 | 30 |
| 1732.5 | 15 | 16-QAM | 1/74 | 10.74 | V | 7.95 | 0.79 | 17.9  | 30 |
| 1747.5 | 15 | 16-QAM | 1/0  | 8.98  | V | 7.95 | 0.79 | 16.14 | 30 |
| 1717.5 | 15 | 16-QAM | 1/0  | 9.89  | H | 7.95 | 0.79 | 17.05 | 30 |
| 1732.5 | 15 | 16-QAM | 1/74 | 10.59 | H | 7.95 | 0.79 | 17.75 | 30 |
| 1747.5 | 15 | 16-QAM | 1/0  | 9.33  | H | 7.95 | 0.79 | 16.49 | 30 |
| 1720   | 20 | QPSK   | 1/99 | 9.24  | V | 7.95 | 0.79 | 16.4  | 30 |
| 1732.5 | 20 | QPSK   | 1/99 | 11.00 | V | 7.95 | 0.79 | 18.16 | 30 |
| 1745   | 20 | QPSK   | 1/0  | 11.73 | V | 7.95 | 0.79 | 18.89 | 30 |
| 1720   | 20 | QPSK   | 1/99 | 11.84 | H | 7.95 | 0.79 | 19.00 | 30 |
| 1732.5 | 20 | QPSK   | 1/99 | 10.94 | H | 7.95 | 0.79 | 18.1  | 30 |
| 1745   | 20 | QPSK   | 1/0  | 10.96 | H | 7.95 | 0.79 | 18.12 | 30 |
| 1720   | 20 | 16-QAM | 1/99 | 11.11 | V | 7.95 | 0.79 | 18.27 | 30 |
| 1732.5 | 20 | 16-QAM | 1/99 | 11.08 | V | 7.95 | 0.79 | 18.24 | 30 |
| 1745   | 20 | 16-QAM | 1/0  | 11.46 | V | 7.95 | 0.79 | 18.62 | 30 |
| 1720   | 20 | 16-QAM | 1/99 | 11.00 | H | 7.95 | 0.79 | 18.16 | 30 |
| 1732.5 | 20 | 16-QAM | 1/99 | 10.00 | H | 7.95 | 0.79 | 17.16 | 30 |
| 1745   | 20 | 16-QAM | 1/0  | 11.38 | H | 7.95 | 0.79 | 18.54 | 30 |



### EIRP for LTE Band 5

| Frequency | Channel Bandwidth | Mode.  | RB  | Substituted level | Antenna Polarization | Antenna Gain correction | Cable Loss | Absolute Level | Limit (dBm) |
|-----------|-------------------|--------|-----|-------------------|----------------------|-------------------------|------------|----------------|-------------|
| 824.7     | 1.4               | QPSK   | 1/0 | 9.90              | V                    | 6.7                     | 0.49       | 16.11          | 38.45       |
| 836.5     | 1.4               | QPSK   | 1/0 | 9.47              | V                    | 6.7                     | 0.49       | 15.68          | 38.45       |
| 848.3     | 1.4               | QPSK   | 1/0 | 9.08              | V                    | 6.7                     | 0.49       | 15.29          | 38.45       |
| 824.7     | 1.4               | QPSK   | 1/0 | 8.30              | H                    | 6.7                     | 0.49       | 14.51          | 38.45       |
| 836.5     | 1.4               | QPSK   | 1/0 | 8.67              | H                    | 6.7                     | 0.49       | 14.88          | 38.45       |
| 848.3     | 1.4               | QPSK   | 1/0 | 8.92              | H                    | 6.7                     | 0.49       | 15.13          | 38.45       |
| 824.7     | 1.4               | 16-QAM | 1/0 | 7.73              | V                    | 6.7                     | 0.49       | 13.94          | 38.45       |
| 836.5     | 1.4               | 16-QAM | 1/0 | 10.30             | V                    | 6.7                     | 0.49       | 16.51          | 38.45       |
| 848.3     | 1.4               | 16-QAM | 1/0 | 6.86              | V                    | 6.7                     | 0.49       | 13.07          | 38.45       |
| 824.7     | 1.4               | 16-QAM | 1/0 | 8.37              | H                    | 6.7                     | 0.49       | 14.58          | 38.45       |
| 836.5     | 1.4               | 16-QAM | 1/0 | 9.02              | H                    | 6.7                     | 0.49       | 15.23          | 38.45       |
| 848.3     | 1.4               | 16-QAM | 1/0 | 10.87             | H                    | 6.7                     | 0.49       | 17.08          | 38.45       |
| 825.5     | 3                 | QPSK   | 1/0 | 7.22              | V                    | 6.7                     | 0.49       | 13.43          | 38.45       |
| 836.5     | 3                 | QPSK   | 1/0 | 9.29              | V                    | 6.7                     | 0.49       | 15.5           | 38.45       |
| 847.5     | 3                 | QPSK   | 1/0 | 10.32             | V                    | 6.7                     | 0.49       | 16.53          | 38.45       |
| 825.5     | 3                 | QPSK   | 1/0 | 8.03              | H                    | 6.7                     | 0.49       | 14.24          | 38.45       |
| 836.5     | 3                 | QPSK   | 1/0 | 8.79              | H                    | 6.7                     | 0.49       | 15.00          | 38.45       |
| 847.5     | 3                 | QPSK   | 1/0 | 7.44              | H                    | 6.7                     | 0.49       | 13.65          | 38.45       |
| 825.5     | 3                 | 16-QAM | 1/0 | 9.29              | V                    | 6.7                     | 0.49       | 15.5           | 38.45       |
| 836.5     | 3                 | 16-QAM | 1/0 | 12.13             | V                    | 6.7                     | 0.49       | 18.34          | 38.45       |
| 847.5     | 3                 | 16-QAM | 1/0 | 9.86              | V                    | 6.7                     | 0.49       | 16.07          | 38.45       |
| 825.5     | 3                 | 16-QAM | 1/0 | 8.38              | H                    | 6.7                     | 0.49       | 14.59          | 38.45       |
| 836.5     | 3                 | 16-QAM | 1/0 | 15.20             | H                    | 6.7                     | 0.49       | 21.41          | 38.45       |
| 847.5     | 3                 | 16-QAM | 1/0 | 17.40             | H                    | 6.7                     | 0.49       | 23.61          | 38.45       |
| 826.5     | 5                 | QPSK   | 1/0 | 16.50             | V                    | 6.7                     | 0.49       | 22.71          | 38.45       |
| 836.5     | 5                 | QPSK   | 1/0 | 14.34             | V                    | 6.7                     | 0.49       | 20.55          | 38.45       |
| 846.5     | 5                 | QPSK   | 1/0 | 16.58             | V                    | 6.7                     | 0.49       | 22.79          | 38.45       |
| 826.5     | 5                 | QPSK   | 1/0 | 15.62             | H                    | 6.7                     | 0.49       | 21.83          | 38.45       |
| 836.5     | 5                 | QPSK   | 1/0 | 9.03              | H                    | 6.7                     | 0.49       | 15.24          | 38.45       |
| 846.5     | 5                 | QPSK   | 1/0 | 9.78              | H                    | 6.7                     | 0.49       | 15.99          | 38.45       |
| 826.5     | 5                 | 16-QAM | 1/0 | 9.97              | V                    | 6.7                     | 0.49       | 16.18          | 38.45       |
| 836.5     | 5                 | 16-QAM | 1/0 | 9.89              | V                    | 6.7                     | 0.49       | 16.10          | 38.45       |
| 846.5     | 5                 | 16-QAM | 1/0 | 8.66              | V                    | 6.7                     | 0.49       | 14.87          | 38.45       |
| 826.5     | 5                 | 16-QAM | 1/0 | 5.89              | H                    | 6.7                     | 0.49       | 12.1           | 38.45       |
| 836.5     | 5                 | 16-QAM | 1/0 | 12.78             | H                    | 6.7                     | 0.49       | 18.99          | 38.45       |
| 846.5     | 5                 | 16-QAM | 1/0 | 9.38              | H                    | 6.7                     | 0.49       | 15.59          | 38.45       |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

|       |    |        |     |       |   |     |      |       |       |
|-------|----|--------|-----|-------|---|-----|------|-------|-------|
| 829   | 10 | QPSK   | 1/0 | 6.89  | V | 6.7 | 0.49 | 13.10 | 38.45 |
| 836.5 | 10 | QPSK   | 1/0 | 6.56  | V | 6.7 | 0.49 | 12.77 | 38.45 |
| 844   | 10 | QPSK   | 1/0 | 10.35 | V | 6.7 | 0.49 | 16.56 | 38.45 |
| 829   | 10 | QPSK   | 1/0 | 5.95  | H | 6.7 | 0.49 | 12.16 | 38.45 |
| 836.5 | 10 | QPSK   | 1/0 | 9.00  | H | 6.7 | 0.49 | 15.21 | 38.45 |
| 844   | 10 | QPSK   | 1/0 | 8.34  | H | 6.7 | 0.49 | 14.55 | 38.45 |
| 829   | 10 | 16-QAM | 1/0 | 7.68  | V | 6.7 | 0.49 | 13.89 | 38.45 |
| 836.5 | 10 | 16-QAM | 1/0 | 10.34 | V | 6.7 | 0.49 | 16.55 | 38.45 |
| 844   | 10 | 16-QAM | 1/0 | 9.32  | V | 6.7 | 0.49 | 15.53 | 38.45 |
| 829   | 10 | 16-QAM | 1/0 | 5.58  | H | 6.7 | 0.49 | 11.79 | 38.45 |
| 836.5 | 10 | 16-QAM | 1/0 | 6.87  | H | 6.7 | 0.49 | 13.08 | 38.45 |
| 844   | 10 | 16-QAM | 1/0 | 8.63  | H | 6.7 | 0.49 | 14.84 | 38.45 |



### EIRP for LTE Band 12

| Frequency | Channel Bandwidth | Mode.  | RB   | Substituted level | Antenna Polarization | Antenna Gain correction | Cable Loss | Absolute Level | Limit (dBm) |
|-----------|-------------------|--------|------|-------------------|----------------------|-------------------------|------------|----------------|-------------|
| 699.7     | 1.4               | QPSK   | 1/0  | 7.36              | V                    | 6.6                     | 0.47       | 13.49          | 34.77       |
| 707.5     | 1.4               | QPSK   | 1/0  | 12.87             | V                    | 6.6                     | 0.47       | 19.00          | 34.77       |
| 715.3     | 1.4               | QPSK   | 1/24 | 7.46              | V                    | 6.6                     | 0.47       | 13.59          | 34.77       |
| 699.7     | 1.4               | QPSK   | 1/0  | 11.14             | H                    | 6.6                     | 0.47       | 17.27          | 34.77       |
| 707.5     | 1.4               | QPSK   | 1/0  | 10.95             | H                    | 6.6                     | 0.47       | 17.08          | 34.77       |
| 715.3     | 1.4               | QPSK   | 1/24 | 8.97              | H                    | 6.6                     | 0.47       | 15.10          | 34.77       |
| 699.7     | 1.4               | 16-QAM | 1/0  | 10.48             | V                    | 6.6                     | 0.47       | 16.61          | 34.77       |
| 707.5     | 1.4               | 16-QAM | 1/0  | 8.28              | V                    | 6.6                     | 0.47       | 14.41          | 34.77       |
| 715.3     | 1.4               | 16-QAM | 1/24 | 9.59              | V                    | 6.6                     | 0.47       | 15.72          | 34.77       |
| 699.7     | 1.4               | 16-QAM | 1/0  | 11.29             | H                    | 6.6                     | 0.47       | 17.42          | 34.77       |
| 707.5     | 1.4               | 16-QAM | 1/0  | 9.82              | H                    | 6.6                     | 0.47       | 15.95          | 34.77       |
| 715.3     | 1.4               | 16-QAM | 1/24 | 11.13             | H                    | 6.6                     | 0.47       | 17.26          | 34.77       |
| 700.5     | 3                 | QPSK   | 1/0  | 10.95             | V                    | 6.6                     | 0.47       | 17.08          | 34.77       |
| 707.5     | 3                 | QPSK   | 1/49 | 11.05             | V                    | 6.6                     | 0.47       | 17.18          | 34.77       |
| 714.5     | 3                 | QPSK   | 1/0  | 11.87             | V                    | 6.6                     | 0.47       | 18.00          | 34.77       |
| 700.5     | 3                 | QPSK   | 1/0  | 10.31             | H                    | 6.6                     | 0.47       | 16.44          | 34.77       |
| 707.5     | 3                 | QPSK   | 1/49 | 8.29              | H                    | 6.6                     | 0.47       | 14.42          | 34.77       |
| 714.5     | 3                 | QPSK   | 1/0  | 10.65             | H                    | 6.6                     | 0.47       | 16.78          | 34.77       |
| 700.5     | 3                 | 16-QAM | 1/0  | 9.30              | V                    | 6.6                     | 0.47       | 15.43          | 34.77       |
| 707.5     | 3                 | 16-QAM | 1/49 | 8.13              | V                    | 6.6                     | 0.47       | 14.26          | 34.77       |
| 714.5     | 3                 | 16-QAM | 1/0  | 8.68              | V                    | 6.6                     | 0.47       | 14.81          | 34.77       |
| 700.5     | 3                 | 16-QAM | 1/0  | 11.72             | H                    | 6.6                     | 0.47       | 17.85          | 34.77       |
| 707.5     | 3                 | 16-QAM | 1/49 | 14.23             | H                    | 6.6                     | 0.47       | 20.36          | 34.77       |
| 714.5     | 3                 | 16-QAM | 1/0  | 10.72             | H                    | 6.6                     | 0.47       | 16.85          | 34.77       |
| 701.5     | 5                 | QPSK   | 1/0  | 12.93             | V                    | 6.6                     | 0.47       | 19.06          | 34.77       |
| 707.5     | 5                 | QPSK   | 1/74 | 13.57             | V                    | 6.6                     | 0.47       | 19.70          | 34.77       |
| 713.5     | 5                 | QPSK   | 1/0  | 13.03             | V                    | 6.6                     | 0.47       | 19.16          | 34.77       |
| 701.5     | 5                 | QPSK   | 1/0  | 11.47             | H                    | 6.6                     | 0.47       | 17.60          | 34.77       |
| 707.5     | 5                 | QPSK   | 1/74 | 7.86              | H                    | 6.6                     | 0.47       | 13.99          | 34.77       |
| 713.5     | 5                 | QPSK   | 1/0  | 9.50              | H                    | 6.6                     | 0.47       | 15.63          | 34.77       |
| 701.5     | 5                 | 16-QAM | 1/0  | 9.99              | V                    | 6.6                     | 0.47       | 16.12          | 34.77       |
| 707.5     | 5                 | 16-QAM | 1/74 | 11.00             | V                    | 6.6                     | 0.47       | 17.13          | 34.77       |
| 713.5     | 5                 | 16-QAM | 1/0  | 9.46              | V                    | 6.6                     | 0.47       | 15.59          | 34.77       |
| 701.5     | 5                 | 16-QAM | 1/0  | 8.01              | H                    | 6.6                     | 0.47       | 14.14          | 34.77       |
| 707.5     | 5                 | 16-QAM | 1/74 | 10.73             | H                    | 6.6                     | 0.47       | 16.86          | 34.77       |
| 713.5     | 5                 | 16-QAM | 1/0  | 9.20              | H                    | 6.6                     | 0.47       | 15.33          | 34.77       |
| 704.0     | 10                | QPSK   | 1/99 | 8.64              | V                    | 6.6                     | 0.47       | 14.77          | 34.77       |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

|       |    |        |      |       |   |     |      |       |       |
|-------|----|--------|------|-------|---|-----|------|-------|-------|
| 707.5 | 10 | QPSK   | 1/99 | 10.29 | V | 6.6 | 0.47 | 16.42 | 34.77 |
| 711.0 | 10 | QPSK   | 1/0  | 12.42 | V | 6.6 | 0.47 | 18.55 | 34.77 |
| 704.0 | 10 | QPSK   | 1/99 | 10.84 | H | 6.6 | 0.47 | 16.97 | 34.77 |
| 707.5 | 10 | QPSK   | 1/99 | 9.94  | H | 6.6 | 0.47 | 16.07 | 34.77 |
| 711.0 | 10 | QPSK   | 1/0  | 10.18 | H | 6.6 | 0.47 | 16.31 | 34.77 |
| 704.0 | 10 | 16-QAM | 1/99 | 10.81 | V | 6.6 | 0.47 | 16.94 | 34.77 |
| 707.5 | 10 | 16-QAM | 1/99 | 9.41  | V | 6.6 | 0.47 | 15.54 | 34.77 |
| 711.0 | 10 | 16-QAM | 1/0  | 9.82  | V | 6.6 | 0.47 | 15.95 | 34.77 |
| 704.0 | 10 | 16-QAM | 1/99 | 12.18 | H | 6.6 | 0.47 | 18.31 | 34.77 |
| 707.5 | 10 | 16-QAM | 1/99 | 10.27 | H | 6.6 | 0.47 | 16.40 | 34.77 |
| 711.0 | 10 | 16-QAM | 1/0  | 10.03 | H | 6.6 | 0.47 | 16.16 | 34.77 |



### EIRP for LTE Band 13

| Frequency | Channel Bandwidth | Mode.  | RB  | Substituted level | Antenna Polarization | Antenna Gain correction | Cable Loss | Absolute Level | Limit (dBm) |
|-----------|-------------------|--------|-----|-------------------|----------------------|-------------------------|------------|----------------|-------------|
| 779.5     | 5                 | QPSK   | 1/0 | 15.89             | V                    | 6.6                     | 0.47       | 22.02          | 34.77       |
| 782.0     | 5                 | QPSK   | 1/0 | 12.69             | V                    | 6.6                     | 0.47       | 18.82          | 34.77       |
| 784.5     | 5                 | QPSK   | 1/0 | 15.20             | V                    | 6.6                     | 0.47       | 21.33          | 34.77       |
| 779.5     | 5                 | QPSK   | 1/0 | 14.11             | H                    | 6.6                     | 0.47       | 20.24          | 34.77       |
| 782.0     | 5                 | QPSK   | 1/0 | 10.09             | H                    | 6.6                     | 0.47       | 16.22          | 34.77       |
| 784.5     | 5                 | QPSK   | 1/0 | 9.55              | H                    | 6.6                     | 0.47       | 15.68          | 34.77       |
| 779.5     | 5                 | 16-QAM | 1/0 | 10.58             | V                    | 6.6                     | 0.47       | 16.71          | 34.77       |
| 782.0     | 5                 | 16-QAM | 1/0 | 10.17             | V                    | 6.6                     | 0.47       | 16.30          | 34.77       |
| 784.5     | 5                 | 16-QAM | 1/0 | 7.84              | V                    | 6.6                     | 0.47       | 13.97          | 34.77       |
| 779.5     | 5                 | 16-QAM | 1/0 | 6.22              | H                    | 6.6                     | 0.47       | 12.35          | 34.77       |
| 782.0     | 5                 | 16-QAM | 1/0 | 13.27             | H                    | 6.6                     | 0.47       | 19.40          | 34.77       |
| 784.5     | 5                 | 16-QAM | 1/0 | 9.29              | H                    | 6.6                     | 0.47       | 15.42          | 34.77       |
| 782.0     | 10                | QPSK   | 1/0 | 7.79              | V                    | 6.6                     | 0.47       | 13.92          | 34.77       |
| 782.0     | 10                | QPSK   | 1/0 | 6.84              | V                    | 6.6                     | 0.47       | 12.97          | 34.77       |
| 782.0     | 10                | QPSK   | 1/0 | 9.47              | V                    | 6.6                     | 0.47       | 15.60          | 34.77       |
| 782.0     | 10                | QPSK   | 1/0 | 4.70              | H                    | 6.6                     | 0.47       | 10.83          | 34.77       |
| 782.0     | 10                | QPSK   | 1/0 | 8.14              | H                    | 6.6                     | 0.47       | 14.27          | 34.77       |
| 782.0     | 10                | QPSK   | 1/0 | 8.11              | H                    | 6.6                     | 0.47       | 14.24          | 34.77       |
| 782.0     | 10                | 16-QAM | 1/0 | 7.61              | V                    | 6.6                     | 0.47       | 13.74          | 34.77       |
| 782.0     | 10                | 16-QAM | 1/0 | 8.99              | V                    | 6.6                     | 0.47       | 15.12          | 34.77       |
| 782.0     | 10                | 16-QAM | 1/0 | 8.93              | V                    | 6.6                     | 0.47       | 15.06          | 34.77       |
| 782.0     | 10                | 16-QAM | 1/0 | 7.02              | H                    | 6.6                     | 0.47       | 13.15          | 34.77       |
| 782.0     | 10                | 16-QAM | 1/0 | 8.28              | H                    | 6.6                     | 0.47       | 14.41          | 34.77       |
| 782.0     | 10                | 16-QAM | 1/0 | 9.17              | H                    | 6.6                     | 0.47       | 15.30          | 34.77       |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

### EIRP for LTE Band 26

| Frequency | Channel Bandwidth | Mode.  | RB   | Substituted level | Antenna Polarization | Antenna Gain correction | Cable Loss | Absolute Level | Limit (dBm) |
|-----------|-------------------|--------|------|-------------------|----------------------|-------------------------|------------|----------------|-------------|
| 824.7     | 1.4               | QPSK   | 1/0  | 15.26             | V                    | 6.8                     | 0.48       | 21.58          | 38.45       |
| 836.5     | 1.4               | QPSK   | 1/0  | 17.51             | V                    | 6.8                     | 0.48       | 23.83          | 38.45       |
| 848.3     | 1.4               | QPSK   | 1/0  | 16.13             | V                    | 6.8                     | 0.48       | 22.45          | 38.45       |
| 824.7     | 1.4               | QPSK   | 1/0  | 18.33             | H                    | 6.8                     | 0.48       | 24.65          | 38.45       |
| 836.5     | 1.4               | QPSK   | 1/0  | 15.74             | H                    | 6.8                     | 0.48       | 22.06          | 38.45       |
| 848.3     | 1.4               | QPSK   | 1/0  | 17.01             | H                    | 6.8                     | 0.48       | 23.33          | 38.45       |
| 824.7     | 1.4               | 16-QAM | 1/5  | 15.36             | V                    | 6.8                     | 0.48       | 21.68          | 38.45       |
| 836.5     | 1.4               | 16-QAM | 1/0  | 17.22             | V                    | 6.8                     | 0.48       | 23.54          | 38.45       |
| 848.3     | 1.4               | 16-QAM | 1/0  | 17.07             | V                    | 6.8                     | 0.48       | 23.39          | 38.45       |
| 824.7     | 1.4               | 16-QAM | 1/5  | 13.34             | H                    | 6.8                     | 0.48       | 19.66          | 38.45       |
| 836.5     | 1.4               | 16-QAM | 1/0  | 14.46             | H                    | 6.8                     | 0.48       | 20.78          | 38.45       |
| 848.3     | 1.4               | 16-QAM | 1/0  | 15.33             | H                    | 6.8                     | 0.48       | 21.65          | 38.45       |
| 825.5     | 3                 | QPSK   | 1/0  | 17.39             | V                    | 6.8                     | 0.48       | 23.71          | 38.45       |
| 836.5     | 3                 | QPSK   | 1/0  | 16.13             | V                    | 6.8                     | 0.48       | 22.45          | 38.45       |
| 847.5     | 3                 | QPSK   | 1/0  | 16.94             | V                    | 6.8                     | 0.48       | 23.26          | 38.45       |
| 825.5     | 3                 | QPSK   | 1/0  | 17.03             | H                    | 6.8                     | 0.48       | 23.35          | 38.45       |
| 836.5     | 3                 | QPSK   | 1/0  | 18.01             | H                    | 6.8                     | 0.48       | 24.33          | 38.45       |
| 847.5     | 3                 | QPSK   | 1/0  | 16.39             | H                    | 6.8                     | 0.48       | 22.71          | 38.45       |
| 825.5     | 3                 | 16-QAM | 1/0  | 14.66             | V                    | 6.8                     | 0.48       | 20.98          | 38.45       |
| 836.5     | 3                 | 16-QAM | 1/0  | 15.00             | V                    | 6.8                     | 0.48       | 21.32          | 38.45       |
| 847.5     | 3                 | 16-QAM | 1/0  | 16.06             | V                    | 6.8                     | 0.48       | 22.38          | 38.45       |
| 825.5     | 3                 | 16-QAM | 1/0  | 18.24             | H                    | 6.8                     | 0.48       | 24.56          | 38.45       |
| 836.5     | 3                 | 16-QAM | 1/0  | 20.03             | H                    | 6.8                     | 0.48       | 26.35          | 38.45       |
| 847.5     | 3                 | 16-QAM | 1/0  | 19.47             | H                    | 6.8                     | 0.48       | 25.79          | 38.45       |
| 826.5     | 5                 | QPSK   | 1/0  | 17.31             | V                    | 6.8                     | 0.48       | 23.63          | 38.45       |
| 836.5     | 5                 | QPSK   | 1/0  | 16.44             | V                    | 6.8                     | 0.48       | 22.76          | 38.45       |
| 864.5     | 5                 | QPSK   | 1/24 | 15.67             | V                    | 6.8                     | 0.48       | 21.99          | 38.45       |
| 826.5     | 5                 | QPSK   | 1/0  | 16.97             | H                    | 6.8                     | 0.48       | 23.29          | 38.45       |
| 836.5     | 5                 | QPSK   | 1/0  | 17.82             | H                    | 6.8                     | 0.48       | 24.14          | 38.45       |
| 864.5     | 5                 | QPSK   | 1/24 | 18.37             | H                    | 6.8                     | 0.48       | 24.69          | 38.45       |
| 826.5     | 5                 | 16-QAM | 1/0  | 14.03             | V                    | 6.8                     | 0.48       | 20.35          | 38.45       |
| 836.5     | 5                 | 16-QAM | 1/0  | 16.19             | V                    | 6.8                     | 0.48       | 22.51          | 38.45       |
| 864.5     | 5                 | 16-QAM | 1/24 | 15.84             | V                    | 6.8                     | 0.48       | 22.16          | 38.45       |
| 826.5     | 5                 | 16-QAM | 1/0  | 15.77             | H                    | 6.8                     | 0.48       | 22.09          | 38.45       |
| 836.5     | 5                 | 16-QAM | 1/0  | 16.69             | H                    | 6.8                     | 0.48       | 23.01          | 38.45       |
| 864.5     | 5                 | 16-QAM | 1/24 | 15.79             | H                    | 6.8                     | 0.48       | 22.11          | 38.45       |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

|       |    |        |      |       |   |     |      |       |       |
|-------|----|--------|------|-------|---|-----|------|-------|-------|
| 829   | 10 | QPSK   | 1/0  | 16.13 | V | 6.8 | 0.48 | 22.45 | 38.45 |
| 836.5 | 10 | QPSK   | 1/49 | 15.33 | V | 6.8 | 0.48 | 21.65 | 38.45 |
| 844   | 10 | QPSK   | 1/0  | 15.74 | V | 6.8 | 0.48 | 22.06 | 38.45 |
| 829   | 10 | QPSK   | 1/0  | 15.55 | H | 6.8 | 0.48 | 21.87 | 38.45 |
| 836.5 | 10 | QPSK   | 1/49 | 16.73 | H | 6.8 | 0.48 | 23.05 | 38.45 |
| 844   | 10 | QPSK   | 1/0  | 17.25 | H | 6.8 | 0.48 | 23.57 | 38.45 |
| 829   | 10 | 16-QAM | 1/0  | 17.31 | V | 6.8 | 0.48 | 23.63 | 38.45 |
| 836.5 | 10 | 16-QAM | 1/49 | 16.33 | V | 6.8 | 0.48 | 22.65 | 38.45 |
| 844   | 10 | 16-QAM | 1/0  | 16.49 | V | 6.8 | 0.48 | 22.81 | 38.45 |
| 829   | 10 | 16-QAM | 1/0  | 17.43 | H | 6.8 | 0.48 | 23.75 | 38.45 |
| 836.5 | 10 | 16-QAM | 1/49 | 18.11 | H | 6.8 | 0.48 | 24.43 | 38.45 |
| 844   | 10 | 16-QAM | 1/0  | 16.64 | H | 6.8 | 0.48 | 22.96 | 38.45 |
| 831.5 | 15 | QPSK   | 1/0  | 15.46 | V | 6.8 | 0.48 | 21.78 | 38.45 |
| 836.5 | 15 | QPSK   | 1/74 | 17.35 | V | 6.8 | 0.48 | 23.67 | 38.45 |
| 841.5 | 15 | QPSK   | 1/0  | 17.63 | V | 6.8 | 0.48 | 23.95 | 38.45 |
| 831.5 | 15 | QPSK   | 1/0  | 17.59 | H | 6.8 | 0.48 | 23.91 | 38.45 |
| 836.5 | 15 | QPSK   | 1/74 | 19.59 | H | 6.8 | 0.48 | 25.91 | 38.45 |
| 841.5 | 15 | QPSK   | 1/0  | 16.09 | H | 6.8 | 0.48 | 22.41 | 38.45 |
| 831.5 | 15 | 16-QAM | 1/0  | 17.24 | V | 6.8 | 0.48 | 23.56 | 38.45 |
| 836.5 | 15 | 16-QAM | 1/74 | 14.15 | V | 6.8 | 0.48 | 20.47 | 38.45 |
| 841.5 | 15 | 16-QAM | 1/0  | 15.79 | V | 6.8 | 0.48 | 22.11 | 38.45 |
| 831.5 | 15 | 16-QAM | 1/0  | 16.13 | H | 6.8 | 0.48 | 22.45 | 38.45 |
| 836.5 | 15 | 16-QAM | 1/74 | 15.82 | H | 6.8 | 0.48 | 22.14 | 38.45 |
| 841.5 | 15 | 16-QAM | 1/0  | 16.93 | H | 6.8 | 0.48 | 23.25 | 38.45 |



### EIRP for LTE Band 26 (PART 90S)

| Frequency | Channel Bandwidth | Mode.  | RB   | Substituted level | Antenna Polarization | Antenna Gain correction | Cable Loss | Absolute Level | Limit (dBm) |
|-----------|-------------------|--------|------|-------------------|----------------------|-------------------------|------------|----------------|-------------|
| 815.5     | 3                 | QPSK   | 1/0  | 14.82             | V                    | 6.8                     | 0.48       | 21.14          | 50          |
| 819       | 3                 | QPSK   | 1/0  | 16.36             | V                    | 6.8                     | 0.48       | 22.68          | 50          |
| 822.5     | 3                 | QPSK   | 1/0  | 14.88             | V                    | 6.8                     | 0.48       | 21.20          | 50          |
| 815.5     | 3                 | QPSK   | 1/0  | 16.29             | H                    | 6.8                     | 0.48       | 22.61          | 50          |
| 819       | 3                 | QPSK   | 1/0  | 15.97             | H                    | 6.8                     | 0.48       | 22.29          | 50          |
| 822.5     | 3                 | QPSK   | 1/0  | 17.35             | H                    | 6.8                     | 0.48       | 23.67          | 50          |
| 815.5     | 3                 | 16-QAM | 1/0  | 15.43             | V                    | 6.8                     | 0.48       | 21.75          | 50          |
| 819       | 3                 | 16-QAM | 1/0  | 13.97             | V                    | 6.8                     | 0.48       | 20.29          | 50          |
| 822.5     | 3                 | 16-QAM | 1/0  | 14.88             | V                    | 6.8                     | 0.48       | 21.20          | 50          |
| 815.5     | 3                 | 16-QAM | 1/0  | 15.53             | H                    | 6.8                     | 0.48       | 21.85          | 50          |
| 819       | 3                 | 16-QAM | 1/0  | 17.88             | H                    | 6.8                     | 0.48       | 24.20          | 50          |
| 822.5     | 3                 | 16-QAM | 1/0  | 21.14             | H                    | 6.8                     | 0.48       | 27.46          | 50          |
| 816.5     | 5                 | QPSK   | 1/0  | 19.81             | V                    | 6.8                     | 0.48       | 26.13          | 50          |
| 819       | 5                 | QPSK   | 1/0  | 17.55             | V                    | 6.8                     | 0.48       | 23.87          | 50          |
| 821.5     | 5                 | QPSK   | 1/24 | 17.72             | V                    | 6.8                     | 0.48       | 24.04          | 50          |
| 816.5     | 5                 | QPSK   | 1/0  | 15.95             | H                    | 6.8                     | 0.48       | 22.27          | 50          |
| 819       | 5                 | QPSK   | 1/0  | 17.14             | H                    | 6.8                     | 0.48       | 23.46          | 50          |
| 821.5     | 5                 | QPSK   | 1/24 | 17.19             | H                    | 6.8                     | 0.48       | 23.51          | 50          |
| 816.5     | 5                 | 16-QAM | 1/0  | 17.84             | V                    | 6.8                     | 0.48       | 24.16          | 50          |
| 819       | 5                 | 16-QAM | 1/0  | 13.90             | V                    | 6.8                     | 0.48       | 20.22          | 50          |
| 821.5     | 5                 | 16-QAM | 1/24 | 15.18             | V                    | 6.8                     | 0.48       | 21.50          | 50          |
| 816.5     | 5                 | 16-QAM | 1/0  | 15.45             | H                    | 6.8                     | 0.48       | 21.77          | 50          |
| 819       | 5                 | 16-QAM | 1/0  | 15.50             | H                    | 6.8                     | 0.48       | 21.82          | 50          |
| 821.5     | 5                 | 16-QAM | 1/24 | 16.18             | H                    | 6.8                     | 0.48       | 22.50          | 50          |
| 819       | 10                | QPSK   | 1/49 | 14.89             | V                    | 6.8                     | 0.48       | 21.21          | 50          |
| 819       | 10                | QPSK   | 1/49 | 15.16             | H                    | 6.8                     | 0.48       | 21.48          | 50          |
| 819       | 10                | 16-QAM | 1/49 | 14.12             | V                    | 6.8                     | 0.48       | 20.44          | 50          |
| 819       | 10                | 16-QAM | 1/49 | 15.09             | H                    | 6.8                     | 0.48       | 21.41          | 50          |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

## 7. SPURIOUS EMISSION

### 7.1 CONDUCTED SPURIOUS EMISSION

#### 7.1.1 MEASUREMENT METHOD

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

**The minimum permissible attenuation level of any spurious emission is  $43 + \log_{10}(P[\text{Watts}])$ , where P is the transmitter power in Watts.**

For Band 7:

- (i)  $40 + 10 \log_{10} p$  from the channel edges to 5 MHz away
- (ii)  $43 + 10 \log_{10} p$  between 5 MHz and X MHz from the channel edges, and
- (iii)  $55 + 10 \log_{10} p$  at X MHz and beyond from the channel edges

Test Procedure Used

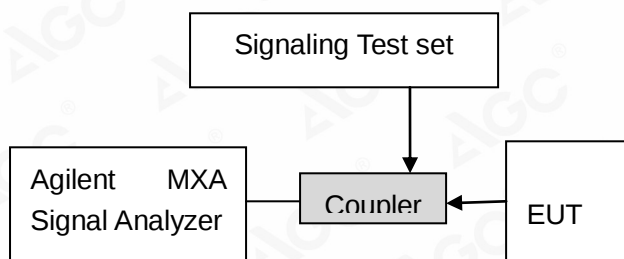
KDB 971168 D01v03 – Section 6.0

#### Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least  $10 \times$  the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = max hold
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



### Test Instrument & Measurement Setup

shall be attenuated below the transmitter power (P, in Watts) by at least  $43+10\log(P)$  dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.



**Test Note**

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. 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. 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 emission are attenuated at least 26 dB below the transmitter power.

**7.1.2 MEASUREMENT RESULT**

**PLEASE REFER TO:** APPENDIX A TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION

**Note:** 1. No emission found in standby or receive mode, no recording in this report.



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

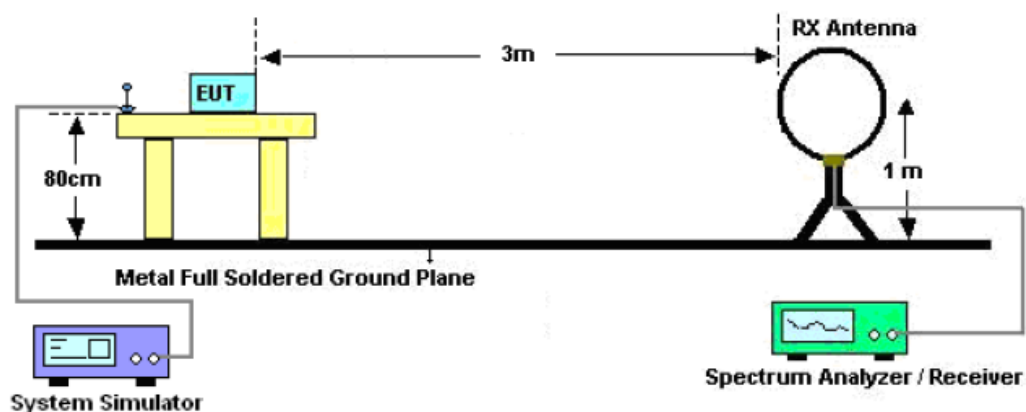
## 7.2 RADIATED SPURIOUS EMISSION

### 7.2.1. MEASUREMENT PROCEDURE

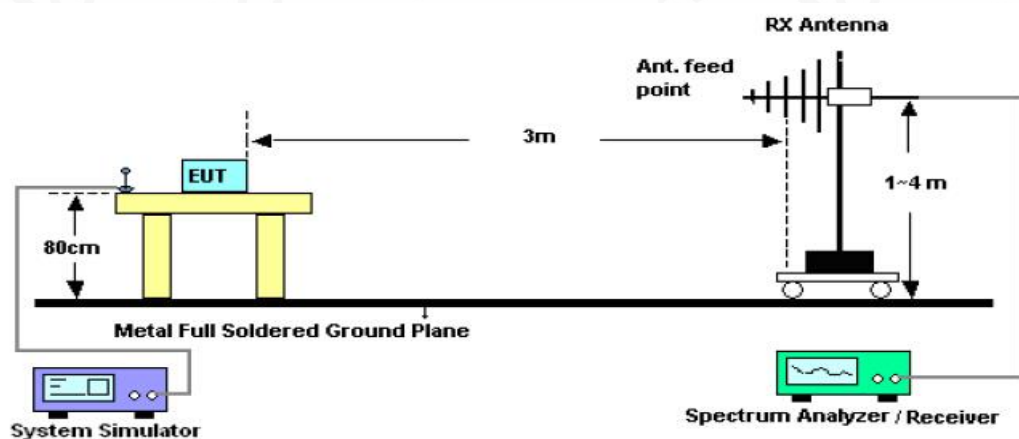
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

## 7.2.2. TEST SETUP

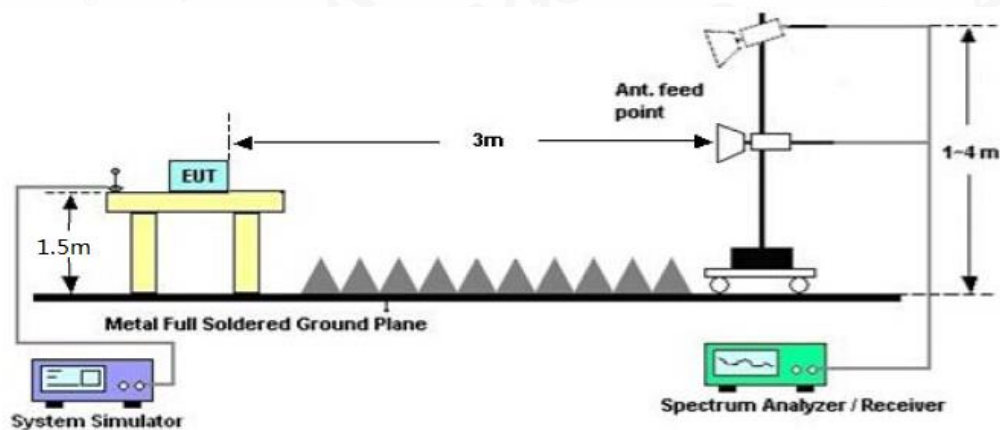
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



### 7.2.3 PROVISIONS APPLICABLE

(a) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least  $43+10\log(P)$  dB. The specification that emissions shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

**Note:** Only record the worst condition of each test mode:



## 7.2.4 MEASUREMENT RESULT

### LTE Band 2 Low channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 3720            | V              | -58.28               | -13         | -45.28      |
| 694.1           | V              | -62.52               | -13         | -49.52      |
| 527.4           | V              | -67.21               | -13         | -54.21      |
| 3720            | H              | -56.66               | -13         | -43.66      |
| 841.3           | H              | -61.58               | -13         | -48.58      |
| 630.6           | H              | -66.57               | -13         | -53.57      |

### Middle channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 3760            | V              | -57.53               | -13         | -44.53      |
| 492.5           | V              | -64.00               | -13         | -51.00      |
| 395.5           | V              | -62.88               | -13         | -49.88      |
| 3760            | H              | -59.43               | -13         | -46.43      |
| 604.3           | H              | -65.57               | -13         | -52.57      |
| 519.9           | H              | -65.85               | -13         | -52.85      |

### High channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 3800            | V              | -57.86               | -13         | -44.86      |
| 716.1           | V              | -63.98               | -13         | -50.98      |
| 593.5           | V              | -64.06               | -13         | -51.06      |
| 3800            | H              | -56.82               | -13         | -43.82      |
| 667.2           | H              | -62.66               | -13         | -49.66      |
| 589.4           | H              | -62.35               | -13         | -49.35      |



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

**LTE Band 4  
Low channel**

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 3440            | V              | -36.05               | -13         | -23.05      |
| 742.6           | V              | -40.62               | -13         | -27.62      |
| 613.5           | V              | -40.48               | -13         | -27.48      |
| 3440            | H              | -35.73               | -13         | -22.73      |
| 693.3           | H              | -40.15               | -13         | -27.15      |
| 430.2           | H              | -41.99               | -13         | -28.99      |

**Middle channel**

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 3465            | V              | -33.10               | -13         | -20.1       |
| 897.7           | V              | -39.87               | -13         | -26.87      |
| 789.4           | V              | -43.31               | -13         | -30.31      |
| 3465            | H              | -34.72               | -13         | -21.72      |
| 599.6           | H              | -38.98               | -13         | -25.98      |
| 301.3           | H              | -41.12               | -13         | -28.12      |

**High channel**

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 3490            | V              | -35.97               | -13         | -22.97      |
| 665.5           | V              | -41.48               | -13         | -28.48      |
| 498.3           | V              | -42.32               | -13         | -29.32      |
| 3490            | H              | -33.30               | -13         | -20.3       |
| 551.5           | H              | -39.05               | -13         | -26.05      |
| 493.7           | H              | -42.27               | -13         | -29.27      |



**LTE Band 5**  
**Low channel**

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1658            | V              | -58.12               | -13         | -45.12      |
| 508.6           | V              | -64.91               | -13         | -51.91      |
| 346.3           | V              | -67.05               | -13         | -54.05      |
| 1658            | H              | -57.13               | -13         | -44.13      |
| 584.2           | H              | -64.34               | -13         | -51.34      |
| 351.7           | H              | -62.41               | -13         | -49.41      |

**Middle channel**

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1673            | V              | -56.96               | -13         | -43.96      |
| 569.5           | V              | -62.01               | -13         | -49.01      |
| 458.7           | V              | -65.36               | -13         | -52.36      |
| 1673            | H              | -57.88               | -13         | -44.88      |
| 611.8           | H              | -63.08               | -13         | -50.08      |
| 469.2           | H              | -61.57               | -13         | -48.57      |

**High channel**

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1688            | V              | -55.32               | -13         | -42.32      |
| 703.1           | V              | -63.95               | -13         | -50.95      |
| 669.5           | V              | -62.79               | -13         | -49.79      |
| 1688            | H              | -58.30               | -13         | -45.3       |
| 521.0           | H              | -63.64               | -13         | -50.64      |
| 339.7           | H              | -62.22               | -13         | -49.22      |



**Attestation of Global Compliance**

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

### LTE Band 12 Low channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1408            | V              | -57.50               | -13         | -44.50      |
| 706.5           | V              | -64.78               | -13         | -51.78      |
| 665.4           | V              | -65.63               | -13         | -52.63      |
| 1408            | H              | -57.62               | -13         | -44.62      |
| 718.1           | H              | -65.27               | -13         | -52.27      |
| 620.2           | H              | -62.89               | -13         | -49.89      |

### Middle channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1415            | V              | -57.66               | -13         | -44.66      |
| 569.3           | V              | -64.46               | -13         | -51.46      |
| 431.0           | V              | -63.57               | -13         | -50.57      |
| 1415            | H              | -57.61               | -13         | -44.61      |
| 495.5           | H              | -63.58               | -13         | -50.58      |
| 312.1           | H              | -63.35               | -13         | -50.35      |

### High channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1422            | V              | -58.52               | -13         | -45.52      |
| 880.5           | V              | -64.04               | -13         | -51.04      |
| 731.0           | V              | -64.69               | -13         | -51.69      |
| 1422            | H              | -56.00               | -13         | -43.00      |
| 764.2           | H              | -62.29               | -13         | -49.29      |
| 649.3           | H              | -63.56               | -13         | -50.56      |



### LTE Band 13 Low channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1564            | V              | -55.60               | -13         | -42.6       |
| 468.5           | V              | -63.27               | -13         | -50.27      |
| 413.7           | V              | -64.55               | -13         | -51.55      |
| 1564            | H              | -58.11               | -13         | -45.11      |
| 564.5           | H              | -62.93               | -13         | -49.93      |
| 463.8           | H              | -67.39               | -13         | -54.39      |

### Middle channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1425            | V              | -57.31               | -13         | -44.31      |
| 596.3           | V              | -63.79               | -13         | -50.79      |
| 384.1           | V              | -63.82               | -13         | -50.82      |
| 1528            | H              | -55.68               | -13         | -42.68      |
| 556.7           | H              | -62.89               | -13         | -49.89      |
| 332.5           | H              | -63.91               | -13         | -50.91      |

### High channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1365            | V              | -58.52               | -13         | -45.52      |
| 698.7           | V              | -63.90               | -13         | -50.90      |
| 523.5           | V              | -63.67               | -13         | -50.67      |
| 1422            | H              | -57.17               | -13         | -44.17      |
| 663.4           | H              | -63.22               | -13         | -50.22      |
| 511.1           | H              | -63.48               | -13         | -50.48      |



### LTE Band 26 Low channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1663            | V              | -55.55               | -13         | -42.55      |
| 846.5           | V              | -64.32               | -13         | -51.32      |
| 546.7           | V              | -63.73               | -13         | -50.73      |
| 1663            | H              | -55.70               | -13         | -42.70      |
| 754.3           | H              | -63.95               | -13         | -50.95      |
| 669.5           | H              | -60.42               | -13         | -47.42      |

### Middle channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1673            | V              | -56.04               | -13         | -43.04      |
| 846.5           | V              | -63.21               | -13         | -50.21      |
| 596.4           | V              | -63.88               | -13         | -50.88      |
| 1673            | H              | -54.18               | -13         | -41.18      |
| 774.7           | H              | -61.39               | -13         | -48.39      |
| 691.5           | H              | -63.36               | -13         | -50.36      |

### High channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1683            | V              | -59.06               | -13         | -46.06      |
| 846.3           | V              | -64.76               | -13         | -51.76      |
| 779.6           | V              | -63.09               | -13         | -50.09      |
| 1683            | H              | -58.10               | -13         | -45.10      |
| 894.3           | H              | -62.19               | -13         | -49.19      |
| 769.5           | H              | -63.44               | -13         | -50.44      |



### LTE Band 26 Low channel

| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1633            | V              | -56.31               | -13         | -43.31      |
| 746.5           | V              | -63.98               | -13         | -50.98      |
| 593.8           | V              | -63.50               | -13         | -50.50      |
| 1633            | H              | -56.33               | -13         | -43.33      |
| 738.6           | H              | -62.94               | -13         | -49.94      |
| 584.2           | H              | -60.89               | -13         | -47.89      |

### Middle channel

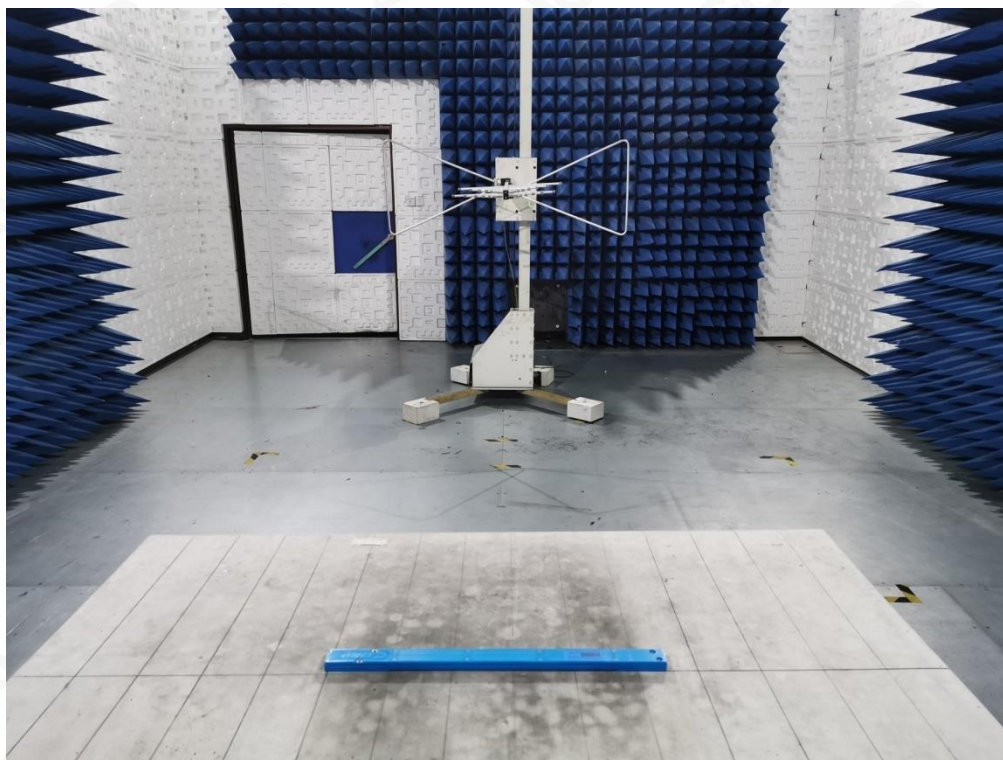
| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1638            | V              | -56.90               | -13         | -43.90      |
| 801.3           | V              | -63.10               | -13         | -50.10      |
| 746.2           | V              | -63.81               | -13         | -50.81      |
| 1638            | H              | -54.34               | -13         | -41.34      |
| 799.1           | H              | -62.78               | -13         | -49.78      |
| 689.5           | H              | -63.41               | -13         | -50.41      |

### High channel

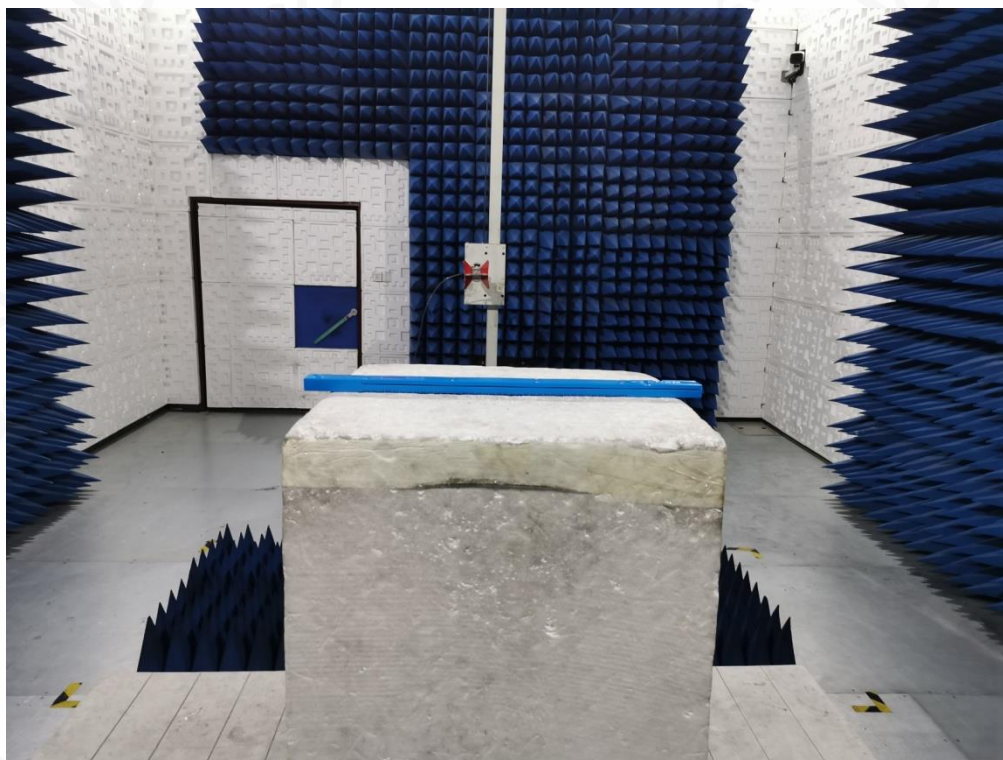
| Frequency (MHz) | Polarity (H/V) | Emission Level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------|----------------------|-------------|-------------|
| 1643            | V              | -58.88               | -13         | -45.88      |
| 745.5           | V              | -64.23               | -13         | -51.23      |
| 631.2           | V              | -63.08               | -13         | -50.08      |
| 1643            | H              | -58.72               | -13         | -45.72      |
| 723.8           | H              | -62.24               | -13         | -49.24      |
| 629.5           | H              | -63.85               | -13         | -50.85      |

- Note:** 1. Margin = Emission Level -Limit  
2. (30MHz-26GHz) Below 30MHZ no Spurious found and above is the worst mode data

**APPENDIX D PHOTOGRAPHS OF TEST SETUP**  
**RADIATED EMISSION TEST SETUP**



**RADIATED EMISSION ABOVE 1G TEST SETUP**



**----END OF REPORT----**