



TESTREPORT

Applicant Name : Franklin Technology Inc.
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South Korea 08502
Report Number : RA230104-00558E-RF-00C
FCC ID: XHG-CG890

Test Standard (s)

FCC PART 27; FCC PART 22H; FCC PART 24E

Sample Description

Product Type: Home Router CG890
Model No.: CG890
Multiple Model(s) No.: N/A
Trade Mark: N/A
Date Received: 2023/01/04
Report Date: 2023/03/22

| | |
|--------------|-------|
| Test Result: | Pass* |
|--------------|-------|

* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Approved By:

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EMC Engineer

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EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★".

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DOCUMENT REVISION HISTORY

| Revision Number | Report Number | Description of Revision | Date of Revision |
|------------------------|------------------------|--------------------------------|-------------------------|
| 0 | RA230104-00558E-RF-00C | Original Report | 2023-03-22 |

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

| | |
|------------------------|---|
| Frequency Range | WCDMA Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) WCDMA Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) WCDMA Band 5: 824-849MHz(TX); 869-894MHz(RX) LTE Band 2: 1850-1910MHz(TX); 1930-1990MHz(RX) LTE Band 4: 1710-1755MHz(TX); 2110-2155MHz(RX) LTE Band 5: 1710-1755MHz(TX); 2110-2155MHz(RX) LTE Band 7: 2500-2570MHz(TX); 2620-2690MHz(RX) LTE Band 12: 699-716MHz(TX); 729-746MHz(RX) LTE Band 41: 2496-2690MHz(TX/RX) LTE Band 66: 1710-1780MHz(TX); 2110-2180MHz(RX) LTE Band 71: 663-698MHz(TX); 617-652MHz(RX) |
| Modulation Technique | 3G: BPSK, QPSK, 16QAM 4G: QPSK, 16QAM |
| Antenna Specification* | ANT 0: WCDMA Band2/4/LTE Band2/4/66: 3.5dBi; LTE Band5/ WCDMA Band5: 2.0dBi; LTE Band12: 2.1dBi; LTE Band7 /41 :0.3dBi; LTE Band71: 1.8dBi (provided by the applicant) |
| Voltage Range | DC 12V from adapter or DC 3.8V from battery |
| Sample serial number | 1XJ7-2 for Radiated Emissions Test 1XJH-12 for RF Conducted Test (Assigned by ATC) |
| Sample/EUT Status | Good condition |
| Adapter information | Model: APS-M024120200W-G Input: AC 100-240V, 50/60Hz, 0.6A Max Output: DC 12V, 2.0A |
| Extreme condition* | VL: Low Voltage 3.6V VN: Normal Voltage 3.8V VH: High Voltage 4.2V (provided by the applicant) |

Objective

This test report is in accordance with Part 2-Subpart J, Part 22-Subpart H, Part24-Subpart E and Part 27 of the Federal Communication Commission's rules.

The objective is to determine the compliance of the EUT with FCC rules for output power, modulation characteristic, occupied bandwidth, and spurious emission at antenna terminal, spurious radiated emission, frequency stability and band edge.

Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2-Subpart J as well as the following parts:

Part 22 Subpart H - Public Mobile Services
 Part 24 Subpart E - Personal Communication Services
 Part 27 - Miscellaneous Wireless Communications Services

ANSI C63.26-2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

| Parameter | | Uncertainty |
|------------------------------|-----------------|-------------------------|
| Occupied Channel Bandwidth | | ±5% |
| RF output power, conducted | | ±0.73dB |
| Unwanted Emission, conducted | | ±1.6dB |
| RF Frequency | | ±0.082*10 ⁻⁷ |
| Emissions, Radiated | 30MHz - 1GHz | ±4.28dB |
| | 1GHz - 18GHz | ±4.98dB |
| | 18GHz - 26.5GHz | ±5.06dB |
| Temperature | | ±1 °C |
| Humidity | | ±6% |
| Supply voltages | | ±0.4% |

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

Test Facility

The Test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISED), the Registration Number is 5077A.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The final qualification test was performed with the EUT operating at normal mode.

Test was performed as below table:

| Frequency band | Bandwidth (MHz) | Test Frequency(MHz) | | |
|----------------|-----------------|---------------------|--------|--------|
| | | Low | Middle | High |
| WCDMA B2 | 4.2 | 1852.4 | 1880 | 1907.6 |
| WCDMA B4 | 4.2 | 1712.4 | 1732.6 | 1752.6 |
| WCDMA B5 | 4.2 | 826.4 | 836.4 | 846.6 |
| LTE B2 | 1.4 | 1850.7 | 1880 | 1909.3 |
| | 3 | 1851.5 | 1880 | 1908.5 |
| | 5 | 1852.5 | 1880 | 1907.5 |
| | 10 | 1855 | 1880 | 1905 |
| | 15 | 1857.5 | 1880 | 1902.5 |
| | 20 | 1860 | 1880 | 1900 |
| LTE B4 | 1.4 | 1710.7 | 1732.5 | 1754.3 |
| | 3 | 1711.5 | 1732.5 | 1753.5 |
| | 5 | 1712.5 | 1732.5 | 1752.5 |
| | 10 | 1715 | 1732.5 | 1750 |
| | 15 | 1717.5 | 1732.5 | 1747.5 |
| LTE B5 | 1.4 | 824.7 | 836.5 | 848.3 |
| | 3 | 825.5 | 836.5 | 847.5 |
| | 5 | 826.5 | 836.5 | 846.5 |
| | 10 | 829 | 836.5 | 844 |
| LTE B7 | 5 | 2502.5 | 2535 | 2567.5 |
| | 10 | 2505 | 2535 | 2565 |
| | 15 | 2507.5 | 2535 | 2562.5 |
| | 20 | 2510 | 2535 | 2560 |
| LTE B12 | 1.4 | 699.7 | 707.5 | 715.3 |
| | 3 | 700.5 | 707.5 | 714.5 |
| | 5 | 701.5 | 707.5 | 713.5 |
| | 10 | 704 | 707.5 | 711 |
| LTE B41 | 5 | 2498.5 | 2593 | 2687.5 |
| | 10 | 2501 | 2593 | 2685 |
| | 15 | 2503.5 | 2593 | 2682.5 |
| | 20 | 2506 | 2593 | 2680 |

| Frequency band | Bandwidth (MHz) | Test Frequency(MHz) | | |
|----------------|-----------------|---------------------|--------|--------|
| | | Low | Middle | High |
| LTE B66 | 1.4 | 1710.7 | 1745 | 1779.3 |
| | 3 | 1711.5 | 1745 | 1778.5 |
| | 5 | 1712.5 | 1745 | 1777.5 |
| | 10 | 1715 | 1745 | 1775 |
| | 15 | 1717.5 | 1745 | 1772.5 |
| | 20 | 1720 | 1745 | 1770 |
| LTE B71 | 5 | 665.5 | 680.5 | 695.5 |
| | 10 | 668 | 680.5 | 693 |
| | 15 | 670.5 | 680.5 | 690.5 |
| | 20 | 673 | 680.5 | 688 |

Equipment Modifications

No modification was made to the EUT.

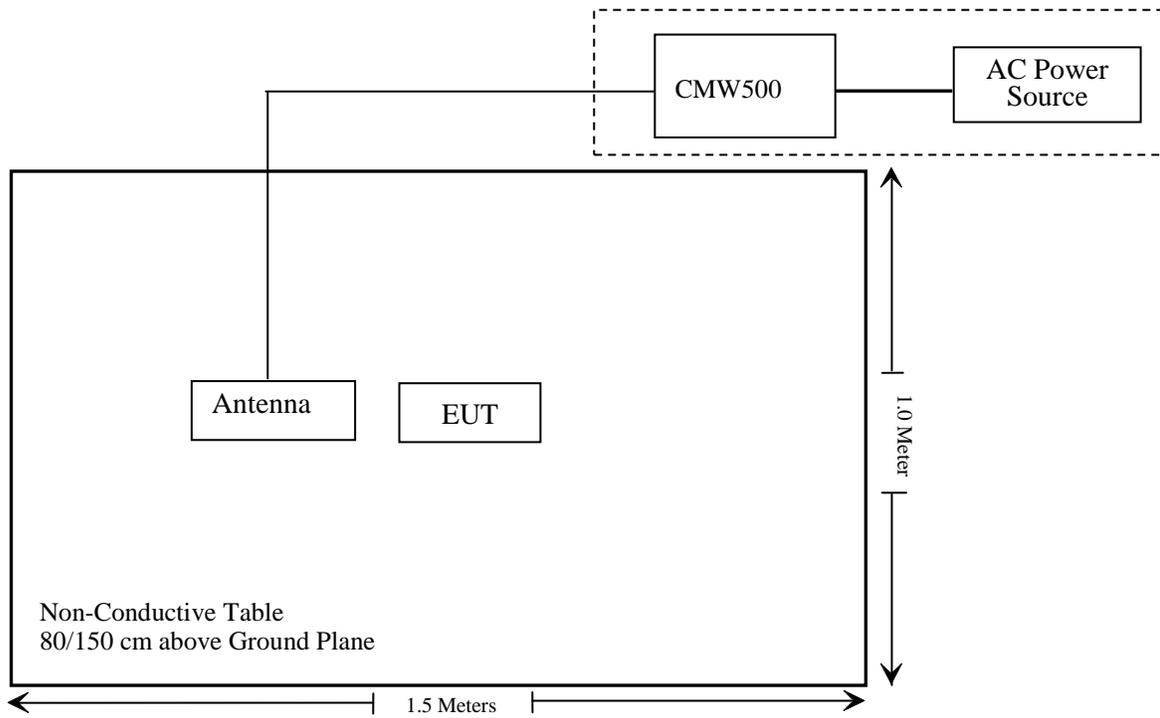
Support Equipment List and Details

| Manufacturer | Description | Model | Serial Number |
|-----------------|-------------------------------------|--------|---------------|
| Rohde & Schwarz | Wideband Radio Communication Tester | CMW500 | 154606 |

Support Cable Description

| Cable Description | Length (m) | From / Port | To |
|------------------------------------|------------|-------------|--------|
| Un-shielded Un-detachable AC cable | 1.2 | AC Power | CMW500 |

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

| FCC Rules | Description of Test | Result | Remark |
|---|--|------------------------|----------|
| FCC §1.1307 (b) (3) & §2.1091 | MPE-Based Exemption | Compliant | - |
| §2.1046; §22.913 (a) (d); §24.232 (c)(d); §27.50 (c) (d)(h) | RF Output Power | Compliant (LTE Band 7) | See Note |
| §2.1047 | Modulation Characteristics | Not Applicable | - |
| §2.1049; §22.905; §22.917; §24.238; §27.53 | Occupied Bandwidth | Compliant (LTE Band 7) | See Note |
| §2.1051; §22.917 (a); §24.238 (a); §27.53 | Spurious Emissions at Antenna Terminal | Compliant (LTE Band 7) | See Note |
| §2.1053; §22.917 (a); §24.238 (a); §27.53 | Field Strength of Spurious Radiation | Compliant | - |
| §22.917 (a); §24.238 (a); §27.53 (g) (h) (m) | Band Edge | Compliant (LTE Band 7) | See Note |
| §2.1055; §22.355; §24.235; §27.54 | Frequency stability | Compliant (LTE Band 7) | See Note |

Note:

1. According to manufacturer declared, the WWAN module installed in EUT has the following changes based on the certified module (FCC ID: XHG-M2500), which granted on 08/30/2022:

- (1) Adding the Frequency band of LTE Band 7 by software upgrade
- (2) Adding EN-DC mode: DC_12A_n66A/ DC_5A_n48A / DC_5A_n66A by software upgrade

Based on the above differences, it will affect all test data for the new adding frequency bands; all the test items for those bands were performed.

2. The RF output power was spot checked and it's consistently with the module report.
3. The test data for other bands refer to the module report.
4. The ATC is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report.

TEST EQUIPMENT LIST

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|------------------------|-------------------|----------------------|------------------------|------------------|----------------------|
| Radiated Emission Test | | | | | |
| Rohde& Schwarz | Test Receiver | ESR | 102725 | 2022/11/25 | 2023/11/24 |
| Rohde&Schwarz | Spectrum Analyzer | FSV40 | 101949 | 2022/11/25 | 2023/11/24 |
| SONOMA INSTRUMENT | Amplifier | 310 N | 186131 | 2022/11/08 | 2023/11/07 |
| A.H. Systems, inc. | Preamplifier | PAM-0118P | 135 | 2022/11/08 | 2023/11/07 |
| Quinstar | Amplifier | QLW-184055 36-J0 | 15964001002 | 2022/11/08 | 2023/11/07 |
| Unknown | RF Coaxial Cable | No.10 | N050 | 2022/11/25 | 2023/11/24 |
| Unknown | RF Coaxial Cable | No.11 | N1000 | 2022/11/25 | 2023/11/24 |
| Unknown | RF Coaxial Cable | No.12 | N040 | 2022/11/25 | 2023/11/24 |
| Unknown | RF Coaxial Cable | No.13 | N300 | 2022/11/25 | 2023/11/24 |
| Unknown | RF Coaxial Cable | No.14 | N800 | 2022/11/25 | 2023/11/24 |
| Unknown | RF Coaxial Cable | No.15 | N600 | 2022/11/25 | 2023/11/24 |
| Unknown | RF Coaxial Cable | No.16 | N650 | 2022/11/25 | 2023/11/24 |
| Schwarzbeck | Bilog Antenna | VULB9163 | 9163-194 | 2021/07/06 | 2024/07/05 |
| Schwarzbeck | Bilog Antenna | VULB9163 | 9163-323 | 2021/07/06 | 2024/07/05 |
| Schwarzbeck | Horn Antenna | BBHA9120D | 9120D-655 | 2022/12/26 | 2025/12/25 |
| Schwarzbeck | Horn Antenna | BBHA9120D | 9120D-1067 | 2022/11/30 | 2025/11/29 |
| PASTERNAK | Horn Antenn | PE9852/2F-20 | 1120 (ATC-BA-024-1) | 2023/01/04 | 2026/01/03 |
| PASTERNAK | Horn Antenn | PE9852/2F-20 | 1120 (ATC-BA-025-1) | 2023/01/04 | 2026/01/03 |
| PASTERNAK | Horn Antenn | PE9850/2F-20 | 720 (ATC-BA-024) | 2023/01/04 | 2026/01/03 |
| PASTERNAK | Horn Antenn | PE9850/2F-20 | 720 (ATC-BA-025) | 2023/01/04 | 2026/01/03 |
| Unknown | RFCoaxialCable | No.16 | N200 | 2022/11/25 | 2023/11/24 |
| Agilent | Signal Generator | N5183A | MY51040755 | 2022/11/25 | 2023/11/24 |
| Wainwright | High Pass Filter | WHKX3.6/18 G-10SS | 5 | 2022/11/25 | 2023/11/24 |
| CD | High Pass Filter | HPM-1.2/18G -60 | 110 | 2022/11/25 | 2023/11/24 |

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|-------------------|-------------------------------------|-------------|---------------|------------------|----------------------|
| RF Conducted Test | | | | | |
| Rohde&Schwarz | Spectrum Analyzer | FSV-40 | 101948 | 2022/11/25 | 2023/11/24 |
| WEINSCHEL | 10dB Attenuator | 5324 | AU 3842 | 2022/11/25 | 2023/11/24 |
| REALE | Temp. & Humid. Chamber | RHP-800BT | R20170318310 | 2022/11/23 | 2023/11/22 |
| Rohde & Schwarz | Wideband Radio Communication Tester | CMW500 | 154606 | 2022/11/25 | 2023/11/24 |
| Mini-Circuits | Power Splitter | DC-18000MHz | SF10944151S | 2022/11/25 | 2023/11/24 |
| Fluke | Multi Meter | 45 | 7664009 | 2022/11/23 | 2023/11/22 |
| Manson | DC Power Source | KPS-6604 | ATCS-205 | NCR | NCR |
| Unknown | RF Coaxial Cable | No.31 | RF-01 | Each time | |

* Statement of Traceability: Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §1.1307 (b) (3) & §2.1091- MPE-Based Exemption

Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

| RF Source frequency (MHz) | Threshold ERP (watts) |
|---------------------------|-----------------------|
| 0.3-1.34 | $1,920 R^2$. |
| 1.34-30 | $3,450 R^2/f^2$. |
| 30-300 | $3.83 R^2$. |
| 300-1,500 | $0.0128 R^2f$. |
| 1,500-100,000 | $19.2R^2$. |

R is the minimum separation distance in meters

f = frequency in MHz

For multiple RF sources: Multiple RF sources are exempt if:

in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

Result

For worst case:

| Mode | Frequency (MHz) | Tune up conducted power | Antenna Gain | | ERP | | Evaluation Distance (m) | ERP Limit (W) |
|------------|-----------------|-------------------------|--------------|-------|-------|-------|-------------------------|---------------|
| | | (dBm) | (dBi) | (dBd) | (dBm) | (W) | | |
| 2.4G Wi-Fi | 2412-2462 | 21.5 | 3.1 | 0.95 | 22.45 | 0.176 | 0.3 | 1.728 |
| 5G Wi-Fi | 5150-5250 | 20.5 | 2.2 | 0.05 | 20.55 | 0.114 | 0.3 | 1.728 |
| | 5725-5850 | 20.5 | 2.2 | 0.05 | 20.55 | 0.114 | 0.3 | 1.728 |
| WCDMA B2 | 1850-1910 | 24.0 | 3.5 | 1.35 | 25.35 | 0.343 | 0.3 | 1.728 |
| WCDMA B4 | 1710-1755 | 24.0 | 3.5 | 1.35 | 25.35 | 0.343 | 0.3 | 1.728 |
| WCDMA B5 | 824-849 | 25.0 | 2.0 | -0.15 | 24.85 | 0.305 | 0.3 | 0.949 |
| LTE B2 | 1850-1910 | 23.0 | 3.5 | 1.35 | 24.35 | 0.272 | 0.3 | 1.728 |
| LTE B4 | 1710-1755 | 23.5 | 3.5 | 1.35 | 24.85 | 0.305 | 0.3 | 1.728 |
| LTE B5 | 824-849 | 23.5 | 2.0 | -0.15 | 23.35 | 0.216 | 0.3 | 0.949 |
| LTE B7 | 2500-2570 | 24.0 | 0.3 | -1.85 | 22.15 | 0.164 | 0.3 | 1.728 |
| LTE B12 | 699-716 | 24.0 | 2.1 | -0.05 | 23.95 | 0.248 | 0.3 | 0.805 |
| LTE B41 | 2496-2690 | 27.0 | 0.3 | -1.85 | 25.15 | 0.327 | 0.3 | 1.728 |
| LTE B48 | 3550-3700 | 23.0 | -0.6 | -2.75 | 20.25 | 0.106 | 0.3 | 1.728 |
| LTE B66 | 1710-1780 | 23.5 | 3.5 | 1.35 | 24.85 | 0.305 | 0.3 | 1.728 |
| LTE B71 | 663-698 | 24.0 | 1.8 | -0.35 | 23.65 | 0.232 | 0.3 | 0.764 |
| 5G n48 | 3550-3700 | 23.5 | -0.6 | -2.75 | 20.75 | 0.119 | 0.3 | 1.728 |
| 5G n66 | 1710-1780 | 24.0 | 3.6 | 1.45 | 25.45 | 0.351 | 0.3 | 1.728 |
| 5G n71 | 663-698 | 24.5 | 1.8 | -0.35 | 24.15 | 0.260 | 0.3 | 0.764 |

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
 2. The 2.4G Wi-Fi can transmit at the same time with the 5G Wi-Fi.
 3. 0dBd=2.15dBi

Simultaneous transmitting consideration (worst case):

$$\text{The ratio} = \frac{\text{ERP}_{2.4\text{G Wi-Fi}}}{\text{ERP}_{\text{Limit}}} + \frac{\text{ERP}_{5\text{G Wi-Fi}}}{\text{ERP}_{\text{Limit}}} + \frac{\text{ERP}_{\text{WCDMA}}}{\text{ERP}_{\text{Limit}}} + \frac{\text{ERP}_{5\text{G NR}}}{\text{ERP}_{\text{Limit}}} \\ = 0.176/1.728 + 0.114/1.728 + 0.305/0.949 + 0.260/0.764 = 0.830 < 1.0$$

So simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 30cm from nearby persons.

Result: Compliant.

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H,24E&27 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC § 2.1046, § 22.913 (a) (d)& § 24.232(c) (d); §27.50(c)(d)(h) - RF OUTPUT POWER

Applicable Standard

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §24.232 (c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

According to §27.50(c), Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

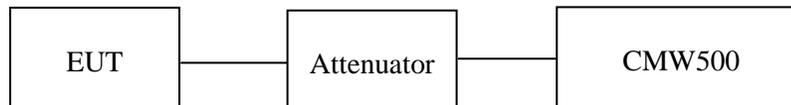
According to §27.50(d), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

According to §27.50(h), the maximum EIRP must not exceed 2Watts (33dBm) for 2496-2690MHz.

Test Procedure

Conducted method:

The RF output of the transmitter was connected to the CMW500 through sufficient attenuation.



ANSI C63.26-2015 Section 5.5.

Test Data

Environmental Conditions

| | |
|---------------------------|-----------|
| Temperature: | 25~27°C |
| Relative Humidity: | 48~56 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Glenn Jiang from 2023-02-05 to 2023-03-15.

Cellular Band (Part 22H)

| Mode | Test Mode | 3GPP Sub Test | Average Output Power (dBm) | | | ERP(dBm) | | |
|-------------------|-----------|---------------|----------------------------|-------|-------|----------|--------------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| WCDMA (Band 5) | RMC12.2k | | 23.57 | 23.88 | 23.81 | 22.92 | 23.23 | 23.16 |
| | HSDPA | 1 | 21.08 | 20.83 | 21.33 | 20.43 | 20.18 | 20.68 |
| | | 2 | 21.28 | 21.09 | 21.13 | 20.63 | 20.44 | 20.48 |
| | | 3 | 20.79 | 20.88 | 21.02 | 20.14 | 20.23 | 20.37 |
| | | 4 | 20.85 | 21.20 | 20.62 | 20.20 | 20.55 | 19.97 |
| | HSUPA | 1 | 22.73 | 22.07 | 22.46 | 22.08 | 21.42 | 21.81 |
| | | 2 | 22.91 | 21.96 | 22.32 | 22.26 | 21.31 | 21.67 |
| | | 3 | 22.33 | 21.97 | 21.92 | 21.68 | 21.32 | 21.27 |
| | | 4 | 22.65 | 22.30 | 22.17 | 22.00 | 21.65 | 21.52 |
| | | 5 | 22.51 | 22.33 | 22.01 | 21.86 | 21.68 | 21.36 |
| | HSPA+ | 1 | 22.66 | 22.21 | 21.97 | 22.01 | 21.56 | 21.32 |

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) - Cable loss(dB)
 For WCDMA Band5: Antenna Gain = 2.0dBi = -0.15dBd (0dBd=2.15dBi)
 Cable loss = 0.5dB
 Limit: ERP ≤ 38.45dBm

PCS Band (Part 24E)

| Mode | Test Mode | 3GPP Sub Test | Average Output Power (dBm) | | | EIRP(dBm) | | |
|-------------------|-----------|---------------|----------------------------|-------|-------|-----------|--------------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| WCDMA (Band 2) | RMC12.2k | | 22.25 | 22.56 | 22.21 | 24.85 | 25.16 | 24.81 |
| | HSDPA | 1 | 20.34 | 20.47 | 20.29 | 22.94 | 23.07 | 22.89 |
| | | 2 | 19.98 | 20.02 | 19.92 | 22.58 | 22.62 | 22.52 |
| | | 3 | 20.01 | 20.01 | 20.28 | 22.61 | 22.61 | 22.88 |
| | | 4 | 19.85 | 19.85 | 20.22 | 22.45 | 22.45 | 22.82 |
| | HSUPA | 1 | 21.83 | 21.52 | 21.19 | 24.43 | 24.12 | 23.79 |
| | | 2 | 21.22 | 21.19 | 21.46 | 23.82 | 23.79 | 24.06 |
| | | 3 | 21.20 | 21.20 | 21.32 | 23.80 | 23.80 | 23.92 |
| | | 4 | 22.08 | 21.04 | 20.72 | 24.68 | 23.64 | 23.32 |
| | | 5 | 21.84 | 21.20 | 20.87 | 24.44 | 23.80 | 23.47 |
| | HSPA+ | 1 | 21.65 | 20.78 | 21.03 | 24.25 | 23.38 | 23.63 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss(dB)
 For PCS1900 / WCDMA Band2: Antenna Gain = 3.5dBi
 Cable loss = 0.9dB
 Limit: EIRP ≤ 33dBm

AWS Band

| Mode | Test Mode | 3GPP Sub Test | Average Output Power (dBm) | | | EIRP(dBm) | | |
|-------------------|-----------|---------------|----------------------------|-------|-------|-----------|--------------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| WCDMA (Band 4) | RMC12.2k | | 23.28 | 23.36 | 23.22 | 26.08 | 26.16 | 26.02 |
| | HSDPA | 1 | 20.26 | 20.15 | 19.72 | 23.06 | 22.95 | 22.52 |
| | | 2 | 20.14 | 20.48 | 20.03 | 22.94 | 23.28 | 22.83 |
| | | 3 | 20.19 | 20.31 | 20.27 | 22.99 | 23.11 | 23.07 |
| | | 4 | 20.10 | 19.45 | 20.17 | 22.90 | 22.25 | 22.97 |
| | HSUPA | 1 | 21.33 | 21.69 | 20.83 | 24.13 | 24.49 | 23.63 |
| | | 2 | 21.36 | 20.94 | 21.19 | 24.16 | 23.74 | 23.99 |
| | | 3 | 22.10 | 20.67 | 20.91 | 24.90 | 23.47 | 23.71 |
| | | 4 | 21.68 | 20.84 | 21.16 | 24.48 | 23.64 | 23.96 |
| | | 5 | 22.13 | 21.14 | 21.20 | 24.93 | 23.94 | 24.00 |
| | HSPA+ | 1 | 22.15 | 20.83 | 20.50 | 24.95 | 23.63 | 23.30 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss(dB)

WCDMA Band4: Antenna Gain =3.5dBi

Cable loss = 0.7dB

Limit: EIRP ≤ 33dBm

LTE Band 2

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|-----------------|------------|-----------------------|--------------------------------------|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 1.4 | QPSK | RB1#0 | 22.48 | 22.33 | 22.13 | 25.08 | 24.93 | 24.73 |
| | | RB1#3 | 22.52 | 22.21 | 22.08 | 25.12 | 24.81 | 24.68 |
| | | RB1#5 | 22.38 | 22.27 | 21.96 | 24.98 | 24.87 | 24.56 |
| | | RB3#0 | 22.40 | 22.29 | 22.06 | 25.00 | 24.89 | 24.66 |
| | | RB3#3 | 22.38 | 22.17 | 21.98 | 24.98 | 24.77 | 24.58 |
| | | RB6#0 | 21.39 | 21.21 | 21.00 | 23.99 | 23.81 | 23.60 |
| | 16QAM | RB1#0 | 21.48 | 21.54 | 21.26 | 24.08 | 24.14 | 23.86 |
| | | RB1#3 | 21.56 | 21.54 | 21.28 | 24.16 | 24.14 | 23.88 |
| | | RB1#5 | 21.51 | 21.41 | 21.07 | 24.11 | 24.01 | 23.67 |
| | | RB3#0 | 21.48 | 21.36 | 21.18 | 24.08 | 23.96 | 23.78 |
| | | RB3#3 | 21.52 | 21.32 | 21.10 | 24.12 | 23.92 | 23.70 |
| | | RB6#0 | 20.55 | 20.15 | 19.94 | 23.15 | 22.75 | 22.54 |
| 3.0 | QPSK | RB1#0 | 22.48 | 22.21 | 22.10 | 25.08 | 24.81 | 24.70 |
| | | RB1#8 | 22.47 | 22.29 | 22.12 | 25.07 | 24.89 | 24.72 |
| | | RB1#14 | 22.31 | 22.04 | 21.96 | 24.91 | 24.64 | 24.56 |
| | | RB6#0 | 21.43 | 21.22 | 21.17 | 24.03 | 23.82 | 23.77 |
| | | RB6#9 | 21.36 | 21.18 | 21.03 | 23.96 | 23.78 | 23.63 |
| | | RB15#0 | 21.44 | 21.15 | 21.09 | 24.04 | 23.75 | 23.69 |
| | 16QAM | RB1#0 | 21.65 | 21.51 | 21.42 | 24.25 | 24.11 | 24.02 |
| | | RB1#8 | 21.59 | 21.50 | 21.32 | 24.19 | 24.10 | 23.92 |
| | | RB1#14 | 21.47 | 21.32 | 21.12 | 24.07 | 23.92 | 23.72 |
| | | RB6#0 | 20.56 | 20.31 | 20.14 | 23.16 | 22.91 | 22.74 |
| | | RB6#9 | 20.42 | 20.17 | 20.04 | 23.02 | 22.77 | 22.64 |
| | | RB15#0 | 20.44 | 20.22 | 20.14 | 23.04 | 22.82 | 22.74 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QPSK | RB1#0 | 22.50 | 22.43 | 22.22 | 25.10 | 25.03 | 24.82 |
| | | RB1#13 | 22.59 | 22.46 | 22.17 | 25.19 | 25.06 | 24.77 |
| | | RB1#24 | 22.43 | 22.30 | 22.15 | 25.03 | 24.90 | 24.75 |
| | | RB15#0 | 21.53 | 21.22 | 21.15 | 24.13 | 23.82 | 23.75 |
| | | RB15#10 | 21.47 | 21.18 | 21.15 | 24.07 | 23.78 | 23.75 |
| | | RB25#0 | 21.51 | 21.26 | 21.14 | 24.11 | 23.86 | 23.74 |
| | 16QAM | RB1#0 | 21.61 | 21.58 | 21.26 | 24.21 | 24.18 | 23.86 |
| | | RB1#13 | 21.66 | 21.50 | 21.36 | 24.26 | 24.10 | 23.96 |
| | | RB1#24 | 21.59 | 21.36 | 21.22 | 24.19 | 23.96 | 23.82 |
| | | RB15#0 | 20.63 | 20.27 | 20.22 | 23.23 | 22.87 | 22.82 |
| | | RB15#10 | 20.51 | 20.21 | 20.15 | 23.11 | 22.81 | 22.75 |
| | | RB25#0 | 20.56 | 20.28 | 20.17 | 23.16 | 22.88 | 22.77 |
| 10.0 | QPSK | RB1#0 | 22.47 | 22.25 | 22.20 | 25.07 | 24.85 | 24.80 |
| | | RB1#25 | 22.44 | 22.27 | 22.19 | 25.04 | 24.87 | 24.79 |
| | | RB1#49 | 22.37 | 22.11 | 22.10 | 24.97 | 24.71 | 24.70 |
| | | RB25#0 | 21.38 | 21.24 | 21.17 | 23.98 | 23.84 | 23.77 |
| | | RB25#25 | 21.39 | 21.15 | 21.10 | 23.99 | 23.75 | 23.70 |
| | | RB50#0 | 21.43 | 21.17 | 21.14 | 24.03 | 23.77 | 23.74 |
| | 16QAM | RB1#0 | 21.57 | 21.46 | 21.25 | 24.17 | 24.06 | 23.85 |
| | | RB1#25 | 21.69 | 21.48 | 21.19 | 24.29 | 24.08 | 23.79 |
| | | RB1#49 | 21.55 | 21.37 | 21.21 | 24.15 | 23.97 | 23.81 |
| | | RB25#0 | 20.40 | 20.29 | 20.17 | 23.00 | 22.89 | 22.77 |
| | | RB25#25 | 20.39 | 20.19 | 20.10 | 22.99 | 22.79 | 22.70 |
| | | RB50#0 | 20.47 | 20.18 | 20.10 | 23.07 | 22.78 | 22.70 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|-----------------|------------|-----------------------|--------------------------------------|-------|-------|--------------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 15.0 | QPSK | RB1#0 | 22.28 | 22.10 | 21.92 | 24.88 | 24.70 | 24.52 |
| | | RB1#38 | 22.23 | 22.13 | 21.96 | 24.83 | 24.73 | 24.56 |
| | | RB1#74 | 22.16 | 21.87 | 21.79 | 24.76 | 24.47 | 24.39 |
| | | RB36#0 | 21.26 | 21.08 | 21.05 | 23.86 | 23.68 | 23.65 |
| | | RB36#39 | 21.27 | 21.03 | 20.93 | 23.87 | 23.63 | 23.53 |
| | | RB75#0 | 21.29 | 21.04 | 21.03 | 23.89 | 23.64 | 23.63 |
| | 16QAM | RB1#0 | 21.44 | 21.32 | 21.09 | 24.04 | 23.92 | 23.69 |
| | | RB1#38 | 21.43 | 21.23 | 21.14 | 24.03 | 23.83 | 23.74 |
| | | RB1#74 | 21.37 | 21.25 | 21.05 | 23.97 | 23.85 | 23.65 |
| | | RB36#0 | 20.28 | 20.13 | 20.09 | 22.88 | 22.73 | 22.69 |
| | | RB36#39 | 20.30 | 20.08 | 19.97 | 22.90 | 22.68 | 22.57 |
| | | RB75#0 | 20.31 | 20.08 | 20.07 | 22.91 | 22.68 | 22.67 |
| 20.0 | QPSK | RB1#0 | 22.67 | 22.16 | 22.12 | 25.27 | 24.76 | 24.72 |
| | | RB1#50 | 22.25 | 22.10 | 22.05 | 24.85 | 24.70 | 24.65 |
| | | RB1#99 | 22.12 | 22.08 | 21.91 | 24.72 | 24.68 | 24.51 |
| | | RB50#0 | 21.36 | 21.20 | 21.08 | 23.96 | 23.80 | 23.68 |
| | | RB50#50 | 21.36 | 21.19 | 21.11 | 23.96 | 23.79 | 23.71 |
| | | RB100#0 | 21.33 | 21.18 | 21.10 | 23.93 | 23.78 | 23.70 |
| | 16QAM | RB1#0 | 21.39 | 21.40 | 21.03 | 23.99 | 24.00 | 23.63 |
| | | RB1#50 | 21.78 | 21.45 | 21.38 | 24.38 | 24.05 | 23.98 |
| | | RB1#99 | 21.23 | 21.37 | 21.06 | 23.83 | 23.97 | 23.66 |
| | | RB50#0 | 20.39 | 20.18 | 20.18 | 22.99 | 22.78 | 22.78 |
| | | RB50#50 | 20.32 | 20.12 | 20.07 | 22.92 | 22.72 | 22.67 |
| | | RB100#0 | 20.37 | 20.15 | 20.10 | 22.97 | 22.75 | 22.70 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss(dB)

For Band2: Antenna Gain = 3.5dBi

Cable loss = 0.9dB

Limit: EIRP ≤ 33dBm

LTE Band 4

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 1.4 | QPSK | RB1#0 | 22.29 | 22.46 | 22.65 | 25.09 | 25.26 | 25.45 |
| | | RB1#3 | 22.39 | 22.55 | 22.68 | 25.19 | 25.35 | 25.48 |
| | | RB1#5 | 22.31 | 22.47 | 22.62 | 25.11 | 25.27 | 25.42 |
| | | RB3#0 | 22.35 | 22.45 | 22.61 | 25.15 | 25.25 | 25.41 |
| | | RB3#3 | 22.41 | 22.47 | 22.60 | 25.21 | 25.27 | 25.40 |
| | | RB6#0 | 21.40 | 21.49 | 21.60 | 24.20 | 24.29 | 24.40 |
| | 16QAM | RB1#0 | 21.51 | 21.65 | 21.80 | 24.31 | 24.45 | 24.60 |
| | | RB1#3 | 21.50 | 21.73 | 21.84 | 24.30 | 24.53 | 24.64 |
| | | RB1#5 | 21.57 | 21.68 | 21.75 | 24.37 | 24.48 | 24.55 |
| | | RB3#0 | 21.48 | 21.53 | 21.73 | 24.28 | 24.33 | 24.53 |
| | | RB3#3 | 21.41 | 21.56 | 21.72 | 24.21 | 24.36 | 24.52 |
| | | RB6#0 | 20.37 | 20.52 | 20.69 | 23.17 | 23.32 | 23.49 |
| 3.0 | QPSK | RB1#0 | 22.28 | 22.53 | 22.56 | 25.08 | 25.33 | 25.36 |
| | | RB1#8 | 22.40 | 22.54 | 22.74 | 25.20 | 25.34 | 25.54 |
| | | RB1#14 | 22.36 | 22.46 | 22.60 | 25.16 | 25.26 | 25.40 |
| | | RB6#0 | 21.37 | 21.49 | 21.53 | 24.17 | 24.29 | 24.33 |
| | | RB6#9 | 21.45 | 21.54 | 21.63 | 24.25 | 24.34 | 24.43 |
| | | RB15#0 | 21.45 | 21.59 | 21.68 | 24.25 | 24.39 | 24.48 |
| | 16QAM | RB1#0 | 21.43 | 21.67 | 21.76 | 24.23 | 24.47 | 24.56 |
| | | RB1#8 | 21.56 | 21.77 | 21.82 | 24.36 | 24.57 | 24.62 |
| | | RB1#14 | 21.59 | 21.56 | 21.82 | 24.39 | 24.36 | 24.62 |
| | | RB6#0 | 20.48 | 20.63 | 20.68 | 23.28 | 23.43 | 23.48 |
| | | RB6#9 | 20.57 | 20.58 | 20.62 | 23.37 | 23.38 | 23.42 |
| | | RB15#0 | 20.48 | 20.57 | 20.65 | 23.28 | 23.37 | 23.45 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QPSK | RB1#0 | 22.44 | 22.59 | 22.60 | 25.24 | 25.39 | 25.40 |
| | | RB1#13 | 22.55 | 22.51 | 22.63 | 25.35 | 25.31 | 25.43 |
| | | RB1#24 | 22.50 | 22.58 | 22.64 | 25.30 | 25.38 | 25.44 |
| | | RB15#0 | 21.40 | 21.53 | 21.58 | 24.20 | 24.33 | 24.38 |
| | | RB15#10 | 21.47 | 21.58 | 21.67 | 24.27 | 24.38 | 24.47 |
| | | RB25#0 | 21.47 | 21.61 | 21.59 | 24.27 | 24.41 | 24.39 |
| | 16QAM | RB1#0 | 21.66 | 21.73 | 21.82 | 24.46 | 24.53 | 24.62 |
| | | RB1#13 | 21.72 | 21.71 | 21.81 | 24.52 | 24.51 | 24.61 |
| | | RB1#24 | 21.68 | 21.70 | 21.78 | 24.48 | 24.50 | 24.58 |
| | | RB15#0 | 20.36 | 20.53 | 20.60 | 23.16 | 23.33 | 23.40 |
| | | RB15#10 | 20.50 | 20.63 | 20.67 | 23.30 | 23.43 | 23.47 |
| | | RB25#0 | 20.51 | 20.60 | 20.60 | 23.31 | 23.40 | 23.40 |
| 10.0 | QPSK | RB1#0 | 22.36 | 22.55 | 22.65 | 25.16 | 25.35 | 25.45 |
| | | RB1#25 | 22.50 | 22.54 | 22.69 | 25.30 | 25.34 | 25.49 |
| | | RB1#49 | 22.39 | 22.47 | 22.65 | 25.19 | 25.27 | 25.45 |
| | | RB25#0 | 21.37 | 21.59 | 21.54 | 24.17 | 24.39 | 24.34 |
| | | RB25#25 | 21.50 | 21.60 | 21.66 | 24.30 | 24.40 | 24.46 |
| | | RB50#0 | 21.49 | 21.62 | 21.58 | 24.29 | 24.42 | 24.38 |
| | 16QAM | RB1#0 | 21.52 | 21.61 | 21.82 | 24.32 | 24.41 | 24.62 |
| | | RB1#25 | 21.60 | 21.71 | 21.85 | 24.40 | 24.51 | 24.65 |
| | | RB1#49 | 21.58 | 21.77 | 21.83 | 24.38 | 24.57 | 24.63 |
| | | RB25#0 | 20.41 | 20.58 | 20.62 | 23.21 | 23.38 | 23.42 |
| | | RB25#25 | 20.54 | 20.63 | 20.69 | 23.34 | 23.43 | 23.49 |
| | | RB50#0 | 20.50 | 20.60 | 20.57 | 23.30 | 23.40 | 23.37 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|-----------------|------------|-----------------------|--------------------------------------|-------|-------|-----------|-------|--------------|
| | | | Low | Mid | High | Low | Mid | High |
| 15.0 | QPSK | RB1#0 | 22.31 | 22.42 | 22.47 | 25.11 | 25.22 | 25.27 |
| | | RB1#38 | 22.35 | 22.33 | 22.45 | 25.15 | 25.13 | 25.25 |
| | | RB1#74 | 22.38 | 22.28 | 22.44 | 25.18 | 25.08 | 25.24 |
| | | RB36#0 | 21.32 | 21.43 | 21.45 | 24.12 | 24.23 | 24.25 |
| | | RB36#39 | 21.42 | 21.44 | 21.49 | 24.22 | 24.24 | 24.29 |
| | | RB75#0 | 21.40 | 21.47 | 21.50 | 24.20 | 24.27 | 24.30 |
| | 16QAM | RB1#0 | 21.45 | 21.59 | 21.65 | 24.25 | 24.39 | 24.45 |
| | | RB1#38 | 21.56 | 21.53 | 21.58 | 24.36 | 24.33 | 24.38 |
| | | RB1#74 | 21.47 | 21.67 | 21.62 | 24.27 | 24.47 | 24.42 |
| | | RB36#0 | 20.35 | 20.42 | 20.47 | 23.15 | 23.22 | 23.27 |
| | | RB36#39 | 20.43 | 20.47 | 20.50 | 23.23 | 23.27 | 23.30 |
| | | RB75#0 | 20.43 | 20.47 | 20.53 | 23.23 | 23.27 | 23.33 |
| 20.0 | QPSK | RB1#0 | 22.30 | 22.46 | 22.79 | 25.10 | 25.26 | 25.59 |
| | | RB1#50 | 22.39 | 22.38 | 22.38 | 25.19 | 25.18 | 25.18 |
| | | RB1#99 | 22.40 | 22.45 | 22.42 | 25.20 | 25.25 | 25.22 |
| | | RB50#0 | 21.37 | 21.46 | 21.50 | 24.17 | 24.26 | 24.30 |
| | | RB50#50 | 21.45 | 21.46 | 21.51 | 24.25 | 24.26 | 24.31 |
| | | RB100#0 | 21.48 | 21.51 | 21.56 | 24.28 | 24.31 | 24.36 |
| | 16QAM | RB1#0 | 21.52 | 21.52 | 21.62 | 24.32 | 24.32 | 24.42 |
| | | RB1#50 | 21.58 | 21.44 | 21.57 | 24.38 | 24.24 | 24.37 |
| | | RB1#99 | 21.58 | 21.56 | 21.87 | 24.38 | 24.36 | 24.67 |
| | | RB50#0 | 20.38 | 20.49 | 20.50 | 23.18 | 23.29 | 23.30 |
| | | RB50#50 | 20.46 | 20.48 | 20.46 | 23.26 | 23.28 | 23.26 |
| | | RB100#0 | 20.44 | 20.53 | 20.53 | 23.24 | 23.33 | 23.33 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss
For Band4: Antenna Gain = 3.5dBi
Cable loss = 0.7dB
Limit: EIRP ≤ 33dBm

LTE Band 5

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | ERP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 1.4 | QPSK | RB1#0 | 23.35 | 23.21 | 23.14 | 22.70 | 22.56 | 22.49 |
| | | RB1#3 | 23.37 | 23.29 | 23.21 | 22.72 | 22.64 | 22.56 |
| | | RB1#5 | 23.28 | 23.24 | 23.11 | 22.63 | 22.59 | 22.46 |
| | | RB3#0 | 23.28 | 23.25 | 23.11 | 22.63 | 22.60 | 22.46 |
| | | RB3#3 | 23.32 | 23.29 | 23.15 | 22.67 | 22.64 | 22.50 |
| | | RB6#0 | 22.29 | 22.18 | 22.08 | 21.64 | 21.53 | 21.43 |
| | 16QAM | RB1#0 | 22.46 | 22.38 | 22.36 | 21.81 | 21.73 | 21.71 |
| | | RB1#3 | 22.47 | 22.37 | 22.29 | 21.82 | 21.72 | 21.64 |
| | | RB1#5 | 22.44 | 22.33 | 22.29 | 21.79 | 21.68 | 21.64 |
| | | RB3#0 | 22.40 | 22.35 | 22.20 | 21.75 | 21.70 | 21.55 |
| | | RB3#3 | 22.48 | 22.33 | 22.16 | 21.83 | 21.68 | 21.51 |
| | | RB6#0 | 21.29 | 21.26 | 21.07 | 20.64 | 20.61 | 20.42 |
| 3.0 | QPSK | RB1#0 | 23.37 | 23.21 | 23.16 | 22.72 | 22.56 | 22.51 |
| | | RB1#8 | 23.41 | 23.34 | 23.23 | 22.76 | 22.69 | 22.58 |
| | | RB1#14 | 23.32 | 23.22 | 23.20 | 22.67 | 22.57 | 22.55 |
| | | RB6#0 | 22.31 | 22.24 | 22.12 | 21.66 | 21.59 | 21.47 |
| | | RB6#9 | 22.40 | 22.34 | 22.16 | 21.75 | 21.69 | 21.51 |
| | | RB15#0 | 22.37 | 22.24 | 22.15 | 21.72 | 21.59 | 21.50 |
| | 16QAM | RB1#0 | 22.53 | 22.42 | 22.46 | 21.88 | 21.77 | 21.81 |
| | | RB1#8 | 22.51 | 22.44 | 22.28 | 21.86 | 21.79 | 21.63 |
| | | RB1#14 | 22.50 | 22.41 | 22.36 | 21.85 | 21.76 | 21.71 |
| | | RB6#0 | 21.48 | 21.21 | 21.30 | 20.83 | 20.56 | 20.65 |
| | | RB6#9 | 21.27 | 21.33 | 21.22 | 20.62 | 20.68 | 20.57 |
| | | RB15#0 | 21.42 | 21.25 | 21.18 | 20.77 | 20.60 | 20.53 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | ERP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|--------------|--------------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QPSK | RB1#0 | 23.42 | 23.40 | 23.18 | 22.77 | 22.75 | 22.53 |
| | | RB1#13 | 23.28 | 23.43 | 23.24 | 22.63 | 22.78 | 22.59 |
| | | RB1#24 | 23.25 | 23.35 | 23.11 | 22.60 | 22.70 | 22.46 |
| | | RB15#0 | 22.35 | 22.28 | 22.18 | 21.70 | 21.63 | 21.53 |
| | | RB15#10 | 22.37 | 22.35 | 22.20 | 21.72 | 21.70 | 21.55 |
| | | RB25#0 | 22.39 | 22.30 | 22.26 | 21.74 | 21.65 | 21.61 |
| | 16QAM | RB1#0 | 22.33 | 22.32 | 22.33 | 21.68 | 21.67 | 21.68 |
| | | RB1#13 | 22.35 | 22.14 | 22.42 | 21.70 | 21.49 | 21.77 |
| | | RB1#24 | 22.15 | 22.26 | 22.34 | 21.50 | 21.61 | 21.69 |
| | | RB15#0 | 21.42 | 21.27 | 21.21 | 20.77 | 20.62 | 20.56 |
| | | RB15#10 | 21.42 | 21.32 | 21.25 | 20.77 | 20.67 | 20.60 |
| | | RB25#0 | 21.43 | 21.32 | 21.23 | 20.78 | 20.67 | 20.58 |
| 10.0 | QPSK | RB1#0 | 23.44 | 23.31 | 23.38 | 22.79 | 22.66 | 22.73 |
| | | RB1#25 | 23.41 | 23.37 | 23.32 | 22.76 | 22.72 | 22.67 |
| | | RB1#49 | 23.34 | 23.24 | 23.23 | 22.69 | 22.59 | 22.58 |
| | | RB25#0 | 22.40 | 22.31 | 22.34 | 21.75 | 21.66 | 21.69 |
| | | RB25#25 | 22.32 | 22.37 | 22.26 | 21.67 | 21.72 | 21.61 |
| | | RB50#0 | 22.42 | 22.30 | 22.24 | 21.77 | 21.65 | 21.59 |
| | 16QAM | RB1#0 | 22.51 | 22.50 | 22.53 | 21.86 | 21.85 | 21.88 |
| | | RB1#25 | 22.56 | 22.57 | 22.46 | 21.91 | 21.92 | 21.81 |
| | | RB1#49 | 22.38 | 22.43 | 22.25 | 21.73 | 21.78 | 21.60 |
| | | RB25#0 | 21.43 | 21.28 | 21.37 | 20.78 | 20.63 | 20.72 |
| | | RB25#25 | 21.30 | 21.34 | 21.22 | 20.65 | 20.69 | 20.57 |
| | | RB50#0 | 21.42 | 21.29 | 21.26 | 20.77 | 20.64 | 20.61 |

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd) - Cable Loss(dB)

For Band5: Antenna Gain = 2.0dBi = -0.15dBd (0dBd = 2.15dBi)

Cable Loss = 0.5dB

Limit: ERP ≤ 38.45dBm

LTE Band 7

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QPSK | RB1#0 | 22.03 | 21.93 | 22.22 | 21.33 | 21.23 | 21.52 |
| | | RB1#13 | 22.10 | 22.09 | 22.34 | 21.40 | 21.39 | 21.64 |
| | | RB1#24 | 22.01 | 22.03 | 22.36 | 21.31 | 21.33 | 21.66 |
| | | RB15#0 | 21.00 | 20.88 | 21.20 | 20.30 | 20.18 | 20.50 |
| | | RB15#10 | 21.08 | 21.02 | 21.37 | 20.38 | 20.32 | 20.67 |
| | | RB25#0 | 21.02 | 20.96 | 21.32 | 20.32 | 20.26 | 20.62 |
| | 16QAM | RB1#0 | 21.17 | 21.02 | 21.39 | 20.47 | 20.32 | 20.69 |
| | | RB1#13 | 21.28 | 21.01 | 21.46 | 20.58 | 20.31 | 20.76 |
| | | RB1#24 | 21.12 | 21.21 | 21.50 | 20.42 | 20.51 | 20.80 |
| | | RB15#0 | 20.02 | 19.88 | 20.17 | 19.32 | 19.18 | 19.47 |
| | | RB15#10 | 20.06 | 19.99 | 20.29 | 19.36 | 19.29 | 19.59 |
| | | RB25#0 | 20.09 | 20.00 | 20.32 | 19.39 | 19.30 | 19.62 |
| 10.0 | QPSK | RB1#0 | 21.94 | 22.01 | 22.28 | 21.24 | 21.31 | 21.58 |
| | | RB1#25 | 22.02 | 22.04 | 22.33 | 21.32 | 21.34 | 21.63 |
| | | RB1#49 | 21.93 | 22.03 | 22.32 | 21.23 | 21.33 | 21.62 |
| | | RB25#0 | 21.04 | 20.92 | 21.20 | 20.34 | 20.22 | 20.50 |
| | | RB25#25 | 21.04 | 21.01 | 21.30 | 20.34 | 20.31 | 20.60 |
| | | RB50#0 | 21.04 | 21.03 | 21.30 | 20.34 | 20.33 | 20.60 |
| | 16QAM | RB1#0 | 21.04 | 21.05 | 21.26 | 20.34 | 20.35 | 20.56 |
| | | RB1#25 | 21.15 | 21.24 | 21.49 | 20.45 | 20.54 | 20.79 |
| | | RB1#49 | 21.10 | 21.11 | 21.41 | 20.40 | 20.41 | 20.71 |
| | | RB25#0 | 20.07 | 19.95 | 20.20 | 19.37 | 19.25 | 19.50 |
| | | RB25#25 | 20.00 | 19.98 | 20.31 | 19.30 | 19.28 | 19.61 |
| | | RB50#0 | 20.05 | 20.01 | 20.29 | 19.35 | 19.31 | 19.59 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|-----------------|------------|-----------------------|--------------------------------------|-------|-------|-----------|-------|--------------|
| | | | Low | Mid | High | Low | Mid | High |
| 15.0 | QPSK | RB1#0 | 22.74 | 22.59 | 22.90 | 22.04 | 21.89 | 22.20 |
| | | RB1#38 | 22.71 | 22.58 | 22.91 | 22.01 | 21.88 | 22.21 |
| | | RB1#74 | 22.74 | 22.63 | 23.00 | 22.04 | 21.93 | 22.30 |
| | | RB36#0 | 21.70 | 21.62 | 21.91 | 21.00 | 20.92 | 21.21 |
| | | RB36#39 | 21.77 | 21.67 | 21.94 | 21.07 | 20.97 | 21.24 |
| | | RB75#0 | 21.84 | 21.89 | 22.04 | 21.14 | 21.19 | 21.34 |
| | 16QAM | RB1#0 | 21.88 | 21.77 | 21.91 | 21.18 | 21.07 | 21.21 |
| | | RB1#38 | 21.95 | 21.85 | 21.98 | 21.25 | 21.15 | 21.28 |
| | | RB1#74 | 21.89 | 21.74 | 22.14 | 21.19 | 21.04 | 21.44 |
| | | RB36#0 | 20.70 | 20.67 | 21.04 | 20.00 | 19.97 | 20.34 |
| | | RB36#39 | 20.80 | 20.70 | 20.92 | 20.10 | 20.00 | 20.22 |
| | | RB75#0 | 20.89 | 20.73 | 21.16 | 20.19 | 20.03 | 20.46 |
| 20.0 | QPSK | RB1#0 | 23.53 | 23.55 | 23.75 | 22.83 | 22.85 | 23.05 |
| | | RB1#50 | 23.49 | 23.57 | 23.77 | 22.79 | 22.87 | 23.07 |
| | | RB1#99 | 23.46 | 23.65 | 23.64 | 22.76 | 22.95 | 22.94 |
| | | RB50#0 | 22.50 | 22.62 | 22.84 | 21.80 | 21.92 | 22.14 |
| | | RB50#50 | 22.56 | 22.71 | 22.97 | 21.86 | 22.01 | 22.27 |
| | | RB100#0 | 22.65 | 22.63 | 22.81 | 21.95 | 21.93 | 22.11 |
| | 16QAM | RB1#0 | 22.59 | 22.61 | 22.77 | 21.89 | 21.91 | 22.07 |
| | | RB1#50 | 22.53 | 22.83 | 22.99 | 21.83 | 22.13 | 22.29 |
| | | RB1#99 | 22.61 | 22.87 | 23.18 | 21.91 | 22.17 | 22.48 |
| | | RB50#0 | 21.46 | 21.68 | 21.78 | 20.76 | 20.98 | 21.08 |
| | | RB50#50 | 21.66 | 21.71 | 21.98 | 20.96 | 21.01 | 21.28 |
| | | RB100#0 | 21.61 | 21.82 | 21.83 | 20.91 | 21.12 | 21.13 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss

For Band7: Antenna Gain = 0.3dBi

Cable loss = 1dB

Limit: EIRP ≤ 33dBm

LTE Band 12

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | ERP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 1.4 | QPSK | RB1#0 | 23.22 | 23.15 | 23.13 | 22.77 | 22.70 | 22.68 |
| | | RB1#3 | 23.29 | 23.17 | 23.12 | 22.84 | 22.72 | 22.67 |
| | | RB1#5 | 23.34 | 23.11 | 23.09 | 22.89 | 22.66 | 22.64 |
| | | RB3#0 | 23.30 | 23.10 | 23.16 | 22.85 | 22.65 | 22.71 |
| | | RB3#3 | 23.23 | 23.10 | 23.05 | 22.78 | 22.65 | 22.60 |
| | | RB6#0 | 22.24 | 22.00 | 22.10 | 21.79 | 21.55 | 21.65 |
| | 16QAM | RB1#0 | 22.49 | 22.17 | 22.26 | 22.04 | 21.72 | 21.81 |
| | | RB1#3 | 22.42 | 22.24 | 22.38 | 21.97 | 21.79 | 21.93 |
| | | RB1#5 | 22.29 | 22.25 | 22.29 | 21.84 | 21.80 | 21.84 |
| | | RB3#0 | 22.42 | 22.13 | 22.19 | 21.97 | 21.68 | 21.74 |
| | | RB3#3 | 22.31 | 22.14 | 22.19 | 21.86 | 21.69 | 21.74 |
| | | RB6#0 | 21.22 | 21.13 | 21.13 | 20.77 | 20.68 | 20.68 |
| 3.0 | QPSK | RB1#0 | 23.22 | 23.05 | 23.12 | 22.77 | 22.60 | 22.67 |
| | | RB1#8 | 23.23 | 23.11 | 23.17 | 22.78 | 22.66 | 22.72 |
| | | RB1#14 | 23.13 | 23.02 | 23.02 | 22.68 | 22.57 | 22.57 |
| | | RB6#0 | 22.25 | 22.04 | 22.09 | 21.80 | 21.59 | 21.64 |
| | | RB6#9 | 22.23 | 22.10 | 22.11 | 21.78 | 21.65 | 21.66 |
| | | RB15#0 | 22.27 | 22.04 | 22.04 | 21.82 | 21.59 | 21.59 |
| | 16QAM | RB1#0 | 22.46 | 22.21 | 22.27 | 22.01 | 21.76 | 21.82 |
| | | RB1#8 | 22.42 | 22.29 | 22.39 | 21.97 | 21.84 | 21.94 |
| | | RB1#14 | 22.39 | 22.10 | 22.28 | 21.94 | 21.65 | 21.83 |
| | | RB6#0 | 21.39 | 21.06 | 21.15 | 20.94 | 20.61 | 20.70 |
| | | RB6#9 | 21.37 | 21.04 | 21.12 | 20.92 | 20.59 | 20.67 |
| | | RB15#0 | 21.30 | 21.03 | 21.06 | 20.85 | 20.58 | 20.61 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | ERP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|--------------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QPSK | RB1#0 | 23.15 | 23.16 | 23.08 | 22.70 | 22.71 | 22.63 |
| | | RB1#13 | 23.34 | 23.18 | 23.14 | 22.89 | 22.73 | 22.69 |
| | | RB1#24 | 23.21 | 23.06 | 23.06 | 22.76 | 22.61 | 22.61 |
| | | RB15#0 | 22.20 | 22.06 | 22.07 | 21.75 | 21.61 | 21.62 |
| | | RB15#10 | 22.21 | 22.12 | 22.11 | 21.76 | 21.67 | 21.66 |
| | | RB25#0 | 22.22 | 22.03 | 22.10 | 21.77 | 21.58 | 21.65 |
| | 16QAM | RB1#0 | 22.36 | 22.11 | 22.29 | 21.91 | 21.66 | 21.84 |
| | | RB1#13 | 22.43 | 22.15 | 22.23 | 21.98 | 21.70 | 21.78 |
| | | RB1#24 | 22.38 | 22.18 | 22.27 | 21.93 | 21.73 | 21.82 |
| | | RB15#0 | 21.19 | 21.07 | 21.07 | 20.74 | 20.62 | 20.62 |
| | | RB15#10 | 21.23 | 21.09 | 21.16 | 20.78 | 20.64 | 20.71 |
| | | RB25#0 | 21.26 | 21.04 | 21.13 | 20.81 | 20.59 | 20.68 |
| 10.0 | QPSK | RB1#0 | 23.37 | 23.22 | 23.18 | 22.92 | 22.77 | 22.73 |
| | | RB1#25 | 23.21 | 23.07 | 23.11 | 22.76 | 22.62 | 22.66 |
| | | RB1#49 | 22.98 | 23.05 | 23.06 | 22.53 | 22.60 | 22.61 |
| | | RB25#0 | 22.21 | 22.15 | 22.05 | 21.76 | 21.70 | 21.60 |
| | | RB25#25 | 22.10 | 22.12 | 22.16 | 21.65 | 21.67 | 21.71 |
| | | RB50#0 | 22.18 | 22.09 | 22.07 | 21.73 | 21.64 | 21.62 |
| | 16QAM | RB1#0 | 22.61 | 22.24 | 22.33 | 22.16 | 21.79 | 21.88 |
| | | RB1#25 | 22.31 | 22.20 | 22.18 | 21.86 | 21.75 | 21.73 |
| | | RB1#49 | 22.15 | 22.29 | 22.18 | 21.70 | 21.84 | 21.73 |
| | | RB25#0 | 21.19 | 21.21 | 21.13 | 20.74 | 20.76 | 20.68 |
| | | RB25#25 | 21.09 | 21.13 | 21.19 | 20.64 | 20.68 | 20.74 |
| | | RB50#0 | 21.23 | 21.11 | 21.08 | 20.78 | 20.66 | 20.63 |

Note: ERP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)-Cable loss(dB)

For Band12: Antenna Gain =2.1dBi = -0.05dBd (0dBd=2.15dBi)

Cable loss=0.4dB

Limit: ERP≤34.77dBm

LTE Band 41:

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QP SK | RB1#0 | 25.30 | 25.03 | 25.46 | 24.60 | 24.33 | 24.76 |
| | | RB1#13 | 25.48 | 25.02 | 25.43 | 24.78 | 24.32 | 24.73 |
| | | RB1#24 | 25.33 | 25.01 | 25.44 | 24.63 | 24.31 | 24.74 |
| | | RB15#0 | 25.15 | 24.77 | 25.21 | 24.45 | 24.07 | 24.51 |
| | | RB15#10 | 25.21 | 24.86 | 25.16 | 24.51 | 24.16 | 24.46 |
| | | RB25#0 | 25.22 | 24.68 | 25.29 | 24.52 | 23.98 | 24.59 |
| | 16QAM | RB1#0 | 24.41 | 24.39 | 24.41 | 23.71 | 23.69 | 23.71 |
| | | RB1#13 | 24.49 | 24.35 | 24.39 | 23.79 | 23.65 | 23.69 |
| | | RB1#24 | 24.61 | 24.53 | 24.41 | 23.91 | 23.83 | 23.71 |
| | | RB15#0 | 24.77 | 24.78 | 25.00 | 24.07 | 24.08 | 24.30 |
| | | RB15#10 | 24.15 | 24.88 | 24.99 | 23.45 | 24.18 | 24.29 |
| | | RB25#0 | 24.08 | 24.70 | 25.01 | 23.38 | 24.00 | 24.31 |
| 10.0 | QPSK | RB1#0 | 25.22 | 24.95 | 25.14 | 24.52 | 24.25 | 24.44 |
| | | RB1#25 | 25.22 | 25.06 | 25.29 | 24.52 | 24.36 | 24.59 |
| | | RB1#49 | 25.32 | 25.01 | 25.01 | 24.62 | 24.31 | 24.31 |
| | | RB25#0 | 25.02 | 24.70 | 25.09 | 24.32 | 24.00 | 24.39 |
| | | RB25#25 | 25.04 | 24.78 | 25.23 | 24.34 | 24.08 | 24.53 |
| | | RB50#0 | 24.29 | 24.79 | 25.00 | 23.59 | 24.09 | 24.30 |
| | 16QAM | RB1#0 | 24.03 | 24.64 | 24.98 | 23.33 | 23.94 | 24.28 |
| | | RB1#25 | 24.46 | 24.97 | 24.63 | 23.76 | 24.27 | 23.93 |
| | | RB1#49 | 24.93 | 24.87 | 24.97 | 24.23 | 24.17 | 24.27 |
| | | RB25#0 | 24.96 | 24.88 | 24.99 | 24.26 | 24.18 | 24.29 |
| | | RB25#25 | 24.88 | 24.93 | 24.92 | 24.18 | 24.23 | 24.22 |
| | | RB50#0 | 24.87 | 24.65 | 24.92 | 24.17 | 23.95 | 24.22 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|-----------|--------------|--------------|
| | | | Low | Mid | High | Low | Mid | High |
| 15.0 | QPSK | RB1#0 | 25.11 | 24.81 | 24.97 | 24.41 | 24.11 | 24.27 |
| | | RB1#38 | 25.02 | 24.87 | 25.15 | 24.32 | 24.17 | 24.45 |
| | | RB1#74 | 25.04 | 24.77 | 25.18 | 24.34 | 24.07 | 24.48 |
| | | RB36#0 | 24.87 | 24.64 | 24.79 | 24.17 | 23.94 | 24.09 |
| | | RB36#39 | 24.92 | 24.61 | 25.01 | 24.22 | 23.91 | 24.31 |
| | | RB75#0 | 24.94 | 24.74 | 25.04 | 24.24 | 24.04 | 24.34 |
| | 16QAM | RB1#0 | 24.21 | 24.87 | 24.07 | 23.51 | 24.17 | 23.37 |
| | | RB1#38 | 24.16 | 24.89 | 24.49 | 23.46 | 24.19 | 23.79 |
| | | RB1#74 | 24.17 | 24.93 | 24.44 | 23.47 | 24.23 | 23.74 |
| | | RB36#0 | 24.73 | 24.57 | 25.01 | 24.03 | 23.87 | 24.31 |
| | | RB36#39 | 24.04 | 24.75 | 24.97 | 23.34 | 24.05 | 24.27 |
| | | RB75#0 | 24.03 | 24.61 | 24.93 | 23.33 | 23.91 | 24.23 |
| 20.0 | QPSK | RB1#0 | 25.07 | 25.68 | 25.21 | 24.37 | 24.98 | 24.51 |
| | | RB1#50 | 24.93 | 24.83 | 24.73 | 24.23 | 24.13 | 24.03 |
| | | RB1#99 | 24.55 | 24.44 | 24.67 | 23.85 | 23.74 | 23.97 |
| | | RB50#0 | 24.56 | 24.35 | 24.49 | 23.86 | 23.65 | 23.79 |
| | | RB50#50 | 24.59 | 24.45 | 24.79 | 23.89 | 23.75 | 24.09 |
| | | RB100#0 | 24.66 | 24.34 | 24.57 | 23.96 | 23.64 | 23.87 |
| | 16QAM | RB1#0 | 24.70 | 24.46 | 24.46 | 24.00 | 23.76 | 23.76 |
| | | RB1#50 | 24.68 | 24.52 | 25.02 | 23.98 | 23.82 | 24.32 |
| | | RB1#99 | 24.63 | 24.66 | 24.85 | 23.93 | 23.96 | 24.15 |
| | | RB50#0 | 24.06 | 23.87 | 24.00 | 23.36 | 23.17 | 23.30 |
| | | RB50#50 | 24.10 | 23.92 | 23.98 | 23.40 | 23.22 | 23.28 |
| | | RB100#0 | 24.14 | 23.86 | 24.08 | 23.44 | 23.16 | 23.38 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss(dB)
For Band41: Antenna Gain =0.3dBi
Cable loss=1.0dB
Limit: EIRP ≤ 30dBm

LTE Band 66:

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 1.4 | QP SK | RB1#0 | 22.48 | 22.62 | 22.31 | 25.28 | 25.42 | 25.11 |
| | | RB1#3 | 22.55 | 22.66 | 22.25 | 25.35 | 25.46 | 25.05 |
| | | RB1#5 | 22.53 | 22.63 | 22.25 | 25.33 | 25.43 | 25.05 |
| | | RB3#0 | 22.48 | 22.58 | 22.25 | 25.28 | 25.38 | 25.05 |
| | | RB3#3 | 22.54 | 22.64 | 22.21 | 25.34 | 25.44 | 25.01 |
| | | RB6#0 | 21.52 | 21.54 | 21.28 | 24.32 | 24.34 | 24.08 |
| | 16QAM | RB1#0 | 21.63 | 21.73 | 21.44 | 24.43 | 24.53 | 24.24 |
| | | RB1#3 | 21.71 | 21.83 | 21.44 | 24.51 | 24.63 | 24.24 |
| | | RB1#5 | 21.90 | 21.76 | 21.39 | 24.70 | 24.56 | 24.19 |
| | | RB3#0 | 21.64 | 21.66 | 21.37 | 24.44 | 24.46 | 24.17 |
| | | RB3#3 | 21.64 | 21.75 | 21.37 | 24.44 | 24.55 | 24.17 |
| | | RB6#0 | 20.30 | 20.55 | 20.31 | 23.10 | 23.35 | 23.11 |
| 3.0 | QPSK | RB1#0 | 22.43 | 22.62 | 22.26 | 25.23 | 25.42 | 25.06 |
| | | RB1#8 | 22.55 | 22.64 | 22.30 | 25.35 | 25.44 | 25.10 |
| | | RB1#14 | 22.52 | 22.53 | 22.25 | 25.32 | 25.33 | 25.05 |
| | | RB6#0 | 21.48 | 21.58 | 21.36 | 24.28 | 24.38 | 24.16 |
| | | RB6#9 | 21.55 | 21.58 | 21.30 | 24.35 | 24.38 | 24.10 |
| | | RB15#0 | 21.53 | 21.60 | 21.34 | 24.33 | 24.40 | 24.14 |
| | 16QAM | RB1#0 | 21.61 | 21.82 | 21.41 | 24.41 | 24.62 | 24.21 |
| | | RB1#8 | 21.78 | 22.02 | 21.58 | 24.58 | 24.82 | 24.38 |
| | | RB1#14 | 21.66 | 21.73 | 21.58 | 24.46 | 24.53 | 24.38 |
| | | RB6#0 | 20.51 | 20.66 | 20.36 | 23.31 | 23.46 | 23.16 |
| | | RB6#9 | 20.62 | 20.69 | 20.37 | 23.42 | 23.49 | 23.17 |
| | | RB15#0 | 20.55 | 20.57 | 20.33 | 23.35 | 23.37 | 23.13 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|-----------------|------------|-----------------------|--------------------------------------|-------|-------|-----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QP SK | RB1#0 | 22.50 | 22.69 | 22.45 | 25.30 | 25.49 | 25.25 |
| | | RB1#13 | 22.63 | 22.72 | 22.43 | 25.43 | 25.52 | 25.23 |
| | | RB1#24 | 22.62 | 22.65 | 22.34 | 25.42 | 25.45 | 25.14 |
| | | RB15#0 | 21.50 | 21.63 | 21.40 | 24.30 | 24.43 | 24.20 |
| | | RB15#10 | 21.60 | 21.58 | 21.38 | 24.40 | 24.38 | 24.18 |
| | | RB25#0 | 21.59 | 21.61 | 21.36 | 24.39 | 24.41 | 24.16 |
| | 16QAM | RB1#0 | 21.80 | 21.89 | 21.47 | 24.60 | 24.69 | 24.27 |
| | | RB1#13 | 21.77 | 21.86 | 21.45 | 24.57 | 24.66 | 24.25 |
| | | RB1#24 | 21.78 | 21.88 | 21.39 | 24.58 | 24.68 | 24.19 |
| | | RB15#0 | 20.58 | 20.65 | 20.41 | 23.38 | 23.45 | 23.21 |
| | | RB15#10 | 20.66 | 20.65 | 20.39 | 23.46 | 23.45 | 23.19 |
| | | RB25#0 | 20.66 | 20.63 | 20.37 | 23.46 | 23.43 | 23.17 |
| 10.0 | QPSK | RB1#0 | 22.56 | 22.71 | 22.37 | 25.36 | 25.51 | 25.17 |
| | | RB1#25 | 22.57 | 22.69 | 22.41 | 25.37 | 25.49 | 25.21 |
| | | RB1#49 | 22.58 | 22.53 | 22.27 | 25.38 | 25.33 | 25.07 |
| | | RB25#0 | 21.50 | 21.69 | 21.44 | 24.30 | 24.49 | 24.24 |
| | | RB25#25 | 21.60 | 21.61 | 21.38 | 24.40 | 24.41 | 24.18 |
| | | RB50#0 | 21.64 | 21.63 | 21.42 | 24.44 | 24.43 | 24.22 |
| | 16QAM | RB1#0 | 21.61 | 21.97 | 21.53 | 24.41 | 24.77 | 24.33 |
| | | RB1#25 | 21.79 | 21.94 | 21.49 | 24.59 | 24.74 | 24.29 |
| | | RB1#49 | 21.65 | 21.77 | 21.42 | 24.45 | 24.57 | 24.22 |
| | | RB25#0 | 20.63 | 20.69 | 20.47 | 23.43 | 23.49 | 23.27 |
| | | RB25#25 | 20.62 | 20.67 | 20.35 | 23.42 | 23.47 | 23.15 |
| | | RB50#0 | 20.61 | 20.60 | 20.43 | 23.41 | 23.40 | 23.23 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | EIRP(dBm) | | |
|-----------------|------------|-----------------------|--------------------------------------|-------|-------|--------------|--------------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 15.0 | QPSK | RB1#0 | 22.40 | 22.58 | 22.21 | 25.20 | 25.38 | 25.01 |
| | | RB1#38 | 22.48 | 22.66 | 22.19 | 25.28 | 25.46 | 24.99 |
| | | RB1#74 | 22.38 | 22.35 | 22.12 | 25.18 | 25.15 | 24.92 |
| | | RB36#0 | 21.46 | 21.53 | 21.27 | 24.26 | 24.33 | 24.07 |
| | | RB36#39 | 21.55 | 21.47 | 21.22 | 24.35 | 24.27 | 24.02 |
| | | RB75#0 | 21.53 | 21.50 | 21.30 | 24.33 | 24.30 | 24.10 |
| | 16QAM | RB1#0 | 21.54 | 21.57 | 21.47 | 24.34 | 24.37 | 24.27 |
| | | RB1#38 | 21.77 | 21.69 | 21.49 | 24.57 | 24.49 | 24.29 |
| | | RB1#74 | 21.71 | 21.53 | 21.49 | 24.51 | 24.33 | 24.29 |
| | | RB36#0 | 20.46 | 20.56 | 20.33 | 23.26 | 23.36 | 23.13 |
| | | RB36#39 | 20.58 | 20.45 | 20.22 | 23.38 | 23.25 | 23.02 |
| | | RB75#0 | 20.55 | 20.51 | 20.31 | 23.35 | 23.31 | 23.11 |
| 20.0 | QPSK | RB1#0 | 22.43 | 22.49 | 22.21 | 25.23 | 25.29 | 25.01 |
| | | RB1#50 | 22.53 | 22.78 | 22.27 | 25.33 | 25.58 | 25.07 |
| | | RB1#99 | 22.53 | 22.38 | 22.19 | 25.33 | 25.18 | 24.99 |
| | | RB50#0 | 21.47 | 21.58 | 21.32 | 24.27 | 24.38 | 24.12 |
| | | RB50#50 | 21.54 | 21.48 | 21.22 | 24.34 | 24.28 | 24.02 |
| | | RB100#0 | 21.57 | 21.53 | 21.32 | 24.37 | 24.33 | 24.12 |
| | 16QAM | RB1#0 | 21.77 | 21.77 | 21.38 | 24.57 | 24.57 | 24.18 |
| | | RB1#50 | 21.73 | 21.85 | 21.45 | 24.53 | 24.65 | 24.25 |
| | | RB1#99 | 22.07 | 21.57 | 21.28 | 24.87 | 24.37 | 24.08 |
| | | RB50#0 | 20.51 | 20.57 | 21.30 | 23.31 | 23.37 | 24.10 |
| | | RB50#50 | 20.57 | 20.48 | 20.26 | 23.37 | 23.28 | 23.06 |
| | | RB100#0 | 20.59 | 20.51 | 20.32 | 23.39 | 23.31 | 23.12 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBi) - Cable loss(dB)

For Band66: Antenna Gain =3.5dBi

Cable loss=0.7dB

Limit: EIRP ≤ 30dBm

LTE Band71:

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | ERP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|----------|-------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 5.0 | QP SK | RB1#0 | 23.69 | 23.54 | 23.34 | 22.94 | 22.79 | 22.59 |
| | | RB1#13 | 23.69 | 23.63 | 23.35 | 22.94 | 22.88 | 22.60 |
| | | RB1#24 | 23.54 | 23.44 | 23.23 | 22.79 | 22.69 | 22.48 |
| | | RB15#0 | 22.51 | 22.47 | 22.21 | 21.76 | 21.72 | 21.46 |
| | | RB15#10 | 22.53 | 22.53 | 22.27 | 21.78 | 21.78 | 21.52 |
| | | RB25#0 | 22.56 | 22.43 | 22.19 | 21.81 | 21.68 | 21.44 |
| | 16QAM | RB1#0 | 22.75 | 22.75 | 22.43 | 22.00 | 22.00 | 21.68 |
| | | RB1#13 | 22.70 | 22.87 | 22.42 | 21.95 | 22.12 | 21.67 |
| | | RB1#24 | 22.63 | 22.65 | 22.33 | 21.88 | 21.90 | 21.58 |
| | | RB15#0 | 21.54 | 21.53 | 21.22 | 20.79 | 20.78 | 20.47 |
| | | RB15#10 | 21.54 | 21.55 | 21.29 | 20.79 | 20.80 | 20.54 |
| | | RB25#0 | 21.58 | 21.43 | 21.17 | 20.83 | 20.68 | 20.42 |
| 10.0 | QPSK | RB1#0 | 23.63 | 23.48 | 23.33 | 22.88 | 22.73 | 22.58 |
| | | RB1#25 | 23.54 | 23.51 | 23.34 | 22.79 | 22.76 | 22.59 |
| | | RB1#49 | 23.40 | 23.39 | 23.28 | 22.65 | 22.64 | 22.53 |
| | | RB25#0 | 22.47 | 22.46 | 22.23 | 21.72 | 21.71 | 21.48 |
| | | RB25#25 | 22.38 | 22.44 | 22.27 | 21.63 | 21.69 | 21.52 |
| | | RB50#0 | 22.50 | 22.41 | 22.27 | 21.75 | 21.66 | 21.52 |
| | 16QAM | RB1#0 | 22.86 | 22.65 | 22.59 | 22.11 | 21.90 | 21.84 |
| | | RB1#25 | 22.68 | 22.66 | 22.51 | 21.93 | 21.91 | 21.76 |
| | | RB1#49 | 22.56 | 22.33 | 22.46 | 21.81 | 21.58 | 21.71 |
| | | RB25#0 | 21.51 | 21.47 | 21.18 | 20.76 | 20.72 | 20.43 |
| | | RB25#25 | 21.42 | 21.45 | 21.30 | 20.67 | 20.70 | 20.55 |
| | | RB50#0 | 21.52 | 21.40 | 21.29 | 20.77 | 20.65 | 20.54 |

| Bandwidth (MHz) | Modulation | RB size/ RB Offset | Conducted Average Output Power (dBm) | | | ERP(dBm) | | |
|--------------------|------------|-----------------------|---|-------|-------|----------|--------------|-------|
| | | | Low | Mid | High | Low | Mid | High |
| 15.0 | QPSK | RB1#0 | 23.35 | 23.11 | 23.18 | 22.60 | 22.36 | 22.43 |
| | | RB1#38 | 23.34 | 23.31 | 23.07 | 22.59 | 22.56 | 22.32 |
| | | RB1#74 | 23.30 | 23.09 | 23.03 | 22.55 | 22.34 | 22.28 |
| | | RB36#0 | 22.33 | 22.33 | 22.10 | 21.58 | 21.58 | 21.35 |
| | | RB36#39 | 22.26 | 22.25 | 22.08 | 21.51 | 21.50 | 21.33 |
| | | RB75#0 | 22.33 | 22.23 | 22.06 | 21.58 | 21.48 | 21.31 |
| | 16QAM | RB1#0 | 22.57 | 22.39 | 22.45 | 21.82 | 21.64 | 21.70 |
| | | RB1#38 | 22.34 | 22.48 | 22.35 | 21.59 | 21.73 | 21.60 |
| | | RB1#74 | 22.53 | 22.32 | 22.19 | 21.78 | 21.57 | 21.44 |
| | | RB36#0 | 21.33 | 21.30 | 21.08 | 20.58 | 20.55 | 20.33 |
| | | RB36#39 | 21.29 | 21.25 | 21.06 | 20.54 | 20.50 | 20.31 |
| | | RB75#0 | 21.41 | 21.25 | 21.05 | 20.66 | 20.50 | 20.30 |
| 20.0 | QPSK | RB1#0 | 23.55 | 23.71 | 23.57 | 22.80 | 22.96 | 22.82 |
| | | RB1#50 | 23.23 | 23.29 | 23.16 | 22.48 | 22.54 | 22.41 |
| | | RB1#99 | 23.22 | 23.03 | 23.12 | 22.47 | 22.28 | 22.37 |
| | | RB50#0 | 22.36 | 22.30 | 22.21 | 21.61 | 21.55 | 21.46 |
| | | RB50#50 | 22.39 | 22.20 | 22.09 | 21.64 | 21.45 | 21.34 |
| | | RB100#0 | 22.40 | 22.26 | 22.21 | 21.65 | 21.51 | 21.46 |
| | 16QAM | RB1#0 | 22.58 | 22.22 | 22.37 | 21.83 | 21.47 | 21.62 |
| | | RB1#50 | 22.76 | 22.88 | 22.68 | 22.01 | 22.13 | 21.93 |
| | | RB1#99 | 22.49 | 22.13 | 22.15 | 21.74 | 21.38 | 21.40 |
| | | RB50#0 | 21.34 | 21.33 | 21.22 | 20.59 | 20.58 | 20.47 |
| | | RB50#50 | 21.37 | 21.20 | 21.10 | 20.62 | 20.45 | 20.35 |
| | | RB100#0 | 21.41 | 21.23 | 21.20 | 20.66 | 20.48 | 20.45 |

Note: EIRP(dBm) = Conducted Power(dBm) + Antenna Gain(dBd)-Cable loss(dB)

For Band71: Antenna Gain = 1.8dBi = -0.35dBd (0dBd=2.15dBi)

Cable loss=0.4dB

Limit: ERP ≤ 30dBm

Peak-to-average ratio (PAR)**LTE Band 7 20MHz Bandwidth**

| Modulation | Low channel (dB) | Middle channel (dB) | High channel (dB) | PAR Limit (dB) | Result |
|-----------------------|-------------------------|----------------------------|--------------------------|-----------------------|---------------|
| QPSK (1RB Size) | 9.01 | 9.04 | 9.74 | 13 | Pass |
| QPSK (100RB Size) | 8.83 | 9.76 | 9.96 | 13 | Pass |
| 16QAM (1RB Size) | 6.15 | 5.88 | 9.23 | 13 | Pass |
| 16QAM (100RB Size) | 7.13 | 8.16 | 6.51 | 13 | Pass |

FCC §2.1049, §22.917, §22.905 & §24.238 & §27.53 - OCCUPIED BANDWIDTH

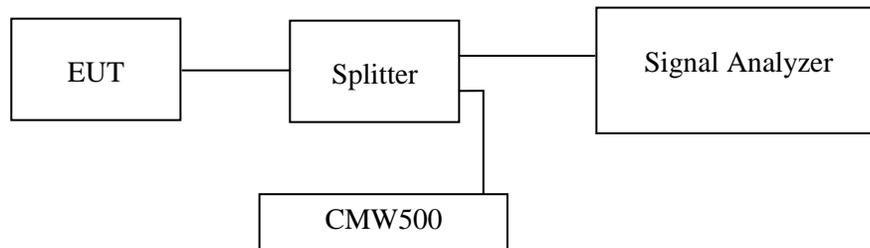
Applicable Standard

FCC 47 §2.1049, §22.917, §22.905, §24.238 and §27.53.

Test Procedure

The RF output of the transmitter was connected to the simulator and the spectrum analyzer through sufficient attenuation.

The resolution bandwidth of the spectrum analyzer was set at 1% to 5% of the anticipated emission bandwidth and the 26 dB & 99% bandwidth was recorded.



Test Data

Environmental Conditions

| | |
|---------------------------|-----------|
| Temperature: | 25~27°C |
| Relative Humidity: | 48~56 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Glenn Jiang on 2023-03-15.

EUT operation mode: Transmitting

Test Result: Pass

LTE Band 7

| Bandwidth | Modulation | Low channel | | Middle channel | | High channel | |
|-----------|------------|-------------|----------------|----------------|----------------|--------------|----------------|
| | | OBW (MHz) | 26dB EBW (MHz) | OBW (MHz) | 26dB EBW (MHz) | OBW (MHz) | 26dB EBW (MHz) |
| 5 MHz | QPSK | 4.551 | 5.240 | 4.531 | 5.260 | 4.531 | 5.260 |
| | 16QAM | 4.551 | 5.240 | 4.531 | 5.200 | 4.571 | 5.320 |
| 10 MHz | QPSK | 8.982 | 9.960 | 8.982 | 9.920 | 8.982 | 9.840 |
| | 16QAM | 8.982 | 9.960 | 8.982 | 9.880 | 8.982 | 9.960 |
| 15 MHz | QPSK | 13.473 | 15.120 | 13.533 | 15.060 | 13.533 | 14.940 |
| | 16QAM | 13.473 | 14.940 | 13.533 | 15.120 | 13.533 | 15.000 |
| 20 MHz | QPSK | 17.964 | 19.680 | 17.964 | 18.960 | 17.884 | 19.600 |
| | 16QAM | 17.884 | 18.960 | 18.044 | 19.920 | 17.884 | 19.600 |

The test plots please refer to the Appendix A.

FCC §2.1051, §22.917(a) & §24.238(a)& §27.53 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

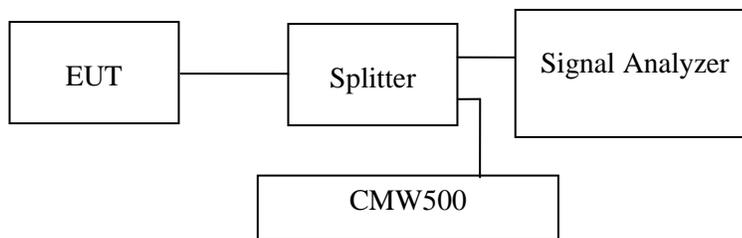
Applicable Standard

FCC §2.1051, §22.917(a) & §24.238(a)& §27.53.

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in §2.1051.

Test Procedure

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.



Note: the worst path loss (cable loss and splitter inset loss) among the test frequency range was added into plots.

Test Data

Environmental Conditions

| | |
|---------------------------|-----------|
| Temperature: | 26°C |
| Relative Humidity: | 48~56 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Glenn Jiang on 2023-03-15.

EUT operation mode: Transmitting

Test result: Pass

The test plots of please refer to the Appendix B.

FCC § 2.1053; § 22.917 (a); § 24.238 (a); § 27.53 - SPURIOUS RADIATED EMISSIONS

Applicable Standard

FCC § 2.1053, § 22.917(a) & § 24.238(a) & § 27.53.

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the receiving antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Test Data

Environmental Conditions

| | |
|---------------------------|-----------|
| Temperature: | 24.5~25°C |
| Relative Humidity: | 50~56% |
| ATM Pressure: | 101.0kPa |

The testing was performed by Jimi Zheng on 2023-02-03 for below 1GHz and from 2023-01-10 to 2023-01-11 for above 1GHz.

Test mode: Transmitting (Pre-scan in the X, Y and Z axes of orientation, the worst case Y-axis of orientation was recorded)

The worst case is as below:

30MHz-20GHz:**PCS Band (Part 24E)**

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|------------------------------|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| WCDMA Band 2, Low Channel | | | | | | | | |
| 960.23 | -62.98 | 181 | 1.6 | H | 10 | -52.98 | -13 | -39.98 |
| 960.23 | -62 | 235 | 1.9 | V | 11.7 | -50.3 | -13 | -37.3 |
| 3704.8 | -50.20 | 286 | 1.0 | H | 8.1 | -42.10 | -13 | -29.10 |
| 3704.8 | -49.60 | 83 | 1.2 | V | 7.6 | -42.00 | -13 | -29.00 |
| 5557.2 | -50.80 | 337 | 1.5 | H | 9.6 | -41.20 | -13 | -28.20 |
| 5557.2 | -49.70 | 189 | 1.2 | V | 9.1 | -40.60 | -13 | -27.60 |
| WCDMA Band 2, Middle Channel | | | | | | | | |
| 960.8 | -62.62 | 258 | 2 | H | 10 | -52.62 | -13 | -39.62 |
| 960.8 | -62.7 | 39 | 2.1 | V | 11.7 | -51 | -13 | -38 |
| 3760 | -51.90 | 301 | 1.4 | H | 8.8 | -43.10 | -13 | -30.10 |
| 3760 | -51.10 | 33 | 2.1 | V | 8 | -43.10 | -13 | -30.10 |
| 5640 | -51.40 | 220 | 2.3 | H | 10.2 | -41.20 | -13 | -28.20 |
| 5640 | -50.00 | 182 | 1.4 | V | 9.4 | -40.60 | -13 | -27.60 |
| WCDMA Band 2, High Channel | | | | | | | | |
| 959.56 | -61.82 | 359 | 1 | H | 10 | -51.82 | -13 | -38.82 |
| 959.56 | -62.07 | 356 | 2.2 | V | 11.7 | -50.37 | -13 | -37.37 |
| 3815.2 | -51.00 | 145 | 2 | H | 8.7 | -42.30 | -13 | -29.30 |
| 3815.2 | -50.10 | 147 | 1.7 | V | 7.9 | -42.20 | -13 | -29.20 |
| 5722.8 | -51.90 | 325 | 2 | H | 10.6 | -41.30 | -13 | -28.30 |
| 5722.8 | -50.70 | 351 | 1.4 | V | 10.2 | -40.50 | -13 | -27.50 |

AWS Band (Part 27)

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|------------------------------|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| WCDMA Band 4, Low Channel | | | | | | | | |
| 959.69 | -62.95 | 299 | 1.8 | H | 10 | -52.95 | -13 | -39.95 |
| 959.69 | -62.24 | 18 | 1.4 | V | 11.7 | -50.54 | -13 | -37.54 |
| 3424.8 | -47.80 | 355 | 2.2 | H | 6.4 | -41.40 | -13 | -28.40 |
| 3424.8 | -46.70 | 11 | 2.3 | V | 5.8 | -40.90 | -13 | -27.90 |
| 5137.2 | -53.20 | 42 | 1.6 | H | 11.4 | -41.80 | -13 | -28.80 |
| 5137.2 | -52.40 | 114 | 2.4 | V | 10.8 | -41.60 | -13 | -28.60 |
| WCDMA Band 4, Middle Channel | | | | | | | | |
| 960.71 | -62.55 | 359 | 2 | H | 10 | -52.55 | -13 | -39.55 |
| 960.71 | -62.63 | 193 | 2.5 | V | 11.7 | -50.93 | -13 | -37.93 |
| 3465.2 | -48.7 | 100 | 1.5 | H | 7 | -41.70 | -13 | -28.70 |
| 3465.2 | -49.3 | 86 | 2.4 | V | 6.2 | -43.10 | -13 | -30.10 |
| 5197.8 | -52.7 | 147 | 1.7 | H | 10.4 | -42.30 | -13 | -29.30 |
| 5197.8 | -51.5 | 243 | 1 | V | 9.8 | -41.70 | -13 | -28.70 |
| WCDMA Band 4, High Channel | | | | | | | | |
| 959.58 | -62.06 | 71 | 1.7 | H | 10 | -52.06 | -13 | -39.06 |
| 959.58 | -61.77 | 259 | 1.8 | V | 11.7 | -50.07 | -13 | -37.07 |
| 3505.2 | -49.00 | 122 | 1.8 | H | 7.8 | -41.20 | -13 | -28.20 |
| 3505.2 | -48.60 | 82 | 1.1 | V | 6.5 | -42.10 | -13 | -29.10 |
| 5257.8 | -51.70 | 182 | 1.6 | H | 9.4 | -42.30 | -13 | -29.30 |
| 5257.8 | -50.50 | 199 | 2.3 | V | 9 | -41.50 | -13 | -28.50 |

30MHz-10GHz:**Cellular Band (Part 22H)**

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|------------------------------|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| WCDMA Band 5, Low Channel | | | | | | | | |
| 960.13 | -62.76 | 62 | 1 | H | 10 | -52.76 | -13 | -39.76 |
| 960.13 | -61.86 | 168 | 1.6 | V | 11.7 | -50.16 | -13 | -37.16 |
| 1652.8 | -52.10 | 163 | 1.7 | H | 3.5 | -48.60 | -13 | -35.60 |
| 1652.8 | -52.40 | 254 | 2 | V | 3.1 | -49.30 | -13 | -36.30 |
| 2479.2 | -48.70 | 120 | 1.5 | H | 6.6 | -42.10 | -13 | -29.10 |
| 2479.2 | -51.90 | 114 | 1.2 | V | 5.8 | -46.10 | -13 | -33.10 |
| 3305.6 | -38.00 | 198 | 1.1 | H | 6.4 | -31.60 | -13 | -18.60 |
| 3305.6 | -35.60 | 302 | 2.4 | V | 5.7 | -29.90 | -13 | -16.90 |
| WCDMA Band 5, Middle Channel | | | | | | | | |
| 960.47 | -62.41 | 84 | 2 | H | 10 | -52.41 | -13 | -39.41 |
| 960.47 | -62.77 | 96 | 1.9 | V | 11.7 | -51.07 | -13 | -38.07 |
| 1673.2 | -49.40 | 245 | 2 | H | 3.8 | -45.60 | -13 | -32.60 |
| 1673.2 | -48.90 | 356 | 2.2 | V | 3.1 | -45.80 | -13 | -32.80 |
| 2509.8 | -47.50 | 224 | 2 | H | 6.2 | -41.30 | -13 | -28.30 |
| 2509.8 | -53.00 | 122 | 1.2 | V | 5.6 | -47.40 | -13 | -34.40 |
| 3346.4 | -37.70 | 178 | 1.2 | H | 6.6 | -31.10 | -13 | -18.10 |
| 3346.4 | -35.00 | 352 | 1.7 | V | 5.4 | -29.60 | -13 | -16.60 |
| WCDMA Band 5, High Channel | | | | | | | | |
| 960.03 | -61.83 | 43 | 1.3 | H | 10 | -51.83 | -13 | -38.83 |
| 960.03 | -62.66 | 325 | 1.5 | V | 11.7 | -50.96 | -13 | -37.96 |
| 1693.2 | -52.00 | 40 | 2.4 | H | 4.1 | -47.90 | -13 | -34.90 |
| 1693.2 | -51.00 | 281 | 1.1 | V | 3.1 | -47.90 | -13 | -34.90 |
| 2539.8 | -48.00 | 323 | 1.3 | H | 6.1 | -41.90 | -13 | -28.90 |
| 2539.8 | -51.70 | 62 | 1.8 | V | 5.8 | -45.90 | -13 | -32.90 |
| 3386.4 | -37.10 | 113 | 2.0 | H | 6.2 | -30.90 | -13 | -17.90 |
| 3386.4 | -34.90 | 333 | 2.3 | V | 5.4 | -29.50 | -13 | -16.50 |

LTE Band: (Pre-scan with all the bandwidth and modulation, and worst case as below)

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|---|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 2, Test frequency range: 30MHz-20GHz | | | | | | | | |
| QPSK, 1.4MHz, 1850.7MHz | | | | | | | | |
| 960.3 | -62.17 | 224 | 2.2 | H | 10 | -52.17 | -13 | -39.17 |
| 960.3 | -62.26 | 90 | 1.5 | V | 11.7 | -50.56 | -13 | -37.56 |
| 3701.4 | -50.70 | 25 | 2.2 | H | 8.1 | -42.60 | -13 | -29.60 |
| 3701.4 | -49.80 | 129 | 1.4 | V | 7.6 | -42.20 | -13 | -29.20 |
| 5552.1 | -50.30 | 154 | 2.5 | H | 9.6 | -40.70 | -13 | -27.70 |
| 5552.1 | -50.00 | 25 | 1.1 | V | 9.1 | -40.90 | -13 | -27.90 |
| QPSK, 1.4MHz, 1880MHz | | | | | | | | |
| 960.62 | -61.42 | 32 | 1.1 | H | 10 | -51.42 | -13 | -38.42 |
| 960.62 | -62.05 | 17 | 1.2 | V | 11.7 | -50.35 | -13 | -37.35 |
| 3760 | -51.80 | 197 | 1.3 | H | 8.8 | -43.00 | -13 | -30.00 |
| 3760 | -50.40 | 229 | 1.4 | V | 8 | -42.40 | -13 | -29.40 |
| 5640 | -51.30 | 281 | 2.3 | H | 10.2 | -41.10 | -13 | -28.10 |
| 5640 | -49.90 | 347 | 2.4 | V | 9.4 | -40.50 | -13 | -27.50 |
| QPSK, 1.4MHz, 1909.3MHz | | | | | | | | |
| 959.82 | -61.65 | 21 | 1.1 | H | 10 | -51.65 | -13 | -38.65 |
| 959.82 | -61.93 | 229 | 2 | V | 11.7 | -50.23 | -13 | -37.23 |
| 3818.6 | -50.10 | 316 | 2.1 | H | 8.7 | -41.40 | -13 | -28.40 |
| 3818.6 | -49.40 | 181 | 1.4 | V | 7.9 | -41.50 | -13 | -28.50 |
| 5727.9 | -51.30 | 145 | 1.9 | H | 10.6 | -40.70 | -13 | -27.70 |
| 5727.9 | -50.60 | 145 | 1.2 | V | 10.2 | -40.40 | -13 | -27.40 |

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|---|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 4, Test frequency range: 30MHz-20GHz | | | | | | | | |
| QPSK, 1.4MHz, 1710.7MHz | | | | | | | | |
| 960.19 | -62.44 | 233 | 2.3 | H | 10 | -52.44 | -13 | -39.44 |
| 960.19 | -62.18 | 356 | 1.3 | V | 11.7 | -50.48 | -13 | -37.48 |
| 3421.4 | -47.90 | 227 | 1.2 | H | 6.4 | -41.50 | -13 | -28.50 |
| 3421.4 | -46.80 | 333 | 1.8 | V | 5.8 | -41.00 | -13 | -28.00 |
| 5132.1 | -51.50 | 194 | 1.9 | H | 11.4 | -40.10 | -13 | -27.10 |
| 5132.1 | -52.50 | 341 | 1.5 | V | 10.8 | -41.70 | -13 | -28.70 |
| QPSK, 1.4MHz, 1732.5MHz | | | | | | | | |
| 960.1 | -61.9 | 19 | 2 | H | 10 | -51.9 | -13 | -38.9 |
| 960.1 | -61.98 | 275 | 2.1 | V | 11.7 | -50.28 | -13 | -37.28 |
| 3465 | -48.2 | 234 | 1.9 | H | 7 | -41.20 | -13 | -28.20 |
| 3465 | -48.5 | 224 | 1.3 | V | 6.2 | -42.30 | -13 | -29.30 |
| 5197.5 | -50.8 | 331 | 1.9 | H | 10.4 | -40.40 | -13 | -27.40 |
| 5197.5 | -51.4 | 57 | 2.2 | V | 9.8 | -41.60 | -13 | -28.60 |
| QPSK, 1.4MHz, 1754.3MHz | | | | | | | | |
| 959.27 | -61.84 | 83 | 1.2 | H | 10 | -51.84 | -13 | -38.84 |
| 959.27 | -61.96 | 154 | 2.4 | V | 11.7 | -50.26 | -13 | -37.26 |
| 3508.6 | -48.00 | 324 | 2.3 | H | 7.8 | -40.20 | -13 | -27.20 |
| 3508.6 | -47.30 | 338 | 1.9 | V | 6.5 | -40.80 | -13 | -27.80 |
| 5262.9 | -49.60 | 317 | 1.2 | H | 9.4 | -40.20 | -13 | -27.20 |
| 5262.9 | -50.30 | 119 | 1 | V | 9 | -41.30 | -13 | -28.30 |

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|---|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 5, Test frequency range: 30MHz-10GHz | | | | | | | | |
| QPSK,1.4MHz, 824.7MHz | | | | | | | | |
| 959.89 | -62.52 | 280 | 1.6 | H | 10 | -52.52 | -13 | -39.52 |
| 959.89 | -62.08 | 242 | 1.2 | V | 11.7 | -50.38 | -13 | -37.38 |
| 1649.4 | -57.50 | 272 | 2.1 | H | 3.5 | -54.00 | -13 | -41.00 |
| 1649.4 | -55.20 | 359 | 2 | V | 3.1 | -52.10 | -13 | -39.10 |
| 2474.1 | -45.60 | 136 | 2 | H | 6.6 | -39.00 | -13 | -26.00 |
| 2474.1 | -45.40 | 17 | 1.9 | V | 5.8 | -39.60 | -13 | -26.60 |
| 3298.8 | -48.50 | 153 | 1.1 | H | 6.4 | -42.10 | -13 | -29.10 |
| 3298.8 | -45.80 | 55 | 1.5 | V | 5.7 | -40.10 | -13 | -27.10 |
| QPSK,1.4MHz, 836.5Hz | | | | | | | | |
| 961.01 | -61.99 | 72 | 1.3 | H | 10 | -51.99 | -13 | -38.99 |
| 961.01 | -62.71 | 262 | 1.5 | V | 11.7 | -51.01 | -13 | -38.01 |
| 1673.0 | -48.80 | 191 | 2.4 | H | 3.8 | -45.00 | -13 | -32.00 |
| 1673.0 | -49.30 | 342 | 2.5 | V | 3.1 | -46.20 | -13 | -33.20 |
| 2509.5 | -44.40 | 26 | 1 | H | 6.2 | -38.20 | -13 | -25.20 |
| 2509.5 | -50.80 | 65 | 1.9 | V | 5.6 | -45.20 | -13 | -32.20 |
| 3346.0 | -49.20 | 241 | 1.1 | H | 6.6 | -42.60 | -13 | -29.60 |
| 3346.0 | -48.30 | 92 | 2.4 | V | 5.4 | -42.90 | -13 | -29.90 |
| QPSK,1.4MHz, 848.3Hz | | | | | | | | |
| 959.69 | -61.79 | 52 | 1.9 | H | 10 | -51.79 | -13 | -38.79 |
| 959.69 | -62.15 | 237 | 1.6 | V | 11.7 | -50.45 | -13 | -37.45 |
| 1696.6 | -54.40 | 42 | 1.4 | H | 4.1 | -50.30 | -13 | -37.30 |
| 1696.6 | -52.00 | 58 | 1.4 | V | 3.1 | -48.90 | -13 | -35.90 |
| 2544.9 | -42.80 | 287 | 1.8 | H | 6.1 | -36.70 | -13 | -23.70 |
| 2544.9 | -47.00 | 200 | 1.5 | V | 5.8 | -41.20 | -13 | -28.20 |
| 3393.2 | -48.90 | 120 | 1.6 | H | 6.2 | -42.70 | -13 | -29.70 |
| 3393.2 | -48.20 | 171 | 1.4 | V | 5.4 | -42.80 | -13 | -29.80 |

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|---|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 7, Test frequency range: 30MHz-26GHz | | | | | | | | |
| QPSK, 5MHz, 2502.5MHz | | | | | | | | |
| 959.95 | -60.65 | 81 | 1.1 | H | 10 | -50.65 | -25 | -25.65 |
| 959.95 | -61.86 | 105 | 1.3 | V | 11.7 | -50.16 | -25 | -25.16 |
| 5005 | -46.50 | 82 | 1.9 | H | 10.8 | -35.70 | -25 | -10.70 |
| 5005 | -48.20 | 224 | 2 | V | 10.2 | -38.00 | -25 | -13.00 |
| 7507.5 | -62.70 | 325 | 2.4 | H | 20.4 | -42.30 | -25 | -17.30 |
| 7507.5 | -62.30 | 221 | 2.1 | V | 20.1 | -42.20 | -25 | -17.20 |
| QPSK, 5MHz, 2535MHz | | | | | | | | |
| 960.09 | -60.6 | 90 | 1.3 | H | 10 | -50.6 | -25 | -25.6 |
| 960.09 | -61.25 | 177 | 2 | V | 11.7 | -49.55 | -25 | -24.55 |
| 5070 | -46.60 | 72 | 2 | H | 11.1 | -35.50 | -25 | -10.50 |
| 5070 | -49.50 | 257 | 2 | V | 10.8 | -38.70 | -25 | -13.70 |
| 7605 | -65.80 | 295 | 1.3 | H | 21.2 | -44.60 | -25 | -19.60 |
| 7605 | -64.20 | 247 | 2.3 | V | 20.1 | -44.10 | -25 | -19.10 |
| QPSK, 5MHz, 2567.5MHz | | | | | | | | |
| 959.48 | -60.92 | 24 | 1.7 | H | 10 | -50.92 | -25 | -25.92 |
| 959.48 | -61.75 | 271 | 1.6 | V | 11.7 | -50.05 | -25 | -25.05 |
| 5135 | -49.30 | 6 | 1.6 | H | 11.3 | -38.00 | -25 | -13.00 |
| 5135 | -50.70 | 296 | 2.1 | V | 10.8 | -39.90 | -25 | -14.90 |
| 7702.5 | -66.10 | 63 | 1.7 | H | 21.2 | -44.90 | -25 | -19.90 |
| 7702.5 | -65.50 | 309 | 1.5 | V | 21 | -44.50 | -25 | -19.50 |

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|--|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 12, Test frequency range: 30MHz-10GHz | | | | | | | | |
| QPSK, 1.4MHz, 699.7MHz | | | | | | | | |
| 960.11 | -61.73 | 126 | 1.8 | H | 10 | -51.73 | -13 | -38.73 |
| 960.11 | -62.03 | 277 | 1.1 | V | 11.7 | -50.33 | -13 | -37.33 |
| 1399.4 | -54.3 | 274 | 1.2 | H | 6.3 | -48.00 | -13 | -35.00 |
| 1399.4 | -55.6 | 204 | 1.1 | V | 5.7 | -49.90 | -13 | -36.90 |
| 2099.1 | -50.8 | 11 | 1.1 | H | 4.9 | -45.90 | -13 | -32.90 |
| 2099.1 | -50.2 | 109 | 2.3 | V | 3.9 | -46.30 | -13 | -33.30 |
| 2798.8 | -54.4 | 98 | 2.2 | H | 6.6 | -47.80 | -13 | -34.80 |
| 2798.8 | -51.8 | 224 | 1.5 | V | 6 | -45.80 | -13 | -32.80 |
| QPSK, 1.4MHz, 707.5MHz | | | | | | | | |
| 960.12 | -61.49 | 12 | 1.7 | H | 10 | -51.49 | -13 | -38.49 |
| 960.12 | -62.53 | 178 | 1.9 | V | 11.7 | -50.83 | -13 | -37.83 |
| 1415 | -59.8 | 246 | 1 | H | 5.9 | -53.90 | -13 | -40.90 |
| 1415 | -59.9 | 143 | 1.3 | V | 5.9 | -54.00 | -13 | -41.00 |
| 2122.5 | -52.3 | 292 | 1.9 | H | 6.3 | -46.00 | -13 | -33.00 |
| 2122.5 | -51.8 | 35 | 2.4 | V | 5.1 | -46.70 | -13 | -33.70 |
| 2830 | -54.7 | 30 | 1.3 | H | 6.7 | -48.00 | -13 | -35.00 |
| 2830 | -53.6 | 43 | 1.5 | V | 6.7 | -46.90 | -13 | -33.90 |
| QPSK, 1.4MHz, 715.3MHz | | | | | | | | |
| 959.85 | -61.41 | 44 | 1.1 | H | 10 | -51.41 | -13 | -38.41 |
| 959.85 | -62 | 337 | 1.3 | V | 11.7 | -50.3 | -13 | -37.3 |
| 1430.6 | -59.6 | 151 | 2.4 | H | 5.9 | -53.70 | -13 | -40.70 |
| 1430.6 | -60.1 | 188 | 2.4 | V | 5.9 | -54.20 | -13 | -41.20 |
| 2145.9 | -52.2 | 314 | 2 | H | 6.3 | -45.90 | -13 | -32.90 |
| 2145.9 | -51.7 | 47 | 2.1 | V | 5.1 | -46.60 | -13 | -33.60 |
| 2861.2 | -55.2 | 23 | 1.1 | H | 6.7 | -48.50 | -13 | -35.50 |
| 2861.2 | -54.9 | 248 | 1.2 | V | 6.7 | -48.20 | -13 | -35.20 |

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|--|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 41, Test frequency range: 30MHz-27GHz | | | | | | | | |
| QPSK,5MHz,2498.5MHz | | | | | | | | |
| 959.99 | -60.83 | 334 | 1.3 | H | 10 | -50.83 | -25 | -25.83 |
| 959.99 | -60.95 | 253 | 2.4 | V | 11.7 | -49.25 | -25 | -24.25 |
| 4997 | -44.3 | 203 | 1.3 | H | 10.8 | -33.50 | -25 | -8.50 |
| 4997 | -46.8 | 15 | 2 | V | 10.1 | -36.70 | -25 | -11.70 |
| 7495.5 | -64 | 262 | 2.3 | H | 21.2 | -42.80 | -25 | -17.80 |
| 7495.5 | -61.9 | 99 | 1.9 | V | 20.2 | -41.70 | -25 | -16.70 |
| QPSK, 5MHz,2593MHz | | | | | | | | |
| 960.85 | -61.16 | 153 | 2 | H | 10 | -51.16 | -25 | -26.16 |
| 960.85 | -61.13 | 121 | 1.9 | V | 11.7 | -49.43 | -25 | -24.43 |
| 5186 | -50.6 | 254 | 1.9 | H | 10.5 | -40.10 | -25 | -15.10 |
| 5186 | -51.2 | 334 | 1 | V | 10 | -41.20 | -25 | -16.20 |
| 7779 | -62.6 | 348 | 1.2 | H | 18.3 | -44.30 | -25 | -19.30 |
| 7779 | -62.6 | 190 | 2.2 | V | 18 | -44.60 | -25 | -19.60 |
| QPSK, 5MHz,2687.5MHz | | | | | | | | |
| 959.75 | -61.25 | 301 | 1.8 | H | 10 | -51.25 | -25 | -26.25 |
| 959.75 | -61.41 | 301 | 2.1 | V | 11.7 | -49.71 | -25 | -24.71 |
| 5375 | -51.2 | 32 | 2.4 | H | 9.5 | -41.70 | -25 | -16.70 |
| 5375 | -50.2 | 276 | 1.4 | V | 8.9 | -41.30 | -25 | -16.30 |
| 8062.5 | -62.9 | 231 | 2.4 | H | 18.9 | -44.00 | -25 | -19.00 |
| 8062.5 | -62 | 318 | 1.9 | V | 18.5 | -43.50 | -25 | -18.50 |

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|--|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 66, Test frequency range: 30MHz-20GHz | | | | | | | | |
| QPSK, 1.4MHz,1710.7MHz | | | | | | | | |
| 960.13 | -62.45 | 161 | 2.3 | H | 10 | -52.45 | -13 | -39.45 |
| 960.13 | -62.24 | 237 | 1 | V | 11.7 | -50.54 | -13 | -37.54 |
| 3421.4 | -47.6 | 22 | 1 | H | 6.4 | -41.20 | -13 | -28.20 |
| 3421.4 | -46.9 | 277 | 1.5 | V | 5.7 | -41.20 | -13 | -28.20 |
| 5132.1 | -51.2 | 272 | 2.3 | H | 11.3 | -39.90 | -13 | -26.90 |
| 5132.1 | -52.3 | 41 | 2 | V | 10.8 | -41.50 | -13 | -28.50 |
| QPSK, 1.4MHz,1745MHz | | | | | | | | |
| 960.77 | -61.41 | 40 | 2.1 | H | 10 | -51.41 | -13 | -38.41 |
| 960.77 | -62.02 | 266 | 1.3 | V | 11.7 | -50.32 | -13 | -37.32 |
| 3490 | -47.7 | 292 | 2.3 | H | 7.6 | -40.10 | -13 | -27.10 |
| 3490 | -47.8 | 190 | 1.6 | V | 6.4 | -41.40 | -13 | -28.40 |
| 5235 | -50.1 | 93 | 1.8 | H | 9.7 | -40.40 | -13 | -27.40 |
| 5235 | -50.6 | 71 | 2 | V | 9.2 | -41.40 | -13 | -28.40 |
| QPSK, 1.4MHz,1779.3MHz | | | | | | | | |
| 959.35 | -61.29 | 133 | 2.4 | H | 10 | -51.29 | -13 | -38.29 |
| 959.35 | -61.44 | 217 | 2.2 | V | 11.7 | -49.74 | -13 | -36.74 |
| 3558.6 | -48.3 | 46 | 2 | H | 7.8 | -40.50 | -13 | -27.50 |
| 3558.6 | -47.5 | 231 | 1.9 | V | 7.0 | -40.50 | -13 | -27.50 |
| 5337.9 | -50.1 | 52 | 2.1 | H | 9.4 | -40.70 | -13 | -27.70 |
| 5337.9 | -50 | 335 | 1.6 | V | 8.7 | -41.30 | -13 | -28.30 |

| Frequency (MHz) | Receiver Reading (dBm) | Turntable Degree | Rx Antenna | | Substituted Factor (dB) | Absolute Level (dBm) | Limit (dBm) | Margin (dB) |
|--|------------------------|------------------|------------|-------------|-------------------------|----------------------|-------------|-------------|
| | | | Height (m) | Polar (H/V) | | | | |
| LTE Band 71, Test frequency range: 30MHz-10GHz | | | | | | | | |
| QPSK,5MHz,665.5MHz | | | | | | | | |
| 960.23 | -61.75 | 4 | 2.3 | H | 10 | -51.75 | -13 | -38.75 |
| 960.23 | -62.28 | 356 | 1.1 | V | 11.7 | -50.58 | -13 | -37.58 |
| 1331.0 | -54.90 | 274 | 1.4 | H | 6.4 | -48.50 | -13 | -35.50 |
| 1331.0 | -54.70 | 233 | 2.5 | V | 5.4 | -49.30 | -13 | -36.30 |
| 1996.5 | -46.60 | 29 | 1.1 | H | 4.3 | -42.30 | -13 | -29.30 |
| 1996.5 | -46.60 | 285 | 1.1 | V | 3.3 | -43.30 | -13 | -30.30 |
| 2662.0 | -54.40 | 332 | 1.8 | H | 6.4 | -48.00 | -13 | -35.00 |
| 2662.0 | -52.80 | 24 | 1.6 | V | 5.7 | -47.10 | -13 | -34.10 |
| QPSK, 5MHz,680.5MHz | | | | | | | | |
| 959.96 | -61.74 | 196 | 1.3 | H | 10 | -51.74 | -13 | -38.74 |
| 959.96 | -62.46 | 72 | 1.2 | V | 11.7 | -50.76 | -13 | -37.76 |
| 1361.0 | -54.80 | 285 | 1.4 | H | 6.3 | -48.50 | -13 | -35.50 |
| 1361.0 | -55.50 | 129 | 1.7 | V | 5.7 | -49.80 | -13 | -36.80 |
| 2041.5 | -48.30 | 107 | 1.2 | H | 4.8 | -43.50 | -13 | -30.50 |
| 2041.5 | -47.30 | 232 | 1.8 | V | 3.8 | -43.50 | -13 | -30.50 |
| 2722.0 | -55.70 | 136 | 2.3 | H | 6.6 | -49.10 | -13 | -36.10 |
| 2722.0 | -54.10 | 105 | 1 | V | 6 | -48.10 | -13 | -35.10 |
| QPSK, 5MHz,695.5MHz | | | | | | | | |
| 959.27 | -61.73 | 32 | 2.5 | H | 10 | -51.73 | -13 | -38.73 |
| 959.27 | -61.71 | 126 | 1.4 | V | 11.7 | -50.01 | -13 | -37.01 |
| 1391 | -53.70 | 236 | 2.0 | H | 6 | -47.70 | -13 | -34.70 |
| 1391 | -53.70 | 89 | 2.4 | V | 5.8 | -47.90 | -13 | -34.90 |
| 2086.5 | -48.40 | 220 | 1.5 | H | 5.9 | -42.50 | -13 | -29.50 |
| 2086.5 | -48.00 | 308 | 2.0 | V | 4.8 | -43.20 | -13 | -30.20 |
| 2782 | -54.20 | 283 | 1.1 | H | 6.7 | -47.50 | -13 | -34.50 |
| 2782 | -53.90 | 235 | 1.7 | V | 6.4 | -47.50 | -13 | -34.50 |

Note:

Absolute Level = Reading Level + Substituted Factor

Substituted Factor contains: Substituted Level - Cable loss+ Antenna Gain

Margin = Absolute Level -Limit

FCC § 22.917 (a); § 24.238 (a); §27.53 (g) (h)(m) - BAND EDGES

Applicable Standard

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

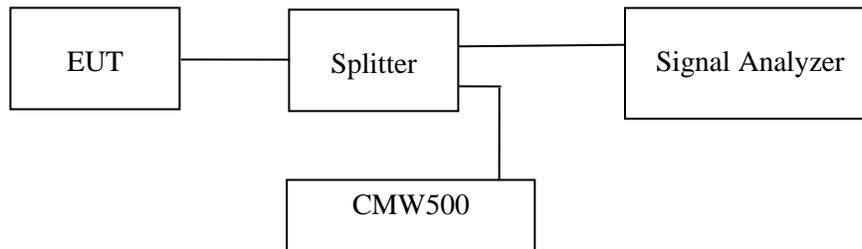
According to FCC §27.53 (g) (h), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to FCC §27.53 (m), For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5MHz.

Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

The center of the spectrum analyzer was set to block edge frequency



Test Data**Environmental Conditions**

| | |
|---------------------------|-----------|
| Temperature: | 25~27°C |
| Relative Humidity: | 48~56 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Glenn Jiang on 2023-03-21.

EUT operation mode: Transmitting (Worst case)

Test Result: Pass

The test plots of LTE bands please refer to the Appendix C.

FCC § 2.1055; § 22.355; § 24.235; §27.54 - FREQUENCY STABILITY

Applicable Standard

FCC § 2.1055, §22.355, §24.235& §27.54.

According to FCC §2.1055, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:

Frequency Tolerance for Transmitters in the Public Mobile Services

| Frequency Range (MHz) | Base, fixed (ppm) | Mobile ≤ 3 watts (ppm) | Mobile > 3 watts (ppm) |
|-----------------------|-------------------|------------------------|------------------------|
| 25 to 50 | 20.0 | 20.0 | 50.0 |
| 50 to 450 | 5.0 | 5.0 | 50.0 |
| 450 to 512 | 2.5 | 5.0 | 5.0 |
| 821 to 896 | 1.5 | 2.5 | 2.5 |
| 928 to 929. | 5.0 | N/A | N/A |
| 929 to 960. | 1.5 | N/A | N/A |
| 2110 to 2220 | 10.0 | N/A | N/A |

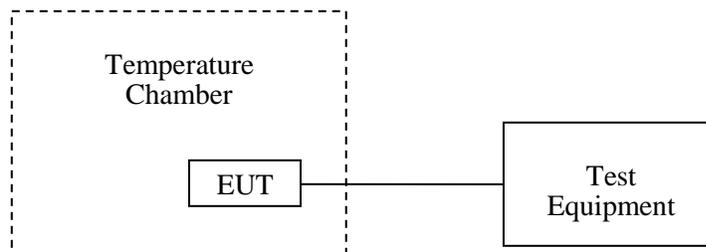
According to §24.235& §27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stays within the authorized frequency block.

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external AC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The AC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: For hand carried, battery powered equipment; reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.



Test Data**Environmental Conditions**

| | |
|---------------------------|-----------|
| Temperature: | 25~27°C |
| Relative Humidity: | 48~56 % |
| ATM Pressure: | 101.0 kPa |

The testing was performed by Glenn Jiang on 2023-03-15.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.

**LTE:
QPSK:
Band 7:**

| 10 MHz Bandwidth | | | | | |
|------------------|-----------------------------------|----------------------|----------------------|----------------------------|----------------------------|
| Temperature (°C) | Power Supplied (V _{DC}) | F _L (MHz) | F _H (MHz) | F _L Limit (MHz) | F _H Limit (MHz) |
| -30 | N.V. | 2500.1824 | 2569.8859 | 2500 | 2570 |
| -20 | | 2500.1855 | 2569.9024 | 2500 | 2570 |
| -10 | | 2500.1806 | 2569.8881 | 2500 | 2570 |
| 0 | | 2500.1870 | 2569.8845 | 2500 | 2570 |
| 10 | | 2500.1996 | 2569.8865 | 2500 | 2570 |
| 20 | | 2500.1917 | 2569.8440 | 2500 | 2570 |
| 30 | | 2500.1843 | 2569.8435 | 2500 | 2570 |
| 40 | | 2500.1690 | 2569.8935 | 2500 | 2570 |
| 50 | | 2500.1648 | 2569.8975 | 2500 | 2570 |
| 20 | | L.V. | 2500.1591 | 2569.8925 | 2500 |
| | H.V. | 2500.1451 | 2569.8762 | 2500 | 2570 |

16QAM:**Band 7:**

| 10 MHz Bandwidth | | | | | |
|------------------|-----------------------------------|----------------------|----------------------|----------------------------|----------------------------|
| Temperature (°C) | Power Supplied (V _{DC}) | F _L (MHz) | F _H (MHz) | F _L Limit (MHz) | F _H Limit (MHz) |
| -30 | N.V. | 2500.1699 | 2569.8433 | 2500 | 2570 |
| -20 | | 2500.1502 | 2569.8553 | 2500 | 2570 |
| -10 | | 2500.1775 | 2569.8485 | 2500 | 2570 |
| 0 | | 2500.1532 | 2569.8607 | 2500 | 2570 |
| 10 | | 2500.1516 | 2569.8308 | 2500 | 2570 |
| 20 | | 2500.1449 | 2569.8926 | 2500 | 2570 |
| 30 | | 2500.1466 | 2569.8923 | 2500 | 2570 |
| 40 | | 2500.1439 | 2569.8487 | 2500 | 2570 |
| 50 | | 2500.1524 | 2569.8517 | 2500 | 2570 |
| 20 | | L.V. | 2500.1530 | 2569.8391 | 2500 |
| | H.V. | 2500.1595 | 2569.8242 | 2500 | 2570 |

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