# RF TEST REPORT

| | |
|---|---|
| **Applicant** | Quectel Wireless Solutions Co., Ltd. |
| **FCC ID** | XMR201707BG96 |
| **Product** | LTE Cat M1 & Cat NB1 & EGPRS Module |
| **Brand** | Quectel |
| **Model** | BG96, BG96 MINIPCIE |
| **Marketing** | Quectel BG96, Quectel BG96 MINIPCIE |
| **Report No.** | R1811A0536-R2 |
| **Issue Date** | February 26, 2019 |

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2018)/ FCC CFR 47 Part 24E (2018)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Peng Tao

*Performed by: Peng Tao*

Kai Xu

*Approved by: Kai Xu*


## TA Technology (Shanghai) Co., Ltd.

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# Summary of measurement results

| No. | Test Case | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | RF power output | 2.1046 | PASS |
| 2 | Effective Isotropic Radiated power | 24.232(c) | PASS |
| 3 | Occupied Bandwidth | 2.1049 | PASS |
| 4 | Band Edge Compliance | 2.1051 /24.238(a) | PASS |
| 5 | Peak-to-Average Power Ratio | 24.232/KDB 971168 D01(5.7) | PASS |
| 6 | Frequency Stability | 2.1055 / 24.235 | PASS |
| 7 | Spurious Emissions at Antenna Terminals | 2.1051 / 24.238(a) | PASS |
| 8 | Radiates Spurious Emission | 2.1053 / 24.238(a) | PASS |
| Date of Testing: June 24 ,2017~July 3 ,2017 and December 20, 2018 ~ February 13, 2019 | | | |
| Note: PASS: The EUT complies with the essential requirements in the standard.<br>FAIL: The EUT does not comply with the essential requirements in the standard. | | | |

**BG96, BG96 MINIPCIE (Report No: R1811A0536-R2) is a variant model of BG96 (Report No: RXA1706-0199RF02R1). Test items tested see the table below. The detailed product change description please refers to the ANNEX B.**

| Band | Original (RXA1706-0199RF02R1) | Variant (R1811A0536-R2) |
|---|---|---|
| GSM1900 | Pass | Refer to the Original |
| LTE Band 2 | Pass | Pass |
| LTE Band 25 | NA | Pass |

# 1. Test Laboratory

## 1.1. Notes of the test report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

## 1.2. Test facility

**CNAS (accreditation number: L2264)**

TA Technology (Shanghai) Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

**FCC (Designation number: CN1179, Test Firm Registration Number: 446626)**

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

**IC (recognition number is 8510A)**

TA Technology (Shanghai) Co., Ltd. has been listed by industry Canada to perform electromagnetic emission measurement.

**VCCI (recognition number is C-4595, T-2154, R-4113, G-10766)**

TA Technology (Shanghai) Co., Ltd. has been listed by industry Japan to perform electromagnetic emission measurement.

**A2LA (Certificate Number: 3857.01)**

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

## 1.3. Testing Location

| | |
|---|---|
| Company: | TA Technology (Shanghai) Co., Ltd. |
| Address: | No.145, Jintang Rd, Tangzhen Industry Park, Pudong |
| City: | Shanghai |
| Post code: | 201201 |
| Country: | P. R. China |
| Contact: | Xu Kai |
| Telephone: | +86-021-50791141/2/3 |
| Fax: | +86-021-50791141/2/3-8000 |
| Website: | http://www.ta-shanghai.com |
| E-mail: | xukai@ta-shanghai.com |

# 2. General Description of Equipment under Test

**Client Information**

| | |
|---|---|
| Applicant | Quectel Wireless Solutions Co., Ltd. |
| Applicant address | 7th Floor, Hongye Building, No. 1801 Hongmei Road, Xuhui District, Shanghai, China |
| Manufacturer | Quectel Wireless Solutions Co., Ltd. |
| Manufacturer address | 7th Floor, Hongye Building, No. 1801 Hongmei Road, Xuhui District, Shanghai, China |

**General information**

| EUT Description | | | |
|---|---|---|---|
| Model | BG96, BG96 MINIPCIE | | |
| IMEI | 866425038291656 | | |
| Hardware Version | R1.2 | | |
| Software Version | BG96MAR04A01M1G | | |
| Power Supply | External power supply | | |
| Antenna Type | The EUT don't have standard Antenna, The Antenna used for testing in this report is the after-market accessory (Dipole Antenna) | | |
| Antenna Gain | 4 dBi | | |
| Test Mode(s) | GSM1900; LTE Band 2; LTE Band 25 | | |
| Test Modulation | (GSM)GMSK,8PSK; (LTE)QPSK,16QAM | | |
| LTE Category | M1 | | |
| Maximum E.I.R.P | GSM 1900: | 32.43 dBm | |
| | LTE Band 2: | 29.66 dBm | |
| | LTE Band 25: | 22.61 dBm | |
| Rated Power Supply Voltage | 3.8V | | |
| Extreme Voltage | Minimum: 3.3V Maximum: 4.3V | | |
| Extreme Temperature | Lowest: -40°C Highest: +85°C | | |
| Operating Frequency Range(s) | Band | Tx (MHz) | Rx (MHz) |
| | GSM1900 | 1850 ~ 1910 | 1930 ~ 1990 |
| | LTE Band 2 | 1850 ~ 1910 | 1930 ~ 1990 |
| | LTE Band 25 | 1850 ~ 1915 | 1930 ~ 1995 |
| Note: The information of the EUT is declared by the manufacturer. | | | |

The series model number is: BG96 MINIPCIE. The difference of these models are have different marketing requirement.

| Accessory equipment | |
|---|---|
| Evaluation Board | RF Cable |
| RS232-to-USB Cable | Antenna: Dipole Antenna |
| Headset | USB Cable |

# 3. Applied Standards

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

**FCC CFR47 Part 2 (2018)**

**FCC CFR 47 Part 24E (2018)**

**ANSI C63.26 (2015)**

**KDB 971168 D01 Power Meas License Digital Systems v03r01**

# 4. Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (X axis, horizontal polarization) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.
Subsequently, only the worst case emissions are reported.
The following testing in GSM /LTE is set based on the maximum RF Output Power.

Test modes are chosen to be reported as the worst case configuration below:

| Test items | Modes/Modulation |
|---|---|
| | GSM 1900 |
| RF power output | GPRS<br>EGPRS |
| Effective Isotropic Radiated power | GPRS(1Tx slot)<br>EGPRS(1Tx slot) |
| Occupied Bandwidth | GPRS(1Tx slot)<br>EGPRS(1Tx slot) |
| Band Edge Compliance | GPRS(1Tx slot)<br>EGPRS(1Tx slot) |
| Peak-to-Average Power Ratio | GPRS(1Tx slot)<br>EGPRS(1Tx slot) |
| Frequency Stability | GPRS(1Tx slot)<br>EGPRS(1Tx slot) |
| Spurious Emissions at Antenna Terminals | GPRS(1Tx slot) |
| Radiates Spurious Emission | GPRS(1Tx slot) |

Test modes are chosen to be reported as the worst case configuration below for LTE Band 2/25

| Test items | Mode | Bandwidth (MHz) | | | | | | Modulation | | RB | | | Test Channel | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.4 | 3 | 5 | 10 | 15 | 20 | QPSK | 16QAM | 1 | 50% | 100% | L | M | H |
| RF power output | LTE 2 | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| | LTE 25 | O | O | O | O | O | O | O | O | O | O | O | O | O | O |
| Effective Isotropic Radiated power | LTE 2 | O | O | O | O | O | O | O | O | - | - | O | O | O | O |
| | LTE 25 | O | O | O | O | O | O | O | O | - | - | O | O | O | O |
| Occupied Bandwidth | LTE 2 | O | O | O | O | O | O | O | O | - | - | O | - | O | - |
| | LTE 25 | O | O | O | O | O | O | O | O | - | - | O | - | O | - |
| Band Edge Compliance | LTE 2 | O | O | O | O | O | O | O | O | O | - | O | O | - | O |
| | LTE 25 | O | O | O | O | O | O | O | O | O | - | O | O | - | O |
| Peak-to-Average Power Ratio | LTE 2 | O | O | O | O | O | O | O | O | - | - | O | - | O | - |
| | LTE 25 | O | O | O | O | O | O | O | O | - | - | O | - | O | - |
| Frequency Stability | LTE 2 | O | O | O | O | O | O | O | O | - | - | O | - | O | - |
| | LTE 25 | O | O | O | O | O | O | O | O | - | - | O | - | O | - |
| Conducted Spurious Emissions | LTE 2 | O | O | O | O | O | O | O | - | O | - | - | O | O | O |
| | LTE 25 | O | O | O | O | O | O | O | - | O | - | - | O | O | O |
| Radiates Spurious Emission | LTE 2 | - | - | - | - | - | O | O | - | O | - | - | O | O | O |
| | LTE 25 | - | - | - | - | - | O | O | - | O | - | - | O | O | O |
| Note | | 1. The mark “O” means that this configuration is chosen for testing.<br>2. The mark “-” means that this configuration is not testing. | | | | | | | | | | | | | |

# 5. Test Case Results

## 5.1. RF Power Output

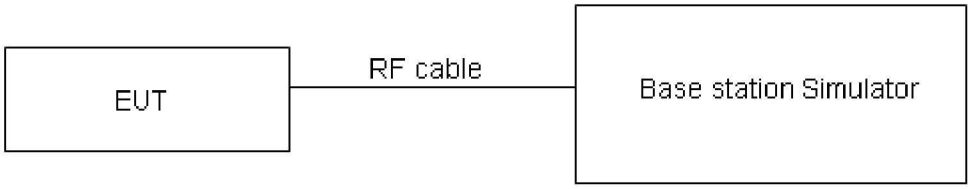
### Ambient condition

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.5kPa |

### Methods of Measurement

During the process of the testing, The EUT is controlled by the Base Station Simulator to ensure max power transmission and proper modulation.

### Test Setup




The loss between RF output port of the EUT and the input port of the tester has been taken into consideration.

### Limits

No specific RF power output requirements in part 2.1046.

### Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k$ = 2, $U$= 0.4 dB.

## Test Results

| GSM 1900 | | Conducted Power(dBm) | | |
|---|---|---|---|---|
| | | Channel 512 | Channel 661 | Channel 810 |
| | | 1850.2(MHz) | 1880(MHz) | 1909.8(MHz) |
| GPRS (GMSK) | 1TXslot | 29.76 | 29.66 | 29.46 |
| | 2TXslots | 29.65 | 29.57 | 29.38 |
| | 3TXslots | 29.51 | 29.45 | 29.27 |
| | 4TXslots | 29.42 | 29.32 | 29.16 |
| EGPRS (8PSK) | 1TXslot | 26.06 | 25.88 | 25.84 |
| | 2TXslots | 25.89 | 25.81 | 25.68 |
| | 3TXslots | 25.78 | 25.64 | 25.49 |
| | 4TXslots | 25.57 | 25.45 | 25.38 |

| Mode | Bandwidth | Channel/ Frequency(MHz) | RB# RBstart | Index | Conducted Power (dBm) | |
|---|---|---|---|---|---|---|
| | | | | | QPSK | 16QAM |
| Band2 | 1.4MHz | 18607/1850.7 | 1#0 | 0 | 23.25 | 23.80 |
| | | | 6#0 | 0 | 23.42 | 23.52 |
| | | 18900/1880 | 1#0 | 0 | 23.37 | 23.83 |
| | | | 6#0 | 0 | 23.55 | 23.72 |
| | | 19193/1909.3 | 1#5 | 0 | 23.73 | 23.84 |
| | | | 6#0 | 0 | 23.70 | 23.74 |
| | 3MHz | 18615/1851.5 | 1#0 | 0 | 23.84 | 23.83 |
| | | | 6#0 | 0 | 23.74 | 23.55 |
| | | 18900/1880 | 1#0 | 0 | 23.41 | 23.85 |
| | | | 6#0 | 0 | 23.59 | 23.76 |
| | | 19185/1908.5 | 1#5 | 1 | 23.76 | 23.87 |
| | | | 6#0 | 1 | 23.73 | 23.77 |
| | 5MHz | 18625/1852.5 | 1#0 | 0 | 23.24 | 23.80 |
| | | | 6#0 | 0 | 23.43 | 23.53 |
| | | 18900/1880 | 1#0 | 0 | 23.39 | 23.81 |
| | | | 6#0 | 0 | 23.58 | 23.72 |
| | | 19175/1907.5 | 1#5 | 3 | 23.72 | 23.84 |
| | | | 6#0 | 3 | 23.71 | 23.72 |
| | 10MHz | 18650/1855 | 1#0 | 0 | 23.26 | 23.82 |
| | | | 4#0 | 0 | 23.51 | 23.56 |
| | | 18900/1880 | 1#0 | 0 | 23.40 | 23.84 |
| | | | 4#0 | 0 | 23.60 | 23.77 |
| | | 19150/1905 | 1#5 | 7 | 23.75 | 23.86 |
| | | | 4#2 | 7 | 23.75 | 23.76 |
| | 15MHz | 18675/1857.5 | 1#0 | 0 | 23.25 | 23.77 |
| | | | 6#0 | 0 | 23.49 | 23.53 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 18900/1880 | 1#0 | 0 | 23.36 | 23.82 |
| | | | 6#0 | 0 | 23.56 | 23.72 |
| | | 19125/1902.5 | 1#5 | 11 | 23.73 | 23.84 |
| | | | 6#0 | 11 | 23.70 | 23.72 |
| | 20MHz | 18700/1860 | 1#0 | 0 | 23.22 | 23.75 |
| | | | 6#0 | 0 | 23.46 | 23.51 |
| | | 18900/1880 | 1#0 | 0 | 23.32 | 23.78 |
| | | | 6#0 | 0 | 23.51 | 23.68 |
| | | 19100/1900 | 1#5 | 15 | 23.70 | 23.79 |
| | | | 6#0 | 15 | 23.66 | 23.69 |

| Mode | Bandwidth | Channel/ Frequency(MHz) | RB# RBstart | Index | Conducted Power (dBm) | |
|---|---|---|---|---|---|---|
| | | | | | QPSK | 16QAM |
| Band 25 | 1.4MHz | 26047/1850.7 | 1#0 | 0 | 23.41 | 24.08 |
| | | | 6#0 | 0 | 23.53 | 23.64 |
| | | 26365/1882.5 | 1#0 | 0 | 24.10 | 23.94 |
| | | | 6#0 | 0 | 23.53 | 23.56 |
| | | 26683/1914.3 | 1#5 | 0 | 23.50 | 23.98 |
| | | | 6#0 | 0 | 23.62 | 23.66 |
| | 3MHz | 26055/1851.5 | 1#0 | 0 | 23.32 | 23.88 |
| | | | 6#0 | 0 | 23.63 | 23.56 |
| | | 26365/1882.5 | 1#0 | 0 | 23.79 | 23.02 |
| | | | 6#0 | 0 | 23.63 | 24.00 |
| | | 26675/1913.5 | 1#5 | 1 | 24.02 | 23.20 |
| | | | 6#0 | 1 | 23.70 | 24.12 |
| | 5MHz | 26065/1852.5 | 1#0 | 0 | 23.77 | 23.25 |
| | | | 6#0 | 0 | 23.66 | 24.17 |
| | | 26365/1882.5 | 1#0 | 0 | 23.69 | 23.55 |
| | | | 6#0 | 0 | 23.60 | 24.24 |
| | | 26665/1912.5 | 1#5 | 0 | 23.70 | 24.52 |
| | | | 6#0 | 3 | 23.76 | 23.86 |
| | 10MHz | 26090/1855 | 1#0 | 0 | 23.79 | 23.38 |
| | | | 4#0 | 0 | 24.00 | 24.37 |
| | | 26365/1882.5 | 1#0 | 0 | 23.50 | 24.41 |
| | | | 4#0 | 0 | 23.66 | 23.47 |
| | | 26640/1910 | 1#5 | 4 | 23.65 | 24.53 |
| | | | 4#2 | 7 | 23.85 | 23.55 |
| | 15MHz | 26115/1857.5 | 1#0 | 0 | 23.85 | 23.42 |
| | | | 6#0 | 0 | 23.72 | 24.09 |
| | | 26365/1882.5 | 1#0 | 0 | 23.56 | 24.41 |
| | | | 6#0 | 0 | 23.68 | 23.90 |
| | | 26615/1907.5 | 1#5 | 8 | 23.62 | 24.50 |
| | | | 6#0 | 11 | 23.81 | 23.80 |
| | 20MHz | 26140/1860 | 1#0 | 0 | 23.81 | 23.41 |
| | | | 6#0 | 0 | 23.81 | 24.24 |
| | | 26365/1882.5 | 1#0 | 0 | 23.58 | 24.42 |
| | | | 6#0 | 0 | 23.78 | 23.74 |
| | | 26590/1905 | 1#5 | 12 | 23.99 | 23.63 |
| | | | 6#0 | 15 | 23.84 | 24.28 |

## 5.2. Effective Isotropic Radiated Power

**Ambient condition**

| Temperature | Relative humidity | Pressure |
|---|---|---|
| 23°C ~25°C | 45%~50% | 101.5kPa |

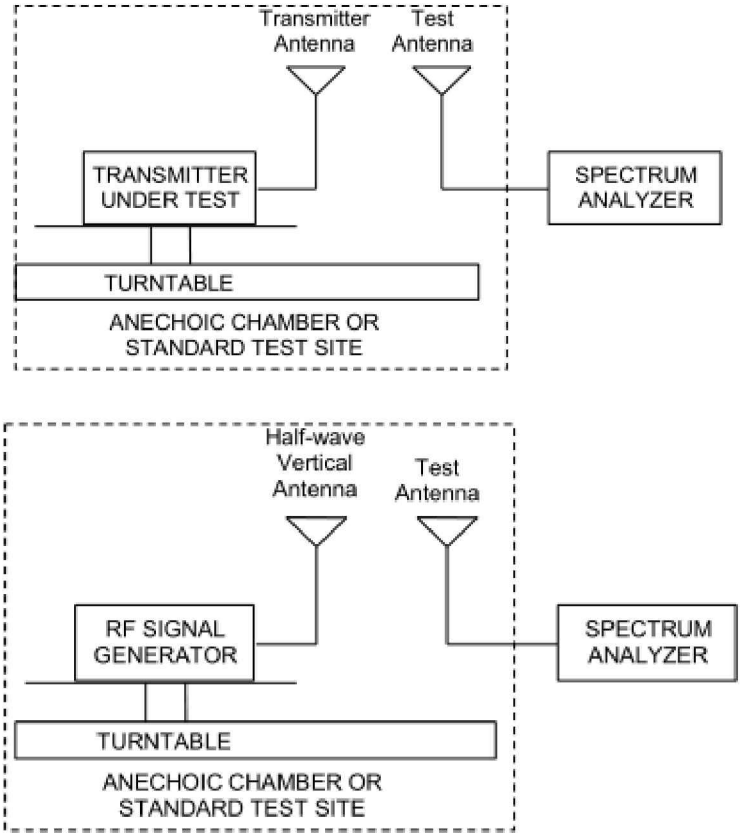
**Methods of Measurement**

The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).

a) Connect the equipment as illustrated. Mount the equipment with the manufacturer specified antenna in a vertical orientation on a manufacturer specified mounting surface located on a non-conducting rotating platform of a RF anechoic chamber (preferred) or a standard radiation site.
b) Key the transmitter, then rotate the EUT 360° azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment. (Note: several batteries may be needed to offset the effect of battery voltage droop, which should not exceed 5% of the manufactured specified battery voltage during transmission).
c) Replace the transmitter under test with a vertically polarized half-wave dipole (or an antenna whose gain is known relative to an ideal half-wave dipole). The center of the antenna should be at the same location as the center of the antenna under test.
d) Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading.LOSS = Generator Output Power (dBm) – Analyzer reading (dBm)
e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation:ERP (dBm) = LVL (dBm) + LOSS (dB)
f) The maximum ERP is the maximum value determined in the preceding step.
g) When calculating ERP, in addition to knowing the antenna radiation and matching characteristics, it is necessary to know the loss values of all elements (e.g.transmission line attenuation, mismatches, filters, combiners) interposed between the point where transmitter output power is measured, and the point where power is applied to the antenna. ERP can then be calculated as follows:
EIRP (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBi)
where:dBd refers to gain relative to an ideal dipole.
EIRP (dBm ) = ERP (dBm) + 2.15 (dB.)

The RB allocation refers to section 5.1, using the maximum output power configuration.

**Test setup**




**Limits**

Rule Part 24.232(c) Mobile and portable stations are limited to 2 watts EIRP.
Rule Part 24.232(e) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

| Limit | ≤ 2 W (33 dBm) |
|---|---|

**Measurement Uncertainty**

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k$ = 2, $U$= 1.19 dB

**Test Results:**

The measurement is performed for both of horizontal and vertical antenna Polarization, and only the data of worst mode is recorded in this report.

| Mode | Polarization | Frequency (MHz) | EIRP (dBm) | Limit (dBm) | Conclusion |
|---|---|---|---|---|---|
| GPRS 1900 | H | 1850.2 | 31.88 | 33 | Pass |
| | H | 1880 | 31.82 | 33 | Pass |
| | H | 1909.8 | 32.43 | 33 | Pass |
| EGPRS 1900 | H | 1850.2 | 28.06 | 33 | Pass |
| | H | 1880 | 27.88 | 33 | Pass |
| | H | 1909.8 | 27.84 | 33 | Pass |

| LTE Band 2 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bandwidth | Channel/ Frequency (MHz) | Polarization | RB | Index | EIRP (dBm) | Limit (dBm) | Conclusion |
| 1.4 MHz (QPSK) | 18607/1850.7 | Horizontal | 1#0 | 0 | 28.96 | 33 | Pass |
| | 18900/1880 | Horizontal | 1#2 | 0 | 29.66 | 33 | Pass |
| | 19193/1909.3 | Horizontal | 1#5 | 0 | 29.38 | 33 | Pass |
| 3 MHz (QPSK) | 18615/1851.5 | Horizontal | 1#0 | 0 | 29.27 | 33 | Pass |
| | 18900/1880 | Horizontal | 1#5 | 0 | 29.54 | 33 | Pass |
| | 19185/1908.5 | Horizontal | 1#5 | 1 | 29.45 | 33 | Pass |
| 5 MHz (QPSK) | 18625/1852.5 | Horizontal | 1#0 | 0 | 28.76 | 33 | Pass |
| | 18900/1880 | Horizontal | 1#5 | 1 | 28.96 | 33 | Pass |
| | 19175/1907.5 | Horizontal | 1#5 | 3 | 29.00 | 33 | Pass |
| 10 MHz (QPSK) | 18650/1855 | Horizontal | 4#0 | 0 | 27.74 | 33 | Pass |
| | 18900/1880 | Horizontal | 4#2 | 3 | 28.31 | 33 | Pass |
| | 19150/1905 | Horizontal | 4#2 | 7 | 28.25 | 33 | Pass |
| 15 MHz (QPSK) | 18675/1857.5 | Horizontal | 1#0 | 0 | 27.23 | 33 | Pass |
| | 18900/1880 | Horizontal | 1#5 | 5 | 27.53 | 33 | Pass |
| | 19125/1902.5 | Horizontal | 1#5 | 11 | 27.53 | 33 | Pass |
| 20 MHz (QPSK) | 18700/1860 | Horizontal | 6#0 | 0 | 26.34 | 33 | Pass |
| | 18900/1880 | Horizontal | 6#0 | 7 | 26.74 | 33 | Pass |
| | 19100/1900 | Horizontal | 6#0 | 15 | 26.67 | 33 | Pass |
| 1.4 MHz (16QAM) | 18607/1850.7 | Horizontal | 1#0 | 0 | 28.65 | 33 | Pass |
| | 18900/1880 | Horizontal | 1#2 | 0 | 29.30 | 33 | Pass |
| | 19193/1909.3 | Horizontal | 1#5 | 0 | 29.05 | 33 | Pass |
| 3 MHz (16QAM) | 18615/1851.5 | Horizontal | 1#0 | 0 | 29.00 | 33 | Pass |
| | 18900/1880 | Horizontal | 1#5 | 0 | 29.22 | 33 | Pass |
| | 19185/1908.5 | Horizontal | 1#5 | 1 | 29.15 | 33 | Pass |
| 5 MHz | 18625/1852.5 | Horizontal | 1#0 | 0 | 28.42 | 33 | Pass |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (16QAM) | 18900/1880 | Horizontal | 1#5 | 1 | 28.66 | 33 | Pass |
| | 19175/1907.5 | Horizontal | 1#5 | 3 | 28.69 | 33 | Pass |
| 10 MHz (16QAM) | 18650/1855 | Horizontal | 4#0 | 0 | 27.42 | 33 | Pass |
| | 18900/1880 | Horizontal | 4#2 | 3 | 28.01 | 33 | Pass |
| | 19150/1905 | Horizontal | 4#2 | 7 | 27.95 | 33 | Pass |
| 15 MHz (16QAM) | 18675/1857.5 | Horizontal | 1#0 | 0 | 26.92 | 33 | Pass |
| | 18900/1880 | Horizontal | 1#5 | 5 | 27.22 | 33 | Pass |
| | 19125/1902.5 | Horizontal | 1#5 | 11 | 27.22 | 33 | Pass |
| 20 MHz (16QAM) | 18700/1860 | Horizontal | 6#0 | 0 | 26.04 | 33 | Pass |
| | 18900/1880 | Horizontal | 6#0 | 7 | 26.41 | 33 | Pass |
| | 19100/1900 | Horizontal | 6#0 | 15 | 26.35 | 33 | Pass |

| LTE Band 25 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| bandwidth | Channel | Frequency (MHz) | Polarization | RB | Index | EIRP (dBm) | Limit (dBm) | Conclusion |
| 1.4 MHz (QPSK) | Low | 1850.7 | Horizontal | 1#0 | 0 | 22.16 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 1#2 | 0 | 22.06 | 33 | Pass |
| | High | 1914.3 | Horizontal | 1#5 | 0 | 21.27 | 33 | Pass |
| 3 MHz (QPSK) | Low | 1851.5 | Horizontal | 1#0 | 0 | 22.23 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 1#5 | 0 | 22.12 | 33 | Pass |
| | High | 1913.5 | Horizontal | 1#5 | 1 | 21.68 | 33 | Pass |
| 5 MHz (QPSK) | Low | 1852.5 | Horizontal | 1#0 | 0 | 22.37 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 1#5 | 1 | 22.24 | 33 | Pass |
| | High | 1912.5 | Horizontal | 1#5 | 3 | 21.37 | 33 | Pass |
| 10 MHz (QPSK) | Low | 1855 | Horizontal | 4#0 | 0 | 22.49 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 4#2 | 3 | 21.89 | 33 | Pass |
| | High | 1910 | Horizontal | 4#2 | 7 | 21.45 | 33 | Pass |
| 15 MHz (QPSK) | Low | 1857.5 | Horizontal | 1#0 | 0 | 22.59 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 1#5 | 5 | 22.03 | 33 | Pass |
| | High | 1907.5 | Horizontal | 1#5 | 11 | 21.47 | 33 | Pass |
| 20 MHz (QPSK) | Low | 1860 | Horizontal | 6#0 | 0 | 22.61 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 6#0 | 7 | 22.29 | 33 | Pass |
| | High | 1905 | Horizontal | 6#0 | 15 | 21.11 | 33 | Pass |
| 1.4 MHz (16QAM) | Low | 1850.7 | Horizontal | 1#0 | 0 | 21.67 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 1#2 | 0 | 21.59 | 33 | Pass |
| | High | 1914.3 | Horizontal | 1#5 | 0 | 20.83 | 33 | Pass |
| 3 MHz (16QAM) | Low | 1851.5 | Horizontal | 1#0 | 0 | 21.76 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 1#5 | 0 | 21.68 | 33 | Pass |
| | High | 1913.5 | Horizontal | 1#5 | 1 | 21.09 | 33 | Pass |
| 5 MHz | Low | 1852.5 | Horizontal | 1#0 | 0 | 21.77 | 33 | Pass |

| LTE Band 25 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| bandwidth | Channel | Frequency (MHz) | Polarization | RB | Index | EIRP (dBm) | Limit (dBm) | Conclusion |
| (16QAM) | Mid | 1882.5 | Horizontal | 1#5 | 1 | 21.69 | 33 | Pass |
| | High | 1912.5 | Horizontal | 1#5 | 3 | 20.81 | 33 | Pass |
| 10 MHz (16QAM) | Low | 1855 | Horizontal | 4#0 | 0 | 22.01 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 4#2 | 3 | 21.39 | 33 | Pass |
| | High | 1910 | Horizontal | 4#2 | 7 | 20.97 | 33 | Pass |
| 15 MHz (16QAM) | Low | 1857.5 | Horizontal | 1#0 | 0 | 21.93 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 1#5 | 5 | 21.51 | 33 | Pass |
| | High | 1907.5 | Horizontal | 1#5 | 11 | 21.04 | 33 | Pass |
| 20 MHz (16QAM) | Low | 1860 | Horizontal | 6#0 | 0 | 22.14 | 33 | Pass |
| | Mid | 1882.5 | Horizontal | 6#0 | 7 | 21.67 | 33 | Pass |
| | High | 1905 | Horizontal | 6#0 | 15 | 20.51 | 33 | Pass |