

MEASUREMENT REPORT

FCC PART 22 & 24 & 27

FCC ID: XMR202111EG915ULA

Application: Quectel Wireless Solutions Company Limited

Application Type: Certification

Product: LTE Module

Model No.: EG915U-LA

Brand Name: Quectel

FCC Rule Part(s): Part 22 (H), 24 (E), 27

Test Procedure(s): ANSI C63.26: 2015

Test Date: October 17 ~ November 02, 2021

Reviewed By:

Sunny Sun

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

| Report No. | Version | Description | Issue Date | Note |
|---------------|---------|----------------|------------|-------|
| 2110RSU013-U2 | Rev. 01 | Initial Report | 11-17-2021 | Valid |
| | | | | |

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1. GENERAL INFORMATION

1.1. Applicant

Quectel Wireless Solutions Company Limited
Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District,
Shanghai, China 200233

1.2. Manufacturer

Quectel Wireless Solutions Company Limited
Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District,
Shanghai, China 200233

1.3. Testing Facility

| | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Test Site - MRT Suzhou Laboratory |
| | Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China |
| | Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China |
| | Laboratory Accreditations |
| | A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: <input type="checkbox"/> R-20025 <input type="checkbox"/> G-20034 <input type="checkbox"/> C-20020 <input type="checkbox"/> T-20020 <input type="checkbox"/> R-20141 <input type="checkbox"/> G-20134 <input type="checkbox"/> C-20103 <input type="checkbox"/> T-20104 |
| <input type="checkbox"/> | Test Site - MRT Shenzhen Laboratory |
| | Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China |
| | Laboratory Accreditations |
| | A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105 |
| <input type="checkbox"/> | Test Site - MRT Taiwan Laboratory |
| | Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) |
| | Laboratory Accreditations |
| | TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261 |

1.4. Product Information

| | |
|--|--|
| Product Name | LTE Module |
| Model No. | EG915U-LA |
| Brand Name | Quectel |
| IMEI | Conducted Measurement:865413050001212 Radiated Measurement: 865413050000693 |
| Bluetooth Specification | V4.2 single mode for BR/EDR |
| Wi-Fi Specification | Scan function only |
| GSM Band | GSM 850, PCS 1900 |
| E-UTRA Band | Band 2, 4, 5, 7, 66 |
| Operating Temperature | -35 ~ 75 °C |
| Power Type | 3.3 ~ 4.3Vdc, typical 3.8Vdc |
| Remark: | |
| 1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer. | |

1.5. Radio Specification under Test

| | |
|--------------------------------|--|
| E-UTRA Specification | |
| T _x Frequency Range | Band 2: 1850 ~ 1910 MHz; Band 4: 1710 ~ 1755 MHz Band 5: 824 ~ 849 MHz; Band 7: 2500 ~ 2570 MHz Band 66: 1710 ~ 1780 MHz |
| R _x Frequency Range | Band 2: 1930 ~ 1990 MHz; Band 4: 2110 ~ 2155 MHz Band 5: 869 ~ 894 MHz; Band 7: 2620 ~ 2690 MHz Band 66: 2110 ~ 2200 MHz |
| Modulation | QPSK |

1.6. Test Methodology

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

- ANSI C63.26:2015
- FCC CFR 47 Part 22, Part 24, Part 27
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 971168 D02 v02r01: Misc Rev Approv License Devices
- FCC KDB 412172 D01 v01r01: Determining ERP and EIRP

1.7. Device Capabilities

This device contains the following capabilities:

Working on LTE Band 2, 4, 5, 7, 66; LTE Module.

LTE Band 66 (1710 ~ 1780 MHz) overlaps the entire frequency range of LTE Band 4 (1710 ~ 1755 MHz). Therefore, test data provided in this report covers Band 4 as well as Band 66.

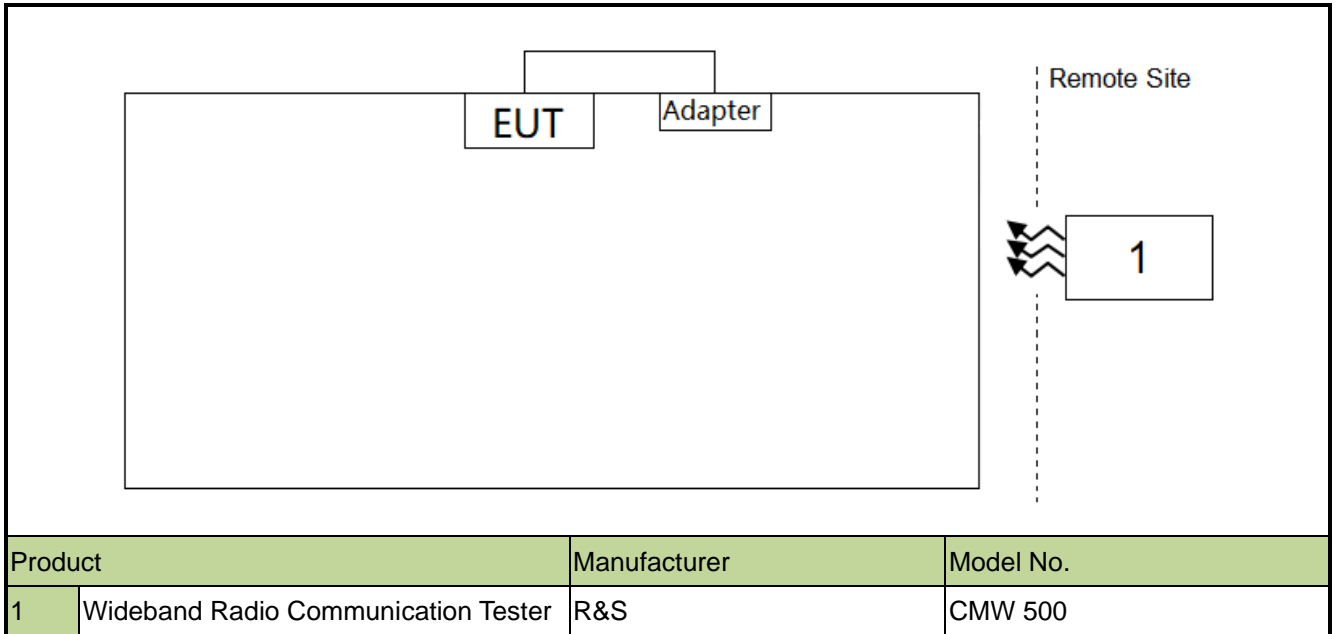
1.8. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

1.9. Maximum Power, Frequency Tolerance, and Emission Designator

| LTE Band 2 | | QPSK | | | LTE Band 4/66 | | QPSK | | |
|------------|-----------------|------------|-----------------|---------------|---------------|-----------------|------------|-----------------|---------------|
| BW (MHz) | Feq. (MHz) | Designator | Tolerance (ppm) | Max Power (W) | BW (MHz) | Feq. (MHz) | Designator | Tolerance (ppm) | Max Power (W) |
| 1.4 | 1850.7 ~ 1909.3 | 1M08G7D | - | 0.2061 | 1.4 | 1710.7 ~ 1779.3 | 1M07G7D | - | 0.2228 |
| 3 | 1851.5 ~ 1908.5 | 2M68G7D | - | 0.2203 | 3 | 1711.5 ~ 1778.5 | 2M68G7D | - | 0.2377 |
| 5 | 1852.5 ~ 1907.5 | 4M46G7D | - | 0.1914 | 5 | 1712.5 ~ 1777.5 | 4M46G7D | - | 0.2089 |
| 10 | 1855.0 ~ 1905.0 | 8M89G7D | - | 0.2028 | 10 | 1715.0 ~ 1775.0 | 8M88G7D | - | 0.2218 |
| 15 | 1857.5 ~ 1902.5 | 13M4G7D | - | 0.2138 | 15 | 1717.5 ~ 1772.5 | 13M4G7D | - | 0.2333 |
| 20 | 1860.0 ~ 1900.0 | 17M9G7D | -0.0232 | 0.2163 | 20 | 1720.0 ~ 1770.0 | 17M9G7D | -0.0205 | 0.2301 |
| LTE Band 5 | | QPSK | | | LTE Band 7 | | QPSK | | |
| BW (MHz) | Feq. (MHz) | Designator | Tolerance (ppm) | Max Power (W) | BW (MHz) | Feq. (MHz) | Designator | Tolerance (ppm) | Max Power (W) |
| 1.4 | 824.7 ~ 848.3 | 1M07G7D | - | 0.2123 | 5 | 2502.5 ~ 2567.5 | 4M46G7D | - | 0.2094 |
| 3 | 825.5 ~ 847.5 | 2M68G7D | - | 0.2301 | 10 | 2505.0 ~ 2565.0 | 8M87G7D | - | 0.2193 |
| 5 | 826.5 ~ 846.5 | 4M46G7D | - | 0.1959 | 15 | 2507.5 ~ 2562.5 | 13M4G7D | - | 0.2218 |
| 10 | 829.0 ~ 844.0 | 8M88G7D | -0.0139 | 0.2037 | 20 | 2510.0 ~ 2560.0 | 17M9G7D | -0.0137 | 0.2234 |

1.10. Configuration of Tested System



1.11. Test Environment Condition

| | |
|---------------------|-------------|
| Ambient Temperature | 15 ~ 35°C |
| Relative Humidity | 20% ~ 75%RH |

2. TEST EQUIPMENT CALIBRATION DATE

| Instrument | Manufacturer | Model No. | Asset No. | Last Cali. Date | Cali. Due Date | Test Site |
|----------------------------------|--------------|------------|-------------|-----------------|----------------|-----------|
| EMI Test Receiver | R&S | ESR7 | MRTSUE06001 | 1 year | 2022/1/4 | WZ-AC1 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | MRTSUE06023 | 1 year | 2022/9/16 | WZ-AC1 |
| Temperature Chamber | BAOYT | BYH-150CL | MRTSUE06051 | 1 year | 2022/10/10 | WZ-TR3 |
| Preamplifier | Agilent | 83017A | MRTSUE06076 | 1 year | 2021/11/14 | WZ-AC1 |
| TRILOG Antenna | Schwarzbeck | VULB 9168 | MRTSUE06172 | 1 year | 2022/8/5 | WZ-AC1 |
| Thermohygrometer | Yuhuaze | HTC-2 | MRTSUE06184 | 1 year | 2022/8/10 | WZ-AC1 |
| Anechoic Chamber | TDK | WZ-AC1 | MRTSUE06212 | 1 year | 2022/4/29 | WZ-AC1 |
| Thermohygrometer | testo | 608-H1 | MRTSUE06362 | 1 year | 2022/2/25 | WZ-SR6 |
| Thermohygrometer | testo | 608-H1 | MRTSUE06401 | 1 year | 2022/6/28 | WZ-TR3 |
| Thermohygrometer | testo | 608-H1 | MRTSUE06403 | 1 year | 2022/6/28 | WZ-AC1 |
| Shielding Room | HUAMING | WZ-SR6 | MRTSUE06443 | / | / | WZ-SR6 |
| Signal Analyzer | Keysight | N9020B | MRTSUE06583 | 1 year | 2022/10/10 | WZ-SR6 |
| Signal Generator | Keysight | N5173B | MRTSUE06606 | 1 year | 2021/12/3 | WZ-SR6 |
| Signal Analyzer | Keysight | N9010B | MRTSUE06607 | 1 year | 2022/1/6 | WZ-AC1 |
| 5G Wireless Test Platform | Keysight | E7515B | MRTSUE06942 | 1 year | 2022/3/29 | WZ-SR6 |
| Radio Communication Analyzer | Anritsu | MT8821C | MRTSUE06960 | 1 year | 2022/7/1 | WZ-SR6 |
| Radio Communication Test Station | Anritsu | MT8000A | MRTSUE06961 | 1 year | 2022/7/1 | WZ-SR6 |

| Software | Version | Function |
|--------------|---------|-------------------|
| EMI Software | V3 | EMI Test Software |

3. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

| |
|--|
| Radiated Spurious Emissions |
| Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): Horizontal: 9kHz ~ 300MHz: 5.04dB 300MHz ~ 1GHz: 4.95dB 1GHz ~ 40GHz: 6.40dB Vertical: 9kHz ~ 300MHz: 5.24dB 300MHz ~ 1GHz: 6.03dB 1GHz ~ 40GHz: 6.40dB |
| Conducted Spurious Emissions |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.78dB |
| Output Power |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.13dB |
| Occupied Bandwidth |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.28% |
| Frequency Stability |
| Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 76.2Hz |

4. TEST RESULT

4.1. Summary

| FCC Part Section(s) | Test Description | Test Limit | Test Condition | Test Result | Reference |
|---|---|--|----------------|-------------|------------------|
| 2.1049 | Occupied Bandwidth | N/A | Conducted | Pass | Section 4.2 |
| 2.1055, 22.355 24.235, 27.54 | Frequency Stability | < 2.5 ppm | | Pass | Section 4.3 |
| 22.913(a)(5) | Equivalent Radiated Power (Band 5) | < 7 Watts Max ERP | | Pass | Section 4.4 |
| 24.232(c) 27.50(h)(2) | Equivalent Isotropic Radiated Power (Band 2, 7) | < 2 Watts Max EIRP | | | |
| 27.50(d)(4) | Equivalent Isotropic Radiated Power (Band 4/66) | < 1 Watts Max EIRP | | | |
| 24.232(d), 27.50(d)(5) | Peak to Average Ratio | < 13dB | | | |
| 2.1051, 22.917(a) 24.238(a), 27.53(h) | Band Edge (Band 2, 4/66, 5) | < 43 + 10log ₁₀ (P _[Watts]) | | | |
| 27.53(m) | Band Edge (Band 7) | 27.53(m)(4) | | Pass | Section 4.5, 4.7 |
| 2.1051, 22.917(a) 24.238(a), 27.53(h) | Spurious Emission (Band 2, 4/66, 5) | < 43 + 10log ₁₀ (P _[Watts]) | | | |
| 2.1051, 27.53(m) | Spurious Emission (Band 7) | < 55 + 10log ₁₀ (P _[Watts]) | | | |
| 2.1053, 22.917(a) 24.238(a), 27.53 (h) | Spurious Emissions (Band 2, 4/66, 5) | < 43 + 10log ₁₀ (P _[Watts]) | Radiated | Pass | Section 4.8 |
| 27.53(m) | Spurious Emissions (Band 7) | 27.53(m)(4) | | | |

Notes:

- 1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 2) All supported modulation types were evaluated. The worst-case emission of modulation was selected. Therefore, the Frequency Stability, Channel Band Edge, Conducted Spurious Emission, Radiated Spurious Emission were presented the worst-case in the test report.

4.2. Occupied Bandwidth

4.2.1. Test Limit

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

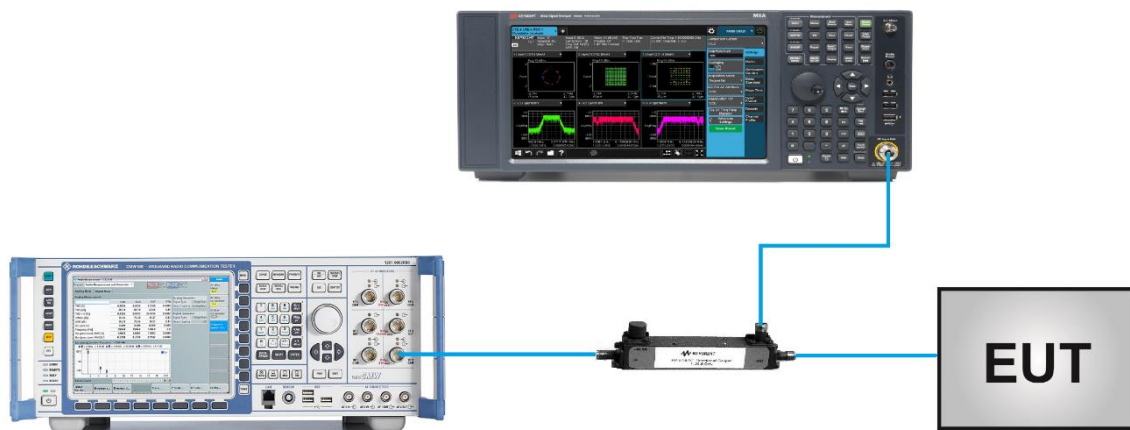
4.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.4

4.2.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency
2. RBW = The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

4.2.4. Test Setup



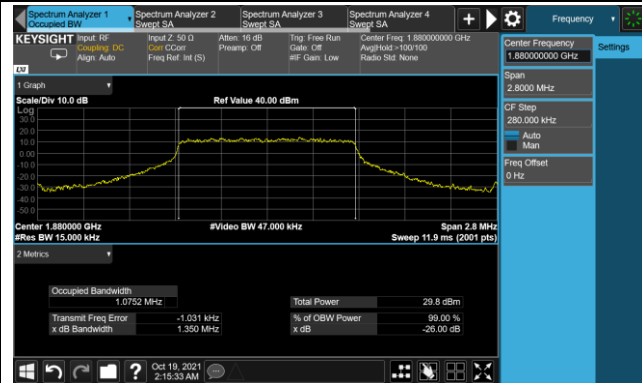
4.2.5. Test Result

| | | | |
|---------------|------------|-----------|-------------------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/19 ~ 2021/10/28 |
| Test Band | Band 2 | | |

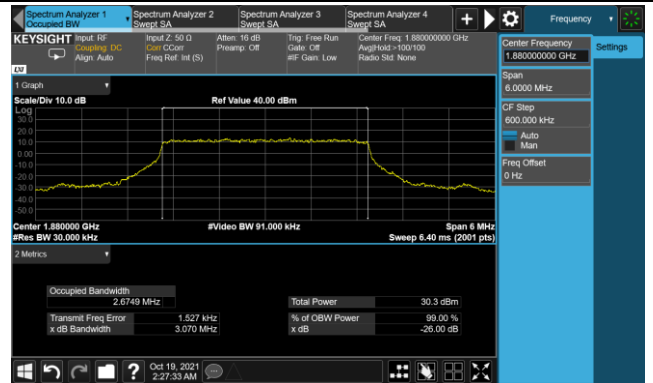
| Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|-----------------|---------------------|
| QPSK | | | |
| 18900 | 1880 | 1.4 | 1.08 |
| | | 3 | 2.68 |
| | | 5 | 4.46 |
| | | 10 | 8.89 |
| | | 15 | 13.41 |
| | | 20 | 17.86 |

99% Bandwidth - QPSK

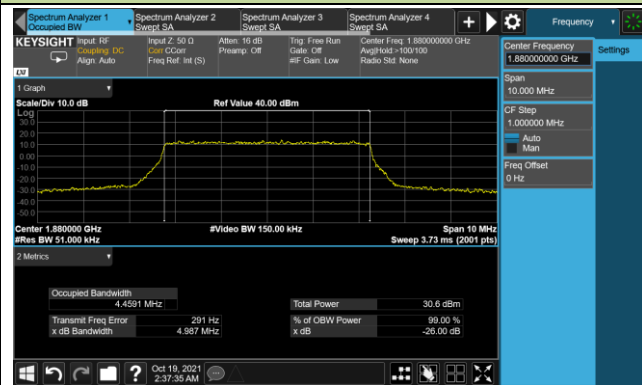
1.4MHz Channel Bandwidth



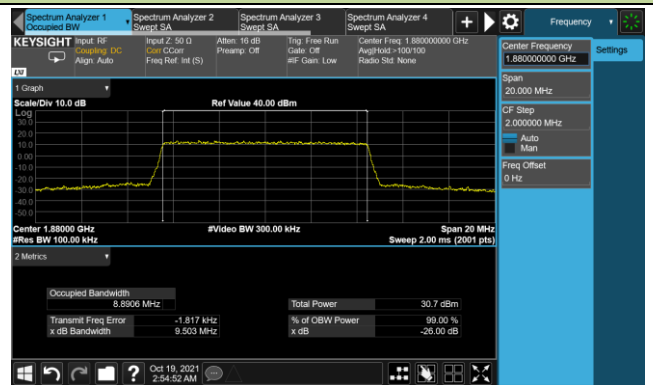
3MHz Channel Bandwidth



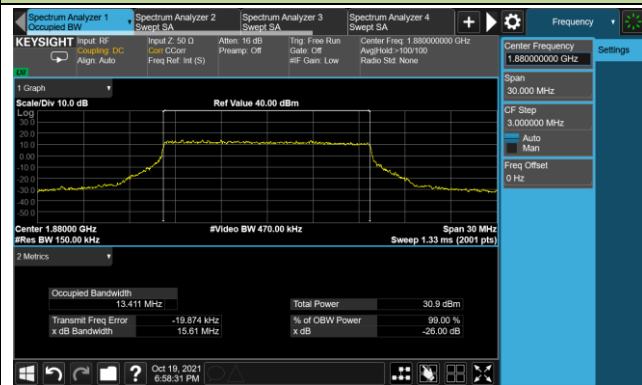
5MHz Channel Bandwidth



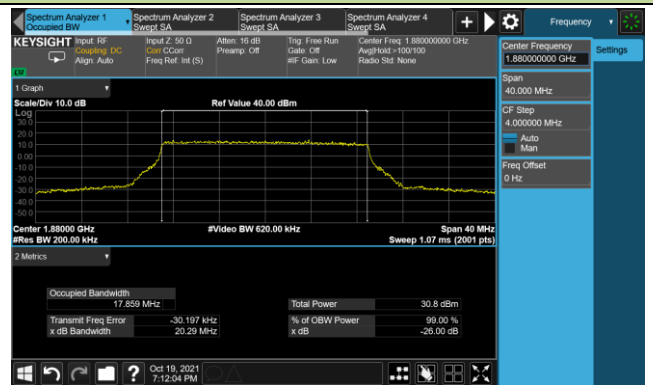
10MHz Channel Bandwidth



15MHz Channel Bandwidth



20MHz Channel Bandwidth



| | | | |
|---------------|------------|-----------|------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/19 |
| Test Band | Band 4/66 | | |

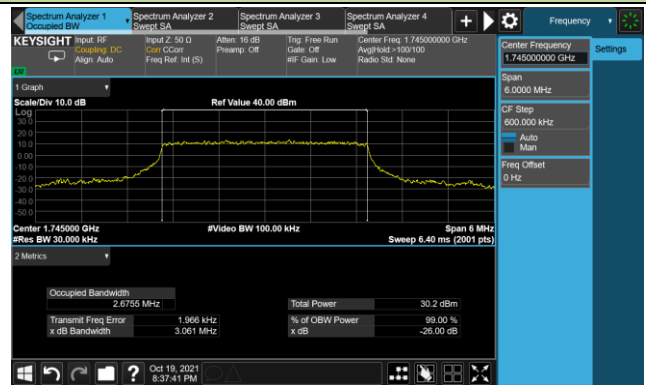
| Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|-----------------|---------------------|
| QPSK | | | |
| 20300 | 1745.0 | 1.4 | 1.07 |
| | | 3 | 2.68 |
| | | 5 | 4.46 |
| | | 10 | 8.88 |
| | | 15 | 13.41 |
| | | 20 | 17.85 |

99% Bandwidth - QPSK

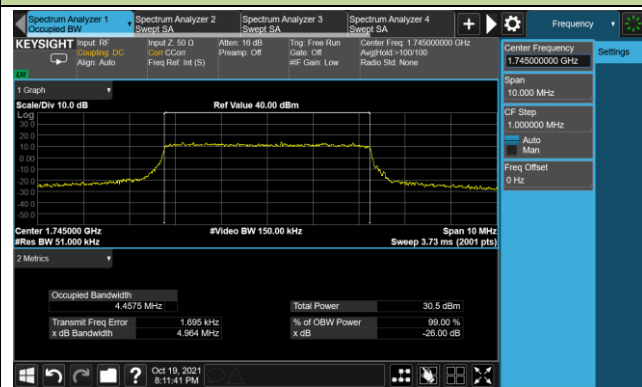
1.4MHz Channel Bandwidth



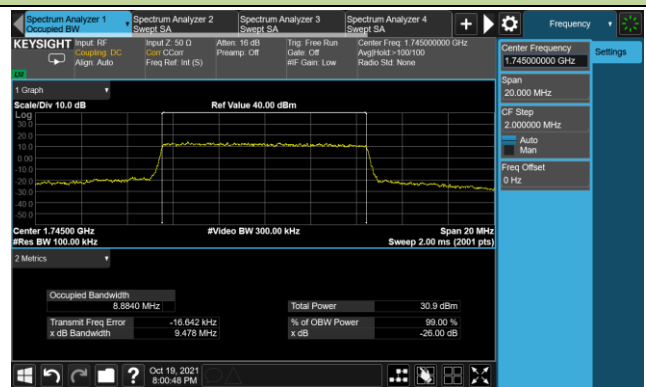
3MHz Channel Bandwidth



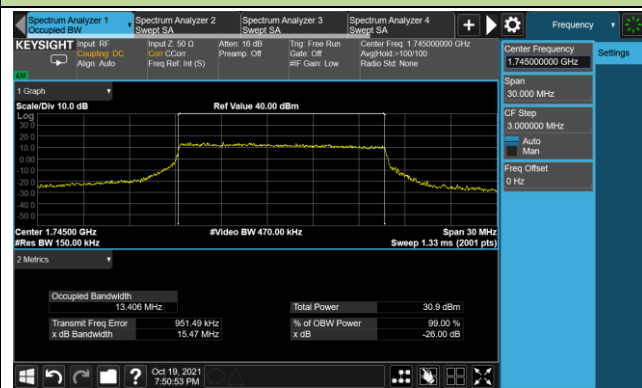
5MHz Channel Bandwidth



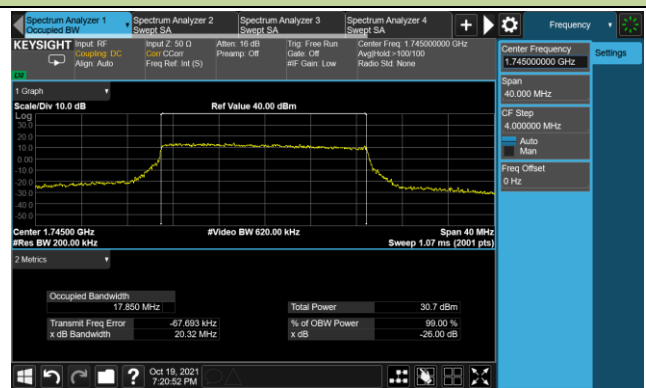
10MHz Channel Bandwidth



15MHz Channel Bandwidth

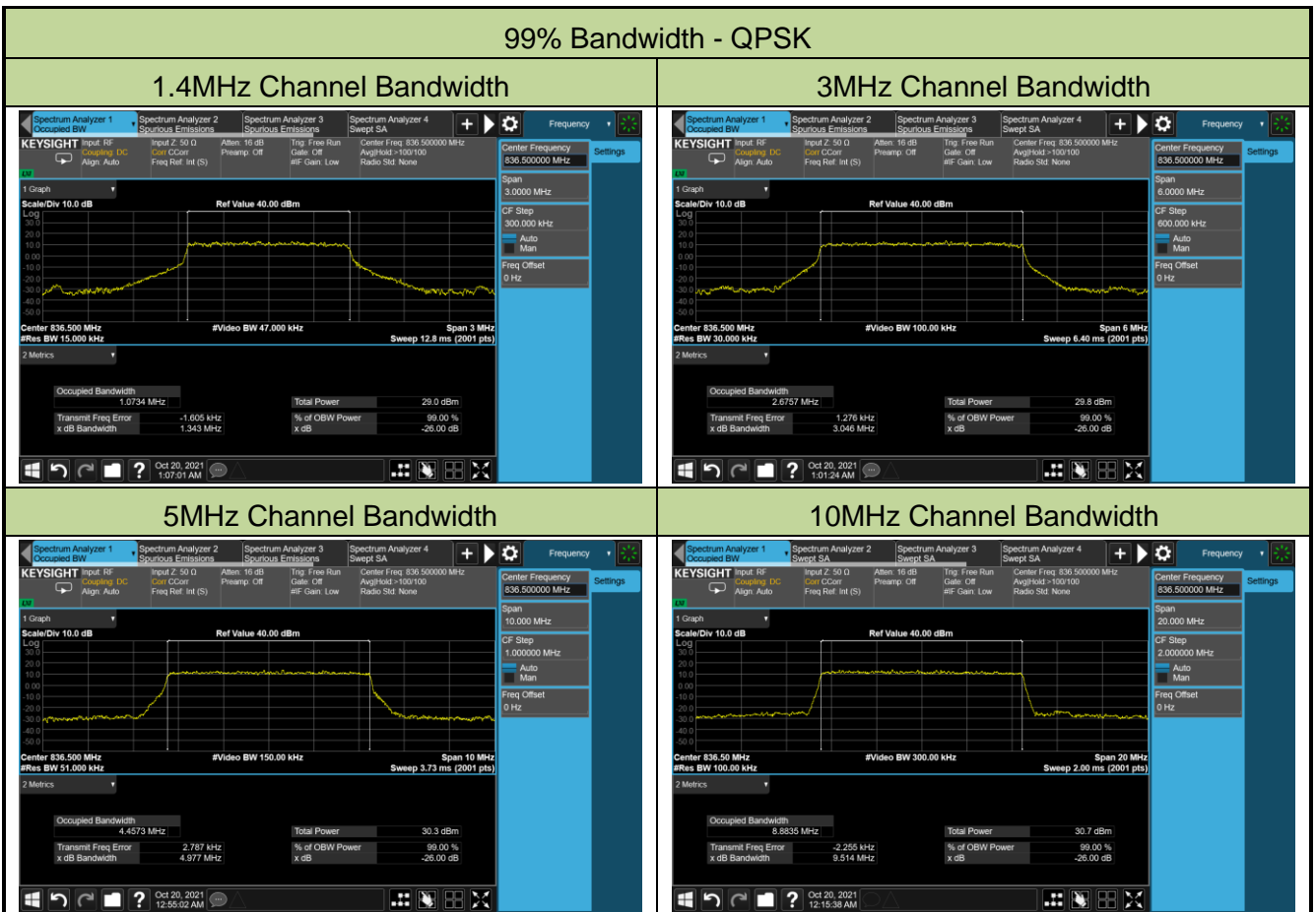


20MHz Channel Bandwidth



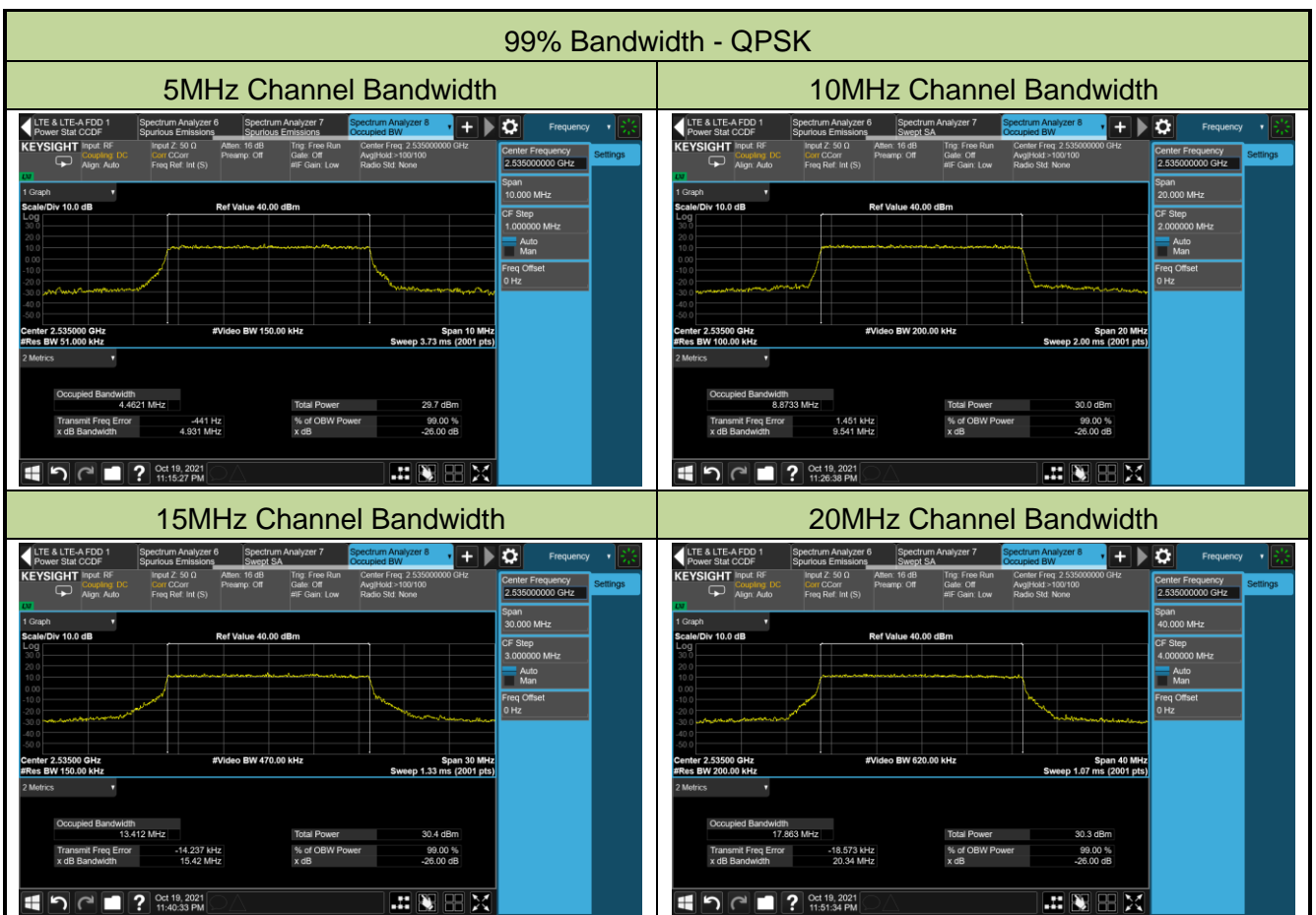
| | | | |
|---------------|------------|-----------|------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/20 |
| Test Band | LTE Band 5 | | |

| Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|-----------------|---------------------|
| QPSK | | | |
| 20525 | 836.5 | 1.4 | 1.07 |
| | | 3 | 2.68 |
| | | 5 | 4.46 |
| | | 10 | 8.88 |



| | | | |
|---------------|------------|-----------|------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/19 |
| Test Band | LTE Band 7 | | |

| Channel | Frequency (MHz) | Bandwidth (MHz) | 99% Bandwidth (MHz) |
|---------|-----------------|-----------------|---------------------|
| 21100 | 2535.0 | 5 | 4.46 |
| | | 10 | 8.87 |
| | | 15 | 13.41 |
| | | 20 | 17.86 |



4.3. Frequency Stability Measurement

4.3.1. Test Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

4.3.2. Test Procedures Used

ANSI C63.26-2015 - Section 5.6

4.3.3. Test Setting

Frequency Stability Under Temperature Variations:

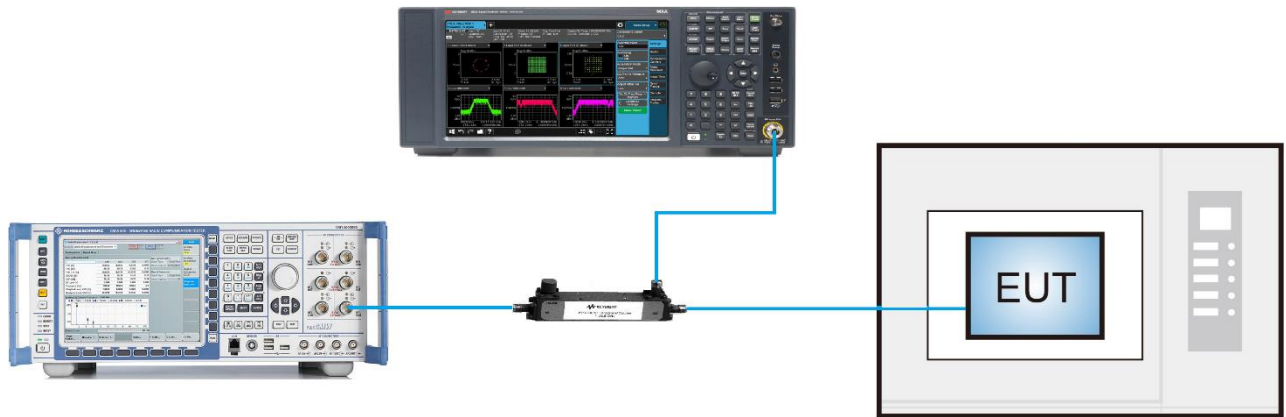
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

4.3.4. Test Setup



4.3.5. Test Result

| | | | |
|---------------|------------|-----------|------------|
| Product | LTE Module | Test Site | WZ-TR3 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/27 |
| Test Band | LTE Band 2 | | |

| Power (VDC) | Temp (°C) | Frequency Tolerance (ppm) |
|-------------|-----------|---------------------------|
| 3.8 | - 30 | 0.0212 |
| | - 20 | -0.0024 |
| | - 10 | -0.0069 |
| | 0 | -0.0094 |
| | + 10 | -0.0178 |
| | + 20 | -0.0194 |
| | + 30 | -0.0106 |
| | + 40 | -0.0159 |
| | + 50 | -0.0080 |
| 4.3 | + 20 | -0.0232 |
| 3.3 | + 20 | -0.0115 |

| | | | |
|---------------|---------------|-----------|------------|
| Product | LTE Module | Test Site | WZ-TR3 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/27 |
| Test Band | LTE Band 4/66 | | |

| Power (VDC) | Temp (°C) | Frequency Tolerance (ppm) |
|-------------|-----------|---------------------------|
| 3.8 | - 30 | 0.0176 |
| | - 20 | -0.0052 |
| | - 10 | -0.0166 |
| | 0 | -0.0185 |
| | + 10 | -0.0198 |
| | + 20 | -0.0108 |
| | + 30 | -0.0190 |
| | + 40 | -0.0065 |
| | + 50 | -0.0058 |
| 4.3 | + 20 | -0.0205 |
| 3.3 | + 20 | -0.0095 |

| | | | |
|---------------|------------|-----------|------------|
| Product | LTE Module | Test Site | WZ-TR3 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/27 |
| Test Band | LTE Band 5 | | |

| Power (VDC) | Temp (°C) | Frequency Tolerance (ppm) |
|-------------|-----------|---------------------------|
| 3.8 | - 30 | 0.0085 |
| | - 20 | -0.0084 |
| | - 10 | -0.0108 |
| | 0 | -0.0118 |
| | + 10 | -0.0121 |
| | + 20 | -0.0093 |
| | + 30 | -0.0126 |
| | + 40 | -0.0104 |
| | + 50 | -0.0051 |
| 4.3 | + 20 | -0.0139 |
| 3.3 | + 20 | -0.0032 |

| | | | |
|---------------|------------|-----------|------------|
| Product | LTE Module | Test Site | WZ-TR3 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/27 |
| Test Band | LTE Band 7 | | |

| Power (VDC) | Temp (°C) | Frequency Tolerance (ppm) |
|-------------|-----------|---------------------------|
| 3.8 | - 30 | 0.0048 |
| | - 20 | -0.0040 |
| | - 10 | -0.0063 |
| | 0 | -0.0055 |
| | + 10 | -0.0045 |
| | + 20 | -0.0049 |
| | + 30 | -0.0074 |
| | + 40 | -0.0065 |
| | + 50 | -0.0040 |
| 4.3 | + 20 | -0.0137 |
| 3.3 | + 20 | -0.0048 |

4.4. Equivalent Isotropically Radiated Power Measurement

4.4.1. Test Limit

Band 5

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

Band 2, 7

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.

Band 4/66:

Fixed, mobile stations operating in the 1710 ~ 1755 MHz band and mobile in the 1695 ~ 1710 MHz and 1755 ~ 1780 MHz bands are limited to 1 watt EIRP.

4.4.2. Test Procedures Used

ANSI C63.26-2015 - Section 5.2

4.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}}$$

where

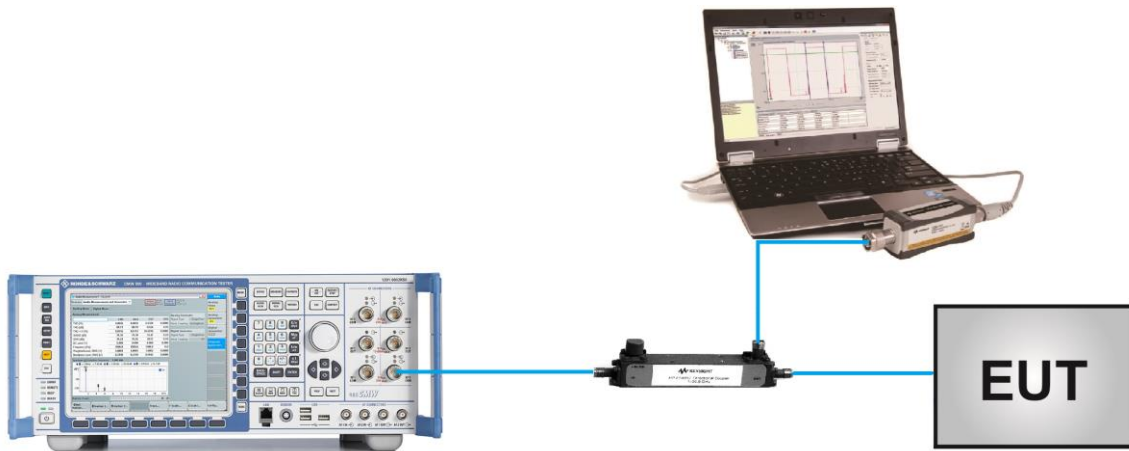
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas} , e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_{T} gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

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

4.4.4. Test Setup



4.4.5. Test Result

| | | | |
|---------------|------------|-----------|-------------------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2020/10/17 ~ 2020/11/14 |
| Test Band | LTE Band 2 | | |

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 18607 | 1850.70 | 1.4 | 1 | 0 | 22.40 | 23.99 | < 33.01 |
| 18900 | 1880.00 | | | | 22.50 | 24.09 | < 33.01 |
| 19193 | 1909.30 | | | | 22.22 | 23.81 | < 33.01 |
| 18607 | 1850.70 | 1.4 | 1 | 2 | 22.94 | 24.53 | < 33.01 |
| 18900 | 1880.00 | | | | 23.14 | 24.73 | < 33.01 |
| 19193 | 1909.30 | | | | 22.79 | 24.38 | < 33.01 |
| 18607 | 1850.70 | 1.4 | 1 | 6 | 22.20 | 23.79 | < 33.01 |
| 18900 | 1880.00 | | | | 22.29 | 23.88 | < 33.01 |
| 19193 | 1909.30 | | | | 21.92 | 23.51 | < 33.01 |
| 18607 | 1850.70 | 1.4 | 6 | 0 | 21.79 | 23.38 | < 33.01 |
| 18900 | 1880.00 | | | | 21.92 | 23.51 | < 33.01 |
| 19193 | 1909.30 | | | | 21.60 | 23.19 | < 33.01 |
| 18615 | 1851.50 | 3 | 1 | 0 | 21.78 | 23.37 | < 33.01 |
| 18900 | 1880.00 | | | | 22.08 | 23.67 | < 33.01 |
| 19185 | 1908.50 | | | | 21.79 | 23.38 | < 33.01 |
| 18615 | 1851.50 | 3 | 1 | 7 | 22.99 | 24.58 | < 33.01 |
| 18900 | 1880.00 | | | | 23.43 | 25.02 | < 33.01 |
| 19185 | 1908.50 | | | | 23.09 | 24.68 | < 33.01 |
| 18615 | 1851.50 | 3 | 1 | 14 | 21.29 | 22.88 | < 33.01 |
| 18900 | 1880.00 | | | | 21.69 | 23.28 | < 33.01 |
| 19185 | 1908.50 | | | | 21.43 | 23.02 | < 33.01 |
| 18615 | 1851.50 | 3 | 15 | 0 | 21.58 | 23.17 | < 33.01 |
| 18900 | 1880.00 | | | | 22.20 | 23.79 | < 33.01 |
| 19185 | 1908.50 | | | | 21.75 | 23.34 | < 33.01 |

Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|--|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 18625 | 1852.50 | 5 | 1 | 0 | 21.88 | 23.47 | < 33.01 |
| 18900 | 1880.00 | | | | 22.18 | 23.77 | < 33.01 |
| 19175 | 1907.50 | | | | 22.24 | 23.83 | < 33.01 |
| 18625 | 1852.50 | 5 | 1 | 12 | 22.30 | 23.89 | < 33.01 |
| 18900 | 1880.00 | | | | 22.82 | 24.41 | < 33.01 |
| 19175 | 1907.50 | | | | 22.64 | 24.23 | < 33.01 |
| 18625 | 1852.50 | 5 | 1 | 24 | 21.25 | 22.84 | < 33.01 |
| 18900 | 1880.00 | | | | 21.63 | 23.22 | < 33.01 |
| 19175 | 1907.50 | | | | 21.45 | 23.04 | < 33.01 |
| 18625 | 1852.50 | 5 | 25 | 0 | 21.51 | 23.10 | < 33.01 |
| 18900 | 1880.00 | | | | 21.91 | 23.50 | < 33.01 |
| 19175 | 1907.50 | | | | 21.80 | 23.39 | < 33.01 |
| 18650 | 1855.00 | 10 | 1 | 0 | 22.02 | 23.61 | < 33.01 |
| 18900 | 1880.00 | | | | 22.38 | 23.97 | < 33.01 |
| 19150 | 1905.00 | | | | 22.39 | 23.98 | < 33.01 |
| 18650 | 1855.00 | 10 | 1 | 24 | 22.43 | 24.02 | < 33.01 |
| 18900 | 1880.00 | | | | 22.97 | 24.56 | < 33.01 |
| 19150 | 1905.00 | | | | 23.07 | 24.66 | < 33.01 |
| 18650 | 1855.00 | 10 | 1 | 49 | 21.31 | 22.90 | < 33.01 |
| 18900 | 1880.00 | | | | 21.43 | 23.02 | < 33.01 |
| 19150 | 1905.00 | | | | 21.29 | 22.88 | < 33.01 |
| 18650 | 1855.00 | 10 | 50 | 0 | 21.57 | 23.16 | < 33.01 |
| 18900 | 1880.00 | | | | 21.99 | 23.58 | < 33.01 |
| 19150 | 1905.00 | | | | 22.02 | 23.61 | < 33.01 |
| Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi) | | | | | | | |

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|--|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 18675 | 1857.50 | 15 | 1 | 0 | 22.82 | 24.41 | < 33.01 |
| 18900 | 1880.00 | | | | 23.00 | 24.59 | < 33.01 |
| 19125 | 1902.50 | | | | 23.08 | 24.67 | < 33.01 |
| 18675 | 1857.50 | 15 | 1 | 37 | 22.53 | 24.12 | < 33.01 |
| 18900 | 1880.00 | | | | 22.95 | 24.54 | < 33.01 |
| 19125 | 1902.50 | | | | 23.30 | 24.89 | < 33.01 |
| 18675 | 1857.50 | 15 | 1 | 74 | 22.34 | 23.93 | < 33.01 |
| 18900 | 1880.00 | | | | 21.70 | 23.29 | < 33.01 |
| 19125 | 1902.50 | | | | 21.96 | 23.55 | < 33.01 |
| 18675 | 1857.50 | 15 | 75 | 0 | 21.86 | 23.45 | < 33.01 |
| 18900 | 1880.00 | | | | 21.99 | 23.58 | < 33.01 |
| 19125 | 1902.50 | | | | 22.27 | 23.86 | < 33.01 |
| 18700 | 1860.00 | 20 | 1 | 0 | 22.81 | 24.40 | < 33.01 |
| 18900 | 1880.00 | | | | 22.78 | 24.37 | < 33.01 |
| 19100 | 1900.00 | | | | 22.82 | 24.41 | < 33.01 |
| 18700 | 1860.00 | 20 | 1 | 49 | 22.91 | 24.50 | < 33.01 |
| 18900 | 1880.00 | | | | 23.22 | 24.81 | < 33.01 |
| 19100 | 1900.00 | | | | 23.35 | 24.94 | < 33.01 |
| 18700 | 1860.00 | 20 | 1 | 99 | 22.69 | 24.28 | < 33.01 |
| 18900 | 1880.00 | | | | 21.44 | 23.03 | < 33.01 |
| 19100 | 1900.00 | | | | 21.56 | 23.15 | < 33.01 |
| 18700 | 1860.00 | 20 | 100 | 0 | 21.92 | 23.51 | < 33.01 |
| 18900 | 1880.00 | | | | 21.97 | 23.56 | < 33.01 |
| 19100 | 1900.00 | | | | 22.00 | 23.59 | < 33.01 |
| Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi) | | | | | | | |

| | | | |
|---------------|---------------|-----------|-------------------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2020/10/17 ~ 2020/11/14 |
| Test Band | LTE Band 4/66 | | |

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 131979 | 1710.70 | 1.4 | 1 | 0 | 22.45 | 24.45 | < 30.00 |
| 132322 | 1745.00 | | | | 22.73 | 24.73 | < 30.00 |
| 132665 | 1779.30 | | | | 22.79 | 24.79 | < 30.00 |
| 131979 | 1710.70 | 1.4 | 1 | 2 | 23.08 | 25.08 | < 30.00 |
| 132322 | 1745.00 | | | | 23.28 | 25.28 | < 30.00 |
| 132665 | 1779.30 | | | | 23.48 | 25.48 | < 30.00 |
| 131979 | 1710.70 | 1.4 | 1 | 6 | 22.33 | 24.33 | < 30.00 |
| 132322 | 1745.00 | | | | 22.61 | 24.61 | < 30.00 |
| 132665 | 1779.30 | | | | 22.84 | 24.84 | < 30.00 |
| 131979 | 1710.70 | 1.4 | 6 | 0 | 21.93 | 23.93 | < 30.00 |
| 132322 | 1745.00 | | | | 22.18 | 24.18 | < 30.00 |
| 132665 | 1779.30 | | | | 22.39 | 24.39 | < 30.00 |
| 131987 | 1711.50 | 3 | 1 | 0 | 22.06 | 24.06 | < 30.00 |
| 132322 | 1745.00 | | | | 22.45 | 24.45 | < 30.00 |
| 132657 | 1778.50 | | | | 22.24 | 24.24 | < 30.00 |
| 131987 | 1711.50 | 3 | 1 | 7 | 23.42 | 25.42 | < 30.00 |
| 132322 | 1745.00 | | | | 23.58 | 25.58 | < 30.00 |
| 132657 | 1778.50 | | | | 23.76 | 25.76 | < 30.00 |
| 131987 | 1711.50 | 3 | 1 | 14 | 21.78 | 23.78 | < 30.00 |
| 132322 | 1745.00 | | | | 21.97 | 23.97 | < 30.00 |
| 132657 | 1778.50 | | | | 22.33 | 24.33 | < 30.00 |
| 131987 | 1711.50 | 3 | 15 | 0 | 22.00 | 24.00 | < 30.00 |
| 132322 | 1745.00 | | | | 22.30 | 24.30 | < 30.00 |
| 132657 | 1778.50 | | | | 22.15 | 24.15 | < 30.00 |

Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|--|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 131997 | 1712.50 | 5 | 1 | 0 | 22.16 | 24.16 | < 30.00 |
| 132322 | 1745.00 | | | | 22.75 | 24.75 | < 30.00 |
| 132647 | 1777.50 | | | | 22.13 | 24.13 | < 30.00 |
| 131997 | 1712.50 | 5 | 1 | 12 | 22.89 | 24.89 | < 30.00 |
| 132322 | 1745.00 | | | | 23.11 | 25.11 | < 30.00 |
| 132647 | 1777.50 | | | | 23.20 | 25.20 | < 30.00 |
| 131997 | 1712.50 | 5 | 1 | 24 | 21.94 | 23.94 | < 30.00 |
| 132322 | 1745.00 | | | | 21.92 | 23.92 | < 30.00 |
| 132647 | 1777.50 | | | | 22.44 | 24.44 | < 30.00 |
| 131997 | 1712.50 | 5 | 25 | 0 | 22.03 | 24.03 | < 30.00 |
| 132322 | 1745.00 | | | | 22.35 | 24.35 | < 30.00 |
| 132647 | 1777.50 | | | | 22.33 | 24.33 | < 30.00 |
| 132022 | 1715.00 | 10 | 1 | 0 | 22.50 | 24.50 | < 30.00 |
| 132322 | 1745.00 | | | | 23.12 | 25.12 | < 30.00 |
| 132622 | 1775.00 | | | | 21.93 | 23.93 | < 30.00 |
| 132022 | 1715.00 | 10 | 1 | 24 | 23.15 | 25.15 | < 30.00 |
| 132322 | 1745.00 | | | | 23.33 | 25.33 | < 30.00 |
| 132622 | 1775.00 | | | | 23.46 | 25.46 | < 30.00 |
| 132022 | 1715.00 | 10 | 1 | 49 | 21.99 | 23.99 | < 30.00 |
| 132322 | 1745.00 | | | | 21.49 | 23.49 | < 30.00 |
| 132622 | 1775.00 | | | | 22.59 | 24.59 | < 30.00 |
| 132022 | 1715.00 | 10 | 50 | 0 | 22.17 | 24.17 | < 30.00 |
| 132322 | 1745.00 | | | | 22.44 | 24.44 | < 30.00 |
| 132622 | 1775.00 | | | | 22.47 | 24.47 | < 30.00 |
| Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi) | | | | | | | |

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 132047 | 1717.50 | 15 | 1 | 0 | 23.16 | 25.16 | < 30.00 |
| 132322 | 1745.00 | | | | 23.68 | 25.68 | < 30.00 |
| 132597 | 1772.50 | | | | 22.37 | 24.37 | < 30.00 |
| 132047 | 1717.50 | 15 | 1 | 37 | 23.02 | 25.02 | < 30.00 |
| 132322 | 1745.00 | | | | 23.20 | 25.20 | < 30.00 |
| 132597 | 1772.50 | | | | 23.20 | 25.20 | < 30.00 |
| 132047 | 1717.50 | 15 | 1 | 74 | 23.02 | 25.02 | < 30.00 |
| 132322 | 1745.00 | | | | 21.64 | 23.64 | < 30.00 |
| 132597 | 1772.50 | | | | 23.25 | 25.25 | < 30.00 |
| 132047 | 1717.50 | 15 | 75 | 0 | 22.37 | 24.37 | < 30.00 |
| 132322 | 1745.00 | | | | 22.44 | 24.44 | < 30.00 |
| 132597 | 1772.50 | | | | 22.28 | 24.28 | < 30.00 |
| 132072 | 1720.00 | 20 | 1 | 0 | 23.01 | 25.01 | < 30.00 |
| 132322 | 1745.00 | | | | 23.62 | 25.62 | < 30.00 |
| 132572 | 1770.00 | | | | 22.47 | 24.47 | < 30.00 |
| 132072 | 1720.00 | 20 | 1 | 49 | 23.54 | 25.54 | < 30.00 |
| 132322 | 1745.00 | | | | 23.41 | 25.41 | < 30.00 |
| 132572 | 1770.00 | | | | 23.32 | 25.32 | < 30.00 |
| 132072 | 1720.00 | 20 | 1 | 99 | 23.53 | 25.53 | < 30.00 |
| 132322 | 1745.00 | | | | 20.85 | 22.85 | < 30.00 |
| 132572 | 1770.00 | | | | 23.15 | 25.15 | < 30.00 |
| 132072 | 1720.00 | 20 | 100 | 0 | 22.63 | 24.63 | < 30.00 |
| 132322 | 1745.00 | | | | 22.21 | 24.21 | < 30.00 |
| 132572 | 1770.00 | | | | 22.28 | 24.28 | < 30.00 |

Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)

| | | | |
|---------------|------------|-----------|-------------------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2020/10/17 ~ 2020/11/14 |
| Test Band | LTE Band 5 | | |

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | ERP (dBm) | Limit (dBm) |
|-------------|-----------------|-------------------------|---------|-----------|--------------------|-----------|-------------|
| QPSK | | | | | | | |
| 20407 | 824.70 | 1.4 | 1 | 0 | 22.64 | 23.02 | < 38.45 |
| 20525 | 836.50 | | | | 22.61 | 22.99 | < 38.45 |
| 20643 | 848.30 | | | | 22.38 | 22.76 | < 38.45 |
| 20407 | 824.70 | 1.4 | 1 | 2 | 23.27 | 23.65 | < 38.45 |
| 20525 | 836.50 | | | | 23.10 | 23.48 | < 38.45 |
| 20643 | 848.30 | | | | 22.89 | 23.27 | < 38.45 |
| 20407 | 824.70 | 1.4 | 1 | 6 | 22.54 | 22.92 | < 38.45 |
| 20525 | 836.50 | | | | 22.54 | 22.92 | < 38.45 |
| 20643 | 848.30 | | | | 22.34 | 22.72 | < 38.45 |
| 20407 | 824.70 | 1.4 | 6 | 0 | 21.99 | 22.37 | < 38.45 |
| 20525 | 836.50 | | | | 21.94 | 22.32 | < 38.45 |
| 20643 | 848.30 | | | | 21.43 | 21.81 | < 38.45 |
| 20415 | 825.50 | 3 | 1 | 0 | 22.62 | 23.00 | < 38.45 |
| 20525 | 836.50 | | | | 22.59 | 22.97 | < 38.45 |
| 20635 | 846.50 | | | | 22.44 | 22.82 | < 38.45 |
| 20415 | 825.50 | 3 | 1 | 7 | 23.62 | 24.00 | < 38.45 |
| 20525 | 836.50 | | | | 23.46 | 23.84 | < 38.45 |
| 20635 | 846.50 | | | | 23.15 | 23.53 | < 38.45 |
| 20415 | 825.50 | 3 | 1 | 14 | 22.53 | 22.91 | < 38.45 |
| 20525 | 836.50 | | | | 22.42 | 22.80 | < 38.45 |
| 20635 | 846.50 | | | | 22.42 | 22.80 | < 38.45 |
| 20415 | 825.50 | 3 | 15 | 0 | 22.13 | 22.51 | < 38.45 |
| 20525 | 836.50 | | | | 22.00 | 22.38 | < 38.45 |
| 20635 | 846.50 | | | | 21.61 | 21.99 | < 38.45 |

Note: The ERP (dBm) = Output Power (dBm) + Antenna Gain (dBi) - 2.15

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | ERP (dBm) | Limit (dBm) |
|--|-----------------|-------------------------|---------|-----------|--------------------|-----------|-------------|
| QPSK | | | | | | | |
| 20425 | 826.50 | 5 | 1 | 0 | 22.72 | 23.10 | < 38.45 |
| 20525 | 836.50 | | | | 22.74 | 23.12 | < 38.45 |
| 20625 | 846.50 | | | | 22.78 | 23.16 | < 38.45 |
| 20425 | 826.50 | 5 | 1 | 12 | 22.92 | 23.30 | < 38.45 |
| 20525 | 836.50 | | | | 22.77 | 23.15 | < 38.45 |
| 20625 | 846.50 | | | | 22.55 | 22.93 | < 38.45 |
| 20425 | 826.50 | 5 | 1 | 24 | 22.85 | 23.23 | < 38.45 |
| 20525 | 836.50 | | | | 22.84 | 23.22 | < 38.45 |
| 20625 | 846.50 | | | | 22.53 | 22.91 | < 38.45 |
| 20425 | 826.50 | 5 | 25 | 0 | 22.09 | 22.47 | < 38.45 |
| 20525 | 836.50 | | | | 21.96 | 22.34 | < 38.45 |
| 20625 | 846.50 | | | | 22.76 | 23.14 | < 38.45 |
| 20450 | 829.00 | 10 | 1 | 0 | 22.96 | 23.34 | < 38.45 |
| 20525 | 836.50 | | | | 22.72 | 23.10 | < 38.45 |
| 20600 | 844.00 | | | | 22.36 | 22.74 | < 38.45 |
| 20450 | 829.00 | 10 | 1 | 24 | 23.07 | 23.45 | < 38.45 |
| 20525 | 836.50 | | | | 23.01 | 23.39 | < 38.45 |
| 20600 | 844.00 | | | | 22.99 | 23.37 | < 38.45 |
| 20450 | 829.00 | 10 | 1 | 49 | 21.66 | 22.04 | < 38.45 |
| 20525 | 836.50 | | | | 22.99 | 23.37 | < 38.45 |
| 20600 | 844.00 | | | | 22.56 | 22.94 | < 38.45 |
| 20450 | 829.00 | 10 | 50 | 0 | 22.07 | 22.45 | < 38.45 |
| 20525 | 836.50 | | | | 22.04 | 22.42 | < 38.45 |
| 20600 | 844.00 | | | | 23.09 | 23.47 | < 38.45 |
| Note: The ERP (dBm) = Output Power (dBm) + Antenna Gain (dBi) - 2.15 | | | | | | | |

| | | | |
|---------------|------------|-----------|-------------------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2020/10/17 ~ 2020/11/14 |
| Test Band | LTE Band 7 | | |

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 20775 | 2502.50 | 5 | 1 | 0 | 22.47 | 25.47 | < 33.01 |
| 21100 | 2535.00 | | | | 22.40 | 25.40 | < 33.01 |
| 21425 | 2567.50 | | | | 22.64 | 25.64 | < 33.01 |
| 20775 | 2502.50 | 5 | 1 | 12 | 23.21 | 26.21 | < 33.01 |
| 21100 | 2535.00 | | | | 23.12 | 26.12 | < 33.01 |
| 21425 | 2567.50 | | | | 22.96 | 25.96 | < 33.01 |
| 20775 | 2502.50 | 5 | 1 | 24 | 22.76 | 25.76 | < 33.01 |
| 21100 | 2535.00 | | | | 22.52 | 25.52 | < 33.01 |
| 21425 | 2567.50 | | | | 22.46 | 25.46 | < 33.01 |
| 20775 | 2502.50 | 5 | 25 | 0 | 22.43 | 25.43 | < 33.01 |
| 21100 | 2535.00 | | | | 23.21 | 26.21 | < 33.01 |
| 21425 | 2567.50 | | | | 22.21 | 25.21 | < 33.01 |
| 20800 | 2505.00 | 10 | 1 | 0 | 22.62 | 25.62 | < 33.01 |
| 21100 | 2535.00 | | | | 22.64 | 25.64 | < 33.01 |
| 21400 | 2565.00 | | | | 22.64 | 25.64 | < 33.01 |
| 20800 | 2505.00 | 10 | 1 | 24 | 23.41 | 26.41 | < 33.01 |
| 21100 | 2535.00 | | | | 23.34 | 26.34 | < 33.01 |
| 21400 | 2565.00 | | | | 23.17 | 26.17 | < 33.01 |
| 20800 | 2505.00 | 10 | 1 | 49 | 22.65 | 25.65 | < 33.01 |
| 21100 | 2535.00 | | | | 22.16 | 25.16 | < 33.01 |
| 21400 | 2565.00 | | | | 22.06 | 25.06 | < 33.01 |
| 20800 | 2505.00 | 10 | 50 | 0 | 22.49 | 25.49 | < 33.01 |
| 21100 | 2535.00 | | | | 22.53 | 25.53 | < 33.01 |
| 21400 | 2565.00 | | | | 23.24 | 26.24 | < 33.01 |

Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)

| Channel No. | Frequency (MHz) | Channel Bandwidth (MHz) | RB Size | RB Offset | Output Power (dBm) | EIRP (dBm) | Limit (dBm) |
|--|-----------------|-------------------------|---------|-----------|--------------------|------------|-------------|
| QPSK | | | | | | | |
| 20825 | 2507.50 | 15 | 1 | 0 | 22.63 | 25.63 | < 33.01 |
| 21100 | 2535.00 | | | | 22.84 | 25.84 | < 33.01 |
| 21375 | 2562.50 | | | | 22.79 | 25.79 | < 33.01 |
| 20825 | 2507.50 | 15 | 1 | 37 | 23.19 | 26.19 | < 33.01 |
| 21100 | 2535.00 | | | | 23.28 | 26.28 | < 33.01 |
| 21375 | 2562.50 | | | | 23.22 | 26.22 | < 33.01 |
| 20825 | 2507.50 | 15 | 1 | 74 | 22.69 | 25.69 | < 33.01 |
| 21100 | 2535.00 | | | | 22.68 | 25.68 | < 33.01 |
| 21375 | 2562.50 | | | | 22.74 | 25.74 | < 33.01 |
| 20825 | 2507.50 | 15 | 75 | 0 | 22.33 | 25.33 | < 33.01 |
| 21100 | 2535.00 | | | | 23.46 | 26.46 | < 33.01 |
| 21375 | 2562.50 | | | | 22.38 | 25.38 | < 33.01 |
| 20850 | 2510.00 | 20 | 1 | 0 | 22.63 | 25.63 | < 33.01 |
| 21100 | 2535.00 | | | | 23.07 | 26.07 | < 33.01 |
| 21350 | 2560.00 | | | | 23.08 | 26.08 | < 33.01 |
| 20850 | 2510.00 | 20 | 1 | 49 | 23.42 | 26.42 | < 33.01 |
| 21100 | 2535.00 | | | | 23.49 | 26.49 | < 33.01 |
| 21350 | 2560.00 | | | | 23.48 | 26.48 | < 33.01 |
| 20850 | 2510.00 | 20 | 1 | 99 | 22.81 | 25.81 | < 33.01 |
| 21100 | 2535.00 | | | | 22.81 | 25.81 | < 33.01 |
| 21350 | 2560.00 | | | | 23.09 | 26.09 | < 33.01 |
| 20850 | 2510.00 | 20 | 100 | 0 | 22.27 | 25.27 | < 33.01 |
| 21100 | 2535.00 | | | | 22.45 | 25.45 | < 33.01 |
| 21350 | 2560.00 | | | | 22.36 | 25.36 | < 33.01 |
| Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi) | | | | | | | |

4.5. Band Edge Measurement

4.5.1. Test Limit

22.917(a), 24.238 (a), 27.53 (h)

For operations in the 824 ~ 849 MHz, 1850 ~ 1910 MHz, 1930 ~ 1990 MHz, 600MHz & 698 ~ 746 MHz and 1710 ~ 1755 MHz, the FCC limit is $43 + 10\log_{10}(P_{\text{Watts}})$ dB below the transmitter power P_{Watts} in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4.5.2. Test Procedure Used

ANSI C63.26-2015 - Section 5.7

4.5.3. Test Setting

1. Set the analyzer frequency to low or high channel
2. $RBW \geq$ The nominal RBW shall be in the range of 1% of the anticipated OBW (in the 1MHz band immediately outside and adjacent to the band edge). For improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW narrower than the specified reference bandwidth can be used (generally limited to no less than 1% of the OBW), provided that a subsequent integration is performed over the full required measurement bandwidth. This integration should be performed using the spectrum analyzer's band power functions.
3. $VBW \geq 3*RBW$
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to "free run."
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

4.5.4. Test Setup



4.5.5. Test Result

| | | | |
|---------------|------------|-------------|------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/19 |
| Test Band | LTE Band 2 | Test Result | Pass |

1.4MHz Channel Bandwidth - 1RB

Lower Band Edge



Upper Band Edge



3MHz Channel Bandwidth - 1RB

Lower Band Edge



Upper Band Edge



5MHz Channel Bandwidth - 1RB

Lower Band Edge



Upper Band Edge



10MHz Channel Bandwidth - 1RB

Lower Band Edge

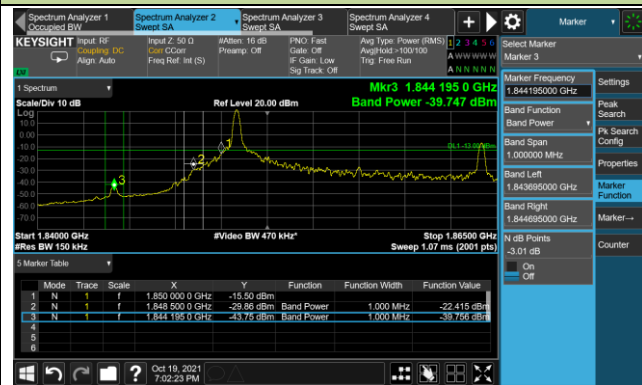


Upper Band Edge

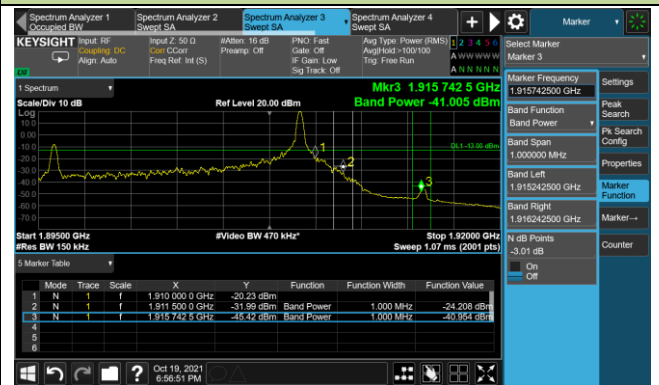


15MHz Channel Bandwidth - 1RB

Lower Band Edge

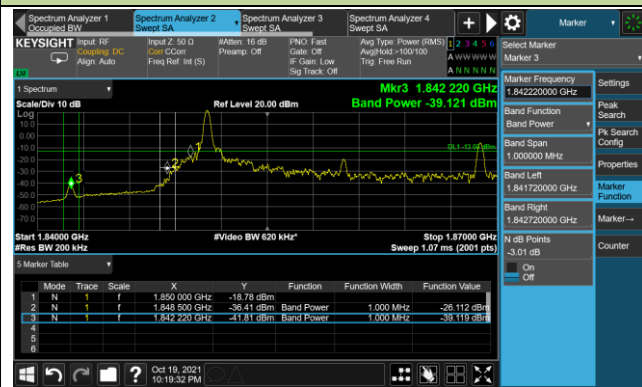


Upper Band Edge

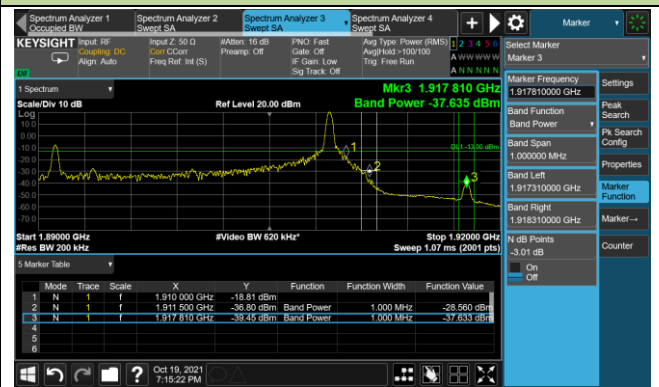


20MHz Channel Bandwidth - 1RB

Lower Band Edge

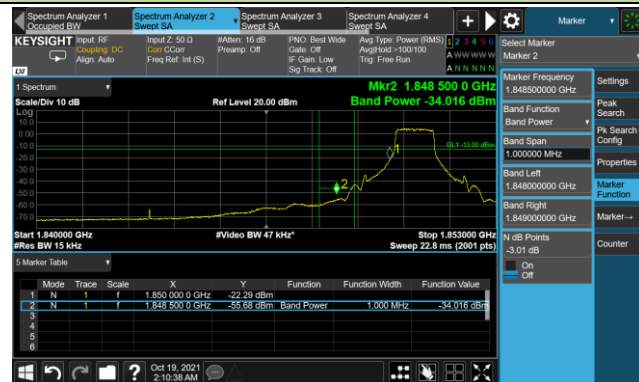


Upper Band Edge



1.4MHz Channel Bandwidth - Full RB

Lower Band Edge

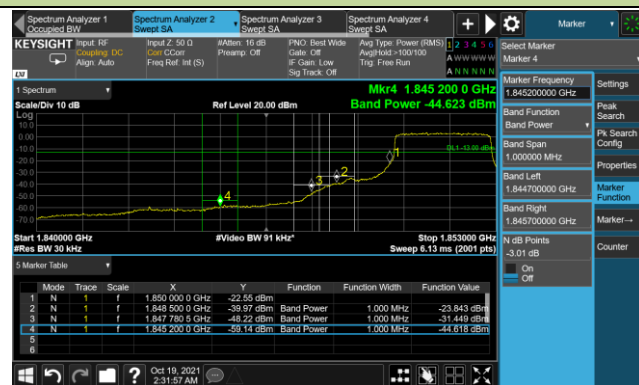


Upper Band Edge



3MHz Channel Bandwidth - Full RB

Lower Band Edge

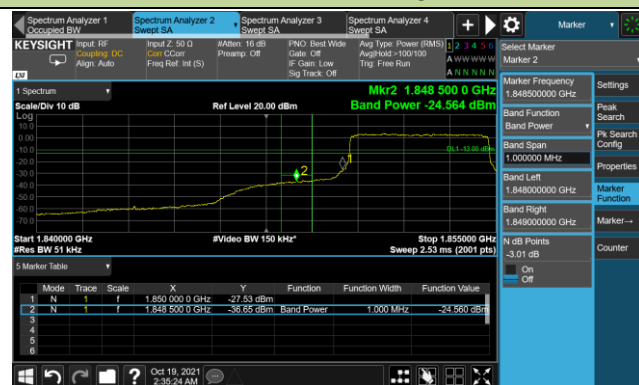


Upper Band Edge



5MHz Channel Bandwidth - Full RB

Lower Band Edge



Upper Band Edge

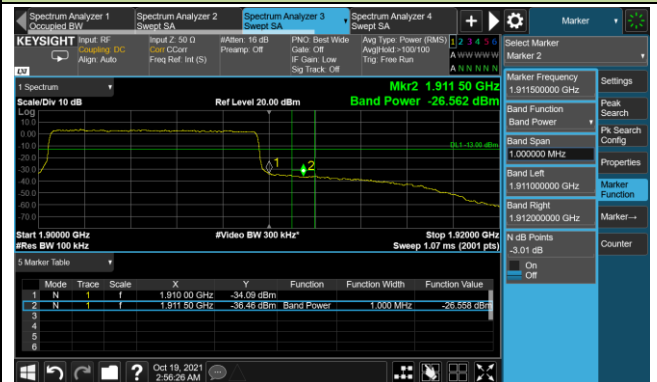


10MHz Channel Bandwidth - Full RB

Lower Band Edge



Upper Band Edge



15MHz Channel Bandwidth - Full RB

Lower Band Edge

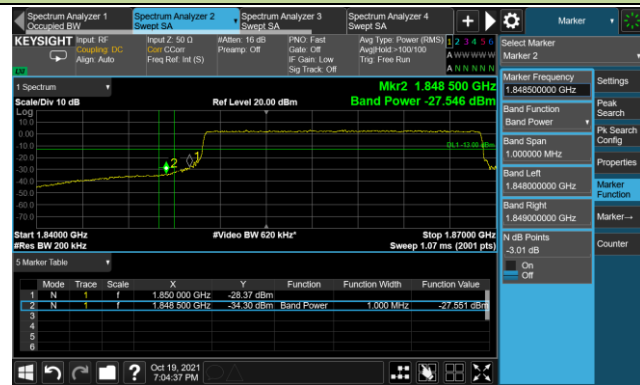


Upper Band Edge

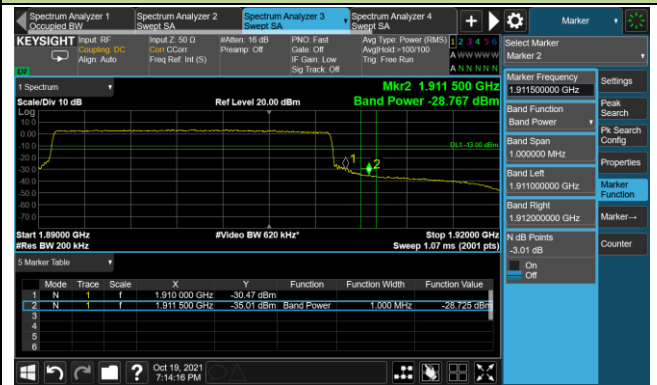


20MHz Channel Bandwidth - Full RB

Lower Band Edge



Upper Band Edge



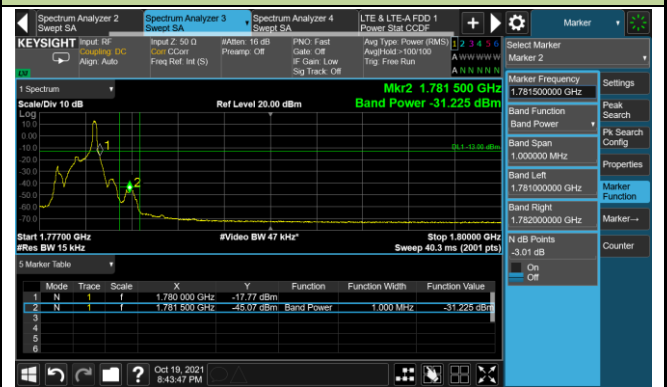
| | | | |
|---------------|---------------|-------------|------------|
| Product | LTE Module | Test Site | WZ-SR6 |
| Test Engineer | Cloud Guo | Test Date | 2021/10/19 |
| Test Band | LTE Band 4/66 | Test Result | Pass |

1.4MHz Channel Bandwidth - 1RB

Lower Band Edge



Upper Band Edge

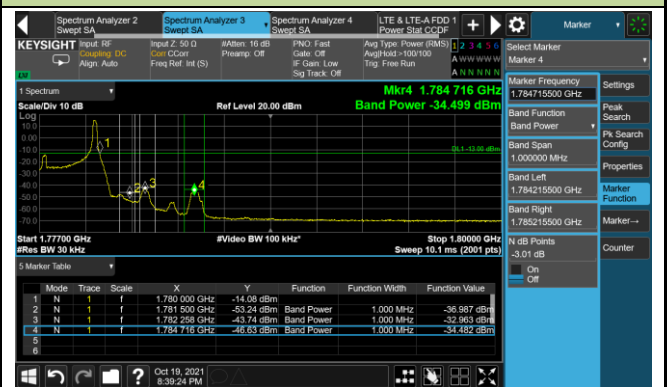


3MHz Channel Bandwidth - 1RB

Lower Band Edge



Upper Band Edge

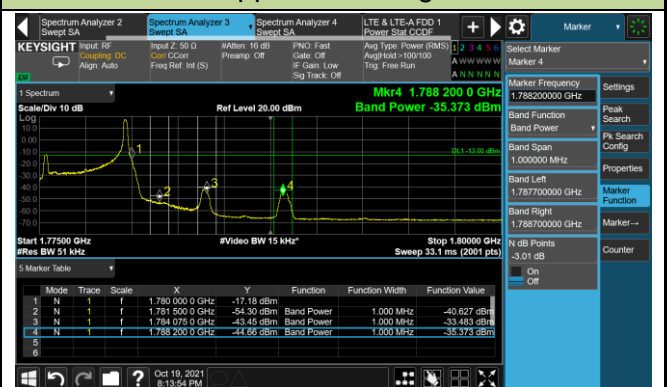


5MHz Channel Bandwidth - 1RB

Lower Band Edge

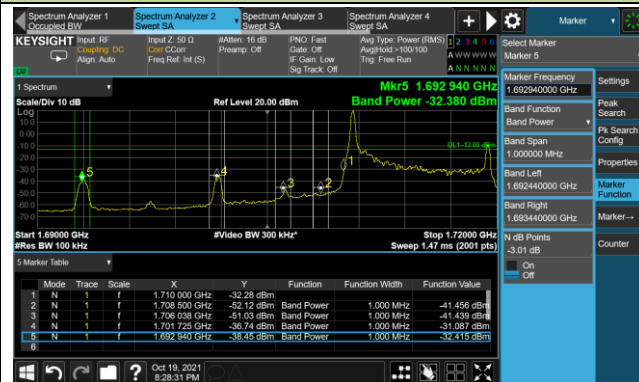


Upper Band Edge

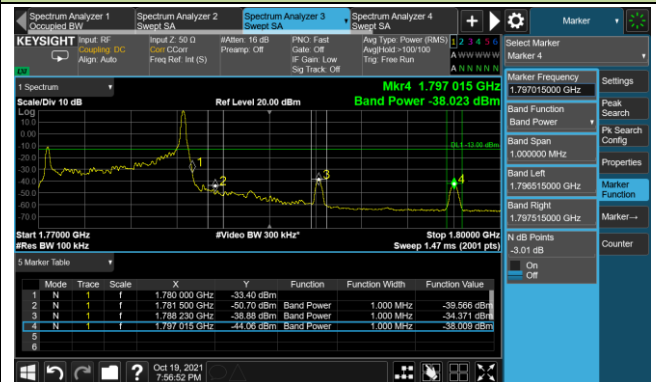


10MHz Channel Bandwidth - 1RB

Lower Band Edge

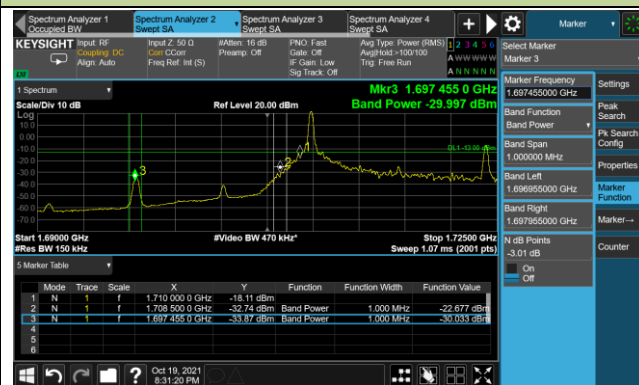


Upper Band Edge

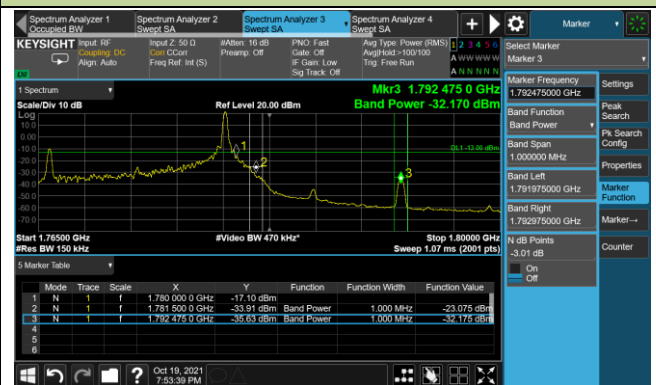


15MHz Channel Bandwidth - 1RB

Lower Band Edge

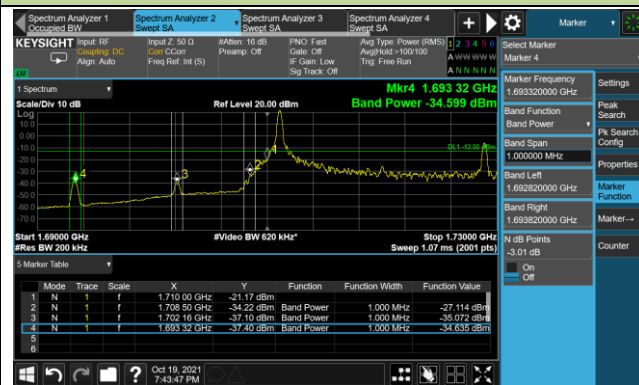


Upper Band Edge

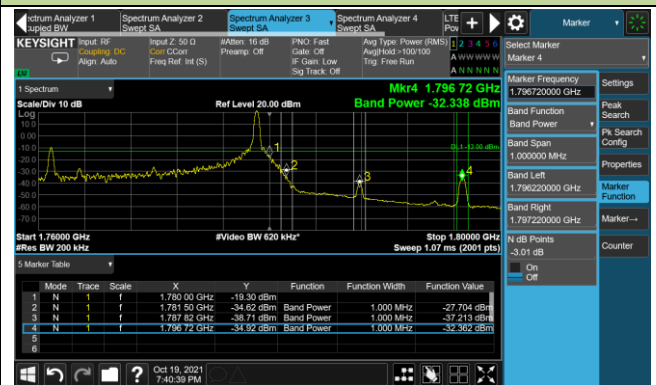


20MHz Channel Bandwidth - 1RB

Lower Band Edge



Upper Band Edge



1.4MHz Channel Bandwidth - Full RB

Lower Band Edge



Upper Band Edge



3MHz Channel Bandwidth - Full RB

Lower Band Edge

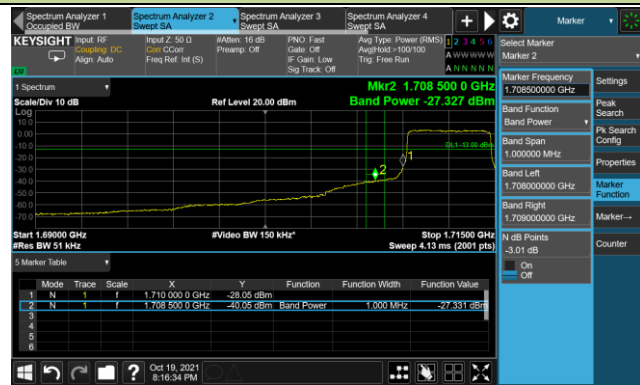


Upper Band Edge



5MHz Channel Bandwidth - Full RB

Lower Band Edge



Upper Band Edge

