



# RF TEST REPORT

**Applicant**      Xiaomi Communications Co., Ltd.  
**FCC ID**          2AFZZK7BL  
**Product**        Mobile Phone  
**Brand**            Redmi  
**Model**           M2101K7BL  
**Report No.**      R2101A0098-R4  
**Issue Date**      March 17, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2019)/ FCC CFR47 Part 27C (2019)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Approved by: Kai Xu

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## Summary of Measurement Results

| Number | Test Case                                              | Clause in FCC rules                    | Verdict |
|--------|--------------------------------------------------------|----------------------------------------|---------|
| 1      | RF Power Output and Effective Isotropic Radiated Power | 2.1046<br>/27.50(d)(4)<br>/27.50(h)(2) | PASS    |
| 2      | Occupied Bandwidth                                     | 2.1049                                 | PASS    |
| 3      | Band Edge Compliance                                   | 27.53(h)<br>/27.53(m)                  | PASS    |
| 4      | Peak-to-Average Power Ratio                            | 27.50(d)/KDB971168 D01(5.7)            | PASS    |
| 5      | Frequency Stability                                    | 2.1055 / 27.54                         | PASS    |
| 6      | Spurious Emissions at Antenna Terminals                | 2.1051<br>/27.53(h)<br>/27.53(m)       | PASS    |
| 7      | Radiates Spurious Emission                             | 2.1053<br>/27.53(h)<br>/27.53(m)       | PASS    |

Date of Testing: February 8, 2021 ~ March 3, 2021

Date of Sample Received: February 7, 2021

Note: PASS: The EUT complies with the essential requirements in the standard.

FAIL: The EUT does not comply with the essential requirements in the standard.

All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

**M2101K7BL (Report No.: R2101A0098-R4) is a variant model of M2101K7BNY (Report No.: R2101A0095-R3). This variant adds LTE band 12/17/66, removes the NFC function, and adds accessories. There is no test for variant in this report. The detailed product change description please refers to the *Difference Declaration Letter*.**



# 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

### 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 measurements.

### A2LA (Certificate Number: 3857.01)

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

## 1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.  
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## 2 General Description of Equipment under Test

### 2.1 Applicant and Manufacturer Information

|                      |                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------|
| Applicant            | Xiaomi Communications Co., Ltd.                                                               |
| Applicant address    | #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085 |
| Manufacturer         | Xiaomi Communications Co., Ltd.                                                               |
| Manufacturer address | #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085 |

### 2.2 General information

| EUT Description  |                                 |                                                    |                     |                       |
|------------------|---------------------------------|----------------------------------------------------|---------------------|-----------------------|
| Model            | M2101K7BL                       |                                                    |                     |                       |
| IMEI             | Original                        | IMEI 1: 869421050050226<br>IMEI 2: 869421050050234 |                     |                       |
| Hardware Version | P2                              |                                                    |                     |                       |
| Software Version | MIUI 12                         |                                                    |                     |                       |
| Power Supply     | Battery / AC adapter            |                                                    |                     |                       |
| Antenna Type     | Fixed Internal Antenna          |                                                    |                     |                       |
| Antenna Gain     | Band                            | Frequency (MHz)                                    | Main Antenna (dBi ) | Second Antenna (dBi ) |
|                  | WCDMA<br>Band IV/ LTE<br>Band 4 | 1710                                               | -3.5                | -3.2                  |
|                  |                                 | 1730                                               | -2.8                | -2.8                  |
|                  |                                 | 1750                                               | -3.1                | -2.4                  |
|                  |                                 | 1770                                               | -3.1                | -1.9                  |
|                  | LTE Band 7                      | 2500                                               | -1.8                | -5.3                  |
|                  |                                 | 2520                                               | -1.7                | -4.6                  |
|                  |                                 | 2540                                               | -1.4                | -4.4                  |
|                  |                                 | 2560                                               | -1.1                | -4.0                  |
|                  |                                 | 2580                                               | -1.2                | -3.5                  |
|                  | LTE Band 38                     | 2560                                               | -1.1                | -4.0                  |
|                  |                                 | 2580                                               | -1.2                | -3.5                  |
|                  |                                 | 2600                                               | -1.1                | -3.1                  |
|                  |                                 | 2620                                               | -0.9                | -3.0                  |
|                  | LTE Band 41                     | 2400                                               | -2.8                | -3.3                  |
|                  |                                 | 2500                                               | -1.8                | -5.3                  |
|                  |                                 | 2520                                               | -1.7                | -4.6                  |
|                  |                                 | 2540                                               | -1.4                | -4.4                  |



|                                                                                                                |                                                                          |                           |      |             |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------|------|-------------|
|                                                                                                                |                                                                          | Report No.: R2101A0030-R4 |      |             |
|                                                                                                                |                                                                          | 2560                      | -1.1 | -4.0        |
|                                                                                                                |                                                                          | 2580                      | -1.2 | -3.5        |
|                                                                                                                |                                                                          | 2600                      | -1.1 | -3.1        |
|                                                                                                                |                                                                          | 2620                      | -0.9 | -3.0        |
|                                                                                                                |                                                                          | 2640                      | -0.5 | -2.75       |
|                                                                                                                |                                                                          | 2660                      | -0.7 | -2.6        |
| Memory                                                                                                         | 6G+128G; 6G+64G                                                          |                           |      |             |
| Test Mode(s)                                                                                                   | WCDMA Band IV; LTE Band 4/7/38/41; CA_B7/B38                             |                           |      |             |
| Test Modulation                                                                                                | (WCDMA) BPSK, QPSK, 16QAM;<br>(LTE) QPSK, 16QAM, 64QAM, 256QAM(DL only); |                           |      |             |
| HSDPA UE Category                                                                                              | 24                                                                       |                           |      |             |
| HSUPA UE Category                                                                                              | 7                                                                        |                           |      |             |
| LTE Release                                                                                                    | R12                                                                      |                           |      |             |
| Maximum E.I.R.P./ E.R.P.                                                                                       | WCDMA Band IV:                                                           | 20.58 dBm                 |      |             |
|                                                                                                                | LTE Band 4:                                                              | 21.97 dBm                 |      |             |
|                                                                                                                | LTE Band 7:                                                              | 23.64 dBm                 |      |             |
|                                                                                                                | LTE Band 38:                                                             | 23.98 dBm                 |      |             |
|                                                                                                                | LTE Band 41:                                                             | 24.23 dBm                 |      |             |
|                                                                                                                | CA_B7:                                                                   | 22.65 dBm                 |      |             |
|                                                                                                                | CA_B38:                                                                  | 22.51 dBm                 |      |             |
| Rated Power Supply Voltage:                                                                                    | 3.87V                                                                    |                           |      |             |
| Supply Voltage                                                                                                 | Minimum: 3.6V    Maximum: 4.45V                                          |                           |      |             |
| Operating Temperature                                                                                          | Lowest: 0°C    Highest: +40°C                                            |                           |      |             |
| Extreme Temperature                                                                                            | Lowest: -30°C    Highest: +50°C                                          |                           |      |             |
| Operating Frequency Range(s)                                                                                   | Mode                                                                     | Tx (MHz)                  |      | Rx (MHz)    |
|                                                                                                                | WCDMA Band IV                                                            | 1710 ~ 1755               |      | 2110 ~ 2155 |
|                                                                                                                | LTE Band 4                                                               | 1710 ~ 1755               |      | 2110 ~ 2155 |
|                                                                                                                | LTE Band 7                                                               | 2500 ~ 2570               |      | 2620 ~ 2690 |
|                                                                                                                | LTE Band 38                                                              | 2570 ~ 2620               |      | 2570 ~ 2620 |
|                                                                                                                | LTE Band 41                                                              | 2535 ~ 2655               |      | 2535 ~ 2655 |
| Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. |                                                                          |                           |      |             |



### **3 Applied Standards**

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

**Test standards:**

**FCC CFR47 Part 27C (2019)**

**ANSI C63.26 (2015)**

**Reference standard:**

**FCC CFR47 Part 2 (2019)**

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

## 4 Test Configuration

There is more than one SIM card slot, each one should be applied throughout the compliance test respectively, and however, only the worst case (SIM 1) will be recorded in this report

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 (Z 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 WCDMA/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                     |
|--------------------------------------------------------|--------------------------------------|
|                                                        | WCDMA Band IV                        |
| RF Power Output and Effective Isotropic Radiated Power | RMC<br>HSDPA/HSUPA<br>DC-HSDPA/HSPA+ |
| Occupied Bandwidth                                     | RMC                                  |
| Band Edge Compliance                                   | RMC                                  |
| Peak-to-Average Power Ratio                            | RMC                                  |
| Frequency Stability                                    | RMC                                  |
| Spurious Emissions at Antenna Terminals                | RMC                                  |
| Radiates Spurious Emission                             | RMC                                  |



Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/7/38/41:

| Test items                                             | Modes                                                                                                                                 | Bandwidth (MHz) |   |   |    |    |    | Modulation |       |       | RB |     |      | Test Channel |   |   |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------|---|---|----|----|----|------------|-------|-------|----|-----|------|--------------|---|---|
|                                                        |                                                                                                                                       | 1.4             | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 64QAM | 1  | 50% | 100% | L            | M | H |
| RF Power Output and Effective Isotropic Radiated Power | LTE 4                                                                                                                                 | O               | O | O | O  | O  | O  | O          | O     | O     | O  | O   | O    | O            | O | O |
|                                                        | LTE 7                                                                                                                                 | -               | - | O | O  | O  | O  | O          | O     | O     | O  | O   | O    | O            | O | O |
|                                                        | LTE 38                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | O   | O    | O            | O | O |
|                                                        | LTE 41                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | O   | O    | O            | O | O |
| Occupied Bandwidth                                     | LTE 4                                                                                                                                 | O               | O | O | O  | O  | O  | O          | O     | O     | -  | -   | O    | O            | O | O |
|                                                        | LTE 7                                                                                                                                 | -               | - | O | O  | O  | O  | O          | O     | O     | -  | -   | O    | O            | O | O |
|                                                        | LTE 38                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | -  | -   | O    | O            | O | O |
|                                                        | LTE 41                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | -  | -   | O    | O            | O | O |
| Band Edge Compliance                                   | LTE 4                                                                                                                                 | O               | O | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | - | O |
|                                                        | LTE 7                                                                                                                                 | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | - | O |
|                                                        | LTE 38                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | - | O |
|                                                        | LTE 41                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | - | O |
| Peak-to-Average Power Ratio                            | LTE 4                                                                                                                                 | O               | O | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | O | O |
|                                                        | LTE 7                                                                                                                                 | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | O | O |
|                                                        | LTE 38                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | O | O |
|                                                        | LTE 41                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | O    | O            | O | O |
| Frequency Stability                                    | LTE 4                                                                                                                                 | O               | O | O | O  | O  | O  | O          | O     | O     | O  | -   | -    | -            | O | - |
|                                                        | LTE 7                                                                                                                                 | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | -    | -            | O | - |
|                                                        | LTE 38                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | -    | -            | O | - |
|                                                        | LTE 41                                                                                                                                | -               | - | O | O  | O  | O  | O          | O     | O     | O  | -   | -    | -            | O | - |
| Spurious Emissions at Antenna Terminals                | LTE 4                                                                                                                                 | O               | O | O | O  | O  | O  | O          | -     | -     | O  | -   | -    | O            | O | O |
|                                                        | LTE 7                                                                                                                                 | -               | - | O | O  | O  | O  | O          | -     | -     | O  | -   | -    | O            | O | O |
|                                                        | LTE 38                                                                                                                                | -               | - | O | O  | O  | O  | O          | -     | -     | O  | -   | -    | O            | O | O |
|                                                        | LTE 41                                                                                                                                | -               | - | O | O  | O  | O  | O          | -     | -     | O  | -   | -    | O            | O | O |
| Radiates Spurious Emission                             | LTE 4                                                                                                                                 | O               | - | O | -  | -  | O  | O          | -     | -     | O  | -   | -    | -            | O | - |
|                                                        | LTE 7                                                                                                                                 | -               | - | O | -  | -  | O  | O          | -     | -     | O  | -   | -    | -            | O | - |
|                                                        | LTE 38                                                                                                                                | -               | - | O | -  | -  | O  | O          | -     | -     | O  | -   | -    | -            | O | - |
|                                                        | LTE 41                                                                                                                                | -               | - | 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 and Effective Isotropic Radiated Power

#### 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 was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

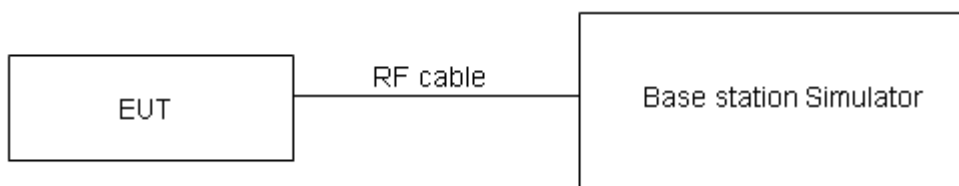
ERP can then be calculated as follows:

$$\text{EIRP (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$$

where: dBd refers to gain relative to an ideal dipole.

$$\text{EIRP (dBm)} = \text{ERP (dBm)} + 2.15 \text{ (dB.)}$$

#### Test Setup



#### Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(d) (4) specifies that “Fixed, mobile and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”

Rule Part 27.50(h) (2) specifies that “Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.”

|                        |                             |
|------------------------|-----------------------------|
| Part 27.50(d)(4)Limit  | $\leq 1 \text{ W}$ (30 dBm) |
| Part 27.50(h)(2) Limit | $\leq 2 \text{ W}$ (33 dBm) |

#### Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor  $k = 2$ ,  $U=0.4 \text{ dB}$  for RF power output,  $k = 2$ ,  $U= 1.19 \text{ dB}$  for ERP/EIRP.



## Test Results

| WCDMA Band IV |              | Maximum Output Power (dBm) |              |              | EIRP (dBm)<br>Main Antenna |              |              | EIRP (dBm)<br>Second Antenna |              |              |
|---------------|--------------|----------------------------|--------------|--------------|----------------------------|--------------|--------------|------------------------------|--------------|--------------|
|               |              | Channel 1312               | Channel 1413 | Channel 1513 | Channel 1312               | Channel 1413 | Channel 1513 | Channel 1312                 | Channel 1413 | Channel 1513 |
|               |              | 1712.4 (MHz)               | 1732.6 (MHz) | 1752.6 (MHz) | 1712.4 (MHz)               | 1732.6 (MHz) | 1752.6 (MHz) | 1712.4 (MHz)                 | 1732.6 (MHz) | 1752.6 (MHz) |
| RMC           |              | 22.99                      | 22.96        | 22.98        | 19.49                      | 20.16        | 19.88        | 19.79                        | 20.16        | 20.58        |
| HSDPA         | Sub - Test 1 | 21.51                      | 21.42        | 21.52        | 18.01                      | 18.62        | 18.42        | 18.31                        | 18.62        | 19.12        |
|               | Sub - Test 2 | 21.47                      | 21.54        | 21.48        | 17.97                      | 18.74        | 18.38        | 18.27                        | 18.74        | 19.08        |
|               | Sub - Test 3 | 21.37                      | 21.60        | 21.64        | 17.87                      | 18.80        | 18.54        | 18.17                        | 18.80        | 19.24        |
|               | Sub - Test 4 | 21.65                      | 21.30        | 21.36        | 18.15                      | 18.50        | 18.26        | 18.45                        | 18.50        | 18.96        |
| HSUPA         | Sub - Test 1 | 20.61                      | 20.58        | 20.34        | 17.11                      | 17.78        | 17.24        | 17.41                        | 17.78        | 17.94        |
|               | Sub - Test 2 | 20.15                      | 20.08        | 20.06        | 16.65                      | 17.28        | 16.96        | 16.95                        | 17.28        | 17.66        |
|               | Sub - Test 3 | 20.45                      | 20.50        | 20.58        | 16.95                      | 17.70        | 17.48        | 17.25                        | 17.70        | 18.18        |
|               | Sub - Test 4 | 19.65                      | 19.60        | 19.52        | 16.15                      | 16.80        | 16.42        | 16.45                        | 16.80        | 17.12        |
|               | Sub - Test 5 | 21.05                      | 21.06        | 20.86        | 17.55                      | 18.26        | 17.76        | 17.85                        | 18.26        | 18.46        |
| DC-HSDPA      | Sub - Test 1 | 21.57                      | 21.62        | 21.52        | 18.07                      | 18.82        | 18.42        | 18.37                        | 18.82        | 19.12        |
|               | Sub - Test 2 | 21.55                      | 21.32        | 21.62        | 18.05                      | 18.52        | 18.52        | 18.35                        | 18.52        | 19.22        |
|               | Sub - Test 3 | 21.45                      | 21.30        | 21.40        | 17.95                      | 18.50        | 18.30        | 18.25                        | 18.50        | 19.00        |
|               | Sub - Test 4 | 21.59                      | 21.62        | 21.44        | 18.09                      | 18.82        | 18.34        | 18.39                        | 18.82        | 19.04        |
| HSPA+         | 16QAM        | 21.88                      | 21.87        | 21.88        | 18.38                      | 19.07        | 18.78        | 18.68                        | 19.07        | 19.48        |



| LTE Band 4 |            |         |           | Maximum Output Power(dBm) |              |              | EIRP (dBm)<br>Main Antenna |              |              | EIRP (dBm)<br>Second Antenna |              |              |
|------------|------------|---------|-----------|---------------------------|--------------|--------------|----------------------------|--------------|--------------|------------------------------|--------------|--------------|
| BW         | Modulation | RB size | RB offset | Channel/Frequency(MHz)    |              |              |                            |              |              |                              |              |              |
|            |            |         |           | 19957/1710.7              | 20175/1732.5 | 20393/1754.3 | 19957/1710.7               | 20175/1732.5 | 20393/1754.3 | 19957/1710.7                 | 20175/1732.5 | 20393/1754.3 |
| 1.4MHz     | QPSK       | 1       | 0         | 24.23                     | 24.26        | 24.19        | 20.73                      | 21.46        | 21.09        | 21.03                        | 21.46        | 21.79        |
|            |            | 1       | 2         | 24.49                     | 24.30        | 24.32        | 20.99                      | 21.50        | 21.22        | 21.29                        | 21.50        | 21.92        |
|            |            | 1       | 5         | 24.18                     | 24.09        | 24.14        | 20.68                      | 21.29        | 21.04        | 20.98                        | 21.29        | 21.74        |
|            |            | 3       | 0         | 24.23                     | 24.22        | 24.23        | 20.73                      | 21.42        | 21.13        | 21.03                        | 21.42        | 21.83        |
|            |            | 3       | 2         | 24.37                     | 24.30        | 24.27        | 20.87                      | 21.50        | 21.17        | 21.17                        | 21.50        | 21.87        |
|            |            | 3       | 3         | 24.39                     | 24.22        | 24.19        | 20.89                      | 21.42        | 21.09        | 21.19                        | 21.42        | 21.79        |
|            |            | 6       | 0         | 23.41                     | 23.34        | 23.23        | 19.91                      | 20.54        | 20.13        | 20.21                        | 20.54        | 20.83        |
|            | 16QAM      | 1       | 0         | 23.78                     | 23.72        | 23.75        | 20.28                      | 20.92        | 20.65        | 20.58                        | 20.92        | 21.35        |
|            |            | 1       | 2         | 23.76                     | 23.68        | 23.70        | 20.26                      | 20.88        | 20.60        | 20.56                        | 20.88        | 21.30        |
|            |            | 1       | 5         | 23.51                     | 23.44        | 23.46        | 20.01                      | 20.64        | 20.36        | 20.31                        | 20.64        | 21.06        |
|            |            | 3       | 0         | 23.34                     | 23.23        | 23.27        | 19.84                      | 20.43        | 20.17        | 20.14                        | 20.43        | 20.87        |
|            |            | 3       | 2         | 23.41                     | 23.30        | 23.35        | 19.91                      | 20.50        | 20.25        | 20.21                        | 20.50        | 20.95        |
|            |            | 3       | 3         | 23.34                     | 23.26        | 23.25        | 19.84                      | 20.46        | 20.15        | 20.14                        | 20.46        | 20.85        |
|            |            | 6       | 0         | 22.34                     | 22.28        | 22.31        | 18.84                      | 19.48        | 19.21        | 19.14                        | 19.48        | 19.91        |
|            | 64QAM      | 1       | 0         | 22.72                     | 22.58        | 22.63        | 19.22                      | 19.78        | 19.53        | 19.52                        | 19.78        | 20.23        |
|            |            | 1       | 2         | 22.62                     | 22.54        | 22.58        | 19.12                      | 19.74        | 19.48        | 19.42                        | 19.74        | 20.18        |
|            |            | 1       | 5         | 22.62                     | 22.53        | 22.54        | 19.12                      | 19.73        | 19.44        | 19.42                        | 19.73        | 20.14        |
|            |            | 3       | 0         | 22.46                     | 22.27        | 22.31        | 18.96                      | 19.47        | 19.21        | 19.26                        | 19.47        | 19.91        |
|            |            | 3       | 2         | 22.52                     | 22.39        | 22.44        | 19.02                      | 19.59        | 19.34        | 19.32                        | 19.59        | 20.04        |
|            |            | 3       | 3         | 22.47                     | 22.39        | 22.38        | 18.97                      | 19.59        | 19.28        | 19.27                        | 19.59        | 19.98        |
|            |            | 6       | 0         | 21.43                     | 21.37        | 21.40        | 17.93                      | 18.57        | 18.30        | 18.23                        | 18.57        | 19.00        |
| BW         | Modulation | RB size | RB offset | Channel/Frequency(MHz)    |              |              |                            |              |              |                              |              |              |
|            |            |         |           | 19965/1711.5              | 20175/1732.5 | 20385/1753.5 | 19965/1711.5               | 20175/1732.5 | 20385/1753.5 | 19965/1711.5                 | 20175/1732.5 | 20385/1753.5 |
| 3MHz       | QPSK       | 1       | 0         | 24.22                     | 24.28        | 24.18        | 20.72                      | 21.48        | 21.08        | 21.02                        | 21.48        | 21.78        |
|            |            | 1       | 7         | 24.45                     | 24.29        | 24.33        | 20.95                      | 21.49        | 21.23        | 21.25                        | 21.49        | 21.93        |
|            |            | 1       | 14        | 24.18                     | 24.09        | 24.14        | 20.68                      | 21.29        | 21.04        | 20.98                        | 21.29        | 21.74        |
|            |            | 8       | 0         | 23.30                     | 23.29        | 23.32        | 19.80                      | 20.49        | 20.22        | 20.10                        | 20.49        | 20.92        |
|            |            | 8       | 4         | 23.47                     | 23.36        | 23.34        | 19.97                      | 20.56        | 20.24        | 20.27                        | 20.56        | 20.94        |
|            |            | 8       | 7         | 23.47                     | 23.31        | 23.25        | 19.97                      | 20.51        | 20.15        | 20.27                        | 20.51        | 20.85        |
|            |            | 15      | 0         | 23.41                     | 23.37        | 23.24        | 19.91                      | 20.57        | 20.14        | 20.21                        | 20.57        | 20.84        |



|      | 16QAM      | 1       | 0         | 23.78                  | 23.70            | 23.75            | 20.28            | 20.90            | 20.65            | 20.58            | 20.90            | 21.35            |
|------|------------|---------|-----------|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|      |            | 1       | 7         | 23.76                  | 23.66            | 23.71            | 20.26            | 20.86            | 20.61            | 20.56            | 20.86            | 21.31            |
|      |            | 1       | 14        | 23.50                  | 23.46            | 23.45            | 20.00            | 20.66            | 20.35            | 20.30            | 20.66            | 21.05            |
|      |            | 8       | 0         | 22.43                  | 22.32            | 22.36            | 18.93            | 19.52            | 19.26            | 19.23            | 19.52            | 19.96            |
|      |            | 8       | 4         | 22.49                  | 22.38            | 22.43            | 18.99            | 19.58            | 19.33            | 19.29            | 19.58            | 20.03            |
|      |            | 8       | 7         | 22.41                  | 22.33            | 22.34            | 18.91            | 19.53            | 19.24            | 19.21            | 19.53            | 19.94            |
|      |            | 15      | 0         | 22.35                  | 22.28            | 22.29            | 18.85            | 19.48            | 19.19            | 19.15            | 19.48            | 19.89            |
|      | 64QAM      | 1       | 0         | 22.72                  | 22.60            | 22.63            | 19.22            | 19.80            | 19.53            | 19.52            | 19.80            | 20.23            |
|      |            | 1       | 7         | 22.62                  | 22.56            | 22.57            | 19.12            | 19.76            | 19.47            | 19.42            | 19.76            | 20.17            |
|      |            | 1       | 14        | 22.65                  | 22.50            | 22.53            | 19.15            | 19.70            | 19.43            | 19.45            | 19.70            | 20.13            |
|      |            | 8       | 0         | 21.55                  | 21.36            | 21.44            | 18.05            | 18.56            | 18.34            | 18.35            | 18.56            | 19.04            |
|      |            | 8       | 4         | 21.60                  | 21.47            | 21.52            | 18.10            | 18.67            | 18.42            | 18.40            | 18.67            | 19.12            |
|      |            | 8       | 7         | 21.54                  | 21.46            | 21.47            | 18.04            | 18.66            | 18.37            | 18.34            | 18.66            | 19.07            |
|      |            | 15      | 0         | 21.44                  | 21.37            | 21.38            | 17.94            | 18.57            | 18.28            | 18.24            | 18.57            | 18.98            |
| BW   | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                  |                  |                  |                  |                  |                  |                  |                  |
|      |            |         |           | 19975/<br>1712.5       | 20175/<br>1732.5 | 20375/<br>1752.5 | 19975/<br>1712.5 | 20175/<br>1732.5 | 20375/<br>1752.5 | 19975/<br>1712.5 | 20175/<br>1732.5 | 20375/<br>1752.5 |
| 5MHz | QPSK       | 1       | 0         | 24.25                  | 24.30            | 24.22            | 20.75            | 21.50            | 21.12            | 21.05            | 21.50            | 21.82            |
|      |            | 1       | 13        | 24.47                  | 24.33            | 24.36            | 20.97            | 21.53            | 21.26            | 21.27            | 21.53            | 21.96            |
|      |            | 1       | 24        | 24.21                  | 24.14            | 24.18            | 20.71            | 21.34            | 21.08            | 21.01            | 21.34            | 21.78            |
|      |            | 12      | 0         | 23.33                  | 23.34            | 23.36            | 19.83            | 20.54            | 20.26            | 20.13            | 20.54            | 20.96            |
|      |            | 12      | 6         | 23.49                  | 23.40            | 23.39            | 19.99            | 20.60            | 20.29            | 20.29            | 20.60            | 20.99            |
|      |            | 12      | 13        | 23.49                  | 23.33            | 23.29            | 19.99            | 20.53            | 20.19            | 20.29            | 20.53            | 20.89            |
|      |            | 25      | 0         | 23.41                  | 23.38            | 23.26            | 19.91            | 20.58            | 20.16            | 20.21            | 20.58            | 20.86            |
|      | 16QAM      | 1       | 0         | 23.81                  | 23.74            | 23.78            | 20.31            | 20.94            | 20.68            | 20.61            | 20.94            | 21.38            |
|      |            | 1       | 13        | 23.79                  | 23.68            | 23.74            | 20.29            | 20.88            | 20.64            | 20.59            | 20.88            | 21.34            |
|      |            | 1       | 24        | 23.53                  | 23.48            | 23.49            | 20.03            | 20.68            | 20.39            | 20.33            | 20.68            | 21.09            |
|      |            | 12      | 0         | 22.45                  | 22.36            | 22.39            | 18.95            | 19.56            | 19.29            | 19.25            | 19.56            | 19.99            |
|      |            | 12      | 6         | 22.52                  | 22.43            | 22.47            | 19.02            | 19.63            | 19.37            | 19.32            | 19.63            | 20.07            |
|      |            | 12      | 13        | 22.44                  | 22.38            | 22.38            | 18.94            | 19.58            | 19.28            | 19.24            | 19.58            | 19.98            |
|      |            | 25      | 0         | 22.37                  | 22.32            | 22.34            | 18.87            | 19.52            | 19.24            | 19.17            | 19.52            | 19.94            |
|      | 64QAM      | 1       | 0         | 22.75                  | 22.60            | 22.66            | 19.25            | 19.80            | 19.56            | 19.55            | 19.80            | 20.26            |
|      |            | 1       | 13        | 22.65                  | 22.54            | 22.60            | 19.15            | 19.74            | 19.50            | 19.45            | 19.74            | 20.20            |
|      |            | 1       | 24        | 22.64                  | 22.52            | 22.57            | 19.14            | 19.72            | 19.47            | 19.44            | 19.72            | 20.17            |
|      |            | 12      | 0         | 21.57                  | 21.40            | 21.43            | 18.07            | 18.60            | 18.33            | 18.37            | 18.60            | 19.03            |
|      |            | 12      | 6         | 21.63                  | 21.52            | 21.56            | 18.13            | 18.72            | 18.46            | 18.43            | 18.72            | 19.16            |
|      |            | 12      | 13        | 21.57                  | 21.51            | 21.51            | 18.07            | 18.71            | 18.41            | 18.37            | 18.71            | 19.11            |



|       |            | 25      | 0         | 21.46                  | 21.41            | 21.43            | 17.96            | 18.61            | 18.33            | 18.26            | 18.61            | 19.03            |
|-------|------------|---------|-----------|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                  |                  |                  |                  |                  |                  |                  |                  |
|       |            |         |           | 20000/<br>1715         | 20175/<br>1732.5 | 20350/<br>1750   | 20000/<br>1715   | 20175/<br>1732.5 | 20350/<br>1750   | 20000/<br>1715   | 20175/<br>1732.5 | 20350/<br>1750   |
| 10MHz | QPSK       | 1       | 0         | 24.23                  | 24.25            | 24.19            | 20.73            | 21.45            | 21.09            | 21.03            | 21.45            | 21.79            |
|       |            | 1       | 25        | 24.46                  | 24.33            | 24.34            | 20.96            | 21.53            | 21.24            | 21.26            | 21.53            | 21.94            |
|       |            | 1       | 49        | 24.17                  | 24.08            | 24.13            | 20.67            | 21.28            | 21.03            | 20.97            | 21.28            | 21.73            |
|       |            | 25      | 0         | 23.31                  | 23.30            | 23.33            | 19.81            | 20.50            | 20.23            | 20.11            | 20.50            | 20.93            |
|       |            | 25      | 13        | 23.47                  | 23.36            | 23.34            | 19.97            | 20.56            | 20.24            | 20.27            | 20.56            | 20.94            |
|       |            | 25      | 25        | 23.46                  | 23.32            | 23.26            | 19.96            | 20.52            | 20.16            | 20.26            | 20.52            | 20.86            |
|       |            | 50      | 0         | 23.43                  | 23.35            | 23.23            | 19.93            | 20.55            | 20.13            | 20.23            | 20.55            | 20.83            |
|       | 16QAM      | 1       | 0         | 23.75                  | 23.71            | 23.75            | 20.25            | 20.91            | 20.65            | 20.55            | 20.91            | 21.35            |
|       |            | 1       | 25        | 23.77                  | 23.67            | 23.72            | 20.27            | 20.87            | 20.62            | 20.57            | 20.87            | 21.32            |
|       |            | 1       | 49        | 23.50                  | 23.44            | 23.45            | 20.00            | 20.64            | 20.35            | 20.30            | 20.64            | 21.05            |
|       |            | 25      | 0         | 22.43                  | 22.35            | 22.37            | 18.93            | 19.55            | 19.27            | 19.23            | 19.55            | 19.97            |
|       |            | 25      | 13        | 22.48                  | 22.37            | 22.42            | 18.98            | 19.57            | 19.32            | 19.28            | 19.57            | 20.02            |
|       |            | 25      | 25        | 22.42                  | 22.34            | 22.35            | 18.92            | 19.54            | 19.25            | 19.22            | 19.54            | 19.95            |
|       |            | 50      | 0         | 22.35                  | 22.28            | 22.29            | 18.85            | 19.48            | 19.19            | 19.15            | 19.48            | 19.89            |
|       | 64QAM      | 1       | 0         | 22.69                  | 22.57            | 22.63            | 19.19            | 19.77            | 19.53            | 19.49            | 19.77            | 20.23            |
|       |            | 1       | 25        | 22.63                  | 22.53            | 22.58            | 19.13            | 19.73            | 19.48            | 19.43            | 19.73            | 20.18            |
|       |            | 1       | 49        | 22.65                  | 22.51            | 22.57            | 19.15            | 19.71            | 19.47            | 19.45            | 19.71            | 20.17            |
|       |            | 25      | 0         | 21.57                  | 21.43            | 21.45            | 18.07            | 18.63            | 18.35            | 18.37            | 18.63            | 19.05            |
|       |            | 25      | 13        | 21.60                  | 21.48            | 21.54            | 18.10            | 18.68            | 18.44            | 18.40            | 18.68            | 19.14            |
|       |            | 25      | 25        | 21.55                  | 21.47            | 21.48            | 18.05            | 18.67            | 18.38            | 18.35            | 18.67            | 19.08            |
|       |            | 50      | 0         | 21.44                  | 21.37            | 21.38            | 17.94            | 18.57            | 18.28            | 18.24            | 18.57            | 18.98            |
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                  |                  |                  |                  |                  |                  |                  |                  |
|       |            |         |           | 20025/<br>1717.5       | 20175/<br>1732.5 | 20325/<br>1747.5 | 20025/<br>1717.5 | 20175/<br>1732.5 | 20325/<br>1747.5 | 20025/<br>1717.5 | 20175/<br>1732.5 | 20325/<br>1747.5 |
| 15MHz | QPSK       | 1       | 0         | 24.24                  | 24.29            | 24.21            | 20.74            | 21.49            | 21.11            | 21.04            | 21.49            | 21.81            |
|       |            | 1       | 38        | 24.48                  | 24.34            | 24.37            | 20.98            | 21.54            | 21.27            | 21.28            | 21.54            | 21.97            |
|       |            | 1       | 74        | 24.20                  | 24.13            | 24.17            | 20.70            | 21.33            | 21.07            | 21.00            | 21.33            | 21.77            |
|       |            | 36      | 0         | 23.33                  | 23.34            | 23.36            | 19.83            | 20.54            | 20.26            | 20.13            | 20.54            | 20.96            |
|       |            | 36      | 18        | 23.50                  | 23.41            | 23.38            | 20.00            | 20.61            | 20.28            | 20.30            | 20.61            | 20.98            |
|       |            | 36      | 39        | 23.49                  | 23.35            | 23.30            | 19.99            | 20.55            | 20.20            | 20.29            | 20.55            | 20.90            |
|       |            | 75      | 0         | 23.45                  | 23.39            | 23.28            | 19.95            | 20.59            | 20.18            | 20.25            | 20.59            | 20.88            |
|       | 16QAM      | 1       | 0         | 23.80                  | 23.73            | 23.77            | 20.30            | 20.93            | 20.67            | 20.60            | 20.93            | 21.37            |
|       |            | 1       | 38        | 23.79                  | 23.70            | 23.74            | 20.29            | 20.90            | 20.64            | 20.59            | 20.90            | 21.34            |



|       |            | 1       | 74        | 23.53                  | 23.48        | 23.48      | 20.03      | 20.68        | 20.38      | 20.33      | 20.68        | 21.08      |
|-------|------------|---------|-----------|------------------------|--------------|------------|------------|--------------|------------|------------|--------------|------------|
|       |            | 36      | 0         | 22.46                  | 22.37        | 22.40      | 18.96      | 19.57        | 19.30      | 19.26      | 19.57        | 20.00      |
|       |            | 36      | 18        | 22.51                  | 22.42        | 22.46      | 19.01      | 19.62        | 19.36      | 19.31      | 19.62        | 20.06      |
|       |            | 36      | 39        | 22.44                  | 22.38        | 22.38      | 18.94      | 19.58        | 19.28      | 19.24      | 19.58        | 19.98      |
|       |            | 75      | 0         | 22.38                  | 22.33        | 22.33      | 18.88      | 19.53        | 19.23      | 19.18      | 19.53        | 19.93      |
|       | 64QAM      | 1       | 0         | 22.74                  | 22.59        | 22.65      | 19.24      | 19.79        | 19.55      | 19.54      | 19.79        | 20.25      |
|       |            | 1       | 38        | 22.65                  | 22.56        | 22.60      | 19.15      | 19.76        | 19.50      | 19.45      | 19.76        | 20.20      |
|       |            | 1       | 74        | 22.64                  | 22.52        | 22.56      | 19.14      | 19.72        | 19.46      | 19.44      | 19.72        | 20.16      |
|       |            | 36      | 0         | 21.58                  | 21.41        | 21.44      | 18.08      | 18.61        | 18.34      | 18.38      | 18.61        | 19.04      |
|       |            | 36      | 18        | 21.62                  | 21.51        | 21.55      | 18.12      | 18.71        | 18.45      | 18.42      | 18.71        | 19.15      |
|       |            | 36      | 39        | 21.57                  | 21.51        | 21.51      | 18.07      | 18.71        | 18.41      | 18.37      | 18.71        | 19.11      |
|       |            | 75      | 0         | 21.47                  | 21.42        | 21.42      | 17.97      | 18.62        | 18.32      | 18.27      | 18.62        | 19.02      |
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |              |            |            |              |            |            |              |            |
|       |            |         |           | 20050/1720             | 20175/1732.5 | 20300/1745 | 20050/1720 | 20175/1732.5 | 20300/1745 | 20050/1720 | 20175/1732.5 | 20300/1745 |
| 20MHz | QPSK       | 1       | 0         | 24.20                  | 24.21        | 24.16      | 20.70      | 21.41        | 21.06      | 21.00      | 21.41        | 21.76      |
|       |            | 1       | 50        | 24.45                  | 24.29        | 24.32      | 20.95      | 21.49        | 21.22      | 21.25      | 21.49        | 21.92      |
|       |            | 1       | 99        | 24.15                  | 24.07        | 24.10      | 20.65      | 21.27        | 21.00      | 20.95      | 21.27        | 21.70      |
|       |            | 50      | 0         | 23.28                  | 23.25        | 23.29      | 19.78      | 20.45        | 20.19      | 20.08      | 20.45        | 20.89      |
|       |            | 50      | 25        | 23.45                  | 23.32        | 23.31      | 19.95      | 20.52        | 20.21      | 20.25      | 20.52        | 20.91      |
|       |            | 50      | 50        | 23.43                  | 23.27        | 23.22      | 19.93      | 20.47        | 20.12      | 20.23      | 20.47        | 20.82      |
|       |            | 100     | 0         | 23.40                  | 23.30        | 23.19      | 19.90      | 20.50        | 20.09      | 20.20      | 20.50        | 20.79      |
|       | 16QAM      | 1       | 0         | 23.79                  | 23.67        | 23.70      | 20.29      | 20.87        | 20.60      | 20.59      | 20.87        | 21.30      |
|       |            | 1       | 50        | 23.73                  | 23.65        | 23.68      | 20.23      | 20.85        | 20.58      | 20.53      | 20.85        | 21.28      |
|       |            | 1       | 99        | 23.48                  | 23.41        | 23.43      | 19.98      | 20.61        | 20.33      | 20.28      | 20.61        | 21.03      |
|       |            | 50      | 0         | 22.40                  | 22.31        | 22.34      | 18.90      | 19.51        | 19.24      | 19.20      | 19.51        | 19.94      |
|       |            | 50      | 25        | 22.45                  | 22.35        | 22.39      | 18.95      | 19.55        | 19.29      | 19.25      | 19.55        | 19.99      |
|       |            | 50      | 50        | 22.39                  | 22.29        | 22.31      | 18.89      | 19.49        | 19.21      | 19.19      | 19.49        | 19.91      |
|       |            | 100     | 0         | 22.33                  | 22.24        | 22.26      | 18.83      | 19.44        | 19.16      | 19.13      | 19.44        | 19.86      |
|       | 64QAM      | 1       | 0         | 22.67                  | 22.53        | 22.58      | 19.17      | 19.73        | 19.48      | 19.47      | 19.73        | 20.18      |
|       |            | 1       | 50        | 22.59                  | 22.51        | 22.54      | 19.09      | 19.71        | 19.44      | 19.39      | 19.71        | 20.14      |
|       |            | 1       | 99        | 22.59                  | 22.45        | 22.51      | 19.09      | 19.65        | 19.41      | 19.39      | 19.65        | 20.11      |
|       |            | 50      | 0         | 21.52                  | 21.35        | 21.38      | 18.02      | 18.55        | 18.28      | 18.32      | 18.55        | 18.98      |
|       |            | 50      | 25        | 21.56                  | 21.44        | 21.48      | 18.06      | 18.64        | 18.38      | 18.36      | 18.64        | 19.08      |
|       |            | 50      | 50        | 21.52                  | 21.42        | 21.44      | 18.02      | 18.62        | 18.34      | 18.32      | 18.62        | 19.04      |
|       |            | 100     | 0         | 21.42                  | 21.33        | 21.35      | 17.92      | 18.53        | 18.25      | 18.22      | 18.53        | 18.95      |



| LTE Band 7 |            |         |           | Maximum Output Power(dBm) |                |                  | EIRP (dBm)<br>Main Antenna |                |                  | EIRP (dBm)<br>Second Antenna |                |                  |
|------------|------------|---------|-----------|---------------------------|----------------|------------------|----------------------------|----------------|------------------|------------------------------|----------------|------------------|
| BW         | Modulation | RB size | RB offset | Channel/Frequency(MHz)    |                |                  |                            |                |                  |                              |                |                  |
|            |            |         |           | 20775/<br>2502.5          | 21100/<br>2535 | 21425/<br>2567.5 | 20775/<br>2502.5           | 21100/<br>2535 | 21425/<br>2567.5 | 20775/<br>2502.5             | 21100/<br>2535 | 21425/<br>2567.5 |
| 5MHz       | QPSK       | 1       | 0         | 24.26                     | 24.26          | 24.41            | 22.46                      | 22.86          | 23.31            | 18.96                        | 19.86          | 20.41            |
|            |            | 1       | 13        | 24.36                     | 24.51          | 24.71            | 22.56                      | 23.11          | 23.61            | 19.06                        | 20.11          | 20.71            |
|            |            | 1       | 24        | 24.21                     | 24.36          | 24.62            | 22.41                      | 22.96          | 23.52            | 18.91                        | 19.96          | 20.62            |
|            |            | 12      | 0         | 23.27                     | 23.31          | 23.48            | 21.47                      | 21.91          | 22.38            | 17.97                        | 18.91          | 19.48            |
|            |            | 12      | 6         | 23.36                     | 23.48          | 23.60            | 21.56                      | 22.08          | 22.50            | 18.06                        | 19.08          | 19.60            |
|            |            | 12      | 13        | 23.35                     | 23.32          | 23.50            | 21.55                      | 21.92          | 22.40            | 18.05                        | 18.92          | 19.50            |
|            |            | 25      | 0         | 23.31                     | 23.31          | 23.48            | 21.51                      | 21.91          | 22.38            | 18.01                        | 18.91          | 19.48            |
|            | 16QAM      | 1       | 0         | 23.66                     | 23.43          | 23.58            | 21.86                      | 22.03          | 22.48            | 18.36                        | 19.03          | 19.58            |
|            |            | 1       | 13        | 23.68                     | 23.56          | 23.81            | 21.88                      | 22.16          | 22.71            | 18.38                        | 19.16          | 19.81            |
|            |            | 1       | 24        | 23.51                     | 23.49          | 23.63            | 21.71                      | 22.09          | 22.53            | 18.21                        | 19.09          | 19.63            |
|            |            | 12      | 0         | 22.34                     | 22.26          | 22.51            | 20.54                      | 20.86          | 21.41            | 17.04                        | 17.86          | 18.51            |
|            |            | 12      | 6         | 22.41                     | 22.39          | 22.61            | 20.61                      | 20.99          | 21.51            | 17.11                        | 17.99          | 18.61            |
|            |            | 12      | 13        | 22.40                     | 22.29          | 22.52            | 20.60                      | 20.89          | 21.42            | 17.10                        | 17.89          | 18.52            |
|            |            | 25      | 0         | 22.32                     | 22.29          | 22.44            | 20.52                      | 20.89          | 21.34            | 17.02                        | 17.89          | 18.44            |
|            | 64QAM      | 1       | 0         | 22.28                     | 22.26          | 22.38            | 20.48                      | 20.86          | 21.28            | 16.98                        | 17.86          | 18.38            |
|            |            | 1       | 13        | 22.35                     | 22.31          | 22.41            | 20.55                      | 20.91          | 21.31            | 17.05                        | 17.91          | 18.41            |
|            |            | 1       | 24        | 22.20                     | 22.14          | 22.25            | 20.40                      | 20.74          | 21.15            | 16.90                        | 17.74          | 18.25            |
|            |            | 12      | 0         | 21.08                     | 21.03          | 21.16            | 19.28                      | 19.63          | 20.06            | 15.78                        | 16.63          | 17.16            |
|            |            | 12      | 6         | 21.15                     | 21.11          | 21.23            | 19.35                      | 19.71          | 20.13            | 15.85                        | 16.71          | 17.23            |
|            |            | 12      | 13        | 21.06                     | 21.03          | 21.12            | 19.26                      | 19.63          | 20.02            | 15.76                        | 16.63          | 17.12            |
|            |            | 25      | 0         | 20.99                     | 20.97          | 21.05            | 19.19                      | 19.57          | 19.95            | 15.69                        | 16.57          | 17.05            |
| BW         | Modulation | RB size | RB offset | Channel/Frequency(MHz)    |                |                  |                            |                |                  |                              |                |                  |
|            |            |         |           | 20800/<br>2505            | 21100/<br>2535 | 21400/<br>2565   | 20800/<br>2505             | 21100/<br>2535 | 21400/<br>2565   | 20800/<br>2505               | 21100/<br>2535 | 21400/<br>2565   |
| 10MHz      | QPSK       | 1       | 0         | 24.27                     | 24.30          | 24.43            | 22.47                      | 22.90          | 23.33            | 18.97                        | 19.90          | 20.43            |
|            |            | 1       | 25        | 24.38                     | 24.52          | 24.74            | 22.58                      | 23.12          | 23.64            | 19.08                        | 20.12          | 20.74            |
|            |            | 1       | 49        | 24.24                     | 24.41          | 24.66            | 22.44                      | 23.01          | 23.56            | 18.94                        | 20.01          | 20.66            |
|            |            | 25      | 0         | 23.29                     | 23.35          | 23.51            | 21.49                      | 21.95          | 22.41            | 17.99                        | 18.95          | 19.51            |
|            |            | 25      | 13        | 23.39                     | 23.53          | 23.64            | 21.59                      | 22.13          | 22.54            | 18.09                        | 19.13          | 19.64            |
|            |            | 25      | 25        | 23.38                     | 23.35          | 23.54            | 21.58                      | 21.95          | 22.44            | 18.08                        | 18.95          | 19.54            |
|            |            | 50      | 0         | 23.33                     | 23.35          | 23.53            | 21.53                      | 21.95          | 22.43            | 18.03                        | 18.95          | 19.53            |
|            | 16QAM      | 1       | 0         | 23.71                     | 23.45          | 23.60            | 21.91                      | 22.05          | 22.50            | 18.41                        | 19.05          | 19.60            |



|       |            | 1       | 25        | 23.70                  | 23.59          | 23.83            | 21.90            | 22.19          | 22.73            | 18.40            | 19.19          | 19.83            |
|-------|------------|---------|-----------|------------------------|----------------|------------------|------------------|----------------|------------------|------------------|----------------|------------------|
|       |            | 1       | 49        | 23.54                  | 23.53          | 23.66            | 21.74            | 22.13          | 22.56            | 18.24            | 19.13          | 19.66            |
|       |            | 25      | 0         | 22.37                  | 22.28          | 22.54            | 20.57            | 20.88          | 21.44            | 17.07            | 17.88          | 18.54            |
|       |            | 25      | 13        | 22.44                  | 22.44          | 22.65            | 20.64            | 21.04          | 21.55            | 17.14            | 18.04          | 18.65            |
|       |            | 25      | 25        | 22.42                  | 22.33          | 22.55            | 20.62            | 20.93          | 21.45            | 17.12            | 17.93          | 18.55            |
|       |            | 50      | 0         | 22.35                  | 22.34          | 22.48            | 20.55            | 20.94          | 21.38            | 17.05            | 17.94          | 18.48            |
|       | 64QAM      | 1       | 0         | 22.33                  | 22.28          | 22.40            | 20.53            | 20.88          | 21.30            | 17.03            | 17.88          | 18.40            |
|       |            | 1       | 25        | 22.37                  | 22.34          | 22.43            | 20.57            | 20.94          | 21.33            | 17.07            | 17.94          | 18.43            |
|       |            | 1       | 49        | 22.19                  | 22.15          | 22.24            | 20.39            | 20.75          | 21.14            | 16.89            | 17.75          | 18.24            |
|       |            | 25      | 0         | 21.09                  | 21.01          | 21.15            | 19.29            | 19.61          | 20.05            | 15.79            | 16.61          | 17.15            |
|       |            | 25      | 13        | 21.17                  | 21.14          | 21.24            | 19.37            | 19.74          | 20.14            | 15.87            | 16.74          | 17.24            |
|       |            | 25      | 25        | 21.08                  | 21.07          | 21.15            | 19.28            | 19.67          | 20.05            | 15.78            | 16.67          | 17.15            |
|       |            | 50      | 0         | 21.02                  | 21.02          | 21.09            | 19.22            | 19.62          | 19.99            | 15.72            | 16.62          | 17.09            |
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                |                  |                  |                |                  |                  |                |                  |
|       |            |         |           | 20825/<br>2507.5       | 21100/<br>2535 | 21375/<br>2562.5 | 20825/<br>2507.5 | 21100/<br>2535 | 21375/<br>2562.5 | 20825/<br>2507.5 | 21100/<br>2535 | 21375/<br>2562.5 |
| 15MHz | QPSK       | 1       | 0         | 24.28                  | 24.31          | 24.44            | 22.48            | 22.91          | 23.34            | 18.98            | 19.91          | 20.44            |
|       |            | 1       | 38        | 24.37                  | 24.51          | 24.73            | 22.57            | 23.11          | 23.63            | 19.07            | 20.11          | 20.73            |
|       |            | 1       | 74        | 24.25                  | 24.42          | 24.67            | 22.45            | 23.02          | 23.57            | 18.95            | 20.02          | 20.67            |
|       |            | 36      | 0         | 23.29                  | 23.35          | 23.51            | 21.49            | 21.95          | 22.41            | 17.99            | 18.95          | 19.51            |
|       |            | 36      | 18        | 23.38                  | 23.52          | 23.65            | 21.58            | 22.12          | 22.55            | 18.08            | 19.12          | 19.65            |
|       |            | 36      | 39        | 23.38                  | 23.33          | 23.53            | 21.58            | 21.93          | 22.43            | 18.08            | 18.93          | 19.53            |
|       |            | 75      | 0         | 23.29                  | 23.34          | 23.51            | 21.49            | 21.94          | 22.41            | 17.99            | 18.94          | 19.51            |
|       | 16QAM      | 1       | 0         | 23.72                  | 23.46          | 23.61            | 21.92            | 22.06          | 22.51            | 18.42            | 19.06          | 19.61            |
|       |            | 1       | 38        | 23.70                  | 23.57          | 23.83            | 21.90            | 22.17          | 22.73            | 18.40            | 19.17          | 19.83            |
|       |            | 1       | 74        | 23.54                  | 23.53          | 23.67            | 21.74            | 22.13          | 22.57            | 18.24            | 19.13          | 19.67            |
|       |            | 36      | 0         | 22.36                  | 22.27          | 22.53            | 20.56            | 20.87          | 21.43            | 17.06            | 17.87          | 18.53            |
|       |            | 36      | 18        | 22.45                  | 22.45          | 22.66            | 20.65            | 21.05          | 21.56            | 17.15            | 18.05          | 18.66            |
|       |            | 36      | 39        | 22.42                  | 22.33          | 22.55            | 20.62            | 20.93          | 21.45            | 17.12            | 17.93          | 18.55            |
|       |            | 75      | 0         | 22.34                  | 22.33          | 22.49            | 20.54            | 20.93          | 21.39            | 17.04            | 17.93          | 18.49            |
|       | 64QAM      | 1       | 0         | 22.34                  | 22.29          | 22.41            | 20.54            | 20.89          | 21.31            | 17.04            | 17.89          | 18.41            |
|       |            | 1       | 38        | 22.37                  | 22.32          | 22.43            | 20.57            | 20.92          | 21.33            | 17.07            | 17.92          | 18.43            |
|       |            | 1       | 74        | 22.19                  | 22.15          | 22.25            | 20.39            | 20.75          | 21.15            | 16.89            | 17.75          | 18.25            |
|       |            | 36      | 0         | 21.08                  | 21.00          | 21.14            | 19.28            | 19.60          | 20.04            | 15.78            | 16.60          | 17.14            |
|       |            | 36      | 18        | 21.18                  | 21.15          | 21.25            | 19.38            | 19.75          | 20.15            | 15.88            | 16.75          | 17.25            |
|       |            | 36      | 39        | 21.08                  | 21.07          | 21.15            | 19.28            | 19.67          | 20.05            | 15.78            | 16.67          | 17.15            |
|       |            | 75      | 0         | 21.01                  | 21.01          | 21.10            | 19.21            | 19.61          | 20.00            | 15.71            | 16.61          | 17.10            |



| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |            |            |            |            |            |            |            |            |
|-------|------------|---------|-----------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
|       |            |         |           | 20850/2510             | 21100/2535 | 21350/2560 | 20850/2510 | 21100/2535 | 21350/2560 | 20850/2510 | 21100/2535 | 21350/2560 |
| 20MHz | QPSK       | 1       | 0         | 24.23                  | 24.22      | 24.38      | 22.43      | 22.82      | 23.28      | 18.93      | 19.82      | 20.38      |
|       |            | 1       | 50        | 24.35                  | 24.47      | 24.69      | 22.55      | 23.07      | 23.59      | 19.05      | 20.07      | 20.69      |
|       |            | 1       | 99        | 24.19                  | 24.35      | 24.59      | 22.39      | 22.95      | 23.49      | 18.89      | 19.95      | 20.59      |
|       |            | 50      | 0         | 23.24                  | 23.26      | 23.44      | 21.44      | 21.86      | 22.34      | 17.94      | 18.86      | 19.44      |
|       |            | 50      | 25        | 23.34                  | 23.44      | 23.57      | 21.54      | 22.04      | 22.47      | 18.04      | 19.04      | 19.57      |
|       |            | 50      | 50        | 23.32                  | 23.27      | 23.46      | 21.52      | 21.87      | 22.36      | 18.02      | 18.87      | 19.46      |
|       |            | 100     | 0         | 23.28                  | 23.26      | 23.44      | 21.48      | 21.86      | 22.34      | 17.98      | 18.86      | 19.44      |
|       | 16QAM      | 1       | 0         | 23.45                  | 23.39      | 23.53      | 21.65      | 21.99      | 22.43      | 18.15      | 18.99      | 19.53      |
|       |            | 1       | 50        | 23.64                  | 23.54      | 23.77      | 21.84      | 22.14      | 22.67      | 18.34      | 19.14      | 19.77      |
|       |            | 1       | 99        | 23.49                  | 23.46      | 23.61      | 21.69      | 22.06      | 22.51      | 18.19      | 19.06      | 19.61      |
|       |            | 50      | 0         | 22.31                  | 22.22      | 22.48      | 20.51      | 20.82      | 21.38      | 17.01      | 17.82      | 18.48      |
|       |            | 50      | 25        | 22.38                  | 22.37      | 22.58      | 20.58      | 20.97      | 21.48      | 17.08      | 17.97      | 18.58      |
|       |            | 50      | 50        | 22.37                  | 22.24      | 22.48      | 20.57      | 20.84      | 21.38      | 17.07      | 17.84      | 18.48      |
|       |            | 100     | 0         | 22.30                  | 22.25      | 22.41      | 20.50      | 20.85      | 21.31      | 17.00      | 17.85      | 18.41      |
|       | 64QAM      | 1       | 0         | 22.26                  | 22.22      | 22.33      | 20.46      | 20.82      | 21.23      | 16.96      | 17.82      | 18.33      |
|       |            | 1       | 50        | 22.31                  | 22.29      | 22.37      | 20.51      | 20.89      | 21.27      | 17.01      | 17.89      | 18.37      |
|       |            | 1       | 99        | 22.14                  | 22.08      | 22.19      | 20.34      | 20.68      | 21.09      | 16.84      | 17.68      | 18.19      |
|       |            | 50      | 0         | 21.03                  | 20.95      | 21.09      | 19.23      | 19.55      | 19.99      | 15.73      | 16.55      | 17.09      |
|       |            | 50      | 25        | 21.11                  | 21.07      | 21.17      | 19.31      | 19.67      | 20.07      | 15.81      | 16.67      | 17.17      |
|       |            | 50      | 50        | 21.03                  | 20.98      | 21.08      | 19.23      | 19.58      | 19.98      | 15.73      | 16.58      | 17.08      |
|       |            | 100     | 0         | 20.97                  | 20.93      | 21.02      | 19.17      | 19.53      | 19.92      | 15.67      | 16.53      | 17.02      |

| LTE Band 38 |            |         |           | Maximum Output Power(dBm) |            |              | EIRP (dBm) Main Antenna |            |              | EIRP (dBm) Second Antenna |            |              |
|-------------|------------|---------|-----------|---------------------------|------------|--------------|-------------------------|------------|--------------|---------------------------|------------|--------------|
| BW          | Modulation | RB size | RB offset | Channel/Frequency(MHz)    |            |              |                         |            |              |                           |            |              |
|             |            |         |           | 37775/2572.5              | 38000/2595 | 38225/2617.5 | 37775/2572.5            | 38000/2595 | 38225/2617.5 | 37775/2572.5              | 38000/2595 | 38225/2617.5 |
| 5MHz        | QPSK       | 1       | 0         | 24.69                     | 24.69      | 24.68        | 23.49                   | 23.59      | 23.78        | 21.19                     | 21.59      | 21.68        |
|             |            | 1       | 13        | 24.81                     | 24.84      | 24.83        | 23.61                   | 23.74      | 23.93        | 21.31                     | 21.74      | 21.83        |
|             |            | 1       | 24        | 24.74                     | 24.75      | 24.74        | 23.54                   | 23.65      | 23.84        | 21.24                     | 21.65      | 21.74        |
|             |            | 12      | 0         | 23.71                     | 23.71      | 23.73        | 22.51                   | 22.61      | 22.83        | 20.21                     | 20.61      | 20.73        |
|             |            | 12      | 6         | 23.82                     | 23.82      | 23.81        | 22.62                   | 22.72      | 22.91        | 20.32                     | 20.72      | 20.81        |
|             |            | 12      | 13        | 23.72                     | 23.75      | 23.72        | 22.52                   | 22.65      | 22.82        | 20.22                     | 20.65      | 20.72        |
|             |            | 25      | 0         | 23.75                     | 23.73      | 23.77        | 22.55                   | 22.63      | 22.87        | 20.25                     | 20.63      | 20.77        |
|             | 16QAM      | 1       | 0         | 24.14                     | 24.19      | 24.17        | 22.94                   | 23.09      | 23.27        | 20.64                     | 21.09      | 21.17        |



|       |            | 1       | 13        | 24.28                  | 24.31          | 24.31          | 23.08          | 23.21          | 23.41          | 20.78          | 21.21          | 21.31          |
|-------|------------|---------|-----------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|       |            | 1       | 24        | 24.20                  | 24.22          | 24.21          | 23.00          | 23.12          | 23.31          | 20.70          | 21.12          | 21.21          |
|       |            | 12      | 0         | 22.66                  | 22.71          | 22.73          | 21.46          | 21.61          | 21.83          | 19.16          | 19.61          | 19.73          |
|       |            | 12      | 6         | 22.81                  | 22.80          | 22.81          | 21.61          | 21.70          | 21.91          | 19.31          | 19.70          | 19.81          |
|       |            | 12      | 13        | 22.69                  | 22.71          | 22.73          | 21.49          | 21.61          | 21.83          | 19.19          | 19.61          | 19.73          |
|       |            | 25      | 0         | 22.74                  | 22.70          | 22.74          | 21.54          | 21.60          | 21.84          | 19.24          | 19.60          | 19.74          |
|       | 64QAM      | 1       | 0         | 22.66                  | 22.66          | 22.66          | 21.46          | 21.56          | 21.76          | 19.16          | 19.56          | 19.66          |
|       |            | 1       | 13        | 22.79                  | 22.79          | 22.69          | 21.59          | 21.69          | 21.79          | 19.29          | 19.69          | 19.69          |
|       |            | 1       | 24        | 22.72                  | 22.71          | 22.72          | 21.52          | 21.61          | 21.82          | 19.22          | 19.61          | 19.72          |
|       |            | 12      | 0         | 21.41                  | 21.41          | 21.40          | 20.21          | 20.31          | 20.50          | 17.91          | 18.31          | 18.40          |
|       |            | 12      | 6         | 21.50                  | 21.49          | 21.48          | 20.30          | 20.39          | 20.58          | 18.00          | 18.39          | 18.48          |
|       |            | 12      | 13        | 21.41                  | 21.43          | 21.43          | 20.21          | 20.33          | 20.53          | 17.91          | 18.33          | 18.43          |
|       |            | 25      | 0         | 21.43                  | 21.42          | 21.43          | 20.23          | 20.32          | 20.53          | 17.93          | 18.32          | 18.43          |
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                |                |                |                |                |                |                |                |
|       |            |         |           | 37800/<br>2575         | 38000/<br>2595 | 38200/<br>2615 | 37800/<br>2575 | 38000/<br>2595 | 38200/<br>2615 | 37800/<br>2575 | 38000/<br>2595 | 38200/<br>2615 |
| 10MHz | QPSK       | 1       | 0         | 24.76                  | 24.75          | 24.75          | 23.56          | 23.65          | 23.85          | 21.26          | 21.65          | 21.75          |
|       |            | 1       | 25        | 24.81                  | 24.82          | 24.81          | 23.61          | 23.72          | 23.91          | 21.31          | 21.72          | 21.81          |
|       |            | 1       | 49        | 24.80                  | 24.83          | 24.83          | 23.60          | 23.73          | 23.93          | 21.30          | 21.73          | 21.83          |
|       |            | 25      | 0         | 23.73                  | 23.73          | 23.74          | 22.53          | 22.63          | 22.84          | 20.23          | 20.63          | 20.74          |
|       |            | 25      | 13        | 23.82                  | 23.82          | 23.84          | 22.62          | 22.72          | 22.94          | 20.32          | 20.72          | 20.84          |
|       |            | 25      | 25        | 23.75                  | 23.74          | 23.74          | 22.55          | 22.64          | 22.84          | 20.25          | 20.64          | 20.74          |
|       |            | 50      | 0         | 23.76                  | 23.78          | 23.80          | 22.56          | 22.68          | 22.90          | 20.26          | 20.68          | 20.80          |
|       | 16QAM      | 1       | 0         | 24.14                  | 24.16          | 24.15          | 22.94          | 23.06          | 23.25          | 20.64          | 21.06          | 21.15          |
|       |            | 1       | 25        | 24.19                  | 24.21          | 24.19          | 22.99          | 23.11          | 23.29          | 20.69          | 21.11          | 21.19          |
|       |            | 1       | 49        | 24.19                  | 24.21          | 24.20          | 22.99          | 23.11          | 23.30          | 20.69          | 21.11          | 21.20          |
|       |            | 25      | 0         | 22.76                  | 22.77          | 22.76          | 21.56          | 21.67          | 21.86          | 19.26          | 19.67          | 19.76          |
|       |            | 25      | 13        | 22.85                  | 22.85          | 22.83          | 21.65          | 21.75          | 21.93          | 19.35          | 19.75          | 19.83          |
|       |            | 25      | 25        | 22.76                  | 22.73          | 22.74          | 21.56          | 21.63          | 21.84          | 19.26          | 19.63          | 19.74          |
|       |            | 50      | 0         | 22.74                  | 22.76          | 22.75          | 21.54          | 21.66          | 21.85          | 19.24          | 19.66          | 19.75          |
|       | 64QAM      | 1       | 0         | 22.62                  | 22.62          | 22.64          | 21.42          | 21.52          | 21.74          | 19.12          | 19.52          | 19.64          |
|       |            | 1       | 25        | 22.68                  | 22.70          | 22.69          | 21.48          | 21.60          | 21.79          | 19.18          | 19.60          | 19.69          |
|       |            | 1       | 49        | 22.72                  | 22.70          | 22.72          | 21.52          | 21.60          | 21.82          | 19.22          | 19.60          | 19.72          |
|       |            | 25      | 0         | 21.46                  | 21.47          | 21.45          | 20.26          | 20.37          | 20.55          | 17.96          | 18.37          | 18.45          |
|       |            | 25      | 13        | 21.54                  | 21.57          | 21.55          | 20.34          | 20.47          | 20.65          | 18.04          | 18.47          | 18.55          |
|       |            | 25      | 25        | 21.47                  | 21.45          | 21.46          | 20.27          | 20.35          | 20.56          | 17.97          | 18.35          | 18.46          |
|       |            | 50      | 0         | 21.47                  | 21.41          | 21.42          | 20.27          | 20.31          | 20.52          | 17.97          | 18.31          | 18.42          |



| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                |                  |                  |                |                  |                  |                |                  |
|-------|------------|---------|-----------|------------------------|----------------|------------------|------------------|----------------|------------------|------------------|----------------|------------------|
|       |            |         |           | 37825/<br>2577.5       | 38000/<br>2595 | 38175/<br>2612.5 | 37825/<br>2577.5 | 38000/<br>2595 | 38175/<br>2612.5 | 37825/<br>2577.5 | 38000/<br>2595 | 38175/<br>2612.5 |
| 15MHz | QPSK       | 1       | 0         | 24.69                  | 24.69          | 24.70            | 23.49            | 23.59          | 23.80            | 21.19            | 21.59          | 21.70            |
|       |            | 1       | 38        | 24.83                  | 24.83          | 24.84            | 23.63            | 23.73          | 23.94            | 21.33            | 21.73          | 21.84            |
|       |            | 1       | 74        | 24.80                  | 24.80          | 24.81            | 23.60            | 23.70          | 23.91            | 21.30            | 21.70          | 21.81            |
|       |            | 36      | 0         | 23.79                  | 23.78          | 23.79            | 22.59            | 22.68          | 22.89            | 20.29            | 20.68          | 20.79            |
|       |            | 36      | 18        | 23.88                  | 23.90          | 23.89            | 22.68            | 22.80          | 22.99            | 20.38            | 20.80          | 20.89            |
|       |            | 36      | 39        | 23.86                  | 23.84          | 23.85            | 22.66            | 22.74          | 22.95            | 20.36            | 20.74          | 20.85            |
|       |            | 75      | 0         | 23.88                  | 23.85          | 23.85            | 22.68            | 22.75          | 22.95            | 20.38            | 20.75          | 20.85            |
|       | 16QAM      | 1       | 0         | 24.07                  | 24.07          | 24.08            | 22.87            | 22.97          | 23.18            | 20.57            | 20.97          | 21.08            |
|       |            | 1       | 38        | 24.20                  | 24.22          | 24.20            | 23.00            | 23.12          | 23.30            | 20.70            | 21.12          | 21.20            |
|       |            | 1       | 74        | 24.18                  | 24.17          | 24.20            | 22.98            | 23.07          | 23.30            | 20.68            | 21.07          | 21.20            |
|       |            | 36      | 0         | 22.79                  | 22.81          | 22.81            | 21.59            | 21.71          | 21.91            | 19.29            | 19.71          | 19.81            |
|       |            | 36      | 18        | 22.87                  | 22.86          | 22.87            | 21.67            | 21.76          | 21.97            | 19.37            | 19.76          | 19.87            |
|       |            | 36      | 39        | 22.81                  | 22.82          | 22.80            | 21.61            | 21.72          | 21.90            | 19.31            | 19.72          | 19.80            |
|       |            | 75      | 0         | 22.79                  | 22.76          | 22.75            | 21.59            | 21.66          | 21.85            | 19.29            | 19.66          | 19.75            |
|       | 64QAM      | 1       | 0         | 22.77                  | 22.77          | 22.78            | 21.57            | 21.67          | 21.88            | 19.27            | 19.67          | 19.78            |
|       |            | 1       | 38        | 22.72                  | 22.69          | 22.70            | 21.52            | 21.59          | 21.80            | 19.22            | 19.59          | 19.70            |
|       |            | 1       | 74        | 22.66                  | 22.68          | 22.68            | 21.46            | 21.58          | 21.78            | 19.16            | 19.58          | 19.68            |
|       |            | 36      | 0         | 21.48                  | 21.43          | 21.47            | 20.28            | 20.33          | 20.57            | 17.98            | 18.33          | 18.47            |
|       |            | 36      | 18        | 21.55                  | 21.54          | 21.59            | 20.35            | 20.44          | 20.69            | 18.05            | 18.44          | 18.59            |
|       |            | 36      | 39        | 21.54                  | 21.54          | 21.54            | 20.34            | 20.44          | 20.64            | 18.04            | 18.44          | 18.54            |
|       |            | 75      | 0         | 21.50                  | 21.51          | 21.49            | 20.30            | 20.41          | 20.59            | 18.00            | 18.41          | 18.49            |
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                |                  |                  |                |                  |                  |                |                  |
|       |            |         |           | 37850/<br>2580         | 38000/<br>2595 | 38150/<br>2610   | 37850/<br>2580   | 38000/<br>2595 | 38150/<br>2610   | 37850/<br>2580   | 38000/<br>2595 | 38150/<br>2610   |
| 20MHz | QPSK       | 1       | 0         | 24.58                  | 24.62          | 24.64            | 23.38            | 23.52          | 23.74            | 21.08            | 21.52          | 21.64            |
|       |            | 1       | 50        | 24.81                  | 24.86          | 24.88            | 23.61            | 23.76          | 23.98            | 21.31            | 21.76          | 21.88            |
|       |            | 1       | 99        | 24.75                  | 24.79          | 24.78            | 23.55            | 23.69          | 23.88            | 21.25            | 21.69          | 21.78            |
|       |            | 50      | 0         | 23.73                  | 23.74          | 23.75            | 22.53            | 22.64          | 22.85            | 20.23            | 20.64          | 20.75            |
|       |            | 50      | 25        | 23.87                  | 23.88          | 23.84            | 22.67            | 22.78          | 22.94            | 20.37            | 20.78          | 20.84            |
|       |            | 50      | 50        | 23.70                  | 23.75          | 23.76            | 22.50            | 22.65          | 22.86            | 20.20            | 20.65          | 20.76            |
|       |            | 100     | 0         | 23.72                  | 23.72          | 23.74            | 22.52            | 22.62          | 22.84            | 20.22            | 20.62          | 20.74            |
|       | 16QAM      | 1       | 0         | 23.82                  | 23.80          | 23.78            | 22.62            | 22.70          | 22.88            | 20.32            | 20.70          | 20.78            |
|       |            | 1       | 50        | 24.03                  | 24.07          | 24.06            | 22.83            | 22.97          | 23.16            | 20.53            | 20.97          | 21.06            |
|       |            | 1       | 99        | 23.97                  | 24.03          | 23.99            | 22.77            | 22.93          | 23.09            | 20.47            | 20.93          | 20.99            |



|  |       |     |    |       |       |       |       |       |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|  |       | 50  | 0  | 22.74 | 22.72 | 22.74 | 21.54 | 21.62 | 21.84 | 19.24 | 19.62 | 19.74 |
|  |       | 50  | 25 | 22.80 | 22.83 | 22.82 | 21.60 | 21.73 | 21.92 | 19.30 | 19.73 | 19.82 |
|  |       | 50  | 50 | 22.68 | 22.69 | 22.70 | 21.48 | 21.59 | 21.80 | 19.18 | 19.59 | 19.70 |
|  |       | 100 | 0  | 22.68 | 22.72 | 22.73 | 21.48 | 21.62 | 21.83 | 19.18 | 19.62 | 19.73 |
|  | 64QAM | 1   | 0  | 22.48 | 22.55 | 22.55 | 21.28 | 21.45 | 21.65 | 18.98 | 19.45 | 19.55 |
|  |       | 1   | 50 | 22.75 | 22.78 | 22.73 | 21.55 | 21.68 | 21.83 | 19.25 | 19.68 | 19.73 |
|  |       | 1   | 99 | 22.72 | 22.71 | 22.72 | 21.52 | 21.61 | 21.82 | 19.22 | 19.61 | 19.72 |
|  |       | 50  | 0  | 21.39 | 21.45 | 21.42 | 20.19 | 20.35 | 20.52 | 17.89 | 18.35 | 18.42 |
|  |       | 50  | 25 | 21.52 | 21.53 | 21.55 | 20.32 | 20.43 | 20.65 | 18.02 | 18.43 | 18.55 |
|  |       | 50  | 50 | 21.39 | 21.41 | 21.40 | 20.19 | 20.31 | 20.50 | 17.89 | 18.31 | 18.40 |
|  |       | 100 | 0  | 21.37 | 21.41 | 21.40 | 20.17 | 20.31 | 20.50 | 17.87 | 18.31 | 18.40 |

| LTE Band 41 |            |         |           | Maximum Output Power(dBm) |            |              | EIRP (dBm) Main Antenna |            |              | EIRP (dBm) Second Antenna |            |              |
|-------------|------------|---------|-----------|---------------------------|------------|--------------|-------------------------|------------|--------------|---------------------------|------------|--------------|
| BW          | Modulation | RB size | RB offset | Channel/Frequency(MHz)    |            |              |                         |            |              |                           |            |              |
|             |            |         |           | 40065/2537.5              | 40640/2595 | 41215/2652.5 | 40065/2537.5            | 40640/2595 | 41215/2652.5 | 40065/2537.5              | 40640/2595 | 41215/2652.5 |
| 5MHz        | QPSK       | 1       | 0         | 24.42                     | 24.33      | 24.46        | 23.02                   | 23.23      | 23.76        | 20.02                     | 20.83      | 21.86        |
|             |            | 1       | 13        | 24.44                     | 24.48      | 24.57        | 23.04                   | 23.38      | 23.87        | 20.04                     | 20.98      | 21.97        |
|             |            | 1       | 24        | 24.53                     | 24.39      | 24.70        | 23.13                   | 23.29      | 24.00        | 20.13                     | 20.89      | 22.10        |
|             |            | 12      | 0         | 23.51                     | 23.45      | 23.73        | 22.11                   | 22.35      | 23.03        | 19.11                     | 19.95      | 21.13        |
|             |            | 12      | 6         | 23.63                     | 23.42      | 23.80        | 22.23                   | 22.32      | 23.10        | 19.23                     | 19.92      | 21.20        |
|             |            | 12      | 13        | 23.68                     | 23.38      | 23.77        | 22.28                   | 22.28      | 23.07        | 19.28                     | 19.88      | 21.17        |
|             |            | 25      | 0         | 23.59                     | 23.52      | 23.88        | 22.19                   | 22.42      | 23.18        | 19.19                     | 20.02      | 21.28        |
|             | 16QAM      | 1       | 0         | 24.00                     | 23.27      | 23.78        | 22.60                   | 22.17      | 23.08        | 19.60                     | 19.77      | 21.18        |
|             |            | 1       | 13        | 23.98                     | 23.37      | 23.83        | 22.58                   | 22.27      | 23.13        | 19.58                     | 19.87      | 21.23        |
|             |            | 1       | 24        | 23.90                     | 23.30      | 23.73        | 22.50                   | 22.20      | 23.03        | 19.50                     | 19.80      | 21.13        |
|             |            | 12      | 0         | 22.50                     | 22.18      | 22.59        | 21.10                   | 21.08      | 21.89        | 18.10                     | 18.68      | 19.99        |
|             |            | 12      | 6         | 22.67                     | 22.67      | 22.70        | 21.27                   | 21.57      | 22.00        | 18.27                     | 19.17      | 20.10        |
|             |            | 12      | 13        | 22.64                     | 22.22      | 22.70        | 21.24                   | 21.12      | 22.00        | 18.24                     | 18.72      | 20.10        |
|             |            | 25      | 0         | 22.50                     | 22.20      | 22.72        | 21.10                   | 21.10      | 22.02        | 18.10                     | 18.70      | 20.12        |
|             | 64QAM      | 1       | 0         | 22.68                     | 22.34      | 22.60        | 21.28                   | 21.24      | 21.90        | 18.28                     | 18.84      | 20.00        |
|             |            | 1       | 13        | 22.78                     | 22.61      | 22.64        | 21.38                   | 21.51      | 21.94        | 18.38                     | 19.11      | 20.04        |
|             |            | 1       | 24        | 22.91                     | 22.57      | 22.66        | 21.51                   | 21.47      | 21.96        | 18.51                     | 19.07      | 20.06        |
|             |            | 12      | 0         | 21.41                     | 21.50      | 21.55        | 20.01                   | 20.40      | 20.85        | 17.01                     | 18.00      | 18.95        |
|             |            | 12      | 6         | 21.47                     | 21.66      | 21.61        | 20.07                   | 20.56      | 20.91        | 17.07                     | 18.16      | 19.01        |
|             |            | 12      | 13        | 21.37                     | 21.52      | 21.46        | 19.97                   | 20.42      | 20.76        | 16.97                     | 18.02      | 18.86        |



|       |            | 25      | 0         | 21.33                  | 21.59          | 21.54            | 19.93            | 20.49          | 20.84            | 16.93            | 18.09          | 18.94            |
|-------|------------|---------|-----------|------------------------|----------------|------------------|------------------|----------------|------------------|------------------|----------------|------------------|
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                |                  |                  |                |                  |                  |                |                  |
|       |            |         |           | 40090/<br>2540         | 40640/<br>2595 | 41190/<br>2650   | 40090/<br>2540   | 40640/<br>2595 | 41190/<br>2650   | 40090/<br>2540   | 40640/<br>2595 | 41190/<br>2650   |
| 10MHz | QPSK       | 1       | 0         | 24.44                  | 24.36          | 24.49            | 21.44            | 23.26          | 23.99            | 20.04            | 21.26          | 21.74            |
|       |            | 1       | 25        | 24.47                  | 24.52          | 24.61            | 21.47            | 23.42          | 24.11            | 20.07            | 21.42          | 21.86            |
|       |            | 1       | 49        | 24.55                  | 24.42          | 24.73            | 21.55            | 23.32          | 24.23            | 20.15            | 21.32          | 21.98            |
|       |            | 25      | 0         | 23.54                  | 23.49          | 23.77            | 20.54            | 22.39          | 23.27            | 19.14            | 20.39          | 21.02            |
|       |            | 25      | 13        | 23.66                  | 23.46          | 23.84            | 20.66            | 22.36          | 23.34            | 19.26            | 20.36          | 21.09            |
|       |            | 25      | 25        | 23.70                  | 23.43          | 23.82            | 20.70            | 22.33          | 23.32            | 19.30            | 20.33          | 21.07            |
|       |            | 50      | 0         | 23.63                  | 23.56          | 23.92            | 20.63            | 22.46          | 23.42            | 19.23            | 20.46          | 21.17            |
|       | 16QAM      | 1       | 0         | 24.02                  | 23.29          | 23.80            | 21.02            | 22.19          | 23.30            | 19.62            | 20.19          | 21.05            |
|       |            | 1       | 25        | 24.01                  | 23.40          | 23.86            | 21.01            | 22.30          | 23.36            | 19.61            | 20.30          | 21.11            |
|       |            | 1       | 49        | 23.93                  | 23.33          | 23.76            | 20.93            | 22.23          | 23.26            | 19.53            | 20.23          | 21.01            |
|       |            | 25      | 0         | 22.53                  | 22.22          | 22.63            | 19.53            | 21.12          | 22.13            | 18.13            | 19.12          | 19.88            |
|       |            | 25      | 13        | 22.69                  | 22.70          | 22.73            | 19.69            | 21.60          | 22.23            | 18.29            | 19.60          | 19.98            |
|       |            | 25      | 25        | 22.67                  | 22.26          | 22.74            | 19.67            | 21.16          | 22.24            | 18.27            | 19.16          | 19.99            |
|       |            | 50      | 0         | 22.53                  | 22.24          | 22.76            | 19.53            | 21.14          | 22.26            | 18.13            | 19.14          | 20.01            |
|       | 64QAM      | 1       | 0         | 22.70                  | 22.36          | 22.62            | 19.70            | 21.26          | 22.12            | 18.30            | 19.26          | 19.87            |
|       |            | 1       | 25        | 22.81                  | 22.64          | 22.67            | 19.81            | 21.54          | 22.17            | 18.41            | 19.54          | 19.92            |
|       |            | 1       | 49        | 22.90                  | 22.60          | 22.69            | 19.90            | 21.50          | 22.19            | 18.50            | 19.50          | 19.94            |
|       |            | 25      | 0         | 21.44                  | 21.50          | 21.55            | 18.44            | 20.40          | 21.05            | 17.04            | 18.40          | 18.80            |
|       |            | 25      | 13        | 21.49                  | 21.69          | 21.64            | 18.49            | 20.59          | 21.14            | 17.09            | 18.59          | 18.89            |
|       |            | 25      | 25        | 21.40                  | 21.56          | 21.50            | 18.40            | 20.46          | 21.00            | 17.00            | 18.46          | 18.75            |
|       |            | 50      | 0         | 21.36                  | 21.63          | 21.58            | 18.36            | 20.53          | 21.08            | 16.96            | 18.53          | 18.83            |
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                |                  |                  |                |                  |                  |                |                  |
|       |            |         |           | 40115/<br>2542.5       | 40640/<br>2595 | 41165/<br>2647.5 | 40115/<br>2542.5 | 40640/<br>2595 | 41165/<br>2647.5 | 40115/<br>2542.5 | 40640/<br>2595 | 41165/<br>2647.5 |
| 15MHz | QPSK       | 1       | 0         | 24.43                  | 24.34          | 24.47            | 23.03            | 23.24          | 23.97            | 20.03            | 21.24          | 21.72            |
|       |            | 1       | 38        | 24.45                  | 24.49          | 24.58            | 23.05            | 23.39          | 24.08            | 20.05            | 21.39          | 21.83            |
|       |            | 1       | 74        | 24.52                  | 24.38          | 24.69            | 23.12            | 23.28          | 24.19            | 20.12            | 21.28          | 21.94            |
|       |            | 36      | 0         | 23.52                  | 23.46          | 23.74            | 22.12            | 22.36          | 23.24            | 19.12            | 20.36          | 20.99            |
|       |            | 36      | 18        | 23.63                  | 23.42          | 23.80            | 22.23            | 22.32          | 23.30            | 19.23            | 20.32          | 21.05            |
|       |            | 36      | 39        | 23.67                  | 23.39          | 23.78            | 22.27            | 22.29          | 23.28            | 19.27            | 20.29          | 21.03            |
|       |            | 75      | 0         | 23.61                  | 23.51          | 23.87            | 22.21            | 22.41          | 23.37            | 19.21            | 20.41          | 21.12            |
|       | 16QAM      | 1       | 0         | 23.97                  | 23.27          | 23.78            | 22.57            | 22.17          | 23.28            | 19.57            | 20.17          | 21.03            |
|       |            | 1       | 38        | 23.99                  | 23.38          | 23.84            | 22.59            | 22.28          | 23.34            | 19.59            | 20.28          | 21.09            |



|       |            | 1       | 74        | 23.90                  | 23.30          | 23.73          | 22.50          | 22.20          | 23.23          | 19.50          | 20.20          | 20.98          |
|-------|------------|---------|-----------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|       |            | 36      | 0         | 22.50                  | 22.19          | 22.60          | 21.10          | 21.09          | 22.10          | 18.10          | 19.09          | 19.85          |
|       |            | 36      | 18        | 22.66                  | 22.66          | 22.69          | 21.26          | 21.56          | 22.19          | 18.26          | 19.56          | 19.94          |
|       |            | 36      | 39        | 22.65                  | 22.23          | 22.71          | 21.25          | 21.13          | 22.21          | 18.25          | 19.13          | 19.96          |
|       |            | 75      | 0         | 22.50                  | 22.20          | 22.72          | 21.10          | 21.10          | 22.22          | 18.10          | 19.10          | 19.97          |
|       | 64QAM      | 1       | 0         | 22.65                  | 22.34          | 22.60          | 21.25          | 21.24          | 22.10          | 18.25          | 19.24          | 19.85          |
|       |            | 1       | 38        | 22.79                  | 22.62          | 22.65          | 21.39          | 21.52          | 22.15          | 18.39          | 19.52          | 19.90          |
|       |            | 1       | 74        | 22.91                  | 22.61          | 22.70          | 21.51          | 21.51          | 22.20          | 18.51          | 19.51          | 19.95          |
|       |            | 36      | 0         | 21.43                  | 21.51          | 21.56          | 20.03          | 20.41          | 21.06          | 17.03          | 18.41          | 18.81          |
|       |            | 36      | 18        | 21.47                  | 21.68          | 21.63          | 20.07          | 20.58          | 21.13          | 17.07          | 18.58          | 18.88          |
|       |            | 36      | 39        | 21.38                  | 21.53          | 21.47          | 19.98          | 20.43          | 20.97          | 16.98          | 18.43          | 18.72          |
|       |            | 75      | 0         | 21.33                  | 21.59          | 21.54          | 19.93          | 20.49          | 21.04          | 16.93          | 18.49          | 18.79          |
| BW    | Modulation | RB size | RB offset | Channel/Frequency(MHz) |                |                |                |                |                |                |                |                |
|       |            |         |           | 40140/<br>2545         | 40640/<br>2595 | 41140/<br>2645 | 40140/<br>2545 | 40640/<br>2595 | 41140/<br>2645 | 40140/<br>2545 | 40640/<br>2595 | 41140/<br>2645 |
| 20MHz | QPSK       | 1       | 0         | 24.40                  | 24.31          | 24.44          | 23.00          | 23.21          | 23.94          | 20.00          | 21.21          | 21.69          |
|       |            | 1       | 50        | 24.44                  | 24.47          | 24.56          | 23.04          | 23.37          | 24.06          | 20.04          | 21.37          | 21.81          |
|       |            | 1       | 99        | 24.50                  | 24.35          | 24.66          | 23.10          | 23.25          | 24.16          | 20.10          | 21.25          | 21.91          |
|       |            | 50      | 0         | 23.49                  | 23.42          | 23.70          | 22.09          | 22.32          | 23.20          | 19.09          | 20.32          | 20.95          |
|       |            | 50      | 25        | 23.61                  | 23.39          | 23.77          | 22.21          | 22.29          | 23.27          | 19.21          | 20.29          | 21.02          |
|       |            | 50      | 50        | 23.64                  | 23.35          | 23.74          | 22.24          | 22.25          | 23.24          | 19.24          | 20.25          | 20.99          |
|       |            | 100     | 0         | 23.58                  | 23.47          | 23.83          | 22.18          | 22.37          | 23.33          | 19.18          | 20.37          | 21.08          |
|       | 16QAM      | 1       | 0         | 23.96                  | 23.22          | 23.73          | 22.56          | 22.12          | 23.23          | 19.56          | 20.12          | 20.98          |
|       |            | 1       | 50        | 23.95                  | 23.34          | 23.80          | 22.55          | 22.24          | 23.30          | 19.55          | 20.24          | 21.05          |
|       |            | 1       | 99        | 23.88                  | 23.28          | 23.71          | 22.48          | 22.18          | 23.21          | 19.48          | 20.18          | 20.96          |
|       |            | 50      | 0         | 22.47                  | 22.16          | 22.57          | 21.07          | 21.06          | 22.07          | 18.07          | 19.06          | 19.82          |
|       |            | 50      | 25        | 22.63                  | 22.63          | 22.66          | 21.23          | 21.53          | 22.16          | 18.23          | 19.53          | 19.91          |
|       |            | 50      | 50        | 22.62                  | 22.19          | 22.67          | 21.22          | 21.09          | 22.17          | 18.22          | 19.09          | 19.92          |
|       |            | 100     | 0         | 22.48                  | 22.17          | 22.69          | 21.08          | 21.07          | 22.19          | 18.08          | 19.07          | 19.94          |
|       | 64QAM      | 1       | 0         | 22.63                  | 22.29          | 22.55          | 21.23          | 21.19          | 22.05          | 18.23          | 19.19          | 19.80          |
|       |            | 1       | 50        | 22.75                  | 22.58          | 22.61          | 21.35          | 21.48          | 22.11          | 18.35          | 19.48          | 19.86          |
|       |            | 1       | 99        | 22.85                  | 22.55          | 22.64          | 21.45          | 21.45          | 22.14          | 18.45          | 19.45          | 19.89          |
|       |            | 50      | 0         | 21.38                  | 21.44          | 21.49          | 19.98          | 20.34          | 20.99          | 16.98          | 18.34          | 18.74          |
|       |            | 50      | 25        | 21.43                  | 21.62          | 21.57          | 20.03          | 20.52          | 21.07          | 17.03          | 18.52          | 18.82          |
|       |            | 50      | 50        | 21.35                  | 21.49          | 21.43          | 19.95          | 20.39          | 20.93          | 16.95          | 18.39          | 18.68          |
|       |            | 100     | 0         | 21.31                  | 21.56          | 21.51          | 19.91          | 20.46          | 21.01          | 16.91          | 18.46          | 18.76          |



| CA_7C           | PCC             | SCC             | PCC RB |        | SCC1 RB |        | Maximum output power (dBm) |       |       | EIRP (dBm)<br>Main Antenna |       |       | EIRP (dBm)<br>Second Antenna |       |       |
|-----------------|-----------------|-----------------|--------|--------|---------|--------|----------------------------|-------|-------|----------------------------|-------|-------|------------------------------|-------|-------|
|                 | Frequency (MHz) | Frequency (MHz) | Size   | Offset | Size    | Offset | QPSK                       | 16QAM | 64QAM | QPSK                       | 16QAM | 64QAM | QPSK                         | 16QAM | 64QAM |
| 10MHz+<br>20MHz | 2505.5          | 2519.9          | 1      | 49     | 1       | 0      | 23.50                      | 23.17 | 22.50 | 21.80                      | 21.47 | 20.80 | 18.90                        | 18.57 | 17.90 |
|                 |                 |                 | 50     | 0      | 100     | 0      | 21.18                      | 20.20 | 19.89 | 19.48                      | 18.50 | 18.19 | 16.58                        | 15.60 | 15.29 |
|                 | 2525.6          | 2540            | 1      | 49     | 1       | 0      | 23.57                      | 22.62 | 22.39 | 22.17                      | 21.22 | 20.99 | 19.17                        | 18.22 | 17.99 |
|                 |                 |                 | 50     | 0      | 100     | 0      | 21.24                      | 20.26 | 19.91 | 19.84                      | 18.86 | 18.51 | 16.84                        | 15.86 | 15.51 |
|                 | 2545.6          | 2560            | 1      | 49     | 1       | 0      | 23.60                      | 22.61 | 22.10 | 22.20                      | 21.21 | 20.70 | 19.60                        | 18.61 | 18.10 |
|                 |                 |                 | 50     | 0      | 100     | 0      | 21.51                      | 20.58 | 20.06 | 20.11                      | 19.18 | 18.66 | 17.51                        | 16.58 | 16.06 |
| 20MHz+<br>10MHz | 2510            | 2524.4          | 1      | 99     | 1       | 0      | 23.67                      | 23.27 | 22.75 | 21.97                      | 21.57 | 21.05 | 19.07                        | 18.67 | 18.15 |
|                 |                 |                 | 100    | 0      | 50      | 0      | 21.30                      | 20.36 | 19.83 | 19.60                      | 18.66 | 18.13 | 16.70                        | 15.76 | 15.23 |
|                 | 2530.1          | 2544.5          | 1      | 99     | 1       | 0      | 23.74                      | 23.34 | 22.81 | 22.34                      | 21.94 | 21.41 | 19.34                        | 18.94 | 18.41 |
|                 |                 |                 | 100    | 0      | 50      | 0      | 21.46                      | 20.52 | 20.12 | 20.06                      | 19.12 | 18.72 | 17.06                        | 16.12 | 15.72 |
|                 | 2550.1          | 2564.5          | 1      | 99     | 1       | 0      | 23.70                      | 23.29 | 22.75 | 22.60                      | 22.19 | 21.65 | 19.70                        | 19.29 | 18.75 |
|                 |                 |                 | 100    | 0      | 50      | 0      | 21.60                      | 20.66 | 20.12 | 20.50                      | 19.56 | 19.02 | 17.60                        | 16.66 | 16.12 |
| 15MHz+<br>15MHz | 2507.5          | 2522.5          | 1      | 74     | 1       | 0      | 23.61                      | 23.07 | 22.66 | 21.91                      | 21.37 | 20.96 | 19.01                        | 18.47 | 18.06 |
|                 |                 |                 | 75     | 0      | 75      | 0      | 21.25                      | 20.22 | 19.75 | 19.55                      | 18.52 | 18.05 | 16.65                        | 15.62 | 15.15 |
|                 | 2527.5          | 2542.5          | 1      | 74     | 1       | 0      | 23.69                      | 23.14 | 22.78 | 22.29                      | 21.74 | 21.38 | 19.29                        | 18.74 | 18.38 |
|                 |                 |                 | 75     | 0      | 75      | 0      | 21.32                      | 20.42 | 19.95 | 19.92                      | 19.02 | 18.55 | 16.92                        | 16.02 | 15.55 |
|                 | 2547.5          | 2562.5          | 1      | 74     | 1       | 0      | 23.69                      | 23.15 | 22.74 | 22.59                      | 22.05 | 21.64 | 19.69                        | 19.15 | 18.74 |
|                 |                 |                 | 75     | 0      | 75      | 0      | 21.61                      | 20.63 | 20.11 | 20.51                      | 19.53 | 19.01 | 17.61                        | 16.63 | 16.11 |
| 15MHz+<br>20MHz | 2507.8          | 2524.9          | 1      | 74     | 1       | 0      | 23.59                      | 23.05 | 22.63 | 21.89                      | 21.35 | 20.93 | 18.99                        | 18.45 | 18.03 |
|                 |                 |                 | 75     | 0      | 100     | 0      | 21.07                      | 20.06 | 19.65 | 19.37                      | 18.36 | 17.95 | 16.47                        | 15.46 | 15.05 |
|                 | 2525.3          | 2542.4          | 1      | 74     | 1       | 0      | 23.65                      | 23.08 | 22.67 | 22.25                      | 21.68 | 21.27 | 19.25                        | 18.68 | 18.27 |
|                 |                 |                 | 75     | 0      | 100     | 0      | 21.19                      | 20.22 | 19.79 | 19.79                      | 18.82 | 18.39 | 16.79                        | 15.82 | 15.39 |
|                 | 2542.9          | 2560            | 1      | 74     | 1       | 0      | 23.67                      | 23.09 | 22.73 | 22.27                      | 21.69 | 21.33 | 19.27                        | 18.69 | 18.33 |
|                 |                 |                 | 75     | 0      | 100     | 0      | 21.56                      | 20.58 | 20.14 | 20.16                      | 19.18 | 18.74 | 17.16                        | 16.18 | 15.74 |
| 20MHz+<br>15MHz | 2510            | 2527.1          | 1      | 99     | 1       | 0      | 23.71                      | 23.30 | 22.75 | 22.01                      | 21.60 | 21.05 | 19.11                        | 18.70 | 18.15 |
|                 |                 |                 | 100    | 0      | 75      | 0      | 21.14                      | 20.17 | 19.74 | 19.44                      | 18.47 | 18.04 | 16.54                        | 15.57 | 15.14 |
|                 | 2527.6          | 2544.7          | 1      | 99     | 1       | 0      | 23.74                      | 23.32 | 22.81 | 22.34                      | 21.92 | 21.41 | 19.34                        | 18.92 | 18.41 |
|                 |                 |                 | 100    | 0      | 75      | 0      | 21.35                      | 20.35 | 19.84 | 19.95                      | 18.95 | 18.44 | 16.95                        | 15.95 | 15.44 |
|                 | 2545.1          | 2562.2          | 1      | 99     | 1       | 0      | 23.75                      | 23.36 | 22.79 | 22.65                      | 22.26 | 21.69 | 19.75                        | 19.36 | 18.79 |
|                 |                 |                 | 100    | 0      | 75      | 0      | 21.54                      | 20.64 | 20.16 | 20.44                      | 19.54 | 19.06 | 17.54                        | 16.64 | 16.16 |
| 20MHz+<br>20MHz | 2510            | 2529.8          | 1      | 99     | 1       | 0      | 23.58                      | 23.23 | 22.68 | 21.88                      | 21.53 | 20.98 | 18.98                        | 18.63 | 18.08 |
|                 |                 |                 | 1      | 0      | 1       | 99     | 14.23                      | 14.68 | 14.17 | 12.53                      | 12.98 | 12.47 | 9.63                         | 10.08 | 9.57  |
|                 |                 |                 | 100    | 0      | 100     | 0      | 20.98                      | 20.04 | 19.48 | 19.28                      | 18.34 | 17.78 | 16.38                        | 15.44 | 14.88 |
|                 | 2525.1          | 2544.9          | 1      | 99     | 1       | 0      | 23.73                      | 23.35 | 22.77 | 22.33                      | 21.95 | 21.37 | 19.33                        | 18.95 | 18.37 |
|                 |                 |                 | 1      | 0      | 1       | 99     | 14.37                      | 14.85 | 14.37 | 12.97                      | 13.45 | 12.97 | 9.97                         | 10.45 | 9.97  |
|                 |                 |                 | 100    | 0      | 100     | 0      | 21.09                      | 20.31 | 19.88 | 19.69                      | 18.91 | 18.48 | 16.69                        | 15.91 | 15.48 |
|                 | 2540.2          | 2560            | 1      | 99     | 1       | 0      | 23.75                      | 23.31 | 22.77 | 22.35                      | 21.91 | 21.37 | 19.75                        | 19.31 | 18.77 |
|                 |                 |                 | 1      | 0      | 1       | 99     | 14.80                      | 15.25 | 14.78 | 13.40                      | 13.85 | 13.38 | 10.80                        | 11.25 | 10.78 |
|                 |                 |                 | 100    | 0      | 100     | 0      | 21.40                      | 20.50 | 19.99 | 20.00                      | 19.10 | 18.59 | 17.40                        | 16.50 | 15.99 |



| CA_38C          | PCC             | SCC             | PCC RB |        | SCC1 RB |        | Maximum output power (dBm) |       |       | EIRP (dBm)<br>Main Antenna |       |       | EIRP (dBm)<br>Second Antenna |       |       |
|-----------------|-----------------|-----------------|--------|--------|---------|--------|----------------------------|-------|-------|----------------------------|-------|-------|------------------------------|-------|-------|
|                 | Frequency (MHz) | Frequency (MHz) | Size   | Offset | Size    | Offset | QPSK                       | 16QAM | 64QAM | QPSK                       | 16QAM | 64QAM | QPSK                         | 16QAM | 64QAM |
| 15MHz+<br>15MHz | 2577.5          | 2592.5          | 1      | 74     | 1       | 0      | 23.65                      | 22.81 | 22.32 | 22.45                      | 21.61 | 21.12 | 20.15                        | 19.31 | 18.82 |
|                 |                 |                 | 75     | 0      | 75      | 0      | 21.48                      | 20.53 | 20.16 | 20.28                      | 19.33 | 18.96 | 17.98                        | 17.03 | 16.66 |
|                 | 2587.5          | 2602.5          | 1      | 74     | 1       | 0      | 23.64                      | 22.80 | 22.49 | 22.44                      | 21.60 | 21.29 | 20.54                        | 19.70 | 19.39 |
|                 |                 |                 | 75     | 0      | 75      | 0      | 21.48                      | 20.51 | 20.48 | 20.28                      | 19.31 | 19.28 | 18.38                        | 17.41 | 17.38 |
|                 | 2597.5          | 2612.5          | 1      | 74     | 1       | 0      | 23.57                      | 22.78 | 22.34 | 22.47                      | 21.68 | 21.24 | 20.47                        | 19.68 | 19.24 |
|                 |                 |                 | 75     | 0      | 75      | 0      | 21.41                      | 20.45 | 19.89 | 20.31                      | 19.35 | 18.79 | 18.31                        | 17.35 | 16.79 |
| 20MHz+<br>20MHz | 2580            | 2599.8          | 1      | 99     | 1       | 0      | 23.61                      | 22.53 | 22.19 | 22.41                      | 21.33 | 20.99 | 20.11                        | 19.03 | 18.69 |
|                 |                 |                 | 1      | 0      | 1       | 99     | 14.66                      | 14.45 | 14.63 | 13.46                      | 13.25 | 13.43 | 11.16                        | 10.95 | 11.13 |
|                 |                 |                 | 100    | 0      | 100     | 0      | 21.42                      | 20.53 | 20.11 | 20.22                      | 19.33 | 18.91 | 17.92                        | 17.03 | 16.61 |
|                 | 2585.1          | 2604.9          | 1      | 99     | 1       | 0      | 23.61                      | 22.51 | 21.98 | 22.51                      | 21.41 | 20.88 | 20.51                        | 19.41 | 18.88 |
|                 |                 |                 | 1      | 0      | 1       | 99     | 14.65                      | 14.47 | 14.33 | 13.55                      | 13.37 | 13.23 | 11.55                        | 11.37 | 11.23 |
|                 |                 |                 | 100    | 0      | 100     | 0      | 21.37                      | 20.43 | 19.89 | 20.27                      | 19.33 | 18.79 | 18.27                        | 17.33 | 16.79 |
|                 | 2590.2          | 2610            | 1      | 99     | 1       | 0      | 23.56                      | 22.47 | 22.04 | 22.46                      | 21.37 | 20.94 | 20.46                        | 19.37 | 18.94 |
|                 |                 |                 | 1      | 0      | 1       | 99     | 14.63                      | 14.46 | 14.23 | 13.53                      | 13.36 | 13.13 | 11.53                        | 11.36 | 11.13 |
|                 |                 |                 | 100    | 0      | 100     | 0      | 21.34                      | 20.48 | 20.37 | 20.24                      | 19.38 | 19.27 | 18.24                        | 17.38 | 17.27 |

## 5.2 Occupied Bandwidth

### Ambient condition

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

### Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer.

RBW is set to 51 kHz, VBW is set to 160 kHz for WCDMA Band IV.

RBW is set to 30 kHz, VBW is set to 91 kHz for LTE Band 4 (1.4MHz).

RBW is set to 62 kHz, VBW is set to 180 kHz for LTE Band 4 (3MHz).

RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7/38/41 (5MHz).

RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4/7/38/41 (10MHz).

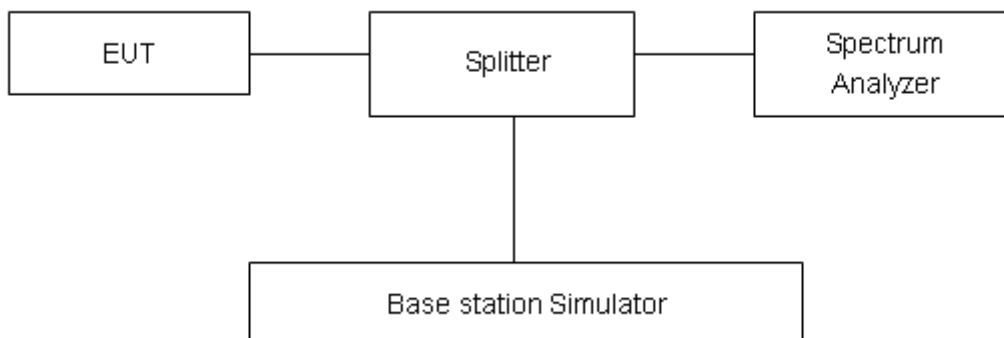
RBW is set to 300 kHz, VBW is set to 910 kHz for LTE Band 4/7/38/41 (15MHz).

RBW is set to 430 kHz, VBW is set to 1.2MHz for LTE Band 4/7/38/41 (20MHz).

RBW is set to 1MHz, VBW is set to 3MHz for CA-7C/ CA-38C.

99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

### Test Setup



### Limits

No specific occupied bandwidth requirements in part 2.1049.

### Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor  $k = 2$ ,  $U=624\text{Hz}$ .



## Test Result

| Mode                | Channel | Frequency (MHz) | 99% Power Bandwidth (MHz) | -26dBc Bandwidth(MHz) |
|---------------------|---------|-----------------|---------------------------|-----------------------|
| WCDMA Band IV (RMC) | 1312    | 1712.4          | 4.1601                    | 4.655                 |
|                     | 1413    | 1732.6          | 4.1754                    | 4.684                 |
|                     | 1513    | 1752.6          | 4.1600                    | 4.672                 |

| LTE Band 4 |            |                 |         |                 |                          |                       |
|------------|------------|-----------------|---------|-----------------|--------------------------|-----------------------|
| RB         | Modulation | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Power Bandwidth(MHz) | -26dBc Bandwidth(MHz) |
| 100%       | QPSK       | 1.4             | 19957   | 1710.7          | 1.0939                   | 1.277                 |
|            |            |                 | 20175   | 1732.5          | 1.0957                   | 1.278                 |
|            |            |                 | 20393   | 1754.3          | 1.0968                   | 1.343                 |
|            |            | 3               | 19965   | 1711.5          | 2.6823                   | 2.981                 |
|            |            |                 | 20175   | 1732.5          | 2.6990                   | 2.952                 |
|            |            |                 | 20385   | 1753.5          | 2.6963                   | 2.963                 |
|            |            | 5               | 19975   | 1712.5          | 4.5224                   | 4.897                 |
|            |            |                 | 20175   | 1732.5          | 4.5098                   | 4.871                 |
|            |            |                 | 20375   | 1752.5          | 4.5035                   | 4.898                 |
|            |            | 10              | 20000   | 1715            | 8.0023                   | 9.781                 |
|            |            |                 | 20175   | 1732.5          | 8.9664                   | 9.665                 |
|            |            |                 | 20350   | 1750            | 8.9629                   | 9.585                 |
|            |            | 15              | 20025   | 1717.5          | 13.4750                  | 14.550                |
|            |            |                 | 20175   | 1732.5          | 13.5070                  | 14.530                |
|            |            |                 | 20325   | 1747.5          | 13.4360                  | 14.470                |
|            |            | 20              | 20050   | 1720            | 17.9510                  | 19.290                |
|            |            |                 | 20175   | 1732.5          | 17.9540                  | 19.380                |
|            |            |                 | 20300   | 1745            | 17.9770                  | 19.290                |
|            | 16QAM      | 1.4             | 19957   | 1710.7          | 1.1005                   | 1.272                 |
|            |            |                 | 20175   | 1732.5          | 1.0997                   | 1.277                 |
|            |            |                 | 20393   | 1754.3          | 1.0900                   | 1.262                 |
|            |            | 3               | 19965   | 1711.5          | 2.6904                   | 2.961                 |
|            |            |                 | 20175   | 1732.5          | 2.6844                   | 2.984                 |
|            |            |                 | 20385   | 1753.5          | 2.6934                   | 2.966                 |
|            |            | 5               | 19975   | 1712.5          | 4.5068                   | 4.883                 |
|            |            |                 | 20175   | 1732.5          | 4.5153                   | 4.927                 |
|            |            |                 | 20375   | 1752.5          | 4.5247                   | 4.944                 |
|            |            | 10              | 20000   | 1715            | 8.9664                   | 9.662                 |
|            |            |                 | 20175   | 1732.5          | 8.9882                   | 9.616                 |



|  |       |     |       |        |         |        |
|--|-------|-----|-------|--------|---------|--------|
|  |       | 15  | 20350 | 1750   | 8.9809  | 9.614  |
|  |       |     | 20025 | 1717.5 | 13.4800 | 14.500 |
|  |       |     | 20175 | 1732.5 | 13.4190 | 14.470 |
|  |       |     | 20325 | 1747.5 | 13.4760 | 14.500 |
|  |       | 20  | 20050 | 1720   | 17.9430 | 19.480 |
|  |       |     | 20175 | 1732.5 | 17.9290 | 19.280 |
|  |       |     | 20300 | 1745   | 17.8720 | 19.320 |
|  | 64QAM | 1.4 | 19957 | 1710.7 | 1.0998  | 1.267  |
|  |       |     | 20175 | 1732.5 | 1.0982  | 1.283  |
|  |       |     | 20393 | 1754.3 | 1.0893  | 1.265  |
|  |       | 3   | 19965 | 1711.5 | 2.6810  | 2.940  |
|  |       |     | 20175 | 1732.5 | 2.6889  | 2.964  |
|  |       |     | 20385 | 1753.5 | 2.6942  | 2.958  |
|  |       | 5   | 19975 | 1712.5 | 4.5143  | 4.885  |
|  |       |     | 20175 | 1732.5 | 4.5114  | 4.898  |
|  |       |     | 20375 | 1752.5 | 4.5062  | 4.914  |
|  |       | 10  | 20000 | 1715   | 8.9772  | 9.621  |
|  |       |     | 20175 | 1732.5 | 8.9667  | 9.693  |
|  |       |     | 20350 | 1750   | 8.9803  | 9.649  |
|  |       | 15  | 20025 | 1717.5 | 13.4640 | 14.430 |
|  |       |     | 20175 | 1732.5 | 13.4230 | 14.510 |
|  |       |     | 20325 | 1747.5 | 13.4490 | 14.560 |
|  |       | 20  | 20050 | 1720   | 17.9180 | 19.350 |
|  |       |     | 20175 | 1732.5 | 17.9550 | 19.250 |
|  |       |     | 20300 | 1745   | 17.9430 | 19.250 |

| LTE Band 7 |            |                 |         |                 |                          |                       |
|------------|------------|-----------------|---------|-----------------|--------------------------|-----------------------|
| RB         | Modulation | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Power Bandwidth(MHz) | -26dBc Bandwidth(MHz) |
| 100%       | QPSK       | 5               | 20775   | 2502.5          | 4.5150                   | 4.902                 |
|            |            |                 | 21100   | 2535            | 4.5032                   | 4.904                 |
|            |            |                 | 21425   | 2567.5          | 4.5074                   | 4.894                 |
|            |            | 10              | 20800   | 2505            | 8.9941                   | 9.709                 |
|            |            |                 | 21100   | 2535            | 8.9896                   | 9.641                 |
|            |            |                 | 21400   | 2565            | 9.0238                   | 9.689                 |
|            |            | 15              | 20825   | 2507.5          | 13.4990                  | 14.550                |
|            |            |                 | 21100   | 2535            | 13.4450                  | 14.570                |
|            |            |                 | 21375   | 2562.5          | 13.4620                  | 14.410                |
|            |            | 20              | 20850   | 2510            | 17.9170                  | 19.260                |
|            |            |                 | 21100   | 2535            | 17.9280                  | 22.500                |



|  |       |    |       |        |         |        |
|--|-------|----|-------|--------|---------|--------|
|  | 16QAM | 5  | 21350 | 2560   | 17.9520 | 19.210 |
|  |       |    | 20775 | 2502.5 | 4.5117  | 4.913  |
|  |       |    | 21100 | 2535   | 4.5004  | 4.949  |
|  |       |    | 21425 | 2567.5 | 4.5076  | 4.901  |
|  |       | 10 | 20800 | 2505   | 8.9721  | 9.734  |
|  |       |    | 21100 | 2535   | 8.9761  | 9.648  |
|  |       |    | 21400 | 2565   | 8.9951  | 9.681  |
|  |       | 15 | 20825 | 2507.5 | 13.4790 | 14.540 |
|  |       |    | 21100 | 2535   | 13.4250 | 14.500 |
|  |       |    | 21375 | 2562.5 | 13.4880 | 14.560 |
|  |       | 20 | 20850 | 2510   | 17.9340 | 19.290 |
|  |       |    | 21100 | 2535   | 17.9310 | 19.180 |
|  |       |    | 21350 | 2560   | 17.9080 | 19.330 |
|  | 64QAM | 5  | 20775 | 2502.5 | 4.5209  | 4.918  |
|  |       |    | 21100 | 2535   | 4.5031  | 4.864  |
|  |       |    | 21425 | 2567.5 | 4.5118  | 4.891  |
|  |       | 10 | 20800 | 2505   | 8.9757  | 9.703  |
|  |       |    | 21100 | 2535   | 8.9881  | 9.728  |
|  |       |    | 21400 | 2565   | 8.9918  | 9.698  |
|  |       | 15 | 20825 | 2507.5 | 13.4690 | 14.550 |
|  |       |    | 21100 | 2535   | 13.4840 | 14.560 |
|  |       |    | 21375 | 2562.5 | 13.4540 | 14.430 |
|  |       | 20 | 20850 | 2510   | 17.9800 | 19.340 |
|  |       |    | 21100 | 2535   | 17.8940 | 19.320 |
|  |       |    | 21350 | 2560   | 17.9140 | 19.380 |

| LTE Band 38 |            |                 |         |                 |                          |                       |
|-------------|------------|-----------------|---------|-----------------|--------------------------|-----------------------|
| RB          | Modulation | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Power Bandwidth(MHz) | -26dBc Bandwidth(MHz) |
| 100%        | QPSK       | 5               | 37775   | 2572.5          | 4.5011                   | 4.832                 |
|             |            |                 | 38000   | 2595            | 4.5246                   | 4.861                 |
|             |            |                 | 38225   | 2617.5          | 4.5067                   | 4.818                 |
|             |            | 10              | 37800   | 2575            | 9.0056                   | 9.691                 |
|             |            |                 | 38000   | 2595            | 8.9911                   | 9.674                 |
|             |            |                 | 38200   | 2615            | 8.9777                   | 9.644                 |
|             |            | 15              | 37825   | 2577.5          | 13.4610                  | 14.490                |
|             |            |                 | 38000   | 2595            | 13.4650                  | 14.320                |
|             |            |                 | 38175   | 2612.5          | 13.4250                  | 14.490                |
|             |            | 20              | 37850   | 2580            | 17.8950                  | 19.240                |
|             |            |                 | 38000   | 2595            | 17.9420                  | 19.140                |



|  |       |    |       |        |         |        |
|--|-------|----|-------|--------|---------|--------|
|  | 16QAM | 5  | 38150 | 2610   | 17.9330 | 19.080 |
|  |       |    | 37775 | 2572.5 | 4.5174  | 4.860  |
|  |       |    | 38000 | 2595   | 4.5109  | 4.876  |
|  |       | 10 | 38225 | 2617.5 | 4.5358  | 4.932  |
|  |       |    | 37800 | 2575   | 8.9999  | 9.587  |
|  |       |    | 38000 | 2595   | 9.0102  | 9.845  |
|  |       | 15 | 38200 | 2615   | 9.0153  | 9.697  |
|  |       |    | 37825 | 2577.5 | 13.4600 | 14.570 |
|  |       |    | 38000 | 2595   | 13.4920 | 14.380 |
|  |       | 20 | 38175 | 2612.5 | 13.5040 | 14.550 |
|  |       |    | 37850 | 2580   | 17.9110 | 19.280 |
|  |       |    | 38000 | 2595   | 17.9340 | 19.010 |
|  | 64QAM | 5  | 38150 | 2610   | 17.9870 | 19.050 |
|  |       |    | 37775 | 2572.5 | 4.4938  | 4.834  |
|  |       |    | 38000 | 2595   | 4.5111  | 4.876  |
|  |       | 10 | 38225 | 2617.5 | 4.5001  | 4.862  |
|  |       |    | 37800 | 2575   | 8.9608  | 9.595  |
|  |       |    | 38000 | 2595   | 9.0068  | 10.270 |
|  |       | 15 | 38200 | 2615   | 8.9724  | 9.723  |
|  |       |    | 37825 | 2577.5 | 13.4800 | 14.510 |
|  |       |    | 38000 | 2595   | 13.4060 | 14.440 |
|  |       | 20 | 38175 | 2612.5 | 13.4870 | 14.480 |
|  |       |    | 37850 | 2580   | 17.8730 | 19.220 |
|  |       |    | 38000 | 2595   | 17.9340 | 19.210 |
|  |       | 20 | 38150 | 2610   | 17.9450 | 19.410 |
|  |       |    |       |        |         |        |
|  |       |    |       |        |         |        |

| LTE Band 41 |            |                 |         |                 |                          |                       |
|-------------|------------|-----------------|---------|-----------------|--------------------------|-----------------------|
| RB          | Modulation | Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Power Bandwidth(MHz) | -26dBc Bandwidth(MHz) |
| 100%        | QPSK       | 5               | 40065   | 2537.5          | 4.5065                   | 4.865                 |
|             |            |                 | 40640   | 2595            | 4.5145                   | 5.013                 |
|             |            |                 | 41215   | 2652.5          | 4.5011                   | 4.951                 |
|             |            | 10              | 40090   | 2540            | 8.9779                   | 9.651                 |
|             |            |                 | 40640   | 2595            | 8.9730                   | 9.710                 |
|             |            |                 | 41190   | 2650            | 8.9882                   | 9.593                 |
|             |            | 15              | 40115   | 2542.5          | 13.4340                  | 14.460                |
|             |            |                 | 40640   | 2595            | 13.4470                  | 14.660                |
|             |            |                 | 41165   | 2647.5          | 13.4160                  | 14.550                |
|             |            | 20              | 40140   | 2545            | 17.8960                  | 19.290                |
|             |            |                 | 40640   | 2595            | 17.9190                  | 19.040                |



|  |       |    |       |        |         |        |
|--|-------|----|-------|--------|---------|--------|
|  | 16QAM | 5  | 41140 | 2645   | 17.9580 | 19.170 |
|  |       |    | 40065 | 2537.5 | 4.5002  | 4.867  |
|  |       |    | 40640 | 2595   | 4.5076  | 4.902  |
|  |       | 10 | 41215 | 2652.5 | 4.5033  | 4.893  |
|  |       |    | 40090 | 2540   | 8.9786  | 9.891  |
|  |       |    | 40640 | 2595   | 8.9815  | 10.170 |
|  |       | 15 | 41190 | 2650   | 8.9838  | 9.915  |
|  |       |    | 40115 | 2542.5 | 13.4490 | 14.940 |
|  |       |    | 40640 | 2595   | 13.4240 | 14.830 |
|  |       | 20 | 41165 | 2647.5 | 13.4410 | 14.450 |
|  |       |    | 40140 | 2545   | 17.9100 | 19.280 |
|  |       |    | 40640 | 2595   | 17.9120 | 20.360 |
|  | 64QAM | 5  | 41140 | 2645   | 17.9670 | 19.190 |
|  |       |    | 40065 | 2537.5 | 4.5024  | 4.899  |
|  |       |    | 40640 | 2595   | 4.5000  | 4.893  |
|  |       | 10 | 41215 | 2652.5 | 4.5069  | 4.892  |
|  |       |    | 40090 | 2540   | 8.9764  | 10.290 |
|  |       |    | 40640 | 2595   | 8.9690  | 9.980  |
|  |       | 15 | 41190 | 2650   | 8.9822  | 10.210 |
|  |       |    | 40115 | 2542.5 | 13.4700 | 14.590 |
|  |       |    | 40640 | 2595   | 13.4870 | 14.480 |
|  |       | 20 | 41165 | 2647.5 | 13.4810 | 14.450 |
|  |       |    | 40140 | 2545   | 17.9190 | 19.210 |
|  |       |    | 40640 | 2595   | 17.9210 | 19.220 |
|  |       |    | 41140 | 2645   | 17.9140 | 19.200 |

| CA_7C                   | PCC     |                    | SCC1    |                    | PCC<br>RB | SCC1<br>RB | Bandwidth<br>(MHz) |        |
|-------------------------|---------|--------------------|---------|--------------------|-----------|------------|--------------------|--------|
|                         | Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) |           |            | 99%<br>Power       | -26dBc |
| CA_7C_10MHz+20MHz_QPSK  | 21006   | 2525.6             | 21150   | 2540               | 50#0      | 75#0       | 28.17              | 30.18  |
| CA_7C_10MHz+20MHz_16QAM | 21006   | 2525.6             | 21150   | 2540               | 50#0      | 75#0       | 27.98              | 30.11  |
| CA_7C_10MHz+20MHz_64QAM | 21006   | 2525.6             | 21150   | 2540               | 50#0      | 75#0       | 28.03              | 30.24  |
| CA_7C_20MHz+10MHz_QPSK  | 21051   | 2530.1             | 21195   | 2544.5             | 75#0      | 50#0       | 28.04              | 30.19  |
| CA_7C_20MHz+10MHz_16QAM | 21051   | 2530.1             | 21195   | 2544.5             | 75#0      | 50#0       | 28.10              | 30.12  |
| CA_7C_20MHz+10MHz_64QAM | 21051   | 2530.1             | 21195   | 2544.5             | 75#0      | 50#0       | 28.12              | 30.11  |
| CA_7C_15MHz+10MHz_QPSK  | 21051   | 2530.1             | 21171   | 2542.1             | 75#0      | 75#0       | 23.53              | 25.50  |
| CA_7C_15MHz+10MHz_16QAM | 21025   | 2530.1             | 21175   | 2542.1             | 75#0      | 75#0       | 23.50              | 25.49  |
| CA_7C_15MHz+10MHz_64QAM | 21025   | 2530.1             | 21175   | 2542.1             | 75#0      | 75#0       | 23.47              | 25.54  |
| CA_7C_15MHz+15MHz_QPSK  | 21025   | 2527.5             | 21175   | 2542.5             | 75#0      | 75#0       | 28.63              | 30.75  |
| CA_7C_15MHz+15MHz_16QAM | 21025   | 2527.5             | 21175   | 2542.5             | 75#0      | 75#0       | 28.64              | 30.81  |



|                         |       |        |       |        |       |       |       |       |
|-------------------------|-------|--------|-------|--------|-------|-------|-------|-------|
| CA_7C_15MHz+15MHz_64QAM | 21025 | 2527.5 | 21175 | 2542.5 | 75#0  | 75#0  | 28.59 | 30.74 |
| CA_7C_15MHz+20MHz_QPSK  | 21003 | 2525.3 | 21174 | 2542.4 | 75#0  | 100#0 | 32.87 | 35.23 |
| CA_7C_15MHz+20MHz_16QAM | 21003 | 2525.3 | 21174 | 2542.4 | 75#0  | 100#0 | 32.84 | 35.03 |
| CA_7C_15MHz+20MHz_64QAM | 21003 | 2525.3 | 21174 | 2542.4 | 75#0  | 100#0 | 32.87 | 35.16 |
| CA_7C_20MHz+15MHz_QPSK  | 21026 | 2527.6 | 21197 | 2544.7 | 100#0 | 75#0  | 32.86 | 35.18 |
| CA_7C_20MHz+15MHz_16QAM | 21026 | 2527.6 | 21197 | 2544.7 | 100#0 | 75#0  | 32.86 | 35.00 |
| CA_7C_20MHz+15MHz_64QAM | 21026 | 2527.6 | 21197 | 2544.7 | 100#0 | 75#0  | 32.95 | 35.10 |
| CA_7C_20MHz+20MHz_QPSK  | 21001 | 2525.1 | 21199 | 2544.9 | 100#0 | 100#0 | 37.74 | 40.18 |
| CA_7C_20MHz+20MHz_16QAM | 21001 | 2525.1 | 21199 | 2544.9 | 100#0 | 100#0 | 37.70 | 40.05 |
| CA_7C_20MHz+20MHz_64QAM | 21001 | 2525.1 | 21199 | 2544.9 | 100#0 | 100#0 | 37.75 | 40.10 |

| CA_38C                   | PCC     |                    | SCC1    |                    | PCC<br>RB | SCC1<br>RB | Bandwidth<br>(MHz) |        |
|--------------------------|---------|--------------------|---------|--------------------|-----------|------------|--------------------|--------|
|                          | Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) |           |            | 99%<br>Power       | -26dBc |
| CA_38C_15MHz+15MHz_QPSK  | 37925   | 2587.5             | 38075   | 2602.5             | 75#0      | 75#0       | 28.67              | 30.77  |
| CA_38C_15MHz+15MHz_16QAM | 37925   | 2587.5             | 38075   | 2602.5             | 75#0      | 75#0       | 28.68              | 30.77  |
| CA_38C_15MHz+15MHz_64QAM | 37925   | 2587.5             | 38075   | 2602.5             | 75#0      | 75#0       | 28.66              | 30.76  |
| CA_38C_20MHz+20MHz_QPSK  | 37901   | 2585.1             | 38099   | 2604.9             | 100#0     | 100#0      | 37.83              | 40.40  |
| CA_38C_20MHz+20MHz_16QAM | 37901   | 2585.1             | 38099   | 2604.9             | 100#0     | 100#0      | 37.78              | 39.99  |
| CA_38C_20MHz+20MHz_64QAM | 37901   | 2585.1             | 38099   | 2604.9             | 100#0     | 100#0      | 37.73              | 40.03  |



WCDMA Band IV CH-Low



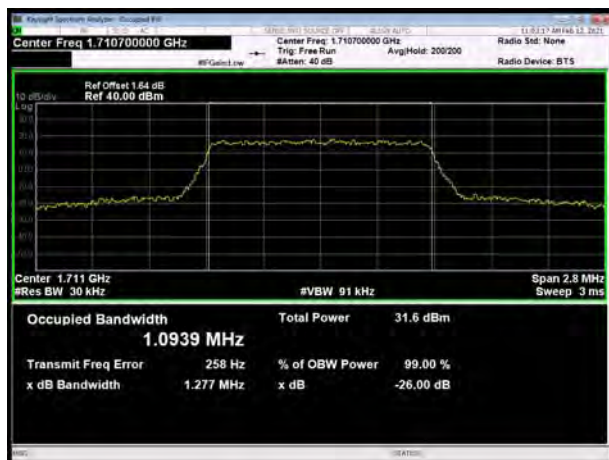
WCDMA Band IV CH Middle



WCDMA Band IV CH High



LTE Band 4 QPSK 1.4MHz CH-Low



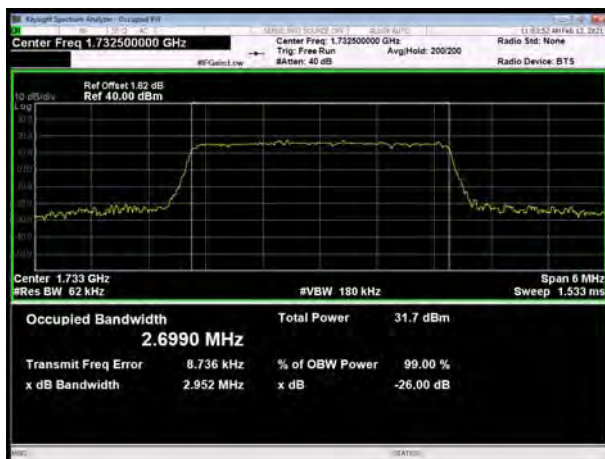
LTE Band 4 QPSK 3MHz CH-Low



LTE Band 4 QPSK 1.4MHz CH-Middle



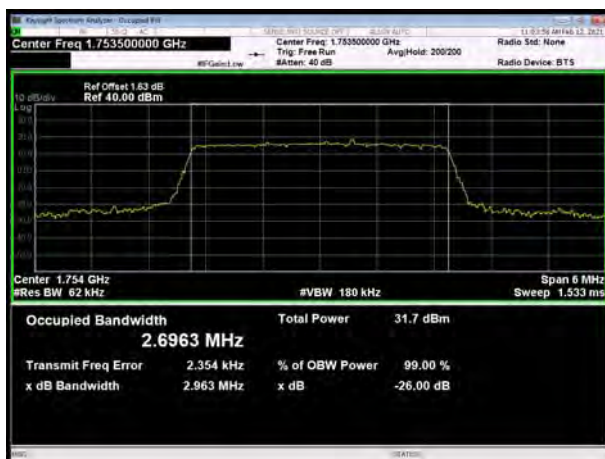
LTE Band 4 QPSK 3MHz CH-Middle



LTE Band 4 QPSK 1.4MHz CH-High

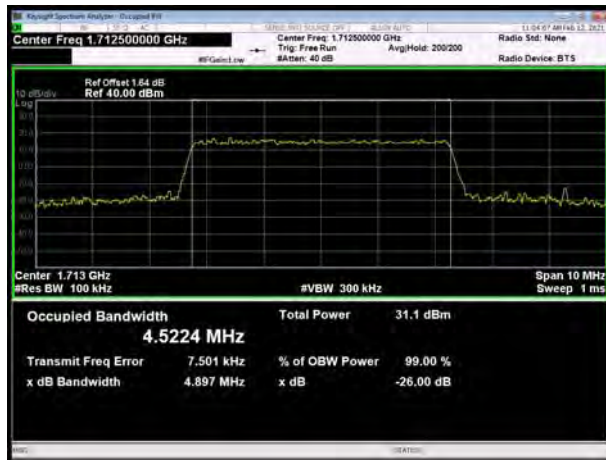


LTE Band 4 QPSK 3MHz CH-High





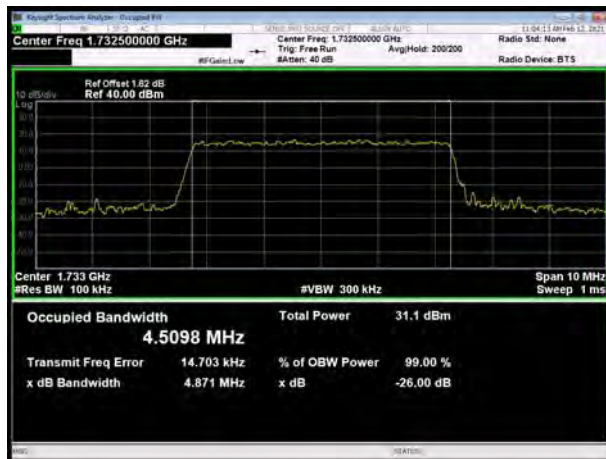
## LTE Band 4 QPSK 5MHz CH-Low



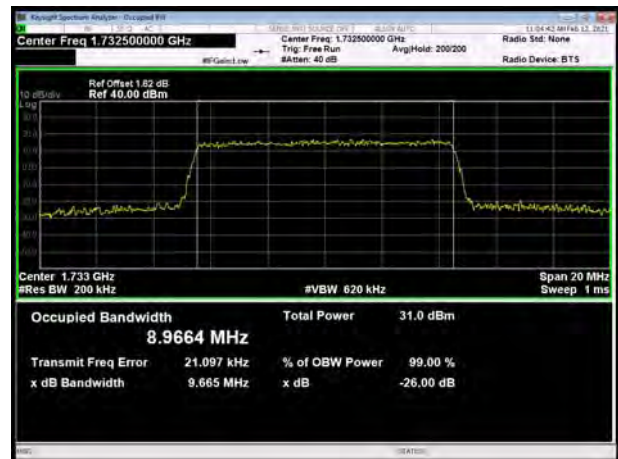
## LTE Band 4 QPSK 10MHz CH-Low



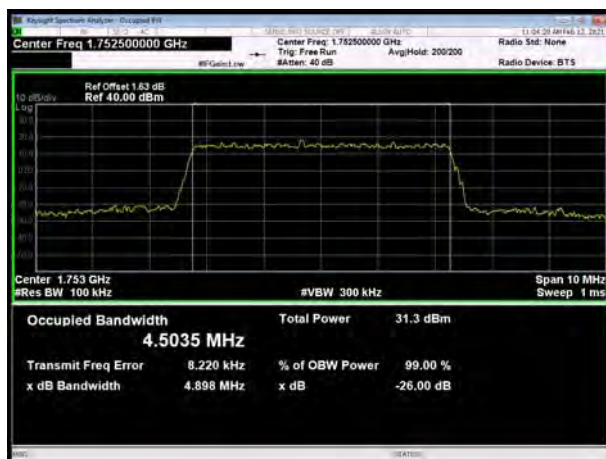
## LTE Band 4 QPSK 5MHz CH-Middle



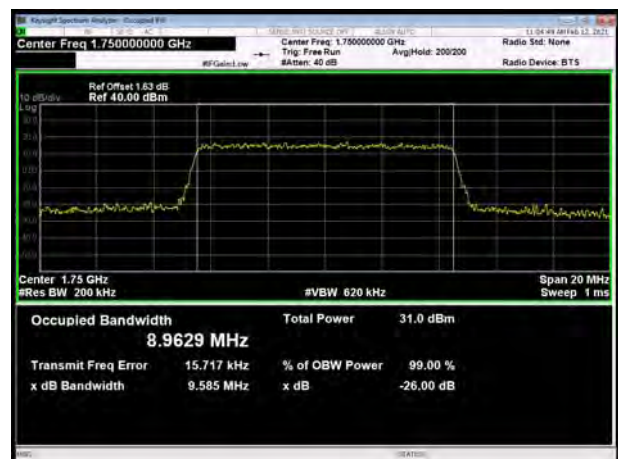
## LTE Band 4 QPSK 10MHz CH-Middle



## LTE Band 4 QPSK 5MHz CH-High

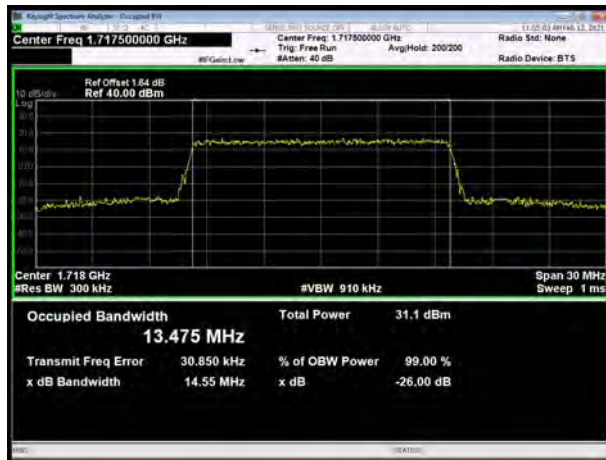


## LTE Band 4 QPSK 10MHz CH-High

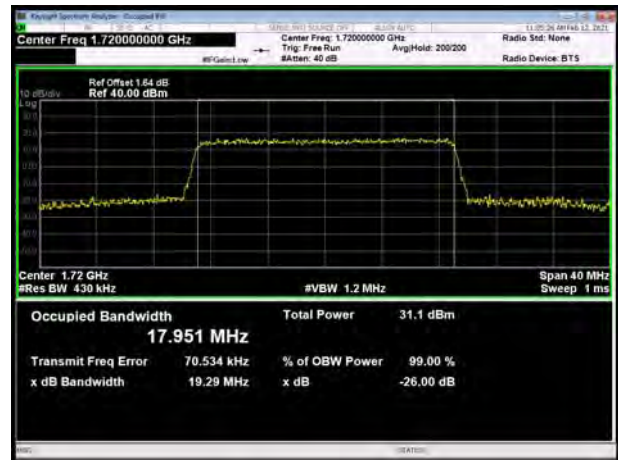




LTE Band 4 QPSK 15MHz CH-Low



LTE Band 4 QPSK 20MHz CH-Low



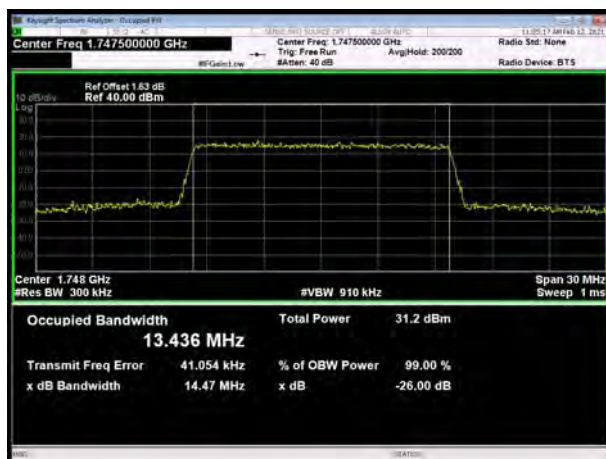
LTE Band 4 QPSK 15MHz CH-Middle



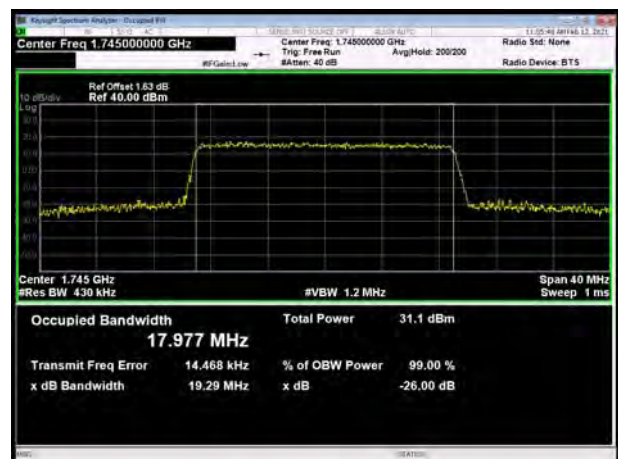
LTE Band 4 QPSK 20MHz CH-Middle



LTE Band 4 QPSK 15MHz CH-High

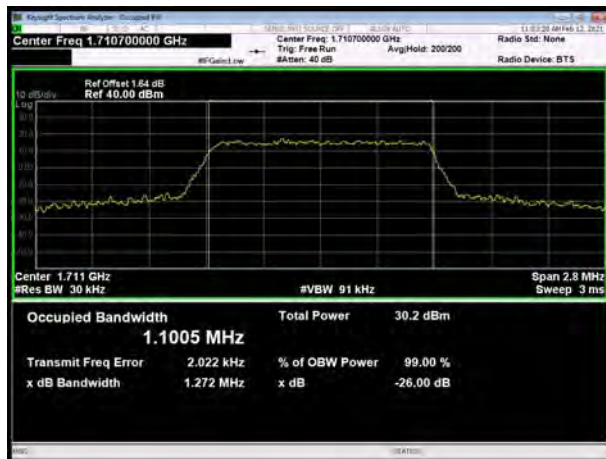


LTE Band 4 QPSK 20MHz CH-High

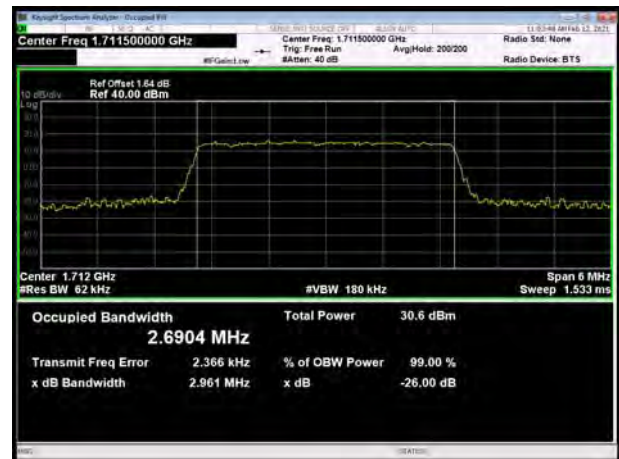




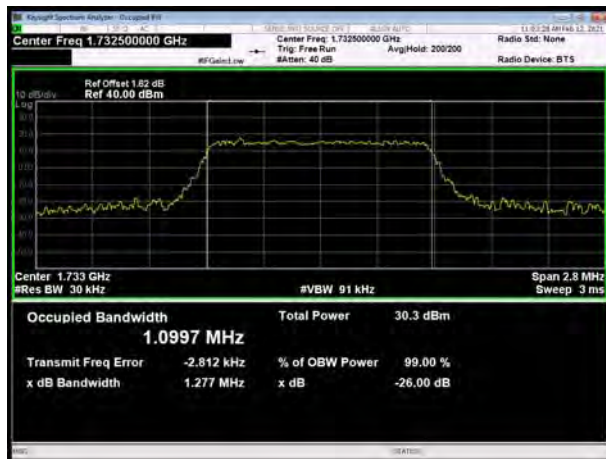
## LTE Band 4 16QAM 1.4MHz CH-Low



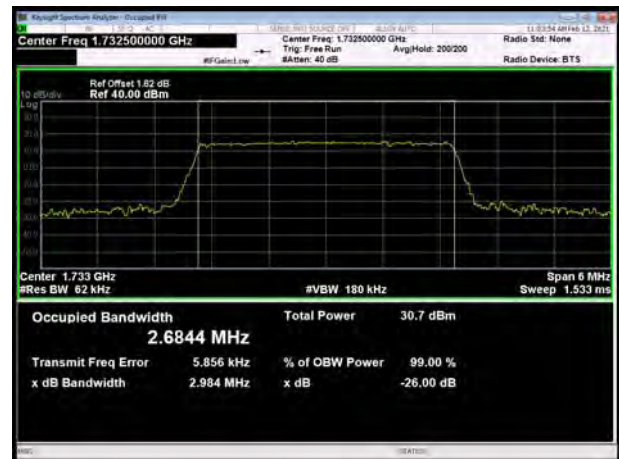
## LTE Band 4 16QAM 3MHz CH-Low



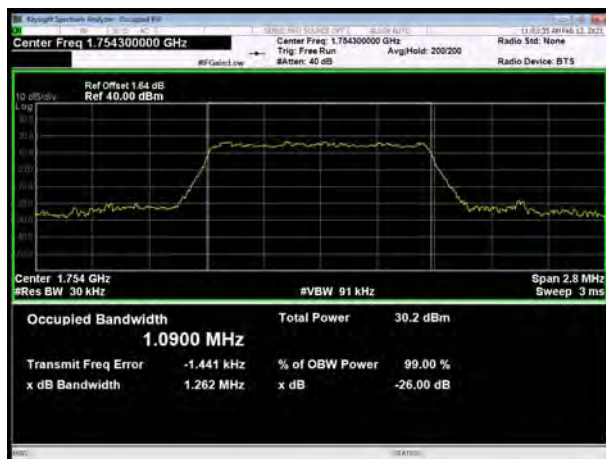
## LTE Band 4 16QAM 1.4MHz CH-Middle



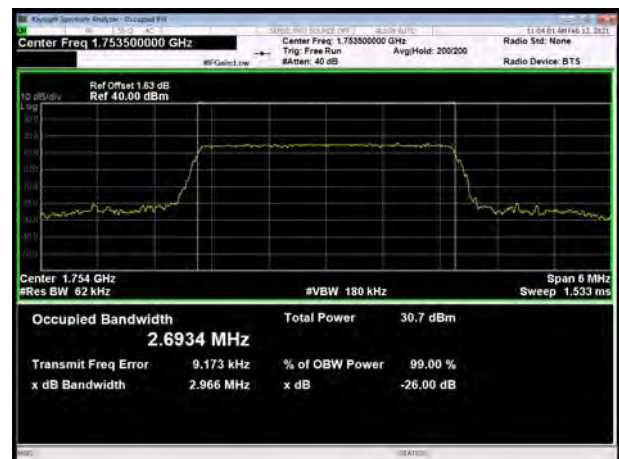
## LTE Band 4 16QAM 3MHz CH-Middle



## LTE Band 4 16QAM 1.4MHz CH-High

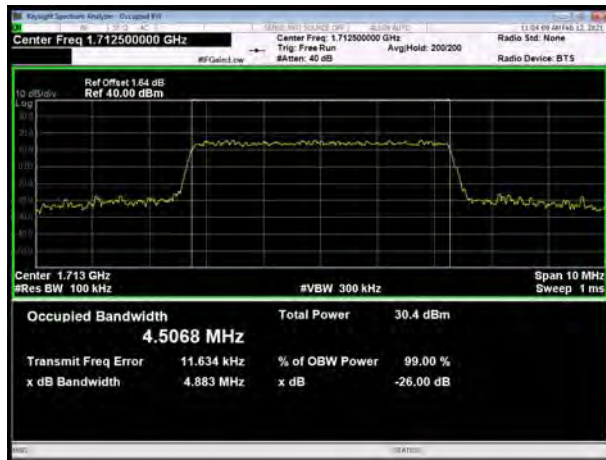


## LTE Band 4 16QAM 3MHz CH-High

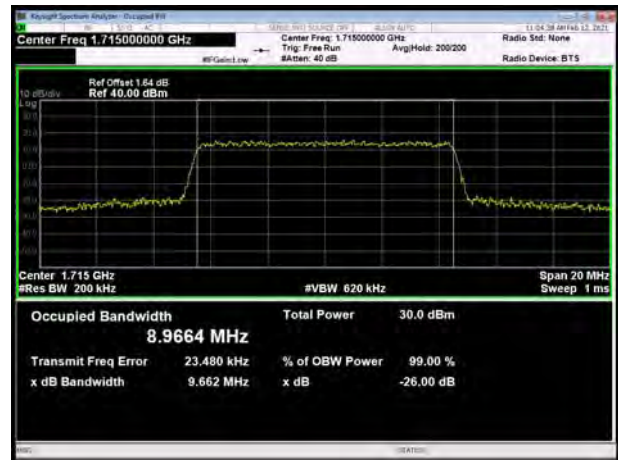




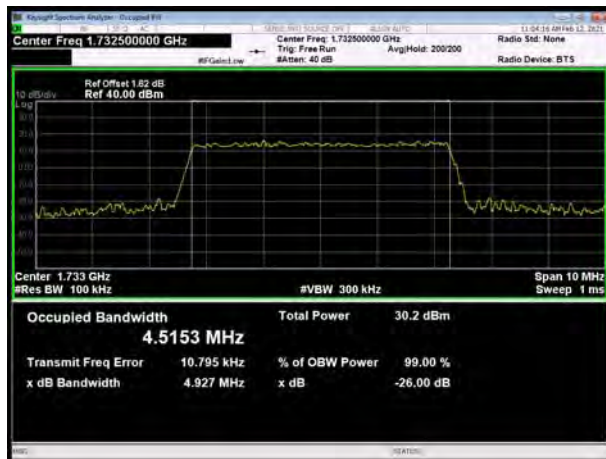
LTE Band 4 16QAM 5MHz CH-Low



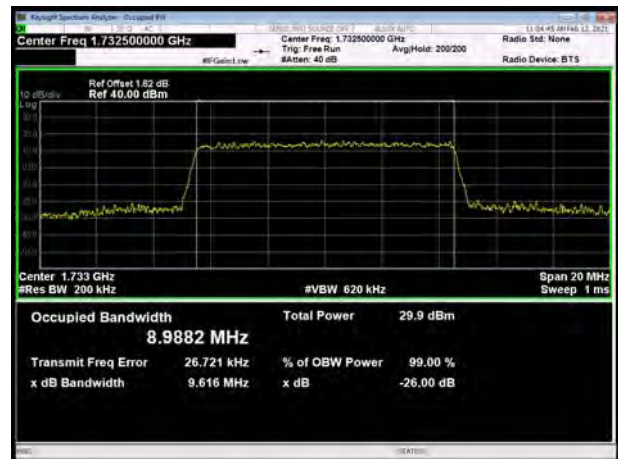
LTE Band 4 16QAM 10MHz CH-Low



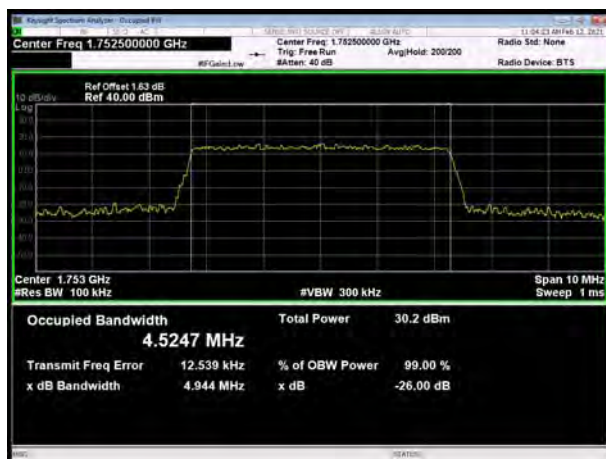
LTE Band 4 16QAM 5MHz CH-Middle



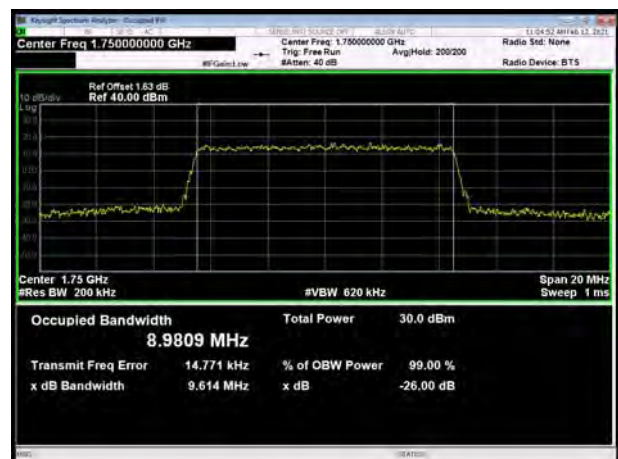
LTE Band 4 16QAM 10MHz CH-Middle



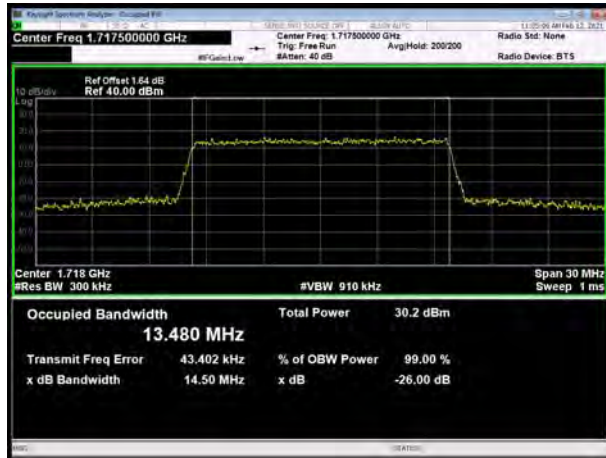
LTE Band 4 16QAM 5MHz CH-High



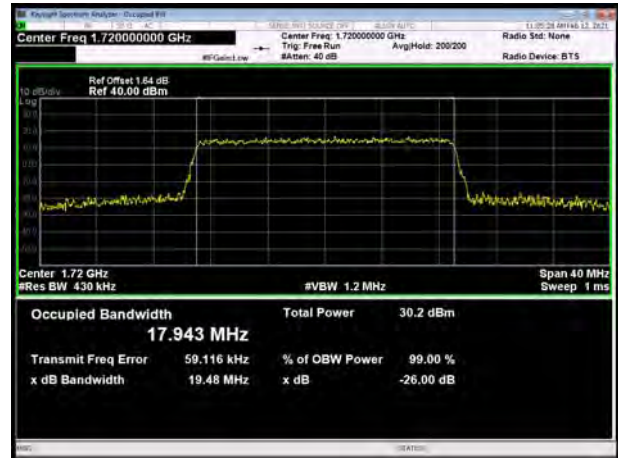
LTE Band 4 16QAM 10MHz CH-High



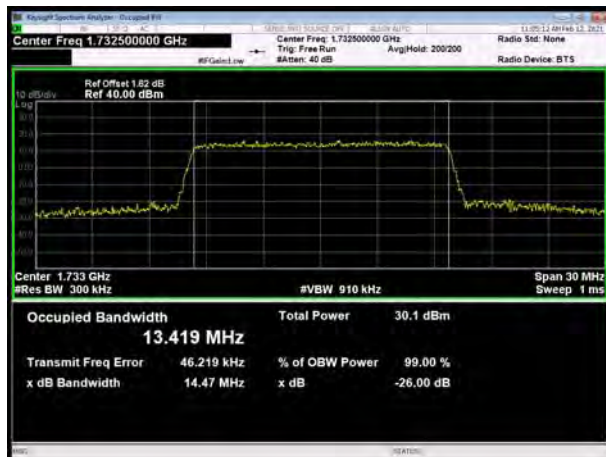
LTE Band 4 16QAM 15MHz CH-Low



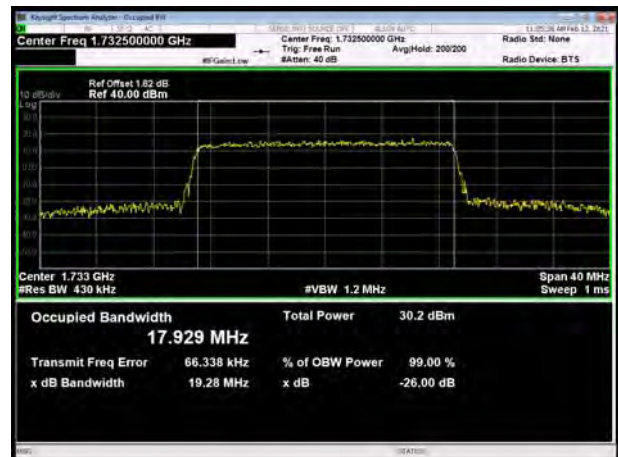
LTE Band 4 16QAM 20MHz CH-Low



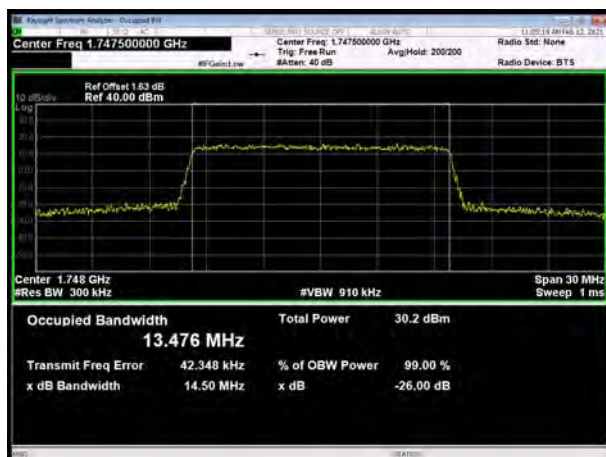
LTE Band 4 16QAM 15MHz CH-Middle



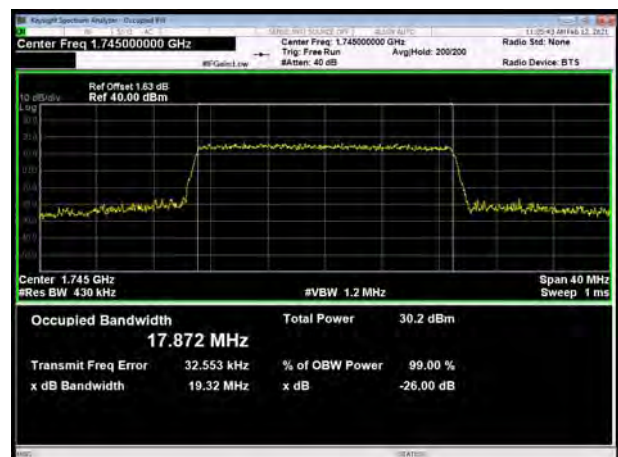
LTE Band 4 16QAM 20MHz CH-Middle



LTE Band 4 16QAM 15MHz CH-High

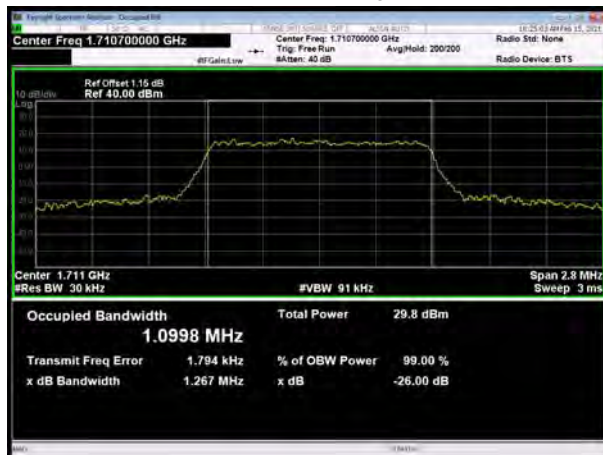


LTE Band 4 16QAM 20MHz CH-High





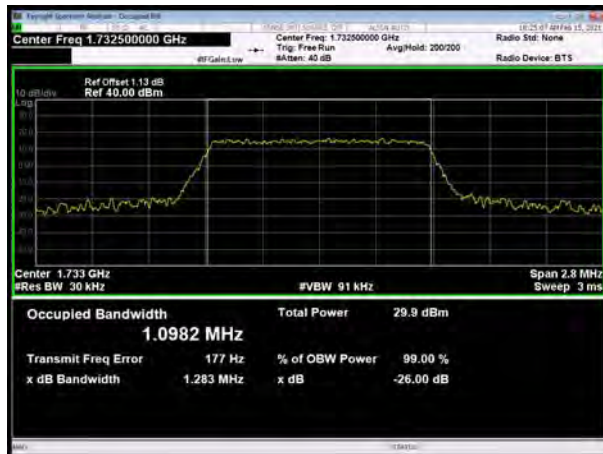
LTE Band 4 1.4MHz 64QAM CH-Low



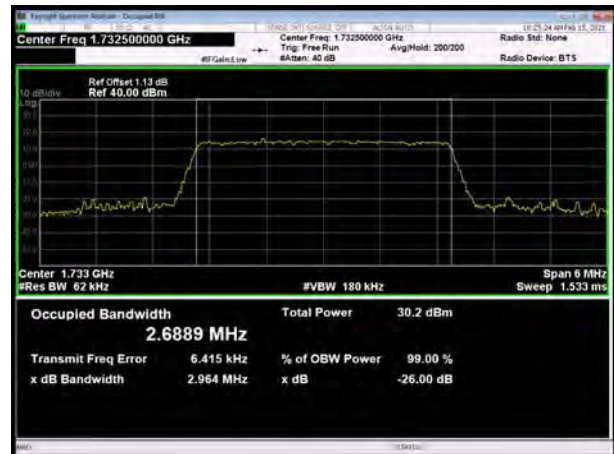
LTE Band 4 3MHz 64QAM CH-Low



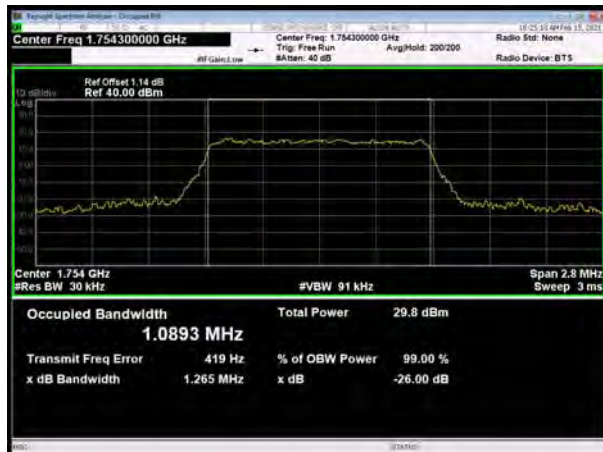
LTE Band 4 1.4MHz 64QAM CH-Middle



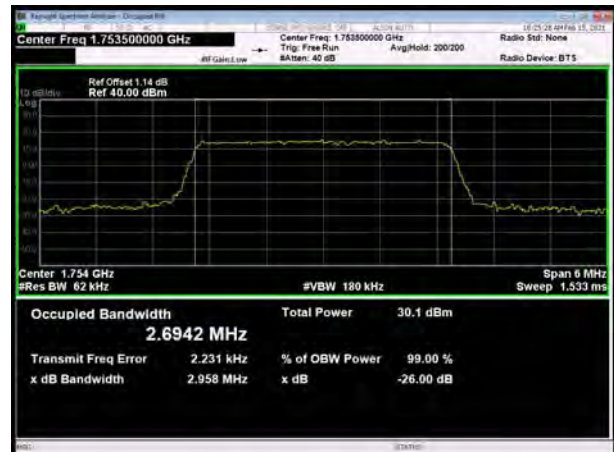
LTE Band 4 3MHz 64QAM CH-Middle



LTE Band 4 1.4MHz 64QAM CH-High

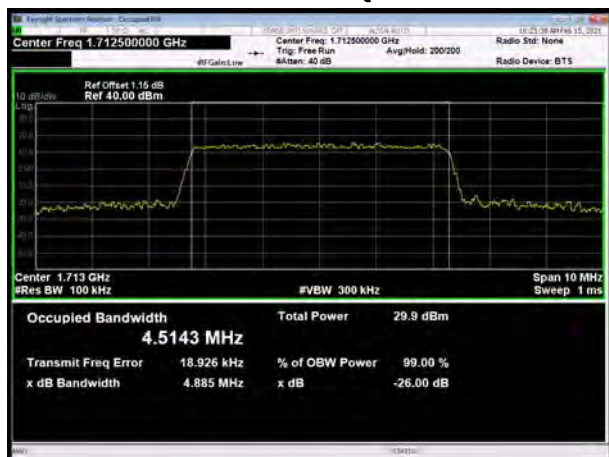


LTE Band 4 3MHz 64QAM CH-High

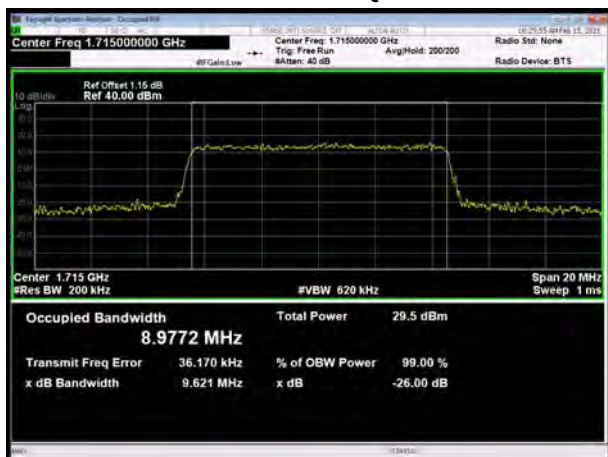




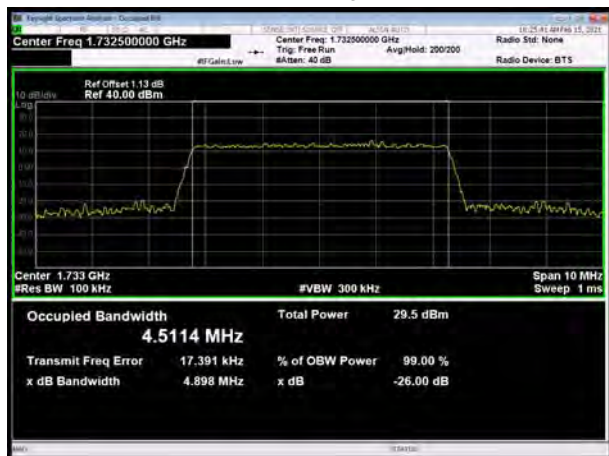
LTE Band 4 5MHz 64QAM CH-Low



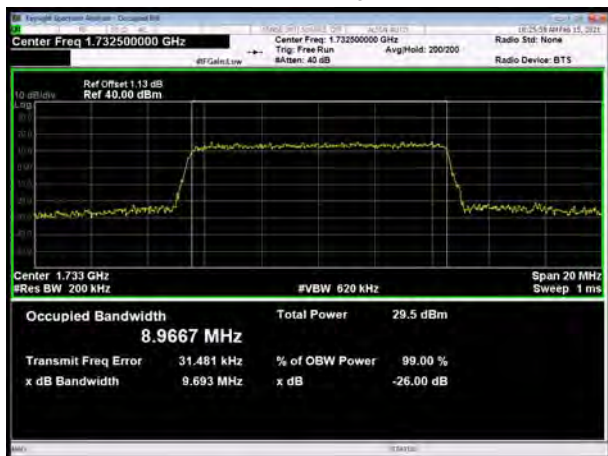
LTE Band 4 10MHz 64QAM CH-Low



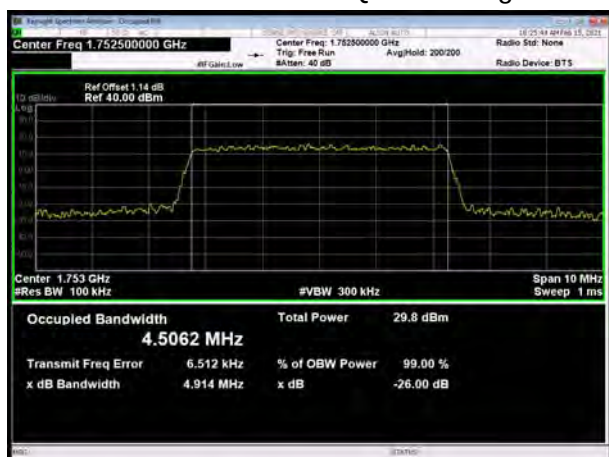
LTE Band 4 5MHz 64QAM CH-Middle



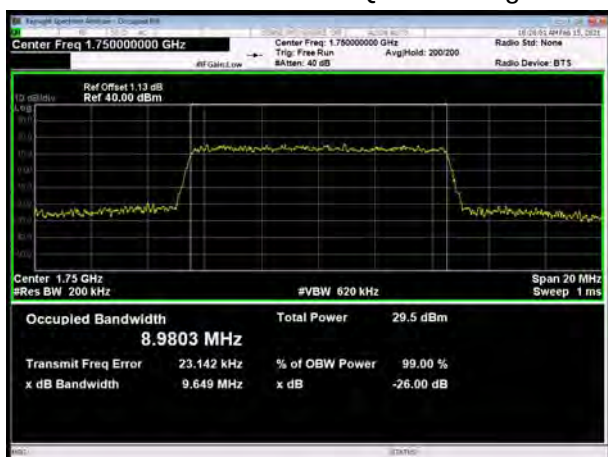
LTE Band 4 10MHz 64QAM CH-Middle



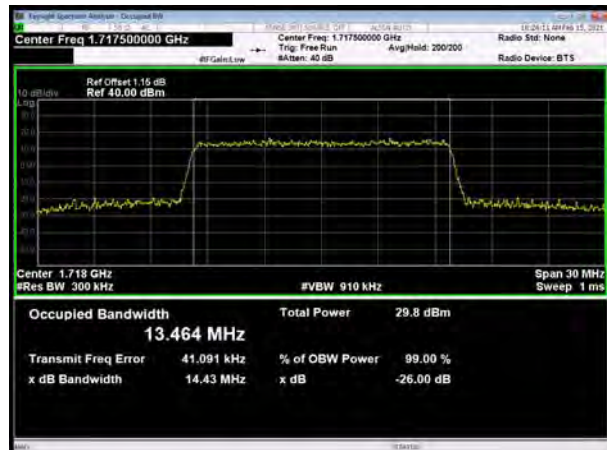
LTE Band 4 5MHz 64QAM CH-High



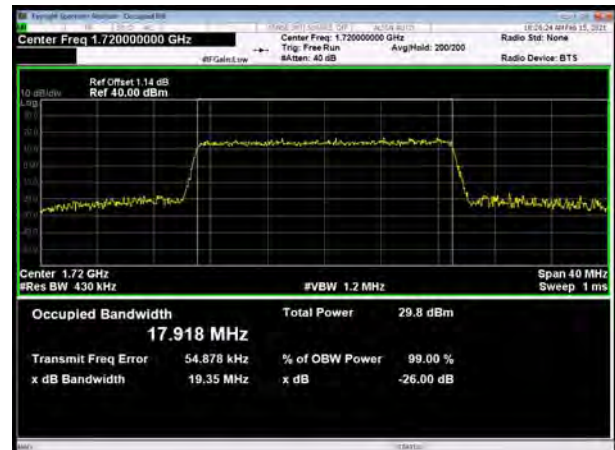
LTE Band 4 10MHz 64QAM CH-High



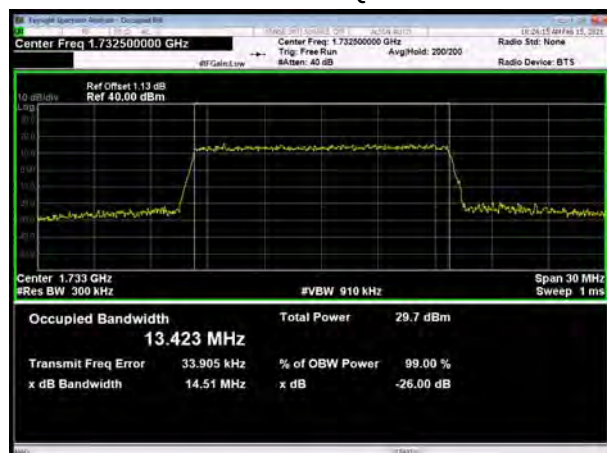
### LTE Band 4 15MHz 64QAM CH-Low



### LTE Band 4 20MHz 64QAM CH-Low



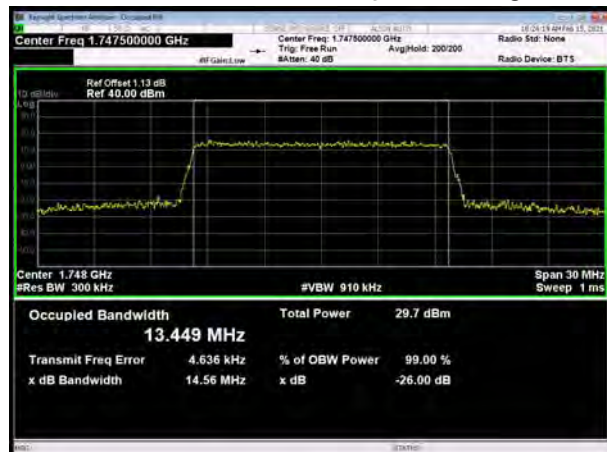
### LTE Band 4 15MHz 64QAM CH-Middle



### LTE Band 4 20MHz 64QAM CH-Middle



### LTE Band 4 15MHz 64QAM CH-High



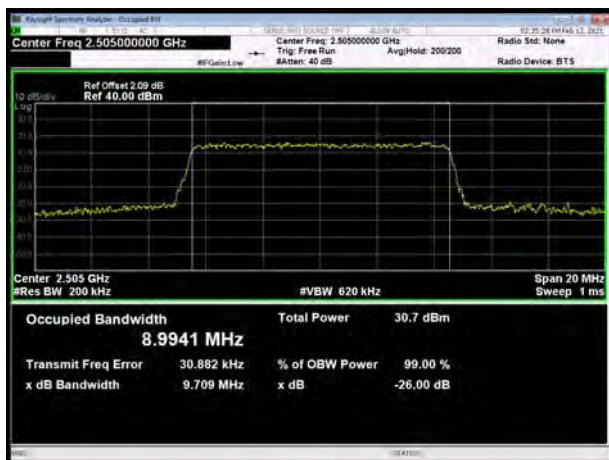
### LTE Band 4 20MHz 64QAM CH-High



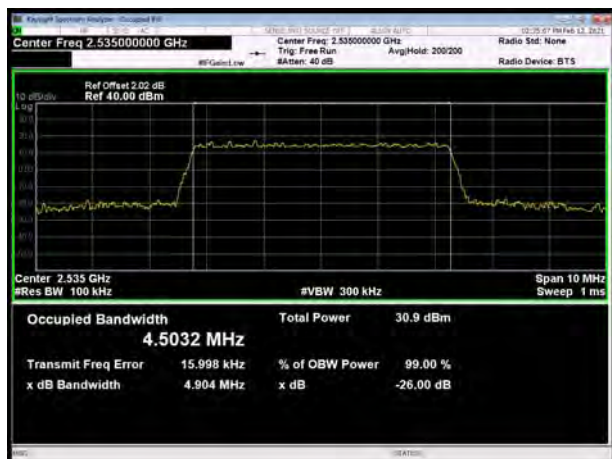
## LTE Band 7 QPSK 5MHz CH-Low



## LTE Band 7 QPSK 10MHz CH-Low



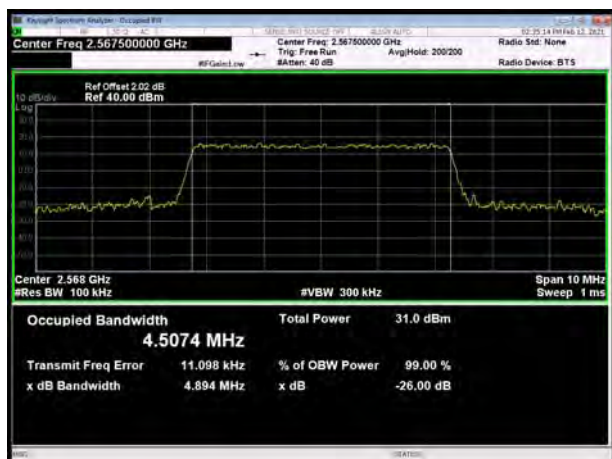
## LTE Band 7 QPSK 5MHz CH-Middle



## LTE Band 7 QPSK 10MHz CH-Middle



## LTE Band 7 QPSK 5MHz CH-High



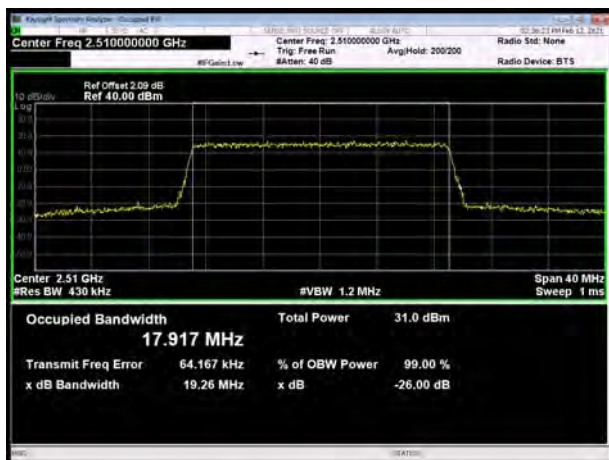
## LTE Band 7 QPSK 10MHz CH-High



LTE Band 7 QPSK 15MHz CH-Low



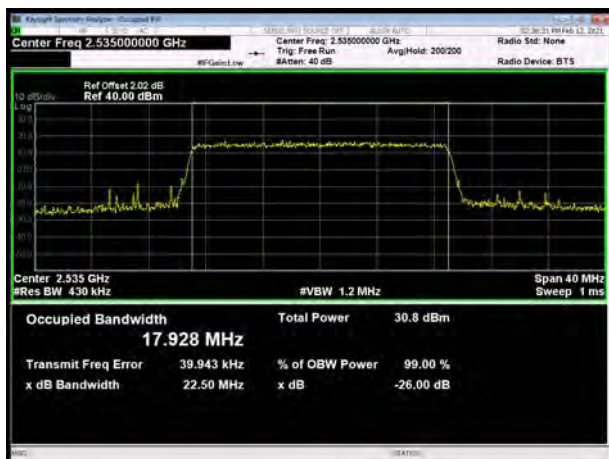
LTE Band 7 QPSK 20MHz CH-Low



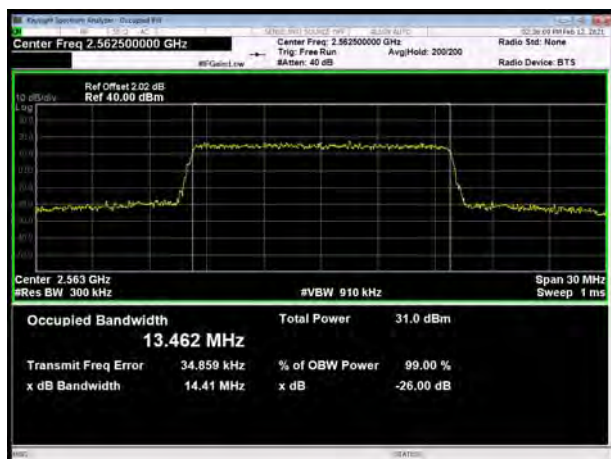
LTE Band 7 QPSK 15MHz CH-Middle



LTE Band 7 QPSK 20MHz CH-Middle



LTE Band 7 QPSK 15MHz CH-High

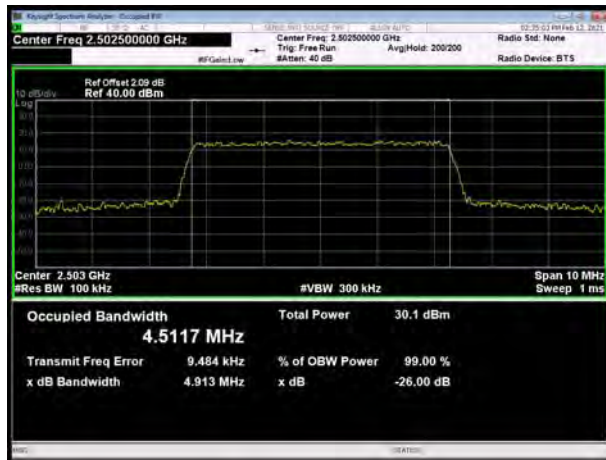


LTE Band 7 QPSK 20MHz CH-High

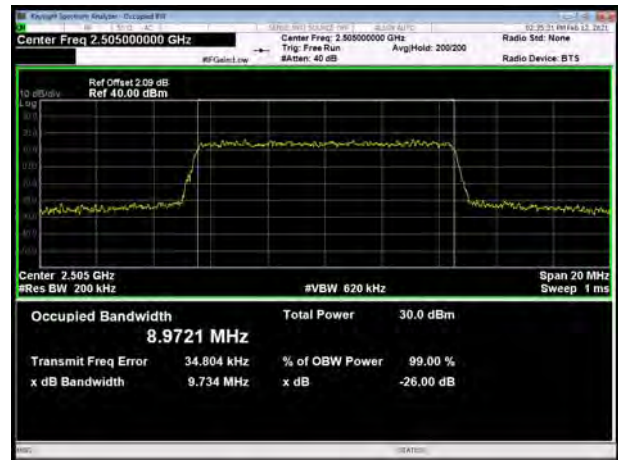




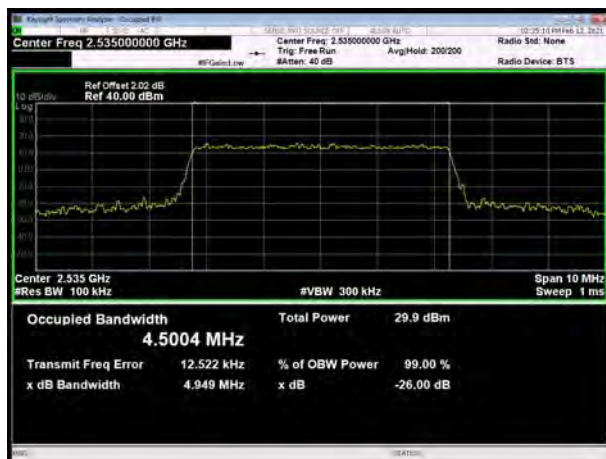
LTE Band 7 16QAM 5MHz CH-Low



LTE Band 7 16QAM 10MHz CH-Low



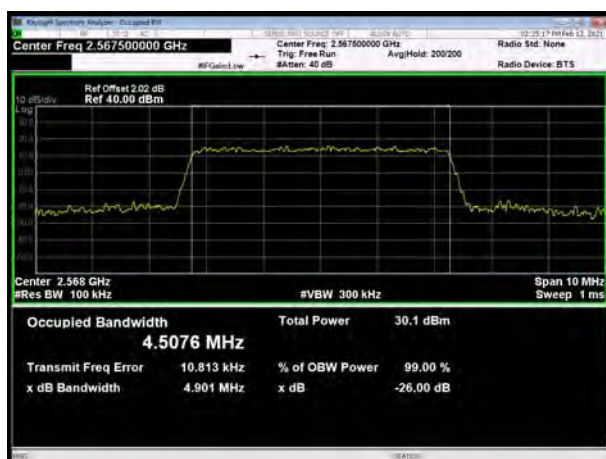
LTE Band 7 16QAM 5MHz CH-Middle



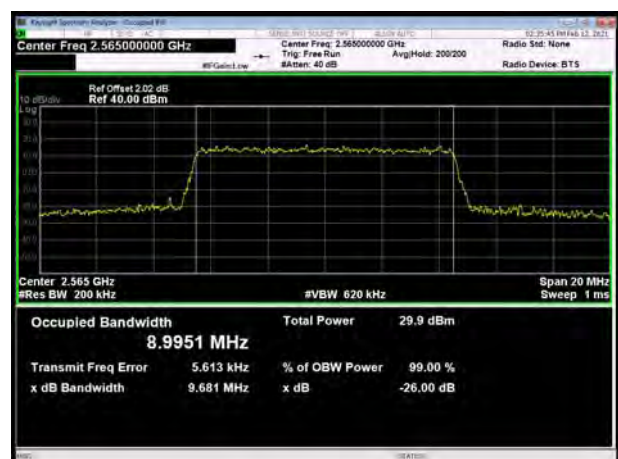
LTE Band 7 16QAM 10MHz CH-Middle



LTE Band 7 16QAM 5MHz CH-High

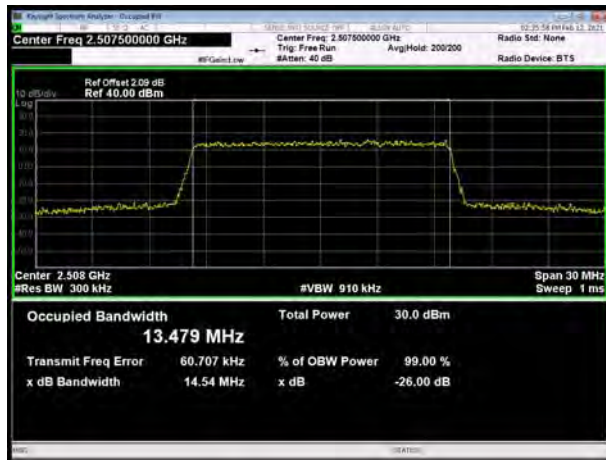


LTE Band 7 16QAM 10MHz CH-High

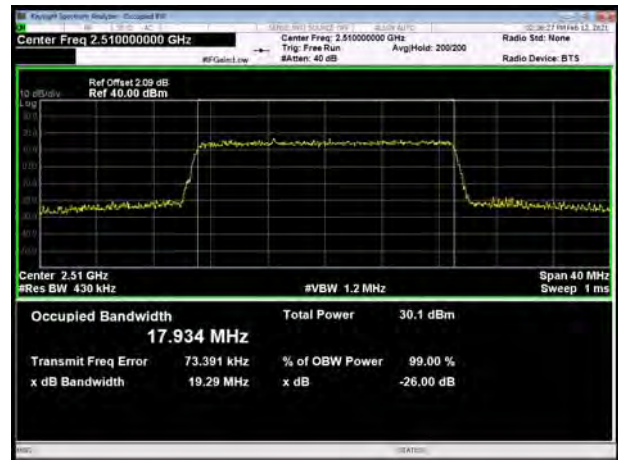




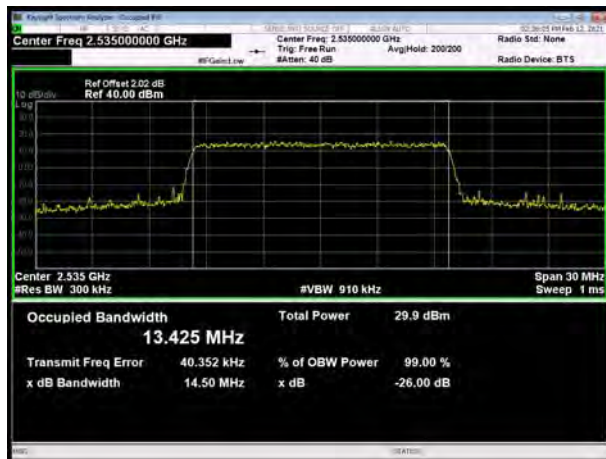
LTE Band 7 16QAM 15MHz CH-Low



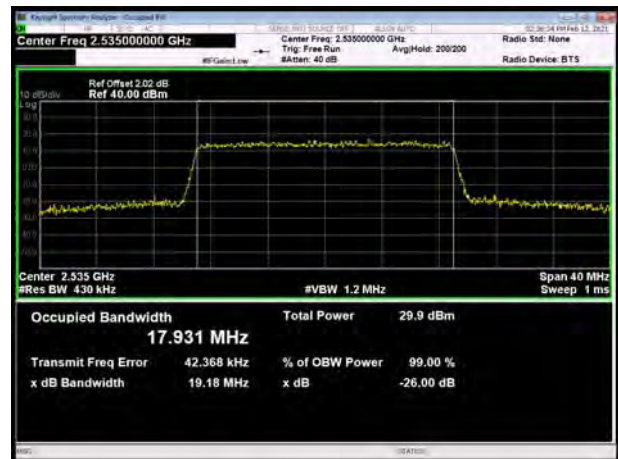
LTE Band 7 16QAM 20MHz CH-Low



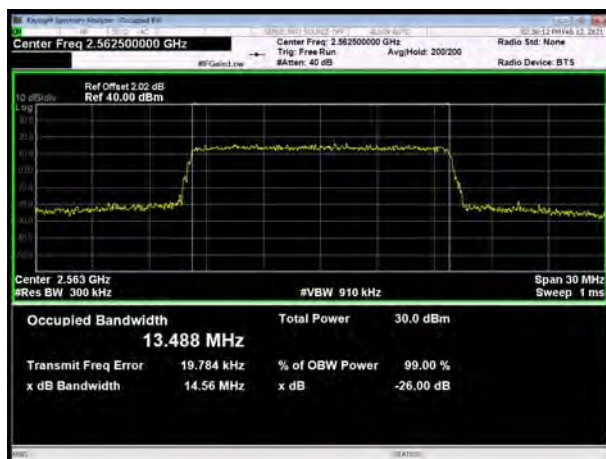
LTE Band 7 16QAM 15MHz CH-Middle



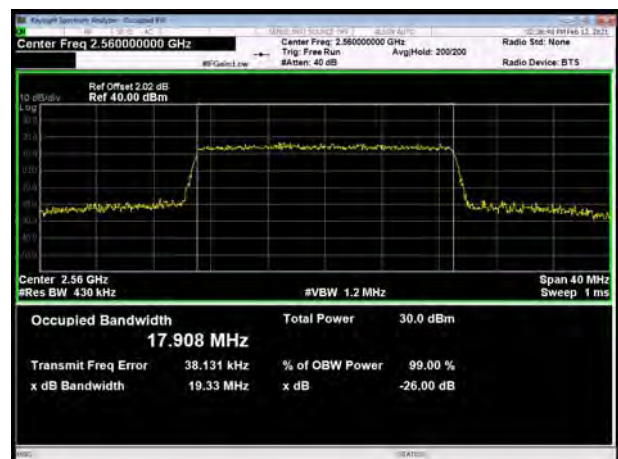
LTE Band 7 16QAM 20MHz CH-Middle



LTE Band 7 16QAM 15MHz CH-High

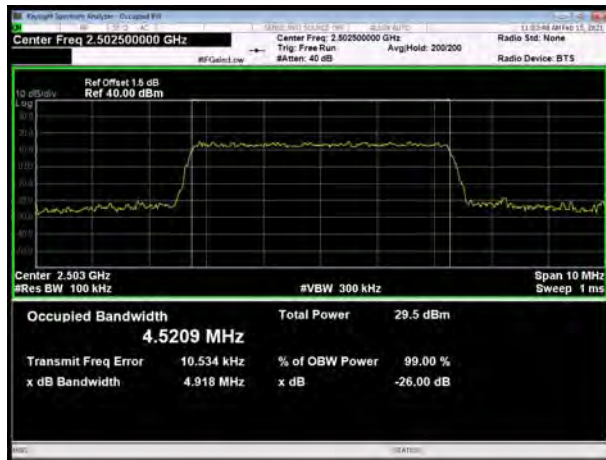


LTE Band 7 16QAM 20MHz CH-High





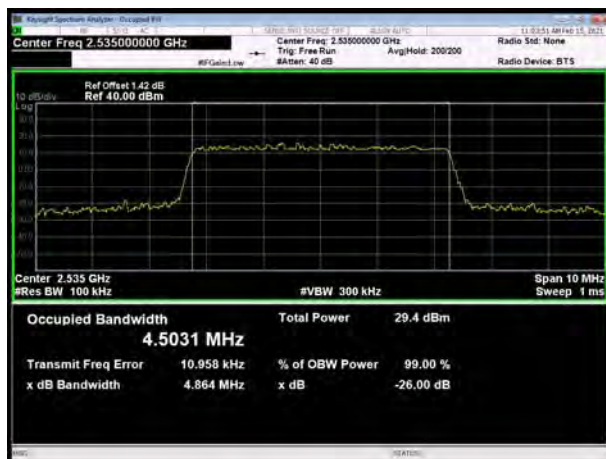
LTE Band 7 64QAM 5MHz CH-Low



LTE Band 7 64QAM 10MHz CH-Low



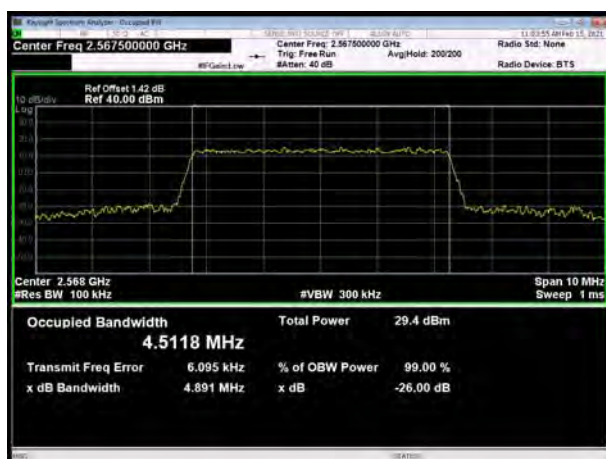
LTE Band 7 64QAM 5MHz CH-Middle



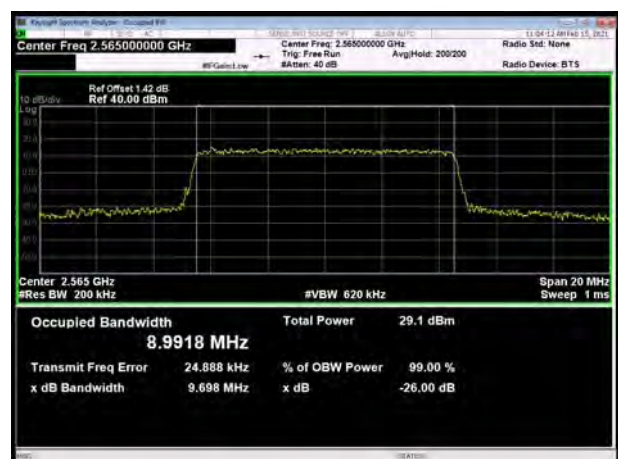
LTE Band 7 64QAM 10MHz CH-Middle



LTE Band 7 64QAM 5MHz CH-High

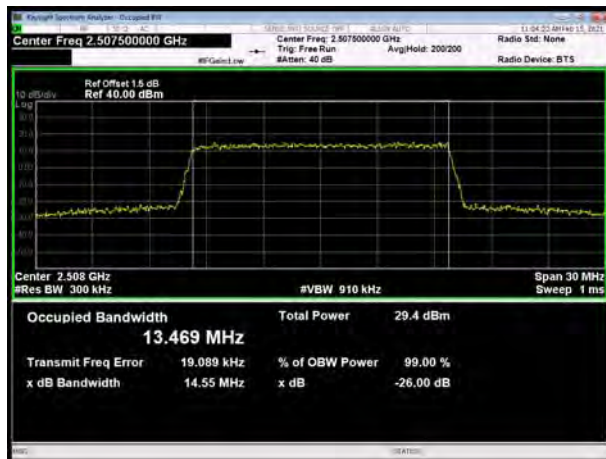


LTE Band 7 64QAM 10MHz CH-High

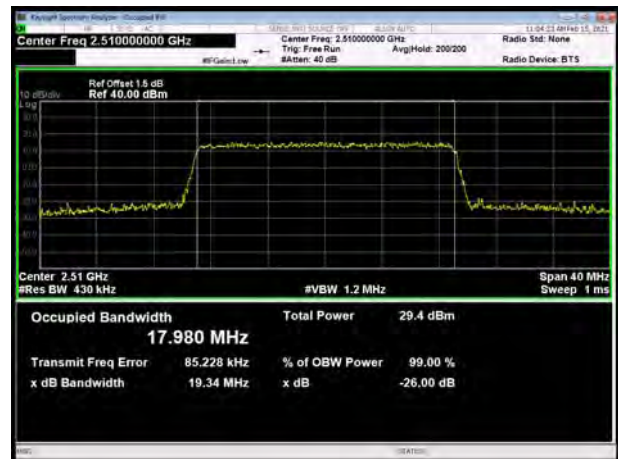




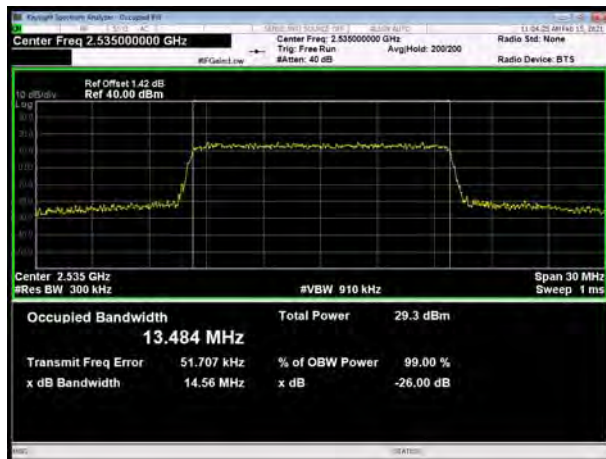
## LTE Band 7 64QAM 15MHz CH-Low



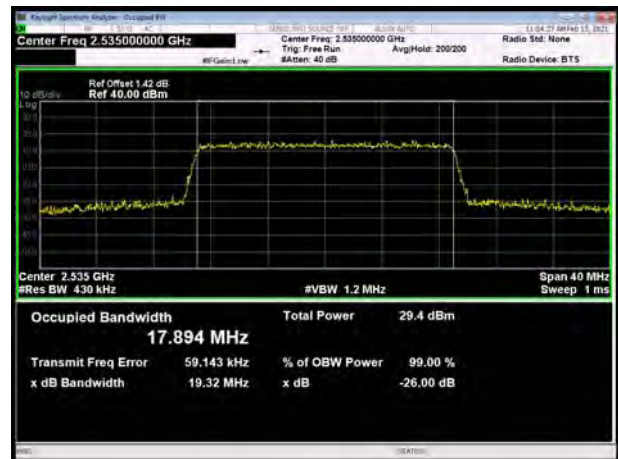
## LTE Band 7 64QAM 20MHz CH-Low



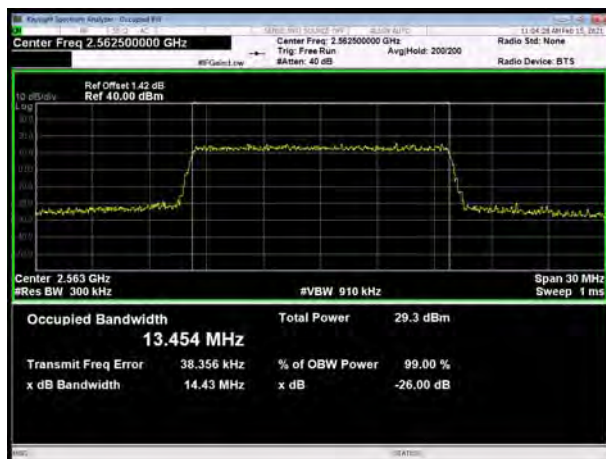
## LTE Band 7 64QAM 15MHz CH-Middle



## LTE Band 7 64QAM 20MHz CH-Middle



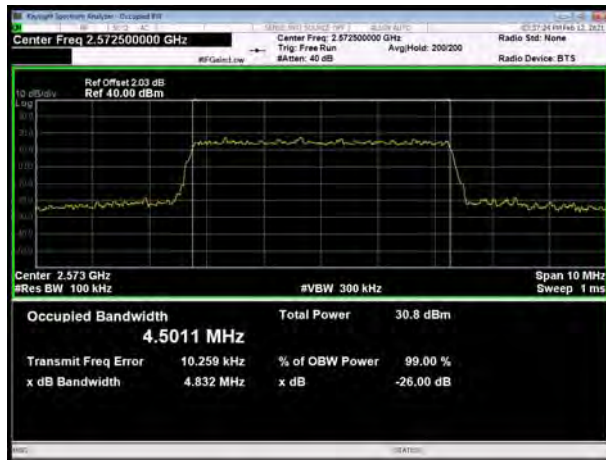
## LTE Band 7 64QAM 15MHz CH-High



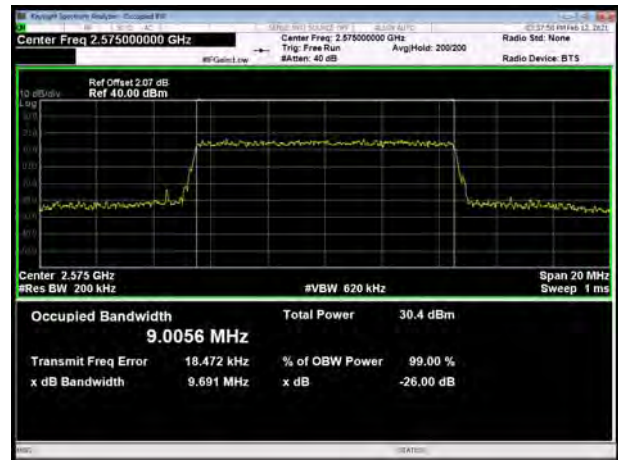
## LTE Band 7 64QAM 20MHz CH-High



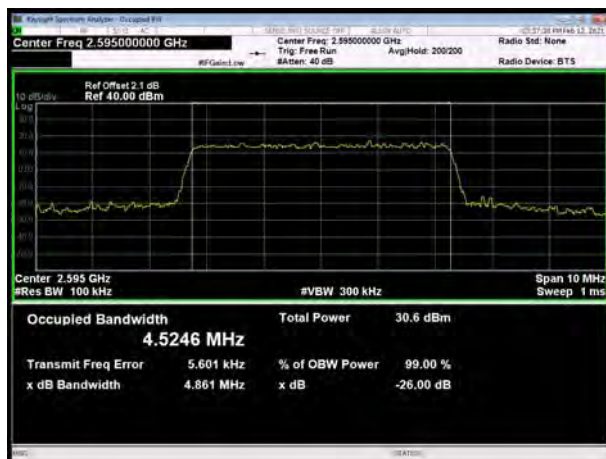
## LTE Band 38 QPSK 5MHz CH-Low



## LTE Band 38 QPSK 10MHz CH-Low



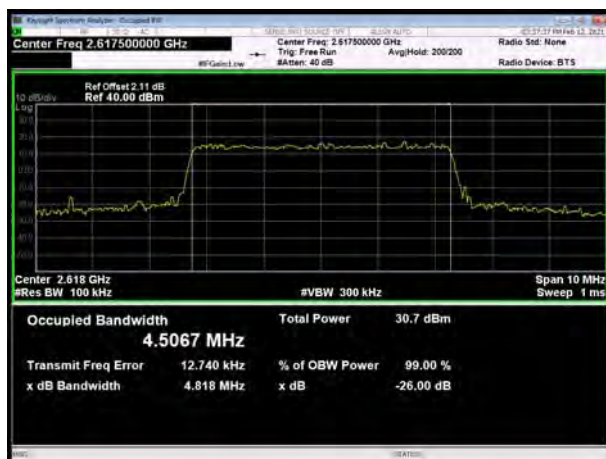
## LTE Band 38 QPSK 5MHz CH-Middle



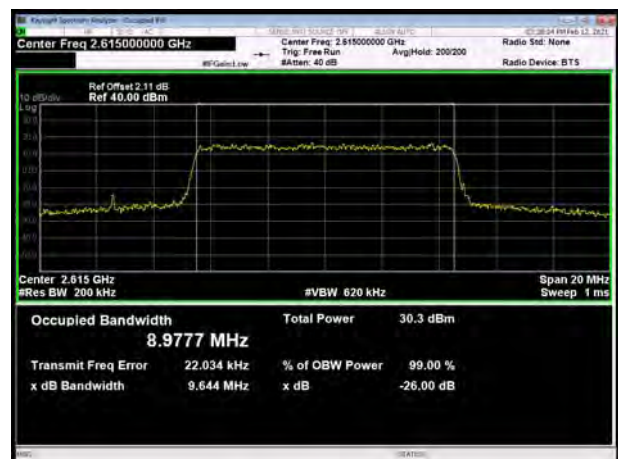
## LTE Band 38 QPSK 10MHz CH-Middle



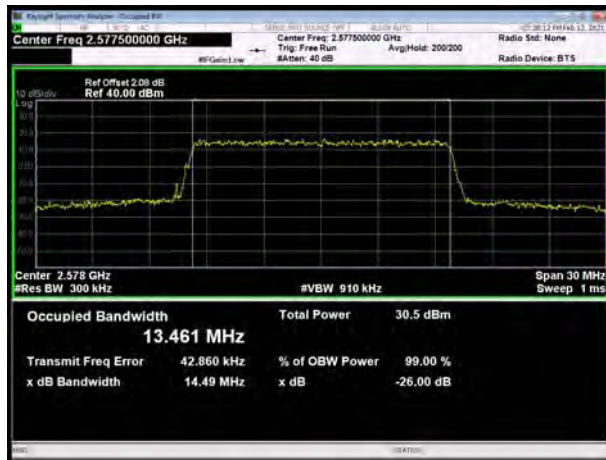
## LTE Band 38 QPSK 5MHz CH-High



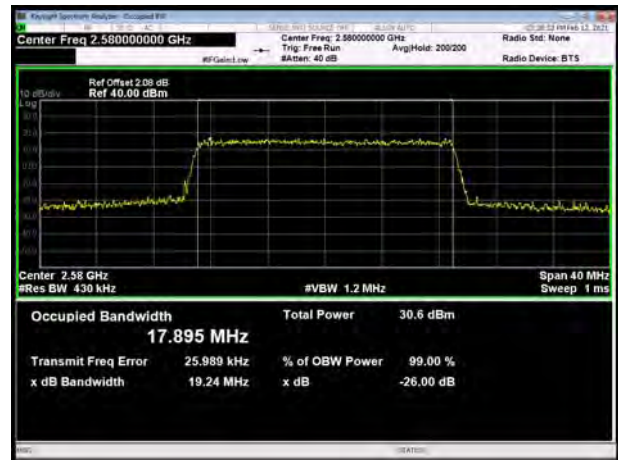
## LTE Band 38 QPSK 10MHz CH-High



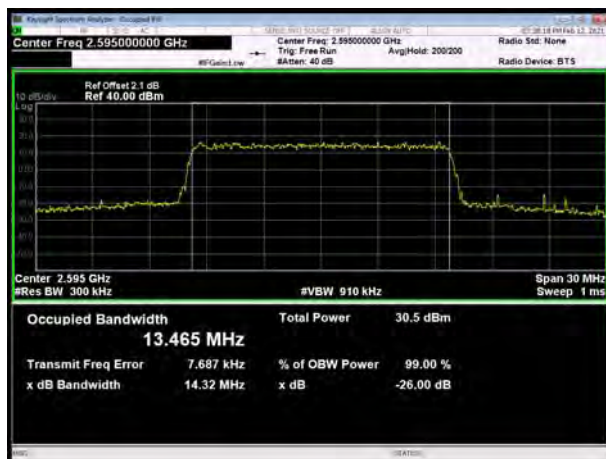
## LTE Band 38 QPSK 15MHz CH-Low



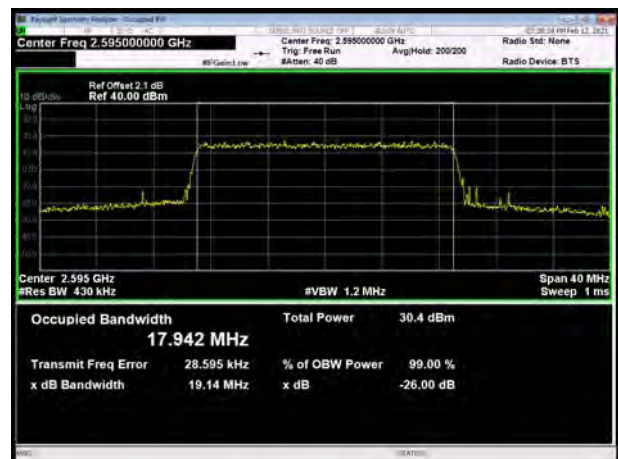
## LTE Band 38 QPSK 20MHz CH-Low



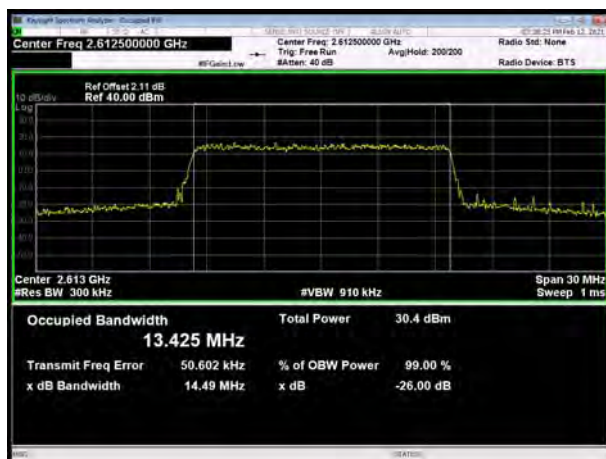
## LTE Band 38 QPSK 15MHz CH-Middle



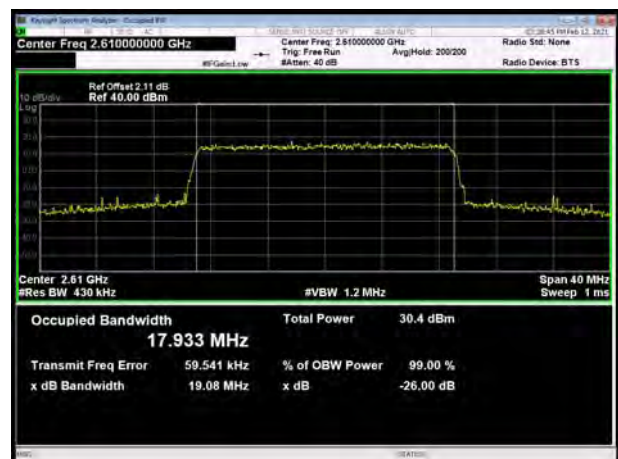
## LTE Band 38 QPSK 20MHz CH-Middle



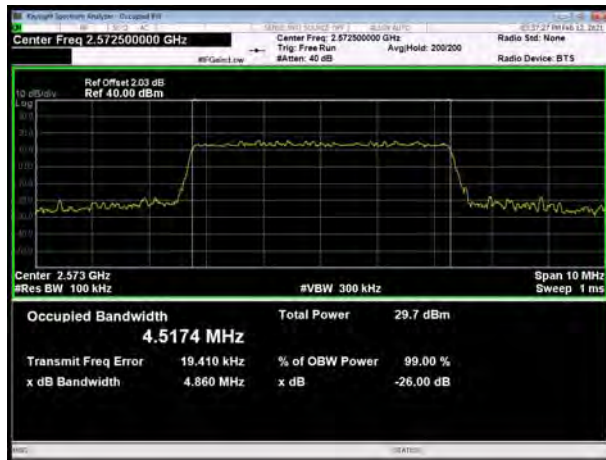
## LTE Band 38 QPSK 15MHz CH-High



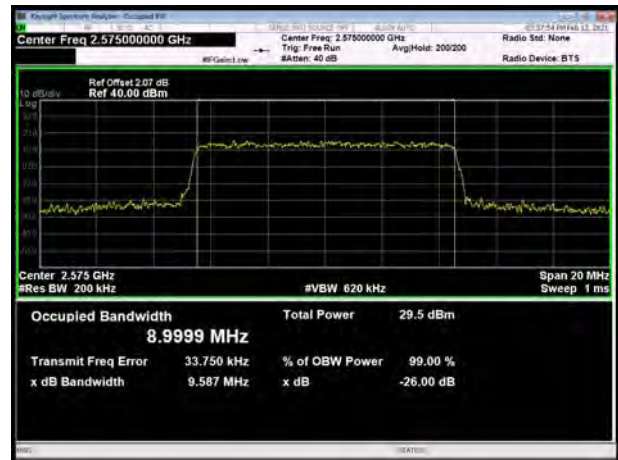
## LTE Band 38 QPSK 20MHz CH-High



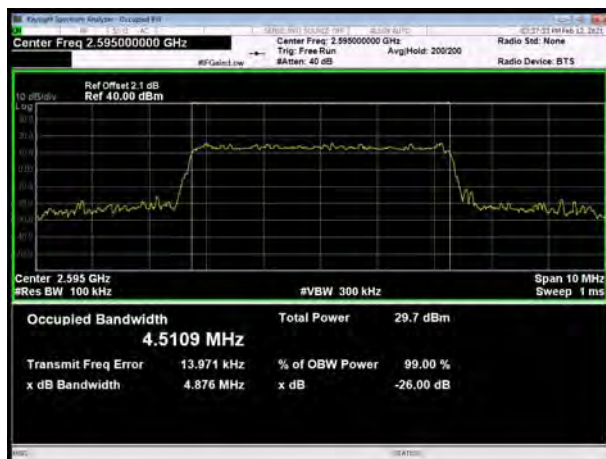
LTE Band 38 16QAM 5MHz CH-Low



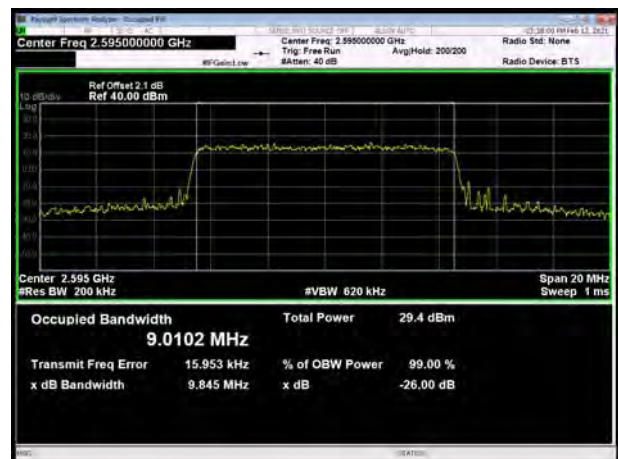
LTE Band 38 16QAM 10MHz CH-Low



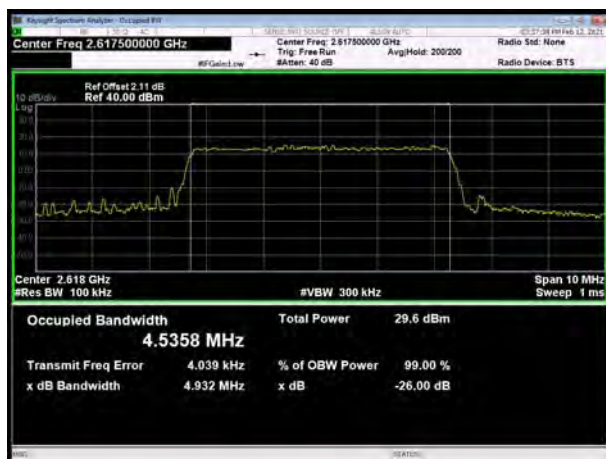
LTE Band 38 16QAM 5MHz CH-Middle



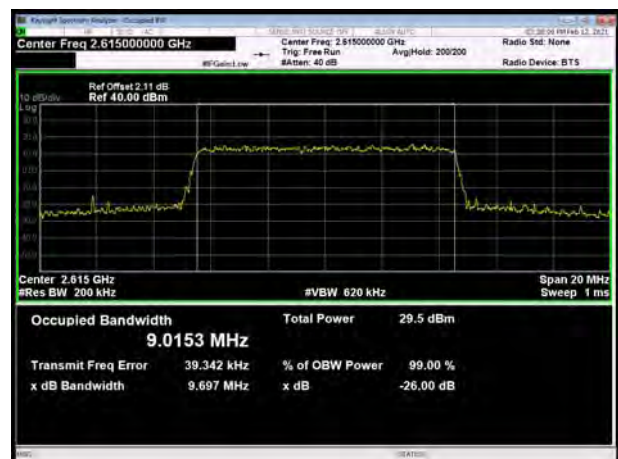
LTE Band 38 16QAM 10MHz CH-Middle



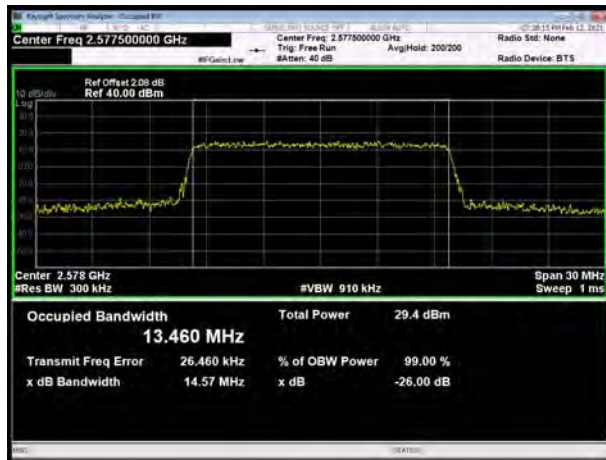
LTE Band 38 16QAM 5MHz CH-High



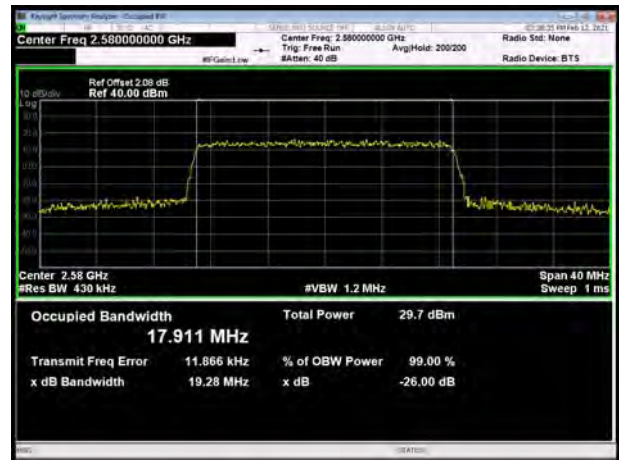
LTE Band 38 16QAM 10MHz CH-High



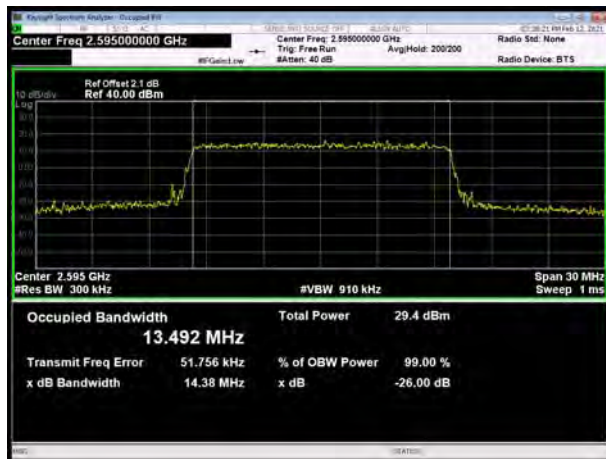
LTE Band 38 16QAM 15MHz CH-Low



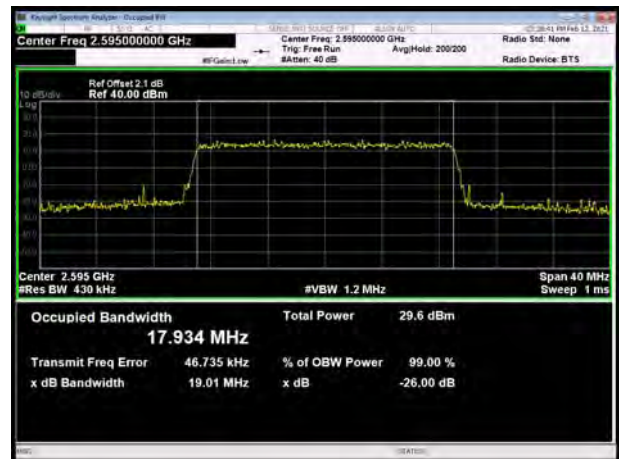
LTE Band 38 16QAM 20MHz CH-Low



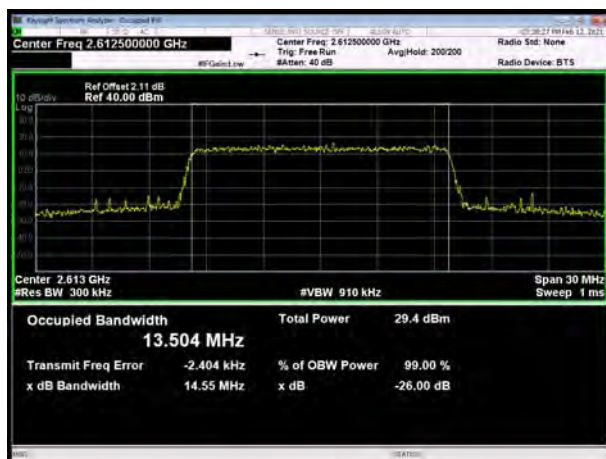
LTE Band 38 16QAM 15MHz CH-Middle



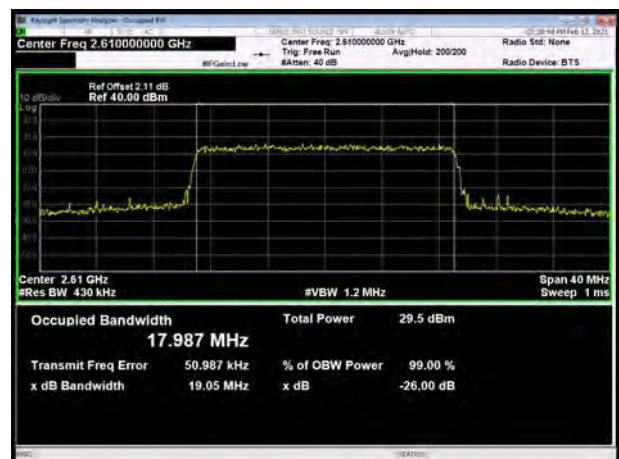
LTE Band 38 16QAM 20MHz CH-Middle



LTE Band 38 16QAM 15MHz CH-High

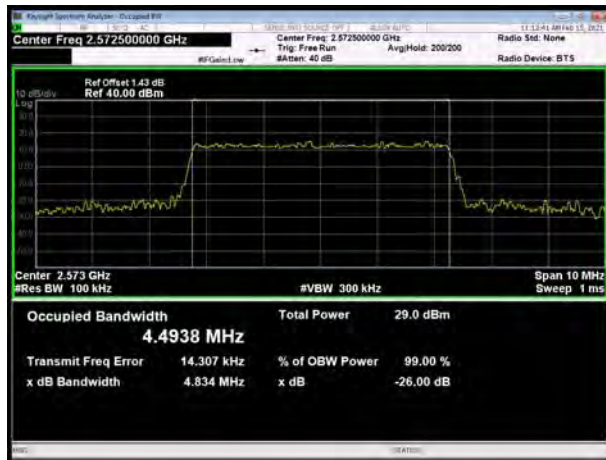


LTE Band 38 16QAM 20MHz CH-High

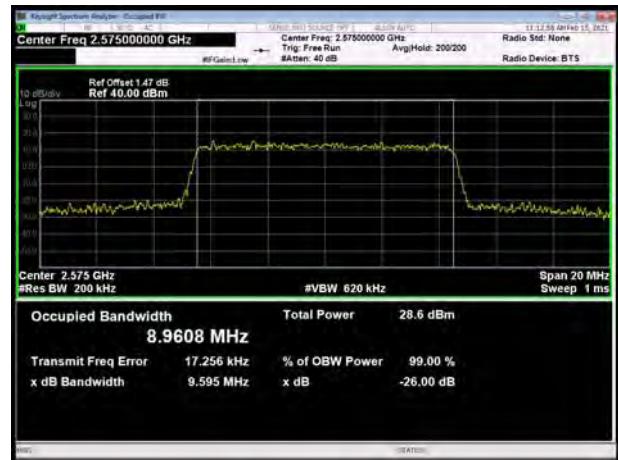




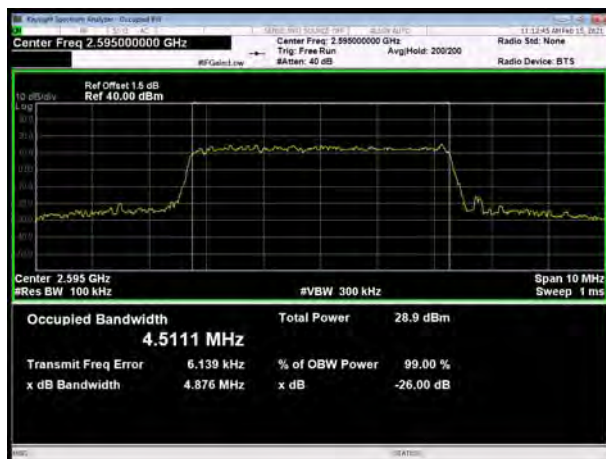
LTE Band 38 64QAM 5MHz CH-Low



LTE Band 38 64QAM 10MHz CH-Low



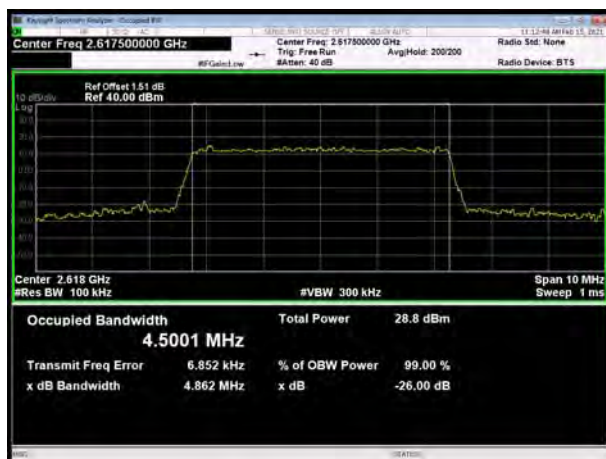
LTE Band 38 64QAM 5MHz CH-Middle



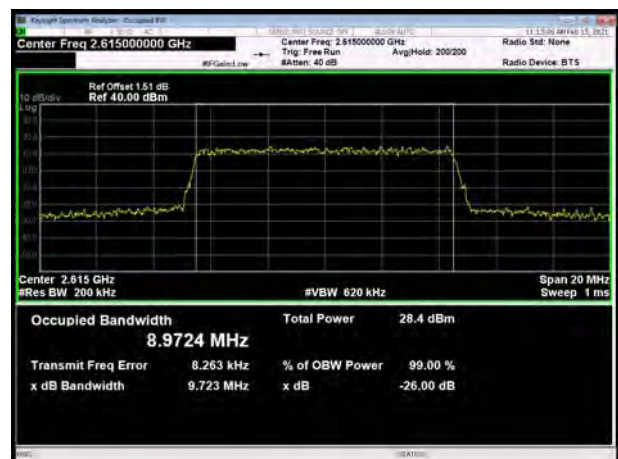
LTE Band 38 64QAM 10MHz CH-Middle



LTE Band 38 64QAM 5MHz CH-High

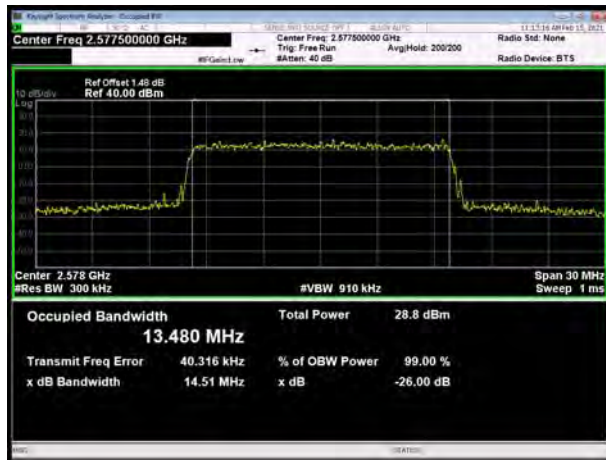


LTE Band 38 64QAM 10MHz CH-High

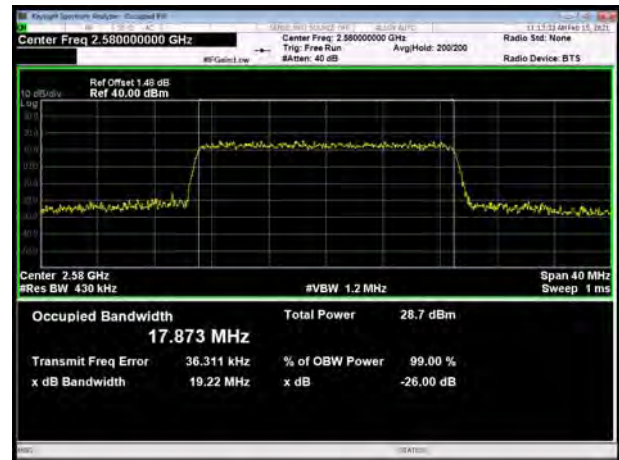




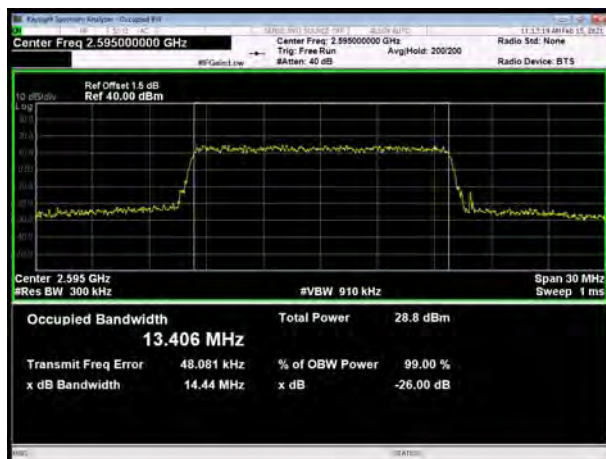
LTE Band 38 64QAM 15MHz CH-Low



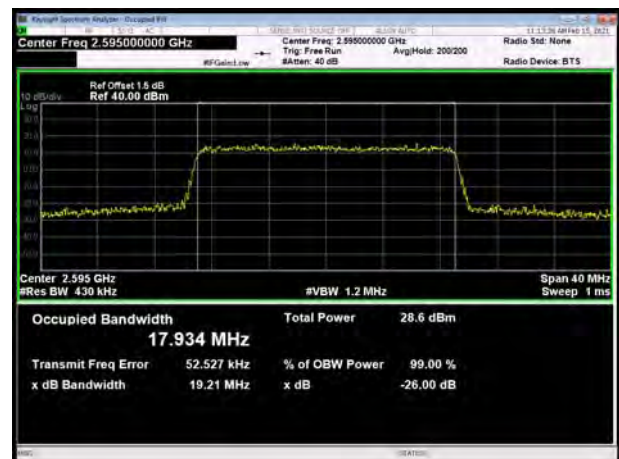
LTE Band 38 64QAM 20MHz CH-Low



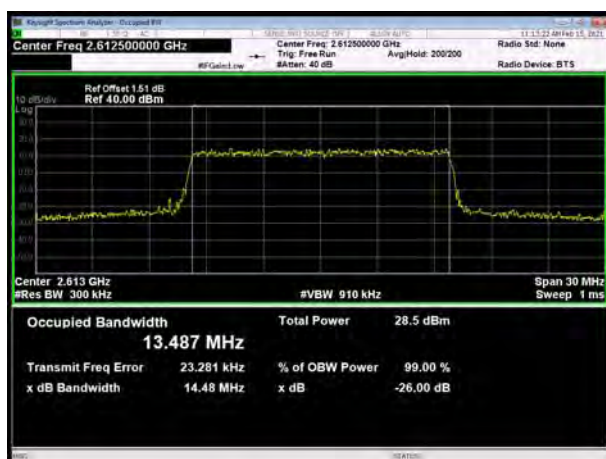
LTE Band 38 64QAM 15MHz CH-Middle



LTE Band 38 64QAM 20MHz CH-Middle



LTE Band 38 64QAM 15MHz CH-High



LTE Band 38 64QAM 20MHz CH-High

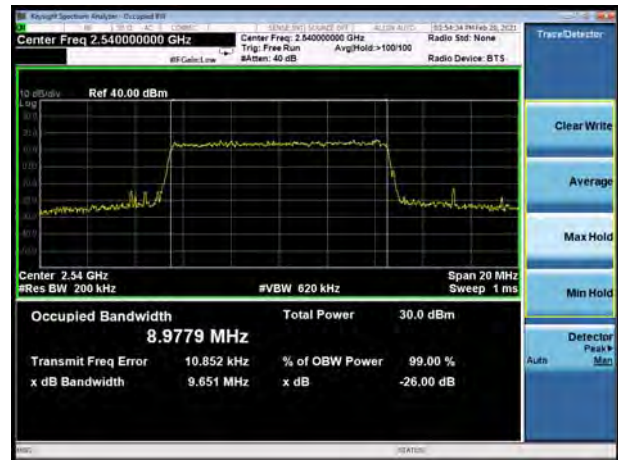




LTE Band 41 QPSK 5MHz CH-Low



LTE Band 41 QPSK 10MHz CH-Low



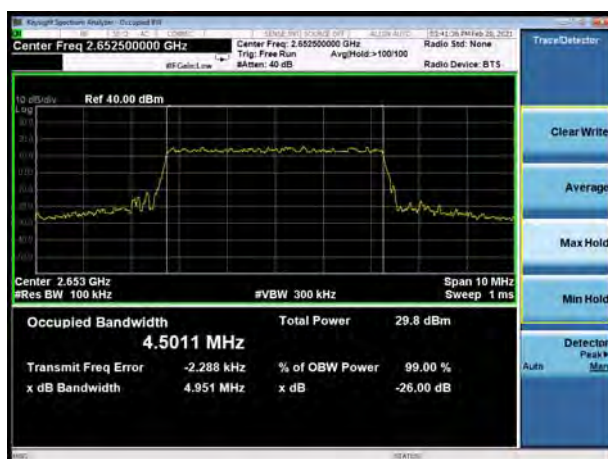
LTE Band 41 QPSK 5MHz CH-Middle



LTE Band 41 QPSK 10MHz CH-Middle



LTE Band 41 QPSK 5MHz CH-High



LTE Band 41 QPSK 10MHz CH-High



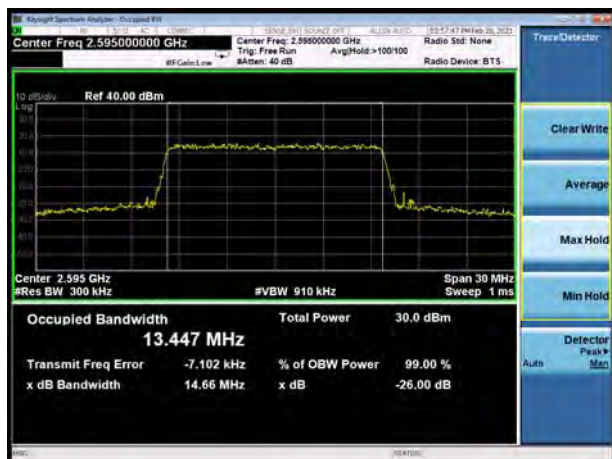
LTE Band 41 QPSK 15MHz CH-Low



LTE Band 41 QPSK 20MHz CH-Low



LTE Band 41 QPSK 15MHz CH-Middle



LTE Band 41 QPSK 20MHz CH-Middle



LTE Band 41 QPSK 15MHz CH-High



LTE Band 41 QPSK 20MHz CH-High



LTE Band 41 16QAM 5MHz CH-Low



LTE Band 41 16QAM 10MHz CH-Low



LTE Band 41 16QAM 5MHz CH-Middle



LTE Band 41 16QAM 10MHz CH-Middle



LTE Band 41 16QAM 5MHz CH-High



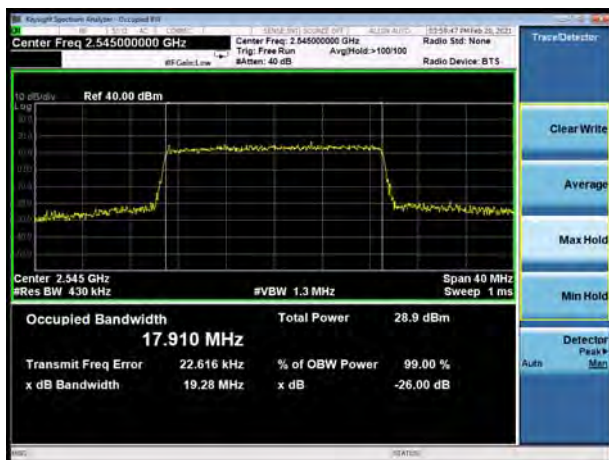
LTE Band 41 16QAM 10MHz CH-High



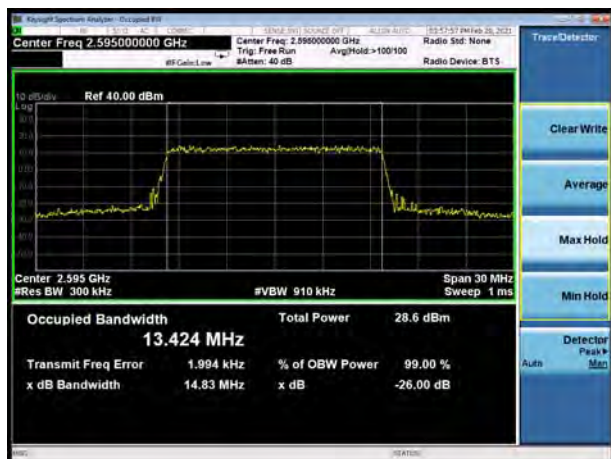
LTE Band 41 16QAM 15MHz CH-Low



LTE Band 41 16QAM 20MHz CH-Low



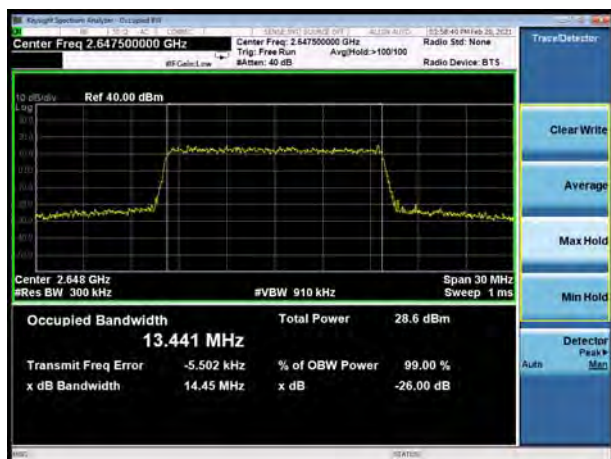
LTE Band 41 16QAM 15MHz CH-Middle



LTE Band 41 16QAM 20MHz CH-Middle



LTE Band 41 16QAM 15MHz CH-High

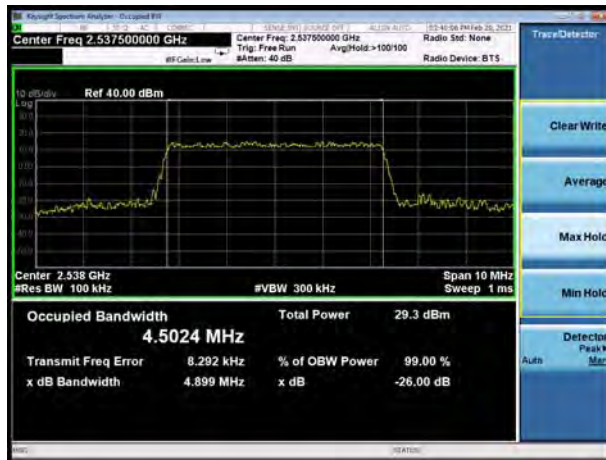


LTE Band 41 16QAM 20MHz CH-High





LTE Band 41 64QAM 5MHz CH-Low



LTE Band 41 64QAM 10MHz CH-Low



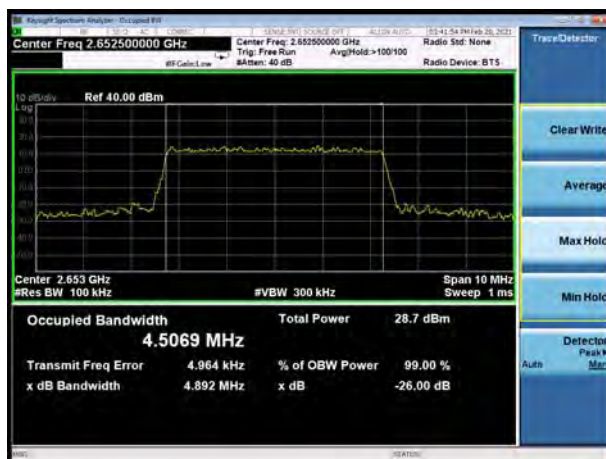
LTE Band 41 64QAM 5MHz CH-Middle



LTE Band 41 64QAM 10MHz CH-Middle



LTE Band 41 64QAM 5MHz CH-High



LTE Band 41 64QAM 10MHz CH-High





LTE Band 41 64QAM 15MHz CH-Low



LTE Band 41 64QAM 20MHz CH-Low



LTE Band 41 64QAM 15MHz CH-Middle



LTE Band 41 64QAM 20MHz CH-Middle



LTE Band 41 64QAM 15MHz CH-High



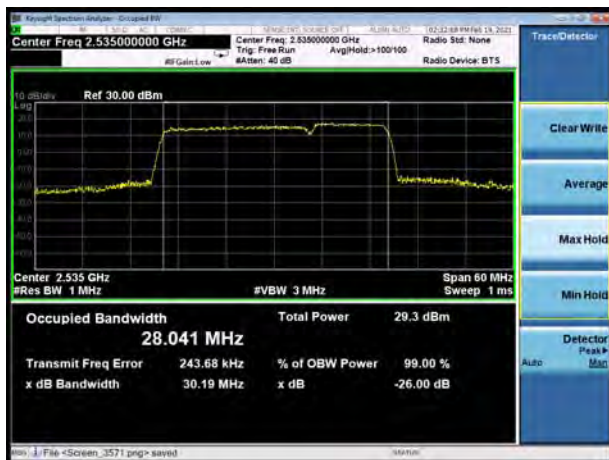
LTE Band 41 64QAM 20MHz CH-High



CA\_7C QPSK 10MHz+20MHz



CA\_7C QPSK 20MHz+10MHz



CA\_7C 16QAM 10MHz+20MHz



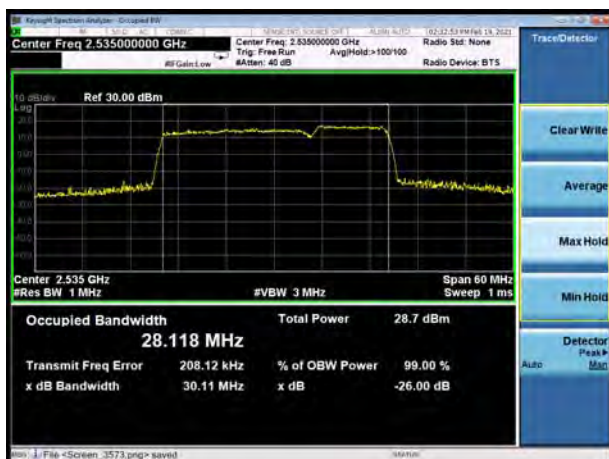
CA\_7C 16QAM 20MHz+10MHz



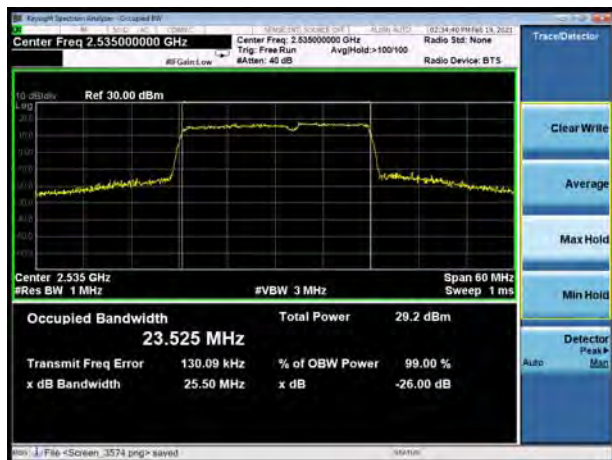
CA\_7C 64QAM 10MHz+20MHz



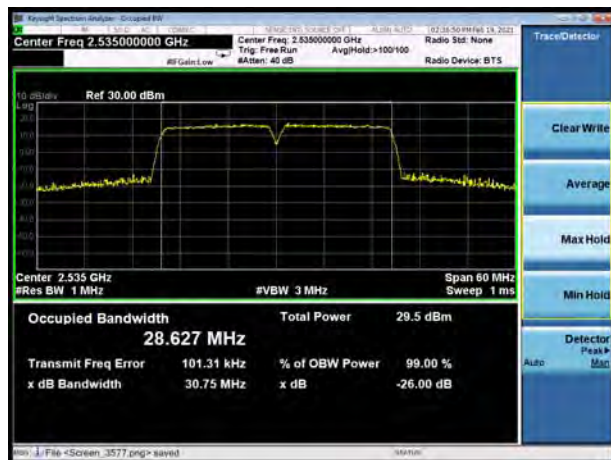
CA\_7C 64QAM 20MHz+10MHz



CA\_7C QPSK 15MHz+10MHz



CA\_7C QPSK 15MHz+15MHz



CA\_7C 16QAM 15MHz+10MHz



CA\_7C 16QAM 15MHz+15MHz



CA\_7C 64QAM 15MHz+10MHz

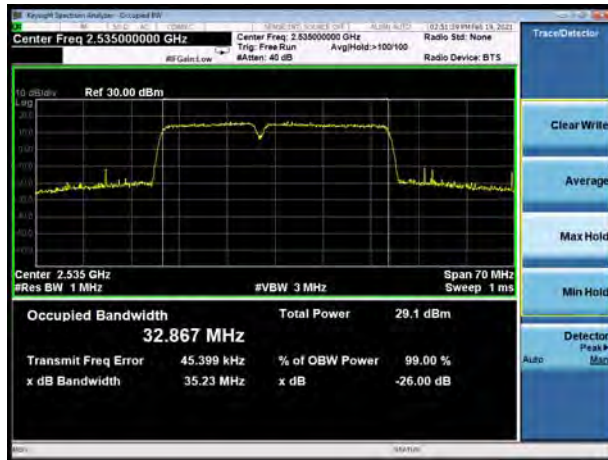


CA\_7C 64QAM 15MHz+15MHz





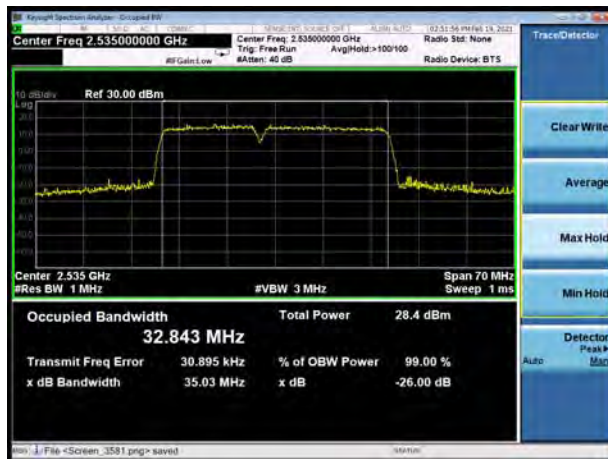
CA\_7C QPSK 15MHz+20MHz



CA\_7C QPSK 20MHz+15MHz



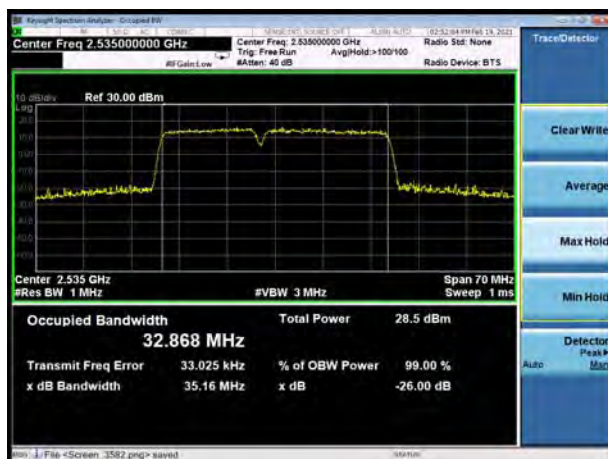
CA\_7C 16QAM 15MHz+20MHz



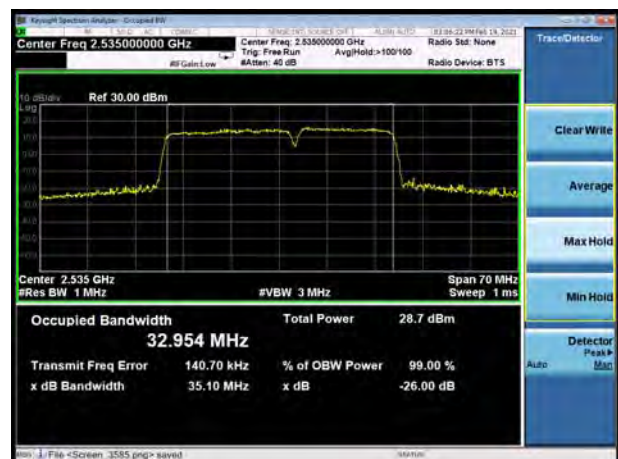
CA\_7C 16QAM 20MHz+15MHz



CA\_7C 64QAM 15MHz+20MHz



CA\_7C 64QAM 20MHz+15MHz



CA\_7C QPSK 20MHz+20MHz



CA\_7C 16QAM 20MHz+20MHz



CA\_7C 64QAM 20MHz+20MHz



CA\_38C QPSK 15MHz+15MHz



CA\_38C QPSK 20MHz+20MHz



CA\_38C 16QAM 15MHz+15MHz



CA\_38C 16QAM 20MHz+20MHz



CA\_38C 64QAM 15MHz+15MHz



CA\_38C 64QAM 20MHz+20MHz



### 5.3 Band Edge Compliance

#### Ambient condition

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

#### Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.

The testing follows KDB 971168 D01 v03r01 Section 6.0

The EUT was connected to spectrum analyzer and system simulator via a power divider.

The band edges of low and high channels for the highest RF powers were measured.

For LTE Band 4/7/38 the middle channel, high channel of LTE Band 41 set RBW  $\geq 1\%$  EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.

For LTE Band 41 low channel set RBW  $\geq 2\%$  EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.

RBW is set to 51 kHz, VBW is set to 160 kHz for WCDMA Band IV.

RBW is set to 15 kHz, VBW is set to 43 kHz for LTE Band 4 (1.4MHz).

RBW is set to 30 kHz, VBW is set to 91 kHz for LTE Band 4 (3MHz).

RBW is set to 51 kHz, VBW is set to 150 kHz for LTE Band 4/7/38/41 (5MHz).

RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 4/7/38/41 (10MHz).

RBW is set to 150 kHz, VBW is set to 470 kHz for LTE Band 4/7/38/41 (15MHz).

RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4/7/38/41 (20MHz)

RBW is set to 430 kHz, VBW is set to 1.3MHz for CA-7C/ CA-38C.

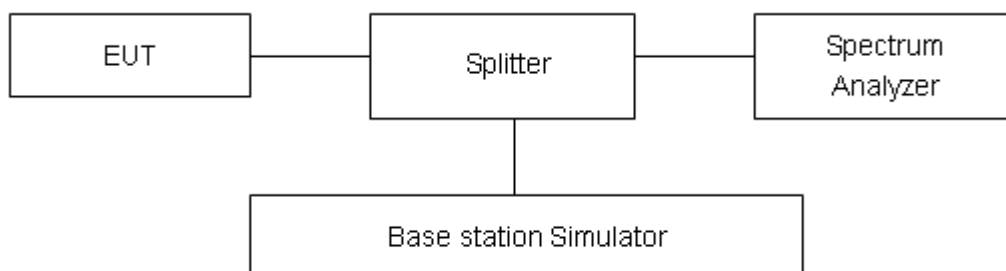
on spectrum analyzer.

Set spectrum analyzer with RMS detector.

The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

Checked that all the results comply with the emission limit line.

#### Test Setup



## Limits

Rule Part 27.53(i) By a factor of not less than  $43 + 10 \log (P)$  dB on all frequencies between 2305 and 2320 MHz.

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10} (P)$  dB”

Rule Part 27.53(m) (4)/ specifies that “for BRS and EBS stations. 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)(4) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Example:

The limit line is derived from  $43 + 10 \log (P)$  dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10 \log (P)] \text{ (dB)}$$

$$= [30 + 10 \log (P)] \text{ (dBm)} - [43 + 10 \log (P)] \text{ (dB)} = -13 \text{ dBm.}$$

## Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor  $k = 1.96$ ,  $U = 0.684 \text{ dB}$ .



## Test Result

All the test traces in the plots shows the test results clearly.

WCDMA Band IV CH-Low



WCDMA Band IV CH-High



LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB



LTE Band 4 QPSK 1.4MHz CH-High, 1 RB



LTE Band 4 QPSK 1.4MHz CH-Low, 100%RB

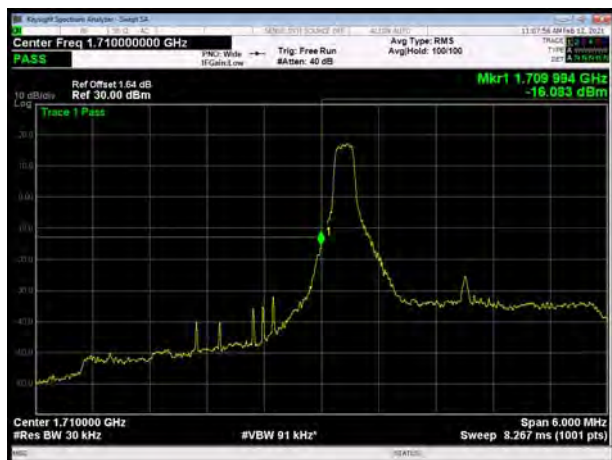


LTE Band 4 QPSK 1.4MHz CH-High, 100%RB

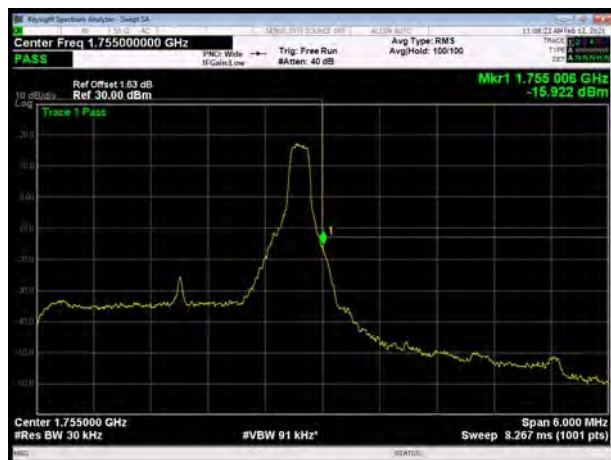




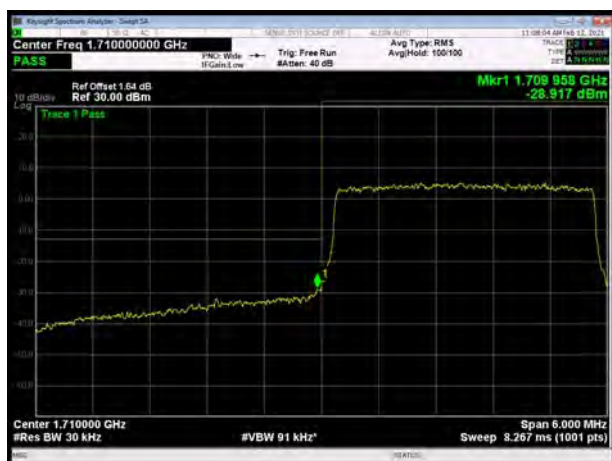
LTE Band 4 QPSK 3MHz CH-Low, 1 RB



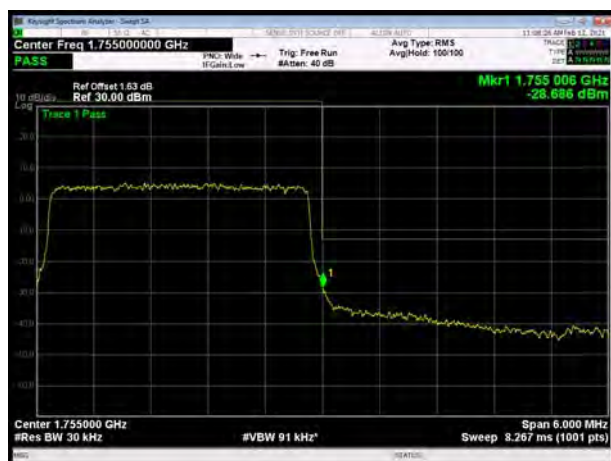
LTE Band 4 QPSK 3MHz CH-High, 1 RB



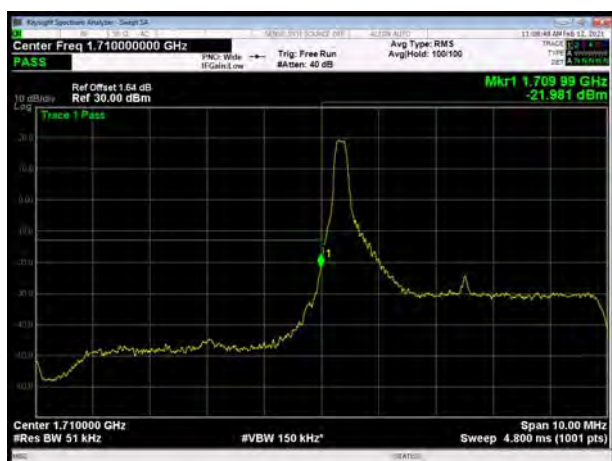
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



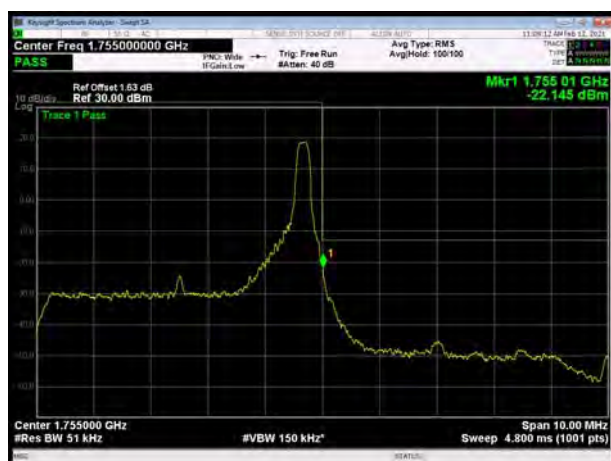
LTE Band 4 QPSK 3MHz CH-High, 100%RB



LTE Band 4 QPSK 5MHz CH-Low, 1 RB

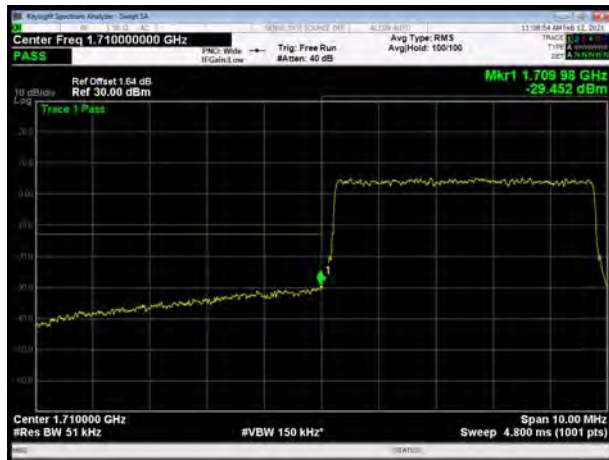


LTE Band 4 QPSK 5MHz CH-High, 1 RB

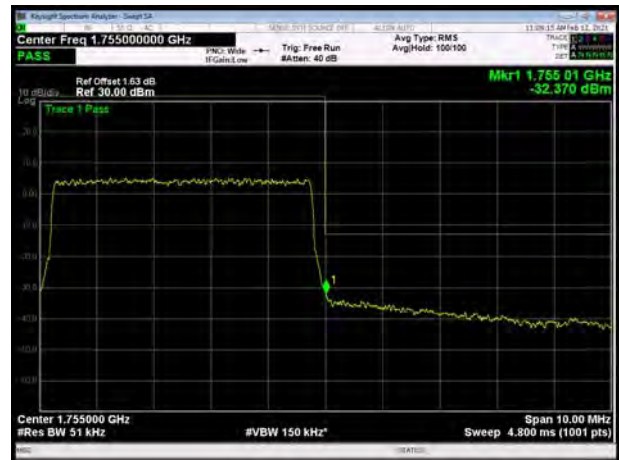




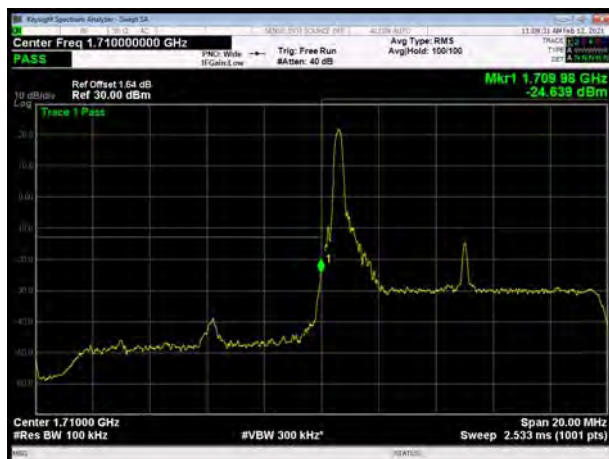
LTE Band 4 QPSK 5MHz CH-Low, 100%RB



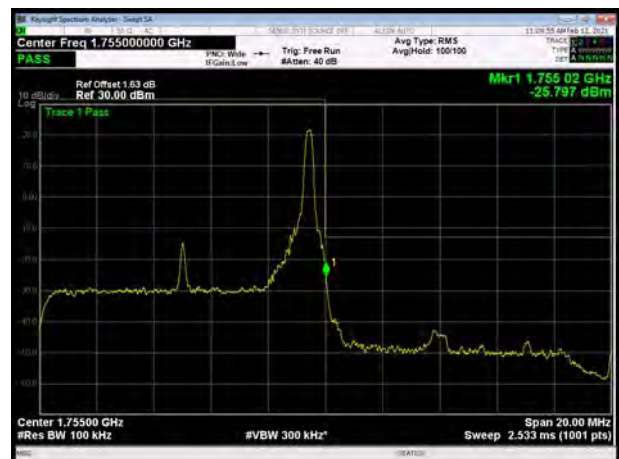
LTE Band 4 QPSK 5MHz CH-High, 100%RB



LTE Band 4 QPSK 10MHz CH-Low, 1 RB



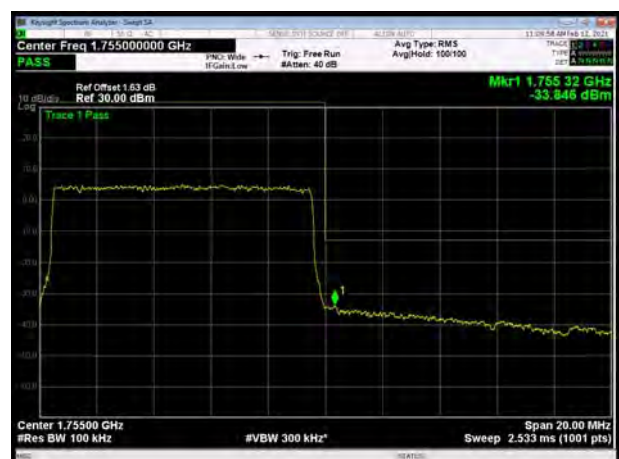
LTE Band 4 QPSK 10MHz CH-High, 1 RB



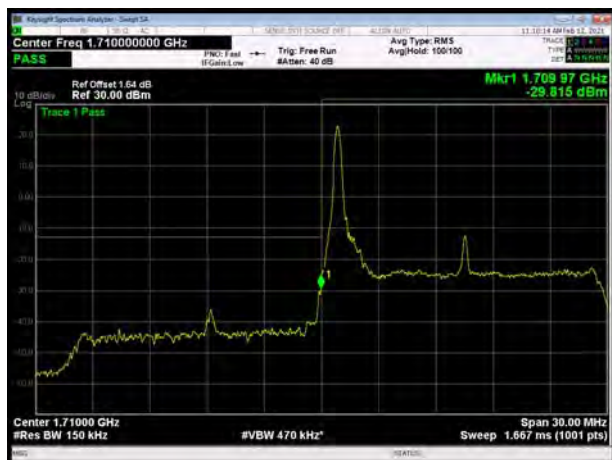
LTE Band 4 QPSK 10MHz CH-Low, 100%RB



LTE Band 4 QPSK 10MHz CH-High, 100%RB



LTE Band 4 QPSK 15MHz CH-Low, 1 RB



LTE Band 4 QPSK 15MHz CH-High, 1 RB



LTE Band 4 QPSK 15MHz CH-Low, 100%RB



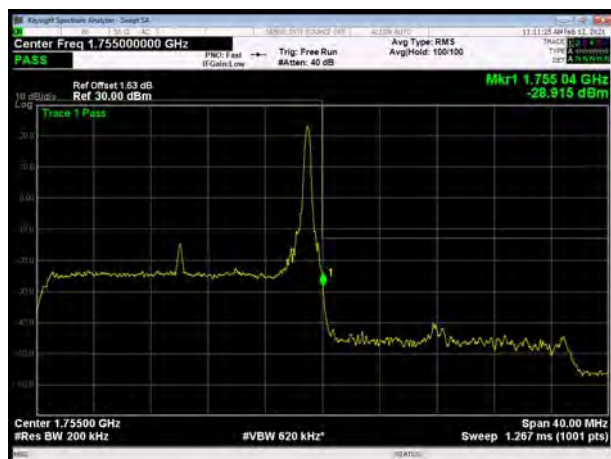
LTE Band 4 QPSK 15MHz CH-High, 100%RB



LTE Band 4 QPSK 20MHz CH-Low, 1 RB

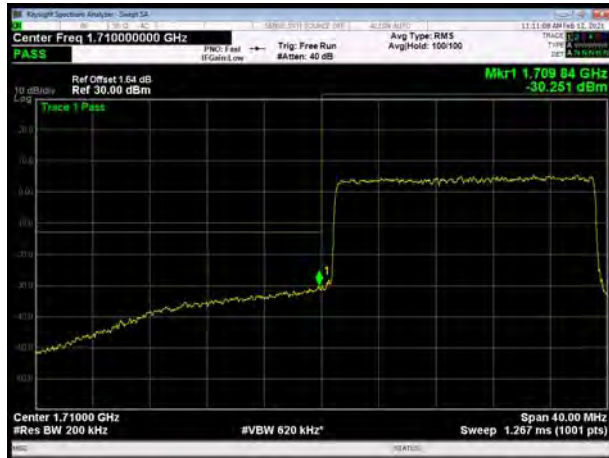


LTE Band 4 QPSK 20MHz CH-High, 1 RB

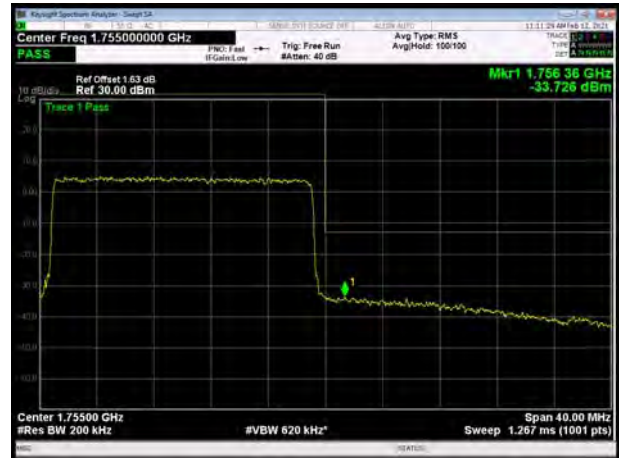




LTE Band 4 QPSK 20MHz CH-Low, 100%RB



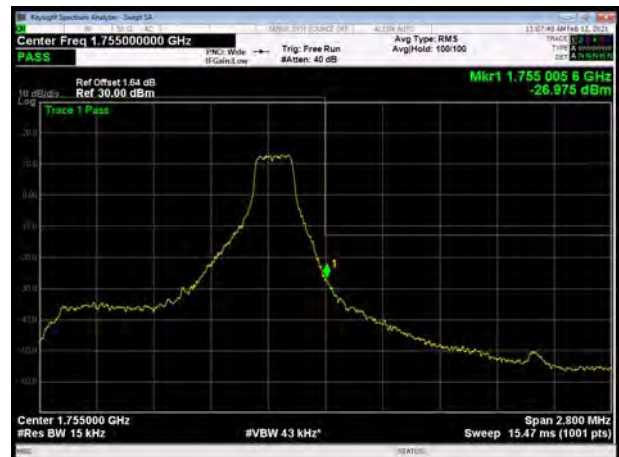
LTE Band 4 QPSK 20MHz CH-High, 100%RB



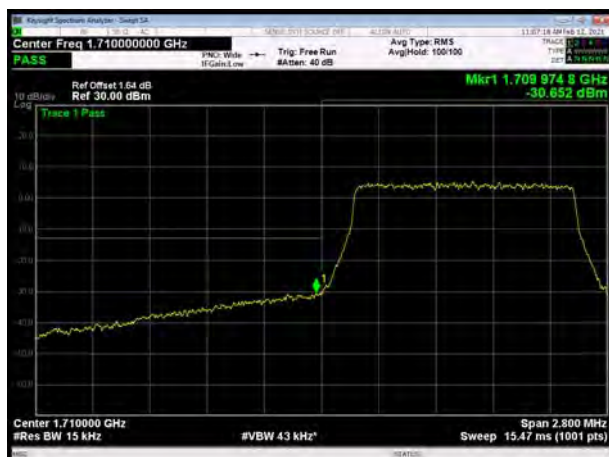
LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB



LTE Band 4 16QAM 1.4MHz CH-High, 1 RB



LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB

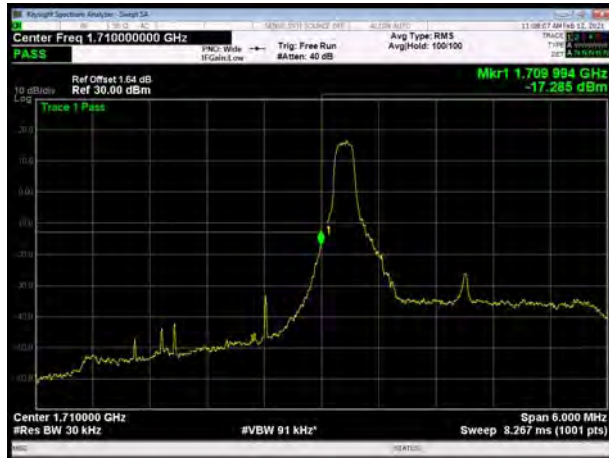


LTE Band 4 16QAM 1.4MHz CH-High, 100%RB

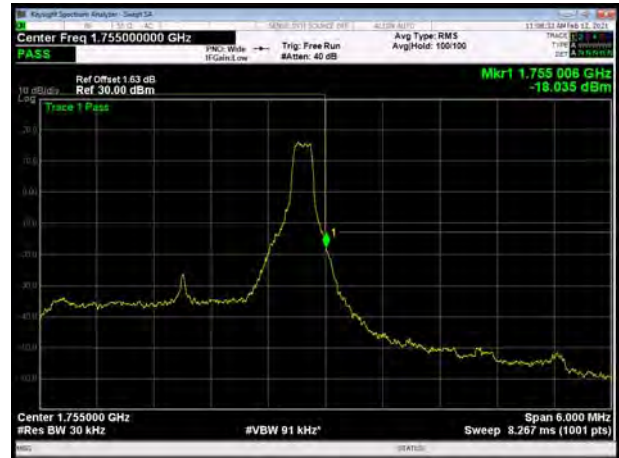




LTE Band 4 16QAM 3MHz CH-Low, 1 RB



LTE Band 4 16QAM 3MHz CH-High, 1 RB



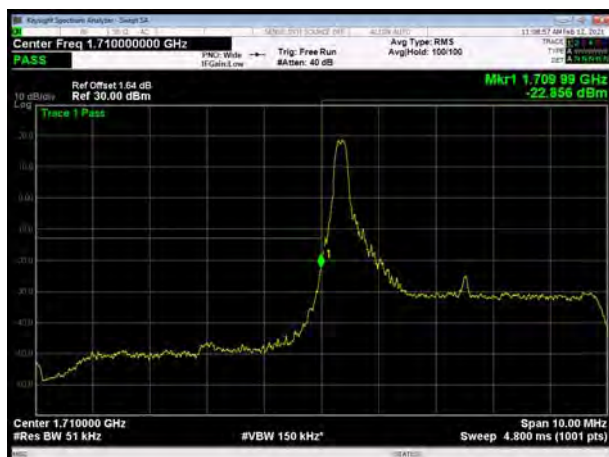
LTE Band 4 16QAM 3MHz CH-Low, 100%RB



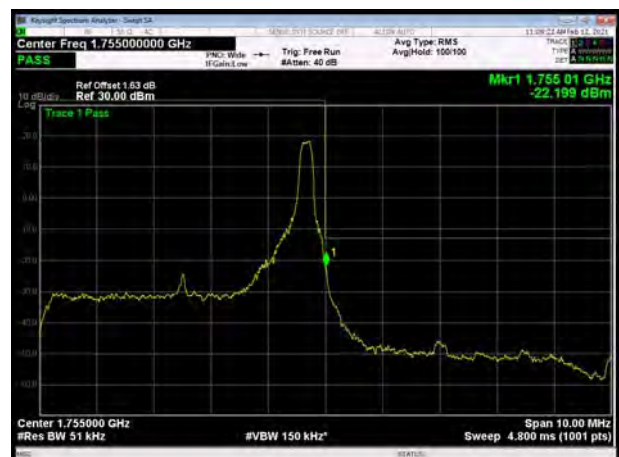
LTE Band 4 16QAM 3MHz CH-High, 100%RB



LTE Band 4 16QAM 5MHz CH-Low, 1 RB



LTE Band 4 16QAM 5MHz CH-High, 1 RB





LTE Band 4 16QAM 5MHz CH-Low, 100%RB



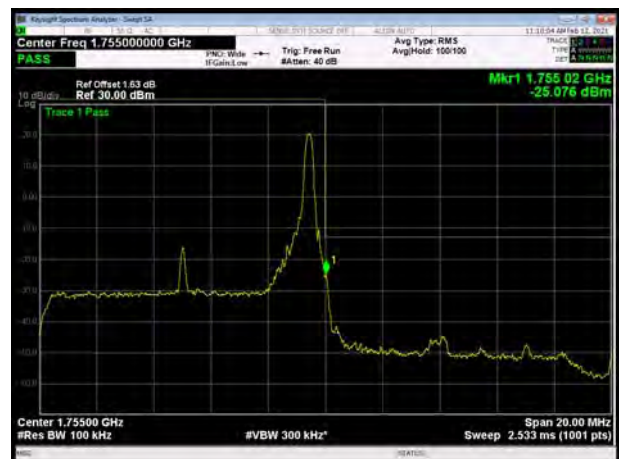
LTE Band 4 16QAM 5MHz CH-High, 100%RB



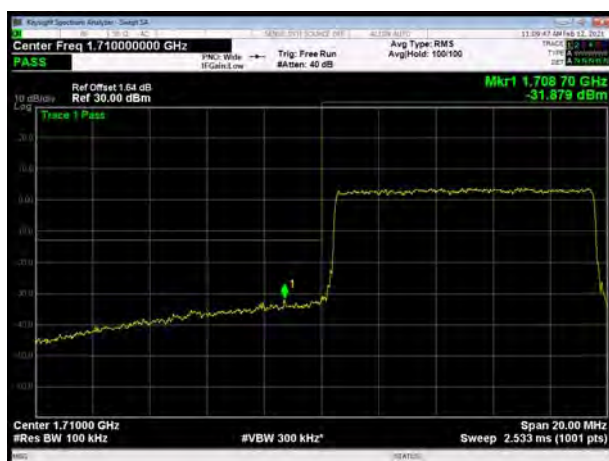
LTE Band 4 16QAM 10MHz CH-Low, 1 RB



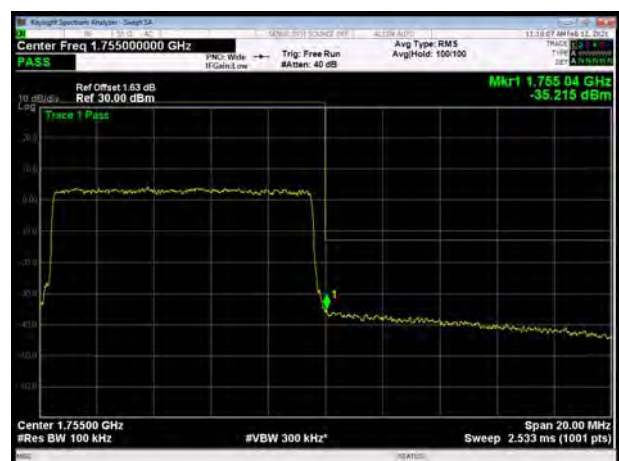
LTE Band 4 16QAM 10MHz CH-High, 1 RB



LTE Band 4 16QAM 10MHz CH-Low, 100%RB

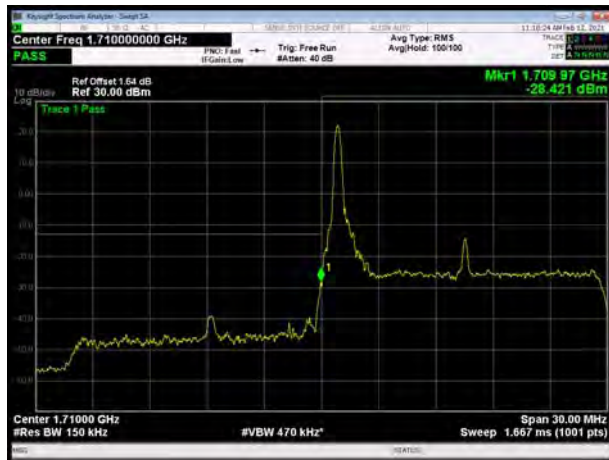


LTE Band 4 16QAM 10MHz CH-High, 100%RB





LTE Band 4 16QAM 15MHz CH-Low, 1 RB



LTE Band 4 16QAM 15MHz CH-High, 1 RB



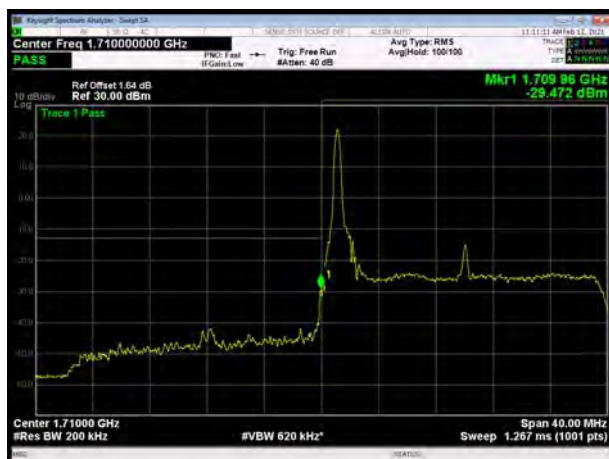
LTE Band 4 16QAM 15MHz CH-Low, 100%RB



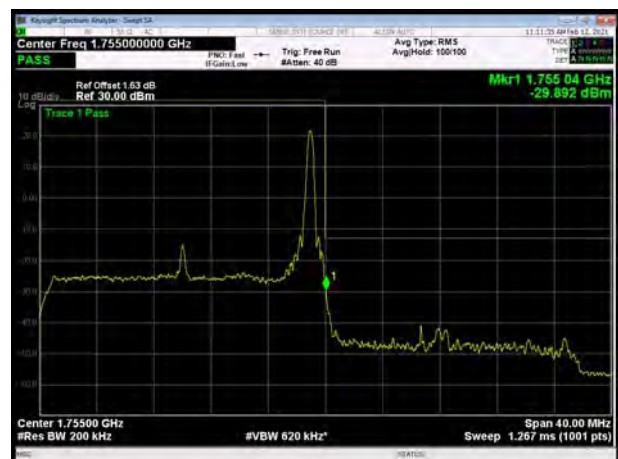
LTE Band 4 16QAM 15MHz CH-High, 100%RB



LTE Band 4 16QAM 20MHz CH-Low, 1 RB

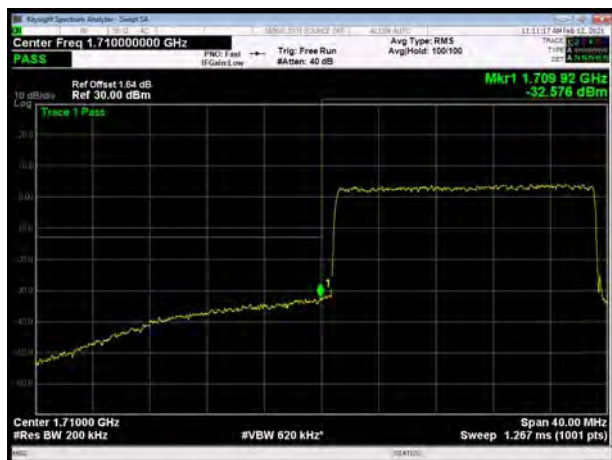


LTE Band 4 16QAM 20MHz CH-High, 1 RB





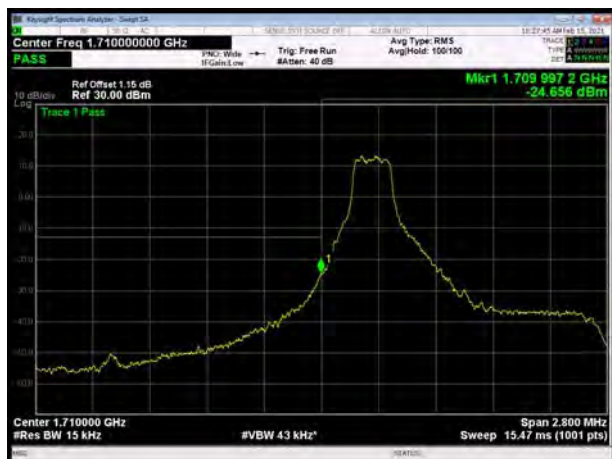
LTE Band 4 16QAM 20MHz CH-Low, 100%RB



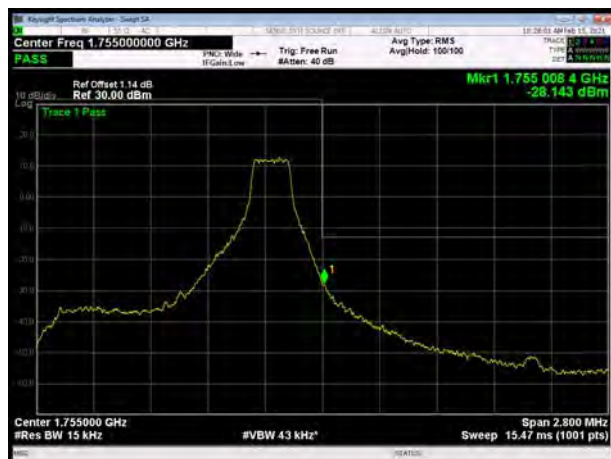
LTE Band 4 16QAM 20MHz CH-High, 100%RB



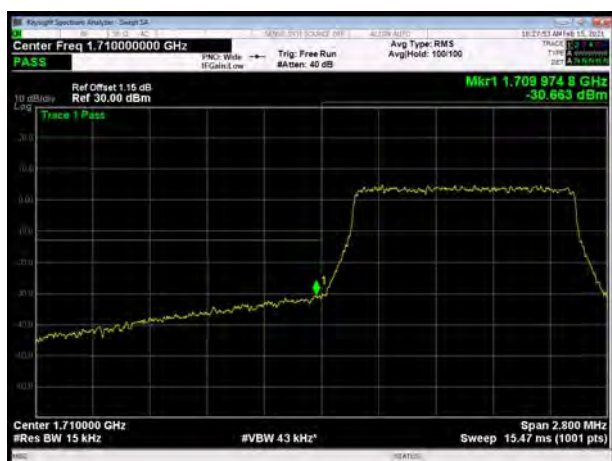
LTE Band 4 64QAM 1.4MHz CH-Low, 1 RB



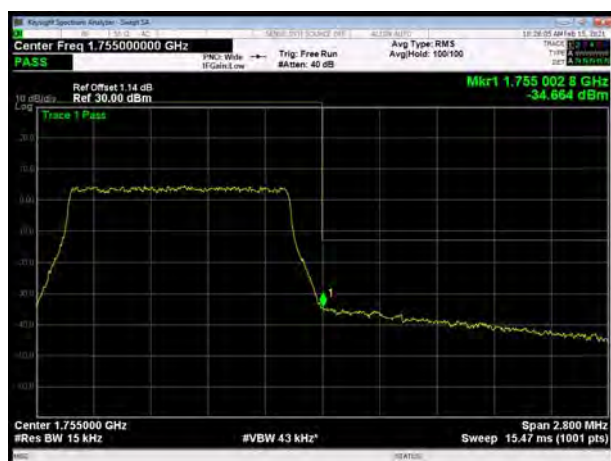
LTE Band 4 64QAM 1.4MHz CH-High, 1 RB



LTE Band 4 64QAM 1.4MHz CH-Low, 100%RB



LTE Band 4 64QAM 1.4MHz CH-High, 100%RB

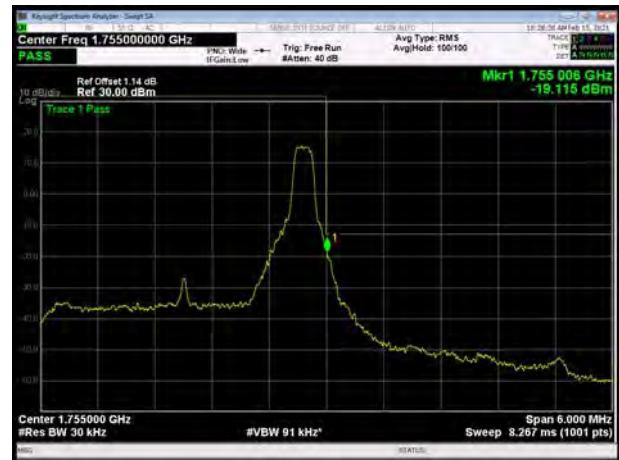




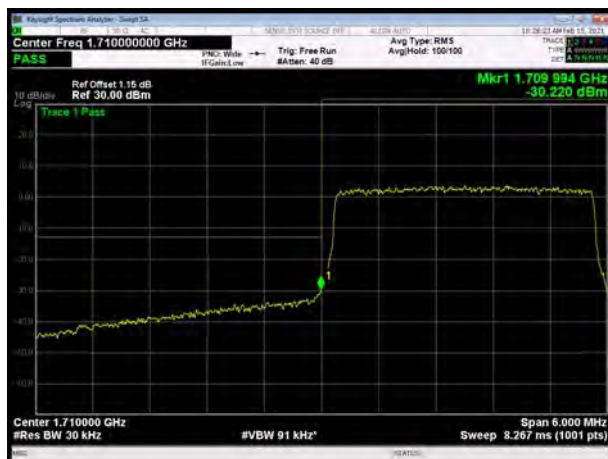
LTE Band 4 64QAM 3MHz CH-Low, 1 RB



LTE Band 4 64QAM 3MHz CH-High, 1 RB



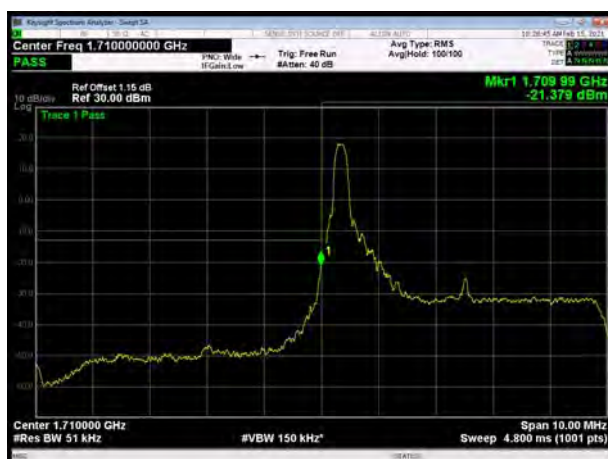
LTE Band 4 64QAM 3MHz CH-Low, 100%RB



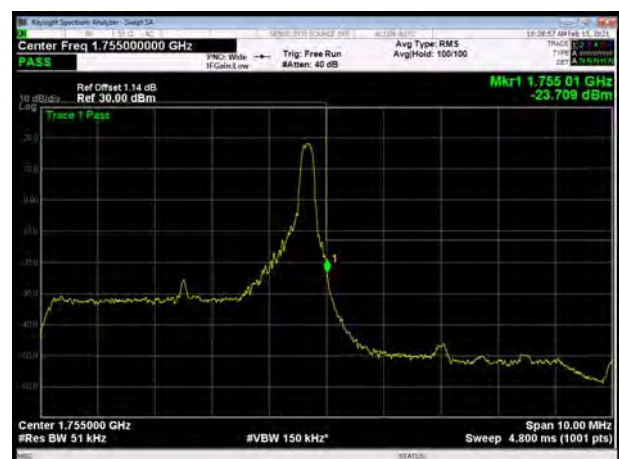
LTE Band 4 64QAM 3MHz CH-High, 100%RB



LTE Band 4 64QAM 5MHz CH-Low, 1 RB

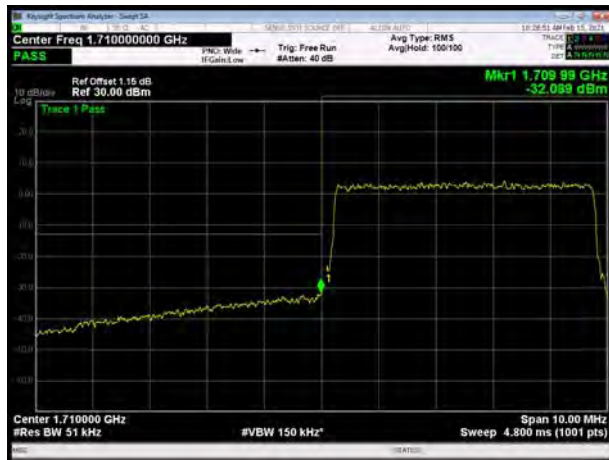


LTE Band 4 64QAM 5MHz CH-High, 1 RB





LTE Band 4 64QAM 5MHz CH-Low, 100%RB



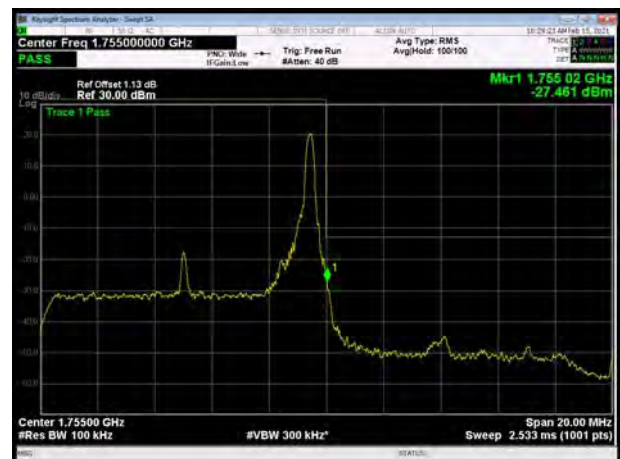
LTE Band 4 64QAM 5MHz CH-High, 100%RB



LTE Band 4 64QAM 10MHz CH-Low, 1 RB



LTE Band 4 64QAM 10MHz CH-High, 1 RB



LTE Band 4 64QAM 10MHz CH-Low, 100%RB

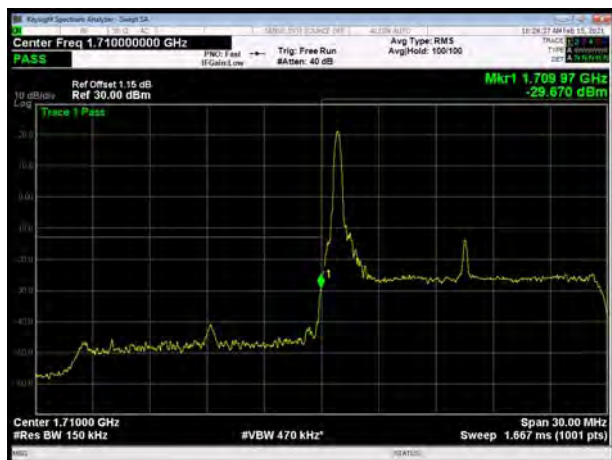


LTE Band 4 64QAM 10MHz CH-High, 100%RB

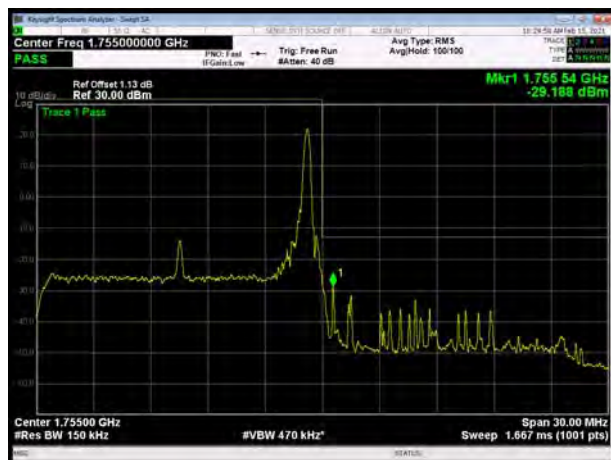




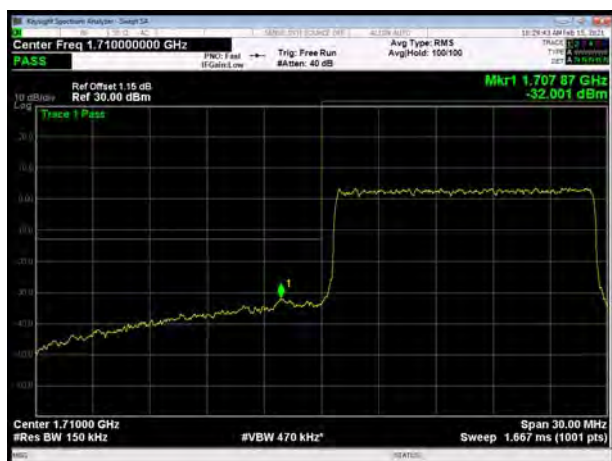
LTE Band 4 64QAM 15MHz CH-Low, 1 RB



LTE Band 4 64QAM 15MHz CH-High, 1 RB



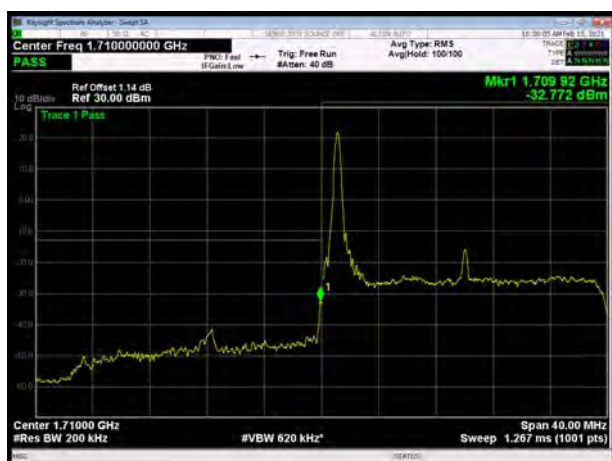
LTE Band 4 64QAM 15MHz CH-Low, 100%RB



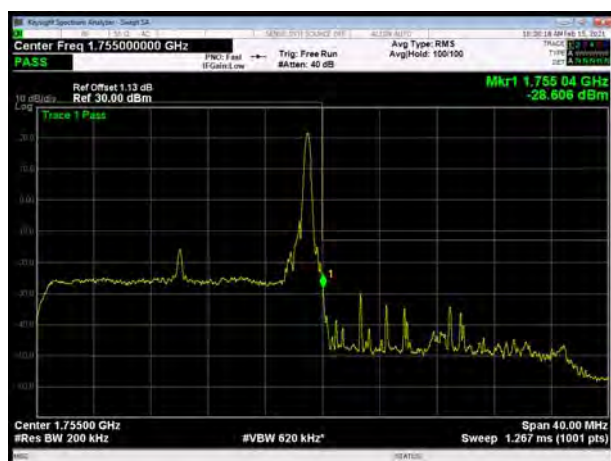
LTE Band 4 64QAM 15MHz CH-High, 100%RB



LTE Band 4 64QAM 20MHz CH-Low, 1 RB



LTE Band 4 64QAM 20MHz CH-High, 1 RB





LTE Band 4 64QAM 20MHz CH-Low, 100%RB



LTE Band 4 64QAM 20MHz CH-High, 100%RB



LTE Band 7 QPSK 5MHz CH-Low, 1 RB



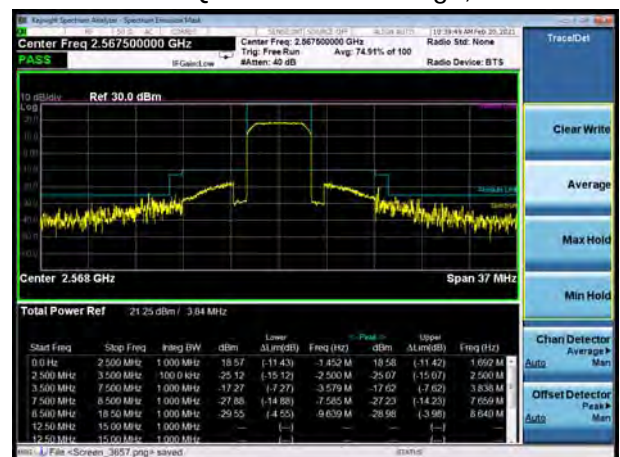
LTE Band 7 QPSK 5MHz CH-High, 1 RB



LTE Band 7 QPSK 5MHz CH-Low, 100%RB



LTE Band 7 QPSK 5MHz CH-High, 100%RB





LTE Band 7 QPSK 10MHz CH-Low, 1 RB



LTE Band 7 QPSK 10MHz CH-High, 1 RB



LTE Band 7 QPSK 10MHz CH-Low, 100%RB



LTE Band 7 QPSK 10MHz CH-High, 100%RB



LTE Band 7 QPSK 15MHz CH-Low, 1 RB



LTE Band 7 QPSK 15MHz CH-High, 1 RB





LTE Band 7 QPSK 15MHz CH-Low, 100%RB



LTE Band 7 QPSK 15MHz CH-High, 100%RB



LTE Band 7 QPSK 20MHz CH-Low, 1 RB



LTE Band 7 QPSK 20MHz CH-High, 1 RB



LTE Band 7 QPSK 20MHz CH-Low, 100%RB



LTE Band 7 QPSK 20MHz CH-High, 100%RB





LTE Band 7 16QAM 5MHz CH-Low, 1 RB



LTE Band 7 16QAM 5MHz CH-High, 1 RB



LTE Band 7 16QAM 5MHz CH-Low, 100%RB



LTE Band 7 16QAM 5MHz CH-High, 100%RB



LTE Band 7 16QAM 10MHz CH-Low, 1 RB



LTE Band 7 16QAM 10MHz CH-High, 1 RB





LTE Band 7 16QAM 10MHz CH-Low, 100%RB



LTE Band 7 16QAM 10MHz CH-High, 100%RB



LTE Band 7 16QAM 15MHz CH-Low, 1 RB



LTE Band 7 16QAM 15MHz CH-High, 1 RB



LTE Band 7 16QAM 15MHz CH-Low, 100%RB



LTE Band 7 16QAM 15MHz CH-High, 100%RB





LTE Band 7 16QAM 20MHz CH-Low, 1 RB



LTE Band 7 16QAM 20MHz CH-High, 1 RB



LTE Band 7 16QAM 20MHz CH-Low, 100%RB



LTE Band 7 16QAM 20MHz CH-High, 100%RB



LTE Band 7 64QAM 5MHz CH-Low, 1 RB



LTE Band 7 64QAM 5MHz CH-High, 1 RB





LTE Band 7 64QAM 5MHz CH-Low, 100%RB



LTE Band 7 64QAM 5MHz CH-High, 100%RB



LTE Band 7 64QAM 10MHz CH-Low, 1 RB



LTE Band 7 64QAM 10MHz CH-High, 1 RB



LTE Band 7 64QAM 10MHz CH-Low, 100%RB



LTE Band 7 64QAM 10MHz CH-High, 100%RB





LTE Band 7 64QAM 15MHz CH-Low, 1 RB



LTE Band 7 64QAM 15MHz CH-High, 1 RB



LTE Band 7 64QAM 15MHz CH-Low, 100%RB



LTE Band 7 64QAM 15MHz CH-High, 100%RB



LTE Band 7 64QAM 20MHz CH-Low, 1 RB



LTE Band 7 64QAM 20MHz CH-High, 1 RB





LTE Band 7 64QAM 20MHz CH-Low, 100%RB



LTE Band 7 64QAM 20MHz CH-High, 100%RB



LTE Band 38 QPSK 5MHz CH-Low, 1 RB



LTE Band 38 QPSK 5MHz CH-High, 1 RB



LTE Band 38 QPSK 5MHz CH-Low, 100%RB



LTE Band 38 QPSK 5MHz CH-High, 100%RB





LTE Band 38 QPSK 10MHz CH-Low, 1 RB



LTE Band 38 QPSK 10MHz CH-High, 1 RB



LTE Band 38 QPSK 10MHz CH-Low, 100%RB



LTE Band 38 QPSK 10MHz CH-High, 100%RB



LTE Band 38 QPSK 15MHz CH-Low, 1 RB

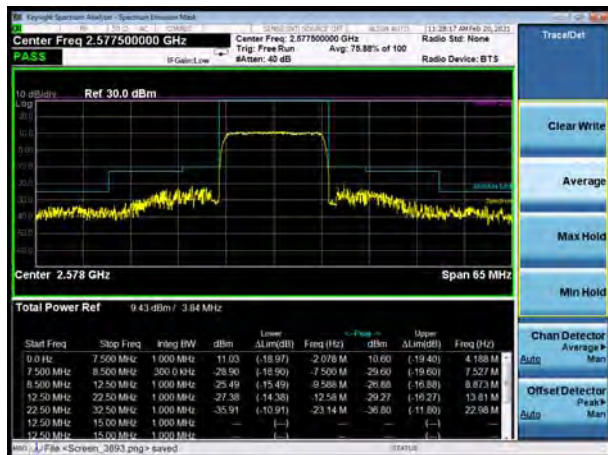


LTE Band 38 QPSK 15MHz CH-High, 1 RB





LTE Band 38 QPSK 15MHz CH-Low, 100%RB



LTE Band 38 QPSK 15MHz CH-High, 100%RB



LTE Band 38 QPSK 20MHz CH-Low, 1 RB



LTE Band 38 QPSK 20MHz CH-High, 1 RB



LTE Band 38 QPSK 20MHz CH-Low, 100%RB



LTE Band 38 QPSK 20MHz CH-High, 100%RB





LTE Band 38 16QAM 5MHz CH-Low, 1 RB



LTE Band 38 16QAM 5MHz CH-High, 1 RB



LTE Band 38 16QAM 5MHz CH-Low, 100%RB



LTE Band 38 16QAM 5MHz CH-High, 100%RB



LTE Band 38 16QAM 10MHz CH-Low, 1 RB



LTE Band 38 16QAM 10MHz CH-High, 1 RB





## LTE Band 38 16QAM 10MHz CH-Low, 100%RB



## LTE Band 38 16QAM 10MHz CH-High, 100%RB



## LTE Band 38 16QAM 15MHz CH-Low, 1 RB



## LTE Band 38 16QAM 15MHz CH-High, 1 RB



## LTE Band 38 16QAM 15MHz CH-Low, 100%RB



## LTE Band 38 16QAM 15MHz CH-High, 100%RB

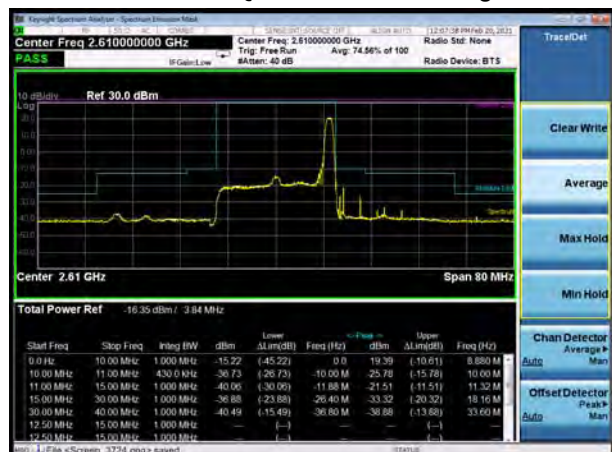




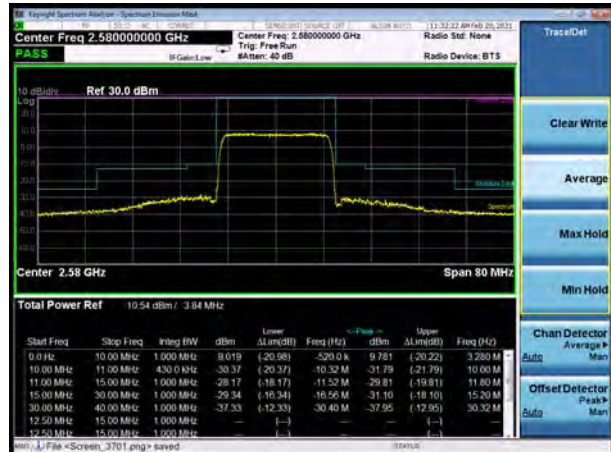
LTE Band 38 16QAM 20MHz CH-Low, 1 RB



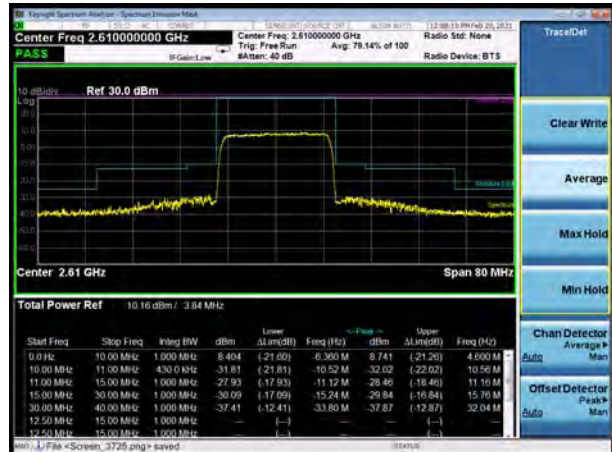
LTE Band 38 16QAM 20MHz CH-High, 1 RB



LTE Band 38 16QAM 20MHz CH-Low, 100%RB



LTE Band 38 16QAM 20MHz CH-High, 100%RB



LTE Band 38 64QAM 5MHz CH-Low, 1 RB



LTE Band 38 64QAM 5MHz CH-High, 1 RB

