



# RF TEST REPORT

**Applicant** XCHENG TECH CO.,LIMITED  
**FCC ID** 2AZ4F-P1012-P10  
**Product** P10 Stylish POS Terminal  
**Brand** Kobile; Clip; YOCO; MPOS; Positivo  
**Model** P10  
**Report No.** R2208A0725-R3V1  
**Issue Date** September 5, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2021)/ FCC CFR47 Part 27C (2021)**. 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: Xu Kai

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	September 1, 2022
Rev.1	Update information and data.	September 5, 2022

Note: This revised report (Report No. R2208A0725-R3V1) supersedes and replaces the previously issued report (Report No. R2208A0725-R3). Please discard or destroy the previously issued report and dispose of it accordingly.



## Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(d)(4) 27.50(c)(10) 27.50(h)(2)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(h) 27.53(g) 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 27.53(h) 27.53(g) 27.53(m)	PASS
7	Radiates Spurious Emission	2.1053 27.53(h) 27.53(g) 27.53(m)	PASS
Date of Testing: August 6, 2022 ~ August 22, 2022			
Date of Sample Received: August 5, 2022			
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.			



# 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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E-mail: [xukai@ta-shanghai.com](mailto:xukai@ta-shanghai.com)

## 2 General Description of Equipment under Test

### 2.1 Applicant and Manufacturer Information

Applicant	XCHENG TECH CO.,LIMITED
Applicant address	ROOM 401F, Building 5, No.3000 LONG DONG Avenue, Pudong New District, Shanghai, China
Manufacturer	XCHENG TECH CO.,LIMITED
Manufacturer address	ROOM 401F, Building 5, No.3000 LONG DONG Avenue, Pudong New District, Shanghai, China

### 2.2 General information

EUT Description		
Model	P10	
IMEI	IMEI 1: 866805060000523 IMEI 2: 866805060002925	
Hardware Version	V1.0	
Software Version	SW1.0	
Power Supply	Battery / AC adapter	
Antenna Type	Dipole Antenna	
Antenna Gain	WCDMA Band IV	3 dBi
	LTE Band 4	3 dBi
	LTE Band 7	3 dBi
	LTE Band 12	0 dBi
	LTE Band 17	0 dBi
	LTE Band 38	3 dBi
	LTE Band 41	3 dBi
Test Mode(s)	WCDMA Band IV; LTE Band 4/7/12/17/38/41;	
Test Modulation	(WCDMA) BPSK, QPSK, 16QAM; (LTE)QPSK, 16QAM, 64QAM;	
HSDPA UE Category	12	
HSUPA UE Category	7	
DC-HSDPA UE Category	24	
HSPA+ UE Category	7	
LTE Category	7	
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV	25.37 dBm
	LTE Band 4	25.90 dBm
	LTE Band 7	26.09 dBm
	LTE Band 12	20.76 dBm



	LTE Band 17	20.75 dBm	
	LTE Band 38	26.25 dBm	
	LTE Band 41	26.27 dBm	
Rated Power Supply Voltage	7.6 V		
Operating Voltage	Minimum: 7.2V    Maximum: 8.4V		
Operating Temperature	Lowest: -10°C    Highest: +45°C		
Testing Temperature	Lowest: -10°C    Highest: +45°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 12	699 ~ 716	729 ~ 746
	LTE Band 17	704~716	734~746
	LTE Band 38	2570 ~ 2620	2570 ~ 2620
	LTE Band 41	2535 ~ 2655	2535 ~ 2655
<b>EUT Accessory</b>			
Adapter	Manufacturer: Chongqing Lianmao Electronics Co., Ltd Model: 1110303-K022002		
Battery	Manufacturer: Pow-Tech New Power CO., LTD. Model: 18650-2600mAh-2S1P-7.2V ( P1012 )		
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 (2021)**

**FCC CFR47 Part 2 (2021)**

**Reference standard:**

**ANSI C63.26-2015**

**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, vertical 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.

The following testing in different Bandwidth is set to detail in the following table:

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 HSDPA/HSUPA 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

4/7/12/17/38/41:

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LTE 7	-	-	0	0	0	0	0	0	0	0	0	0	0	0
	LTE 12	0	0	0	0	-	-	0	0	0	0	0	0	0	0
	LTE 17	-	-	0	0	-	-	0	0	0	0	0	0	0	0
	LTE 38	-	-	0	0	0	0	0	0	0	0	0	0	0	0
	LTE 41	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Occupied Bandwidth	LTE 4	0	0	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 7	-	-	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 12	0	0	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 17	-	-	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 38	-	-	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 41	-	-	0	0	0	0	0	0	-	-	0	0	0	0
Band Edge Compliance	LTE 4	0	0	0	0	0	0	0	0	0	-	0	0	-	0
	LTE 7	-	-	0	0	0	0	0	0	0	-	0	0	-	0
	LTE 12	0	0	0	0	-	-	0	0	0	-	0	0	-	0
	LTE 17	-	-	0	0	-	-	0	0	0	-	0	0	-	0
	LTE 38	-	-	0	0	0	0	0	0	0	-	0	0	-	0
	LTE 41	-	-	0	0	0	0	0	0	0	-	0	0	-	0
Peak-to-Average Power Ratio	LTE 4	0	0	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 7	-	-	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 12	0	0	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 17	-	-	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 38	-	-	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 41	-	-	0	0	0	0	0	0	-	-	0	0	0	0
Frequency Stability	LTE 4	0	0	0	0	0	0	0	0	0	-	-	-	0	-
	LTE 7	-	-	0	0	0	0	0	0	0	-	-	-	0	-
	LTE 12	0	0	0	0	-	-	0	0	0	-	-	-	0	-
	LTE 17	-	-	0	0	-	-	0	0	0	-	-	-	0	-
	LTE 38	-	-	0	0	0	0	0	0	0	-	-	-	0	-
	LTE 41	-	-	0	0	0	0	0	0	0	-	-	-	0	-
Spurious Emissions at Antenna Terminals	LTE 4	0	0	0	0	0	0	0	-	0	-	-	0	0	0
	LTE 7	-	-	0	0	0	0	0	-	0	-	-	0	0	0
	LTE 12	0	0	0	0	-	-	0	-	0	-	-	0	0	0
	LTE 17	-	-	0	0	-	-	0	-	0	-	-	0	0	0
	LTE 38	-	-	0	0	0	0	0	-	0	-	-	0	0	0
	LTE 41	-	-	0	0	0	0	0	-	0	-	-	0	0	0
Radiates	LTE 4	0	-	0	-	-	0	0	-	0	-	-	-	0	-



Spurious Emission	LTE 7	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 12	O	-	O	O	-	-	O	-	O	-	-	-	O	-
	LTE 17	-	-	O	O	-	-	O	-	O	-	-	-	O	-
	LTE 38	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 41	-	-	O	-	-	O	O	-	O	-	-	-	O	-
Note	<p>1. The mark "O" means that this configuration is chosen for testing.</p> <p>2. The mark "-" means that this configuration is not testing.</p>														

## 5 Test Case

### 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.

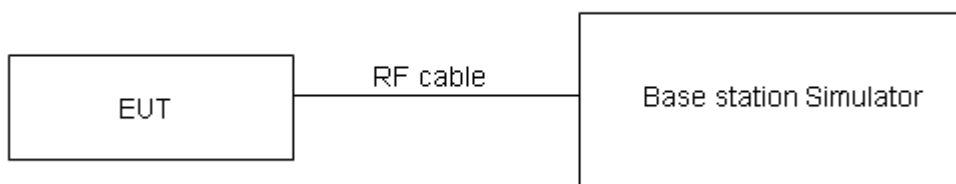
ERP can then be calculated as follows:

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

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(c) (10) specifies that “Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP”

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(c)(10)Limit	$\leq 3 \text{ W}$ (34.77 dBm)
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  $k = 2$ ,  $U=0.4$  dB for RF power output,  $k = 2$ ,  $U= 1.19$  dB for ERP/EIRP.

### Test Results

Refer to the section 6.1 of this report for test data.

## 5.2 Occupied Bandwidth

### Ambient condition

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

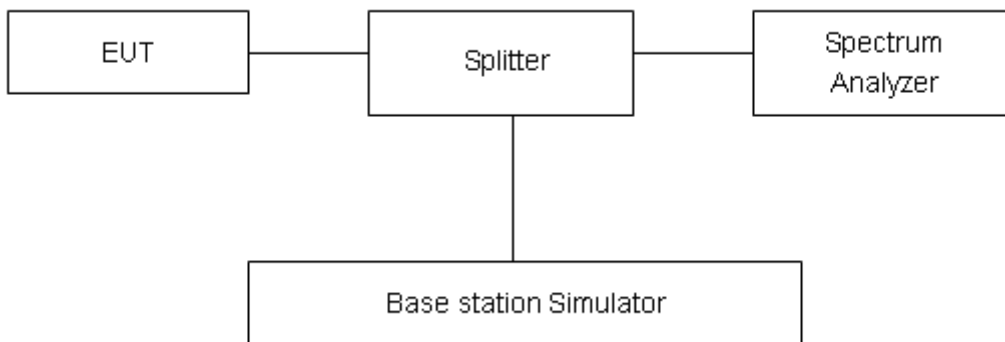
### Method of Measurement

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  $\geq 1\%EBW$ , VBW is set to 3x RBW.

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 Results

Refer to the section 6.2 of this report for test data.

### 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 7/38 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 the middle channel, high channel 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; 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.

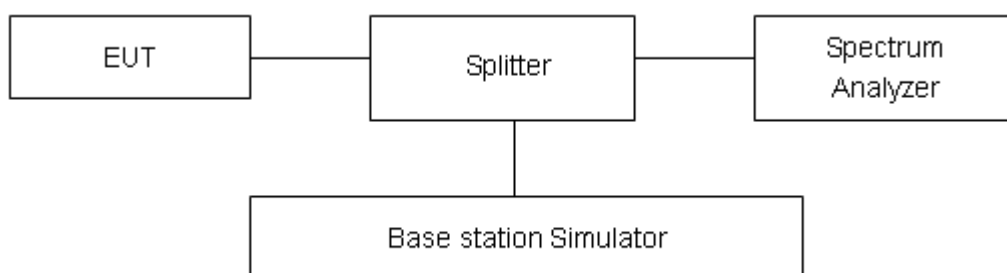
RBW is set to  $\geq$ 1%EBW, VBW is set to 3x RBW on spectrum analyzer.

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(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(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any



emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

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 that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 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 Results

Refer to the section 6.3 of this report for test data.



### 5.4 Peak-to-Average Power Ratio (PAPR)

#### Ambient condition

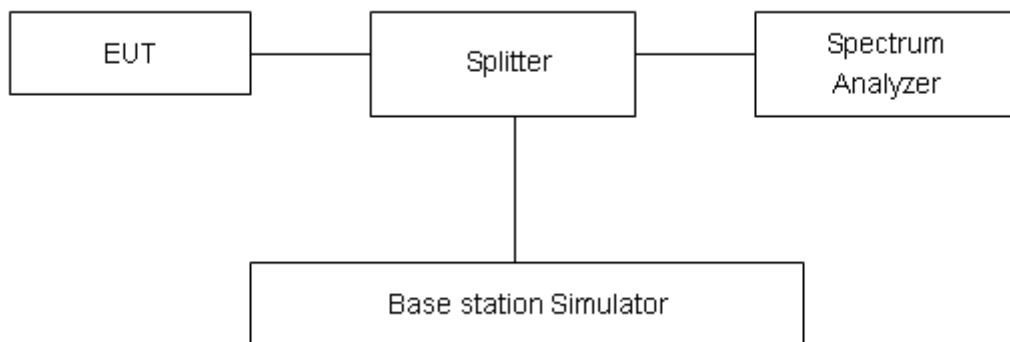
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

#### Methods of Measurement

Measure the total peak power and record as PPK. And measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:

$$PAPR (dB) = PPK (dBm) - PAvg (dBm).$$

#### Test Setup



#### Limits

Rule Part 27.50(d)(5) Equipment employed must be authorized in accordance with the provisions of 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

#### Measurement Uncertainty

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

#### Test Results

Refer to the section 6.4 of this report for test data.

## 5.5 Frequency Stability

### Ambient condition

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

### Method of Measurement

#### Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -10°C to +45°C in 10°C step size.

- (1) With all power removed, the temperature was decreased to -10°C and permitted to stabilize for three hours.
- (2) Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.
- (3) Repeat the above measurements at 10°C increments from -10°C to +45°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

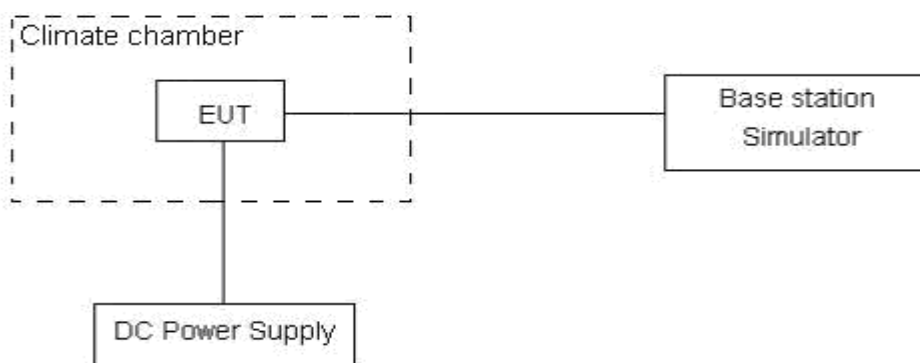
#### Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

**Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 7.2 V and 8.4 V, with a nominal voltage of 7.6V.

### Test setup



### Limits

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

### Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor  $k = 3, U=0.01\text{ppm}$ .

### Test Results

Refer to the section 6.5 of this report for test data.

## 5.6 Spurious Emissions at Antenna Terminals

### 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 measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier. The peak detector is used.

RBW is set to 1 kHz (0.009MHz~ 0.15 MHz),

RBW is set to 10 kHz (0.15 MHz~ 30 MHz)

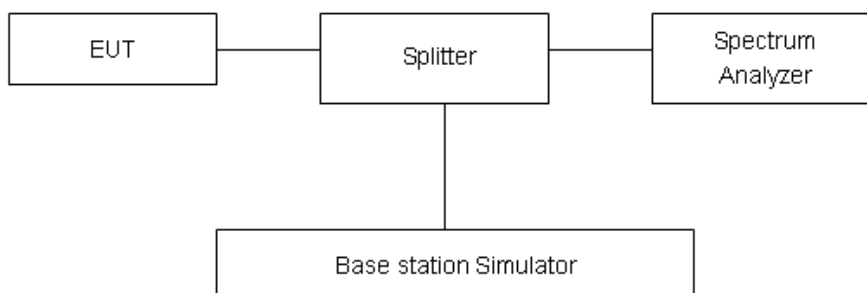
RBW is set to 100 kHz (30MHz~1000 MHz)

RBW is set to 1000 kHz (above 1000MHz) Sweep is set to ATUO.

Of those disturbances below (limit – 20 dB), the mark is not required for the EUT.

The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

### Test setup



### Limits

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 (g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Rule Part 27.53(m)  $55 + 10 \log(P)$  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.

Part 27.53(h)/(g) Limit	-13 dBm
Part 27.53(m) Limit	-25 dBm

### Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor  $k = 1.96$ .

Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-30GHz	1.407 dB

### Test Results

Refer to the section 6.6 of this report for test data.

## 5.7 Radiates Spurious Emission

### Ambient condition

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

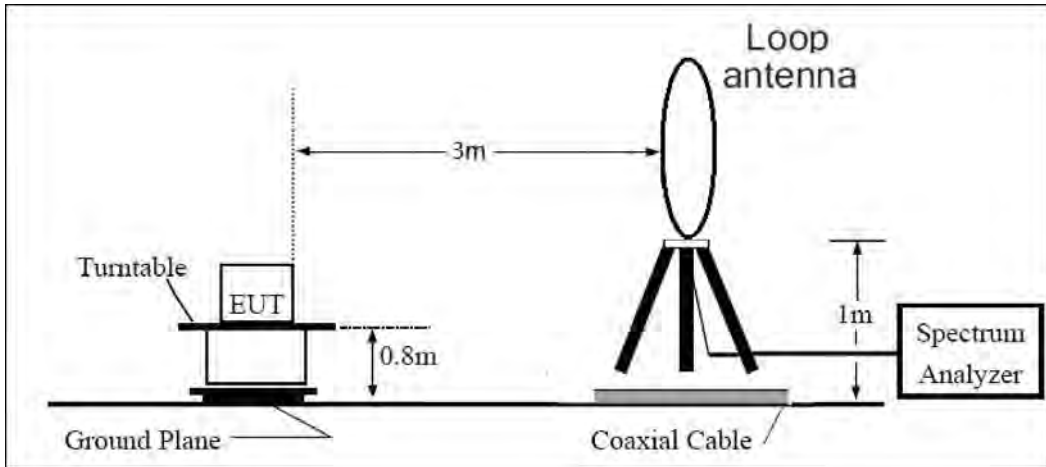
### Method of Measurement

- The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26-2015.
- Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
- A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
- The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz, and the maximum value of the receiver should be recorded as (Pr).
- The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
- A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAG) should be recorded after test.
- The measurement results are obtained as described below:  
 $Power(EIRP)=PMea- PAg - Pcl + Ga$   
 The measurement results are amend as described below:  
 $Power(EIRP)=PMea- Pcl + Ga$
- This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole,  $ERP = EIRP-2.15dB$ .

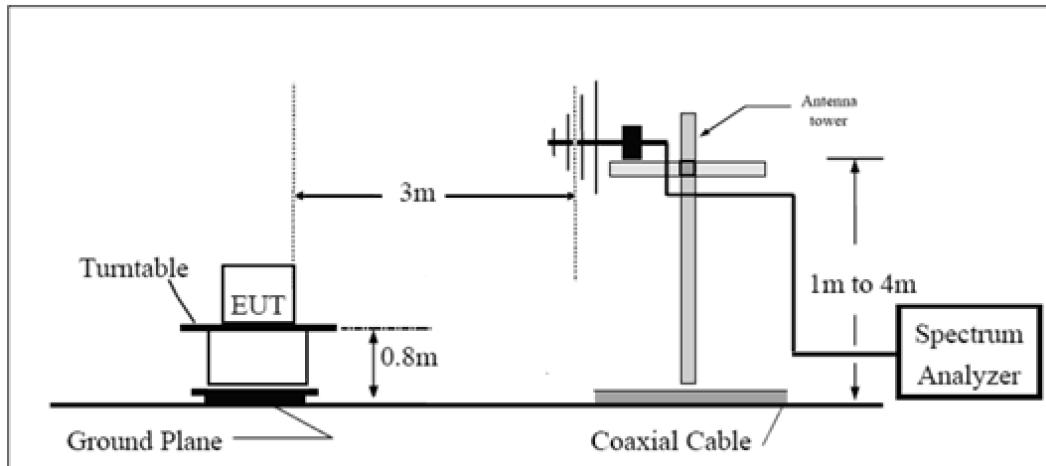
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

**Test setup**

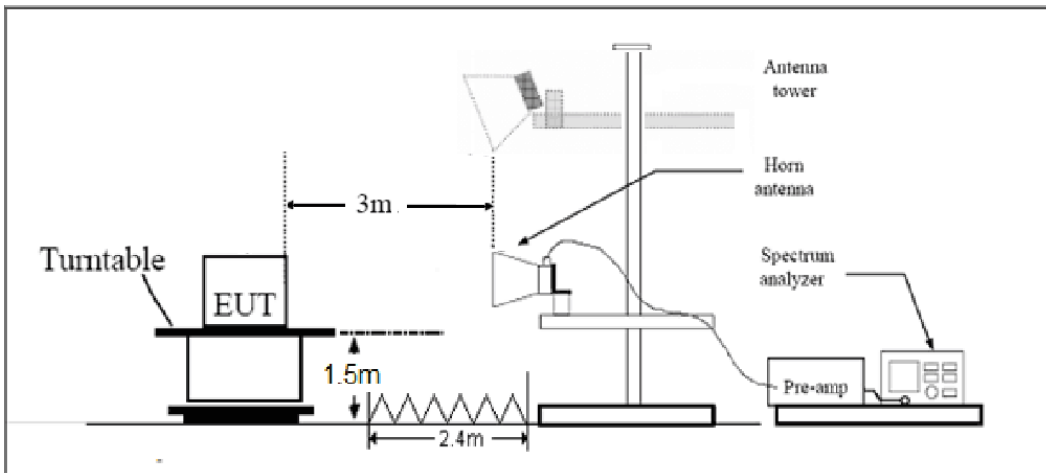
**9KHz~ 30MHz**



**30MHz~ 1GHz**



**Above 1GHz**



Note: Area side:2.4mX3.6m



**Limits**

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 (g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Rule Part 27.53(m)  $55 + 10 \log(P)$  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.

Part 27.53 (h)/(g) Limit	-13 dBm
Part 27.53(m) Limit	-25 dBm

**Measurement Uncertainty**

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor  $k = \pm 1.96$ ,  $U = \pm 3.55$  dB.

**Test Results**

Refer to the section 6.7 of this report for test data.



## 6 Test Results

### 6.1 RF Power Output and Effective Isotropic Radiated Power

WCDMA Band IV		Maximum Output Power (dBm)			EIRP (dBm)		
		Channel/Frenqucy(MHz)			Channel/Frenqucy(MHz)		
		1312/1712.4	1413/1732.6	1513/1752.6	1312/1712.4	1413/1732.6	1513/1752.6
RMC	12.2k	22.35	22.32	22.37	25.35	25.32	25.37
AMR	12.2k	22.25	22.23	22.24	25.25	25.23	25.24
HSDPA	Subtest 1	21.77	21.74	21.79	24.77	24.74	24.79
	Subtest 2	21.76	21.73	21.78	24.76	24.73	24.78
	Subtest 3	21.25	21.22	21.27	24.25	24.22	24.27
	Subtest 4	21.24	21.21	21.26	24.24	24.21	24.26
HSUPA	Subtest 1	20.73	20.70	20.75	23.73	23.70	23.75
	Subtest 2	18.72	18.69	18.74	21.72	21.69	21.74
	Subtest 3	19.70	19.68	19.73	22.70	22.68	22.73
	Subtest 4	18.69	18.67	18.72	21.69	21.67	21.72
	Subtest 5	22.18	22.16	22.21	25.18	25.16	25.21
DC-HSDPA	Subtest 1	21.69	21.68	21.71	24.69	24.68	24.71
	Subtest 2	21.68	21.67	21.70	24.68	24.67	24.70
	Subtest 3	21.26	21.16	21.21	24.26	24.16	24.21
	Subtest 4	21.25	21.15	21.20	24.25	24.15	24.20
HSPA+	16QAM	19.84	19.83	19.88	22.84	22.83	22.88

LTE Band 4				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				19957/1710.7	20175/1732.5	20393/1754.3	19957/1710.7	20175/1732.5	20393/1754.3
1.4MHz	QPSK	1	0	22.63	22.64	22.59	25.63	25.64	25.59
		1	2	22.88	22.86	22.85	25.88	25.86	25.85
		1	5	22.44	22.44	22.37	25.44	25.44	25.37
		3	0	22.68	22.75	22.89	25.68	25.75	25.89
		3	2	22.79	22.80	22.81	25.79	25.80	25.81
		3	3	22.81	22.60	22.74	25.81	25.60	25.74
		6	0	21.78	21.76	21.90	24.78	24.76	24.90
	16QAM	1	0	21.77	21.78	21.85	24.77	24.78	24.85
		1	2	21.97	21.97	21.97	24.97	24.97	24.97
		1	5	21.62	21.63	21.53	24.62	24.63	24.53
		3	0	21.56	21.64	21.79	24.56	24.64	24.79
		3	2	21.72	21.72	21.74	24.72	24.72	24.74
		3	3	21.70	21.54	21.67	24.70	24.54	24.67
		6	0	20.68	20.68	20.80	23.68	23.68	23.80





Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				19965/1711.5	20175/1732.5	20385/1753.5	19965/1711.5	20175/1732.5	20385/1753.5
3MHz	64QAM	1	0	20.62	20.71	20.69	23.62	23.71	23.69
		1	2	20.96	20.98	20.98	23.96	23.98	23.98
		1	5	20.51	20.59	20.50	23.51	23.59	23.50
		3	0	20.55	20.63	20.78	23.55	23.63	23.78
		3	2	20.69	20.72	20.71	23.69	23.72	23.71
		3	3	20.68	20.52	20.63	23.68	23.52	23.63
		6	0	19.65	19.68	19.78	22.65	22.68	22.78
3MHz	QPSK	1	0	22.65	22.68	22.62	25.65	25.68	25.62
		1	7	22.86	22.89	22.89	25.86	25.89	25.89
		1	14	22.47	22.49	22.41	25.47	25.49	25.41
		8	0	21.78	21.87	22.02	24.78	24.87	25.02
		8	4	21.91	21.90	21.93	24.91	24.90	24.93
		8	7	21.91	21.71	21.84	24.91	24.71	24.84
		15	0	21.78	21.80	21.93	24.78	24.80	24.93
	16QAM	1	0	21.77	21.80	21.88	24.77	24.80	24.88
		1	7	21.97	21.97	22.01	24.97	24.97	25.01
		1	14	21.64	21.67	21.56	24.64	24.67	24.56
		8	0	20.67	20.77	20.91	23.67	23.77	23.91
		8	4	20.83	20.85	20.86	23.83	23.85	23.86
		8	7	20.80	20.66	20.80	23.80	23.66	23.80
		15	0	20.71	20.72	20.83	23.71	23.72	23.83
	64QAM	1	0	20.65	20.73	20.72	23.65	23.73	23.72
		1	7	20.99	20.98	21.00	23.99	23.98	24.00
		1	14	20.53	20.58	20.53	23.53	23.58	23.53
		8	0	19.66	19.76	19.90	22.66	22.76	22.90
		8	4	19.80	19.85	19.83	22.80	22.85	22.83
		8	7	19.78	19.64	19.76	22.78	22.64	22.76
		15	0	19.68	19.72	19.81	22.68	22.72	22.81
5MHz	QPSK	1	0	22.62	22.66	22.58	25.62	25.66	25.58
		1	13	22.84	22.85	22.86	25.84	25.85	25.86
1		24	22.44	22.44	22.37	25.44	25.44	25.37	
12		0	21.75	21.82	21.98	24.75	24.82	24.98	
12		6	21.89	21.86	21.88	24.89	24.86	24.88	
12		13	21.89	21.69	21.80	24.89	24.69	24.80	
25		0	21.78	21.79	21.91	24.78	24.79	24.91	
16QAM	1	0	21.77	21.76	21.85	24.77	24.76	24.85	
	1	13	21.97	21.95	21.98	24.97	24.95	24.98	
	1	24	21.61	21.65	21.52	24.61	24.65	24.52	
	12	0	20.65	20.73	20.88	23.65	23.73	23.88	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)			
				20000/1715	20175/1732.5	20350/1750	20000/1715	20175/1732.5	20350/1750	
	64QAM	12	6	20.80	20.80	20.82	23.80	23.80	23.82	
		12	13	20.77	20.61	20.76	23.77	23.61	23.76	
		25	0	20.69	20.68	20.78	23.69	23.68	23.78	
		1	0	20.62	20.73	20.69	23.62	23.73	23.69	
		1	13	20.96	21.00	20.97	23.96	24.00	23.97	
		1	24	20.54	20.56	20.49	23.54	23.56	23.49	
		12	0	19.64	19.72	19.91	22.64	22.72	22.91	
		12	6	19.77	19.80	19.79	22.77	22.80	22.79	
		12	13	19.75	19.59	19.72	22.75	22.59	22.72	
		25	0	19.66	19.68	19.76	22.66	22.68	22.76	
10MHz	QPSK	1	0	22.64	22.67	22.61	25.64	25.67	25.61	
		1	25	22.87	22.90	22.90	25.87	25.90	25.90	
		1	49	22.46	22.48	22.40	25.46	25.48	25.40	
		25	0	21.78	21.87	22.02	24.78	24.87	25.02	
		25	13	21.92	21.91	21.92	24.92	24.91	24.92	
		25	25	21.91	21.73	21.85	24.91	24.73	24.85	
		50	0	21.82	21.81	21.95	24.82	24.81	24.95	
	16QAM	1	0	21.81	21.79	21.87	24.81	24.79	24.87	
		1	25	22.01	21.99	22.01	25.01	24.99	25.01	
		1	49	21.64	21.67	21.55	24.64	24.67	24.55	
		25	0	20.68	20.78	20.92	23.68	23.78	23.92	
		25	13	20.82	20.84	20.85	23.82	23.84	23.85	
		25	25	20.80	20.66	20.80	23.80	23.66	23.80	
		50	0	20.72	20.73	20.82	23.72	23.73	23.82	
	64QAM	1	0	20.64	20.72	20.71	23.64	23.72	23.71	
		1	25	20.99	21.00	21.00	23.99	24.00	24.00	
		1	49	20.53	20.58	20.52	23.53	23.58	23.52	
		25	0	19.67	19.77	19.91	22.67	22.77	22.91	
		25	13	19.79	19.84	19.82	22.79	22.84	22.82	
		25	25	19.78	19.64	19.76	22.78	22.64	22.76	
		50	0	19.69	19.73	19.80	22.69	22.73	22.80	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
					20025/1717.5	20175/1732.5	20325/1747.5	20025/1717.5	20175/1732.5	20325/1747.5
	15MHz	QPSK	1	0	22.63	22.63	22.59	25.63	25.63	25.59
1			38	22.85	22.89	22.87	25.85	25.89	25.87	
1			74	22.43	22.43	22.36	25.43	25.43	25.36	
36			0	21.76	21.83	21.99	24.76	24.83	24.99	
36			18	21.89	21.86	21.88	24.89	24.86	24.88	
36			39	21.88	21.70	21.81	24.88	24.70	24.81	
75			0	21.80	21.77	21.90	24.80	24.77	24.90	
16QAM		1	0	21.79	21.77	21.85	24.79	24.77	24.85	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)			
				20050/1720	20175/1732.5	20300/1745	20050/1720	20175/1732.5	20300/1745	
20MHz	64QAM	1	38	21.99	21.96	21.99	24.99	24.96	24.99	
		1	74	21.62	21.63	21.52	24.62	24.63	24.52	
		36	0	20.65	20.76	20.89	23.65	23.76	23.89	
		36	18	20.79	20.79	20.81	23.79	23.79	23.81	
		36	39	20.78	20.62	20.77	23.78	23.62	23.77	
		75	0	20.69	20.68	20.78	23.69	23.68	23.78	
	64QAM	1	0	20.59	20.70	20.69	23.59	23.70	23.69	
		1	38	20.97	20.97	20.98	23.97	23.97	23.98	
		1	74	20.54	20.57	20.53	23.54	23.57	23.53	
		36	0	19.66	19.79	19.92	22.66	22.79	22.92	
		36	18	19.77	19.81	19.81	22.77	22.81	22.81	
		36	39	19.76	19.60	19.73	22.76	22.60	22.73	
	20MHz	QPSK	1	0	22.60	22.59	22.56	25.60	25.59	25.56
			1	50	22.84	22.85	22.85	25.84	25.85	25.85
			1	99	22.41	22.42	22.33	25.41	25.42	25.33
			50	0	21.73	21.78	21.95	24.73	24.78	24.95
			50	25	21.87	21.82	21.85	24.87	24.82	24.85
			50	50	21.85	21.65	21.77	24.85	24.65	24.77
16QAM		100	0	21.77	21.72	21.86	24.77	24.72	24.86	
		1	0	21.76	21.73	21.80	24.76	24.73	24.80	
		1	50	21.96	21.94	21.95	24.96	24.94	24.95	
		1	99	21.59	21.60	21.50	24.59	24.60	24.50	
		50	0	20.62	20.72	20.86	23.62	23.72	23.86	
		50	25	20.76	20.77	20.78	23.76	23.77	23.78	
64QAM		50	50	20.75	20.57	20.73	23.75	23.57	23.73	
		100	0	20.67	20.64	20.75	23.67	23.64	23.75	
		1	0	20.57	20.66	20.64	23.57	23.66	23.64	
		1	50	20.93	20.95	20.94	23.93	23.95	23.94	
		1	99	20.48	20.51	20.47	23.48	23.51	23.47	
		50	0	19.61	19.71	19.85	22.61	22.71	22.85	
5MHz	QPSK	50	25	19.73	19.77	19.75	22.73	22.77	22.75	
		50	50	19.73	19.55	19.69	22.73	22.55	22.69	
		100	0	19.64	19.64	19.73	22.64	22.64	22.73	

LTE Band 7				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				20775/2502.5	21100/2535	21425/2567.5	20775/2502.5	21100/2535	21425/2567.5
5MHz	QPSK	1	0	22.25	22.44	22.57	25.25	25.44	25.57
		1	13	22.78	22.85	23.05	25.78	25.85	26.05
		1	24	22.49	22.58	22.76	25.49	25.58	25.76



		12	0	21.69	21.86	21.83	24.69	24.86	24.83	
		12	6	21.77	21.92	22.01	24.77	24.92	25.01	
		12	13	21.90	21.83	21.91	24.90	24.83	24.91	
		25	0	21.77	21.89	21.90	24.77	24.89	24.90	
	16QAM	1	0	21.51	21.74	21.86	24.51	24.74	24.86	
		1	13	22.07	22.21	22.34	25.07	25.21	25.34	
		1	24	21.75	21.99	22.04	24.75	24.99	25.04	
		12	0	20.73	20.84	20.85	23.73	23.84	23.85	
		12	6	20.81	20.92	21.04	23.81	23.92	24.04	
		12	13	20.93	20.91	20.96	23.93	23.91	23.96	
		25	0	20.79	20.86	20.90	23.79	23.86	23.90	
	64QAM	1	0	20.61	20.66	20.73	23.61	23.66	23.73	
		1	13	21.16	21.12	21.27	24.16	24.12	24.27	
		1	24	20.80	20.88	20.91	23.80	23.88	23.91	
		12	0	19.73	19.82	19.92	22.73	22.82	22.92	
		12	6	19.78	19.93	20.06	22.78	22.93	23.06	
		12	13	19.89	19.92	19.98	22.89	22.92	22.98	
		25	0	19.83	19.88	19.93	22.83	22.88	22.93	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
					20800/2505	21100/2535	21400/2565	20800/2505	21100/2535	21400/2565
	10MHz	QPSK	1	0	22.27	22.45	22.60	25.27	25.45	25.60
1			25	22.81	22.90	23.09	25.81	25.90	26.09	
1			49	22.51	22.62	22.79	25.51	25.62	25.79	
25			0	21.72	21.91	21.87	24.72	24.91	24.87	
25			13	21.80	21.97	22.05	24.80	24.97	25.05	
25			25	21.92	21.87	21.96	24.92	24.87	24.96	
50			0	21.81	21.91	21.94	24.81	24.91	24.94	
16QAM		1	0	21.55	21.77	21.88	24.55	24.77	24.88	
		1	25	22.11	22.25	22.37	25.11	25.25	25.37	
		1	49	21.78	22.01	22.07	24.78	25.01	25.07	
		25	0	20.76	20.89	20.89	23.76	23.89	23.89	
		25	13	20.83	20.96	21.07	23.83	23.96	24.07	
		25	25	20.96	20.96	21.00	23.96	23.96	24.00	
		50	0	20.82	20.91	20.94	23.82	23.91	23.94	
64QAM		1	0	20.63	20.65	20.75	23.63	23.65	23.75	
		1	25	21.19	21.12	21.30	24.19	24.12	24.30	
		1	49	20.79	20.90	20.94	23.79	23.90	23.94	
		25	0	19.76	19.87	19.92	22.76	22.87	22.92	
		25	13	19.80	19.97	20.09	22.80	22.97	23.09	
		25	25	19.92	19.97	20.02	22.92	22.97	23.02	
		50	0	19.86	19.93	19.97	22.86	22.93	22.97	



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				20825/2507.5	21100/2535	21375/2562.5	20825/2507.5	21100/2535	21375/2562.5
15MHz	QPSK	1	0	22.26	22.41	22.58	25.26	25.41	25.58
		1	38	22.79	22.89	23.06	25.79	25.89	26.06
		1	74	22.48	22.57	22.75	25.48	25.57	25.75
		36	0	21.70	21.87	21.84	24.70	24.87	24.84
		36	18	21.77	21.92	22.01	24.77	24.92	25.01
		36	39	21.89	21.84	21.92	24.89	24.84	24.92
		75	0	21.79	21.87	21.89	24.79	24.87	24.89
	16QAM	1	0	21.53	21.75	21.86	24.53	24.75	24.86
		1	38	22.09	22.22	22.35	25.09	25.22	25.35
		1	74	21.76	21.97	22.04	24.76	24.97	25.04
		36	0	20.73	20.87	20.86	23.73	23.87	23.86
		36	18	20.80	20.91	21.03	23.80	23.91	24.03
		36	39	20.94	20.92	20.97	23.94	23.92	23.97
		75	0	20.79	20.86	20.90	23.79	23.86	23.90
	64QAM	1	0	20.58	20.63	20.73	23.58	23.63	23.73
		1	38	21.17	21.09	21.28	24.17	24.09	24.28
		1	74	20.80	20.89	20.95	23.80	23.89	23.95
		36	0	19.75	19.89	19.93	22.75	22.89	22.93
		36	18	19.78	19.94	20.08	22.78	22.94	23.08
		36	39	19.90	19.93	19.99	22.90	22.93	22.99
		75	0	19.83	19.88	19.93	22.83	22.88	22.93
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				20850/2510	21100/2535	21350/2560	20850/2510	21100/2535	21350/2560
20MHz	QPSK	1	0	22.23	22.37	22.55	25.23	25.37	25.55
		1	50	22.78	22.85	23.04	25.78	25.85	26.04
		1	99	22.46	22.56	22.72	25.46	25.56	25.72
		50	0	21.67	21.82	21.80	24.67	24.82	24.80
		50	25	21.75	21.88	21.98	24.75	24.88	24.98
		50	50	21.86	21.79	21.88	24.86	24.79	24.88
		100	0	21.76	21.82	21.85	24.76	24.82	24.85
	16QAM	1	0	21.50	21.71	21.81	24.50	24.71	24.81
		1	50	22.06	22.20	22.31	25.06	25.20	25.31
		1	99	21.73	21.94	22.02	24.73	24.94	25.02
		50	0	20.70	20.83	20.83	23.70	23.83	23.83
		50	25	20.77	20.89	21.00	23.77	23.89	24.00
		50	50	20.91	20.87	20.93	23.91	23.87	23.93
		100	0	20.77	20.82	20.87	23.77	23.82	23.87
	64QAM	1	0	20.56	20.59	20.68	23.56	23.59	23.68
		1	50	21.13	21.07	21.24	24.13	24.07	24.24
		1	99	20.74	20.83	20.89	23.74	23.83	23.89
		50	0	19.70	19.81	19.86	22.70	22.81	22.86



		50	25	19.74	19.90	20.02	22.74	22.90	23.02
		50	50	19.87	19.88	19.95	22.87	22.88	22.95
		100	0	19.81	19.84	19.90	22.81	22.84	22.90

LTE Band 12				Maximum Output Power (dBm)			ERP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				23017/699.7	23095/707.5	23173/715.3	23017/699.7	23095/707.5	23173/715.3
1.4MHz	QPSK	1	0	22.67	22.79	22.77	20.52	20.64	20.62
		1	2	22.88	22.87	22.81	20.73	20.72	20.66
		1	5	22.77	22.74	22.80	20.62	20.59	20.65
		3	0	22.75	22.61	22.72	20.60	20.46	20.57
		3	2	22.69	22.76	22.74	20.54	20.61	20.59
		3	3	22.88	22.67	22.69	20.73	20.52	20.54
		6	0	21.87	21.70	21.78	19.72	19.55	19.63
	16QAM	1	0	21.93	22.08	22.11	19.78	19.93	19.96
		1	2	22.18	22.23	22.14	20.03	20.08	19.99
		1	5	22.10	22.10	22.14	19.95	19.95	19.99
		3	0	21.78	21.60	21.71	19.63	19.45	19.56
		3	2	21.78	21.75	21.74	19.63	19.60	19.59
		3	3	21.87	21.70	21.67	19.72	19.55	19.52
		6	0	20.88	20.76	20.80	18.73	18.61	18.65
	64QAM	1	0	20.87	20.99	20.92	18.72	18.84	18.77
		1	2	21.05	21.06	21.05	18.90	18.91	18.90
		1	5	20.94	21.02	20.99	18.79	18.87	18.84
		3	0	20.78	20.54	20.71	18.63	18.39	18.56
		3	2	20.74	20.73	20.74	18.59	18.58	18.59
		3	3	20.82	20.68	20.67	18.67	18.53	18.52
		6	0	19.90	19.72	19.80	17.75	17.57	17.65
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				23025/700.5	23095/707.5	23165/714.5	23025/700.5	23095/707.5	23165/714.5
3MHz	QPSK	1	0	22.68	22.82	22.79	20.53	20.67	20.64
		1	7	22.87	22.91	22.86	20.72	20.76	20.71
		1	14	22.79	22.78	22.83	20.64	20.63	20.68
		8	0	21.85	21.73	21.85	19.70	19.58	19.70
		8	4	21.82	21.87	21.85	19.67	19.72	19.70
		8	7	21.98	21.80	21.80	19.83	19.65	19.65
		15	0	21.91	21.75	21.83	19.76	19.60	19.68
	16QAM	1	0	21.97	22.09	22.13	19.82	19.94	19.98
		1	7	22.22	22.25	22.18	20.07	20.10	20.03
		1	14	22.12	22.14	22.16	19.97	19.99	20.01
		8	0	20.90	20.74	20.84	18.75	18.59	18.69
		8	4	20.88	20.87	20.85	18.73	18.72	18.70



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)			
				23035/701.5	23095/707.5	23155/713.5	23035/701.5	23095/707.5	23155/713.5	
	64QAM	8	7	20.97	20.82	20.80	18.82	18.67	18.65	
		15	0	20.92	20.81	20.82	18.77	18.66	18.67	
		1	0	20.89	21.00	20.94	18.74	18.85	18.79	
		1	7	21.08	21.08	21.07	18.93	18.93	18.92	
		1	14	20.96	21.01	21.01	18.81	18.86	18.86	
		8	0	19.90	19.68	19.84	17.75	17.53	17.69	
		8	4	19.84	19.85	19.85	17.69	17.70	17.70	
		8	7	19.92	19.80	19.80	17.77	17.65	17.65	
		15	0	19.94	19.77	19.82	17.79	17.62	17.67	
5MHz	QPSK	1	0	22.67	22.78	22.77	20.52	20.63	20.62	
		1	13	22.85	22.90	22.83	20.70	20.75	20.68	
		1	24	22.76	22.73	22.79	20.61	20.58	20.64	
		12	0	21.83	21.69	21.82	19.68	19.54	19.67	
		12	6	21.79	21.82	21.81	19.64	19.67	19.66	
		12	13	21.95	21.77	21.76	19.80	19.62	19.61	
		25	0	21.89	21.71	21.78	19.74	19.56	19.63	
	16QAM	1	0	21.95	22.07	22.11	19.80	19.92	19.96	
		1	13	22.20	22.22	22.16	20.05	20.07	20.01	
		1	24	22.10	22.10	22.13	19.95	19.95	19.98	
		12	0	20.87	20.72	20.81	18.72	18.57	18.66	
		12	6	20.85	20.82	20.81	18.70	18.67	18.66	
		12	13	20.95	20.78	20.77	18.80	18.63	18.62	
		25	0	20.89	20.76	20.78	18.74	18.61	18.63	
	64QAM	1	0	20.84	20.98	20.92	18.69	18.83	18.77	
		1	13	21.06	21.05	21.05	18.91	18.90	18.90	
		1	24	20.97	21.00	21.02	18.82	18.85	18.87	
		12	0	19.89	19.70	19.85	17.74	17.55	17.70	
		12	6	19.82	19.82	19.84	17.67	17.67	17.69	
		12	13	19.90	19.76	19.77	17.75	17.61	17.62	
		25	0	19.91	19.72	19.78	17.76	17.57	17.63	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
					23060/704	23095/707.5	23130/711	23060/704	23095/707.5	23130/711
	10MHz	QPSK	1	0	22.64	22.74	22.74	20.49	20.59	20.59
1			25	22.84	22.86	22.81	20.69	20.71	20.66	
1			49	22.74	22.72	22.76	20.59	20.57	20.61	
25			0	21.80	21.64	21.78	19.65	19.49	19.63	
25			13	21.77	21.78	21.78	19.62	19.63	19.63	
25			25	21.92	21.72	21.72	19.77	19.57	19.57	
50			0	21.86	21.66	21.74	19.71	19.51	19.59	
16QAM		1	0	21.92	22.03	22.06	19.77	19.88	19.91	
		1	25	22.17	22.20	22.12	20.02	20.05	19.97	



		1	49	22.07	22.07	22.11	19.92	19.92	19.96
		25	0	20.84	20.68	20.78	18.69	18.53	18.63
		25	13	20.82	20.80	20.78	18.67	18.65	18.63
		25	25	20.92	20.73	20.73	18.77	18.58	18.58
		50	0	20.87	20.72	20.75	18.72	18.57	18.60
	64QAM	1	0	20.82	20.94	20.87	18.67	18.79	18.72
		1	25	21.02	21.03	21.01	18.87	18.88	18.86
		1	49	20.91	20.94	20.96	18.76	18.79	18.81
		25	0	19.84	19.62	19.78	17.69	17.47	17.63
		25	13	19.78	19.78	19.78	17.63	17.63	17.63
		25	25	19.87	19.71	19.73	17.72	17.56	17.58
		50	0	19.89	19.68	19.75	17.74	17.53	17.60

LTE Band 17				Maximum Output Power (dBm)			ERP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				23755/706.5	23790/710	23825/713.5	23755/706.5	23790/710	23825/713.5
5MHz	QPSK	1	0	22.76	22.87	22.75	20.61	20.72	20.60
		1	13	22.89	22.88	22.90	20.74	20.73	20.75
		1	24	22.79	22.81	22.81	20.64	20.66	20.66
		12	0	21.70	21.74	21.82	19.55	19.59	19.67
		12	6	21.82	21.85	21.87	19.67	19.70	19.72
		12	13	21.70	21.68	21.76	19.55	19.53	19.61
		25	0	21.66	21.78	21.84	19.51	19.63	19.69
	16QAM	1	0	22.13	22.15	22.09	19.98	20.00	19.94
		1	13	22.17	22.22	22.17	20.02	20.07	20.02
		1	24	22.12	22.22	22.14	19.97	20.07	19.99
		12	0	20.71	20.73	20.83	18.56	18.58	18.68
		12	6	20.89	20.86	20.88	18.74	18.71	18.73
		12	13	20.66	20.68	20.79	18.51	18.53	18.64
		25	0	20.70	20.73	20.84	18.55	18.58	18.69
	64QAM	1	0	20.90	20.96	20.92	18.75	18.81	18.77
		1	13	21.02	21.06	21.09	18.87	18.91	18.94
		1	24	20.95	21.03	20.98	18.80	18.88	18.83
		12	0	19.65	19.70	19.86	17.50	17.55	17.71
		12	6	19.85	19.83	19.86	17.70	17.68	17.71
		12	13	19.66	19.71	19.77	17.51	17.56	17.62
		25	0	19.68	19.73	19.81	17.53	17.58	17.66
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
10MHz	QPSK			23780/709	23790/710	23800/711	23780/709	23790/710	23800/711
		1	0	22.74	22.80	22.73	20.59	20.65	20.58
		1	25	22.89	22.88	22.89	20.74	20.73	20.74
		1	49	22.76	22.79	22.77	20.61	20.64	20.62
		25	0	21.68	21.70	21.79	19.53	19.55	19.64





		25	13	21.80	21.81	21.84	19.65	19.66	19.69
		25	25	21.66	21.64	21.73	19.51	19.49	19.58
		50	0	21.65	21.71	21.79	19.50	19.56	19.64
	16QAM	1	0	22.12	22.12	22.04	19.97	19.97	19.89
		1	25	22.16	22.21	22.14	20.01	20.06	19.99
		1	49	22.10	22.17	22.12	19.95	20.02	19.97
		25	0	20.68	20.72	20.81	18.53	18.57	18.66
		25	13	20.85	20.83	20.84	18.70	18.68	18.69
		25	25	20.64	20.64	20.76	18.49	18.49	18.61
	64QAM	50	0	20.68	20.69	20.81	18.53	18.54	18.66
		1	0	20.85	20.89	20.87	18.70	18.74	18.72
		1	25	20.99	21.01	21.06	18.84	18.86	18.91
		1	49	20.89	20.98	20.96	18.74	18.83	18.81
		25	0	19.62	19.69	19.80	17.47	17.54	17.65
		25	13	19.81	19.80	19.82	17.66	17.65	17.67
		25	25	19.64	19.67	19.74	17.49	17.52	17.59
		50	0	19.66	19.69	19.78	17.51	17.54	17.63

LTE Band 38				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				37775/2572.5	38000/2595	38225/2617.5	37775/2572.5	38000/2595	38225/2617.5
5MHz	QPSK	1	0	22.83	22.86	22.83	25.83	25.86	25.83
		1	13	23.15	23.20	23.21	26.15	26.20	26.21
		1	24	22.88	22.87	22.90	25.88	25.87	25.90
		12	0	22.04	22.09	22.18	25.04	25.09	25.18
		12	6	22.07	22.18	22.22	25.07	25.18	25.22
		12	13	22.21	22.24	22.14	25.21	25.24	25.14
		25	0	22.12	22.23	22.17	25.12	25.23	25.17
	16QAM	1	0	21.97	21.97	22.02	24.97	24.97	25.02
		1	13	22.35	22.37	22.39	25.35	25.37	25.39
		1	24	22.04	22.07	22.07	25.04	25.07	25.07
		12	0	21.07	21.09	21.16	24.07	24.09	24.16
		12	6	21.10	21.18	21.22	24.10	24.18	24.22
		12	13	21.20	21.28	21.16	24.20	24.28	24.16
		25	0	21.11	21.19	21.18	24.11	24.19	24.18
	64QAM	1	0	20.86	20.88	20.91	23.86	23.88	23.91
		1	13	21.16	21.23	21.27	24.16	24.23	24.27
		1	24	20.96	20.95	20.94	23.96	23.95	23.94
		12	0	20.02	20.03	20.18	23.02	23.03	23.18
		12	6	20.13	20.16	20.22	23.13	23.16	23.22
		12	13	20.23	20.22	20.14	23.23	23.22	23.14
		25	0	20.15	20.20	20.17	23.15	23.20	23.17



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				37800/2575	38000/2595	38200/2615	37800/2575	38000/2595	38200/2615
10MHz	QPSK	1	0	22.85	22.87	22.86	25.85	25.87	25.86
		1	25	23.18	23.25	23.25	26.18	26.25	26.25
		1	49	22.90	22.91	22.93	25.90	25.91	25.93
		25	0	22.07	22.14	22.22	25.07	25.14	25.22
		25	13	22.10	22.23	22.26	25.10	25.23	25.26
		25	25	22.23	22.28	22.19	25.23	25.28	25.19
		50	0	22.16	22.25	22.21	25.16	25.25	25.21
	16QAM	1	0	22.01	22.00	22.04	25.01	25.00	25.04
		1	25	22.39	22.41	22.42	25.39	25.41	25.42
		1	49	22.07	22.09	22.10	25.07	25.09	25.10
		25	0	21.10	21.14	21.20	24.10	24.14	24.20
		25	13	21.12	21.22	21.25	24.12	24.22	24.25
		25	25	21.23	21.33	21.20	24.23	24.33	24.20
		50	0	21.14	21.24	21.22	24.14	24.24	24.22
	64QAM	1	0	20.88	20.87	20.93	23.88	23.87	23.93
		1	25	21.19	21.23	21.30	24.19	24.23	24.30
		1	49	20.95	20.97	20.97	23.95	23.97	23.97
		25	0	20.05	20.08	20.18	23.05	23.08	23.18
		25	13	20.15	20.20	20.25	23.15	23.20	23.25
		25	25	20.26	20.27	20.18	23.26	23.27	23.18
		50	0	20.18	20.25	20.21	23.18	23.25	23.21
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				37825/2577.5	38000/2595	38175/2612.5	37825/2577.5	38000/2595	38175/2612.5
15MHz	QPSK	1	0	22.84	22.83	22.84	25.84	25.83	25.84
		1	38	23.16	23.24	23.22	26.16	26.24	26.22
		1	74	22.87	22.86	22.89	25.87	25.86	25.89
		36	0	22.05	22.10	22.19	25.05	25.10	25.19
		36	18	22.07	22.18	22.22	25.07	25.18	25.22
		36	39	22.20	22.25	22.15	25.20	25.25	25.15
		75	0	22.14	22.21	22.16	25.14	25.21	25.16
	16QAM	1	0	21.99	21.98	22.02	24.99	24.98	25.02
		1	38	22.37	22.38	22.40	25.37	25.38	25.40
		1	74	22.05	22.05	22.07	25.05	25.05	25.07
		36	0	21.07	21.12	21.17	24.07	24.12	24.17
		36	18	21.09	21.17	21.21	24.09	24.17	24.21
		36	39	21.21	21.29	21.17	24.21	24.29	24.17
		75	0	21.11	21.19	21.18	24.11	24.19	24.18
	64QAM	1	0	20.83	20.85	20.91	23.83	23.85	23.91
		1	38	21.17	21.20	21.28	24.17	24.20	24.28
		1	74	20.96	20.96	20.98	23.96	23.96	23.98
		36	0	20.04	20.10	20.19	23.04	23.10	23.19



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				37850/2580	38000/2595	38150/2610	37850/2580	38000/2595	38150/2610
				36	18	20.13	20.17	20.24	23.13
36	39	20.24	20.23	20.15	23.24	23.23	23.15		
75	0	20.15	20.20	20.17	23.15	23.20	23.17		
20MHz	QPSK	1	0	22.81	22.79	22.81	25.81	25.79	25.81
		1	50	23.15	23.20	23.20	26.15	26.20	26.20
		1	99	22.85	22.85	22.86	25.85	25.85	25.86
		50	0	22.02	22.05	22.15	25.02	25.05	25.15
		50	25	22.05	22.14	22.19	25.05	25.14	25.19
		50	50	22.17	22.20	22.11	25.17	25.20	25.11
		100	0	22.11	22.16	22.12	25.11	25.16	25.12
	16QAM	1	0	21.96	21.94	21.97	24.96	24.94	24.97
		1	50	22.34	22.36	22.36	25.34	25.36	25.36
		1	99	22.02	22.02	22.05	25.02	25.02	25.05
		50	0	21.04	21.08	21.14	24.04	24.08	24.14
		50	25	21.06	21.15	21.18	24.06	24.15	24.18
		50	50	21.18	21.24	21.13	24.18	24.24	24.13
		100	0	21.09	21.15	21.15	24.09	24.15	24.15
	64QAM	1	0	20.81	20.81	20.86	23.81	23.81	23.86
		1	50	21.13	21.18	21.24	24.13	24.18	24.24
		1	99	20.90	20.90	20.92	23.90	23.90	23.92
		50	0	19.99	20.02	20.12	22.99	23.02	23.12
		50	25	20.09	20.13	20.18	23.09	23.13	23.18
		50	50	20.21	20.18	20.11	23.21	23.18	23.11
		100	0	20.13	20.16	20.14	23.13	23.16	23.14

LTE Band 41				Maximum Output Power (dBm)			EIRP (dBm)		
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				40065/2537.5	40640/2595	41215/2652.5	40065/2537.5	40640/2595	41215/2652.5
5MHz	QPSK	1	0	22.69	22.87	22.82	25.87	25.87	25.82
		1	13	23.16	23.22	23.22	26.22	26.22	26.22
		1	24	22.83	22.87	22.84	25.87	25.87	25.84
		12	0	21.91	22.03	22.14	25.03	25.03	25.14
		12	6	22.08	22.22	22.16	25.22	25.22	25.16
		12	13	22.20	22.28	22.12	25.28	25.28	25.12
		25	0	22.02	22.23	22.16	25.23	25.23	25.16
	16QAM	1	0	21.83	21.98	22.01	24.98	24.98	25.01
		1	13	22.35	22.37	22.46	25.37	25.37	25.46
		1	24	21.96	22.03	22.01	25.03	25.03	25.01
		12	0	20.92	21.01	21.18	24.01	24.01	24.18
		12	6	21.10	21.19	21.22	24.19	24.19	24.22
		12	13	21.18	21.29	21.14	24.29	24.29	24.14



Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)			
				40090/2540	40640/2595	41190/2650	40090/2540	40640/2595	41190/2650	
	64QAM	25	0	21.07	21.20	21.17	24.20	24.20	24.17	
		1	0	20.75	20.89	20.88	23.89	23.89	23.88	
		1	13	21.20	21.26	21.30	24.26	24.26	24.30	
		1	24	20.86	20.89	20.85	23.89	23.89	23.85	
		12	0	19.96	20.00	20.19	23.00	23.00	23.19	
		12	6	20.09	20.18	20.22	23.18	23.18	23.22	
		12	13	20.15	20.26	20.15	23.26	23.26	23.15	
		25	0	20.10	20.18	20.14	23.18	23.18	23.14	
10MHz	QPSK	1	0	22.71	22.88	22.85	25.88	25.88	25.85	
		1	25	23.19	23.27	23.26	26.27	26.27	26.26	
		1	49	22.85	22.91	22.87	25.91	25.91	25.87	
		25	0	21.94	22.08	22.18	25.08	25.08	25.18	
		25	13	22.11	22.27	22.20	25.27	25.27	25.20	
		25	25	22.22	22.32	22.17	25.32	25.32	25.17	
		50	0	22.06	22.25	22.20	25.25	25.25	25.20	
	16QAM	1	0	21.87	22.01	22.03	25.01	25.01	25.03	
		1	25	22.39	22.41	22.49	25.41	25.41	25.49	
		1	49	21.99	22.05	22.04	25.05	25.05	25.04	
		25	0	20.95	21.06	21.22	24.06	24.06	24.22	
		25	13	21.12	21.23	21.25	24.23	24.23	24.25	
		25	25	21.21	21.34	21.18	24.34	24.34	24.18	
		50	0	21.10	21.25	21.21	24.25	24.25	24.21	
	64QAM	1	0	20.77	20.88	20.90	23.88	23.88	23.90	
		1	25	21.23	21.26	21.33	24.26	24.26	24.33	
		1	49	20.85	20.91	20.88	23.91	23.91	23.88	
		25	0	19.99	20.05	20.19	23.05	23.05	23.19	
		25	13	20.11	20.22	20.25	23.22	23.22	23.25	
		25	25	20.18	20.31	20.19	23.31	23.31	23.19	
		50	0	20.13	20.23	20.18	23.23	23.23	23.18	
	Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
					40115/2542.5	40640/2595	2647.5/41140	40115/2542.5	40640/2595	2647.5/41140
	15MHz	QPSK	1	0	22.70	22.84	22.83	25.84	25.84	25.83
1			38	23.17	23.26	23.23	26.26	26.26	26.23	
1			74	22.82	22.86	22.83	25.86	25.86	25.83	
36			0	21.92	22.04	22.15	25.04	25.04	25.15	
36			18	22.08	22.22	22.16	25.22	25.22	25.16	
36			39	22.19	22.29	22.13	25.29	25.29	25.13	
75			0	22.04	22.21	22.15	25.21	25.21	25.15	
16QAM		1	0	21.85	21.99	22.01	24.99	24.99	25.01	
		1	38	22.37	22.38	22.47	25.38	25.38	25.47	
		1	74	21.97	22.01	22.01	25.01	25.01	25.01	



		36	0	20.92	21.04	21.19	24.04	24.04	24.19
		36	18	21.09	21.18	21.21	24.18	24.18	24.21
		36	39	21.19	21.30	21.15	24.30	24.30	24.15
		75	0	21.07	21.20	21.17	24.20	24.20	24.17
	64QAM	1	0	20.72	20.86	20.88	23.86	23.86	23.88
		1	38	21.21	21.23	21.31	24.23	24.23	24.31
		1	74	20.86	20.90	20.89	23.90	23.90	23.89
		36	0	19.98	20.07	20.20	23.07	23.07	23.20
		36	18	20.09	20.19	20.24	23.19	23.19	23.24
		36	39	20.16	20.27	20.16	23.27	23.27	23.16
		75	0	20.10	20.18	20.14	23.18	23.18	23.14
Bandwidth	Modulation	RB allocation	offset	Channel/Frequency(MHz)			Channel/Frequency(MHz)		
				40140/2545	40640/2595	41140/2645	40140/2545	40640/2595	41140/2645
20MHz	QPSK	1	0	22.67	22.80	22.80	25.80	25.80	25.80
		1	50	23.16	23.22	23.21	26.22	26.22	26.21
		1	99	22.80	22.85	22.80	25.85	25.85	25.80
		50	0	21.89	21.99	22.11	24.99	24.99	25.11
		50	25	22.06	22.18	22.13	25.18	25.18	25.13
		50	50	22.16	22.24	22.09	25.24	25.24	25.09
		100	0	22.01	22.16	22.11	25.16	25.16	25.11
	16QAM	1	0	21.82	21.95	21.96	24.95	24.95	24.96
		1	50	22.34	22.36	22.43	25.36	25.36	25.43
		1	99	21.94	21.98	21.99	24.98	24.98	24.99
		50	0	20.89	21.00	21.16	24.00	24.00	24.16
		50	25	21.06	21.16	21.18	24.16	24.16	24.18
		50	50	21.16	21.25	21.11	24.25	24.25	24.11
		100	0	21.05	21.16	21.14	24.16	24.16	24.14
	64QAM	1	0	20.70	20.82	20.83	23.82	23.82	23.83
		1	50	21.17	21.21	21.27	24.21	24.21	24.27
		1	99	20.80	20.84	20.83	23.84	23.84	23.83
		50	0	19.93	19.99	20.13	22.99	22.99	23.13
		50	25	20.05	20.15	20.18	23.15	23.15	23.18
		50	50	20.13	20.22	20.12	23.22	23.22	23.12
		100	0	20.08	20.14	20.11	23.14	23.14	23.11

## 6.2 Occupied Bandwidth

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band IV (RMC)	1312	1712.4	4.178	4.691
	1413	1732.6	4.161	4.671
	1513	1752.6	4.168	4.707

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	19957	1710.7	1.097	1.315
			20175	1732.5	1.090	1.278
			20393	1754.3	1.093	1.297
		3	19965	1711.5	2.699	2.924
			20175	1732.5	2.703	2.920
			20385	1753.5	2.702	2.951
		5	19975	1712.5	4.503	4.899
			20175	1732.5	4.493	4.884
			20375	1752.5	4.511	4.894
		10	20000	1715	9.019	9.753
			20175	1732.5	8.978	9.889
			20350	1750	8.995	9.661
		15	20025	1717.5	13.472	14.453
			20175	1732.5	13.463	14.581
			20325	1747.5	13.481	14.546
		20	20050	1720	17.979	19.325
			20175	1732.5	17.885	19.209
			20300	1745	17.986	19.219
	16QAM	1.4	19957	1710.7	1.101	1.284
			20175	1732.5	1.095	1.297
			20393	1754.3	1.100	1.301
		3	19965	1711.5	2.686	2.920
			20175	1732.5	2.684	2.919
			20385	1753.5	2.686	2.926
5		19975	1712.5	4.510	4.873	
		20175	1732.5	4.520	4.916	
		20375	1752.5	4.500	4.847	
10		20000	1715	8.990	9.782	



			20175	1732.5	8.977	9.686
			20350	1750	9.026	9.728
		15	20025	1717.5	13.496	14.564
			20175	1732.5	13.456	14.420
			20325	1747.5	13.498	14.616
		20	20050	1720	17.950	19.349
			20175	1732.5	17.951	19.364
			20300	1745	17.964	19.392
		64QAM	1.4	19957	1710.7	1.098
	20175			1732.5	1.094	1.313
	20393			1754.3	1.097	1.281
	3		19965	1711.5	2.687	2.931
			20175	1732.5	2.684	2.919
			20385	1753.5	2.689	2.940
	5		19975	1712.5	4.510	4.933
			20175	1732.5	4.504	4.902
			20375	1752.5	4.507	4.888
	10		20000	1715	9.006	9.662
			20175	1732.5	9.013	9.687
			20350	1750	9.003	9.741
	15		20025	1717.5	13.470	14.572
			20175	1732.5	13.430	14.474
			20325	1747.5	13.473	14.777
	20	20050	1720	18.044	19.270	
20175		1732.5	17.947	19.166		
20300		1745	18.045	19.253		

LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	20775	2502.5	4.505	4.884
			21100	2535	4.503	4.950
			21425	2567.5	4.516	4.908
		10	20800	2505	8.996	9.730
			21100	2535	8.985	9.810
			21400	2565	8.984	9.649
		15	20825	2507.5	13.480	14.617
			21100	2535	13.451	14.500
			21375	2562.5	13.462	14.595
		20	20850	2510	17.986	19.246



			21100	2535	17.914	19.317
			21350	2560	17.904	19.397
	16QAM	5	20775	2502.5	4.515	4.901
			21100	2535	4.499	4.928
			21425	2567.5	4.523	4.891
		10	20800	2505	8.976	9.700
			21100	2535	8.977	9.526
			21400	2565	8.976	9.722
		15	20825	2507.5	13.453	14.548
			21100	2535	13.468	14.595
			21375	2562.5	13.472	14.496
		20	20850	2510	18.004	19.101
			21100	2535	17.947	19.293
			21350	2560	17.885	19.376
	64QAM	5	20775	2502.5	4.515	4.880
			21100	2535	4.508	4.900
			21425	2567.5	4.504	4.940
		10	20800	2505	9.002	9.679
			21100	2535	8.992	9.760
			21400	2565	8.962	9.646
		15	20825	2507.5	13.506	14.555
			21100	2535	13.459	14.509
			21375	2562.5	13.484	14.432
		20	20850	2510	17.947	19.364
21100			2535	18.003	19.201	
21350			2560	17.866	19.124	

LTE Band 12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	23017	699.7	1.095	1.290
			23095	707.5	1.092	1.276
			23173	715.3	1.100	1.300
		3	23025	700.5	2.686	2.918
			23095	707.5	2.696	2.918
			23165	714.5	2.686	2.912
		5	23035	701.5	4.524	5.127
			23095	707.5	4.510	5.165
			23155	713.5	4.530	5.200
		10	23060	704	9.012	9.924





			23095	707.5	9.012	9.999
			23130	711	9.009	9.895
	16QAM	1.4	23017	699.7	1.098	1.283
			23095	707.5	1.097	1.289
			23173	715.3	1.092	1.283
		3	23025	700.5	2.689	2.907
			23095	707.5	2.691	2.926
			23165	714.5	2.686	2.919
		5	23035	701.5	4.523	5.184
			23095	707.5	4.513	5.127
			23155	713.5	4.539	5.171
		10	23060	704	9.015	9.915
			23095	707.5	8.979	9.935
			23130	711	8.964	9.901
	64QAM	1.4	23017	699.7	1.093	1.281
			23095	707.5	1.096	1.285
			23173	715.3	1.096	1.270
		3	23025	700.5	2.686	2.907
			23095	707.5	2.691	2.915
			23165	714.5	2.688	2.919
		5	23035	701.5	4.533	5.139
			23095	707.5	4.533	5.184
			23155	713.5	4.530	5.145
		10	23060	704	9.021	10.066
23095			707.5	8.987	9.786	
23130			711	9.013	9.846	

LTE Band 17						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	23755	706.5	4.517	5.080
			23790	710	4.532	5.000
			23825	713.5	4.532	5.177
		10	23780	709	8.989	10.044
			23790	710	8.975	9.931
			23800	711	9.002	9.998
	16QAM	5	23755	706.5	4.527	5.201
			23790	710	4.520	5.016
			23825	713.5	4.524	5.231
		10	23780	709	8.959	9.958



			23790	710	8.957	9.785
			23800	711	8.980	9.894
	64QAM	5	23755	706.5	4.521	5.138
			23790	710	4.519	5.105
			23825	713.5	4.548	5.189
		10	23780	709	8.999	9.889
			23790	710	8.982	9.994
			23800	711	8.997	10.006



LTE Band 38						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	37775	2572.5	4.498	4.927
			38000	2595	4.503	4.842
			38225	2617.5	4.515	4.882
		10	37800	2575	9.012	9.837
			38000	2595	8.975	9.560
			38200	2615	8.980	9.511
		15	37825	2577.5	13.500	14.691
			38000	2595	13.477	14.381
			38175	2612.5	13.452	14.383
		20	37850	2580	17.947	19.136
			38000	2595	17.966	20.461
			38150	2610	17.963	20.324
	16QAM	5	37775	2572.5	4.489	4.894
			38000	2595	4.502	4.915
			38225	2617.5	4.509	5.028
		10	37800	2575	8.992	9.974
			38000	2595	8.981	9.662
			38200	2615	8.981	9.967
		15	37825	2577.5	13.447	14.652
			38000	2595	13.459	14.438
			38175	2612.5	13.434	14.296
		20	37850	2580	17.906	19.215
			38000	2595	17.932	20.500
			38150	2610	17.946	20.091
	64QAM	5	37775	2572.5	4.493	4.851
			38000	2595	4.505	4.880
			38225	2617.5	4.498	4.986
		10	37800	2575	8.974	9.698
			38000	2595	8.993	9.790
			38200	2615	9.005	9.762
15		37825	2577.5	13.464	14.983	
		38000	2595	13.478	15.236	
		38175	2612.5	13.512	14.952	
20		37850	2580	17.962	19.722	
		38000	2595	17.914	19.439	
		38150	2610	17.961	19.270	



LTE Band 41						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	40065	2537.5	4.514	4.895
			40640	2595	4.521	4.955
			41215	2652.5	4.515	5.028
		10	40090	2540	8.998	9.792
			40640	2595	8.990	9.605
			41190	2650	9.013	10.301
		15	40115	2542.5	13.481	14.496
			40640	2595	13.444	14.431
			41165	2647.5	13.429	14.333
		20	40140	2545	17.994	19.641
			40640	2595	17.910	19.258
			41140	2645	18.022	20.053
	16QAM	5	40065	2537.5	4.485	4.883
			40640	2595	4.497	4.899
			41215	2652.5	4.496	4.857
		10	40090	2540	9.008	9.679
			40640	2595	8.984	9.684
			41190	2650	8.978	9.643
		15	40115	2542.5	13.466	15.141
			40640	2595	13.466	14.526
			41165	2647.5	13.452	15.629
		20	40140	2545	17.890	19.450
			40640	2595	17.897	20.240
			41140	2645	17.960	19.627
	64QAM	5	40065	2537.5	4.503	4.955
			40640	2595	4.504	4.888
			41215	2652.5	4.513	4.824
		10	40090	2540	9.010	9.682
			40640	2595	8.979	9.882
			41190	2650	8.990	9.980
15		40115	2542.5	13.477	15.649	
		40640	2595	13.495	15.410	
		41165	2647.5	13.497	14.655	
20		40140	2545	17.888	19.252	
		40640	2595	17.915	19.089	
		41140	2645	17.947	19.294	



WCDMA Band IV CH-Low



WCDMA Band IV CH Middle

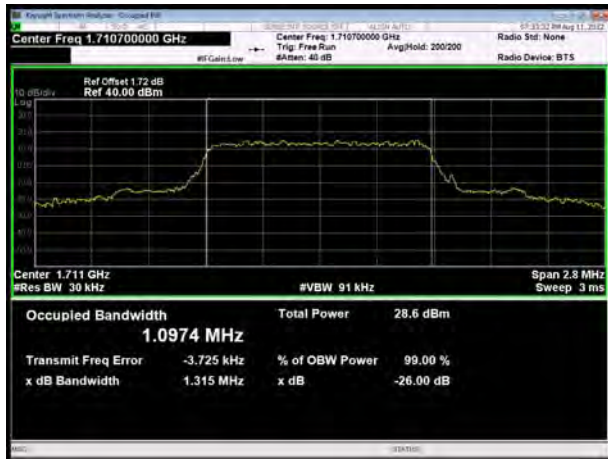


WCDMA Band IV CH High

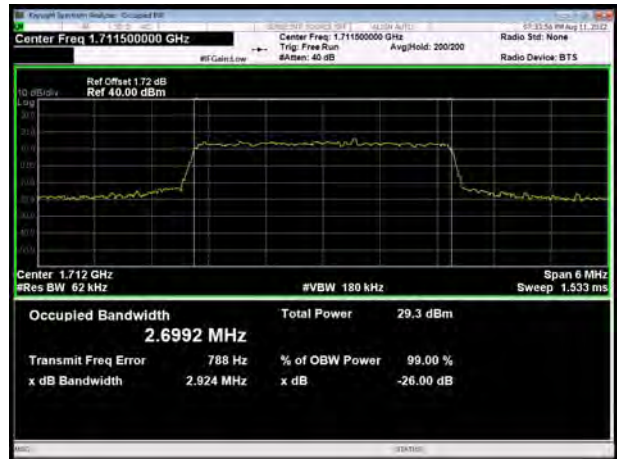




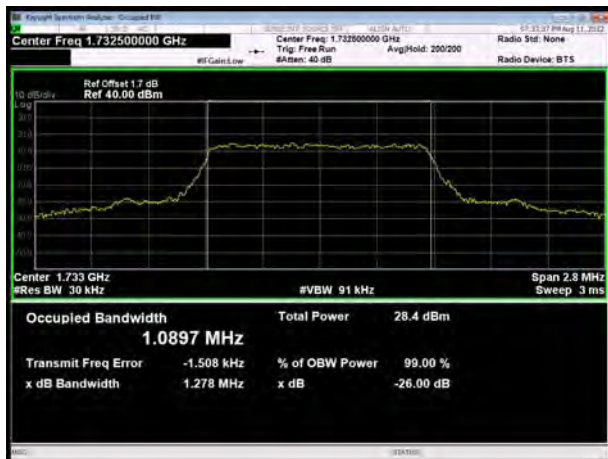
LTE Band 4 QPSK 1.4MHz CH-Low



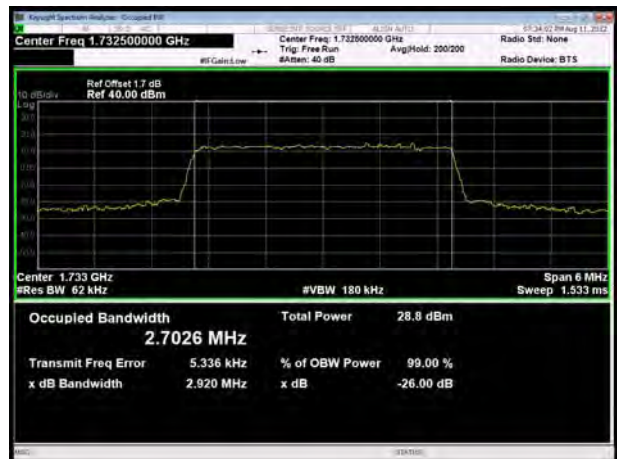
LTE Band 4 QPSK 3MHz CH-Low



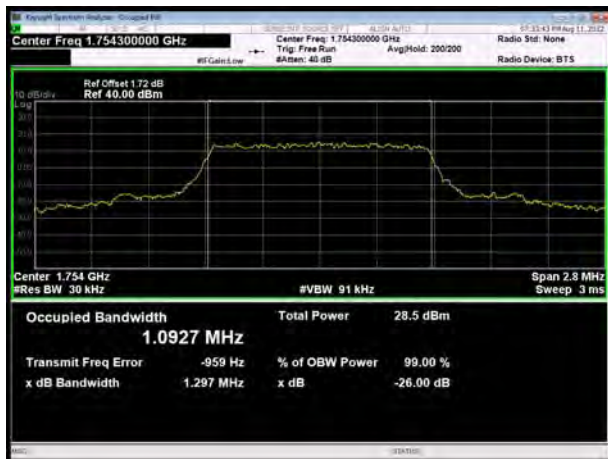
LTE Band 4 QPSK 1.4MHz CH-Middle



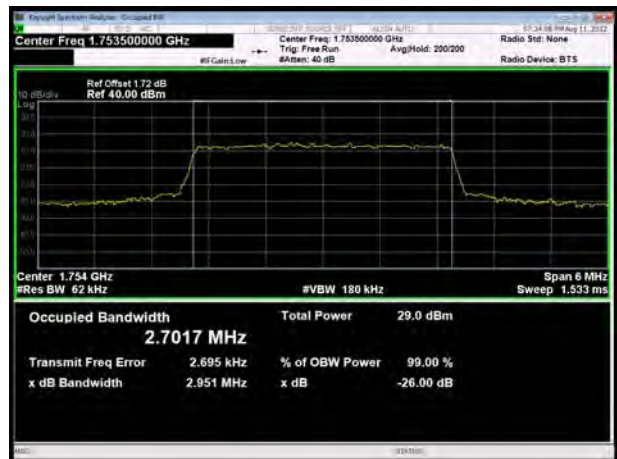
LTE Band 4 QPSK 3MHz CH-Middle



LTE Band 4 QPSK 1.4MHz CH-High



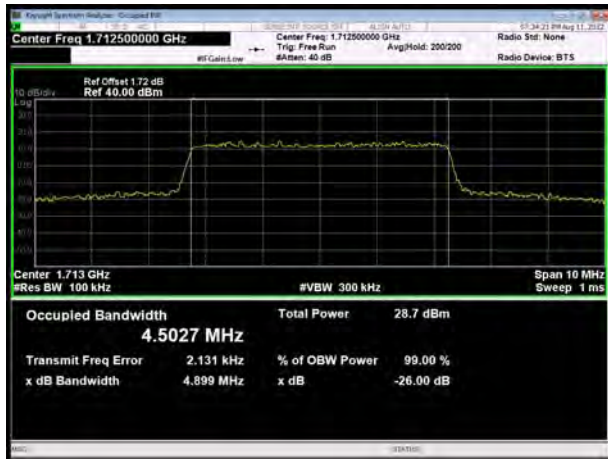
LTE Band 4 QPSK 3MHz CH-High







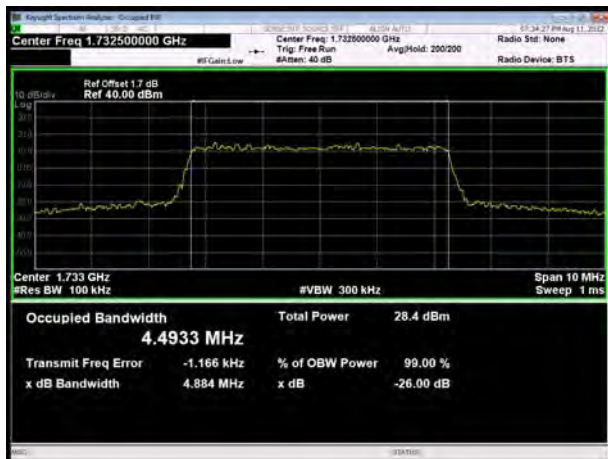
### LTE Band 4 QPSK 5MHz CH-Low



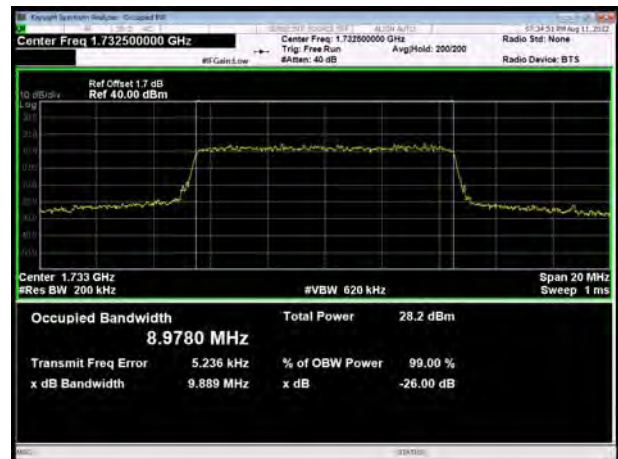
### LTE Band 4 QPSK 10MHz CH-Low



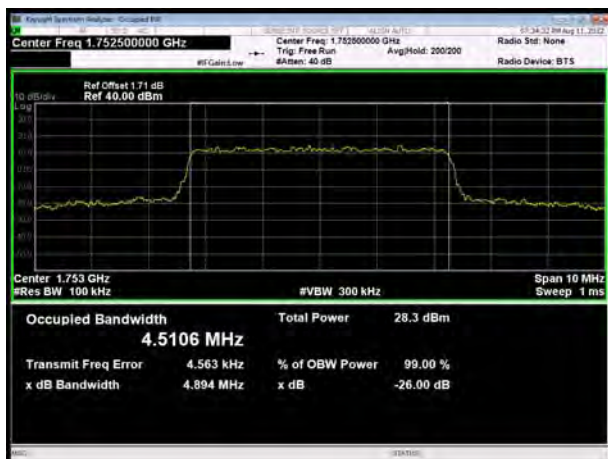
### LTE Band 4 QPSK 5MHz CH-Middle



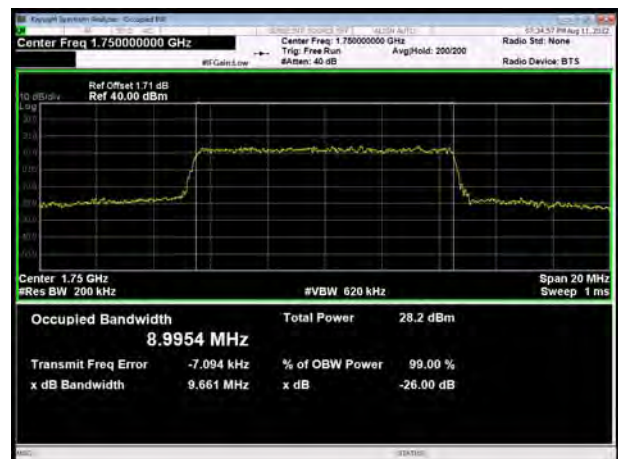
### LTE Band 4 QPSK 10MHz CH-Middle



### LTE Band 4 QPSK 5MHz CH-High

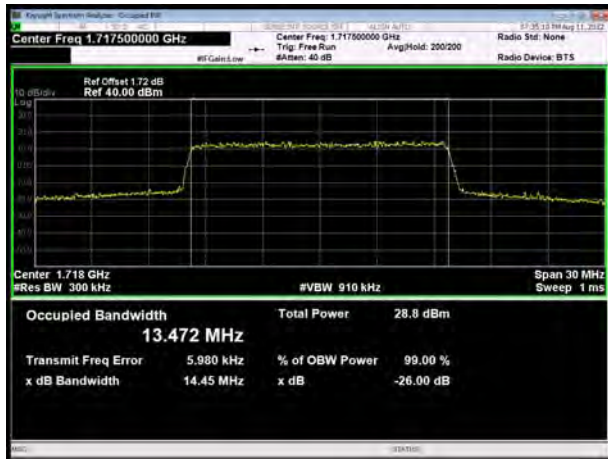


### LTE Band 4 QPSK 10MHz CH-High

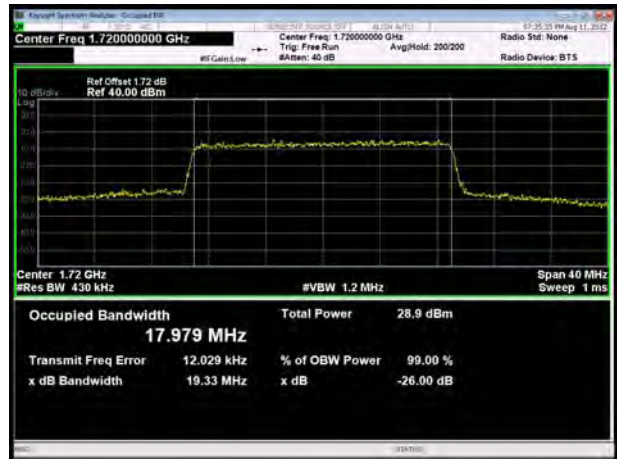




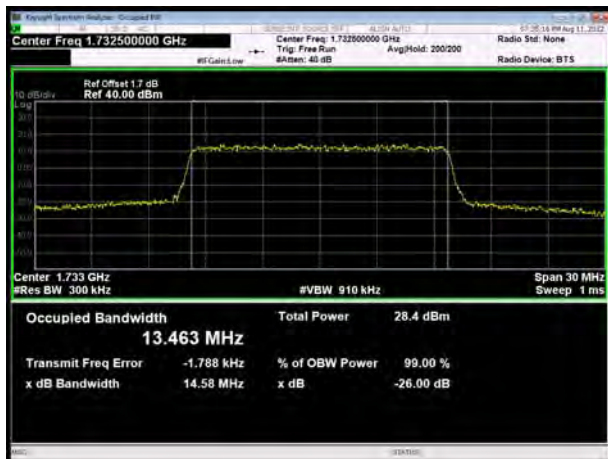
### LTE Band 4 QPSK 15MHz CH-Low



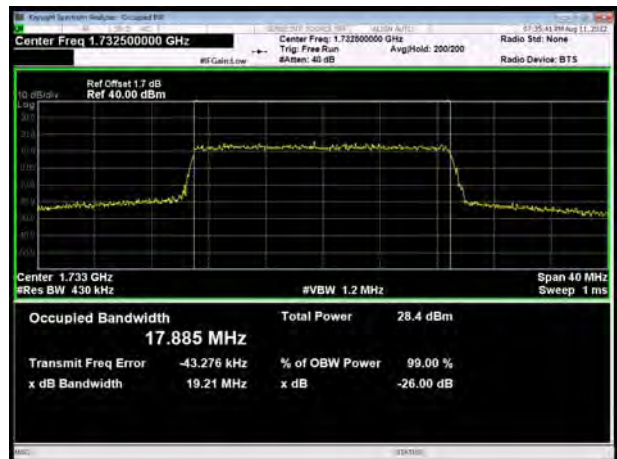
### LTE Band 4 QPSK 20MHz CH-Low



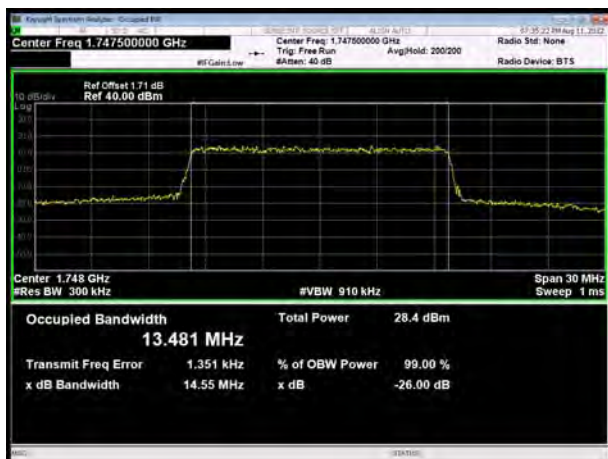
### LTE Band 4 QPSK 15MHz CH-Middle



### LTE Band 4 QPSK 20MHz CH-Middle



### LTE Band 4 QPSK 15MHz CH-High



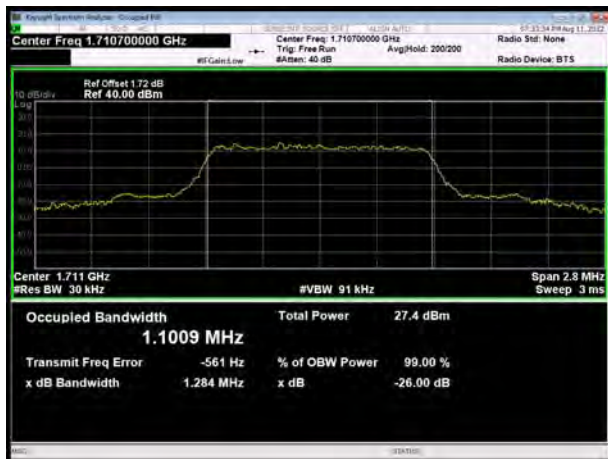
### LTE Band 4 QPSK 20MHz CH-High



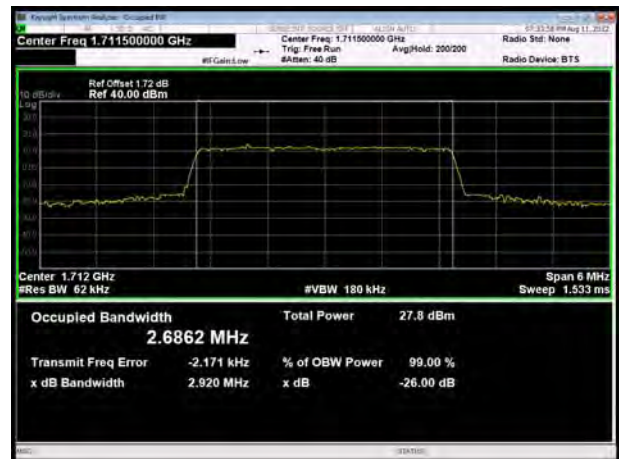




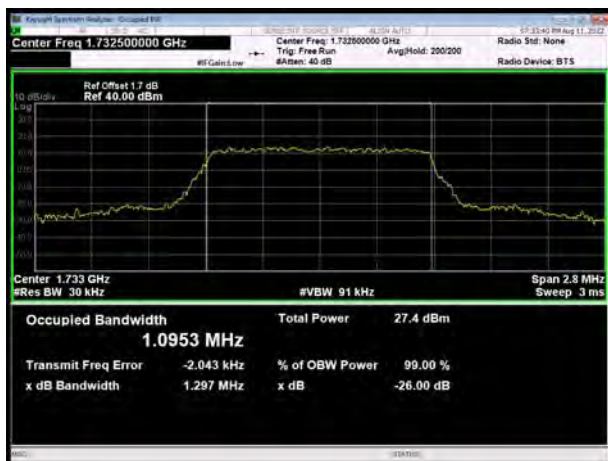
### LTE Band 4 16QAM 1.4MHz CH-Low



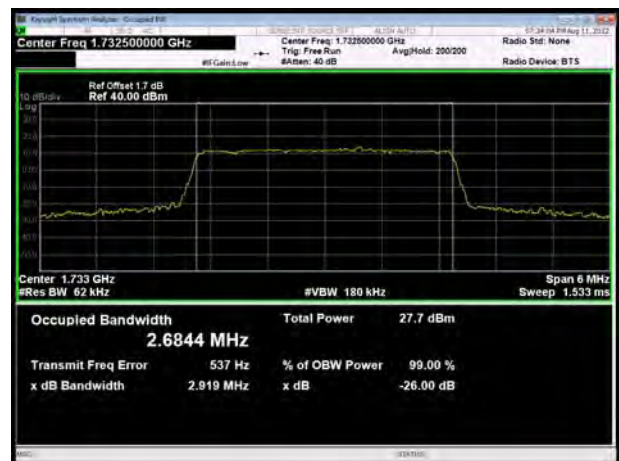
### LTE Band 4 16QAM 3MHz CH-Low



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



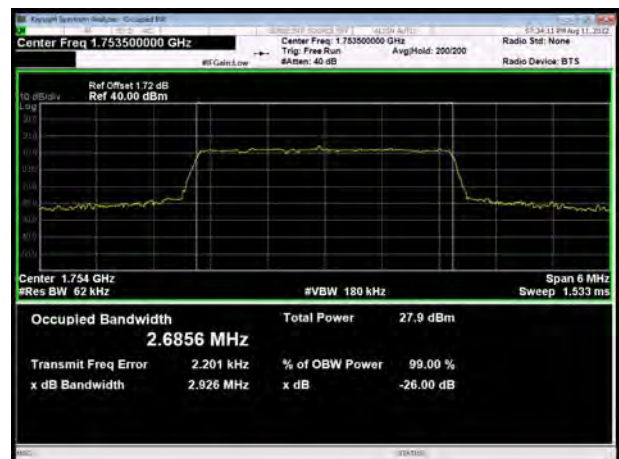
### LTE Band 4 16QAM 3MHz CH-Middle



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



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





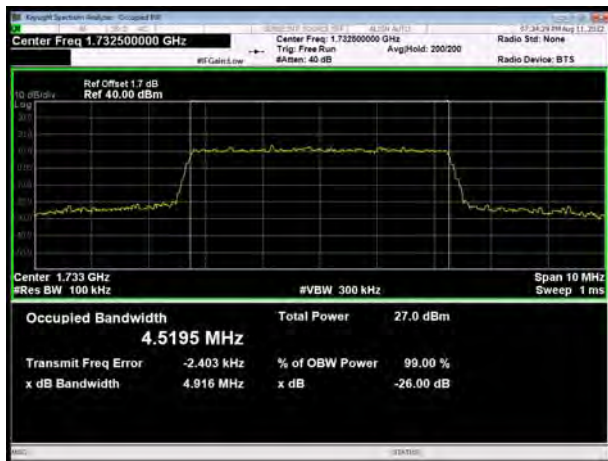
### LTE Band 4 16QAM 5MHz CH-Low



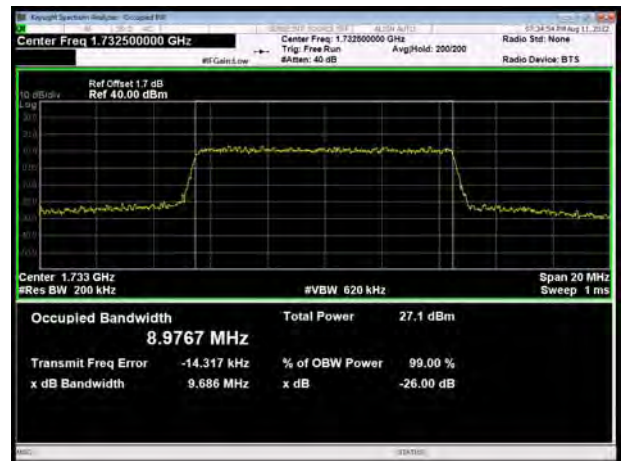
### LTE Band 4 16QAM 10MHz CH-Low



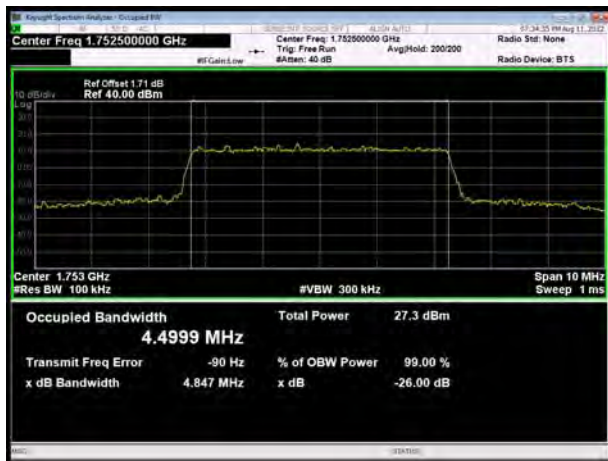
### LTE Band 4 16QAM 5MHz CH-Middle



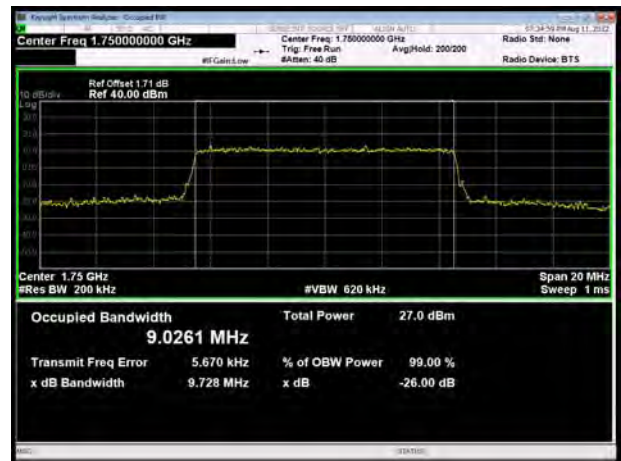
### LTE Band 4 16QAM 10MHz CH-Middle



### LTE Band 4 16QAM 5MHz CH-High



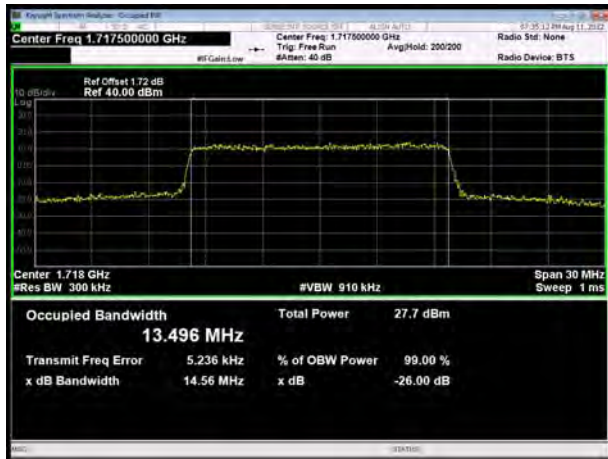
### LTE Band 4 16QAM 10MHz CH-High



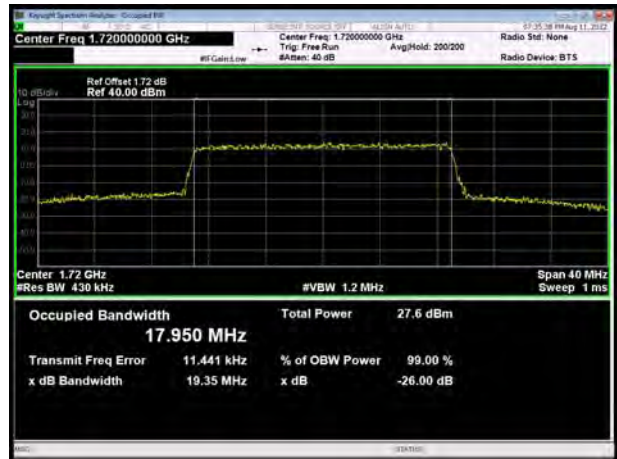




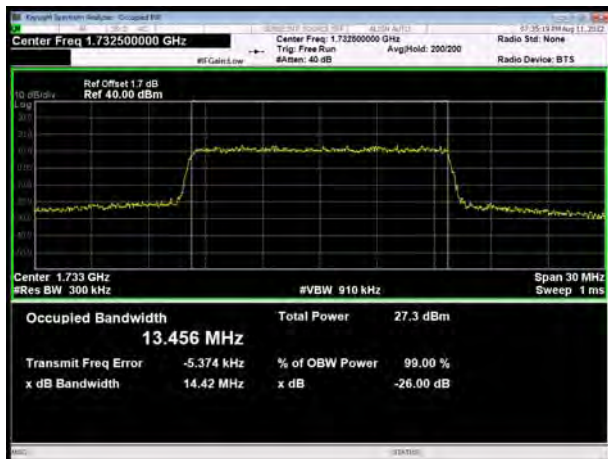
LTE Band 4 16QAM 15MHz CH-Low



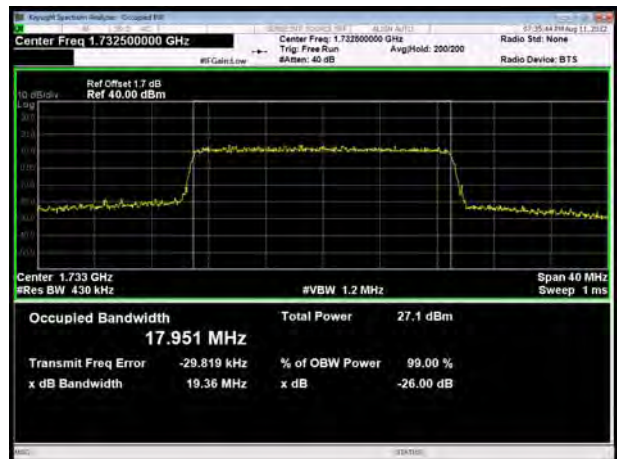
LTE Band 4 16QAM 20MHz CH-Low



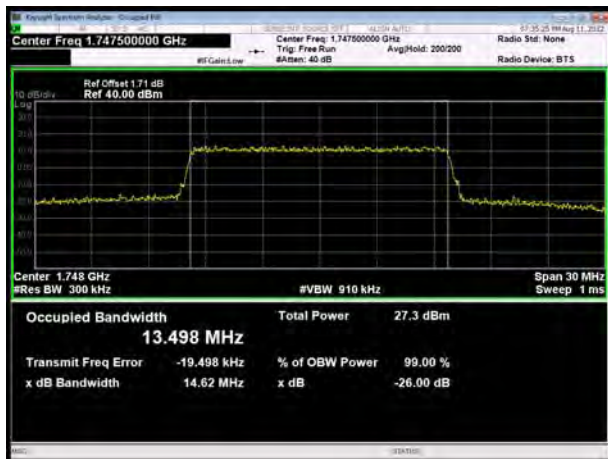
LTE Band 4 16QAM 15MHz CH-Middle



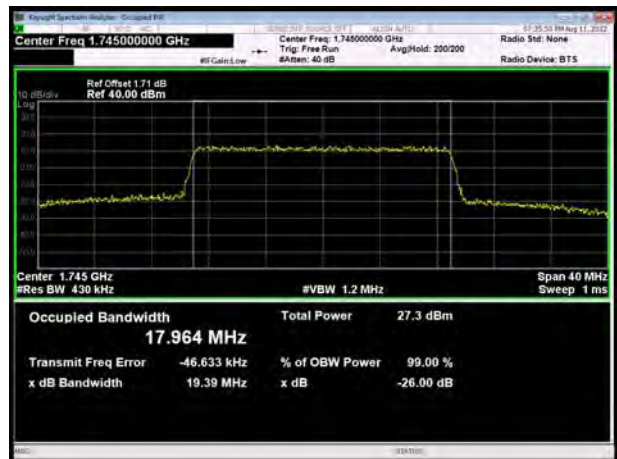
LTE Band 4 16QAM 20MHz CH-Middle

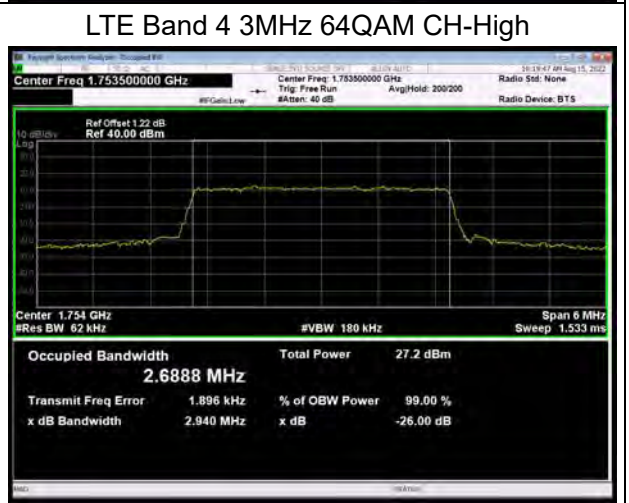
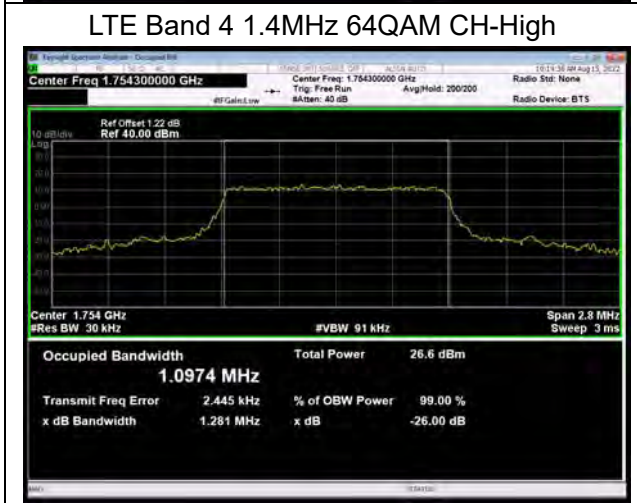
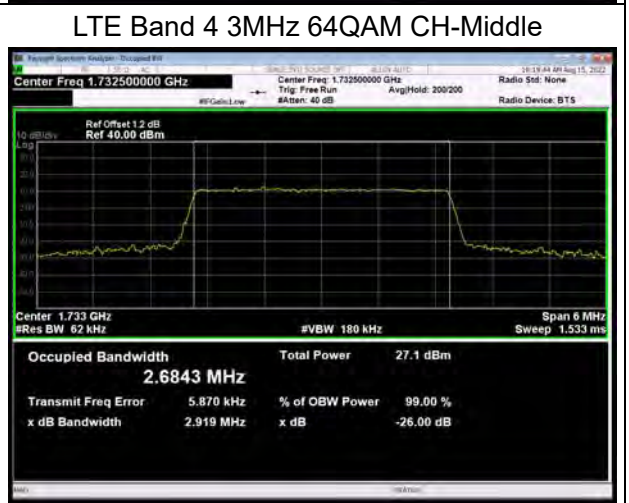
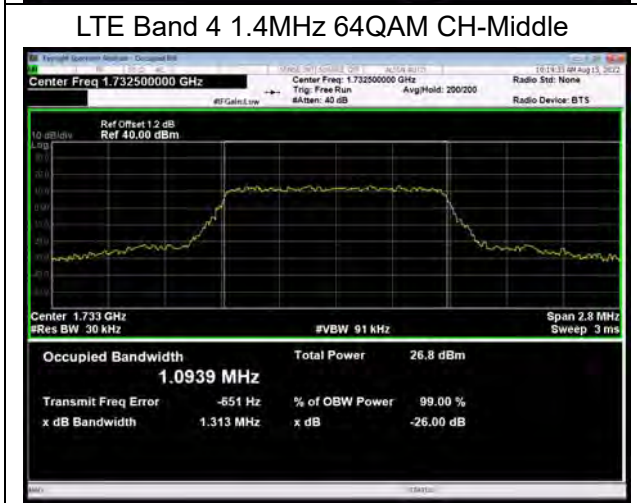
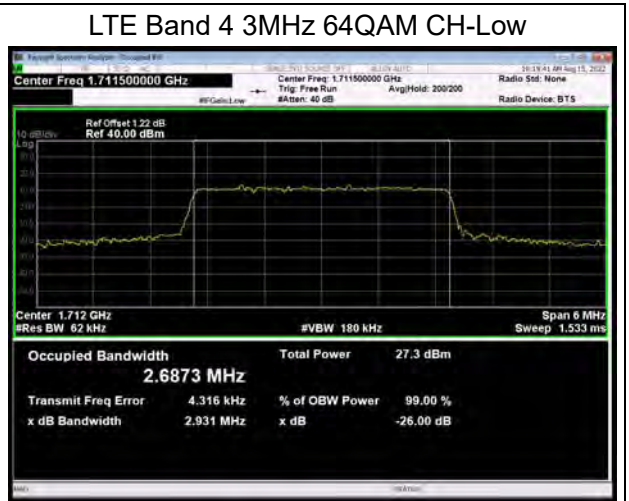
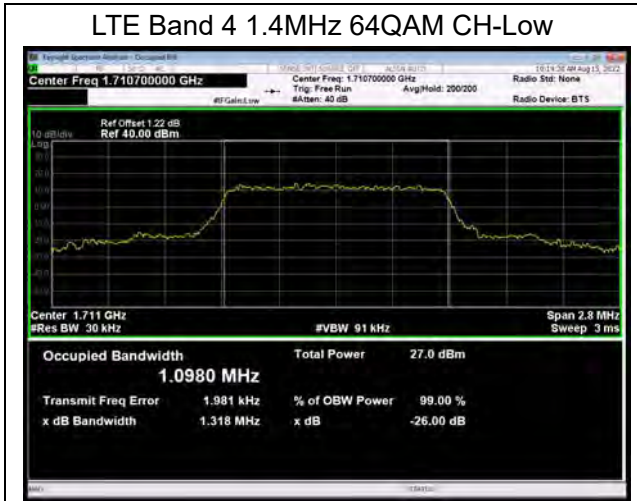


LTE Band 4 16QAM 15MHz CH-High



LTE Band 4 16QAM 20MHz CH-High

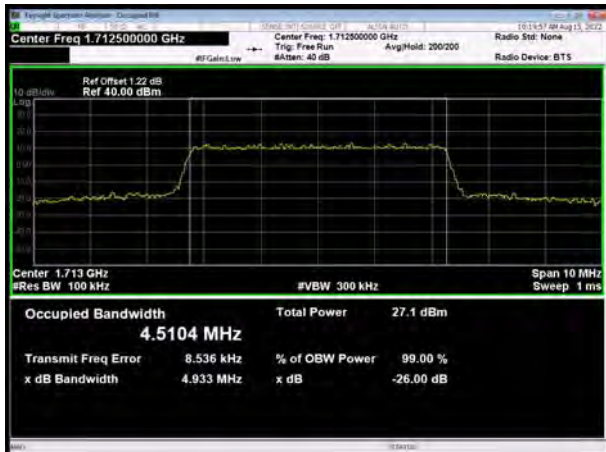




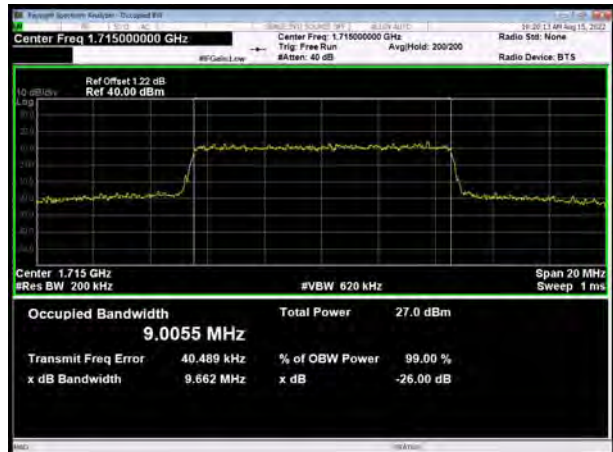




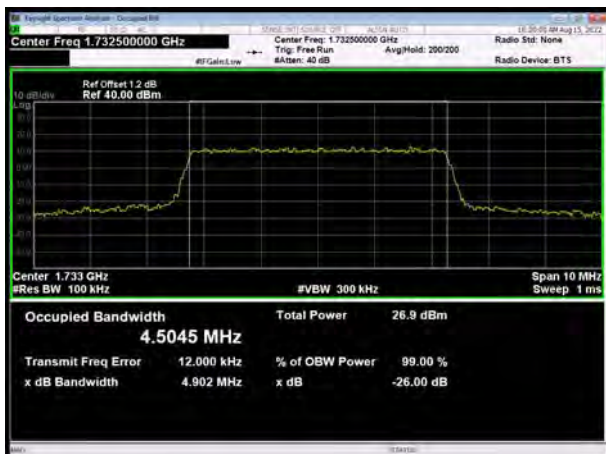
### LTE Band 4 5MHz 64QAM CH-Low



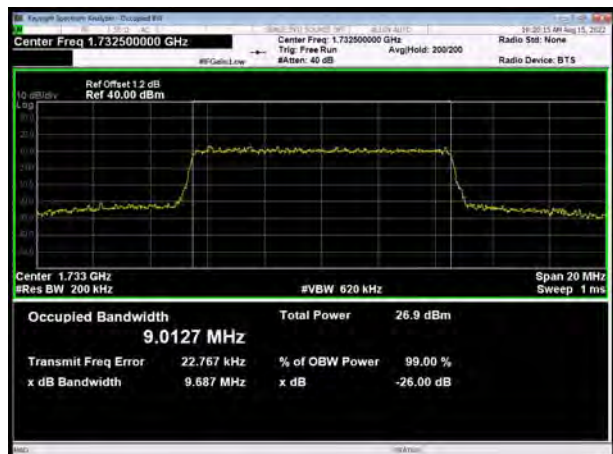
### LTE Band 4 10MHz 64QAM CH-Low



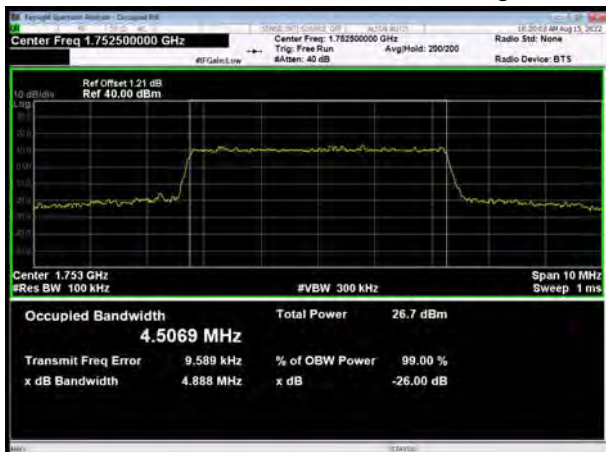
### LTE Band 4 5MHz 64QAM CH-Middle



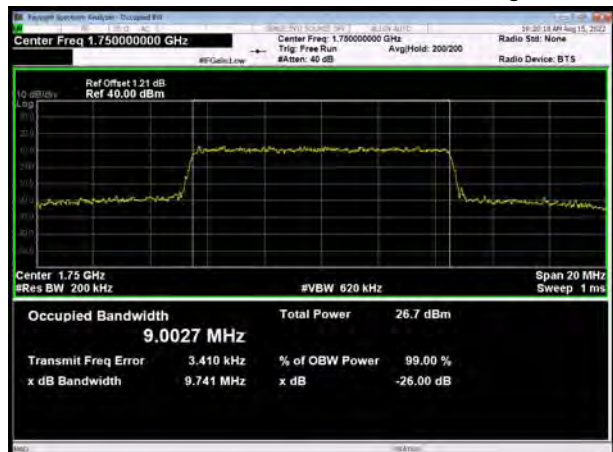
### LTE Band 4 10MHz 64QAM CH-Middle

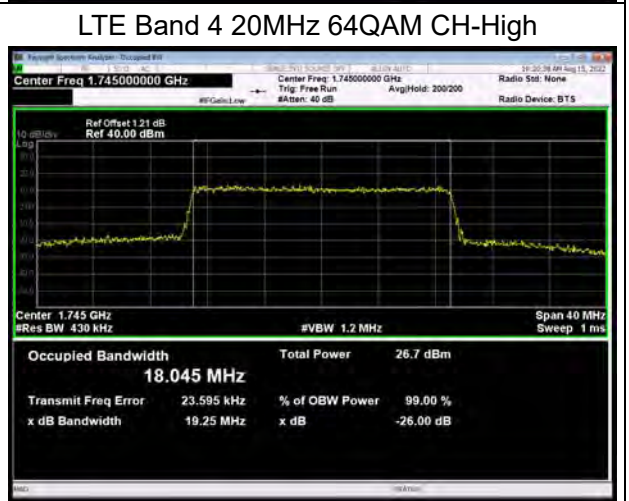
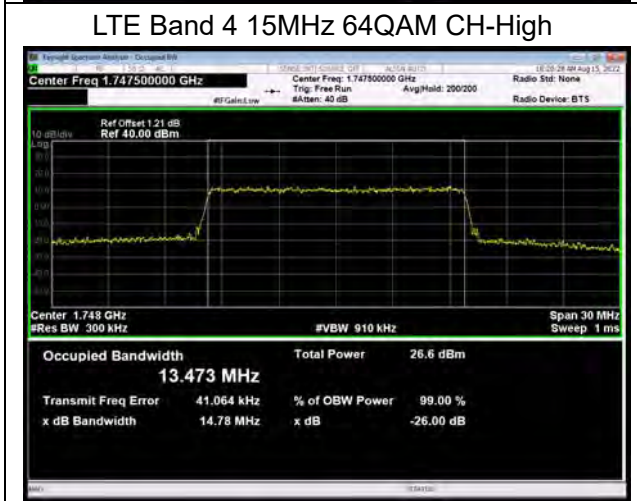
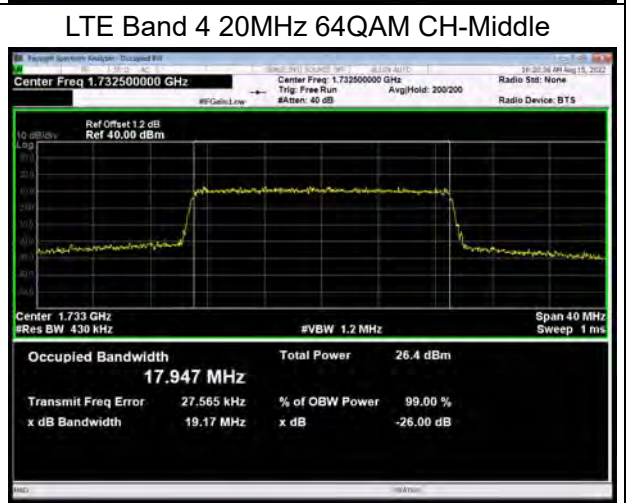
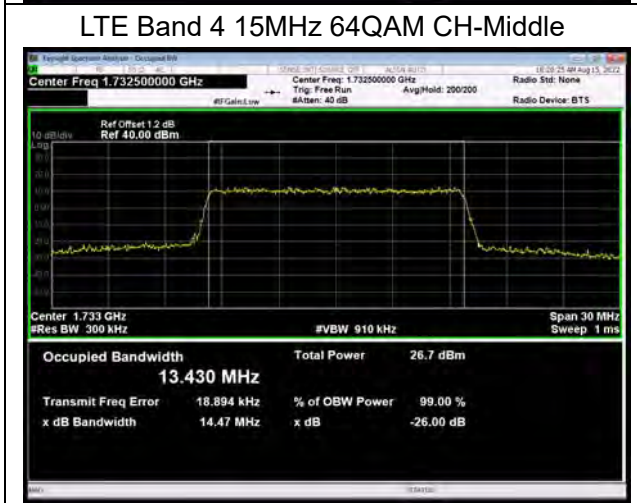
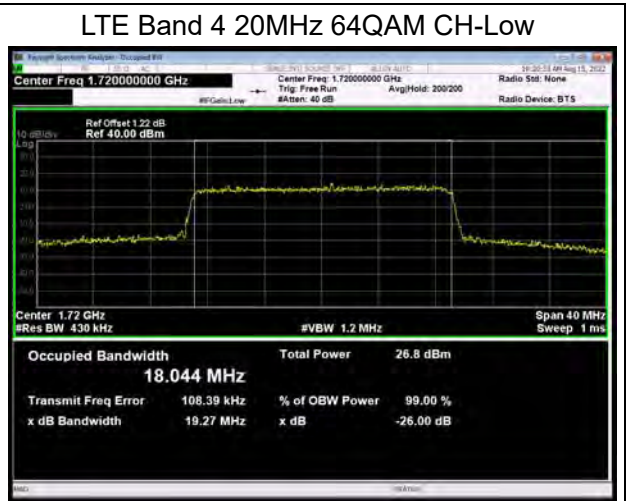
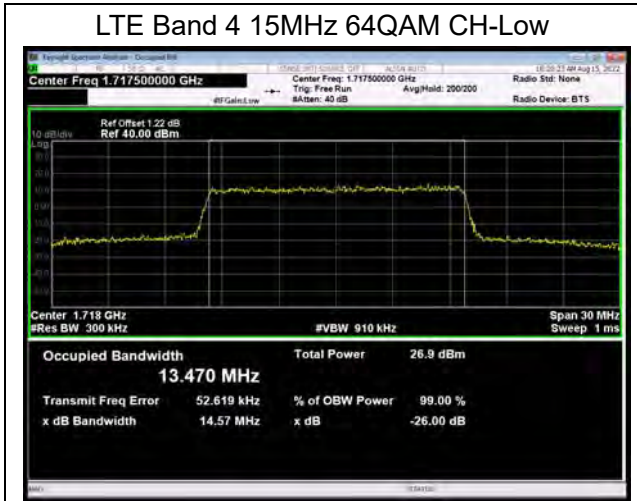


### LTE Band 4 5MHz 64QAM CH-High



### LTE Band 4 10MHz 64QAM CH-High

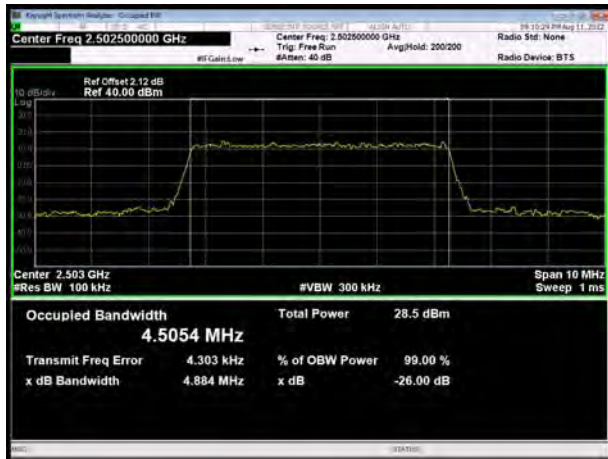




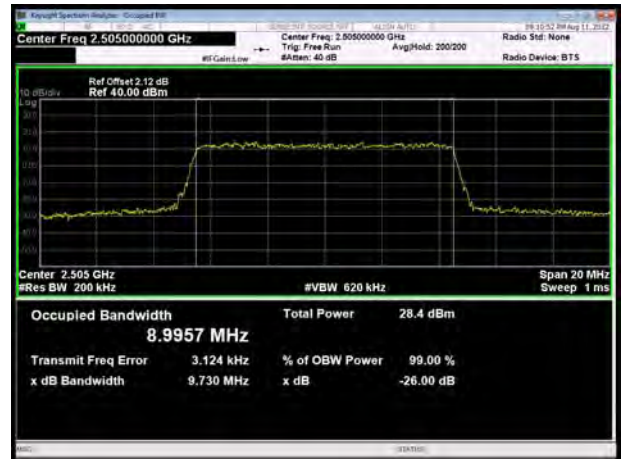




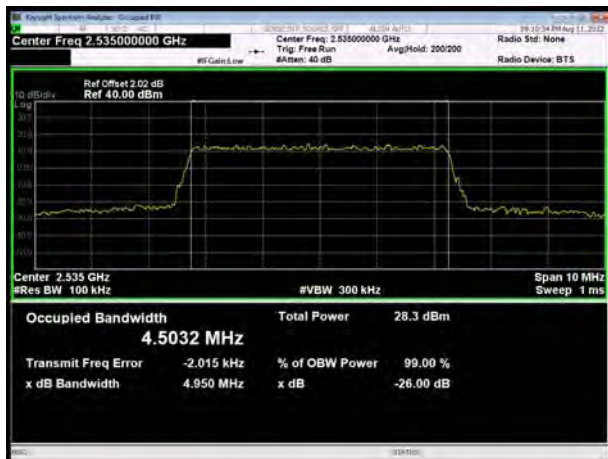
LTE Band 7 QPSK 5MHz CH-Low



LTE Band 7 QPSK 10MHz CH-Low



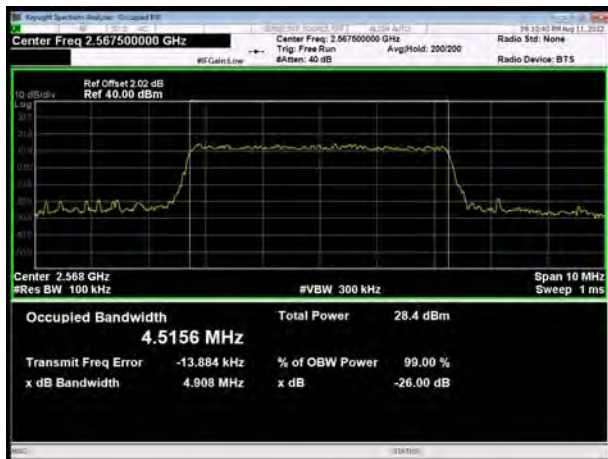
LTE Band 7 QPSK 5MHz CH-Middle



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



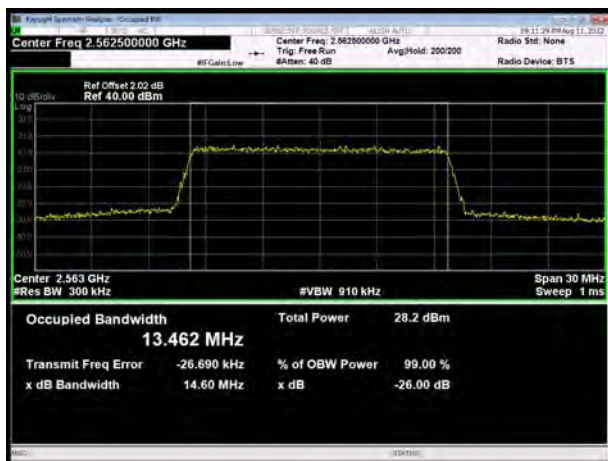
### LTE Band 7 QPSK 15MHz CH-Middle



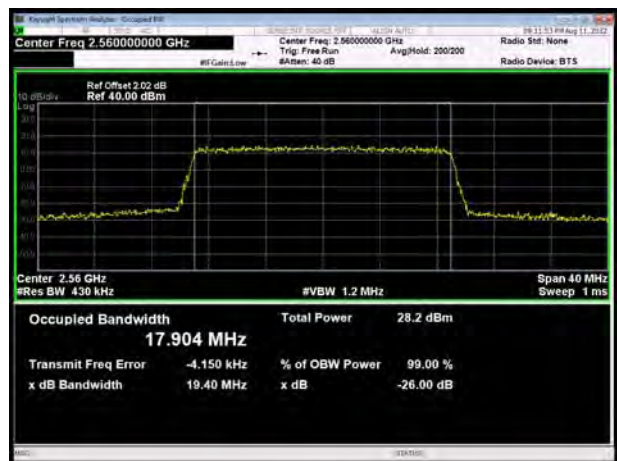
### LTE Band 7 QPSK 20MHz CH-Middle



### LTE Band 7 QPSK 15MHz CH-High



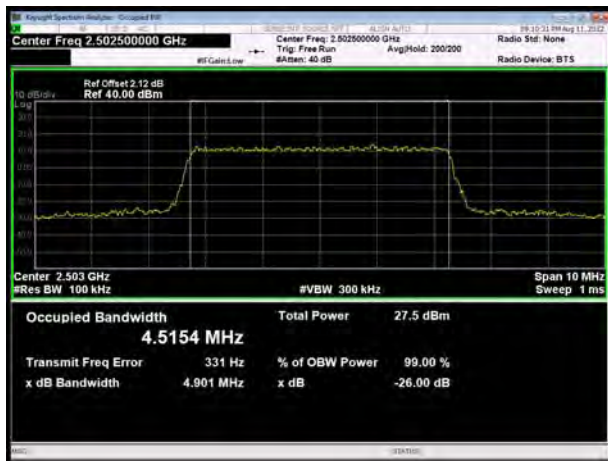
### LTE Band 7 QPSK 20MHz CH-High



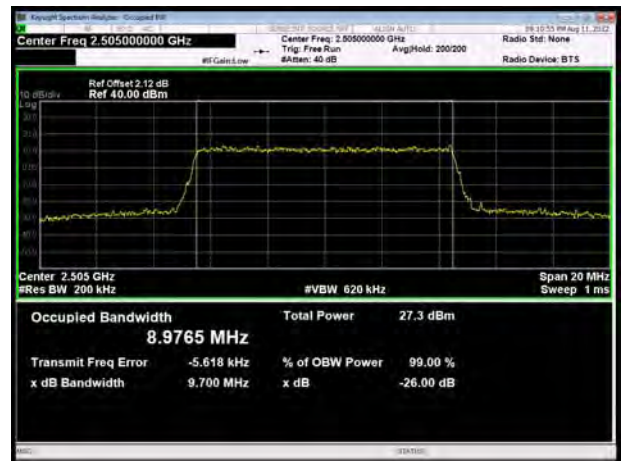




### LTE Band 7 16QAM 5MHz CH-Low



### LTE Band 7 16QAM 10MHz CH-Low



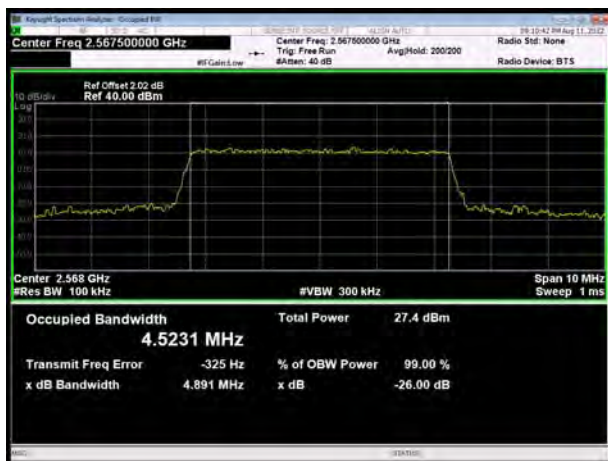
### LTE Band 7 16QAM 5MHz CH-Middle



### LTE Band 7 16QAM 10MHz CH-Middle



### LTE Band 7 16QAM 5MHz CH-High

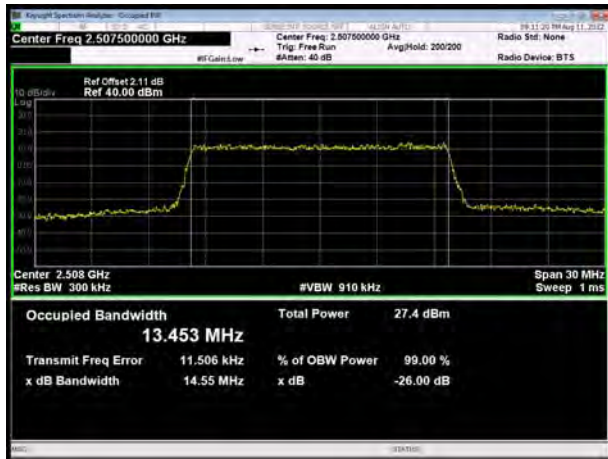


### LTE Band 7 16QAM 10MHz CH-High

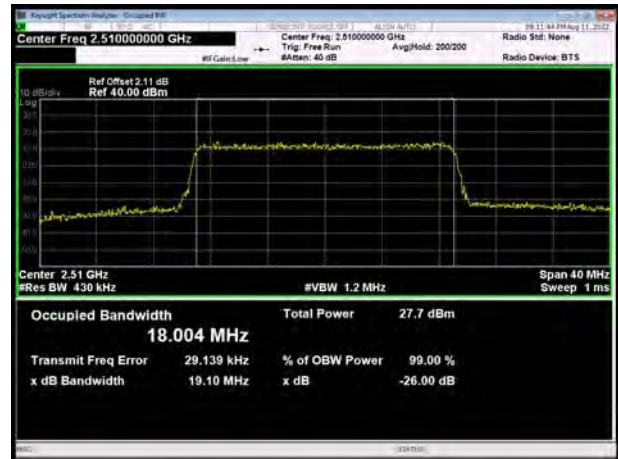




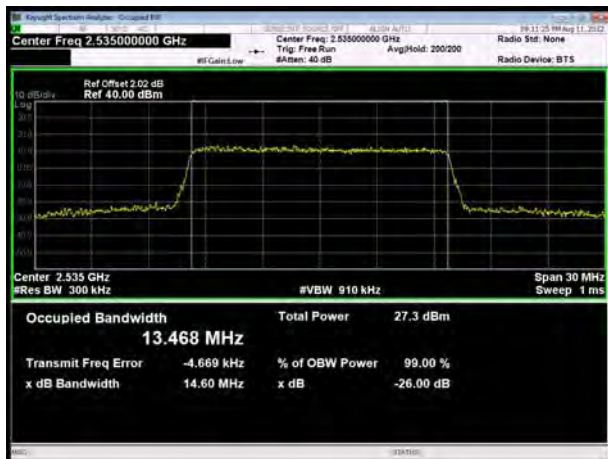
LTE Band 7 16QAM 15MHz CH-Low



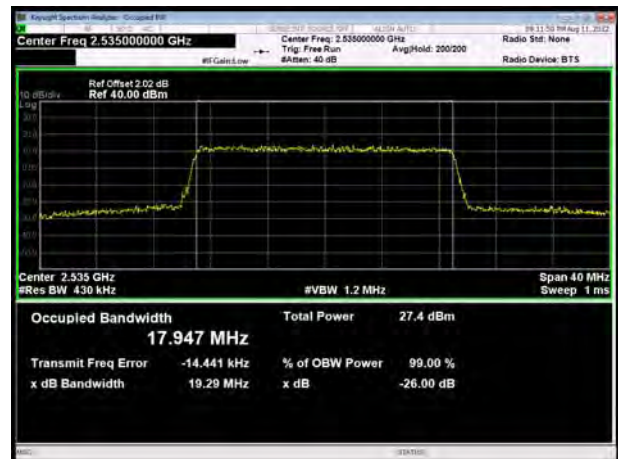
LTE Band 7 16QAM 20MHz CH-Low



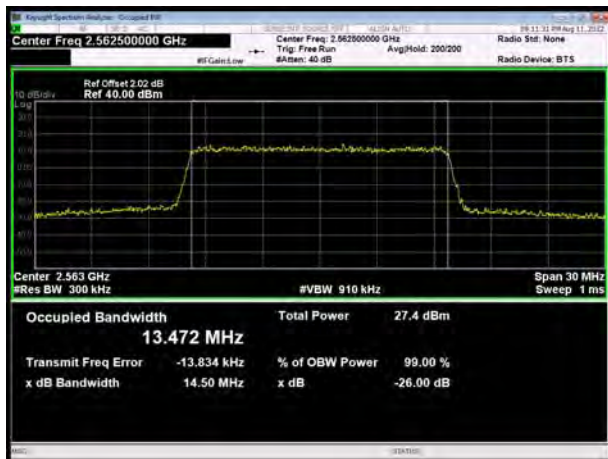
LTE Band 7 16QAM 15MHz CH-Middle



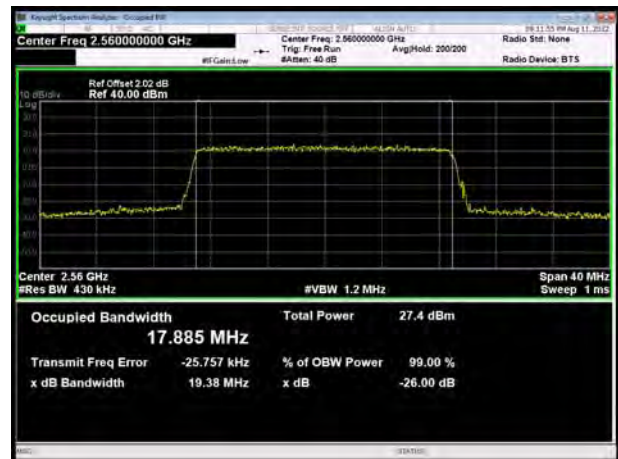
LTE Band 7 16QAM 20MHz CH-Middle



LTE Band 7 16QAM 15MHz CH-High



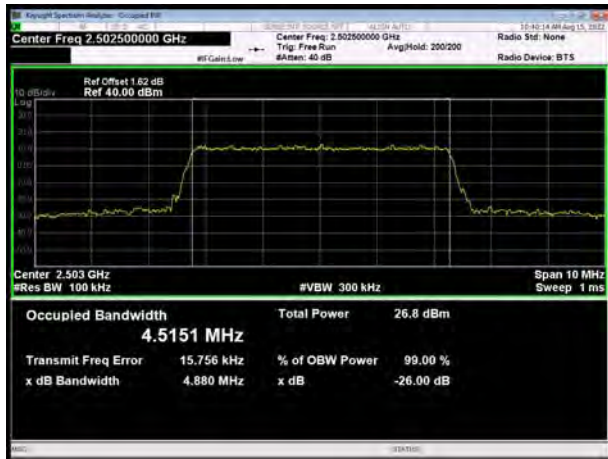
LTE Band 7 16QAM 20MHz CH-High



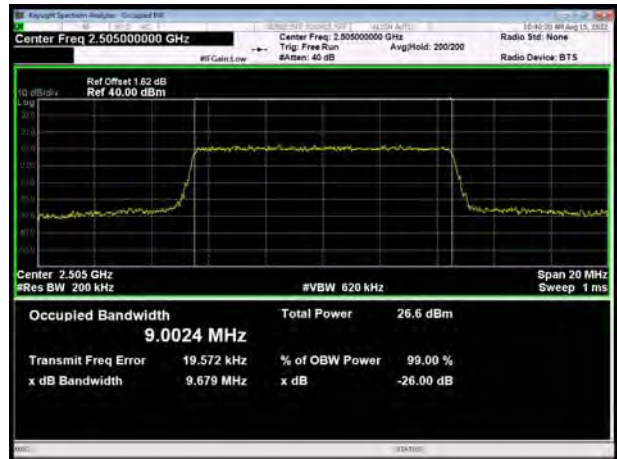




LTE Band 7 64QAM 5MHz CH-Low



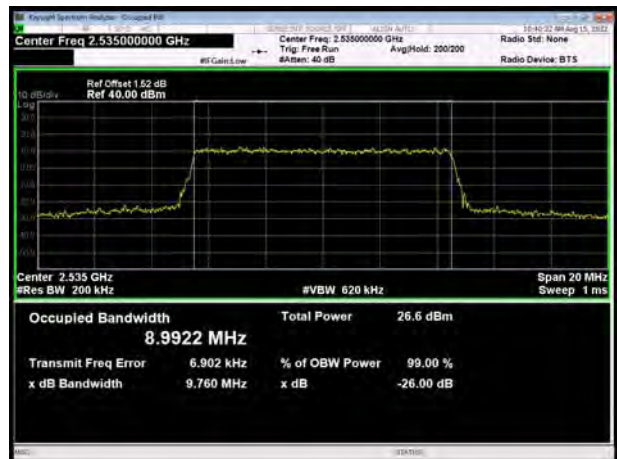
LTE Band 7 64QAM 10MHz CH-Low



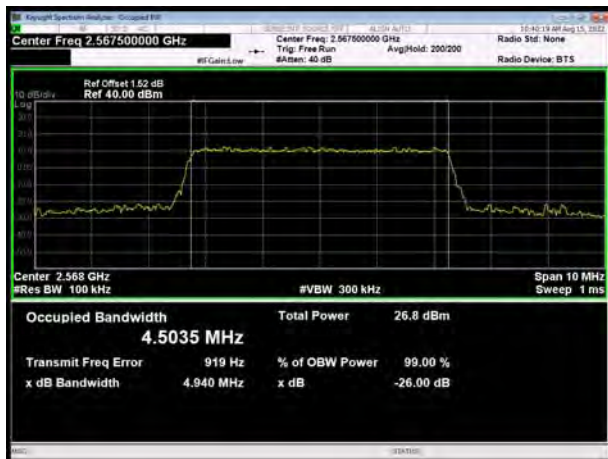
LTE Band 7 64QAM 5MHz CH-Middle



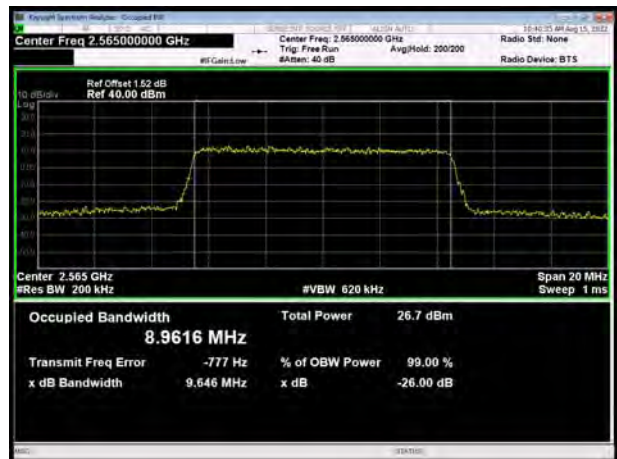
LTE Band 7 64QAM 10MHz CH-Middle



LTE Band 7 64QAM 5MHz CH-High



LTE Band 7 64QAM 10MHz CH-High

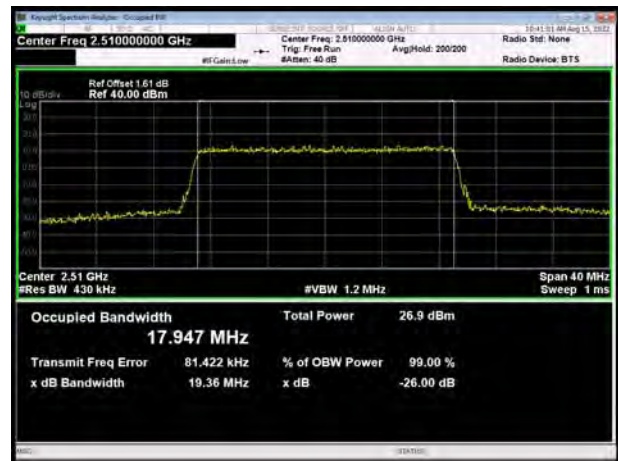




LTE Band 7 64QAM 15MHz CH-Low



LTE Band 7 64QAM 20MHz CH-Low



LTE Band 7 64QAM 15MHz CH-Middle



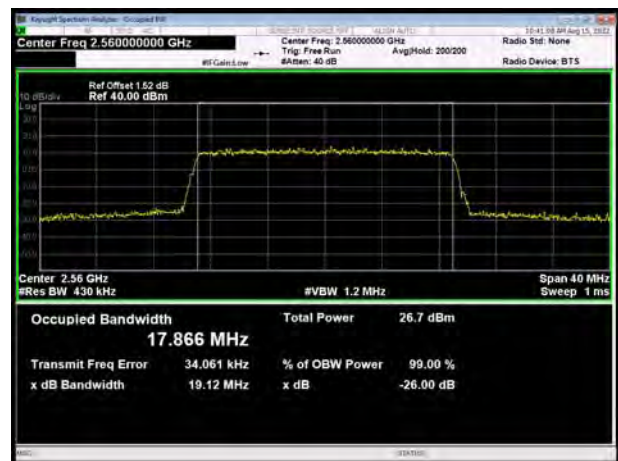
LTE Band 7 64QAM 20MHz CH-Middle



LTE Band 7 64QAM 15MHz CH-High



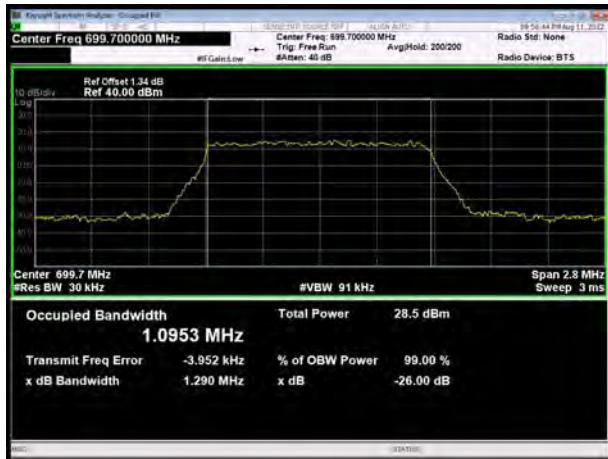
LTE Band 7 64QAM 20MHz CH-High



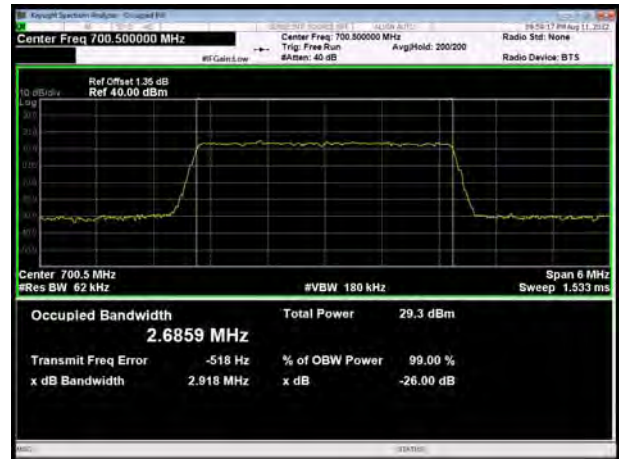




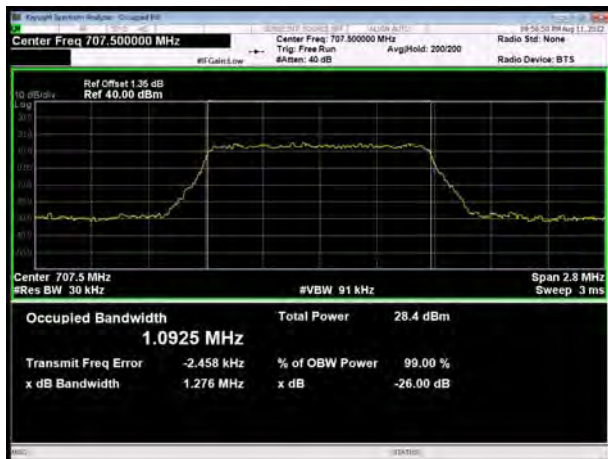
### LTE Band 12 QPSK 1.4MHz CH-Low



### LTE Band 12 QPSK 3MHz CH-Low



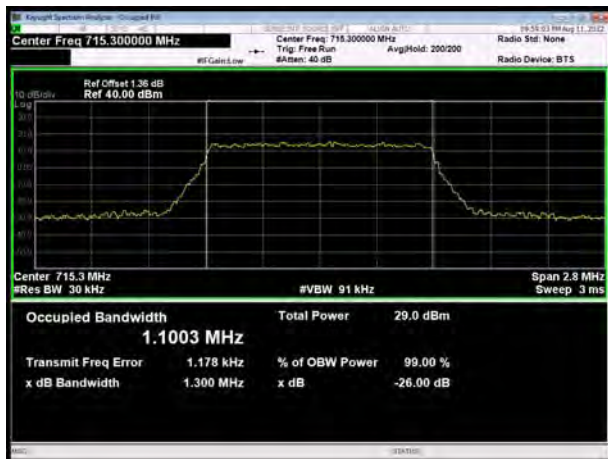
### LTE Band 12 QPSK 1.4MHz CH-Middle



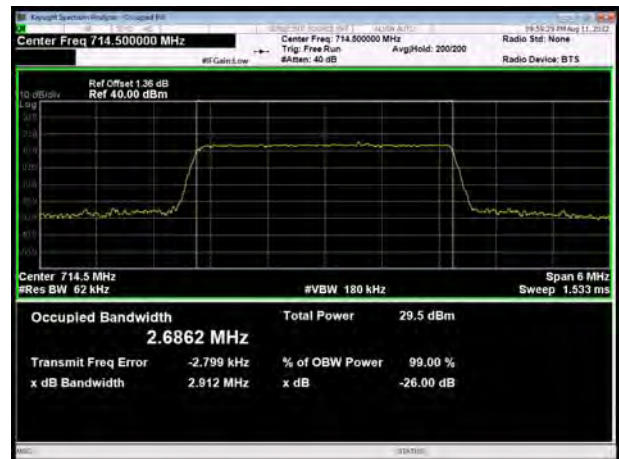
### LTE Band 12 QPSK 3MHz CH-Middle



### LTE Band 12 QPSK 1.4MHz CH-High



### LTE Band 12 QPSK 3MHz CH-High





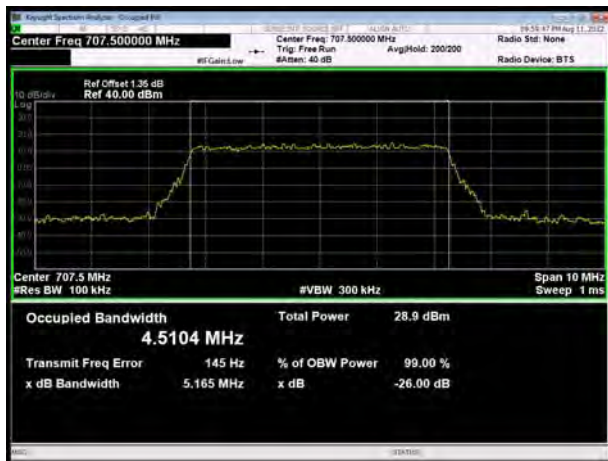
### LTE Band 12 QPSK 5MHz CH-Low



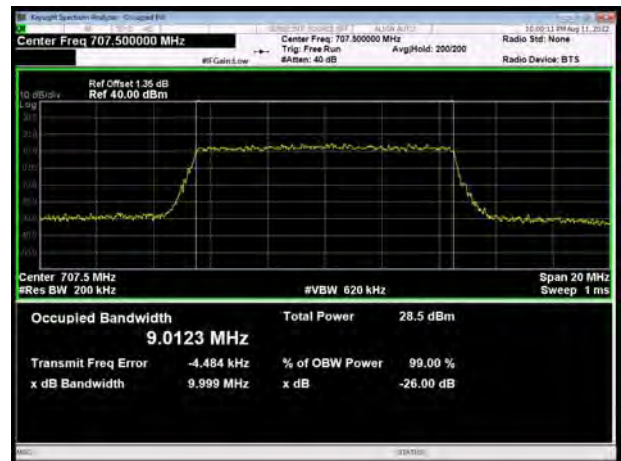
### LTE Band 12 QPSK 10MHz CH-Low



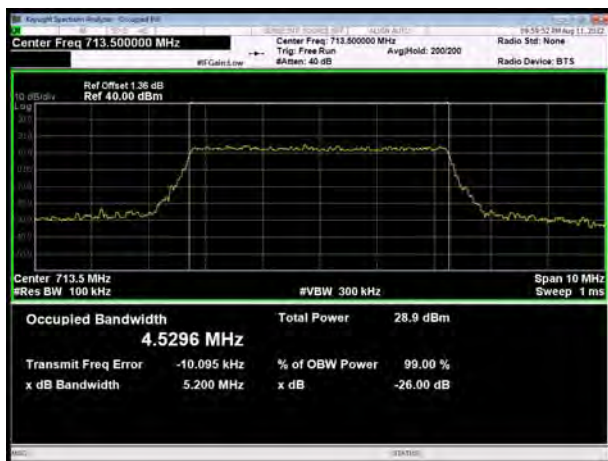
### LTE Band 12 QPSK 5MHz CH-Middle



### LTE Band 12 QPSK 10MHz CH-Middle



### LTE Band 12 QPSK 5MHz CH-High



### LTE Band 12 QPSK 10MHz CH-High







### LTE Band 12 16QAM 1.4MHz CH-Low



### LTE Band 12 16QAM 3MHz CH-Low



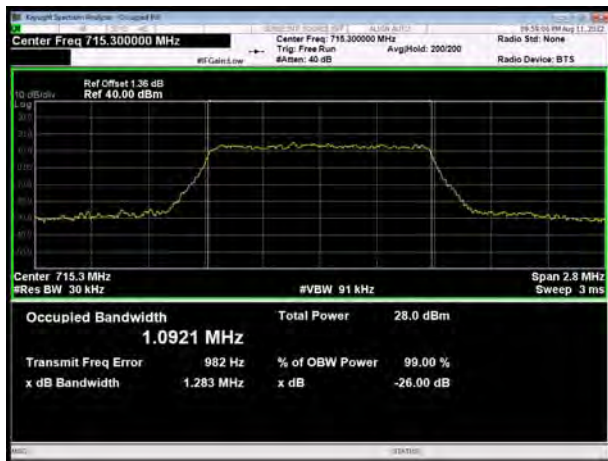
### LTE Band 12 16QAM 1.4MHz CH-Middle



### LTE Band 12 16QAM 3MHz CH-Middle



### LTE Band 12 16QAM 1.4MHz CH-High

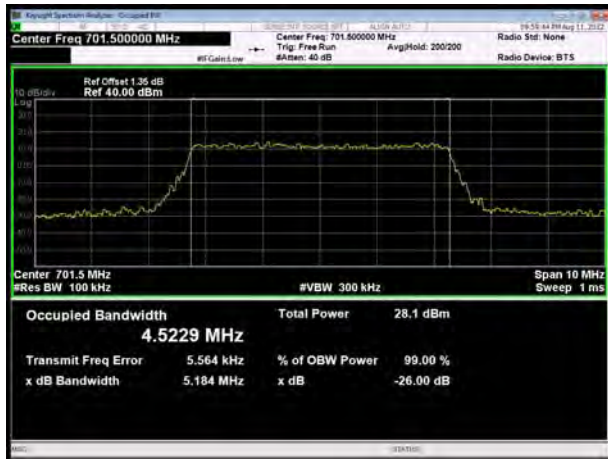


### LTE Band 12 16QAM 3MHz CH-High

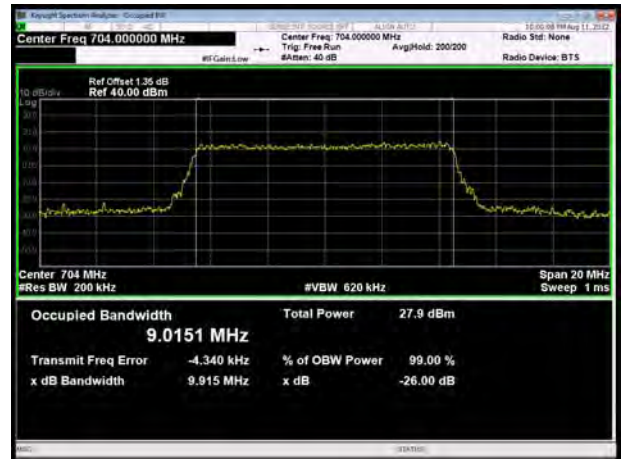




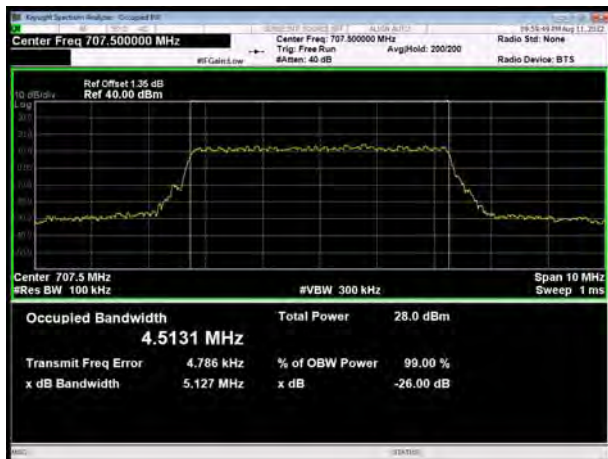
LTE Band 12 16QAM 5MHz CH-Low



LTE Band 12 16QAM 10MHz CH-Low



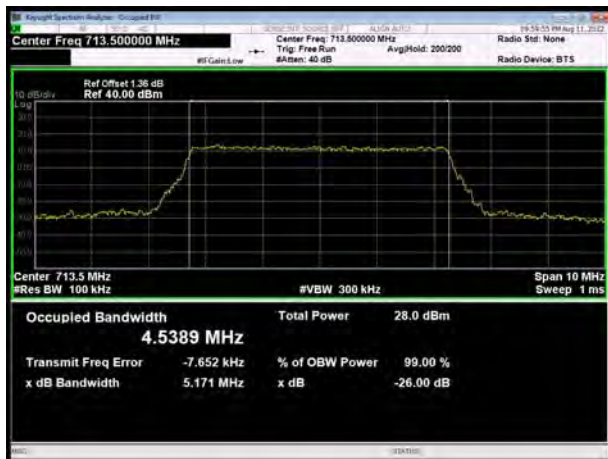
LTE Band 12 16QAM 5MHz CH-Middle



LTE Band 12 16QAM 10MHz CH-Middle



LTE Band 12 16QAM 5MHz CH-High



LTE Band 12 16QAM 10MHz CH-High







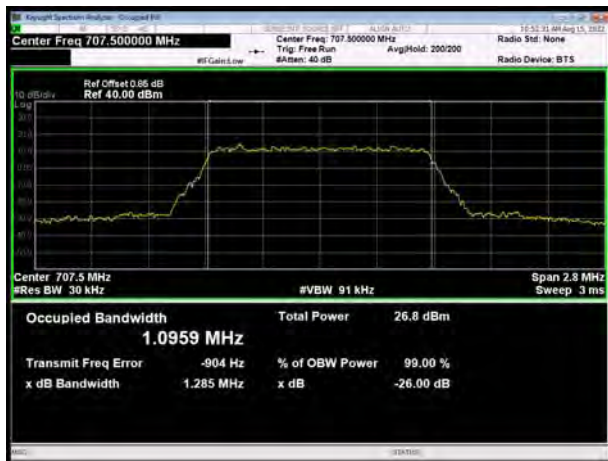
### LTE Band 12 64QAM 1.4MHz CH-Low



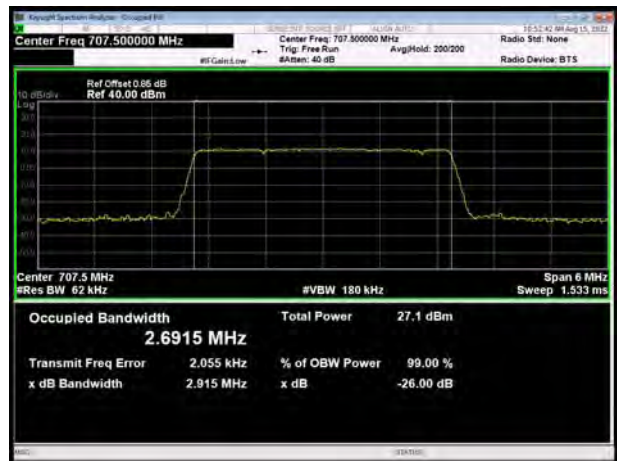
### LTE Band 12 64QAM 3MHz CH-Low



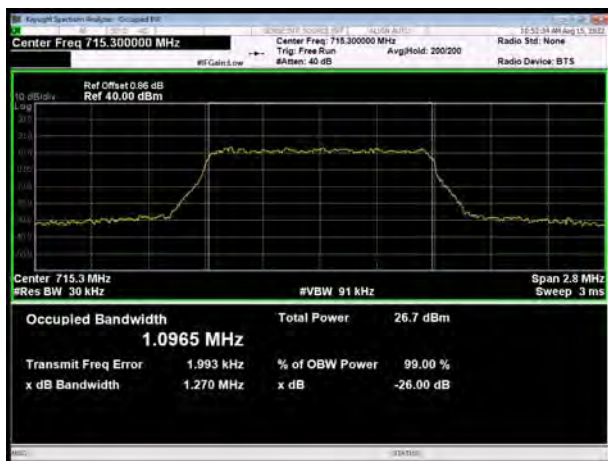
### LTE Band 12 64QAM 1.4MHz CH-Middle



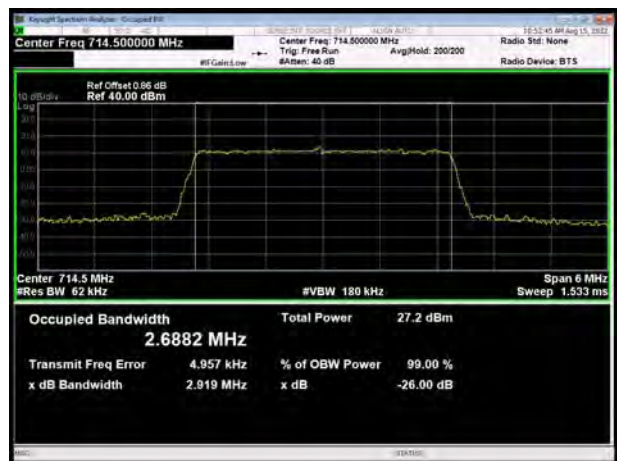
### LTE Band 12 64QAM 3MHz CH-Middle



### LTE Band 12 64QAM 1.4MHz CH-High

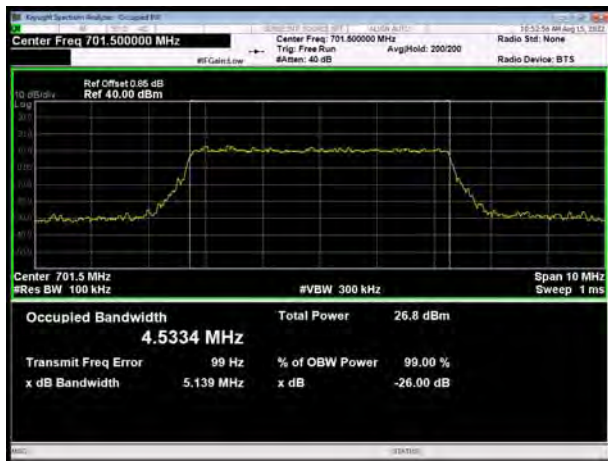


### LTE Band 12 64QAM 3MHz CH-High





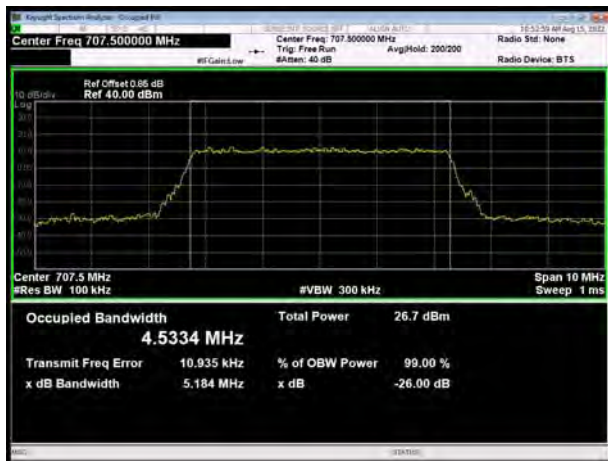
LTE Band 12 64QAM 5MHz CH-Low



LTE Band 12 64QAM 10MHz CH-Low



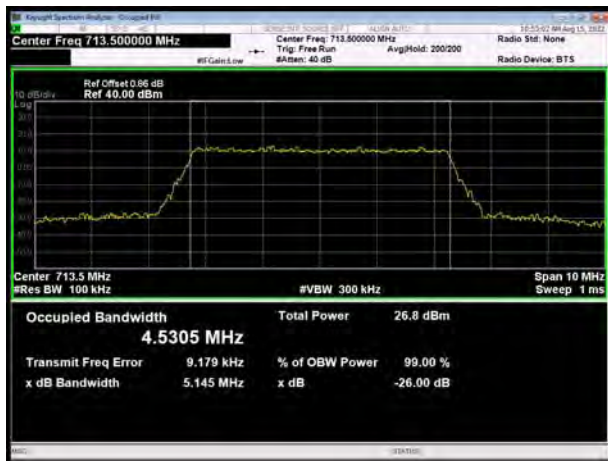
LTE Band 12 64QAM 5MHz CH-Middle



LTE Band 12 64QAM 10MHz CH-Middle



LTE Band 12 64QAM 5MHz CH-High



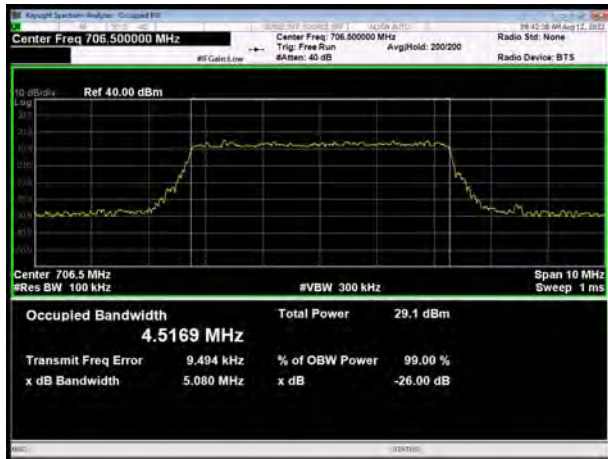
LTE Band 12 64QAM 10MHz CH-High



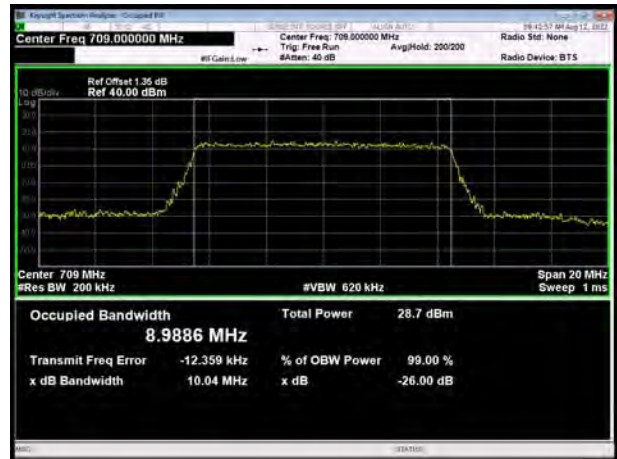




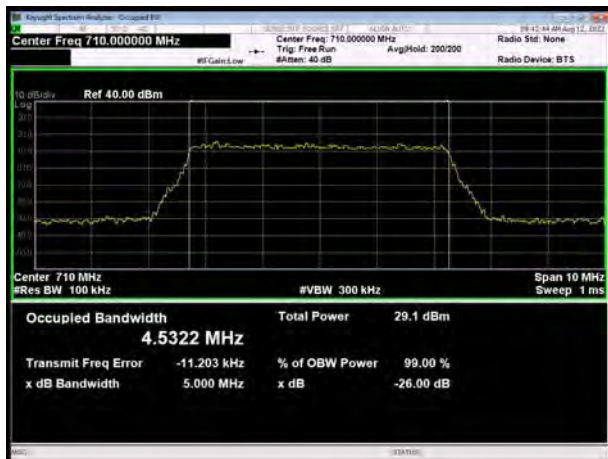
### LTE Band 17 QPSK 5MHz CH-Low



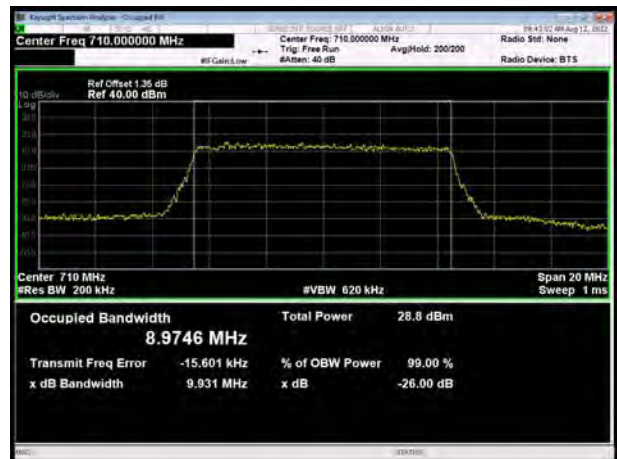
### LTE Band 17 QPSK 10MHz CH-Low



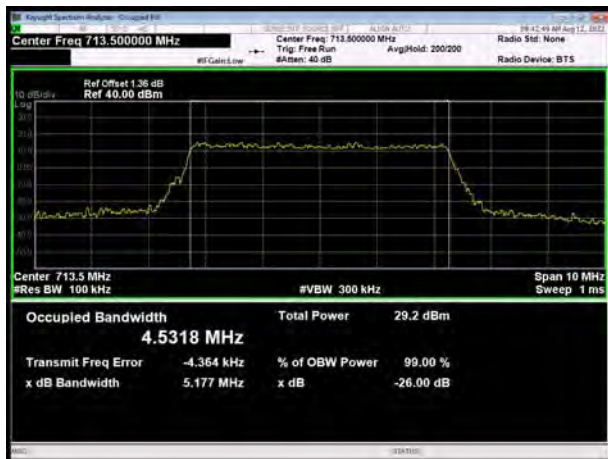
### LTE Band 17 QPSK 5MHz CH-Middle



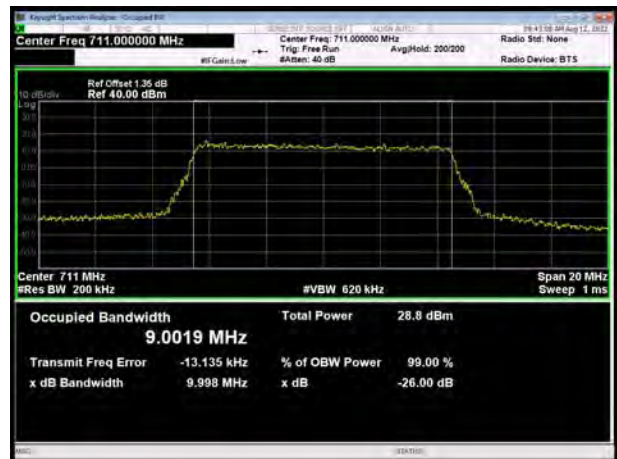
### LTE Band 17 QPSK 10MHz CH-Middle



### LTE Band 17 QPSK 5MHz CH-High

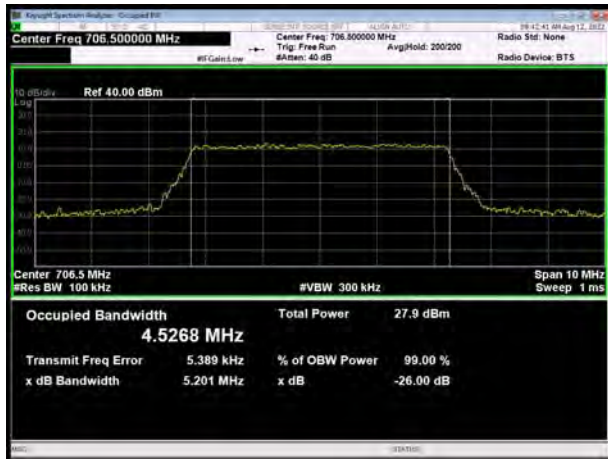


### LTE Band 17 QPSK 10MHz CH-High

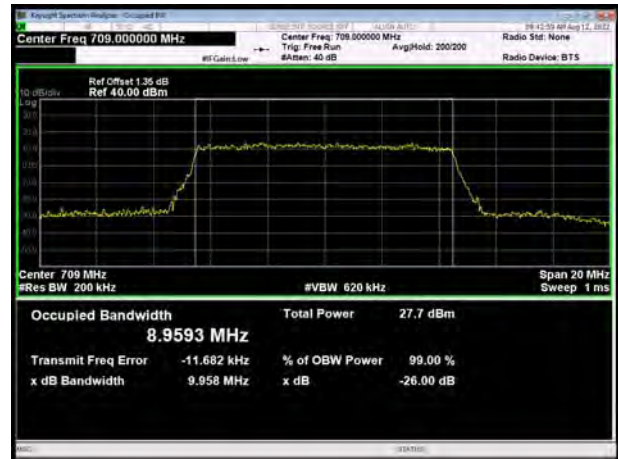




LTE Band 17 16QAM 5MHz CH-Low



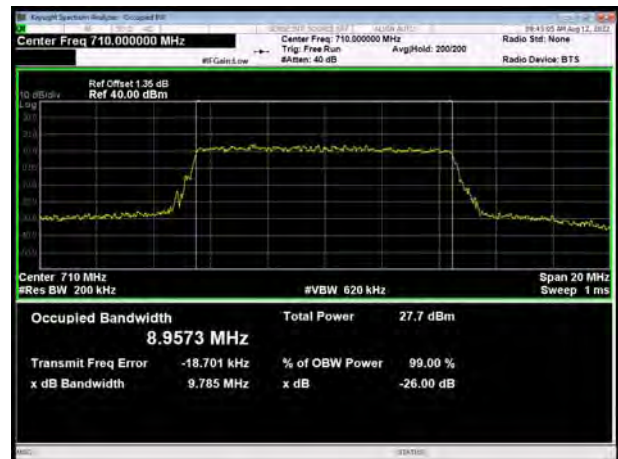
LTE Band 17 16QAM 10MHz CH-Low



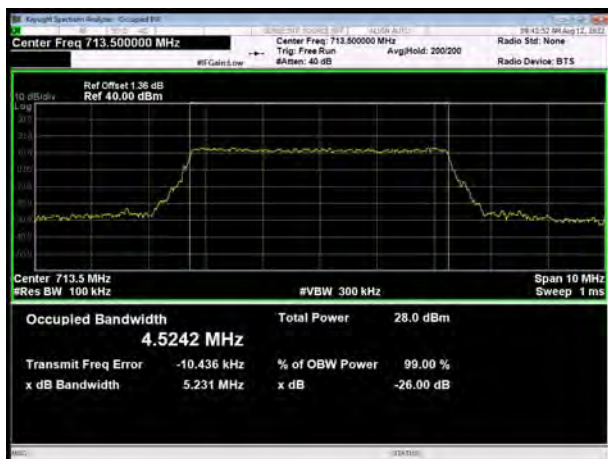
LTE Band 17 16QAM 5MHz CH-Middle



LTE Band 17 16QAM 10MHz CH-Middle



LTE Band 17 16QAM 5MHz CH-High



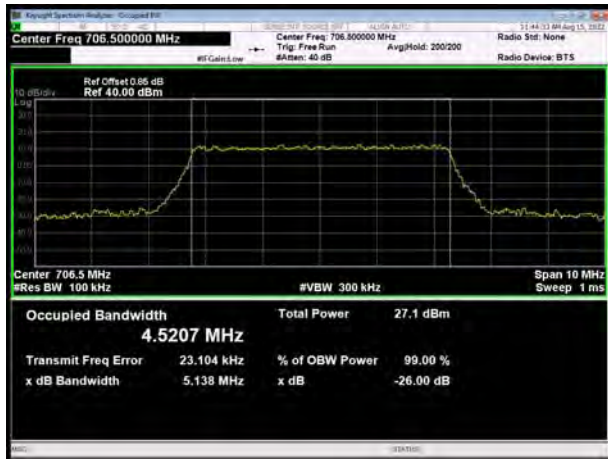
LTE Band 17 16QAM 10MHz CH-High



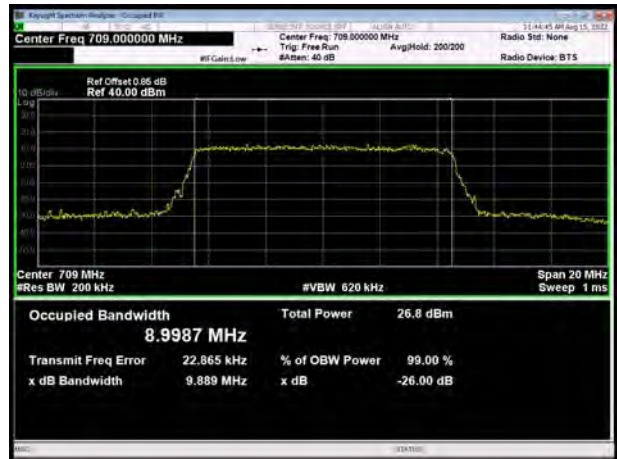




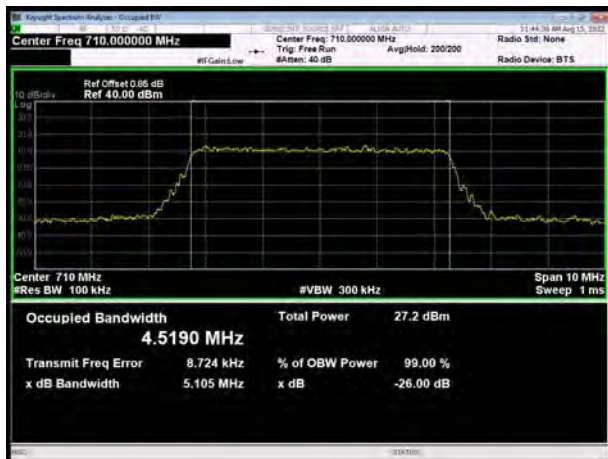
LTE Band 17 64QAM 5MHz CH-Low



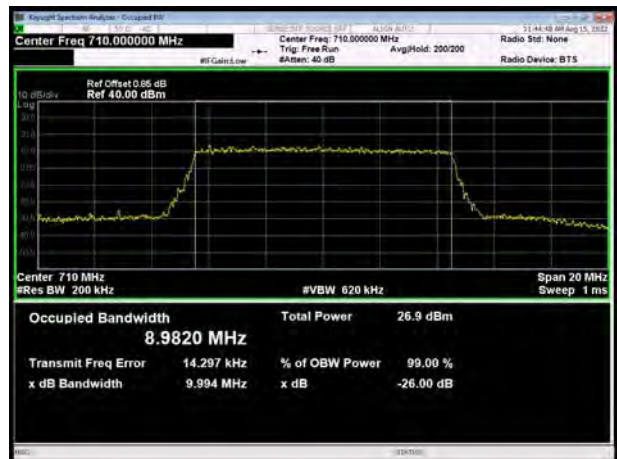
LTE Band 17 64QAM 10MHz CH-Low



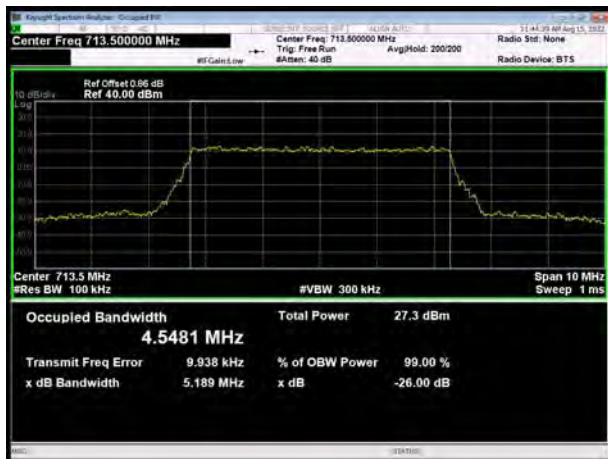
LTE Band 17 64QAM 5MHz CH-Middle



LTE Band 17 64QAM 10MHz CH-Middle



LTE Band 17 64QAM 5MHz CH-High

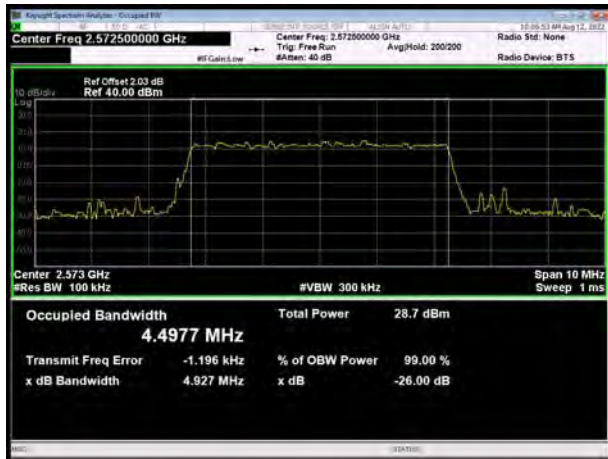


LTE Band 17 64QAM 10MHz CH-High

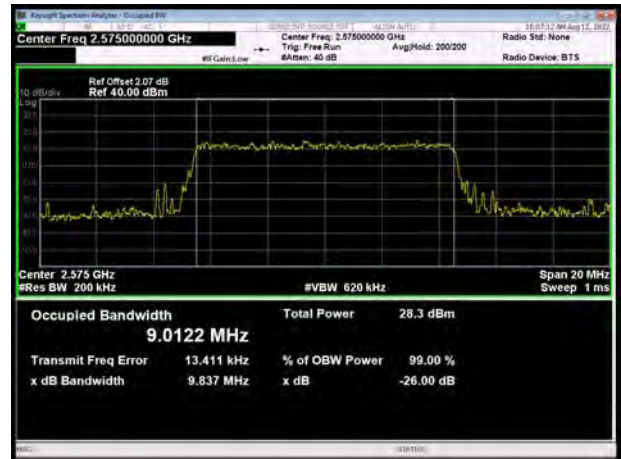




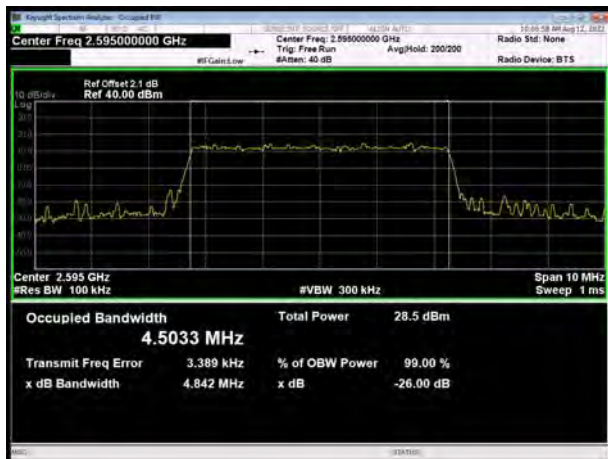
### LTE Band 38 QPSK 5MHz CH-Low



### LTE Band 38 QPSK 10MHz CH-Low



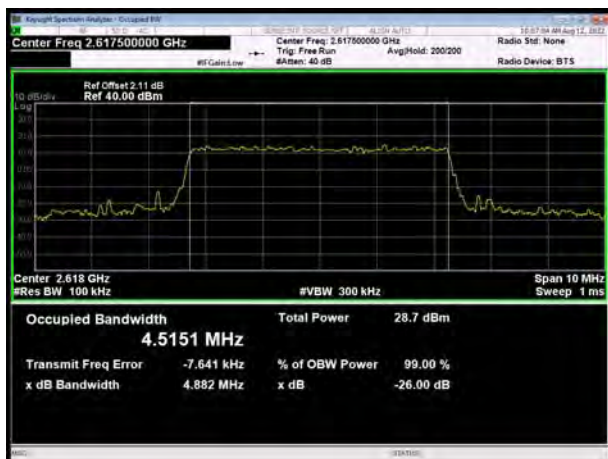
### LTE Band 38 QPSK 5MHz CH-Middle



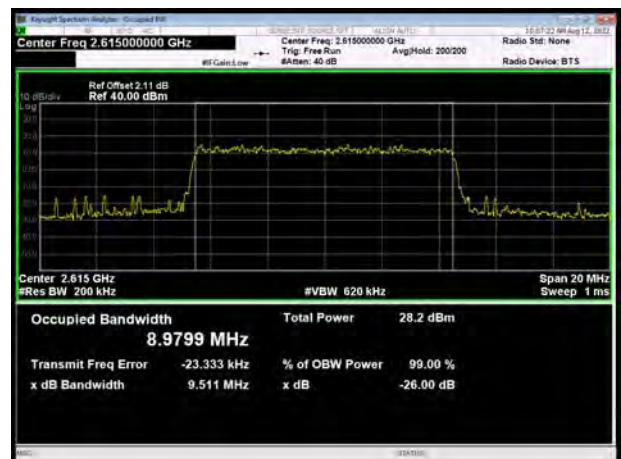
### LTE Band 38 QPSK 10MHz CH-Middle



### LTE Band 38 QPSK 5MHz CH-High



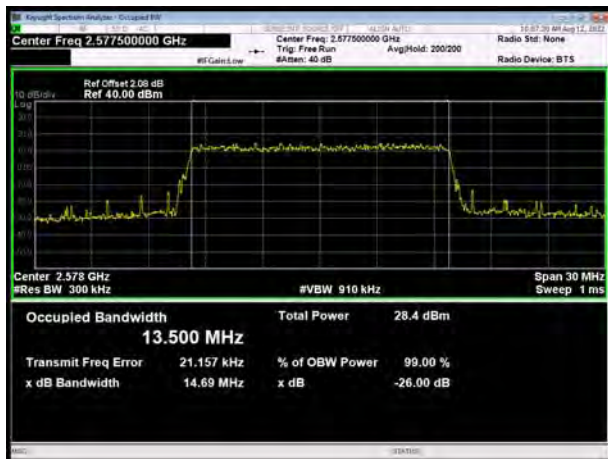
### LTE Band 38 QPSK 10MHz CH-High



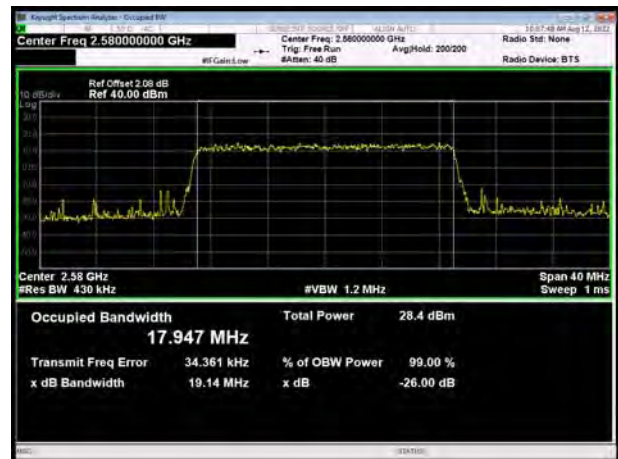




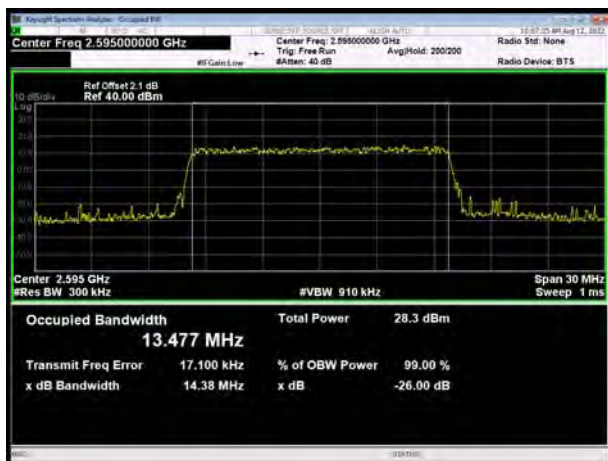
### LTE Band 38 QPSK 15MHz CH-Low



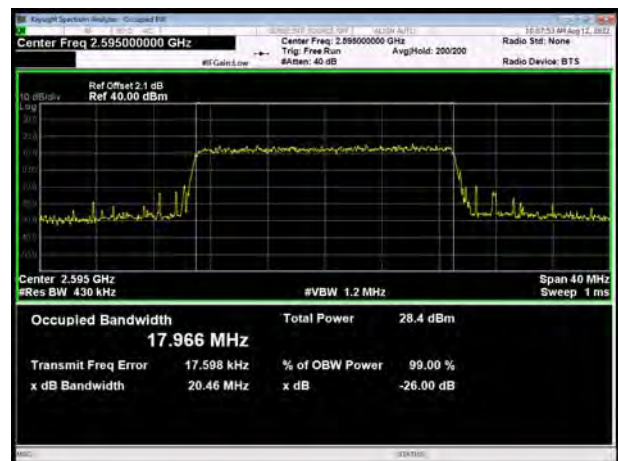
### LTE Band 38 QPSK 20MHz CH-Low



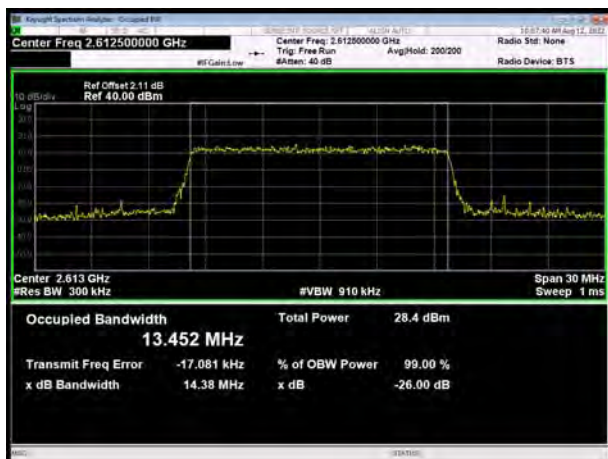
### LTE Band 38 QPSK 15MHz CH-Middle



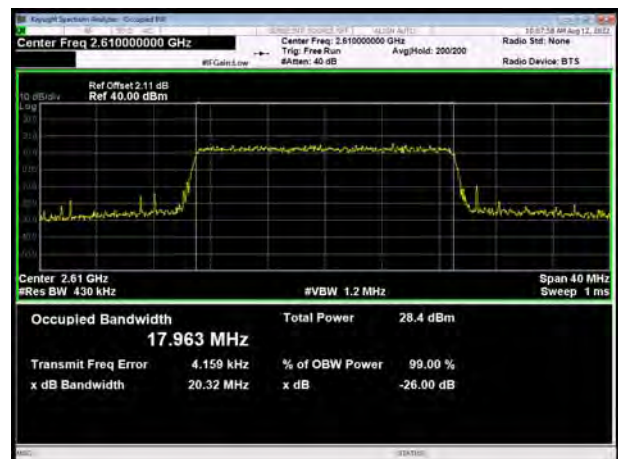
### LTE Band 38 QPSK 20MHz CH-Middle



### LTE Band 38 QPSK 15MHz CH-High

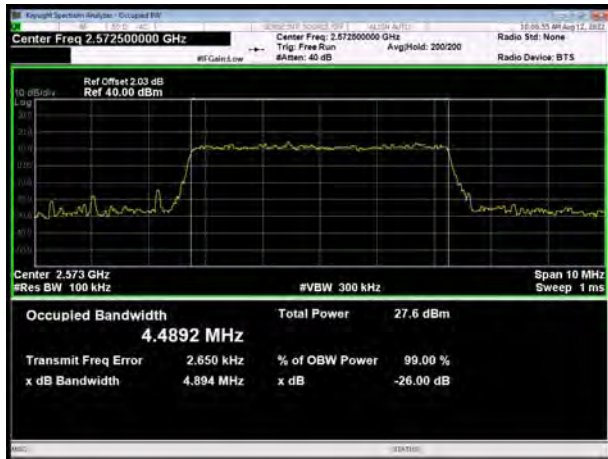


### LTE Band 38 QPSK 20MHz CH-High

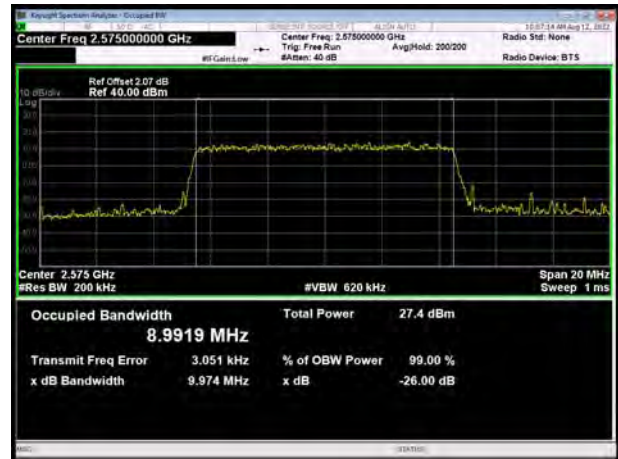




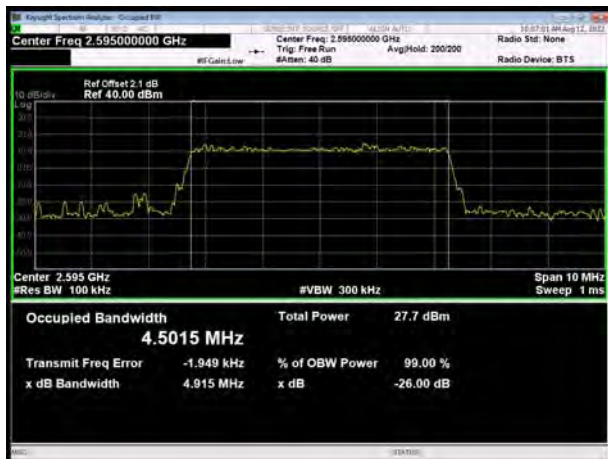
LTE Band 38 16QAM 5MHz CH-Low



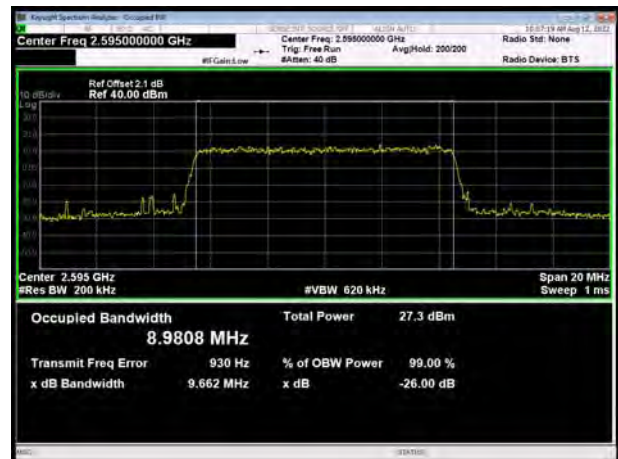
LTE Band 38 16QAM 10MHz CH-Low



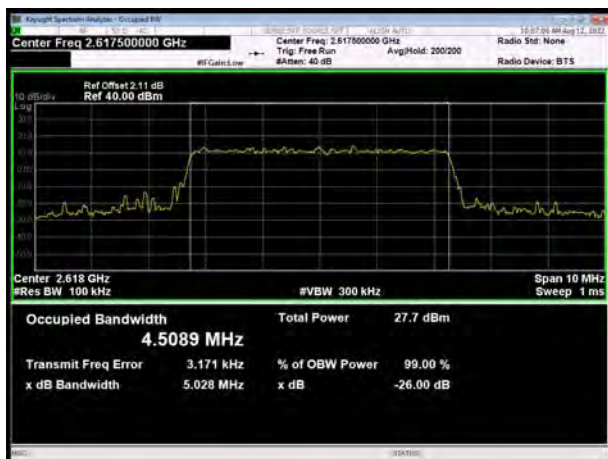
LTE Band 38 16QAM 5MHz CH-Middle



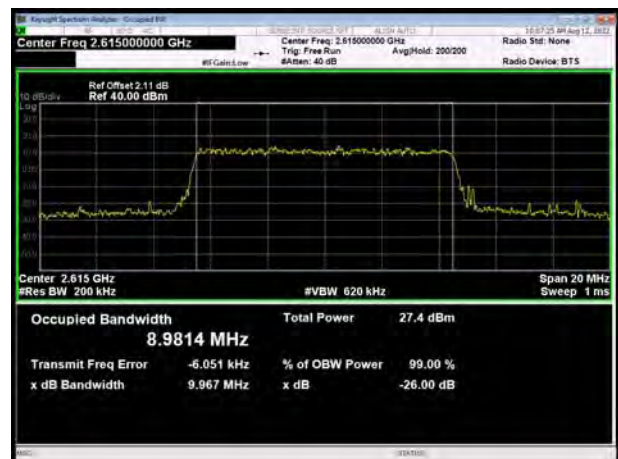
LTE Band 38 16QAM 10MHz CH-Middle



LTE Band 38 16QAM 5MHz CH-High



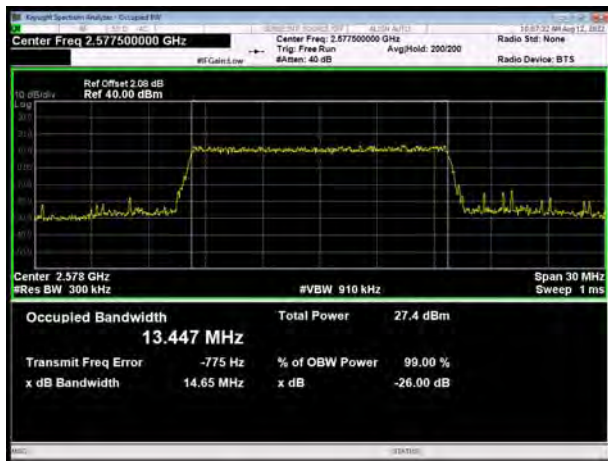
LTE Band 38 16QAM 10MHz CH-High



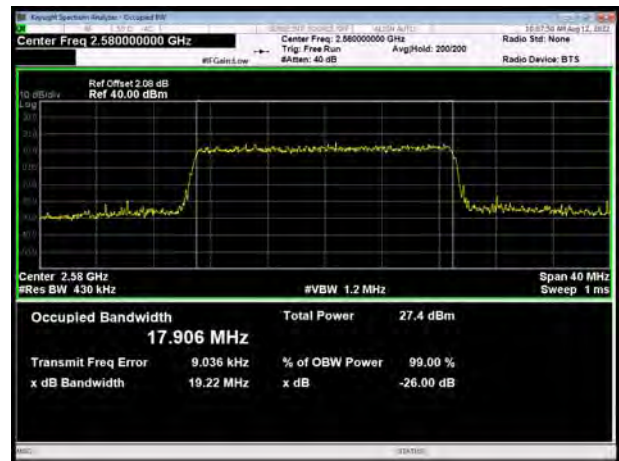




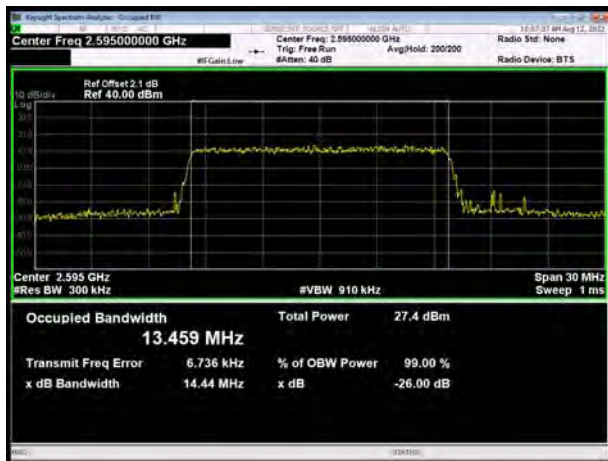
### LTE Band 38 16QAM 15MHz CH-Low



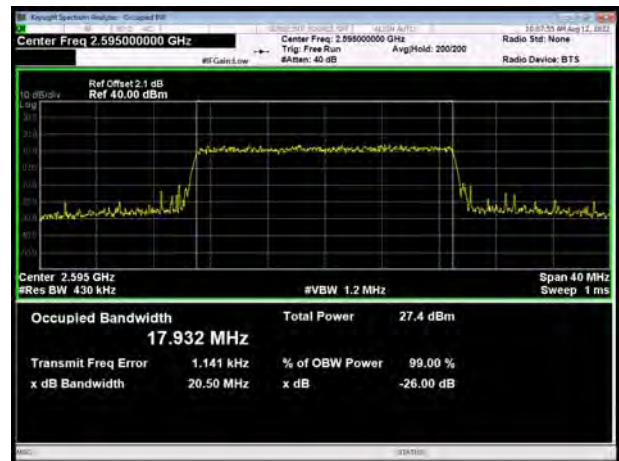
### LTE Band 38 16QAM 20MHz CH-Low



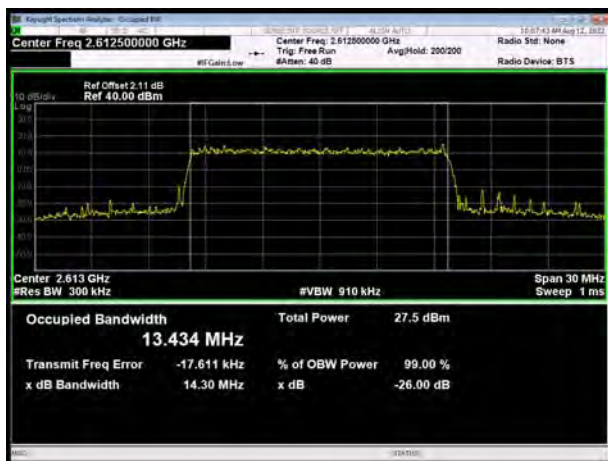
### LTE Band 38 16QAM 15MHz CH-Middle



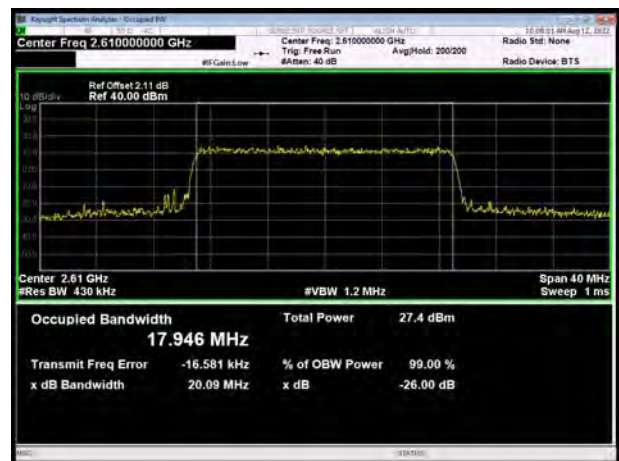
### LTE Band 38 16QAM 20MHz CH-Middle



### LTE Band 38 16QAM 15MHz CH-High

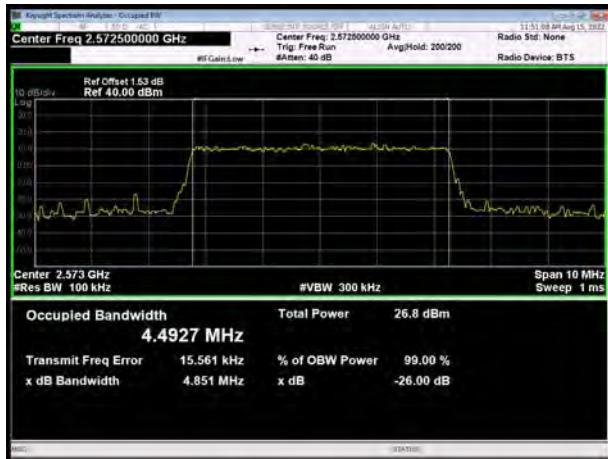


### LTE Band 38 16QAM 20MHz CH-High

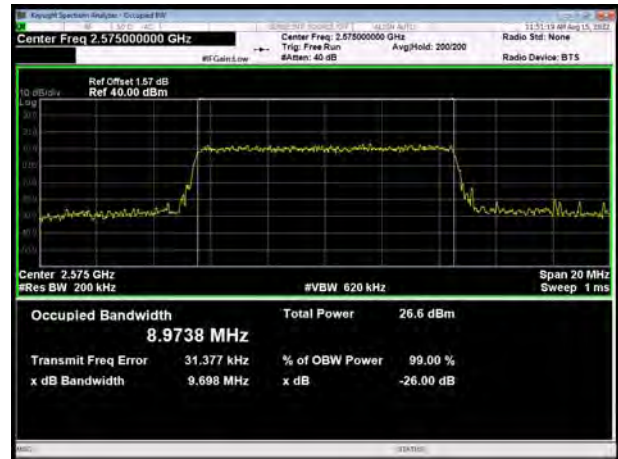




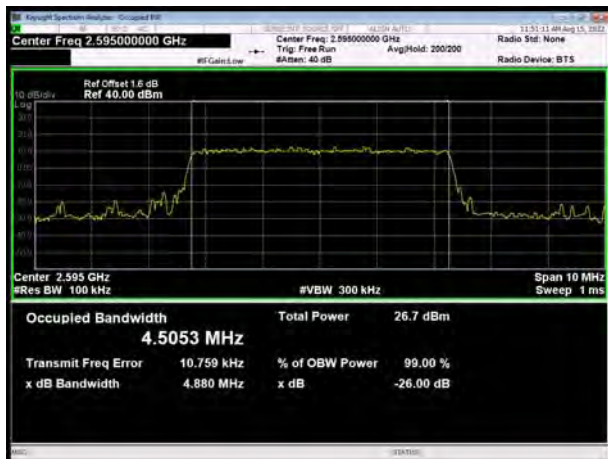
LTE Band 38 64QAM 5MHz CH-Low



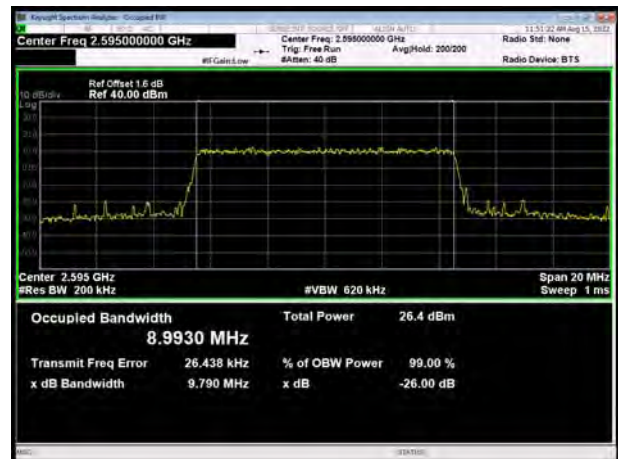
LTE Band 38 64QAM 10MHz CH-Low



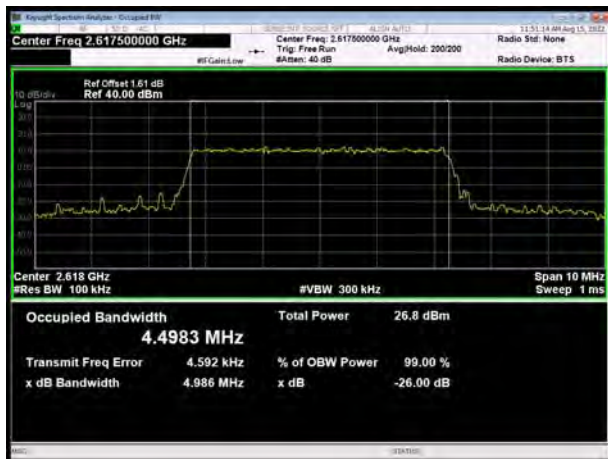
LTE Band 38 64QAM 5MHz CH-Middle



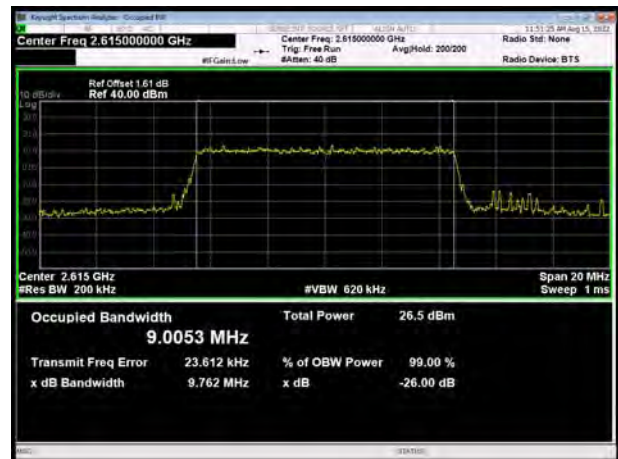
LTE Band 38 64QAM 10MHz CH-Middle



LTE Band 38 64QAM 5MHz CH-High



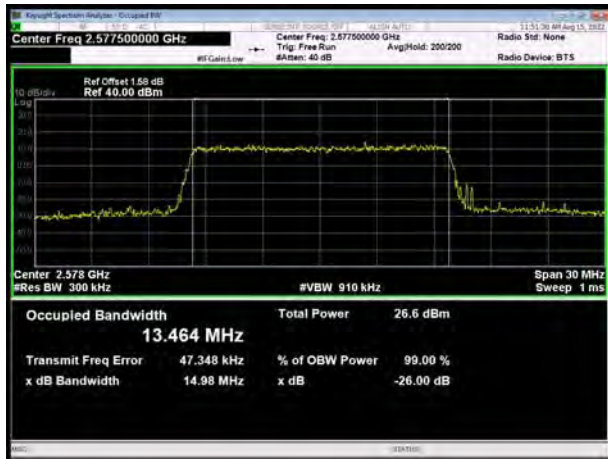
LTE Band 38 64QAM 10MHz CH-High



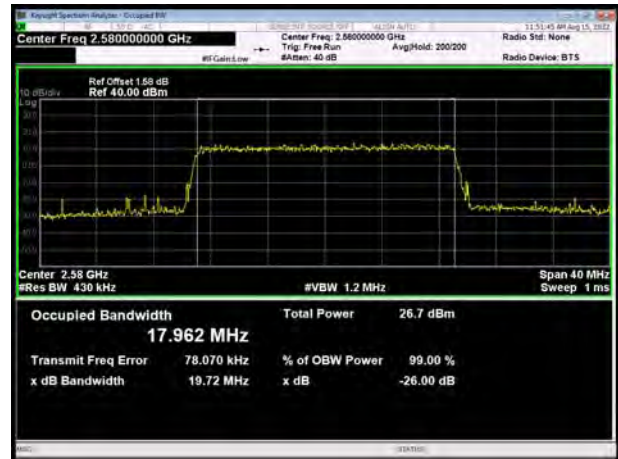




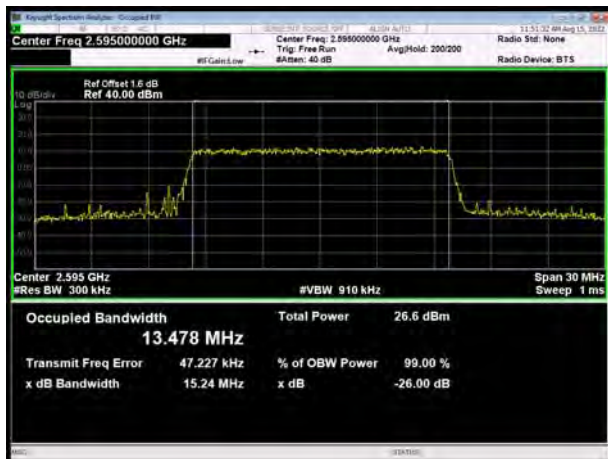
### LTE Band 38 64QAM 15MHz CH-Low



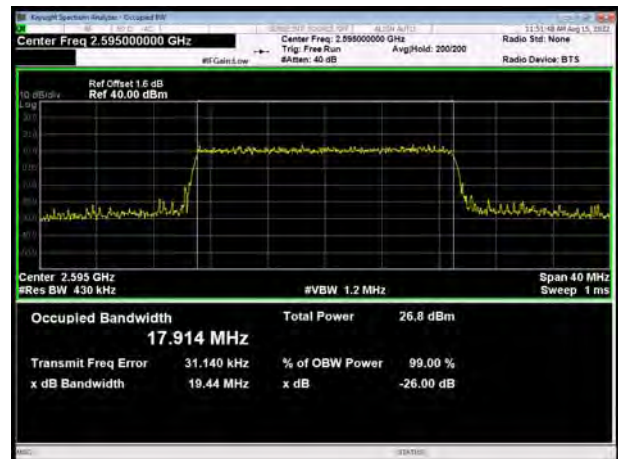
### LTE Band 38 64QAM 20MHz CH-Low



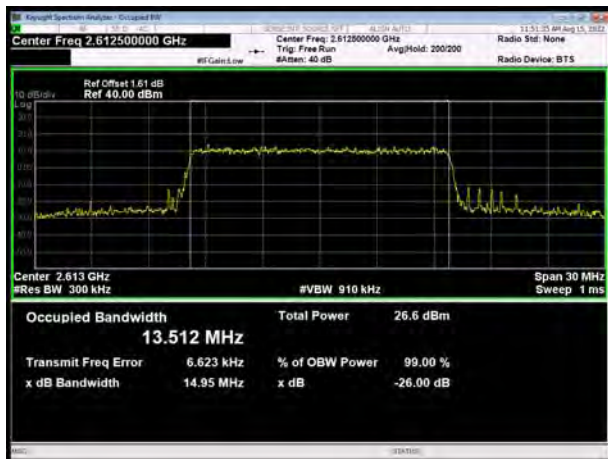
### LTE Band 38 64QAM 15MHz CH-Middle



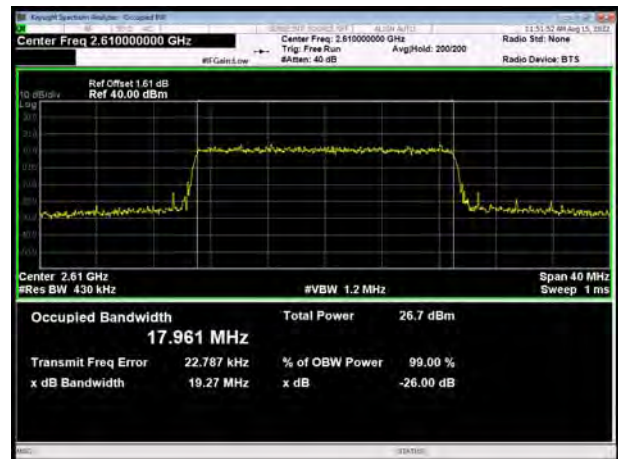
### LTE Band 38 64QAM 20MHz CH-Middle



### LTE Band 38 64QAM 15MHz CH-High



### LTE Band 38 64QAM 20MHz CH-High





### LTE Band 41 QPSK 5MHz CH-Low



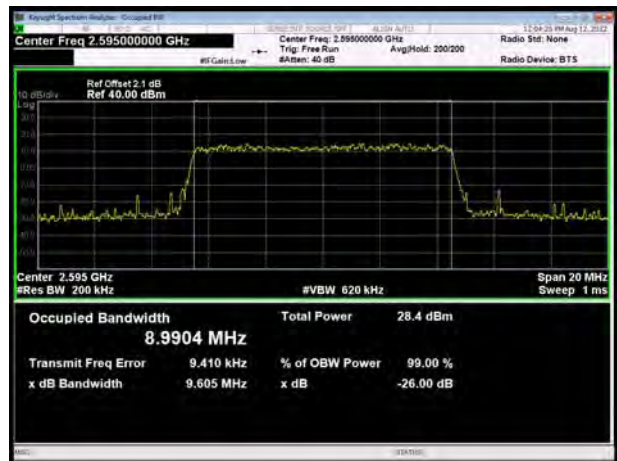
### LTE Band 41 QPSK 10MHz CH-Low



### LTE Band 41 QPSK 5MHz CH-Middle



### LTE Band 41 QPSK 10MHz CH-Middle



### LTE Band 41 QPSK 5MHz CH-High



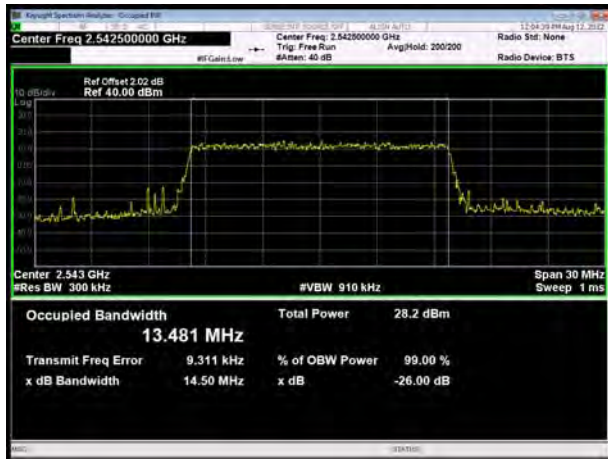
### LTE Band 41 QPSK 10MHz CH-High



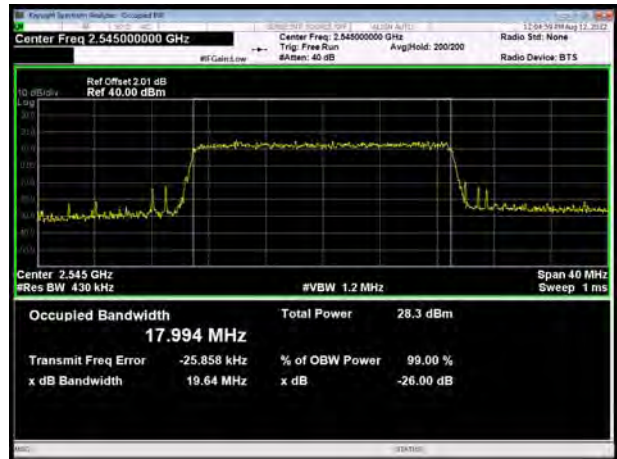




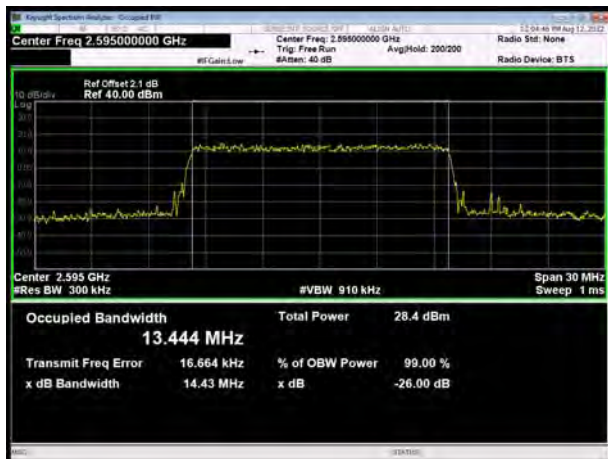
LTE Band 41 QPSK 15MHz CH-Low



LTE Band 41 QPSK 20MHz CH-Low



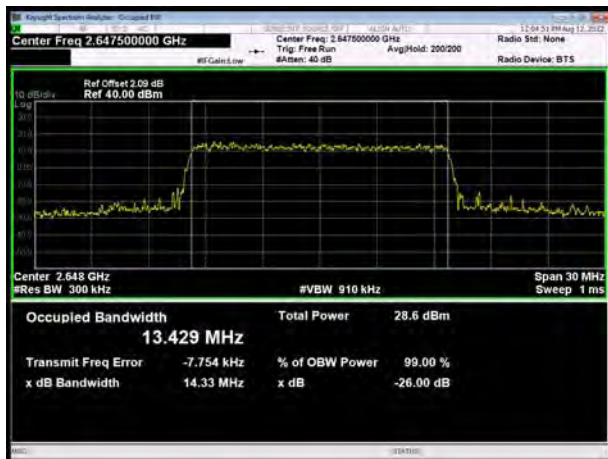
LTE Band 41 QPSK 15MHz CH-Middle



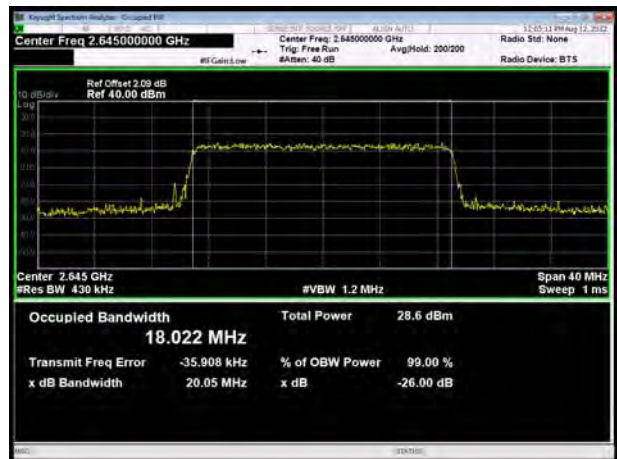
LTE Band 41 QPSK 20MHz CH-Middle



LTE Band 41 QPSK 15MHz CH-High

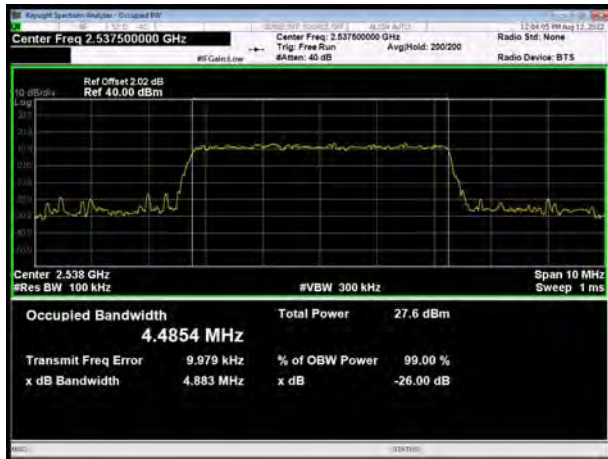


LTE Band 41 QPSK 20MHz CH-High

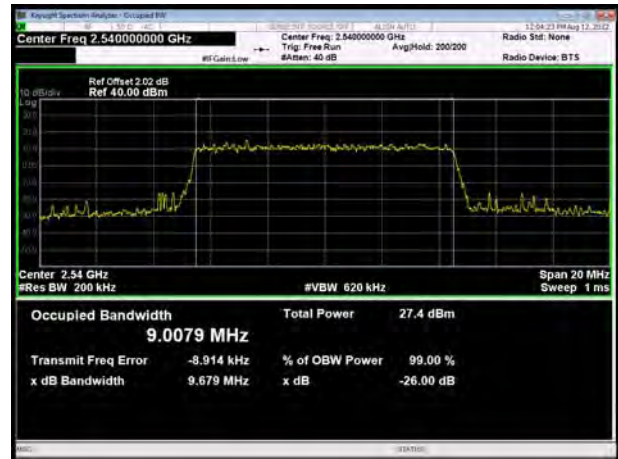




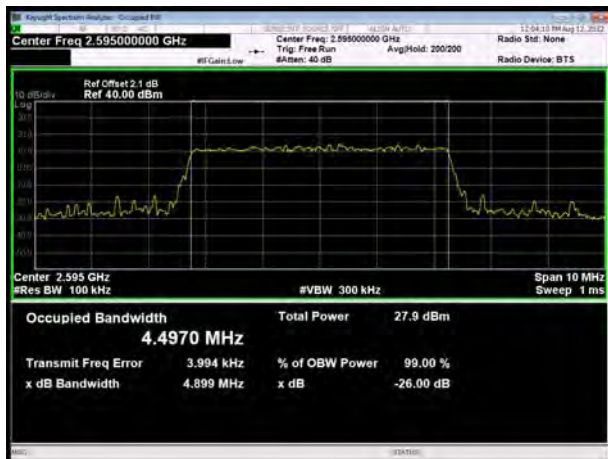
### LTE Band 41 16QAM 5MHz CH-Low



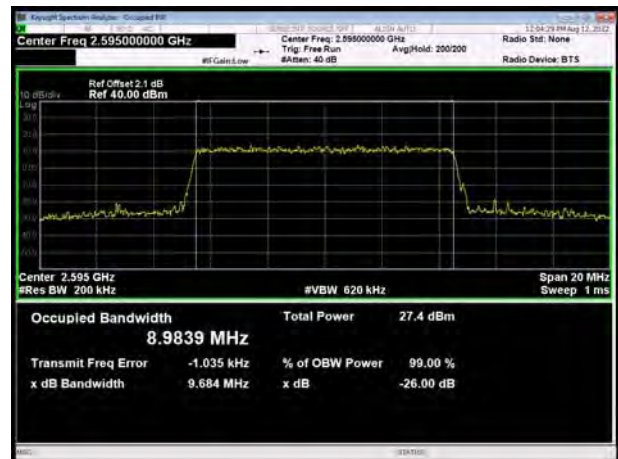
### LTE Band 41 16QAM 10MHz CH-Low



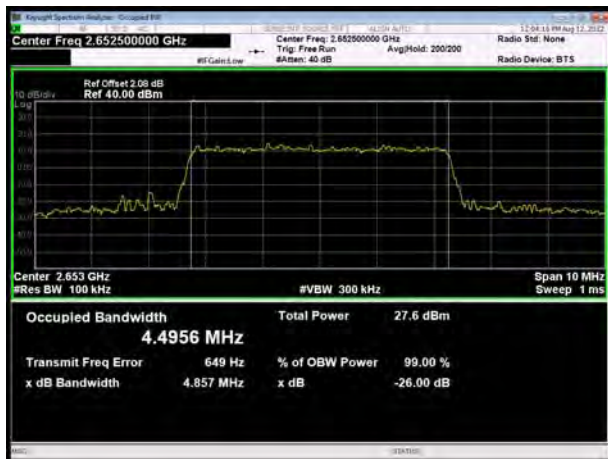
### LTE Band 41 16QAM 5MHz CH-Middle



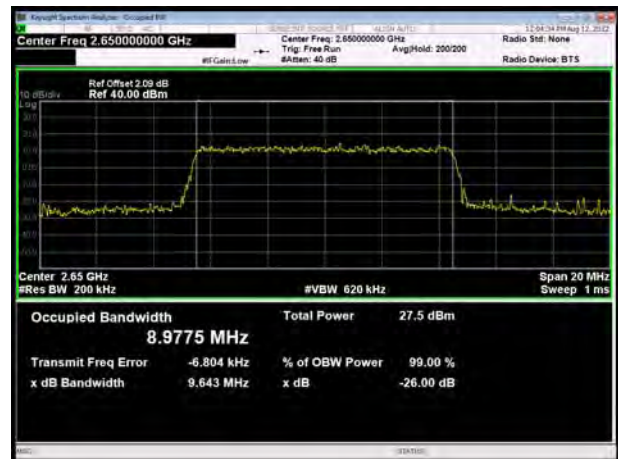
### LTE Band 41 16QAM 10MHz CH-Middle



### LTE Band 41 16QAM 5MHz CH-High



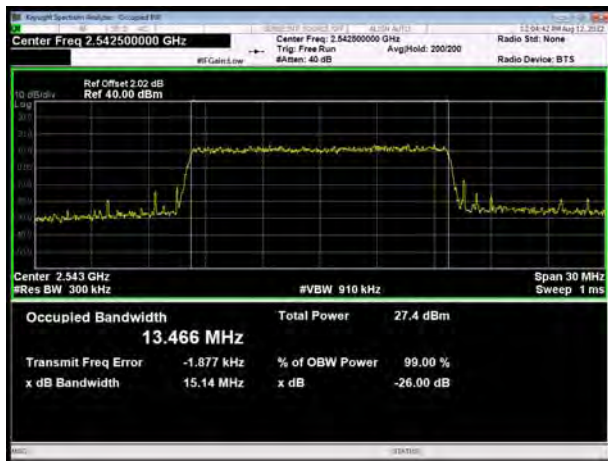
### LTE Band 41 16QAM 10MHz CH-High



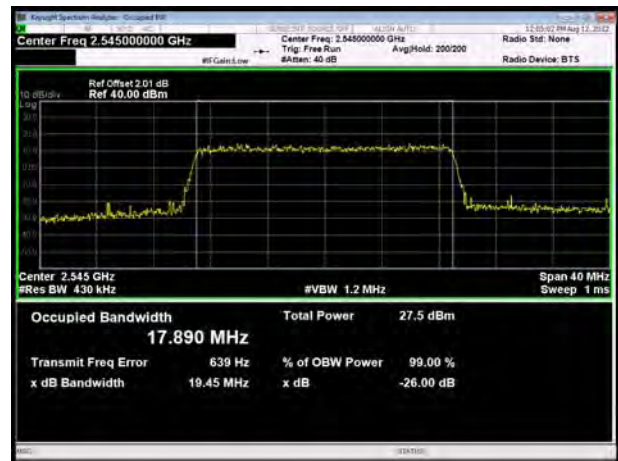




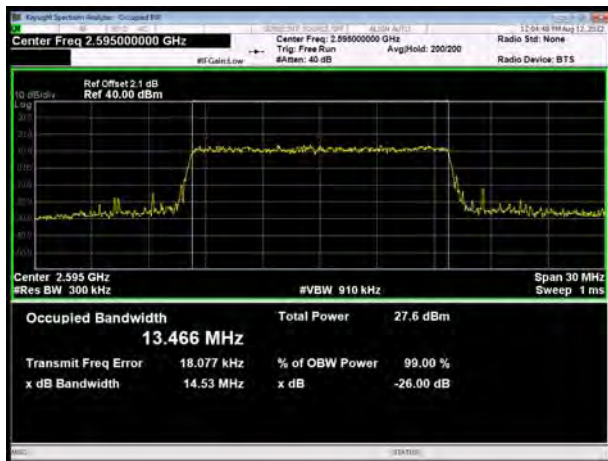
### LTE Band 41 16QAM 15MHz CH-Low



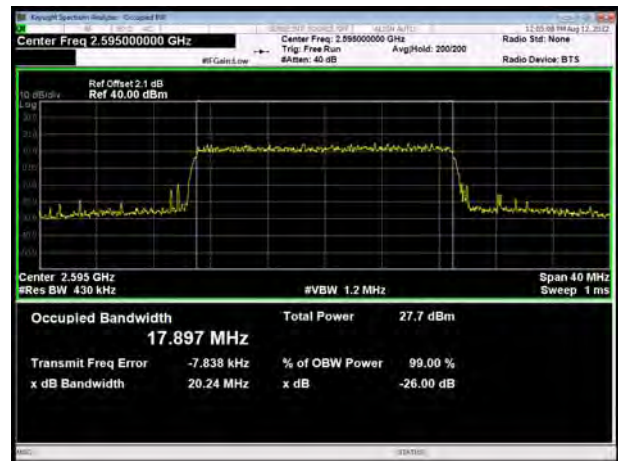
### LTE Band 41 16QAM 20MHz CH-Low



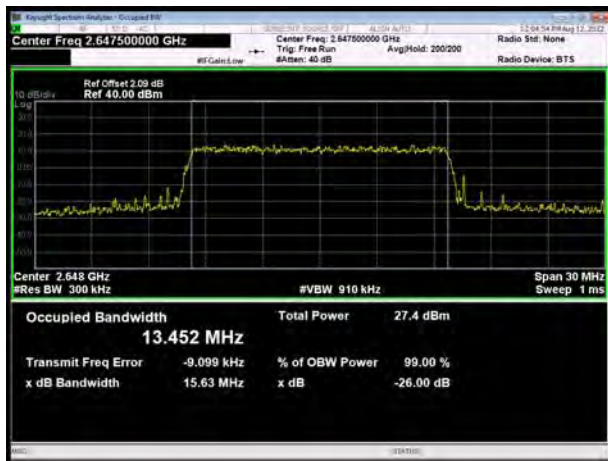
### LTE Band 41 16QAM 15MHz CH-Middle



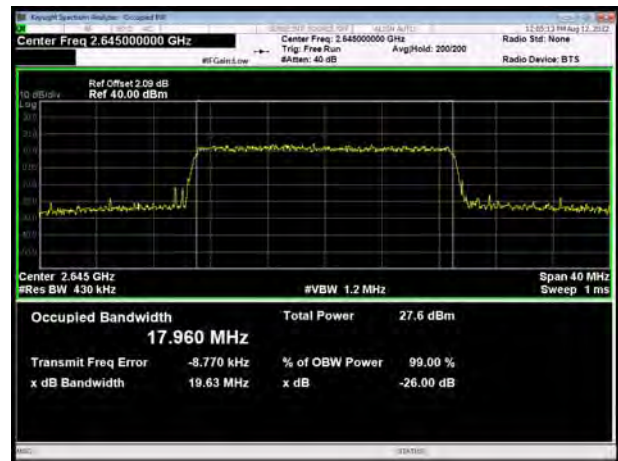
### LTE Band 41 16QAM 20MHz CH-Middle



### LTE Band 41 16QAM 15MHz CH-High

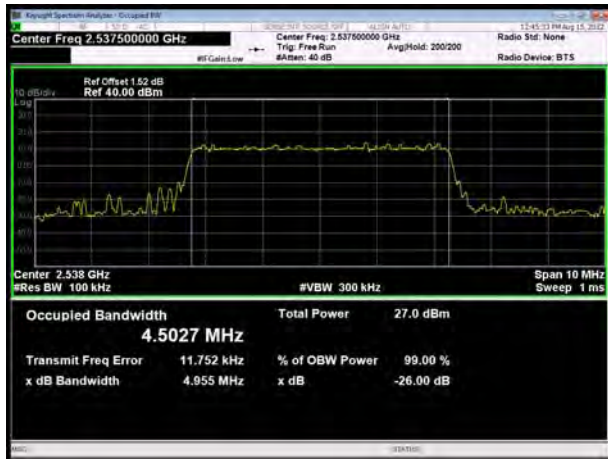


### LTE Band 41 16QAM 20MHz CH-High

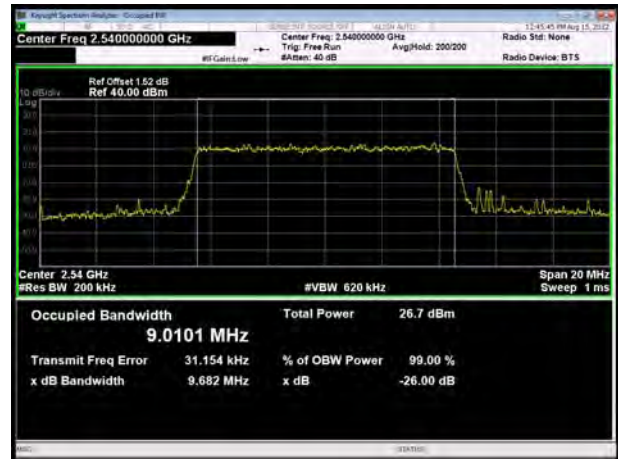




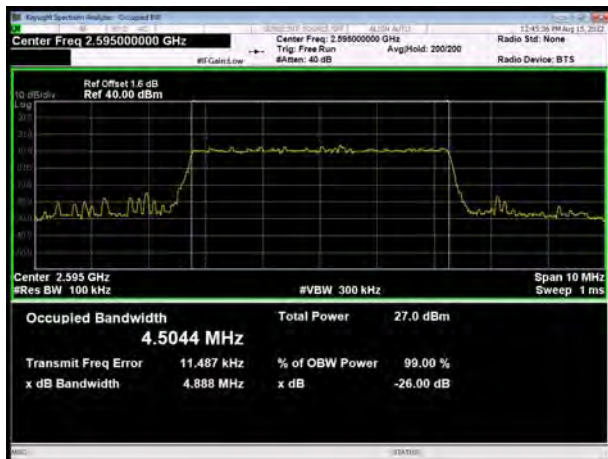
LTE Band 41 64QAM 5MHz CH-Low



LTE Band 41 64QAM 10MHz CH-Low



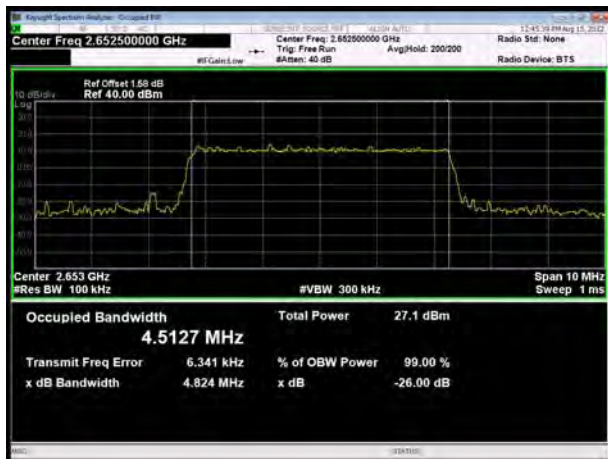
LTE Band 41 64QAM 5MHz CH-Middle



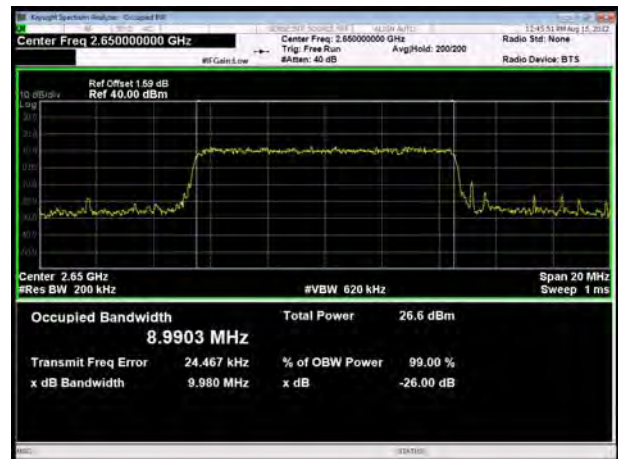
LTE Band 41 64QAM 10MHz CH-Middle



LTE Band 41 64QAM 5MHz CH-High



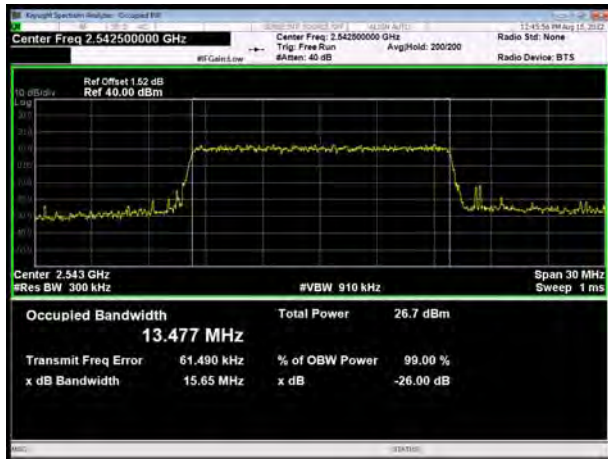
LTE Band 41 64QAM 10MHz CH-High



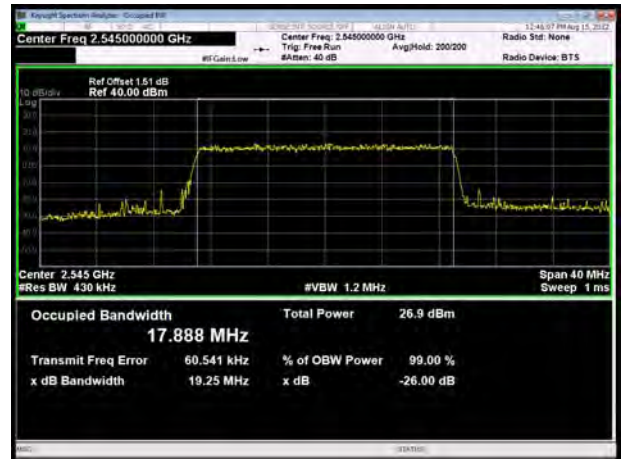




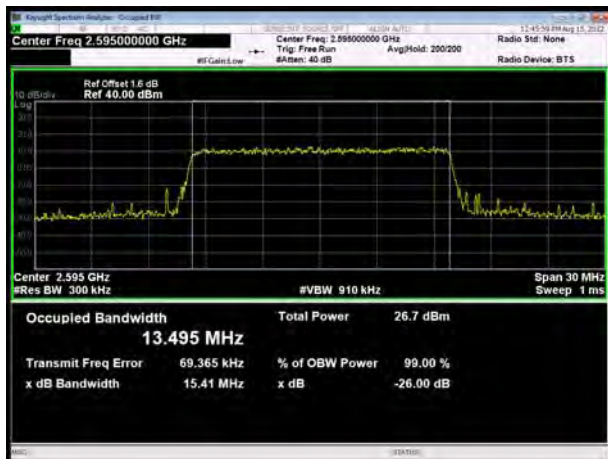
### LTE Band 41 64QAM 15MHz CH-Low



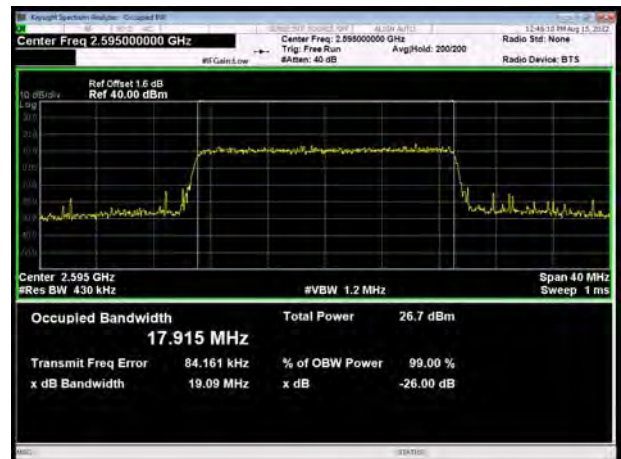
### LTE Band 41 64QAM 20MHz CH-Low



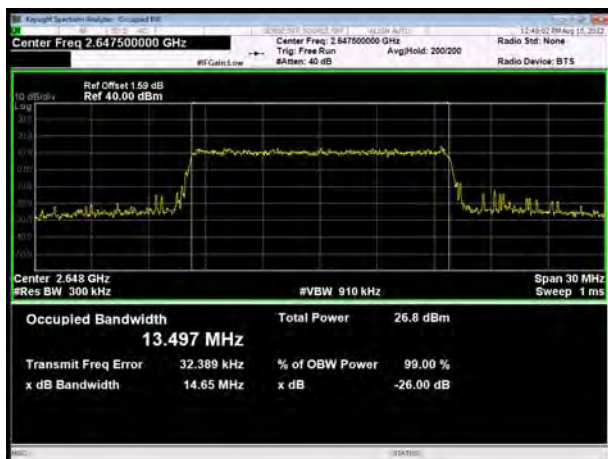
### LTE Band 41 64QAM 15MHz CH-Middle



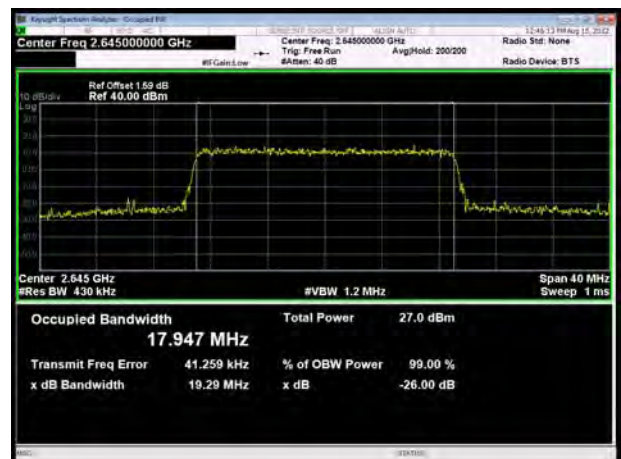
### LTE Band 41 64QAM 20MHz CH-Middle



### LTE Band 41 64QAM 15MHz CH-High

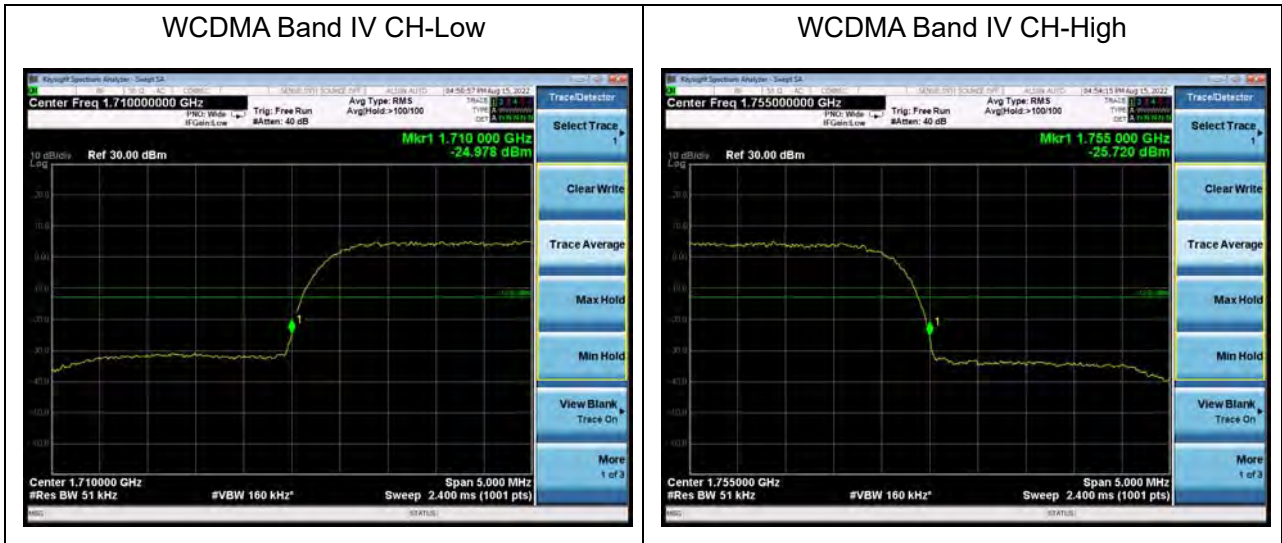


### LTE Band 41 64QAM 20MHz CH-High



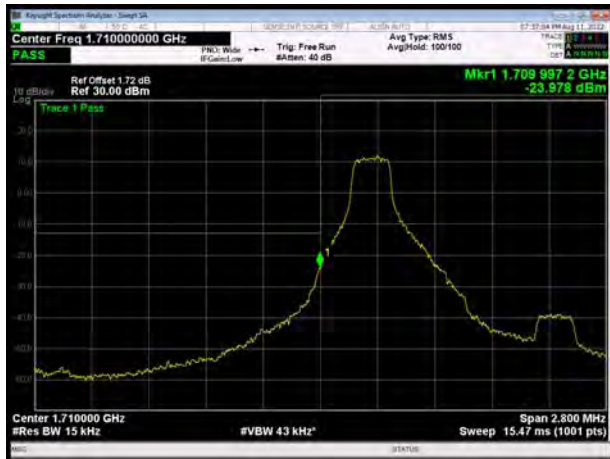
### 6.3 Band Edge Compliance

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





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







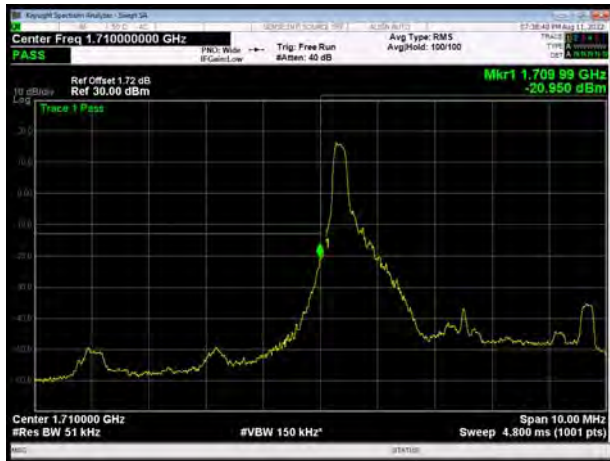
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



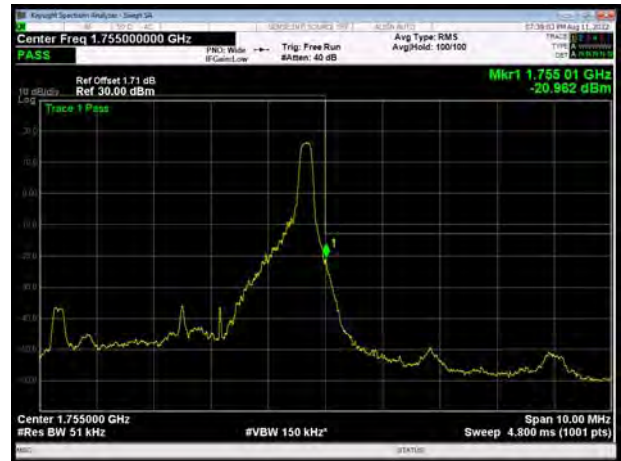
LTE Band 4 QPSK 3MHz CH-High, 100%RB



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



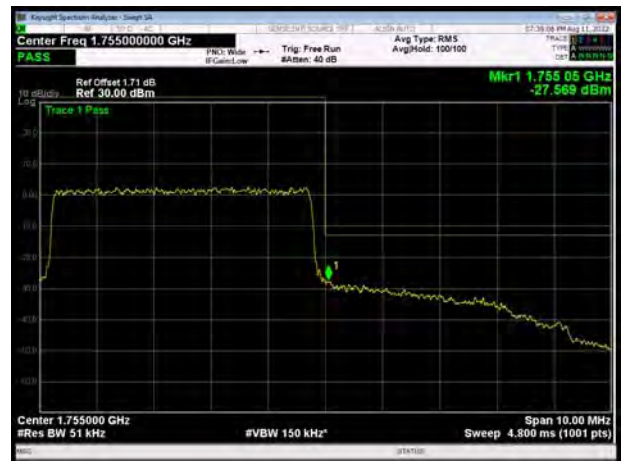
LTE Band 4 QPSK 5MHz CH-High, 1 RB



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



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

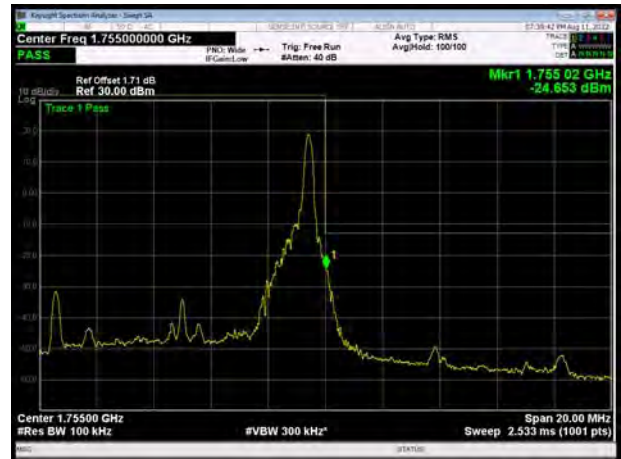




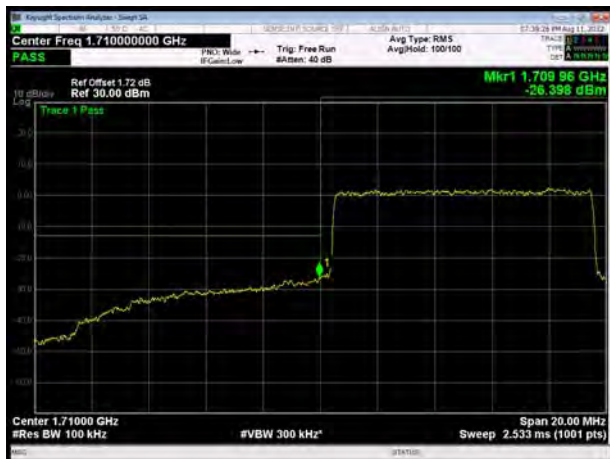
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



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



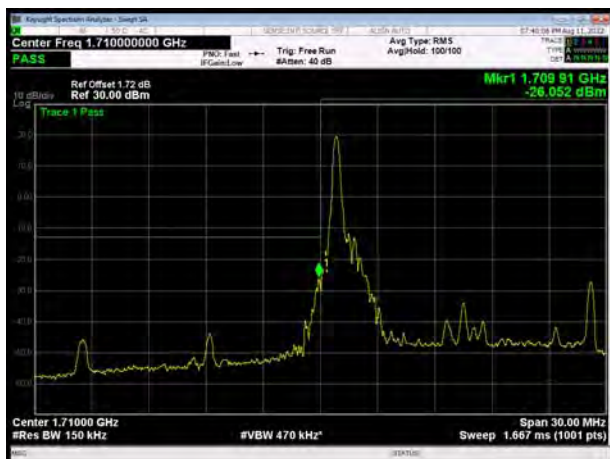
LTE Band 4 QPSK 10MHz CH-Low, 100%RB



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



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



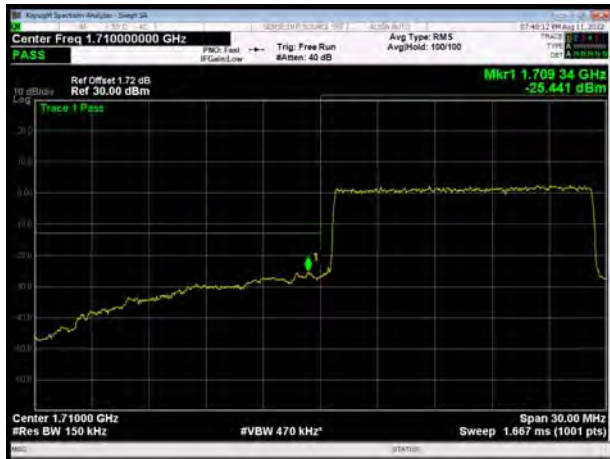
LTE Band 4 QPSK 15MHz CH-High, 1 RB



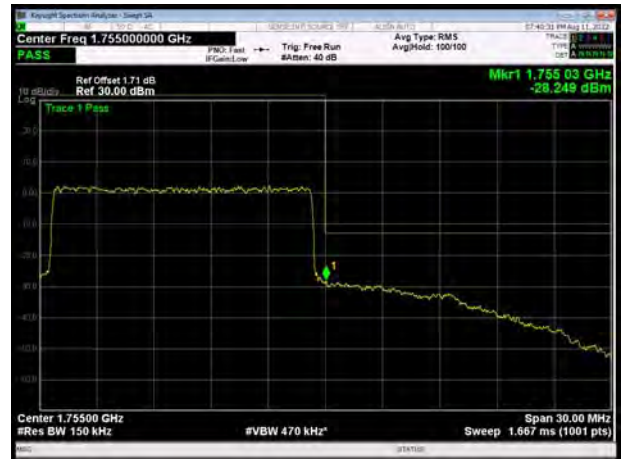




LTE Band 4 QPSK 15MHz CH-Low, 100%RB



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

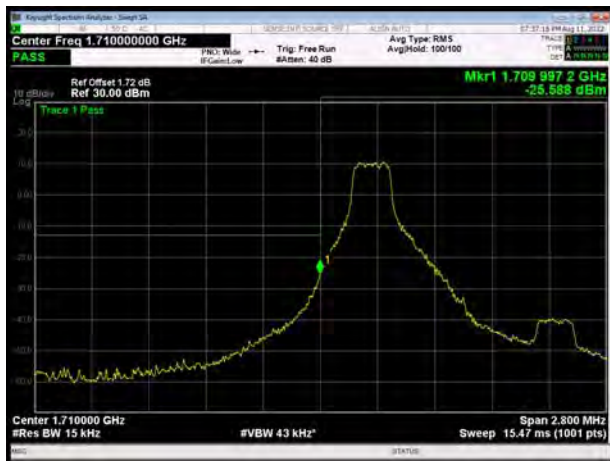


LTE Band 4 QPSK 20MHz CH-High, 100%RB





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



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



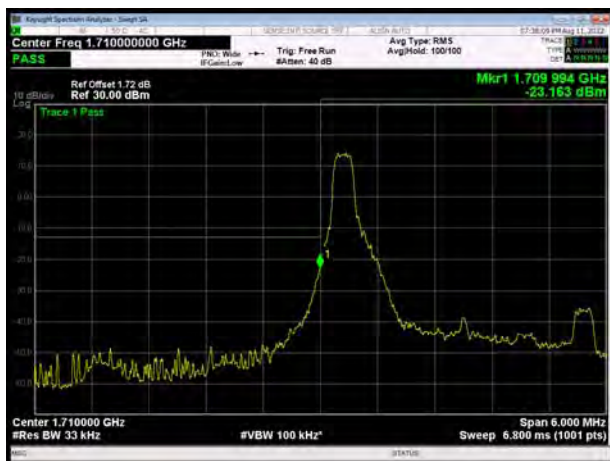
LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB



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



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



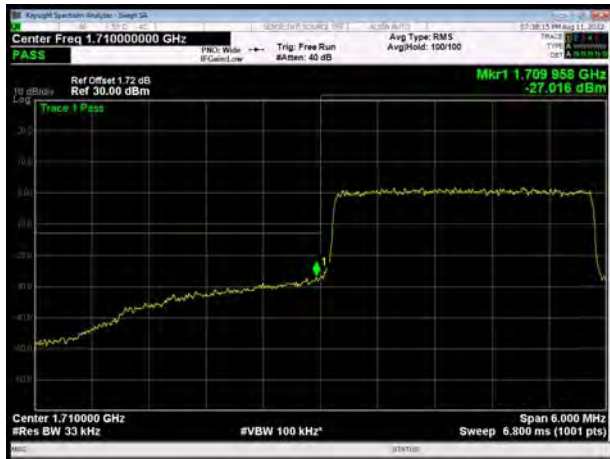
LTE Band 4 16QAM 3MHz CH-High, 1 RB







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



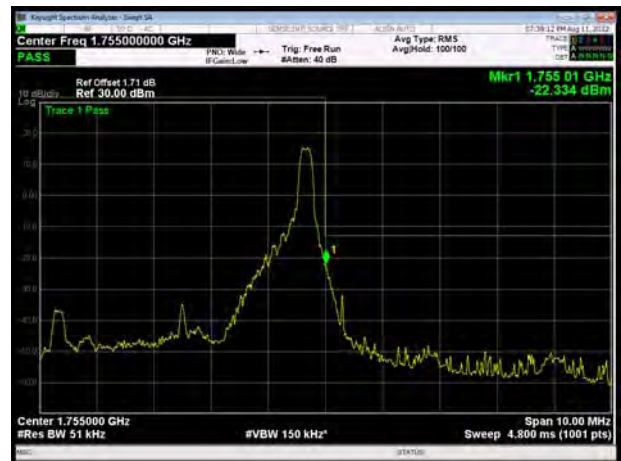
LTE Band 4 16QAM 3MHz CH-High, 100%RB



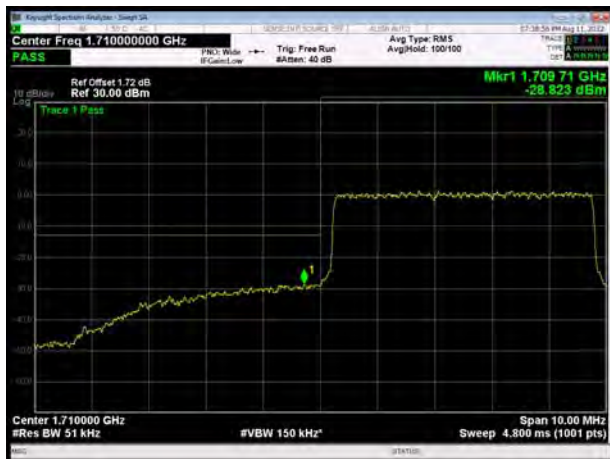
LTE Band 4 16QAM 5MHz CH-Low, 1 RB



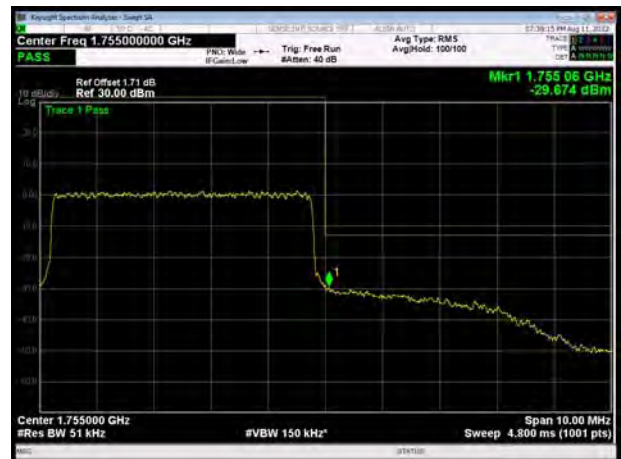
LTE Band 4 16QAM 5MHz CH-High, 1 RB



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

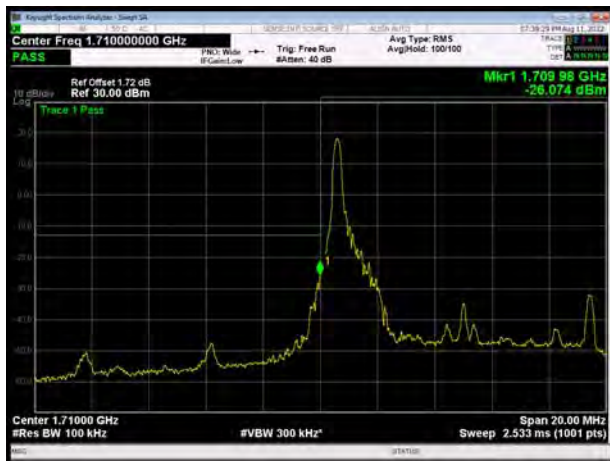


LTE Band 4 16QAM 5MHz CH-High, 100%RB





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



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



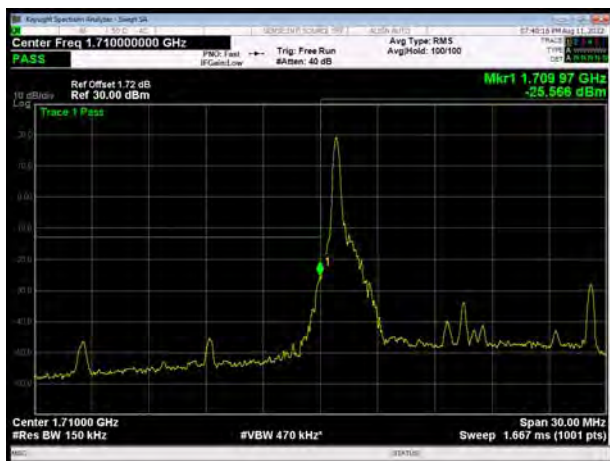
LTE Band 4 16QAM 10MHz CH-Low, 100%RB



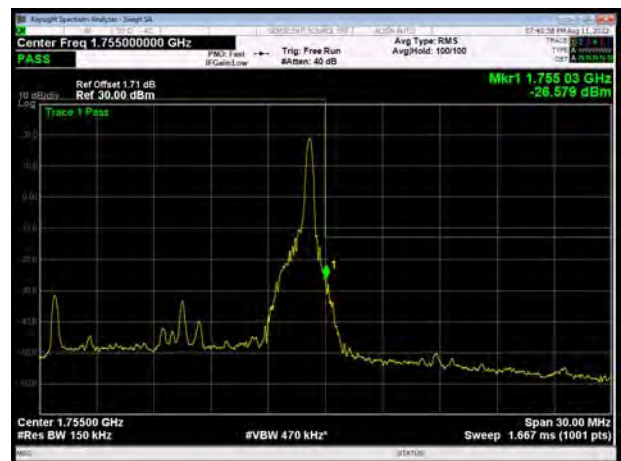
LTE Band 4 16QAM 10MHz CH-High, 100%RB



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



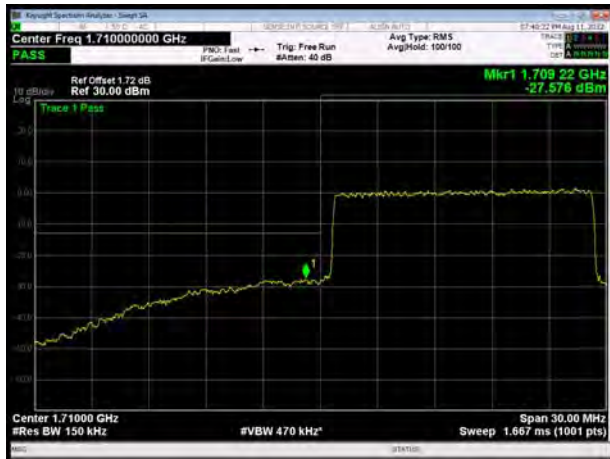
LTE Band 4 16QAM 15MHz CH-High, 1 RB







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



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



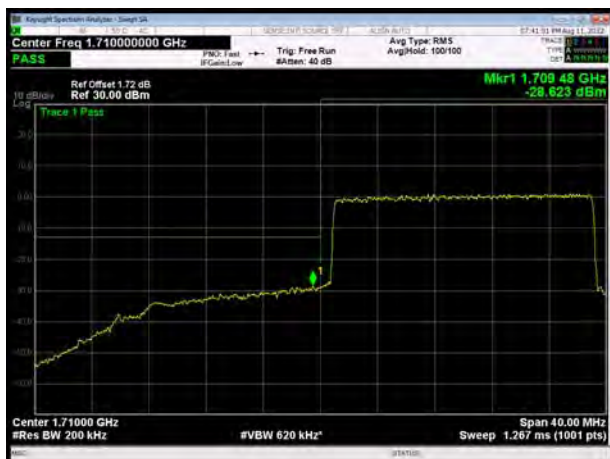
LTE Band 4 16QAM 20MHz CH-Low, 1 RB



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



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



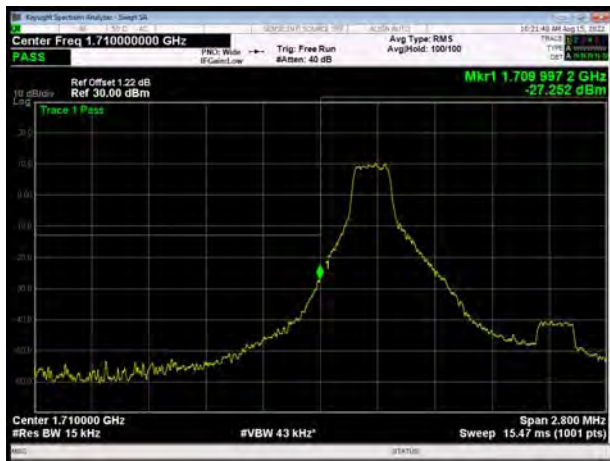
LTE Band 4 16QAM 20MHz CH-High, 100%RB



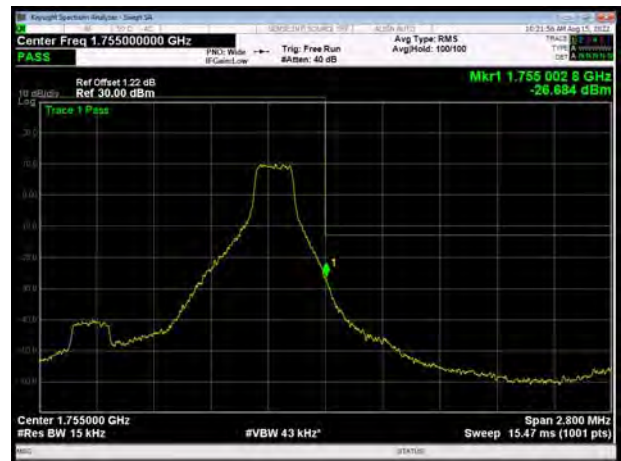




LTE Band 4 64QAM 1.4MHz CH-Low, 1 RB



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



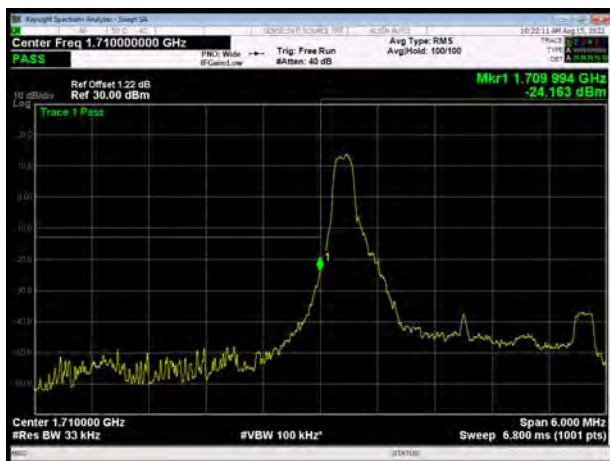
LTE Band 4 64QAM 1.4MHz CH-Low, 100%RB



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



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

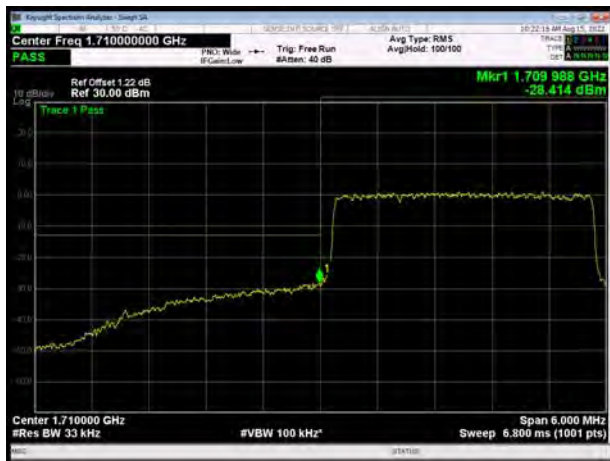


LTE Band 4 64QAM 3MHz CH-High, 1 RB





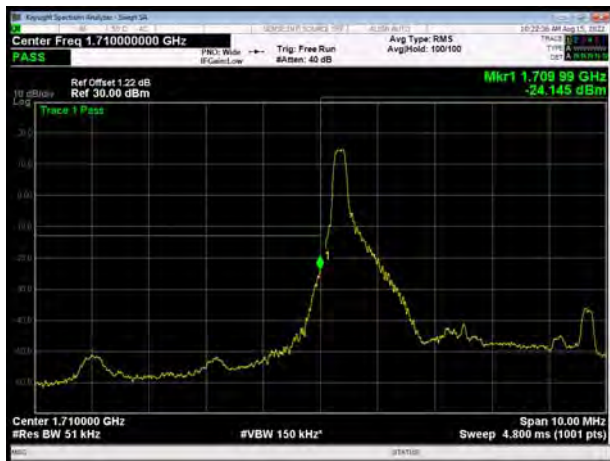
LTE Band 4 64QAM 3MHz CH-Low, 100%RB



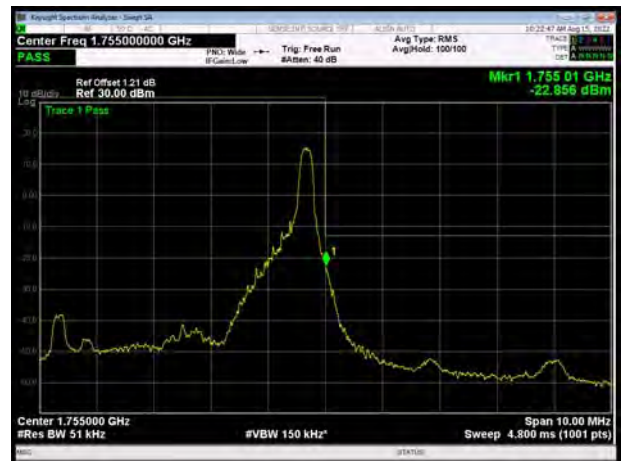
LTE Band 4 64QAM 3MHz CH-High, 100%RB



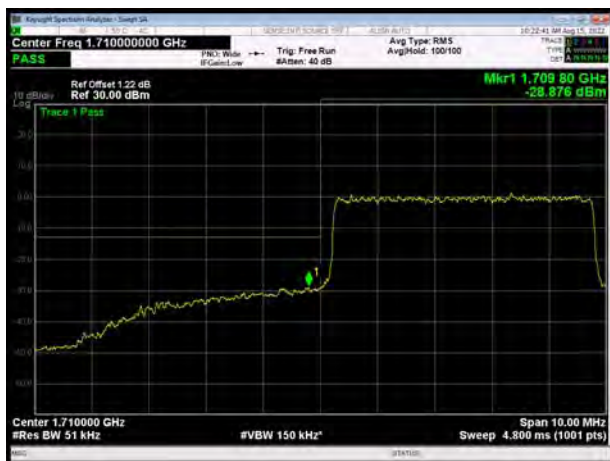
LTE Band 4 64QAM 5MHz CH-Low, 1 RB



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



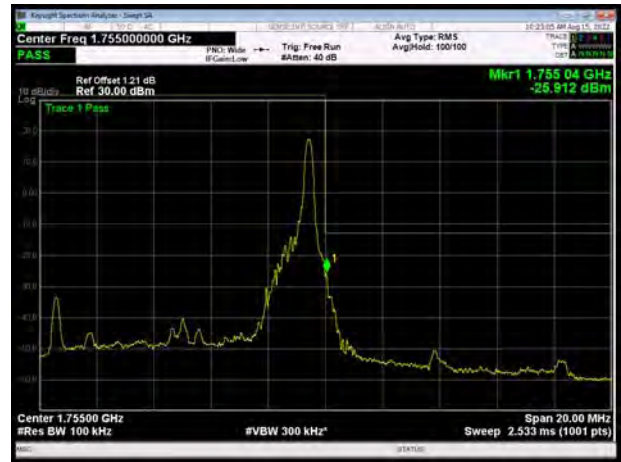




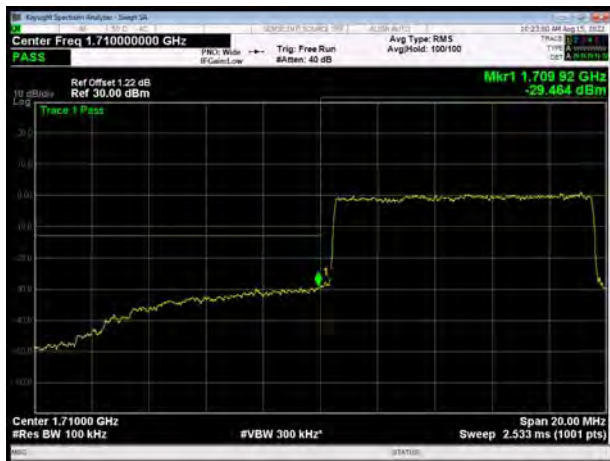
LTE Band 4 64QAM 10MHz CH-Low, 1 RB



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



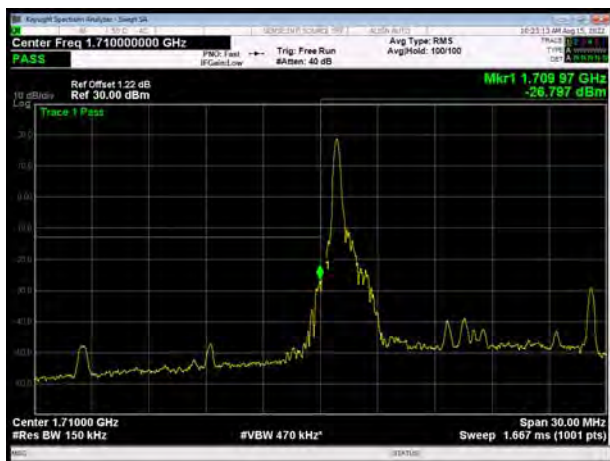
LTE Band 4 64QAM 10MHz CH-Low, 100%RB



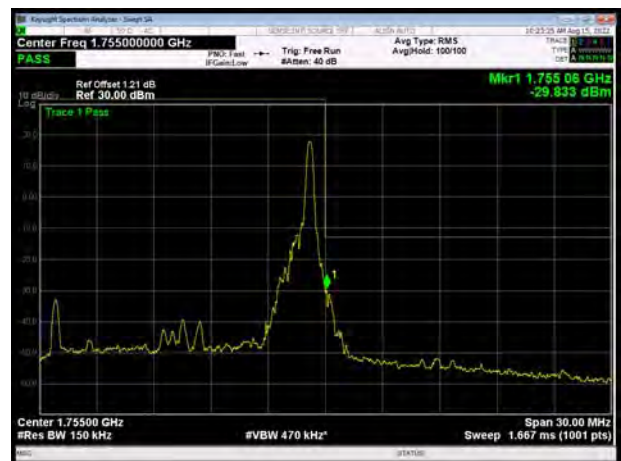
LTE Band 4 64QAM 10MHz CH-High, 100%RB



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

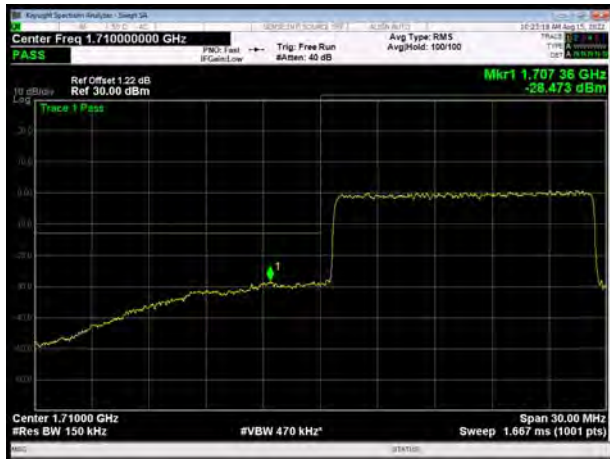


LTE Band 4 64QAM 15MHz CH-High, 1 RB





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



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



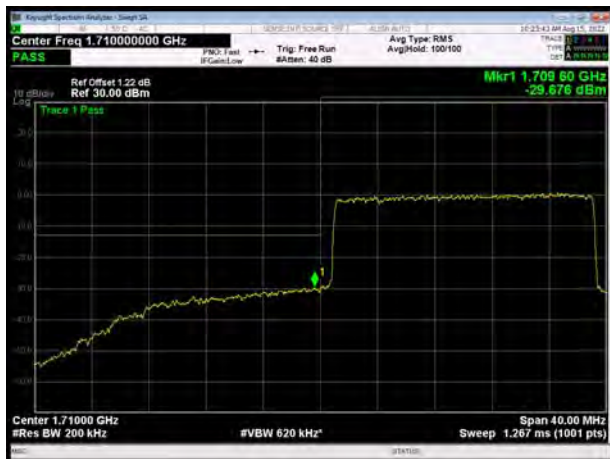
LTE Band 4 64QAM 20MHz CH-Low, 1 RB



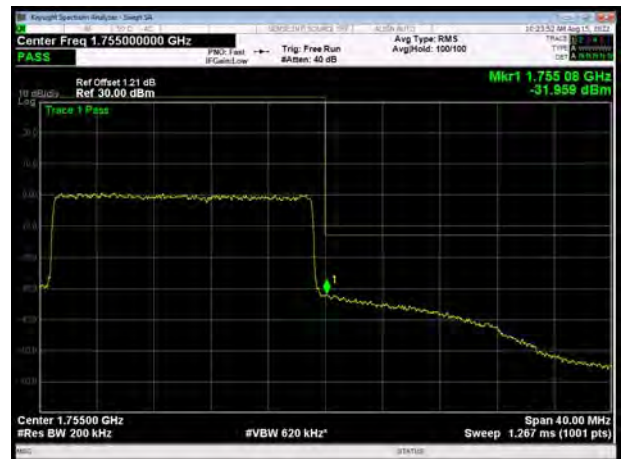
LTE Band 4 64QAM 20MHz CH-High, 1 RB



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

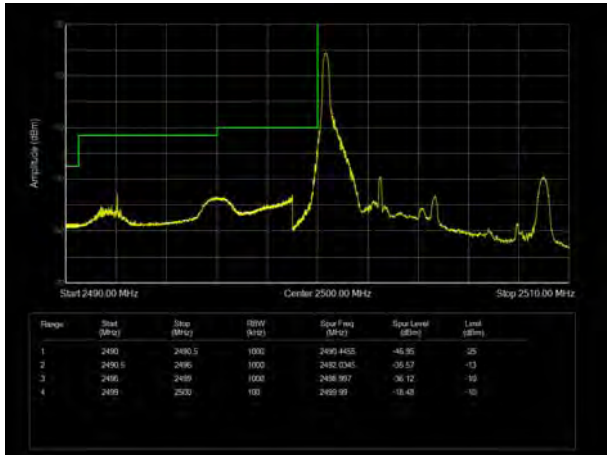


LTE Band 4 64QAM 20MHz CH-High, 100%RB

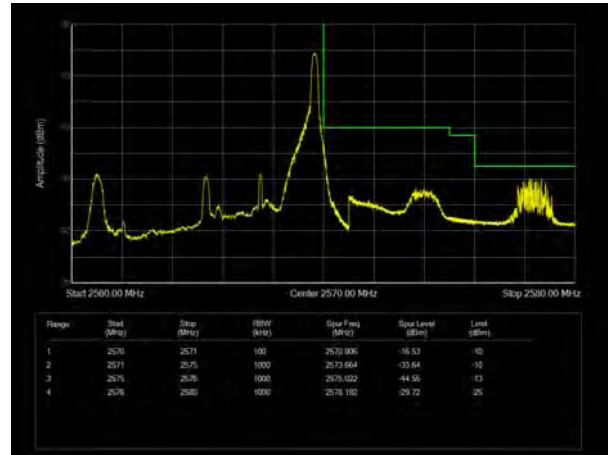




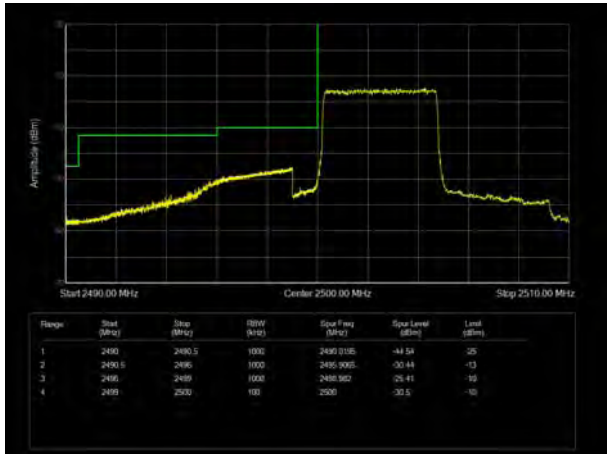
LTE Band 7 QPSK 5MHz CH-Low, 1 RB



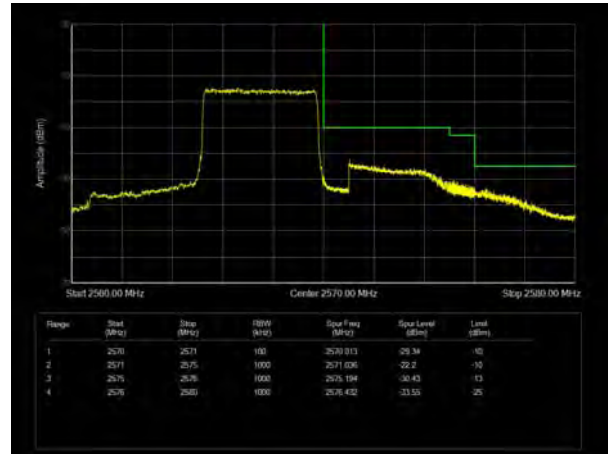
LTE Band 7 QPSK 5MHz CH-High, 1 RB



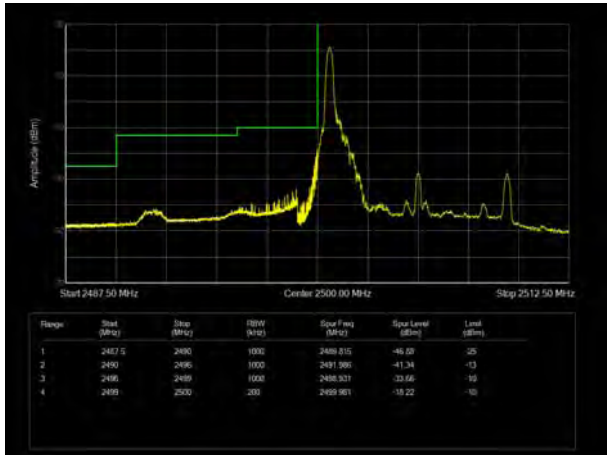
LTE Band 7 QPSK 5MHz CH-Low, 100%RB



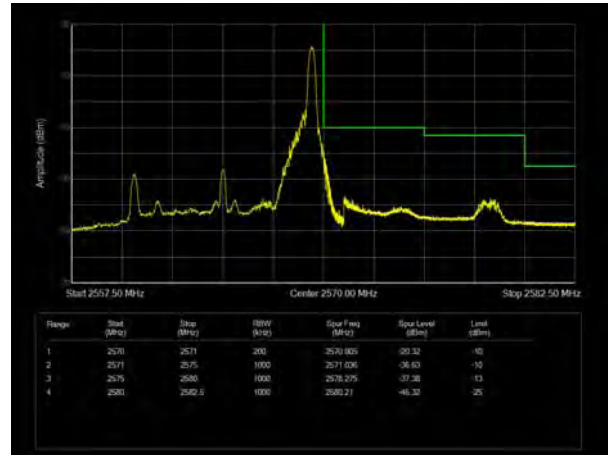
LTE Band 7 QPSK 5MHz CH-High, 100%RB



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



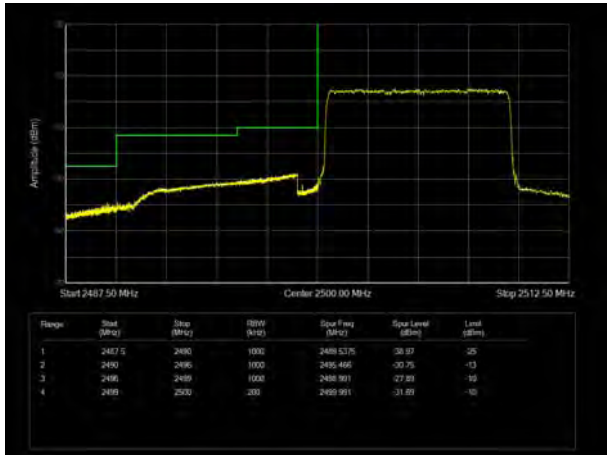
LTE Band 7 QPSK 10MHz CH-High, 1 RB



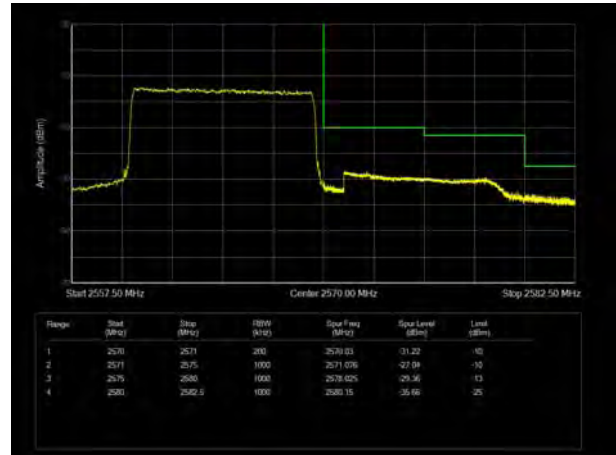




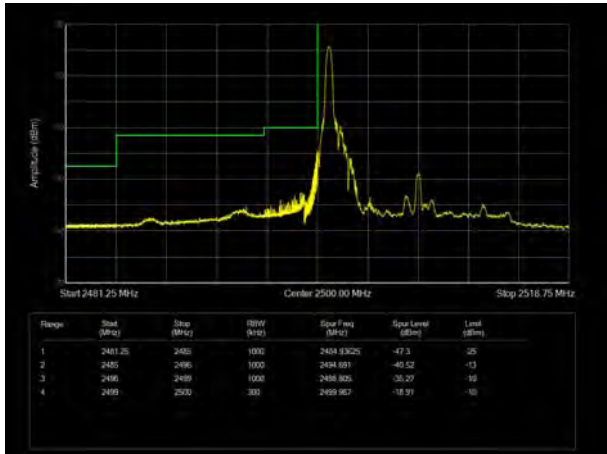
LTE Band 7 QPSK 10MHz CH-Low, 100%RB



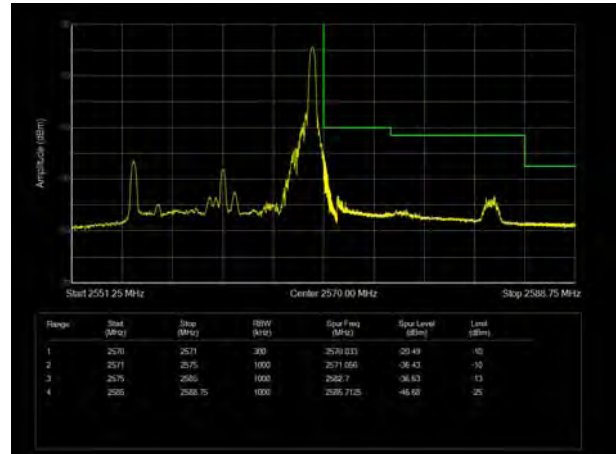
LTE Band 7 QPSK 10MHz CH-High, 100%RB



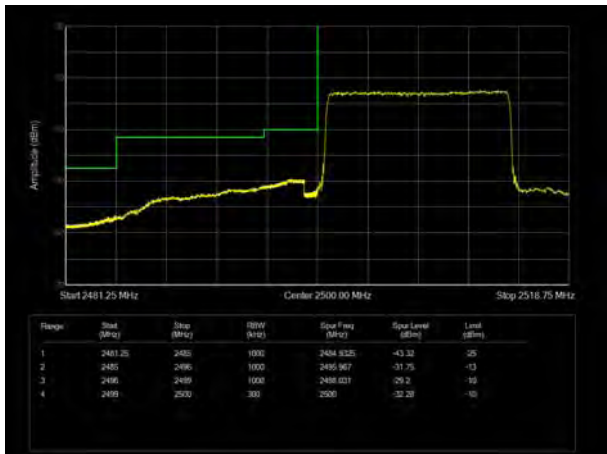
LTE Band 7 QPSK 15MHz CH-Low, 1 RB



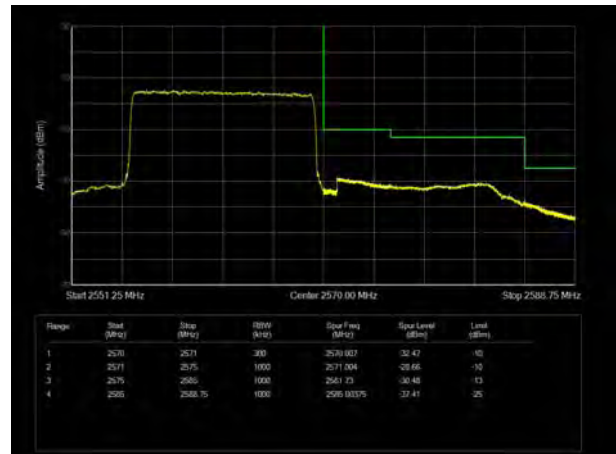
LTE Band 7 QPSK 15MHz CH-High, 1 RB



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

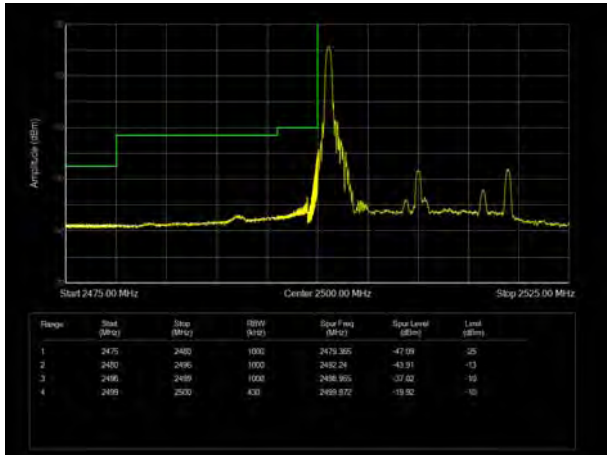


LTE Band 7 QPSK 15MHz CH-High, 100%RB

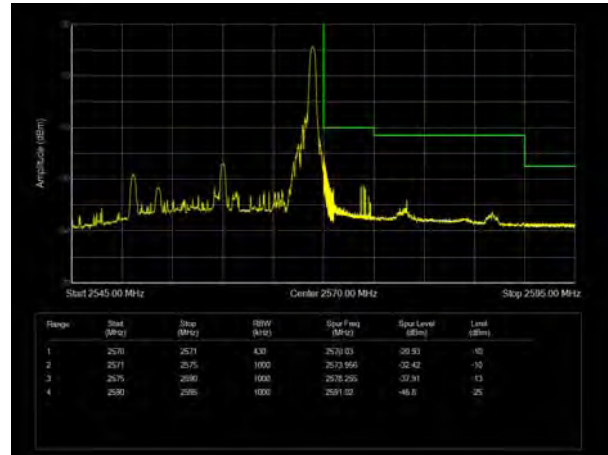




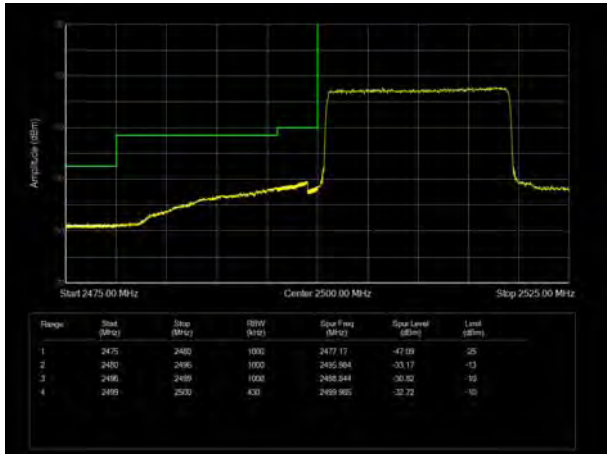
LTE Band 7 QPSK 20MHz CH-Low, 1 RB



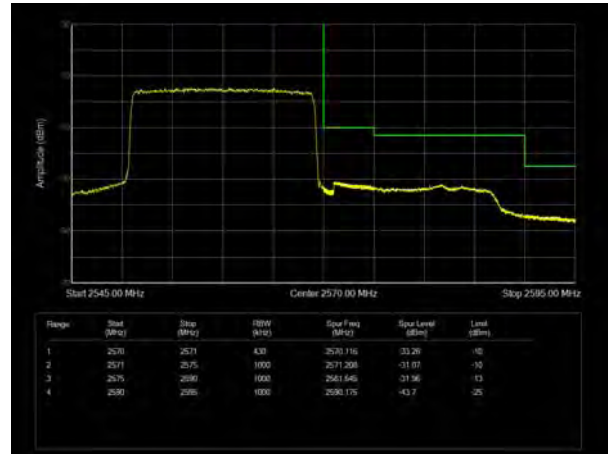
LTE Band 7 QPSK 20MHz CH-High, 1 RB



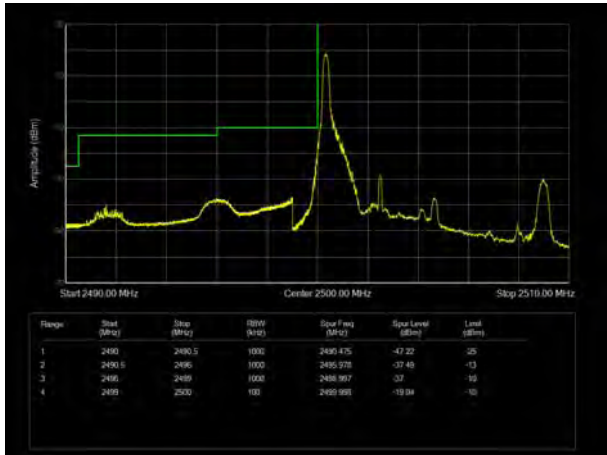
LTE Band 7 QPSK 20MHz CH-Low, 100%RB



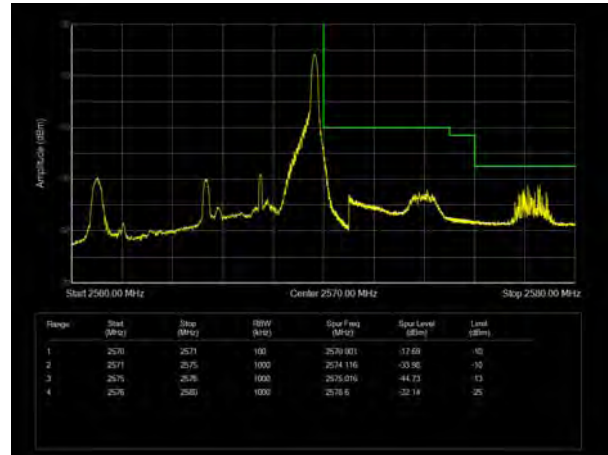
LTE Band 7 QPSK 20MHz CH-High, 100%RB



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

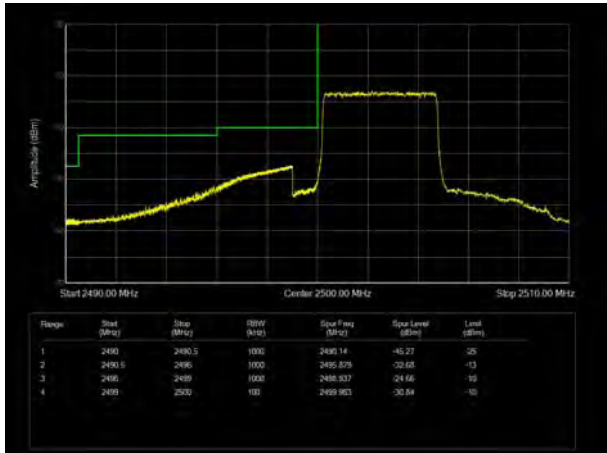


LTE Band 7 16QAM 5MHz CH-High, 1 RB

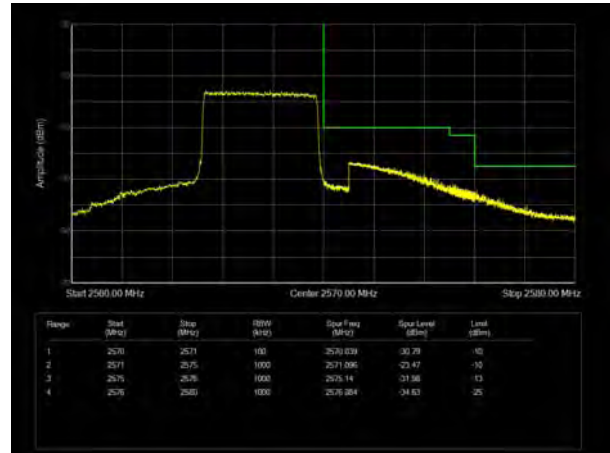




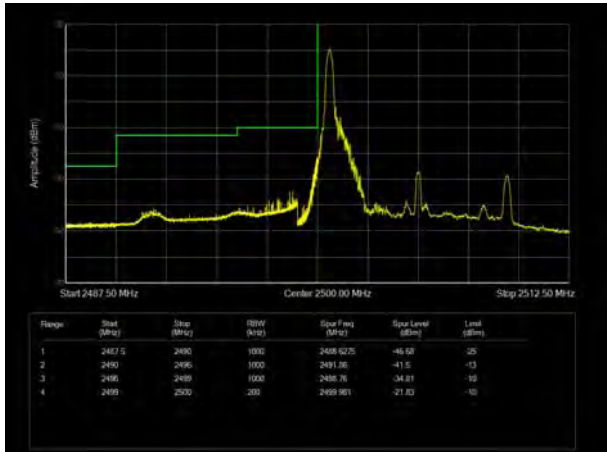
LTE Band 7 16QAM 5MHz CH-Low, 100%RB



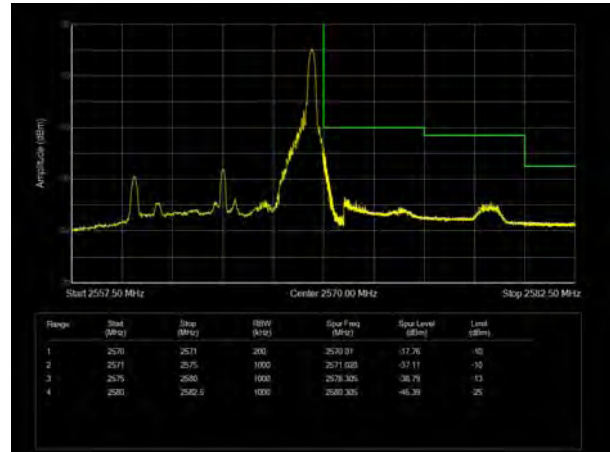
LTE Band 7 16QAM 5MHz CH-High, 100%RB



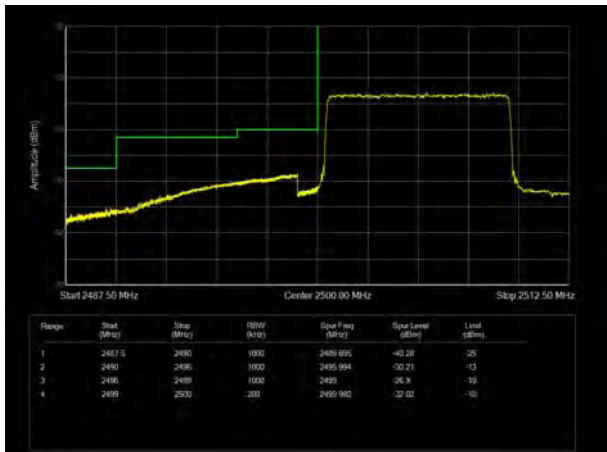
LTE Band 7 16QAM 10MHz CH-Low, 1 RB



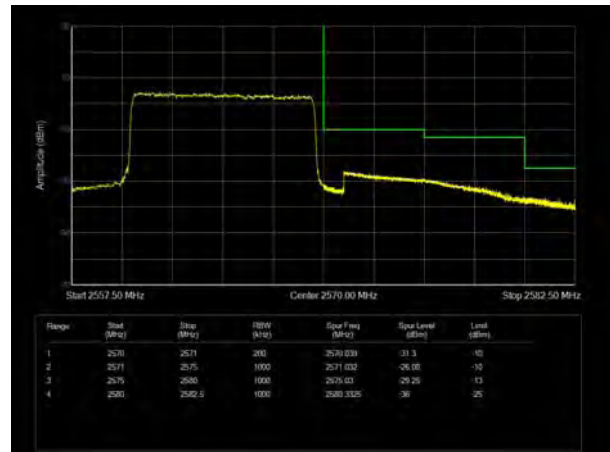
LTE Band 7 16QAM 10MHz CH-High, 1 RB



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

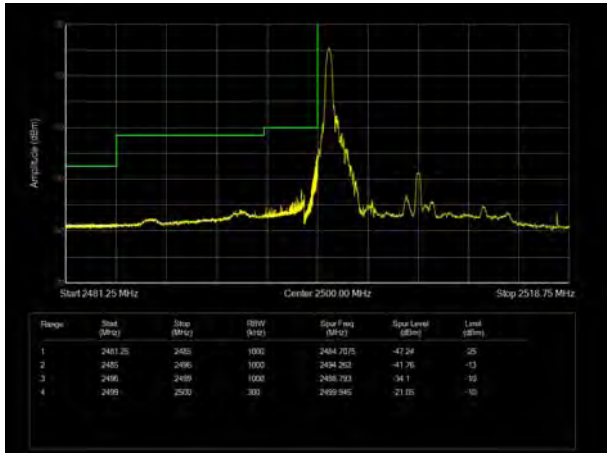


LTE Band 7 16QAM 10MHz CH-High, 100%RB

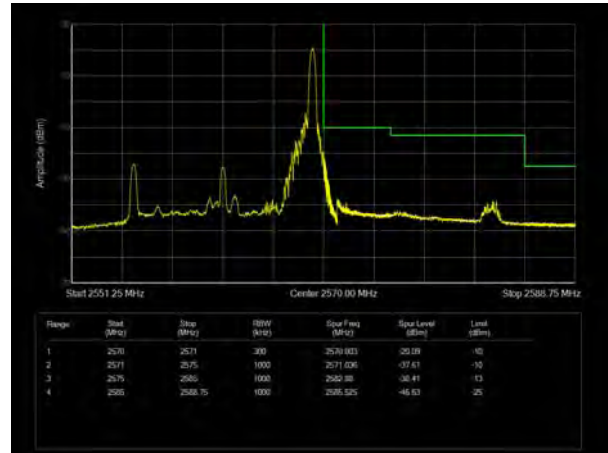




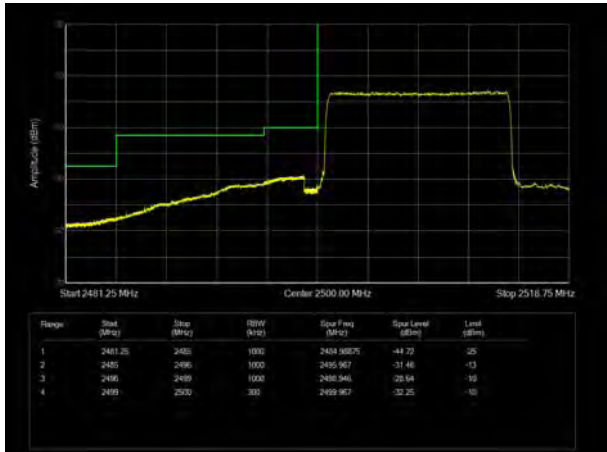
LTE Band 7 16QAM 15MHz CH-Low, 1 RB



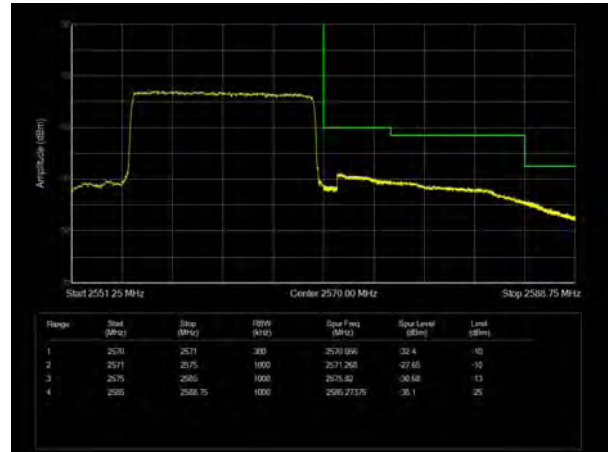
LTE Band 7 16QAM 15MHz CH-High, 1 RB



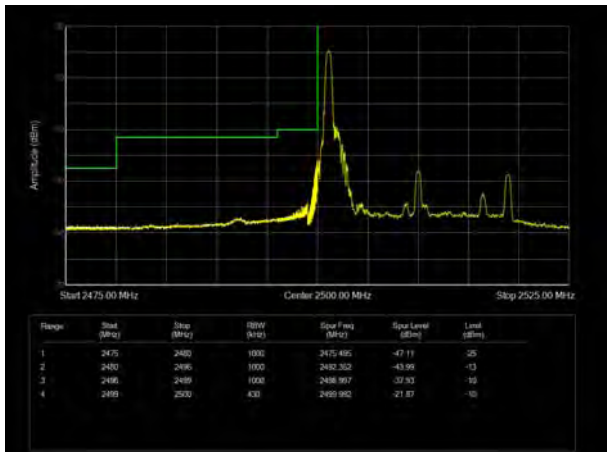
LTE Band 7 16QAM 15MHz CH-Low, 100%RB



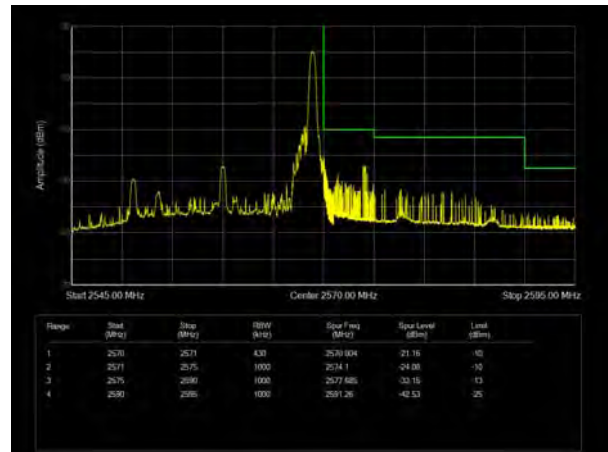
LTE Band 7 16QAM 15MHz CH-High, 100%RB



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



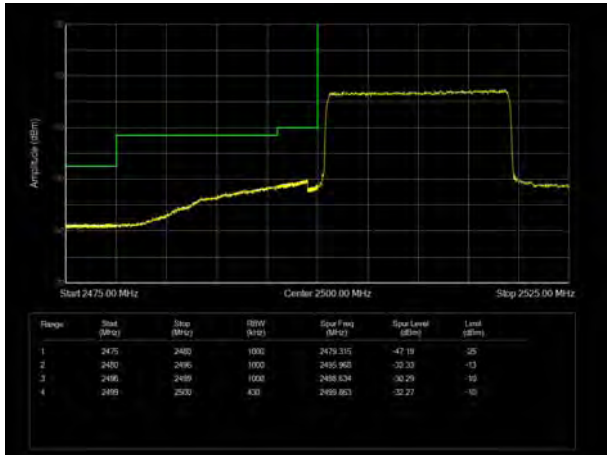
LTE Band 7 16QAM 20MHz CH-High, 1 RB



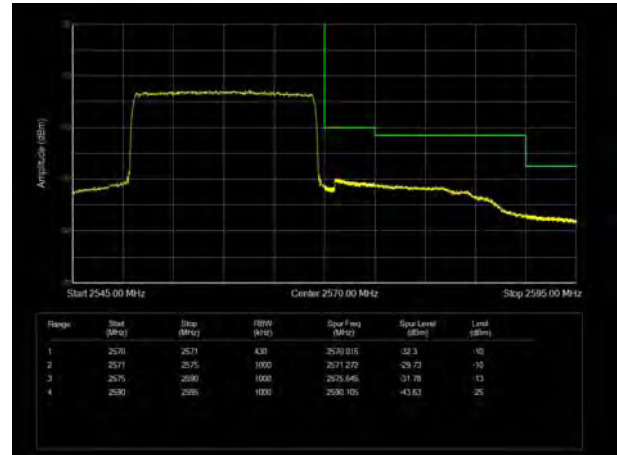




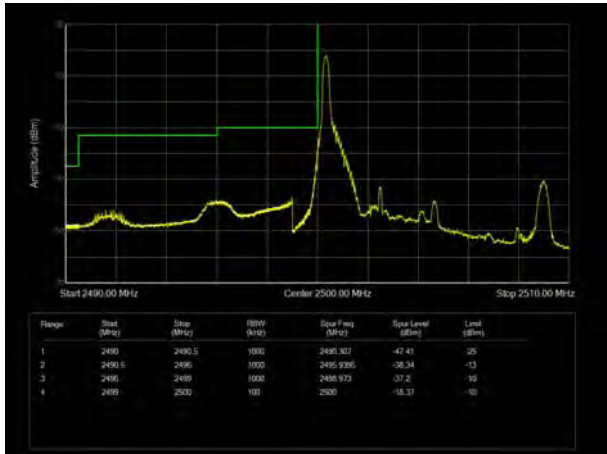
LTE Band 7 16QAM 20MHz CH-Low, 100%RB



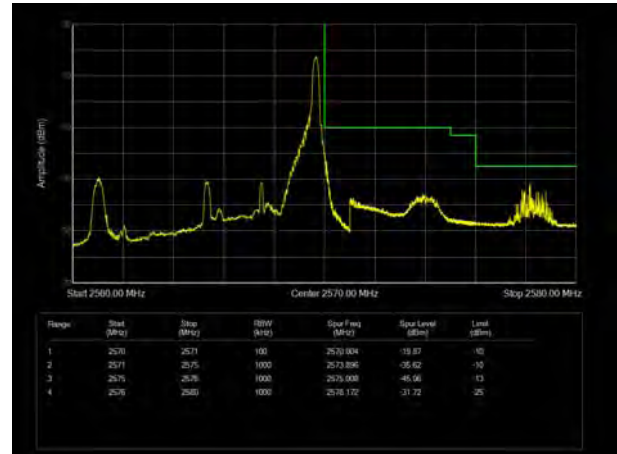
LTE Band 7 16QAM 20MHz CH-High, 100%RB



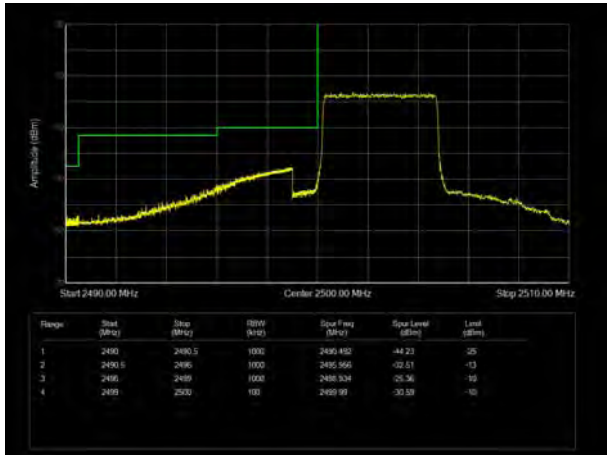
LTE Band 7 64QAM 5MHz CH-Low, 1 RB



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

