



RF TEST REPORT

Applicant ZTE Corporation
FCC ID SRQ-Z6252CA
Product LTE/WCDMA/GSM(GPRS) Multi-Mode
Digital Mobile Phone
Model Z6252CA
Report No. R2108A0747-R3
Issue Date October 8, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2020)/ FCC CFR47 Part 27C (2020)**. 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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TABLE OF CONTENT

1	Test Laboratory	4
1.1	Notes of the Test Report	4
1.2.	Test facility	4
1.3	Testing Location	4
2	General Description of Equipment under Test	5
2.1	Applicant and Manufacturer Information	5
2.2	General information	5
3	Applied Standards	7
4	Test Configuration	8
5	Test Case Results	10
5.1	RF Power Output and Effective Isotropic Radiated Power	10
5.2	Occupied Bandwidth	28
5.3	Band Edge Compliance	69
5.4	Peak-to-Average Power Ratio (PAPR)	116
5.5	Frequency Stability	123
5.6	Spurious Emissions at Antenna Terminals	134
5.7	Radiates Spurious Emission	148
6	Main Test Instruments	159
ANNEX A: The EUT Appearance		160
ANNEX B: Test Setup Photos		161



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(b)(10) /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(f) /27.53(c) /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(f) /27.53(c) /27.53(m)	PASS
7	Radiates Spurious Emission	2.1053 /27.53(h) /27.53(g) /27.53(f) /27.53(c) /27.53(m)	PASS

Date of Testing: August 27, 2021 and September 30, 2021

Date of Sample Received: August 20, 2021

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

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

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



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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City: Shanghai
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2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

2.2 General information

EUT Description		
Model	Z6252CA	
IMEI	860032050002098	
Hardware Version	Z6252CAHW1.0	
Software Version	Z6252CAV1.0.0B03	
Power Supply	Battery / AC adapter	
Antenna Type	Internal Antenna	
Antenna Gain	WCDMA Band IV LTE Band 4/66:	-1.1 dBi
	LTE Band 7:	1 dBi
	LTE Band 12/13	-3.4 dBi
Test Mode(s)	WCDMA Band IV; LTE Band 4/7/12/13/66;	
Test Modulation	(WCDMA) BPSK, QPSK; (LTE) QPSK, 16QAM, 64QAM;	
HSDPA UE Category	24	
HSUPA UE Category	7	
LTE Category	5	
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	22.02 dBm
	LTE Band 4:	21.71 dBm
	LTE Band 7:	23.15 dBm
	LTE Band 12:	17.66 dBm
	LTE Band 13:	17.35 dBm
	LTE Band 66:	21.96 dBm
Rated Power Supply Voltage	4.0V	
Operating Voltage	Minimum: 3.6V Maximum: 4.3V	
Operating Temperature	Lowest: -10°C Highest: +55°C	
Extreme Temperature	Lowest: -30°C Highest: +50°C	



Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 7	2500 ~ 2570	2620 ~ 2690
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 13	777 ~ 787	746 ~ 756
	LTE Band 66	1710 ~ 1780	2110 ~ 2180
EUT Accessory			
Adapter 1	Manufacturer: Shenzhen Ruijing Industrial Co Ltd Model: STC-A51D-Z		
Adapter 2	Manufacturer: HUIZHOU PUAN ELECTRONICS CO.,LTD Model: STC-A51D-Z		
Battery	Manufacturer: VEKEN Model: Li3931T44P8h806139		
USB Cable 1	Manufacturer: Shenzhen Luxshare Precision Industry Co.,Ltd. Model: USB-TC20-W-100-M-L		
USB Cable 2	Manufacturer: kingpower-tech Model: USB-TC20-W-100-M-L		
<p>Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.</p> <p>2. There is more than one Adapter / USB cable, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 2/ USB Cable 1) will be recorded in this report.</p>			



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 (2020)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2020)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

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

All mode and data rates and positions and RB size and modulations were investigated. Subsequently, only the worst case emissions are reported.

The following testing in 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
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

4/7/12/13/66:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM/ 64QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 13	-	-	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 13	-	-	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 4	O	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 7	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 12	O	O	O	O	-	-	O	O	O	-	O	O	-	O
	LTE 13	-	-	O	O	-	-	O	O	O	-	O	O	-	O
	LTE 66	O	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 13	-	-	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 7	-	-	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 12	O	O	O	O	-	-	O	O	O	-	-	-	O	-
	LTE 13	-	-	O	O	-	-	O	O	O	-	-	-	O	-
	LTE 66	O	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 4	O	O	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 7	-	-	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 12	O	O	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 13	-	-	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 66	O	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 7	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 12	O	-	O	O	-	-	O	-	O	-	-	-	O	-
	LTE 13	-	-	O	O	-	-	O	-	O	-	-	-	O	-
	LTE 66	O	-	O	-	-	O	O	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.														

5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

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

Methods of Measurement

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

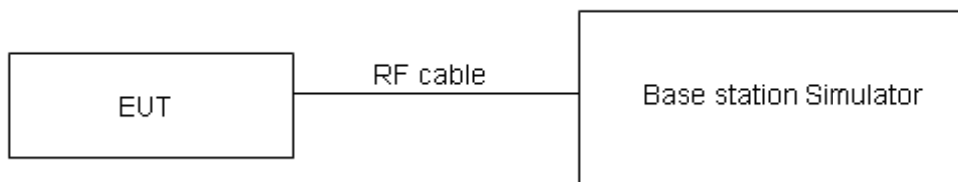
ERP can then be calculated as follows:

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

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

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

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(b) (10) specifies that “Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP”

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(b)(10)Limit	$\leq 3 \text{ W}$ (34.77 dBm)
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

WCDMA Band IV		Maximum Output Power (dBm)			EIRP (dBm)		
		Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)
RMC		23.21	23.12	23.32	22.11	22.02	22.22
AMR		23.35	23.22	23.26	22.25	22.12	22.16
HSDPA	Sub - Test 1	22.61	22.60	22.44	21.51	21.50	21.34
	Sub - Test 2	22.55	22.68	22.44	21.45	21.58	21.34
	Sub - Test 3	22.23	22.26	22.12	21.13	21.16	21.02
	Sub - Test 4	22.11	22.16	22.22	21.01	21.06	21.12
HSUPA	Sub - Test 1	22.87	22.76	22.66	21.77	21.66	21.56
	Sub - Test 2	21.77	21.66	21.58	20.67	20.56	20.48
	Sub - Test 3	22.11	22.16	22.02	21.01	21.06	20.92
	Sub - Test 4	21.87	21.66	21.54	20.77	20.56	20.44
	Sub - Test 5	22.75	22.56	22.60	21.65	21.46	21.50



LTE Band 4				Maximum Output Power(dBm)			EIRP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				19957/1710.7	20175/1732.5	20393/1754.3	19957/1710.7	20175/1732.5	20393/1754.3
1.4MHz	QPSK	1	0	22.62	22.50	22.41	21.52	21.40	21.31
		1	2	22.81	22.73	22.75	21.71	21.63	21.65
		1	5	22.31	22.30	22.17	21.21	21.20	21.07
		3	0	22.66	22.71	22.80	21.56	21.61	21.70
		3	2	22.68	22.76	22.75	21.58	21.66	21.65
		3	3	22.78	22.56	22.56	21.68	21.46	21.46
		6	0	21.72	21.75	21.74	20.62	20.65	20.64
	16QAM	1	0	22.39	21.68	21.50	21.29	20.58	20.40
		1	2	22.37	22.03	21.72	21.27	20.93	20.62
		1	5	21.95	21.54	21.34	20.85	20.44	20.24
		3	0	21.93	21.76	21.88	20.83	20.66	20.78
		3	2	21.94	21.78	21.88	20.84	20.68	20.78
		3	3	22.01	21.79	21.65	20.91	20.69	20.55
		6	0	21.02	20.90	20.80	19.92	19.80	19.70
	64QAM	1	0	20.92	20.83	21.15	19.82	19.73	20.05
		1	2	21.36	21.19	21.36	20.26	20.09	20.26
		1	5	20.91	20.75	20.99	19.81	19.65	19.89
		3	0	21.11	21.07	21.07	20.01	19.97	19.97
		3	2	21.17	21.08	21.10	20.07	19.98	20.00
		3	3	21.30	21.15	20.86	20.20	20.05	19.76
		6	0	20.33	20.19	20.09	19.23	19.09	18.99
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				19965/1711.5	20175/1732.5	20385/1753.5	19965/1711.5	20175/1732.5	20385/1753.5
3MHz	QPSK	1	0	22.64	22.54	22.44	21.54	21.44	21.34
		1	7	22.79	22.76	22.79	21.69	21.66	21.69
		1	14	22.34	22.35	22.21	21.24	21.25	21.11
		8	0	21.76	21.83	21.93	20.66	20.73	20.83
		8	4	21.80	21.86	21.87	20.70	20.76	20.77
		8	7	21.88	21.67	21.66	20.78	20.57	20.56
		15	0	21.72	21.79	21.77	20.62	20.69	20.67



	16QAM	1	0	22.42	21.70	21.53	21.32	20.60	20.43
		1	7	22.40	22.03	21.76	21.30	20.93	20.66
		1	14	21.97	21.58	21.37	20.87	20.48	20.27
		8	0	21.04	20.89	21.00	19.94	19.79	19.90
		8	4	21.05	20.91	21.00	19.95	19.81	19.90
		8	7	21.11	20.91	20.78	20.01	19.81	19.68
		15	0	21.05	20.94	20.83	19.95	19.84	19.73
	64QAM	1	0	20.95	20.85	21.18	19.85	19.75	20.08
		1	7	21.39	21.19	21.38	20.29	20.09	20.28
		1	14	20.93	20.74	21.02	19.83	19.64	19.92
		8	0	20.22	20.20	20.19	19.12	19.10	19.09
		8	4	20.28	20.21	20.22	19.18	19.11	19.12
		8	7	20.40	20.27	19.99	19.30	19.17	18.89
		15	0	20.36	20.23	20.12	19.26	19.13	19.02
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				19975/ 1712.5	20175/ 1732.5	20375/ 1752.5	19975/ 1712.5	20175/ 1732.5	20375/ 1752.5
5MHz	QPSK	1	0	22.61	22.52	22.40	21.51	21.42	21.30
		1	13	22.77	22.72	22.76	21.67	21.62	21.66
		1	24	22.31	22.30	22.17	21.21	21.20	21.07
		12	0	21.73	21.78	21.89	20.63	20.68	20.79
		12	6	21.78	21.82	21.82	20.68	20.72	20.72
		12	13	21.86	21.65	21.62	20.76	20.55	20.52
		25	0	21.72	21.78	21.75	20.62	20.68	20.65
	16QAM	1	0	22.39	21.66	21.50	21.29	20.56	20.40
		1	13	22.37	22.01	21.73	21.27	20.91	20.63
		1	24	21.94	21.56	21.33	20.84	20.46	20.23
		12	0	21.02	20.85	20.97	19.92	19.75	19.87
		12	6	21.02	20.86	20.96	19.92	19.76	19.86
		12	13	21.08	20.86	20.74	19.98	19.76	19.64
		25	0	21.03	20.90	20.78	19.93	19.80	19.68
	64QAM	1	0	20.92	20.85	21.15	19.82	19.75	20.05
		1	13	21.36	21.21	21.35	20.26	20.11	20.25
		1	24	20.94	20.72	20.98	19.84	19.62	19.88
		12	0	20.20	20.16	20.20	19.10	19.06	19.10
		12	6	20.25	20.16	20.18	19.15	19.06	19.08
		12	13	20.37	20.22	19.95	19.27	19.12	18.85



BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)						
				20000/1715	20175/1732.5	20350/1750	20000/1715	20175/1732.5	20350/1750	
				25	0	20.34	20.19	20.07	19.24	19.09
10MHz	QPSK	1	0	22.63	22.53	22.43	21.53	21.43	21.33	
		1	25	22.80	22.77	22.80	21.70	21.67	21.70	
		1	49	22.33	22.34	22.20	21.23	21.24	21.10	
		25	0	21.76	21.83	21.93	20.66	20.73	20.83	
		25	13	21.81	21.87	21.86	20.71	20.77	20.76	
		25	25	21.88	21.69	21.67	20.78	20.59	20.57	
		50	0	21.76	21.80	21.79	20.66	20.70	20.69	
	16QAM	1	0	22.41	21.69	21.52	21.31	20.59	20.42	
		1	25	22.40	22.05	21.76	21.30	20.95	20.66	
		1	49	21.97	21.58	21.36	20.87	20.48	20.26	
		25	0	21.05	20.90	21.01	19.95	19.80	19.91	
		25	13	21.04	20.90	20.99	19.94	19.80	19.89	
		25	25	21.11	20.91	20.78	20.01	19.81	19.68	
		50	0	21.06	20.95	20.82	19.96	19.85	19.72	
	64QAM	1	0	20.94	20.84	21.17	19.84	19.74	20.07	
		1	25	21.39	21.21	21.38	20.29	20.11	20.28	
		1	49	20.93	20.74	21.01	19.83	19.64	19.91	
		25	0	20.23	20.21	20.20	19.13	19.11	19.10	
		25	13	20.27	20.20	20.21	19.17	19.10	19.11	
		25	25	20.40	20.27	19.99	19.30	19.17	18.89	
		50	0	20.37	20.24	20.11	19.27	19.14	19.01	
	BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
					20025/1717.5	20175/1732.5	20325/1747.5	20025/1717.5	20175/1732.5	20325/1747.5
					1	0	22.62	22.49	22.41	21.52
15MHz	QPSK	1	38	22.78	22.76	22.77	21.68	21.66	21.67	
		1	74	22.30	22.29	22.16	21.20	21.19	21.06	
		36	0	21.74	21.79	21.90	20.64	20.69	20.80	
		36	18	21.78	21.82	21.82	20.68	20.72	20.72	
		36	39	21.85	21.66	21.63	20.75	20.56	20.53	
		75	0	21.74	21.76	21.74	20.64	20.66	20.64	
		1	0	22.36	21.67	21.50	21.26	20.57	20.40	
	16QAM	1	38	22.38	22.02	21.74	21.28	20.92	20.64	



		1	74	21.94	21.54	21.33	20.84	20.44	20.23
		36	0	21.02	20.88	20.98	19.92	19.78	19.88
		36	18	21.01	20.85	20.95	19.91	19.75	19.85
		36	39	21.09	20.87	20.75	19.99	19.77	19.65
		75	0	21.03	20.90	20.78	19.93	19.80	19.68
	64QAM	1	0	20.89	20.82	21.15	19.79	19.72	20.05
		1	38	21.37	21.18	21.36	20.27	20.08	20.26
		1	74	20.94	20.73	21.02	19.84	19.63	19.92
		36	0	20.22	20.23	20.21	19.12	19.13	19.11
		36	18	20.25	20.17	20.20	19.15	19.07	19.10
		36	39	20.38	20.23	19.96	19.28	19.13	18.86
		75	0	20.34	20.19	20.07	19.24	19.09	18.97
	BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)				
20050/1720					20175/1732.5	20300/1745	20050/1720	20175/1732.5	20300/1745
20MHz	QPSK	1	0	22.59	22.45	22.38	21.49	21.35	21.28
		1	50	22.77	22.72	22.75	21.67	21.62	21.65
		1	99	22.28	22.28	22.13	21.18	21.18	21.03
		50	0	21.71	21.74	21.86	20.61	20.64	20.76
		50	25	21.76	21.78	21.79	20.66	20.68	20.69
		50	50	21.82	21.61	21.59	20.72	20.51	20.49
		100	0	21.71	21.71	21.70	20.61	20.61	20.60
	16QAM	1	0	21.91	21.63	21.45	20.81	20.53	20.35
		1	50	22.34	22.00	21.70	21.24	20.90	20.60
		1	99	21.92	21.51	21.31	20.82	20.41	20.21
		50	0	20.99	20.84	20.95	19.89	19.74	19.85
		50	25	20.98	20.83	20.92	19.88	19.73	19.82
		50	50	21.06	20.82	20.71	19.96	19.72	19.61
		100	0	21.01	20.86	20.75	19.91	19.76	19.65
	64QAM	1	0	20.87	20.78	21.10	19.77	19.68	20.00
		1	50	21.33	21.16	21.32	20.23	20.06	20.22
		1	99	20.88	20.67	20.96	19.78	19.57	19.86
		50	0	20.17	20.15	20.14	19.07	19.05	19.04
		50	25	20.21	20.13	20.14	19.11	19.03	19.04
		50	50	20.35	20.18	19.92	19.25	19.08	18.82
		100	0	20.32	20.15	20.04	19.22	19.05	18.94



LTE Band 7				Maximum Output Power(dBm)			EIRP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20775/ 2502.5	21100/ 2535	21425/ 2567.5	20775/ 2502.5	21100/ 2535	21425/ 2567.5
5MHz	QPSK	1	0	21.61	21.66	21.28	22.61	22.66	22.28
		1	13	22.12	21.78	21.63	23.12	22.78	22.63
		1	24	21.91	21.26	21.59	22.91	22.26	22.59
		12	0	20.99	20.74	20.64	21.99	21.74	21.64
		12	6	21.03	20.31	20.73	22.03	21.31	21.73
		12	13	21.12	20.62	20.79	22.12	21.62	21.79
		25	0	21.08	20.72	20.76	22.08	21.72	21.76
	16QAM	1	0	21.14	20.95	20.58	22.14	21.95	21.58
		1	13	21.12	21.25	20.83	22.12	22.25	21.83
		1	24	20.69	20.69	20.68	21.69	21.69	21.68
		12	0	20.20	19.81	19.65	21.20	20.81	20.65
		12	6	20.20	19.77	19.64	21.20	20.77	20.64
		12	13	20.28	19.61	19.91	21.28	20.61	20.91
		25	0	20.21	19.64	19.83	21.21	20.64	20.83
	64QAM	1	0	20.01	19.42	19.09	21.01	20.42	20.09
		1	13	20.47	19.54	19.74	21.47	20.54	20.74
		1	24	20.01	19.16	19.40	21.01	20.16	20.40
		12	0	19.13	18.52	18.61	20.13	19.52	19.61
		12	6	19.14	18.58	18.59	20.14	19.58	19.59
		12	13	19.22	18.44	18.81	20.22	19.44	19.81
		25	0	19.15	18.52	18.69	20.15	19.52	19.69
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20800/ 2505	21100/ 2535	21400/ 2565	20800/ 2505	21100/ 2535	21400/ 2565
10MHz	QPSK	1	0	21.63	21.67	21.31	22.63	22.67	22.31
		1	25	22.15	21.83	21.67	23.15	22.83	22.67
		1	49	21.93	21.30	21.62	22.93	22.30	22.62
		25	0	21.02	20.79	20.68	22.02	21.79	21.68
		25	13	21.06	20.36	20.77	22.06	21.36	21.77
		25	25	21.14	20.66	20.84	22.14	21.66	21.84
		50	0	21.12	20.74	20.80	22.12	21.74	21.80
	16QAM	1	0	21.16	20.98	20.60	22.16	21.98	21.60
		1	25	21.15	21.29	20.86	22.15	22.29	21.86



		1	49	20.72	20.71	20.71	21.72	21.71	21.71	
		25	0	20.23	19.86	19.69	21.23	20.86	20.69	
		25	13	20.22	19.81	19.67	21.22	20.81	20.67	
		25	25	20.31	19.66	19.95	21.31	20.66	20.95	
		50	0	20.24	19.69	19.87	21.24	20.69	20.87	
	64QAM	1	0	20.03	19.41	19.11	21.03	20.41	20.11	
		1	25	20.50	19.54	19.77	21.50	20.54	20.77	
		1	49	20.00	19.18	19.43	21.00	20.18	20.43	
		25	0	19.16	18.57	18.61	20.16	19.57	19.61	
		25	13	19.16	18.62	18.62	20.16	19.62	19.62	
		25	25	19.25	18.49	18.85	20.25	19.49	19.85	
		50	0	19.18	18.57	18.73	20.18	19.57	19.73	
	BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
					20825/2507.5	21100/2535	21375/2562.5	20825/2507.5	21100/2535	21375/2562.5
15MHz	QPSK	1	0	21.62	21.63	21.29	22.62	22.63	22.29	
		1	38	22.13	21.82	21.64	23.13	22.82	22.64	
		1	74	21.90	21.25	21.58	22.90	22.25	22.58	
		36	0	21.00	20.75	20.65	22.00	21.75	21.65	
		36	18	21.03	20.31	20.73	22.03	21.31	21.73	
		36	39	21.11	20.63	20.80	22.11	21.63	21.80	
		75	0	21.10	20.70	20.75	22.10	21.70	21.75	
	16QAM	1	0	21.11	20.96	20.58	22.11	21.96	21.58	
		1	38	21.13	21.26	20.84	22.13	22.26	21.84	
		1	74	20.69	20.67	20.68	21.69	21.67	21.68	
		36	0	20.20	19.84	19.66	21.20	20.84	20.66	
		36	18	20.19	19.76	19.63	21.19	20.76	20.63	
		36	39	20.29	19.62	19.92	21.29	20.62	20.92	
		75	0	20.21	19.64	19.83	21.21	20.64	20.83	
	64QAM	1	0	19.98	19.39	19.09	20.98	20.39	20.09	
		1	38	20.48	19.51	19.75	21.48	20.51	20.75	
		1	74	20.01	19.17	19.44	21.01	20.17	20.44	
		36	0	19.15	18.59	18.62	20.15	19.59	19.62	
		36	18	19.14	18.59	18.61	20.14	19.59	19.61	
		36	39	19.23	18.45	18.82	20.23	19.45	19.82	
		75	0	19.15	18.52	18.69	20.15	19.52	19.69	
	BW	Modulation	RB	RB	Channel/Frequency(MHz)					



		size	offset	20850/ 2510	21100/ 2535	21350/ 2560	20850/ 2510	21100/ 2535	21350/ 2560
20MHz	QPSK	1	0	21.59	21.59	21.26	22.59	22.59	22.26
		1	50	22.12	21.78	21.62	23.12	22.78	22.62
		1	99	21.88	21.24	21.55	22.88	22.24	22.55
		50	0	20.97	20.70	20.61	21.97	21.70	21.61
		50	25	21.01	20.27	20.70	22.01	21.27	21.70
		50	50	21.08	20.58	20.76	22.08	21.58	21.76
		100	0	21.07	20.65	20.71	22.07	21.65	21.71
	16QAM	1	0	20.61	20.92	20.53	21.61	21.92	21.53
		1	50	21.09	21.24	20.80	22.09	22.24	21.80
		1	99	20.67	20.64	20.66	21.67	21.64	21.66
		50	0	20.17	19.80	19.63	21.17	20.80	20.63
		50	25	20.16	19.74	19.60	21.16	20.74	20.60
		50	50	20.26	19.57	19.88	21.26	20.57	20.88
		100	0	20.19	19.60	19.80	21.19	20.60	20.80
	64QAM	1	0	19.96	19.35	19.04	20.96	20.35	20.04
		1	50	20.44	19.49	19.71	21.44	20.49	20.71
		1	99	19.95	19.11	19.38	20.95	20.11	20.38
		50	0	19.10	18.51	18.55	20.10	19.51	19.55
		50	25	19.10	18.55	18.55	20.10	19.55	19.55
		50	50	19.20	18.40	18.78	20.20	19.40	19.78
		100	0	19.13	18.48	18.66	20.13	19.48	19.66

LTE Band 12				Maximum Output Power(dBm)			ERP (dBm)		
BW	Modulation	RB size	RB offset	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	23.16	23.17	23.09	17.61	17.62	17.54
		1	2	23.09	23.15	22.94	17.54	17.60	17.39
		1	5	23.09	22.95	23.06	17.54	17.40	17.51
		3	0	23.12	23.02	23.11	17.57	17.47	17.56
		3	2	23.08	23.10	22.98	17.53	17.55	17.43
		3	3	23.21	22.97	22.93	17.66	17.42	17.38
		6	0	22.18	22.08	22.07	16.63	16.53	16.52
	16QAM	1	0	22.19	22.36	22.22	16.64	16.81	16.67
		1	2	22.17	22.34	22.25	16.62	16.79	16.70



		1	5	21.85	22.16	21.97	16.30	16.61	16.42
		3	0	22.02	22.04	22.10	16.47	16.49	16.55
		3	2	22.04	22.05	22.14	16.49	16.50	16.59
		3	3	22.09	21.97	21.82	16.54	16.42	16.27
		6	0	21.11	21.02	21.00	15.56	15.47	15.45
	64QAM	1	0	21.82	21.69	21.32	16.27	16.14	15.77
		1	2	21.75	21.68	21.39	16.20	16.13	15.84
		1	5	21.63	21.55	21.18	16.08	16.00	15.63
		3	0	21.53	21.36	21.48	15.98	15.81	15.93
		3	2	21.55	21.41	21.53	16.00	15.86	15.98
		3	3	21.63	21.34	21.24	16.08	15.79	15.69
		6	0	20.54	20.31	20.40	14.99	14.76	14.85
	BW	Modulation	RB size	RB offset	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	23.17	23.20	23.11	17.62	17.65	17.56
		1	7	23.08	23.19	22.99	17.53	17.64	17.44
		1	14	23.11	22.99	23.09	17.56	17.44	17.54
		8	0	22.22	22.14	22.24	16.67	16.59	16.69
		8	4	22.21	22.21	22.09	16.66	16.66	16.54
		8	7	22.31	22.10	22.04	16.76	16.55	16.49
		15	0	22.22	22.13	22.12	16.67	16.58	16.57
	16QAM	1	0	22.21	22.37	22.24	16.66	16.82	16.69
		1	7	22.20	22.36	22.29	16.65	16.81	16.74
		1	14	21.87	22.20	21.99	16.32	16.65	16.44
		8	0	21.14	21.18	21.23	15.59	15.63	15.68
		8	4	21.14	21.17	21.25	15.59	15.62	15.70
		8	7	21.19	21.09	20.95	15.64	15.54	15.40
		15	0	21.15	21.07	21.02	15.60	15.52	15.47
	64QAM	1	0	21.84	21.70	21.34	16.29	16.15	15.79
		1	7	21.78	21.70	21.41	16.23	16.15	15.86
		1	14	21.65	21.54	21.20	16.10	15.99	15.65
		8	0	20.65	20.50	20.61	15.10	14.95	15.06
		8	4	20.65	20.53	20.64	15.10	14.98	15.09
		8	7	20.73	20.46	20.37	15.18	14.91	14.82
		15	0	20.58	20.36	20.42	15.03	14.81	14.87



BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23035/ 701.5	23095/ 707.5	23155/ 713.5	23035/ 701.5	23095/ 707.5	23155/ 713.5
5MHz	QPSK	1	0	23.16	23.16	23.09	17.61	17.61	17.54
		1	13	23.06	23.18	22.96	17.51	17.63	17.41
		1	24	23.08	22.94	23.05	17.53	17.39	17.50
		12	0	22.20	22.10	22.21	16.65	16.55	16.66
		12	6	22.18	22.16	22.05	16.63	16.61	16.50
		12	13	22.28	22.07	22.00	16.73	16.52	16.45
		25	0	22.20	22.09	22.07	16.65	16.54	16.52
	16QAM	1	0	22.16	22.35	22.22	16.61	16.80	16.67
		1	13	22.18	22.33	22.27	16.63	16.78	16.72
		1	24	21.84	22.16	21.96	16.29	16.61	16.41
		12	0	21.11	21.16	21.20	15.56	15.61	15.65
		12	6	21.11	21.12	21.21	15.56	15.57	15.66
		12	13	21.17	21.05	20.92	15.62	15.50	15.37
		25	0	21.12	21.02	20.98	15.57	15.47	15.43
	64QAM	1	0	21.79	21.68	21.32	16.24	16.13	15.77
		1	13	21.76	21.67	21.39	16.21	16.12	15.84
		1	24	21.66	21.53	21.21	16.11	15.98	15.66
		12	0	20.64	20.52	20.62	15.09	14.97	15.07
		12	6	20.63	20.50	20.63	15.08	14.95	15.08
		12	13	20.71	20.42	20.34	15.16	14.87	14.79
		25	0	20.55	20.31	20.38	15.00	14.76	14.83
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23060/ 704	23095/ 707.5	23130/ 711	23060/ 704	23095/ 707.5	23130/ 711
10MHz	QPSK	1	0	23.13	23.12	23.06	17.58	17.57	17.51
		1	25	23.05	23.14	22.94	17.50	17.59	17.39
		1	49	23.06	22.93	23.02	17.51	17.38	17.47
		25	0	22.17	22.05	22.17	16.62	16.50	16.62
		25	13	22.16	22.12	22.02	16.61	16.57	16.47
		25	25	22.25	22.02	21.96	16.70	16.47	16.41
		50	0	22.17	22.04	22.03	16.62	16.49	16.48
	16QAM	1	0	22.01	22.31	22.17	16.46	16.76	16.62
		1	25	22.14	22.31	22.23	16.59	16.76	16.68
		1	49	21.82	22.13	21.94	16.27	16.58	16.39



		25	0	21.08	21.12	21.17	15.53	15.57	15.62
		25	13	21.08	21.10	21.18	15.53	15.55	15.63
		25	25	21.14	21.00	20.88	15.59	15.45	15.33
		50	0	21.10	20.98	20.95	15.55	15.43	15.40
	64QAM	1	0	21.77	21.64	21.27	16.22	16.09	15.72
		1	25	21.72	21.65	21.35	16.17	16.10	15.80
		1	49	21.60	21.47	21.15	16.05	15.92	15.60
		25	0	20.59	20.44	20.55	15.04	14.89	15.00
		25	13	20.59	20.46	20.57	15.04	14.91	15.02
		25	25	20.68	20.37	20.30	15.13	14.82	14.75
		50	0	20.53	20.27	20.35	14.98	14.72	14.80

LTE Band 13				Maximum Output Power(dBm)			ERP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23205/ 779.5	23230/ 782	23255/ 784.5	23205/ 779.5	23230/ 782	23255/ 784.5
5MHz	QPSK	1	0	22.73	22.74	22.80	17.18	17.19	17.25
		1	13	22.86	22.84	22.90	17.31	17.29	17.35
		1	24	22.77	22.75	22.79	17.22	17.20	17.24
		12	0	21.87	21.83	21.83	16.32	16.28	16.28
		12	6	21.81	21.81	21.85	16.26	16.26	16.30
		12	13	21.84	21.83	21.86	16.29	16.28	16.31
		25	0	21.84	21.85	21.88	16.29	16.30	16.33
	16QAM	1	0	21.97	22.01	22.10	16.42	16.46	16.55
		1	13	22.08	22.16	22.23	16.53	16.61	16.68
		1	24	22.04	22.05	22.10	16.49	16.50	16.55
		12	0	20.79	20.83	20.79	15.24	15.28	15.24
		12	6	20.79	20.80	20.76	15.24	15.25	15.21
		12	13	20.74	20.84	20.79	15.19	15.29	15.24
		25	0	20.77	20.82	20.80	15.22	15.27	15.25
	64QAM	1	0	21.49	21.54	21.60	15.94	15.99	16.05
		1	13	21.57	21.58	21.73	16.02	16.03	16.18
		1	24	21.52	21.55	21.60	15.97	16.00	16.05
		12	0	20.31	20.38	20.30	14.76	14.83	14.75
		12	6	20.29	20.38	20.31	14.74	14.83	14.76
		12	13	20.28	20.32	20.35	14.73	14.77	14.80



BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)							
				25	0	20.25	20.32	20.33	14.70	14.77	14.78
				/	23230/782	/	/	23230/782	/		
10MHz	QPSK	1	0	/	22.50	/	/	16.95	/		
		1	25	/	22.71	/	/	17.16	/		
		1	49	/	22.61	/	/	17.06	/		
		25	0	/	21.62	/	/	16.07	/		
		25	13	/	21.59	/	/	16.04	/		
		25	25	/	21.65	/	/	16.10	/		
		50	0	/	21.64	/	/	16.09	/		
	16QAM	1	0	/	21.95	/	/	16.40	/		
		1	25	/	21.81	/	/	16.26	/		
		1	49	/	21.74	/	/	16.19	/		
		25	0	/	20.66	/	/	15.11	/		
		25	13	/	20.67	/	/	15.12	/		
		25	25	/	20.59	/	/	15.04	/		
		50	0	/	20.56	/	/	15.01	/		
	64QAM	1	0	/	21.68	/	/	16.13	/		
		1	25	/	21.75	/	/	16.20	/		
		1	49	/	21.64	/	/	16.09	/		
		25	0	/	20.52	/	/	14.97	/		
		25	13	/	20.51	/	/	14.96	/		
		25	25	/	20.46	/	/	14.91	/		
		50	0	/	20.38	/	/	14.83	/		

LTE Band 66				Maximum Output Power(dBm)			EIRP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				131979/1710.7	132322/1745	132665/1779.3	131979/1710.7	132322/1745	132665/1779.3
				1.4MHz	QPSK	1	0	22.58	22.48
1	2	23.06	22.79			22.88	21.96	21.69	21.78
1	5	22.72	22.76			22.72	21.62	21.66	21.62
3	0	22.66	22.74			22.61	21.56	21.64	21.51
3	2	22.68	22.67			22.69	21.58	21.57	21.59
3	3	22.81	22.57			22.71	21.71	21.47	21.61
6	0	21.84	21.74			21.79	20.74	20.64	20.69



	16QAM	1	0	22.14	21.51	21.82	21.04	20.41	20.72
		1	2	22.12	21.83	22.28	21.02	20.73	21.18
		1	5	21.65	21.46	21.85	20.55	20.36	20.75
		3	0	21.92	21.90	21.81	20.82	20.80	20.71
		3	2	21.91	21.93	21.85	20.81	20.83	20.75
		3	3	22.01	21.82	21.87	20.91	20.72	20.77
		6	0	21.04	20.91	20.91	19.94	19.81	19.81
	64QAM	1	0	21.32	20.93	20.78	20.22	19.83	19.68
		1	2	21.81	21.29	21.23	20.71	20.19	20.13
		1	5	21.30	20.92	20.80	20.20	19.82	19.70
		3	0	21.29	21.17	21.16	20.19	20.07	20.06
		3	2	21.32	21.19	21.18	20.22	20.09	20.08
		3	3	21.39	21.02	21.18	20.29	19.92	20.08
		6	0	20.39	20.25	20.23	19.29	19.15	19.13
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				131987/ 1711.5	132322/ 1745	132657/ 1778.5	131987/ 1711.5	132322/ 1745	132657/ 1778.5
3MHz	QPSK	1	0	22.60	22.52	22.58	21.50	21.42	21.48
		1	7	23.04	22.82	22.92	21.94	21.72	21.82
		1	14	22.75	22.81	22.76	21.65	21.71	21.66
		8	0	21.76	21.86	21.74	20.66	20.76	20.64
		8	4	21.80	21.77	21.81	20.70	20.67	20.71
		8	7	21.91	21.68	21.81	20.81	20.58	20.71
		15	0	21.84	21.78	21.82	20.74	20.68	20.72
	16QAM	1	0	22.17	21.53	21.85	21.07	20.43	20.75
		1	7	22.15	21.83	22.32	21.05	20.73	21.22
		1	14	21.67	21.50	21.88	20.57	20.40	20.78
		8	0	21.03	21.03	20.93	19.93	19.93	19.83
		8	4	21.02	21.06	20.97	19.92	19.96	19.87
		8	7	21.11	20.94	21.00	20.01	19.84	19.90
		15	0	21.07	20.95	20.94	19.97	19.85	19.84
	64QAM	1	0	21.35	20.95	20.81	20.25	19.85	19.71
		1	7	21.84	21.29	21.25	20.74	20.19	20.15
		1	14	21.32	20.91	20.83	20.22	19.81	19.73
		8	0	20.40	20.30	20.28	19.30	19.20	19.18
		8	4	20.43	20.32	20.30	19.33	19.22	19.20
		8	7	20.49	20.14	20.31	19.39	19.04	19.21



BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)						
				131997/ 1712.5	132322/ 1745	132647/ 1777.5	131997/ 1712.5	132322/ 1745	132647/ 1777.5	
				15	0	20.42	20.29	20.26	19.32	19.19
5MHz	QPSK	1	0	22.57	22.50	22.54	21.47	21.40	21.44	
		1	13	23.02	22.78	22.89	21.92	21.68	21.79	
		1	24	22.72	22.76	22.72	21.62	21.66	21.62	
		12	0	21.73	21.81	21.70	20.63	20.71	20.60	
		12	6	21.78	21.73	21.76	20.68	20.63	20.66	
		12	13	21.89	21.66	21.77	20.79	20.56	20.67	
		25	0	21.84	21.77	21.80	20.74	20.67	20.70	
	16QAM	1	0	22.14	21.49	21.82	21.04	20.39	20.72	
		1	13	22.12	21.81	22.29	21.02	20.71	21.19	
		1	24	21.64	21.48	21.84	20.54	20.38	20.74	
		12	0	21.01	20.99	20.90	19.91	19.89	19.80	
		12	6	20.99	21.01	20.93	19.89	19.91	19.83	
		12	13	21.08	20.89	20.96	19.98	19.79	19.86	
		25	0	21.05	20.91	20.89	19.95	19.81	19.79	
	64QAM	1	0	21.32	20.95	20.78	20.22	19.85	19.68	
		1	13	21.81	21.31	21.22	20.71	20.21	20.12	
		1	24	21.33	20.89	20.79	20.23	19.79	19.69	
		12	0	20.38	20.26	20.29	19.28	19.16	19.19	
		12	6	20.40	20.27	20.26	19.30	19.17	19.16	
		12	13	20.46	20.09	20.27	19.36	18.99	19.17	
		25	0	20.40	20.25	20.21	19.30	19.15	19.11	
	BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
					132022/ 1715	132322/ 1745	132622/ 1775	132022/ 1715	132322/ 1745	132622/ 1775
					10MHz	QPSK	1	0	22.59	22.51
10MHz	QPSK	1	25	23.05	22.83	22.93	21.95	21.73	21.83	
		1	49	22.74	22.80	22.75	21.64	21.70	21.65	
		25	0	21.76	21.86	21.74	20.66	20.76	20.64	
		25	13	21.81	21.78	21.80	20.71	20.68	20.70	
		25	25	21.91	21.70	21.82	20.81	20.60	20.72	
		50	0	21.88	21.79	21.84	20.78	20.69	20.74	
		16QAM	1	0	22.16	21.52	21.84	21.06	20.42	20.74
	1	25	22.15	21.85	22.32	21.05	20.75	21.22		



		1	49	21.67	21.50	21.87	20.57	20.40	20.77
		25	0	21.04	21.04	20.94	19.94	19.94	19.84
		25	13	21.01	21.05	20.96	19.91	19.95	19.86
		25	25	21.11	20.94	21.00	20.01	19.84	19.90
		50	0	21.08	20.96	20.93	19.98	19.86	19.83
	64QAM	1	0	21.34	20.94	20.80	20.24	19.84	19.70
		1	25	21.84	21.31	21.25	20.74	20.21	20.15
		1	49	21.32	20.91	20.82	20.22	19.81	19.72
		25	0	20.41	20.31	20.29	19.31	19.21	19.19
		25	13	20.42	20.31	20.29	19.32	19.21	19.19
		25	25	20.49	20.14	20.31	19.39	19.04	19.21
	50	0	20.43	20.30	20.25	19.33	19.20	19.15	
	BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)				
132047/ 1717.5					132322/ 1745	132597/ 1772.5	132047/ 1717.5	132322/ 1745	132597/ 1772.5
15MHz	QPSK	1	0	22.58	22.47	22.55	21.48	21.37	21.45
		1	38	23.03	22.82	22.90	21.93	21.72	21.80
		1	74	22.71	22.75	22.71	21.61	21.65	21.61
		36	0	21.74	21.82	21.71	20.64	20.72	20.61
		36	18	21.78	21.73	21.76	20.68	20.63	20.66
		36	39	21.88	21.67	21.78	20.78	20.57	20.68
		75	0	21.86	21.75	21.79	20.76	20.65	20.69
	16QAM	1	0	22.11	21.50	21.82	21.01	20.40	20.72
		1	38	22.13	21.82	22.30	21.03	20.72	21.20
		1	74	21.64	21.46	21.84	20.54	20.36	20.74
		36	0	21.01	21.02	20.91	19.91	19.92	19.81
		36	18	20.98	21.00	20.92	19.88	19.90	19.82
		36	39	21.09	20.90	20.97	19.99	19.80	19.87
		75	0	21.05	20.91	20.89	19.95	19.81	19.79
	64QAM	1	0	21.29	20.92	20.78	20.19	19.82	19.68
		1	38	21.82	21.28	21.23	20.72	20.18	20.13
		1	74	21.33	20.90	20.83	20.23	19.80	19.73
		36	0	20.40	20.33	20.30	19.30	19.23	19.20
		36	18	20.40	20.28	20.28	19.30	19.18	19.18
		36	39	20.47	20.10	20.28	19.37	19.00	19.18
		75	0	20.40	20.25	20.21	19.30	19.15	19.11



BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				132072/ 1720	132322/ 1745	132572/ 1770	132072/ 1720	132322/ 1745	132572/ 1770
20MHz	QPSK	1	0	22.55	22.43	22.52	21.45	21.33	21.42
		1	50	23.02	22.78	22.88	21.92	21.68	21.78
		1	99	22.69	22.74	22.68	21.59	21.64	21.58
		50	0	21.71	21.77	21.67	20.61	20.67	20.57
		50	25	21.76	21.69	21.73	20.66	20.59	20.63
		50	50	21.85	21.62	21.74	20.75	20.52	20.64
		100	0	21.83	21.70	21.75	20.73	20.60	20.65
	16QAM	1	0	21.64	21.46	21.77	20.54	20.36	20.67
		1	50	22.09	21.80	22.26	20.99	20.70	21.16
		1	99	21.62	21.43	21.82	20.52	20.33	20.72
		50	0	20.98	20.98	20.88	19.88	19.88	19.78
		50	25	20.95	20.98	20.89	19.85	19.88	19.79
		50	50	21.06	20.85	20.93	19.96	19.75	19.83
		100	0	21.03	20.87	20.86	19.93	19.77	19.76
	64QAM	1	0	21.27	20.88	20.73	20.17	19.78	19.63
		1	50	21.78	21.26	21.19	20.68	20.16	20.09
		1	99	21.27	20.84	20.77	20.17	19.74	19.67
		50	0	20.35	20.25	20.23	19.25	19.15	19.13
		50	25	20.36	20.24	20.22	19.26	19.14	19.12
		50	50	20.44	20.05	20.24	19.34	18.95	19.14
		100	0	20.38	20.21	20.18	19.28	19.11	19.08

5.2 Occupied Bandwidth

Ambient condition

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

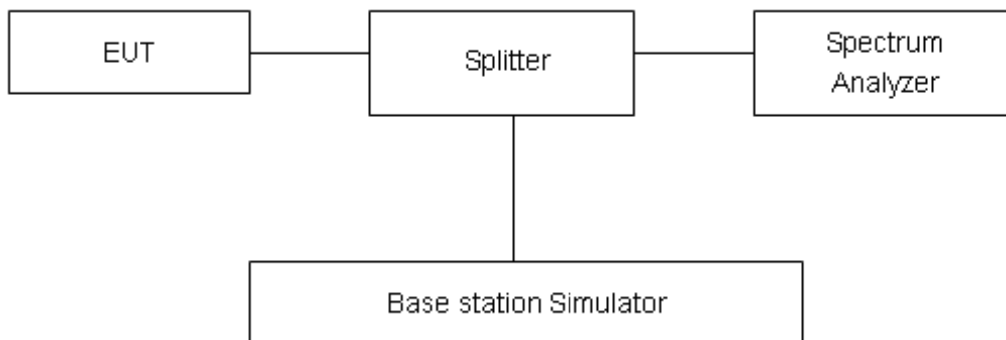
Method of Measurement

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 Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band IV (RMC)	1312	1712.4	4.1561	4.657
	1413	1732.6	4.1743	4.667
	1513	1752.6	4.1663	4.682

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	1.271
			20175	1732.5	1.095	1.283
			20393	1754.3	1.096	1.297
		3	19965	1711.5	2.686	2.896
			20175	1732.5	2.687	2.918
			20385	1753.5	2.687	2.916
		5	19975	1712.5	4.498	4.847
			20175	1732.5	4.493	4.886
			20375	1752.5	4.500	4.885
		10	20000	1715	8.983	9.708
			20175	1732.5	8.950	9.598
			20350	1750	8.962	9.833
		15	20025	1717.5	13.461	14.501
			20175	1732.5	13.420	14.433
			20325	1747.5	13.440	14.475
		20	20050	1720	17.918	19.397
			20175	1732.5	17.914	19.202
			20300	1745	17.937	19.240
	16QAM	1.4	19957	1710.7	1.096	1.286
			20175	1732.5	1.094	1.323
			20393	1754.3	1.089	1.268
		3	19965	1711.5	2.687	2.917
			20175	1732.5	2.687	2.919
			20385	1753.5	2.693	2.940
5		19975	1712.5	4.492	4.909	
		20175	1732.5	4.524	4.938	
		20375	1752.5	4.503	4.945	
10		20000	1715	8.967	9.618	
		20175	1732.5	8.975	9.664	



		15	20350	1750	9.009	9.627	
			20025	1717.5	13.481	14.408	
			20175	1732.5	13.435	14.609	
		20325	1747.5	13.491	14.421		
		20	20050	1720	17.941	19.246	
			20175	1732.5	17.928	19.290	
			20300	1745	17.976	19.140	
		64QAM	1.4	19957	1710.7	1.090	1.281
				20175	1732.5	1.097	1.315
				20393	1754.3	1.088	1.267
	3		19965	1711.5	2.690	2.915	
			20175	1732.5	2.685	2.930	
			20385	1753.5	2.689	2.916	
	5		19975	1712.5	4.496	4.921	
			20175	1732.5	4.501	4.907	
			20375	1752.5	4.493	4.915	
	10		20000	1715	8.978	9.698	
			20175	1732.5	8.971	9.676	
			20350	1750	8.986	9.653	
	15		20025	1717.5	13.472	14.619	
			20175	1732.5	13.447	14.387	
			20325	1747.5	13.485	14.462	
	20		20050	1720	17.936	19.325	
			20175	1732.5	17.953	19.302	
			20300	1745	17.947	19.277	

LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	20775	2502.5	4.506	4.894
			21100	2535	4.510	4.886
			21425	2567.5	4.500	4.928
		10	20800	2505	8.988	9.734
			21100	2535	8.987	9.686
			21400	2565	8.983	9.588
		15	20825	2507.5	13.439	14.381
			21100	2535	13.450	14.535
			21375	2562.5	13.468	14.461
		20	20850	2510	17.990	19.434
			21100	2535	17.924	19.341



	16QAM	5	21350	2560	17.976	19.311
			20775	2502.5	4.512	4.923
			21100	2535	4.499	4.887
		21425	2567.5	4.504	4.935	
		10	20800	2505	8.962	9.754
			21100	2535	8.986	9.701
			21400	2565	8.949	9.658
		15	20825	2507.5	13.476	14.427
			21100	2535	13.476	14.561
			21375	2562.5	13.460	14.567
		20	20850	2510	18.014	19.376
			21100	2535	18.032	19.306
	21350		2560	17.988	19.277	
	64QAM	5	20775	2502.5	4.493	4.960
			21100	2535	4.506	4.920
			21425	2567.5	4.503	4.862
		10	20800	2505	8.993	9.700
			21100	2535	8.967	9.671
			21400	2565	8.974	9.708
		15	20825	2507.5	13.479	14.597
			21100	2535	13.471	14.423
			21375	2562.5	13.435	14.362
		20	20850	2510	18.013	19.404
			21100	2535	17.983	19.248
21350			2560	17.957	19.387	

LTE Band 12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	23017	699.7	1.098	1.290
			23095	707.5	1.091	1.284
			23173	715.3	1.088	1.290
		3	23025	700.5	2.686	2.924
			23095	707.5	2.694	2.914
			23165	714.5	2.695	2.941
		5	23035	701.5	4.512	5.067
			23095	707.5	4.514	5.103
			23155	713.5	4.519	5.078
		10	23060	704	8.985	10.102
			23095	707.5	8.970	9.884



	16QAM	1.4	23130	711	8.982	10.001
			23017	699.7	1.093	1.290
			23095	707.5	1.098	1.305
		23173	715.3	1.096	1.289	
		3	23025	700.5	2.695	2.923
			23095	707.5	2.686	2.929
			23165	714.5	2.686	2.969
		5	23035	701.5	4.529	5.155
			23095	707.5	4.515	5.119
			23155	713.5	4.515	5.063
		10	23060	704	9.006	9.841
			23095	707.5	8.993	10.058
	23130		711	8.998	9.941	
	64QAM	1.4	23017	699.7	1.091	1.298
			23095	707.5	1.096	1.285
			23173	715.3	1.093	1.279
		3	23025	700.5	2.687	2.925
			23095	707.5	2.696	2.921
			23165	714.5	2.688	2.926
		5	23035	701.5	4.526	5.197
			23095	707.5	4.523	5.168
			23155	713.5	4.531	5.122
		10	23060	704	8.993	9.893
			23095	707.5	8.979	9.972
23130			711	9.007	9.925	

LTE Band 13							
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)	
100%	QPSK	5	23205	779.5	4.514	5.090	
			23230	782	4.536	5.120	
			23255	784.5	4.516	5.098	
		10	23230	782	9.042	10.108	
	16QAM	5	23205	779.5	4.512	5.088	
			23230	782	4.517	5.125	
			23255	784.5	4.522	5.063	
		10	23230	782	9.006	10.058	
		64QAM	5	23205	779.5	4.545	5.086
				23230	782	4.530	5.135
	23255			784.5	4.522	5.082	



		10	23230	782	8.980	9.964
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LTE Band 66						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	131979	1710.7	1.094	1.282
			132322	1745	1.087	1.286
			132665	1779.3	1.095	1.300
		3	131987	1711.5	2.696	2.919
			132322	1745	2.687	2.925
			132657	1778.5	2.693	2.924
		5	131997	1712.5	4.528	5.115
			132322	1745	4.532	5.094
			132647	1777.5	4.507	5.179
		10	132022	1715	8.992	10.041
			132322	1745	8.978	10.163
			132622	1775	8.976	10.013
	15	132047	1717.5	13.466	14.799	
		132322	1745	13.480	14.750	
		132597	1772.5	13.492	14.943	
	20	132072	1720	18.036	19.852	
		132322	1745	17.994	19.680	
		132572	1770	17.947	19.740	
	16QAM	1.4	131979	1710.7	1.098	1.292
			132322	1745	1.093	1.324
			132665	1779.3	1.093	1.273
		3	131987	1711.5	2.684	2.918
			132322	1745	2.694	2.925
			132657	1778.5	2.691	2.940
5		131997	1712.5	4.529	5.185	
		132322	1745	4.523	5.200	
		132647	1777.5	4.520	5.105	
10		132022	1715	8.989	9.952	
		132322	1745	9.003	9.936	
		132622	1775	8.989	10.068	
15	132047	1717.5	13.451	14.883		
	132322	1745	13.496	14.925		
	132597	1772.5	13.479	14.798		
20	132072	1720	18.013	19.689		
	132322	1745	18.034	19.447		



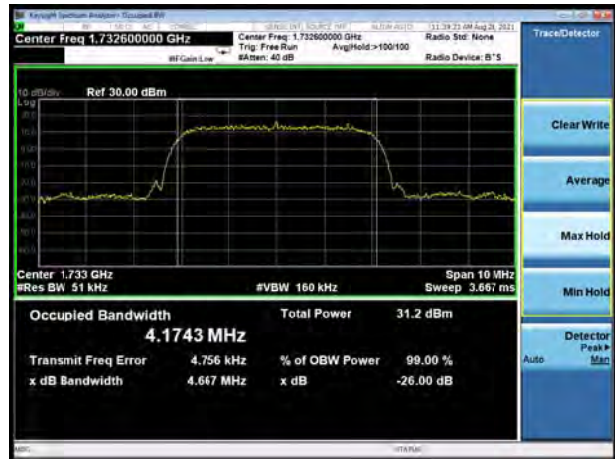
64QAM		132572	1770	17.949	19.570
	1.4	131979	1710.7	1.090	1.272
		132322	1745	1.097	1.292
		132665	1779.3	1.093	1.279
	3	131987	1711.5	2.693	2.923
		132322	1745	2.695	2.946
		132657	1778.5	2.679	2.929
	5	131997	1712.5	4.542	5.199
		132322	1745	4.512	4.990
		132647	1777.5	4.537	5.141
	10	132022	1715	8.992	10.005
		132322	1745	8.995	10.001
		132622	1775	8.985	9.928
	15	132047	1717.5	13.531	14.872
		132322	1745	13.436	14.840
		132597	1772.5	13.470	14.807
	20	132072	1720	18.017	19.611
		132322	1745	17.975	19.902
		132572	1770	18.017	19.422



WCDMA Band IV CH-Low



WCDMA Band IV CH Middle



WCDMA Band IV CH High

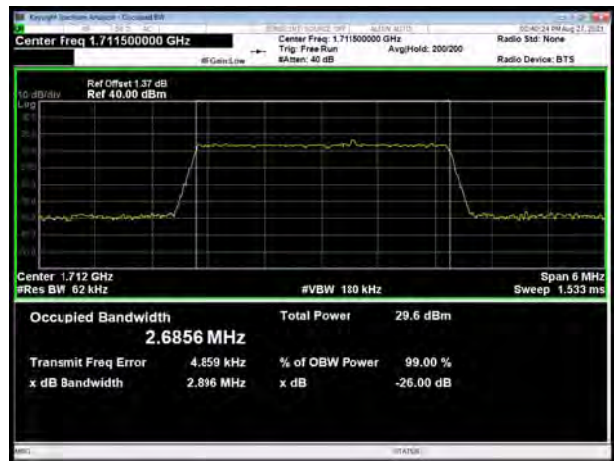




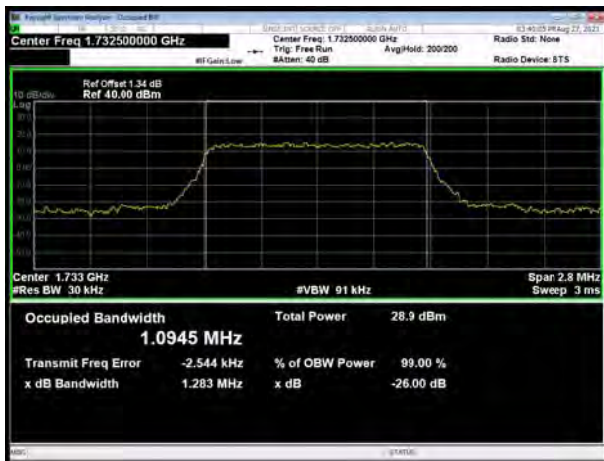
LTE Band 4 QPSK 1.4MHz CH-Low



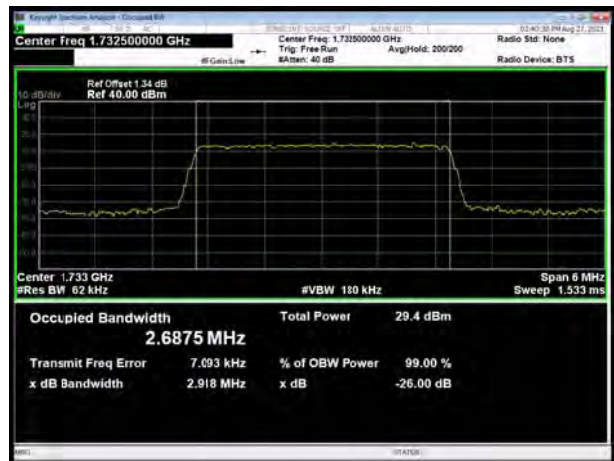
LTE Band 4 QPSK 3MHz CH-Low



LTE Band 4 QPSK 1.4MHz CH-Middle



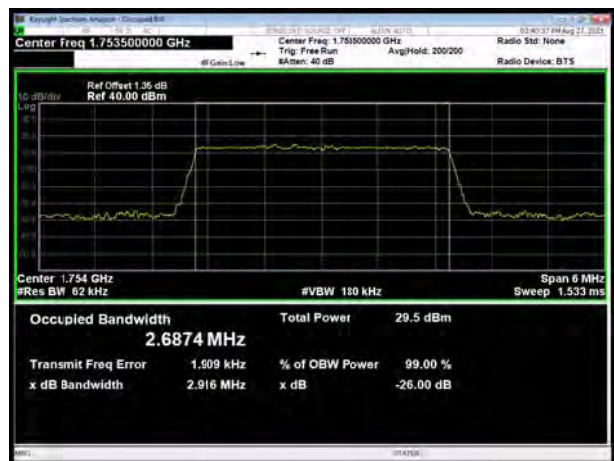
LTE Band 4 QPSK 3MHz CH-Middle



LTE Band 4 QPSK 1.4MHz CH-High

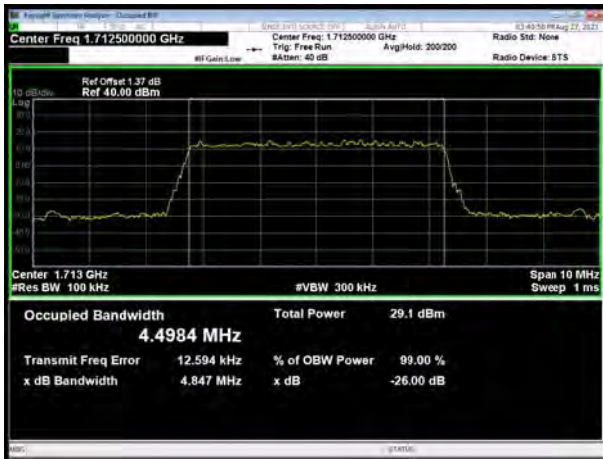


LTE Band 4 QPSK 3MHz CH-High

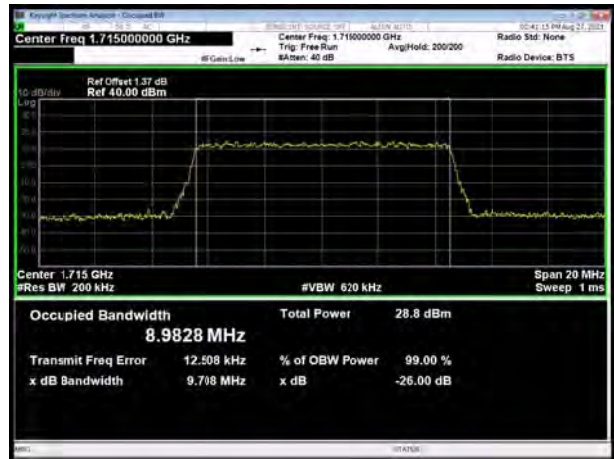




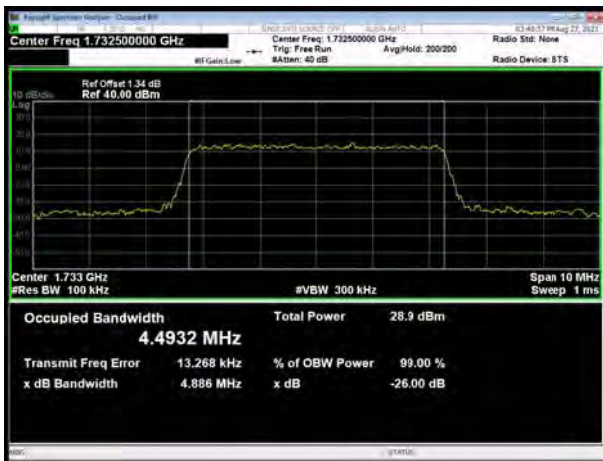
LTE Band 4 QPSK 5MHz CH-Low



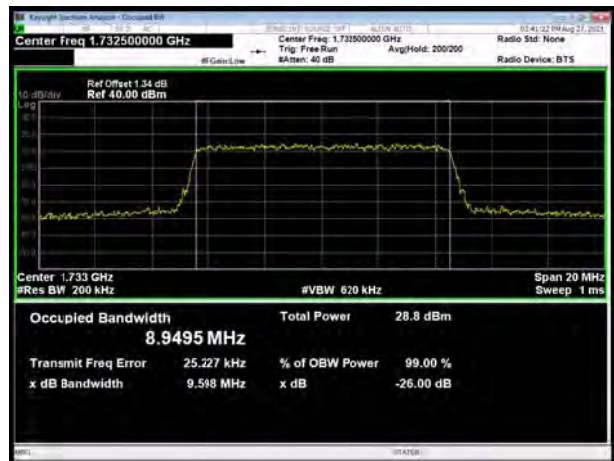
LTE Band 4 QPSK 10MHz CH-Low



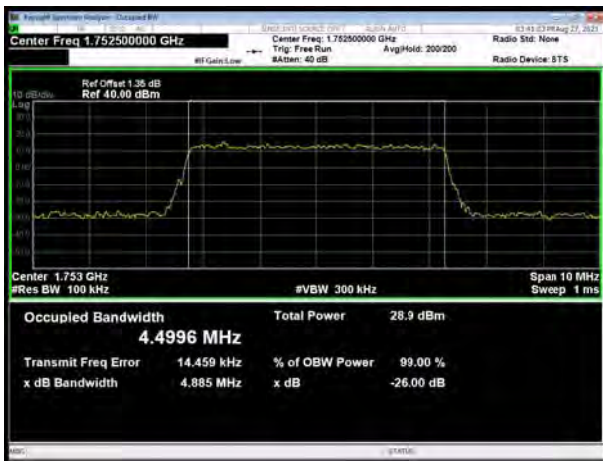
LTE Band 4 QPSK 5MHz CH-Middle



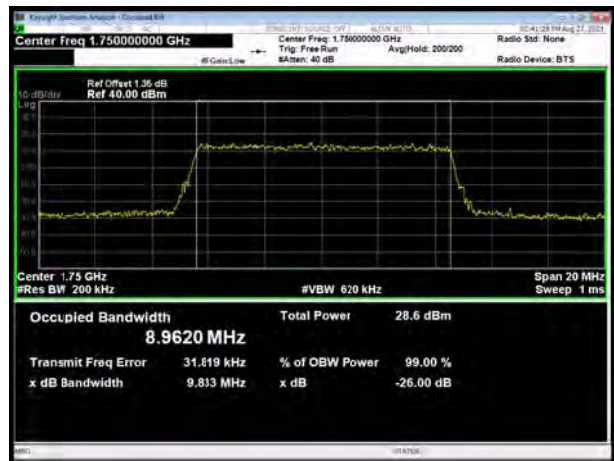
LTE Band 4 QPSK 10MHz CH-Middle



LTE Band 4 QPSK 5MHz CH-High

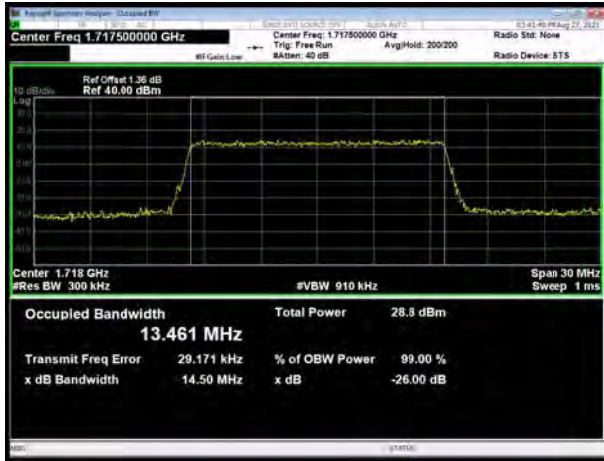


LTE Band 4 QPSK 10MHz CH-High

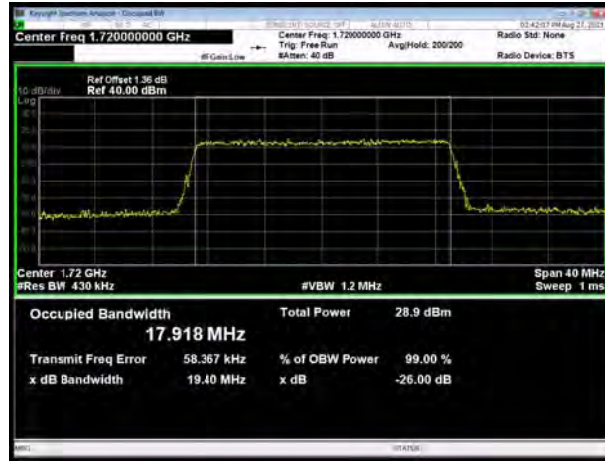




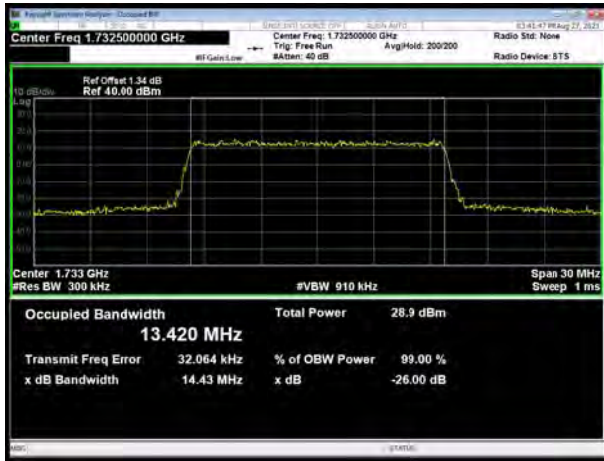
LTE Band 4 QPSK 15MHz CH-Low



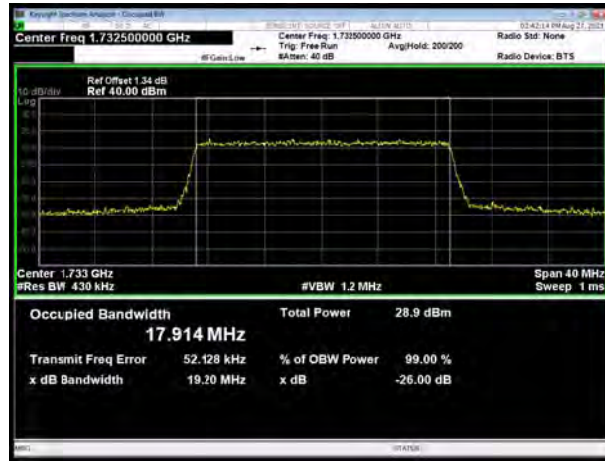
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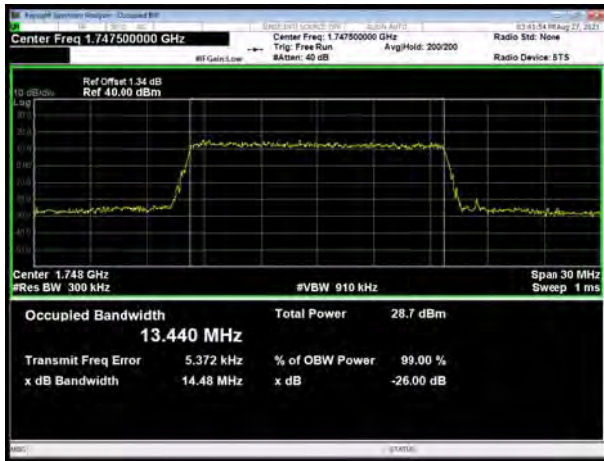
LTE Band 4 QPSK 15MHz CH-Middle



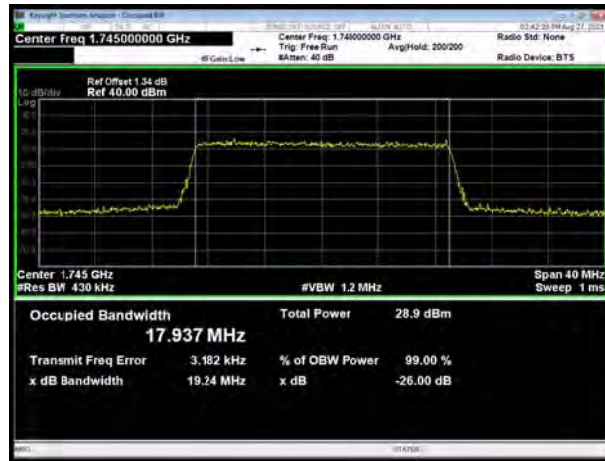
LTE Band 4 QPSK 20MHz CH-Middle



LTE Band 4 QPSK 15MHz CH-High

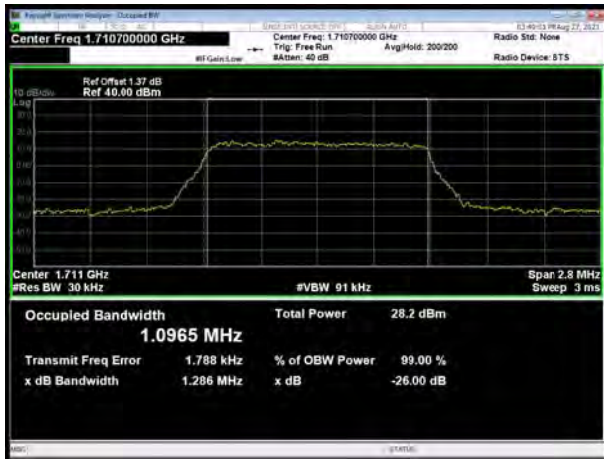


LTE Band 4 QPSK 20MHz CH-High

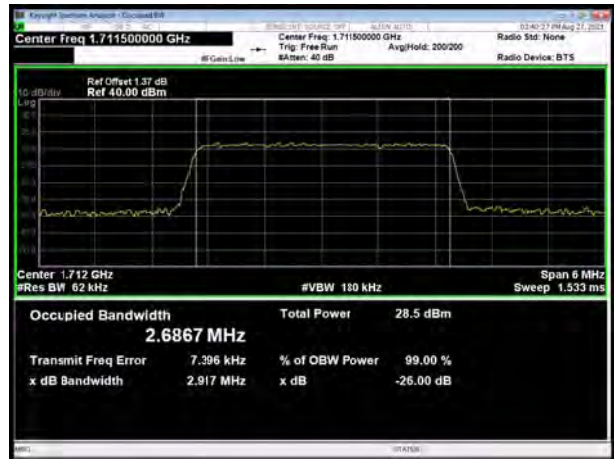




LTE Band 4 16QAM 1.4MHz CH-Low



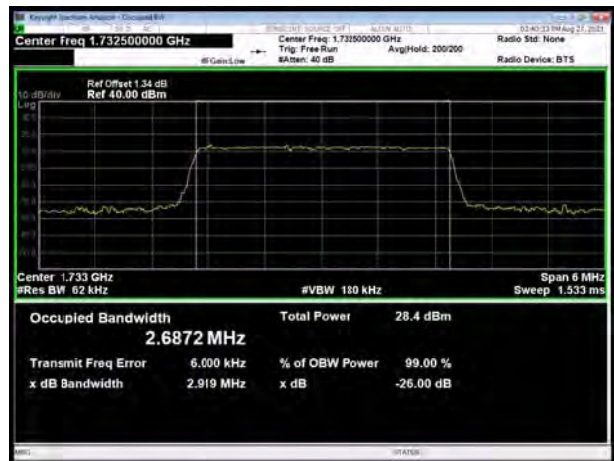
LTE Band 4 16QAM 3MHz CH-Low



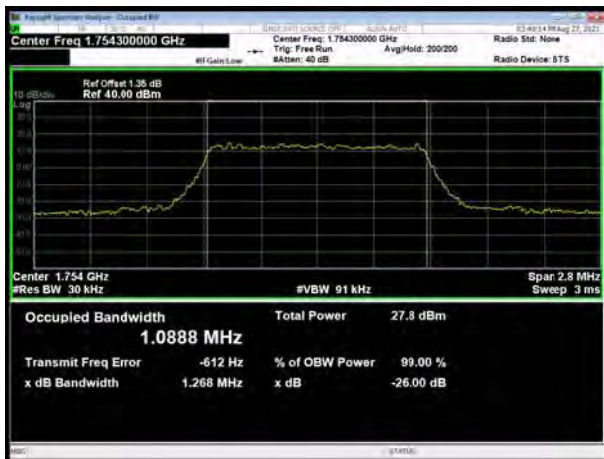
LTE Band 4 16QAM 1.4MHz CH-Middle



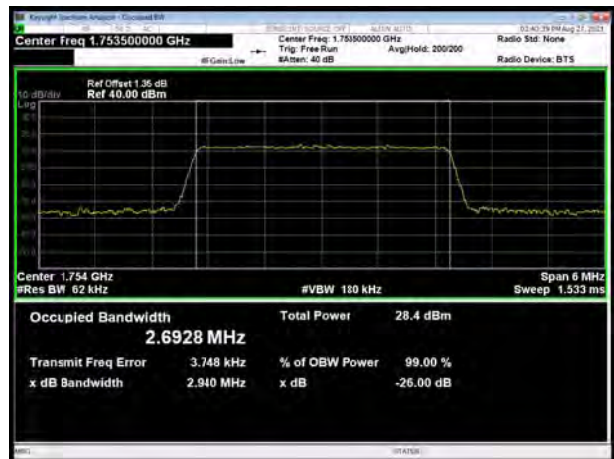
LTE Band 4 16QAM 3MHz CH-Middle



LTE Band 4 16QAM 1.4MHz CH-High

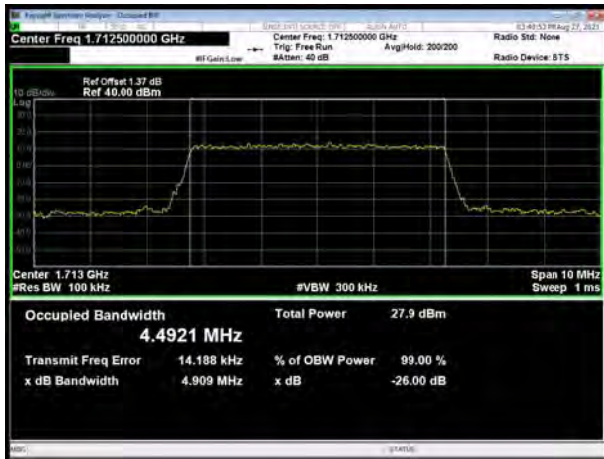


LTE Band 4 16QAM 3MHz CH-High

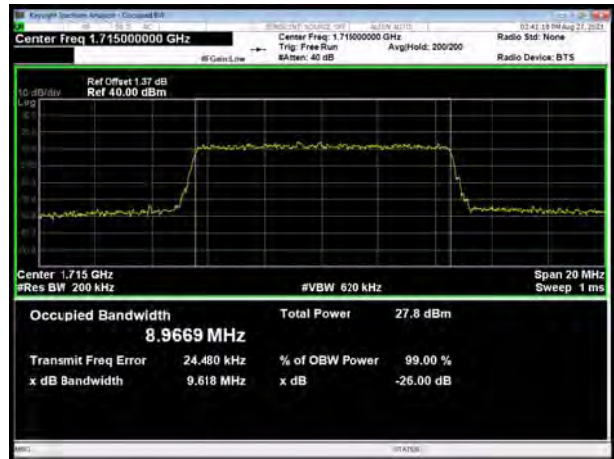




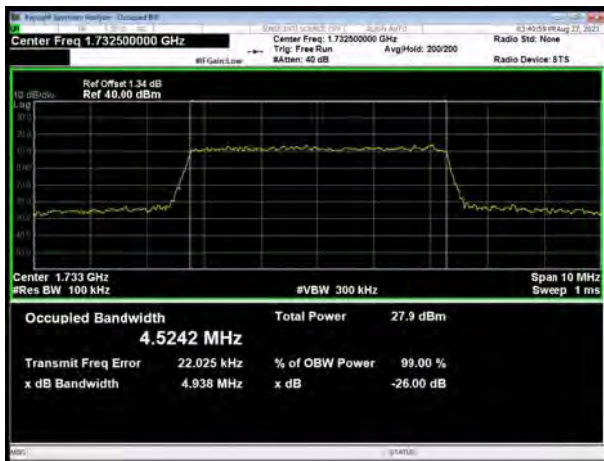
LTE Band 4 16QAM 5MHz CH-Low



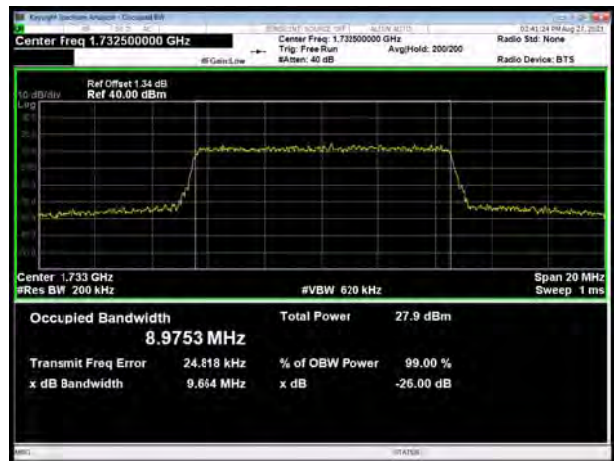
LTE Band 4 16QAM 10MHz CH-Low



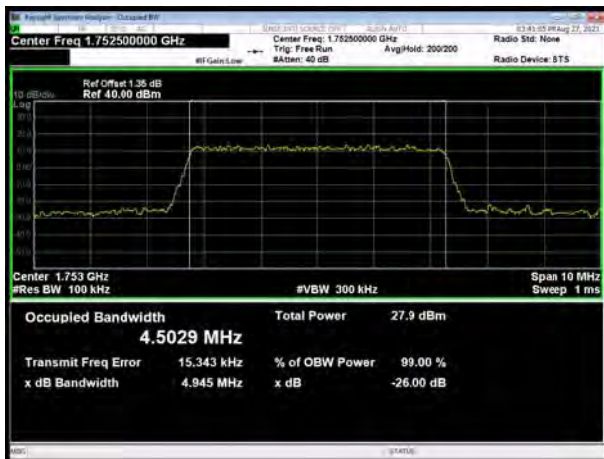
LTE Band 4 16QAM 5MHz CH-Middle



LTE Band 4 16QAM 10MHz CH-Middle



LTE Band 4 16QAM 5MHz CH-High

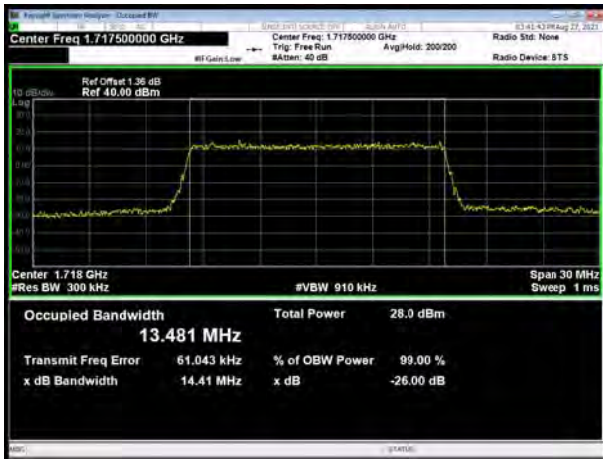


LTE Band 4 16QAM 10MHz CH-High

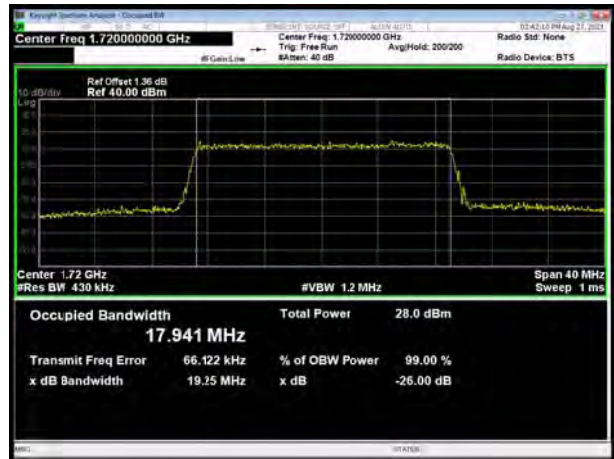




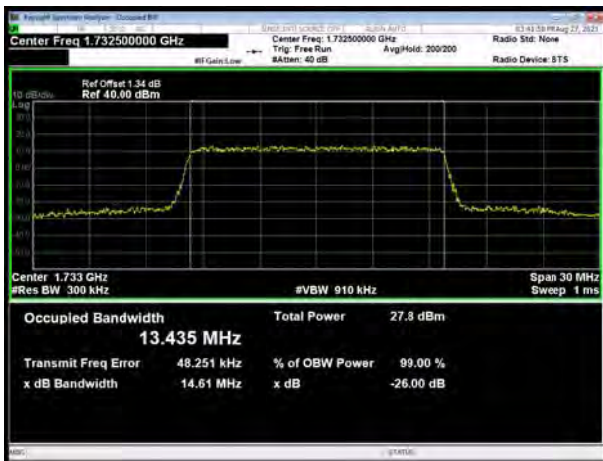
LTE Band 4 16QAM 15MHz CH-Low



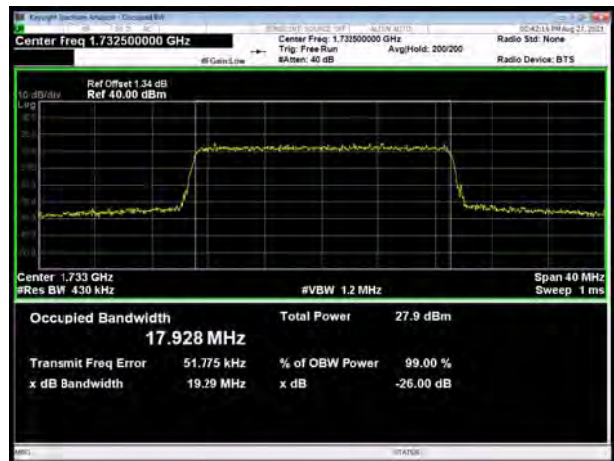
LTE Band 4 16QAM 20MHz CH-Low



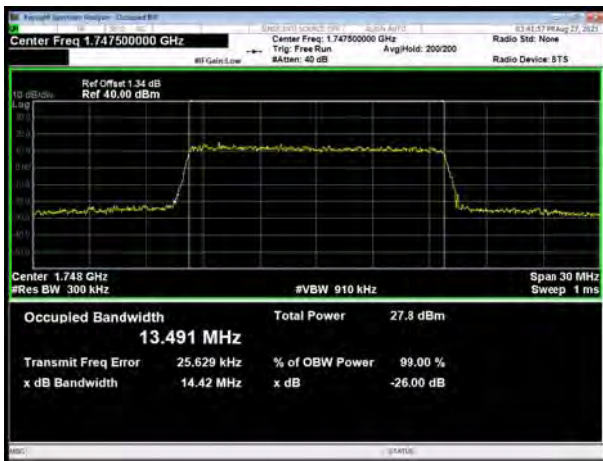
LTE Band 4 16QAM 15MHz CH-Middle



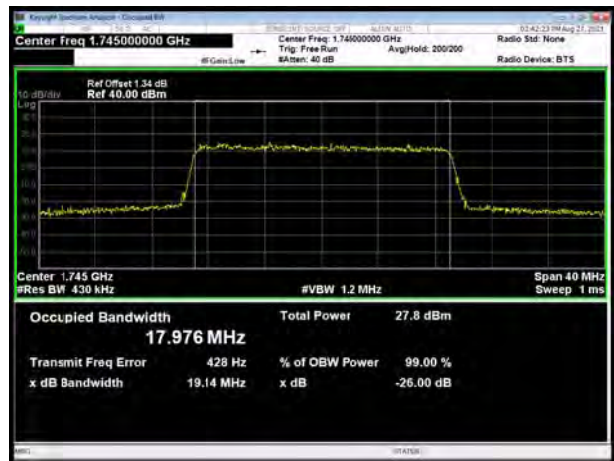
LTE Band 4 16QAM 20MHz CH-Middle



LTE Band 4 16QAM 15MHz CH-High

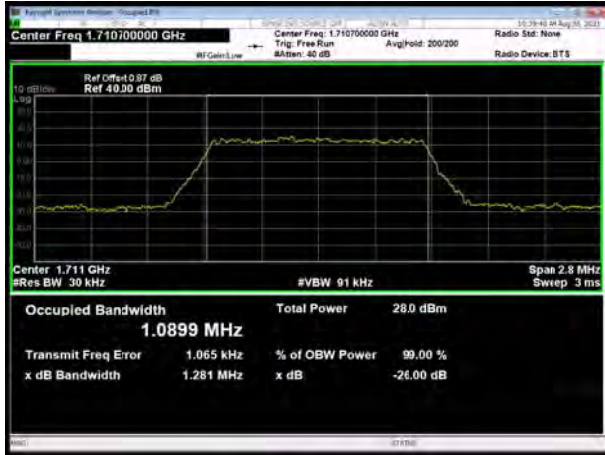


LTE Band 4 16QAM 20MHz CH-High

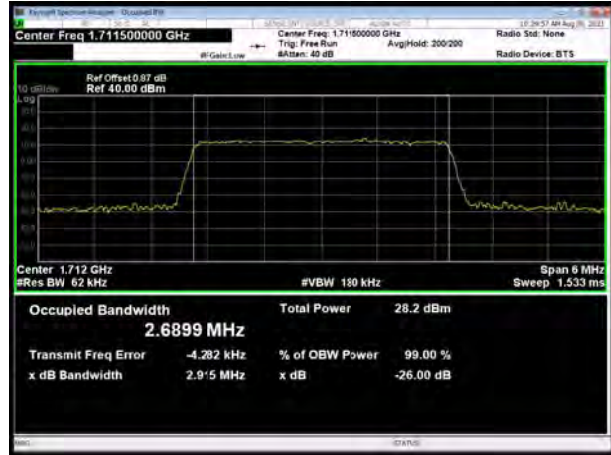




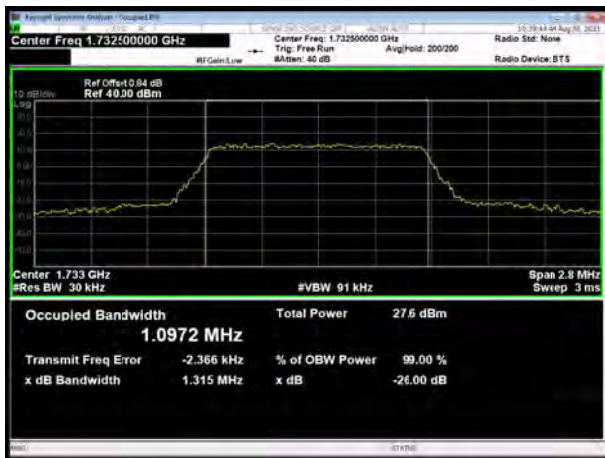
LTE Band 4 1.4MHz 64QAM CH-Low



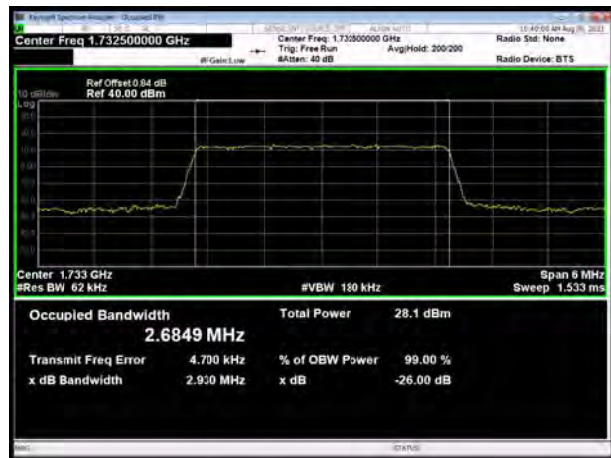
LTE Band 4 3MHz 64QAM CH-Low



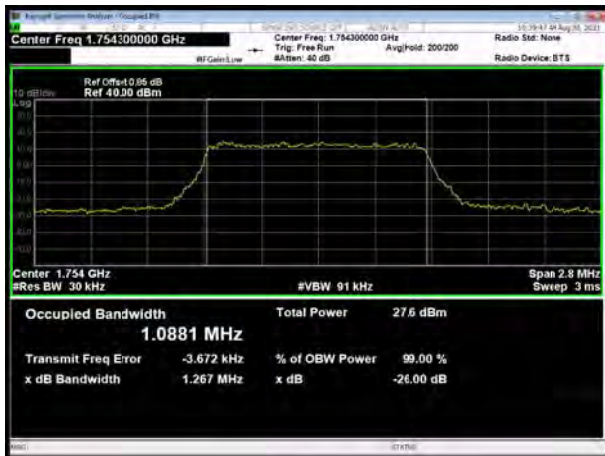
LTE Band 4 1.4MHz 64QAM CH-Middle



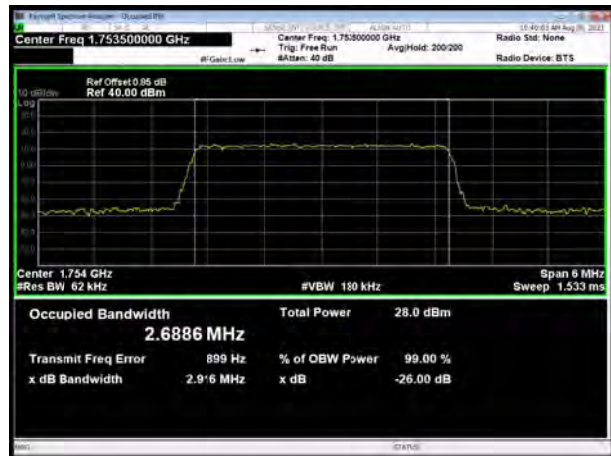
LTE Band 4 3MHz 64QAM CH-Middle



LTE Band 4 1.4MHz 64QAM CH-High

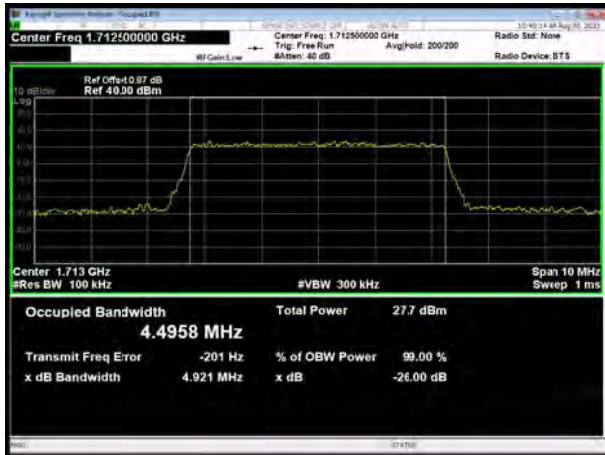


LTE Band 4 3MHz 64QAM CH-High

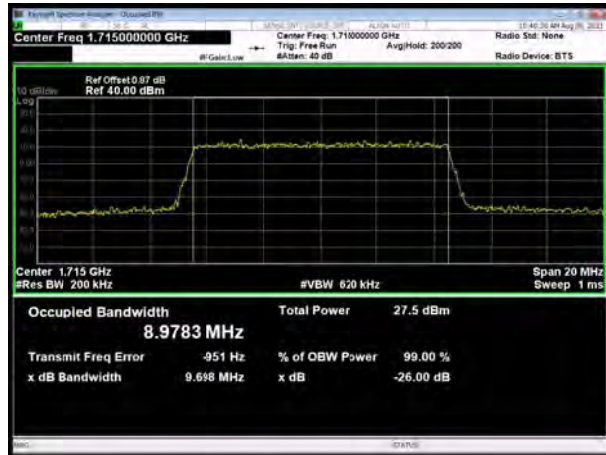




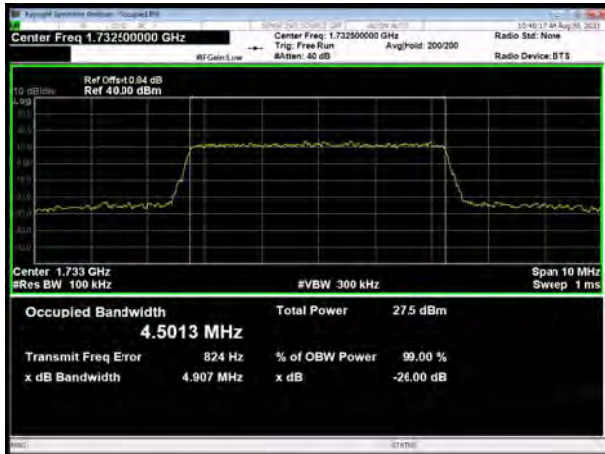
LTE Band 4 5MHz 64QAM CH-Low



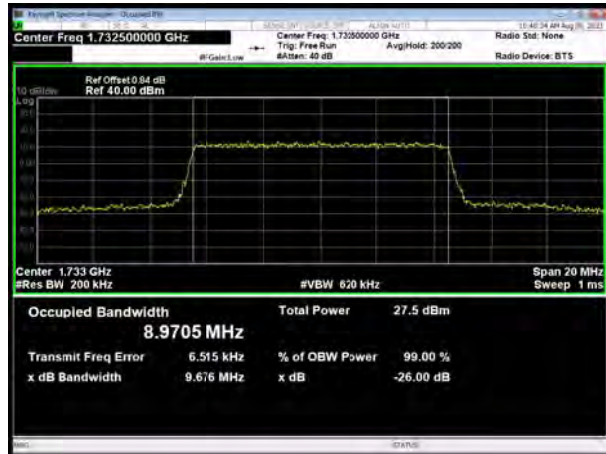
LTE Band 4 10MHz 64QAM CH-Low



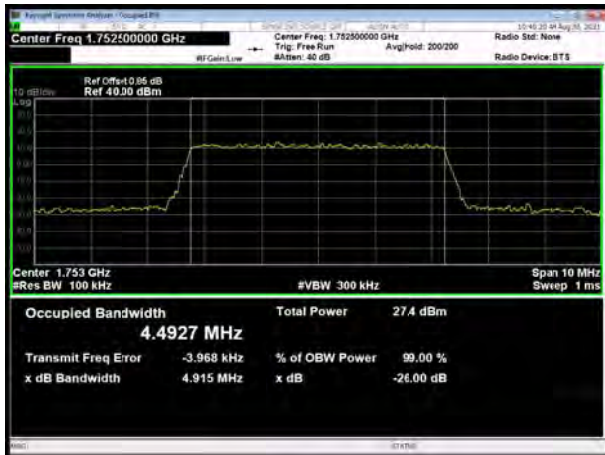
LTE Band 4 5MHz 64QAM CH-Middle



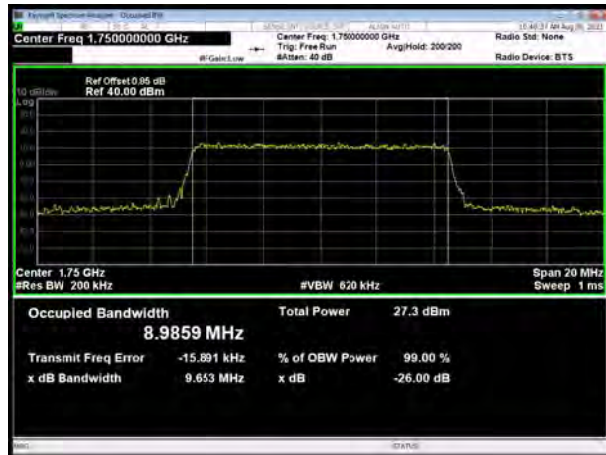
LTE Band 4 10MHz 64QAM CH-Middle



LTE Band 4 5MHz 64QAM CH-High

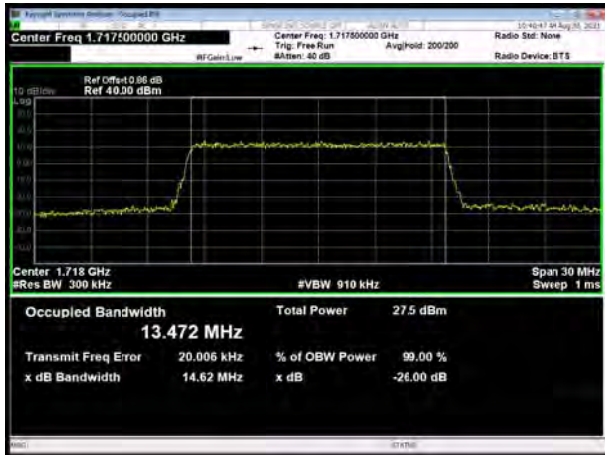


LTE Band 4 10MHz 64QAM CH-High

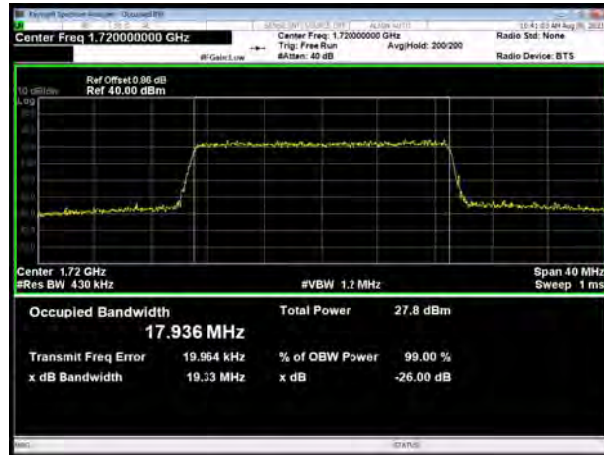




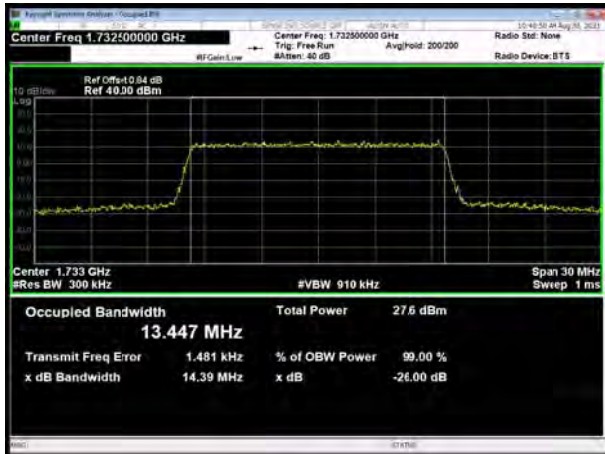
LTE Band 4 15MHz 64QAM CH-Low



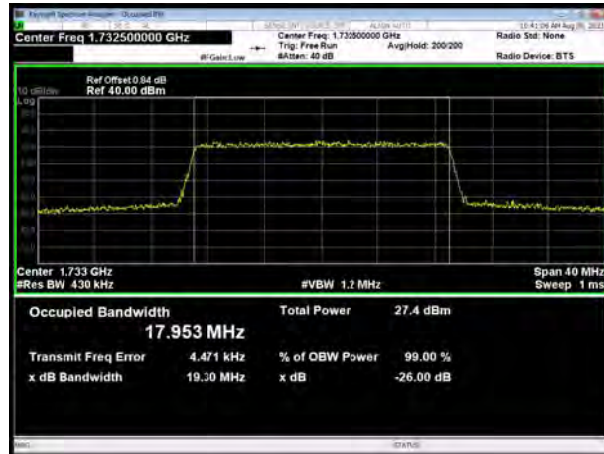
LTE Band 4 20MHz 64QAM CH-Low



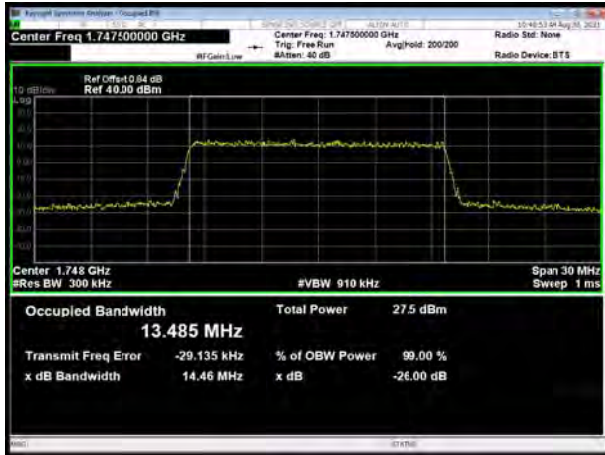
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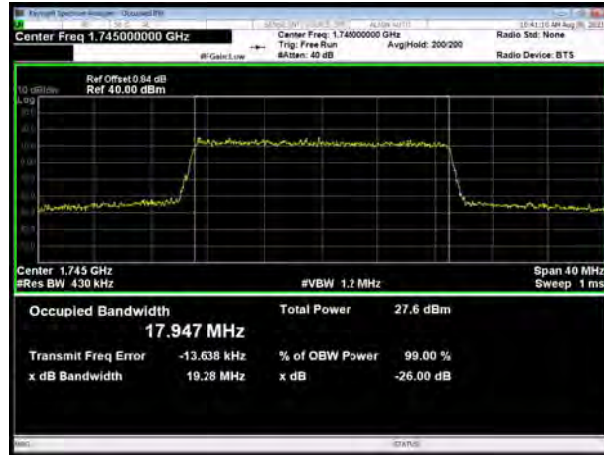
LTE Band 4 20MHz 64QAM CH-Middle



LTE Band 4 15MHz 64QAM CH-High

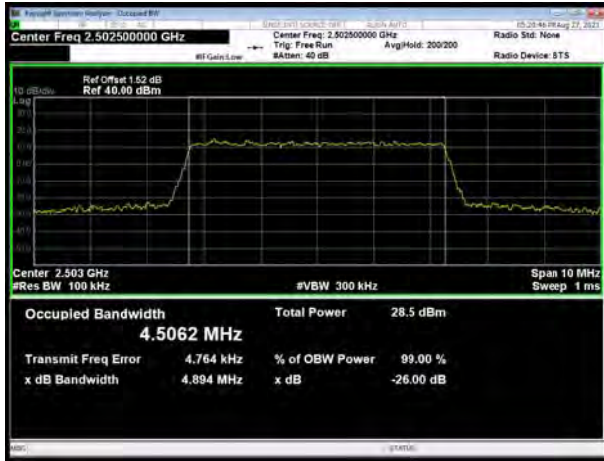


LTE Band 4 20MHz 64QAM CH-High

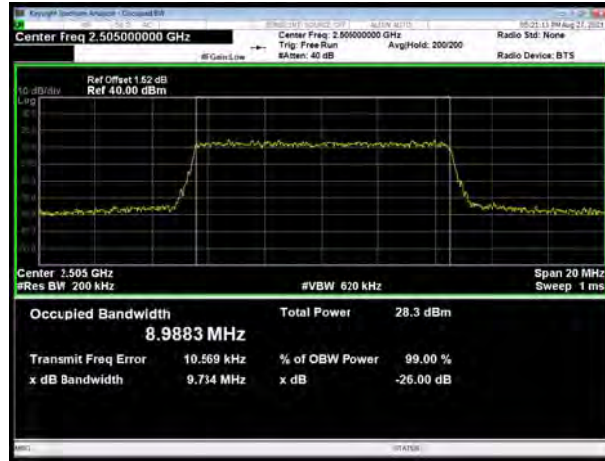




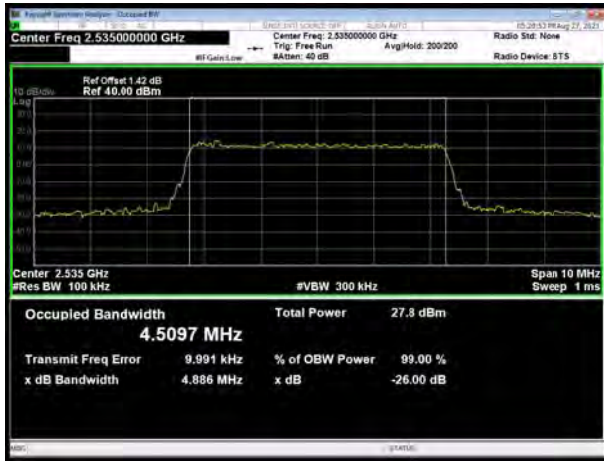
LTE Band 7 QPSK 5MHz CH-Low



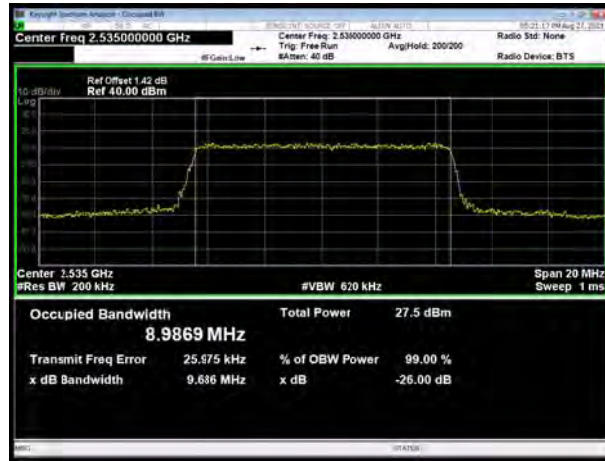
LTE Band 7 QPSK 10MHz CH-Low



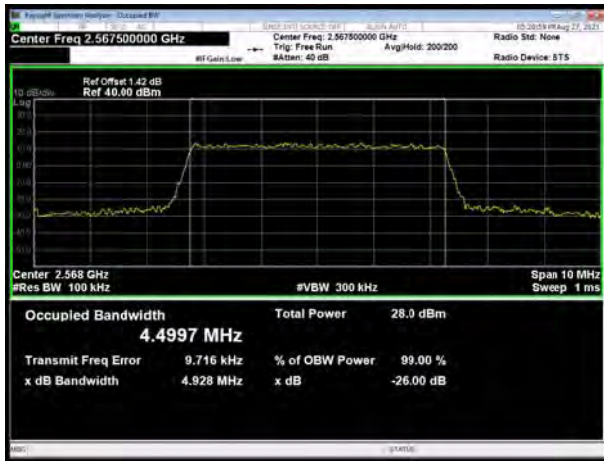
LTE Band 7 QPSK 5MHz CH-Middle



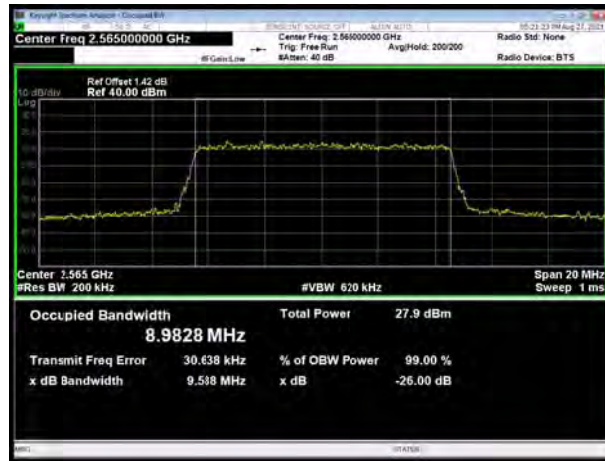
LTE Band 7 QPSK 10MHz CH-Middle



LTE Band 7 QPSK 5MHz CH-High

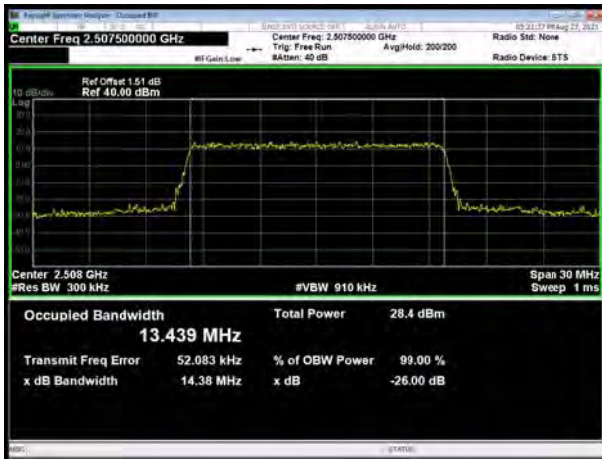


LTE Band 7 QPSK 10MHz CH-High

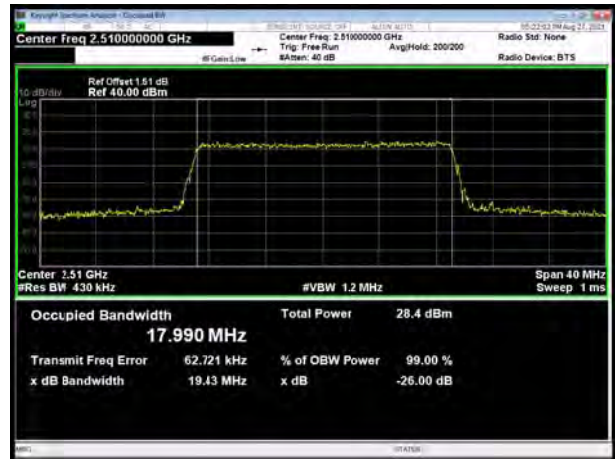




LTE Band 7 QPSK 15MHz CH-Low



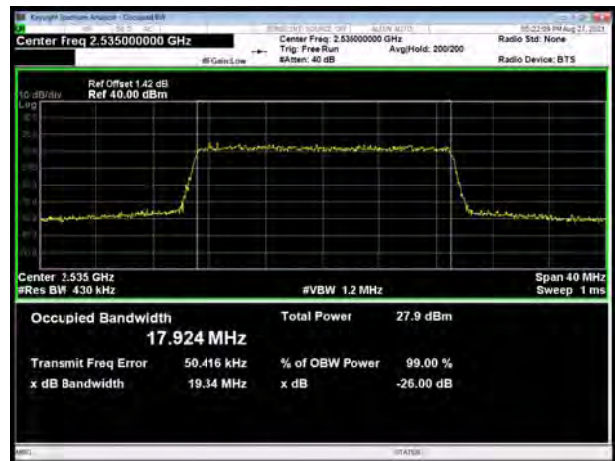
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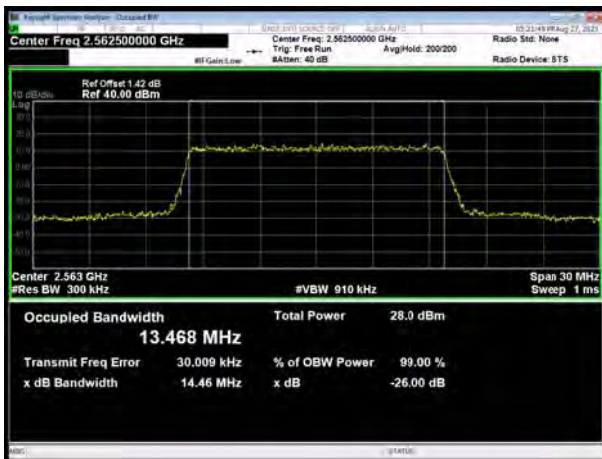
LTE Band 7 QPSK 15MHz CH-Middle



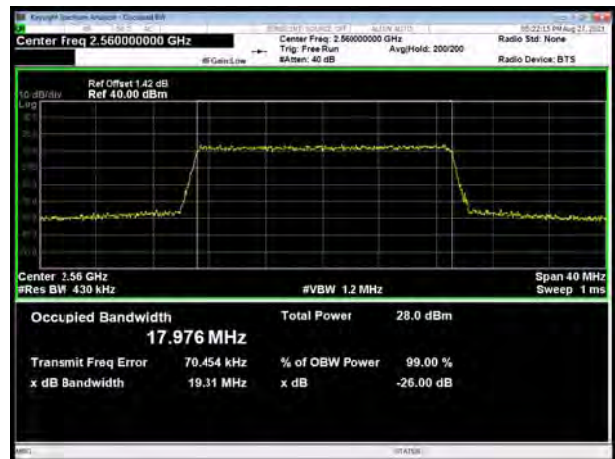
LTE Band 7 QPSK 20MHz CH-Middle



LTE Band 7 QPSK 15MHz CH-High

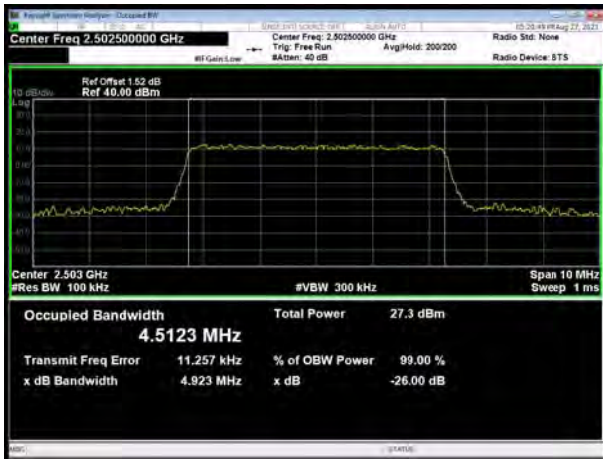


LTE Band 7 QPSK 20MHz CH-High

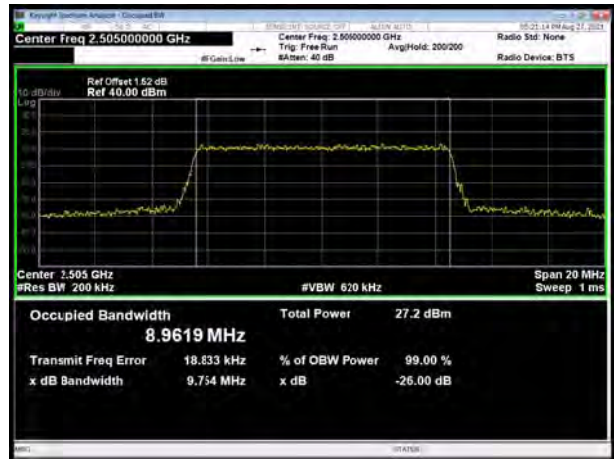




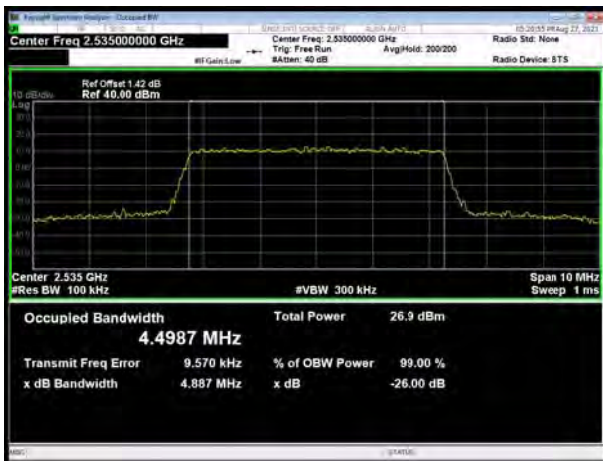
LTE Band 7 16QAM 5MHz CH-Low



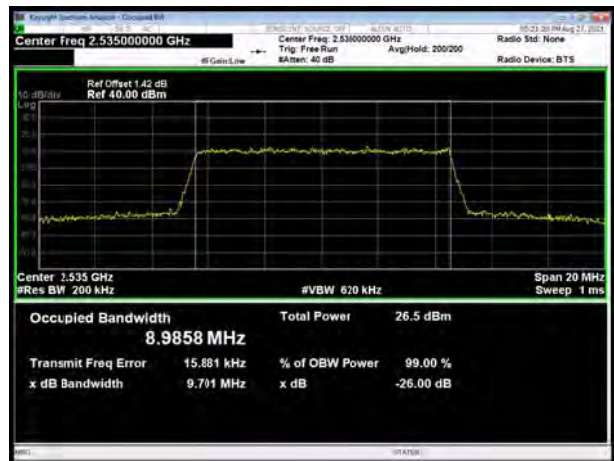
LTE Band 7 16QAM 10MHz CH-Low



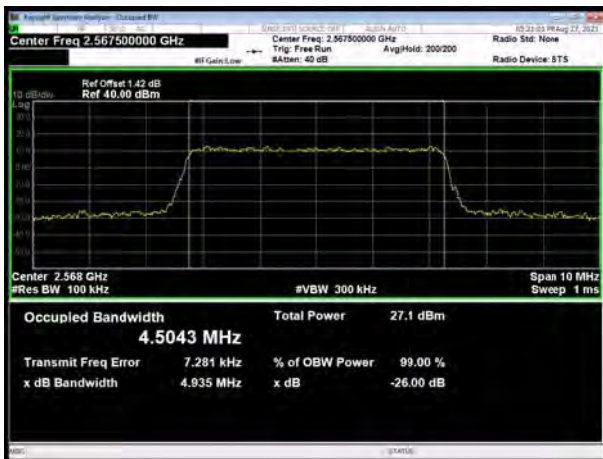
LTE Band 7 16QAM 5MHz CH-Middle



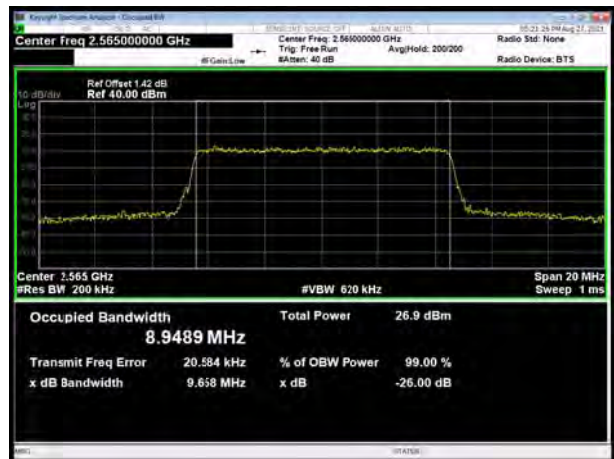
LTE Band 7 16QAM 10MHz CH-Middle



LTE Band 7 16QAM 5MHz CH-High

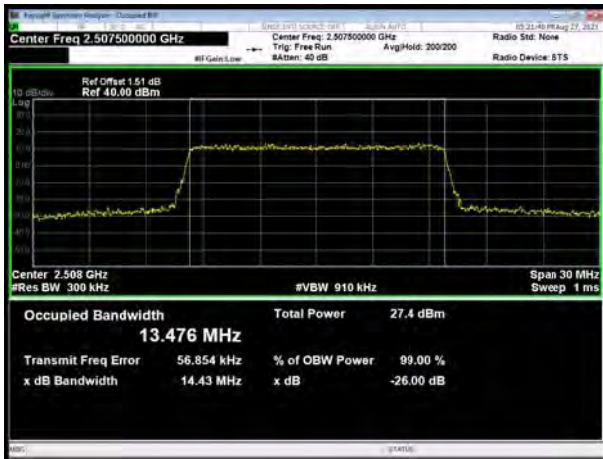


LTE Band 7 16QAM 10MHz CH-High

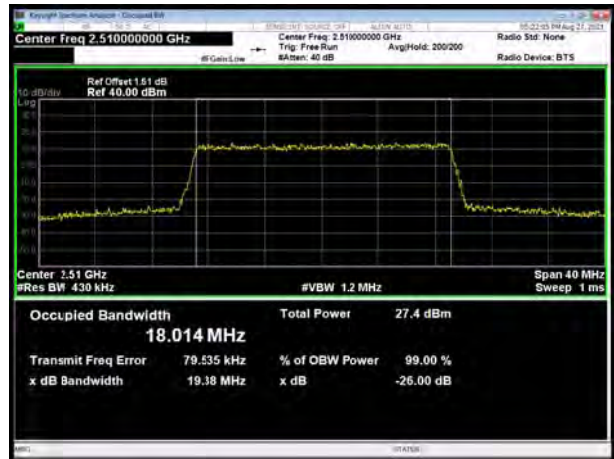




LTE Band 7 16QAM 15MHz CH-Low



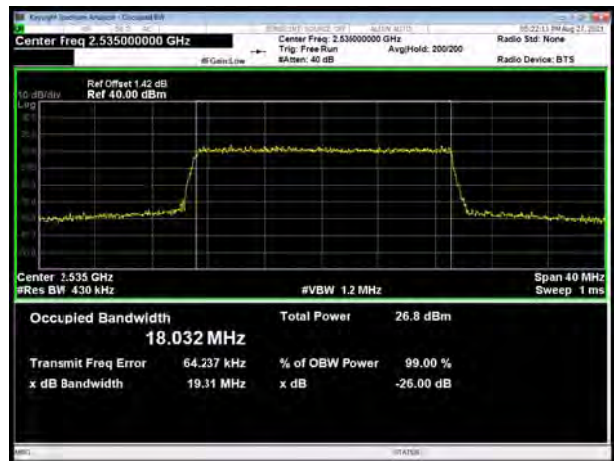
LTE Band 7 16QAM 20MHz CH-Low



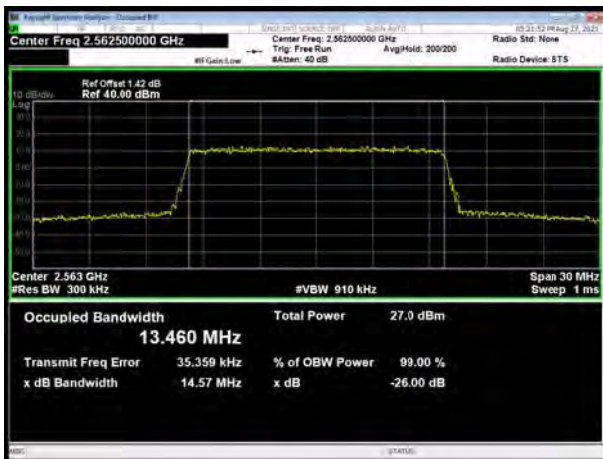
LTE Band 7 16QAM 15MHz CH-Middle



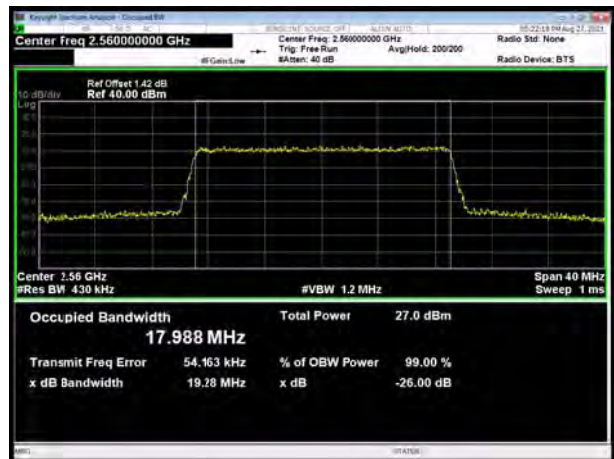
LTE Band 7 16QAM 20MHz CH-Middle



LTE Band 7 16QAM 15MHz CH-High

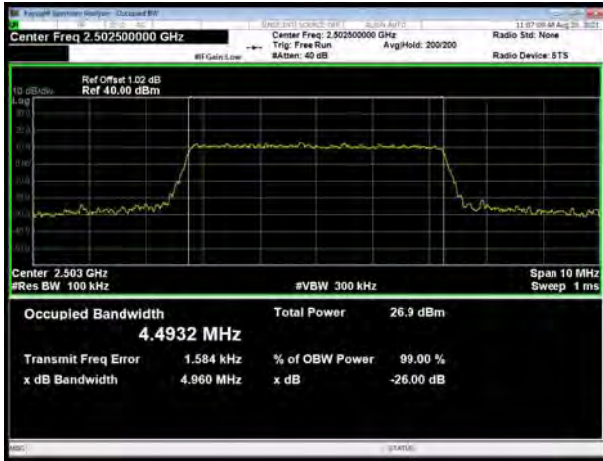


LTE Band 7 16QAM 20MHz CH-High

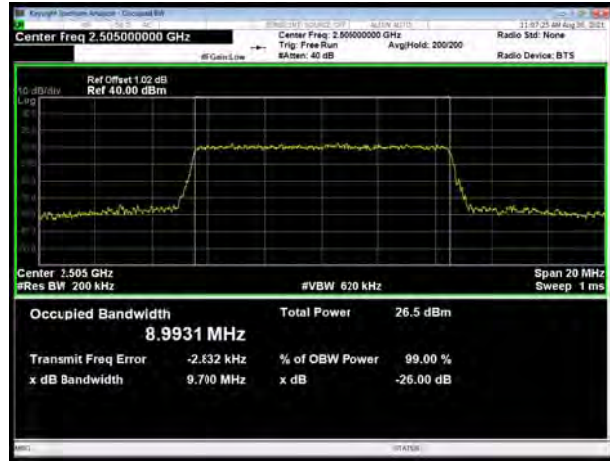




LTE Band 7 64QAM 5MHz CH-Low



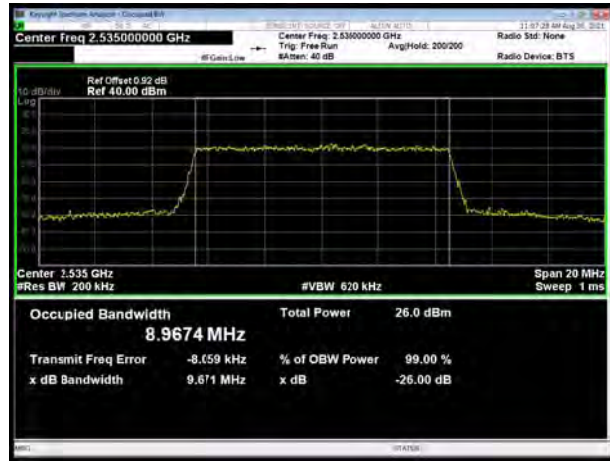
LTE Band 7 64QAM 10MHz CH-Low



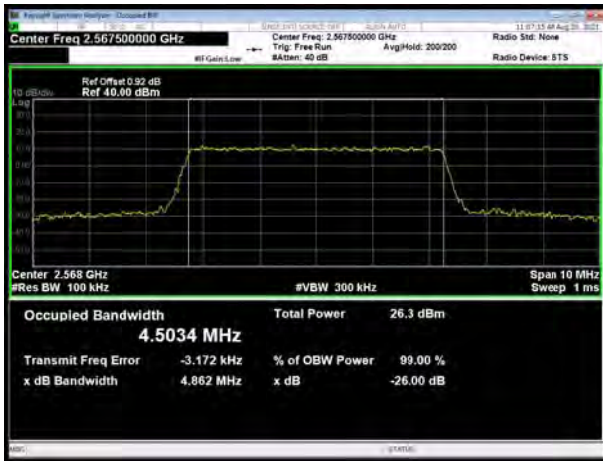
LTE Band 7 64QAM 5MHz CH-Middle



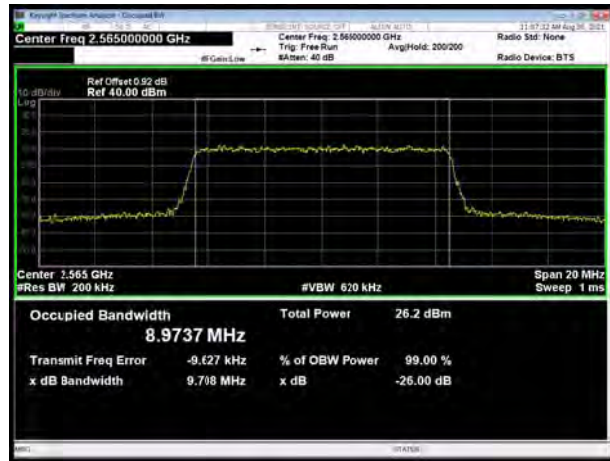
LTE Band 7 64QAM 10MHz CH-Middle



LTE Band 7 64QAM 5MHz CH-High

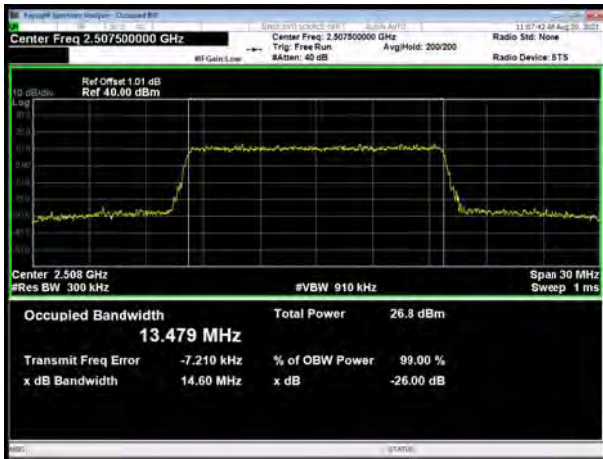


LTE Band 7 64QAM 10MHz CH-High

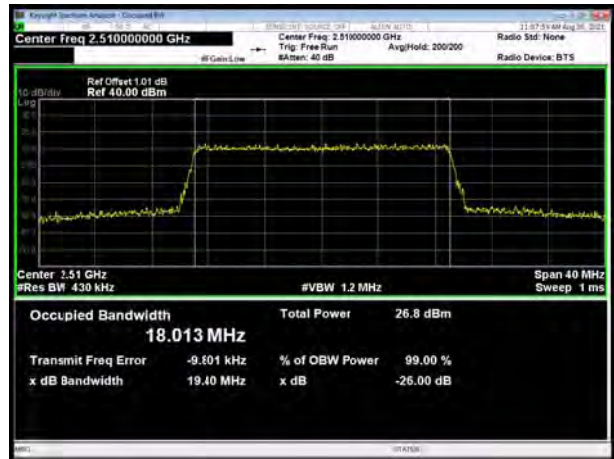




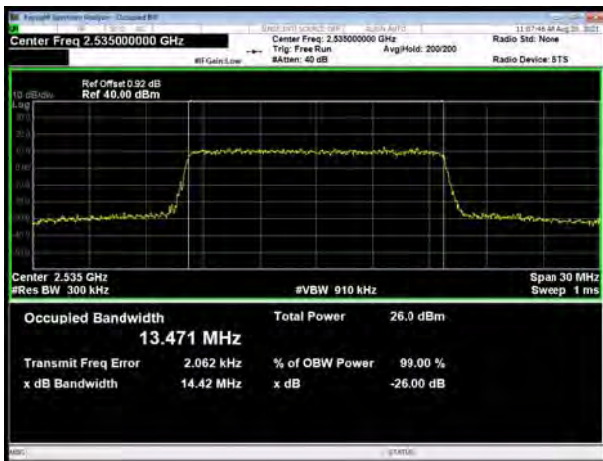
LTE Band 7 64QAM 15MHz CH-Low



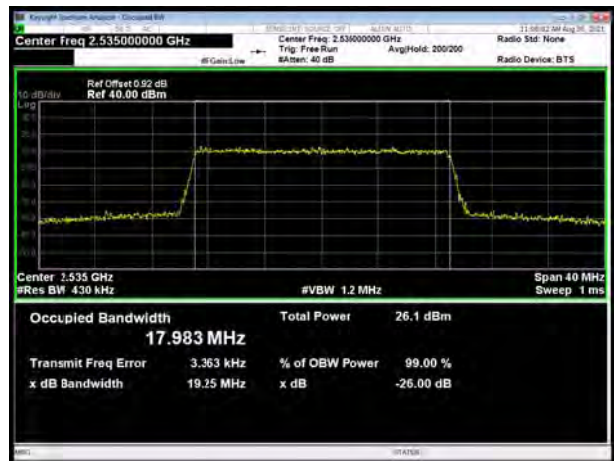
LTE Band 7 64QAM 20MHz CH-Low



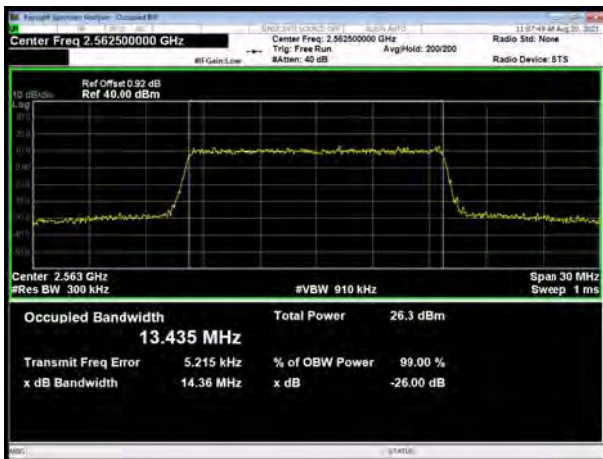
LTE Band 7 64QAM 15MHz CH-Middle



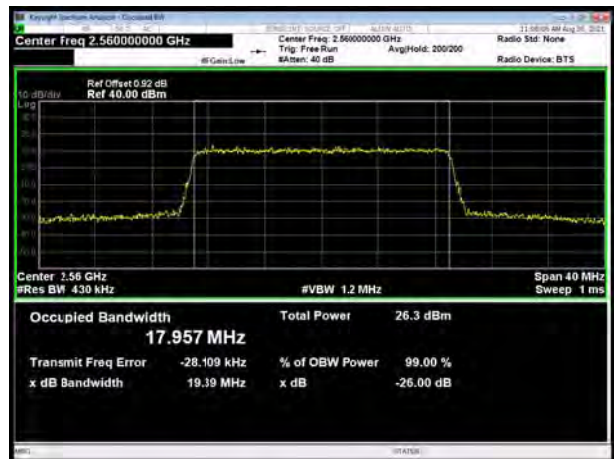
LTE Band 7 64QAM 20MHz CH-Middle



LTE Band 7 64QAM 15MHz CH-High

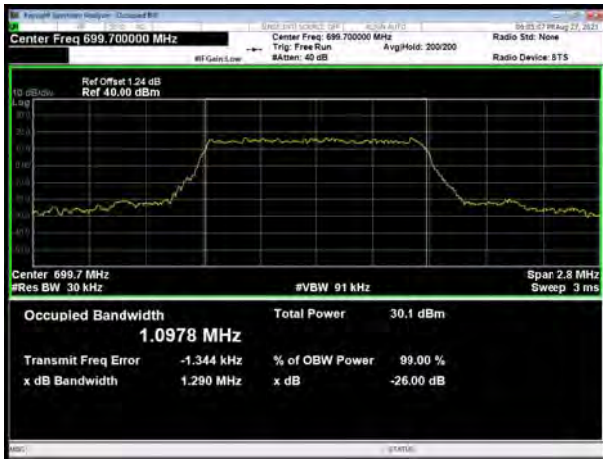


LTE Band 7 64QAM 20MHz CH-High

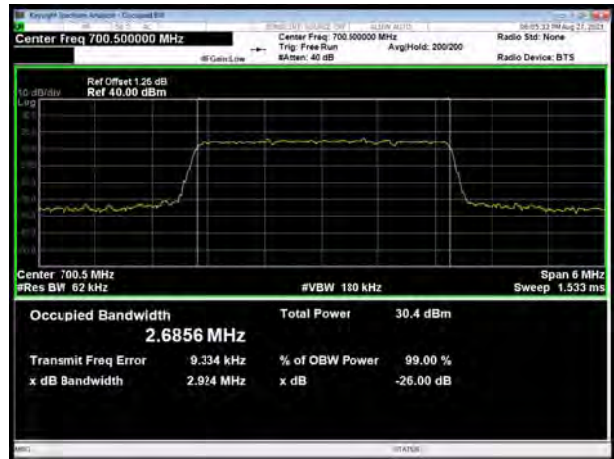




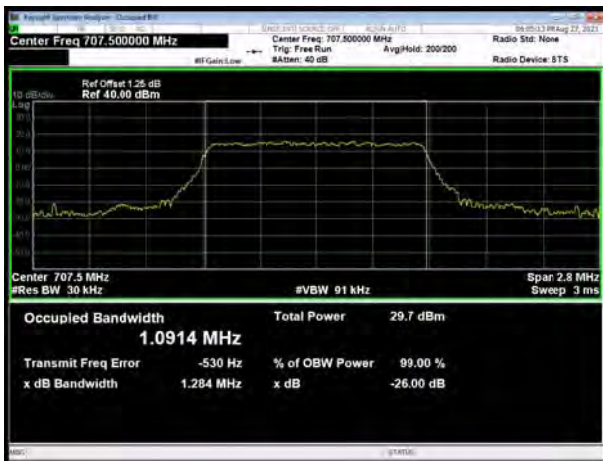
LTE Band 12 QPSK 1.4MHz CH-Low



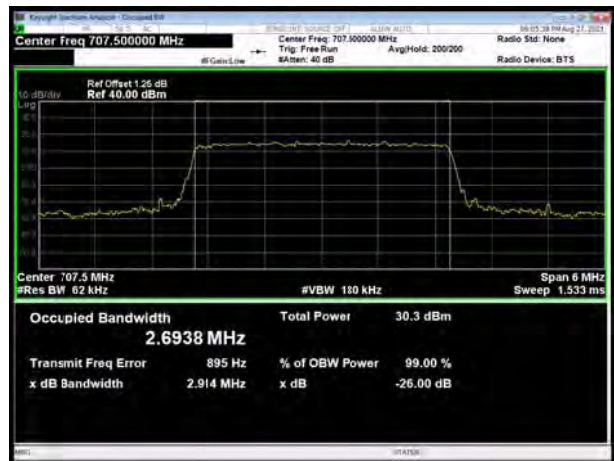
LTE Band 12 QPSK 3MHz CH-Low



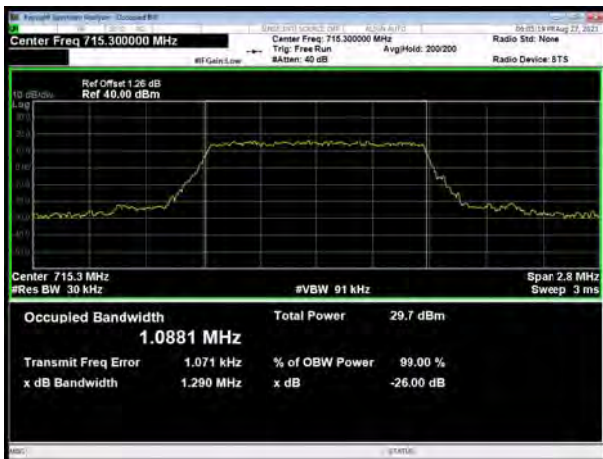
LTE Band 12 QPSK 1.4MHz CH-Middle



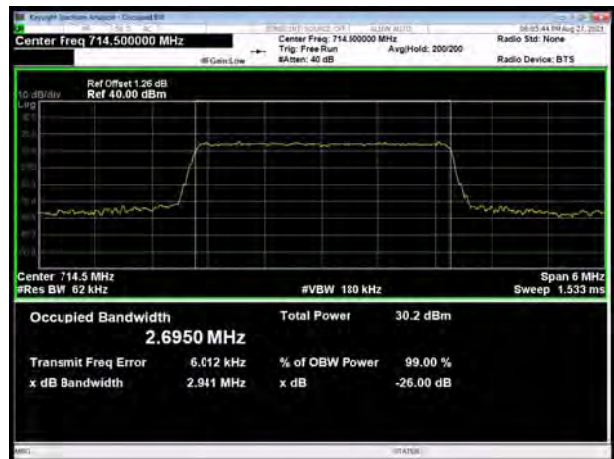
LTE Band 12 QPSK 3MHz CH-Middle



LTE Band 12 QPSK 1.4MHz CH-High

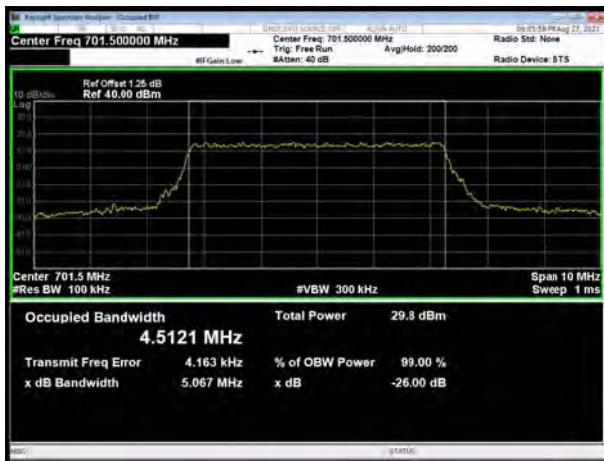


LTE Band 12 QPSK 3MHz CH-High

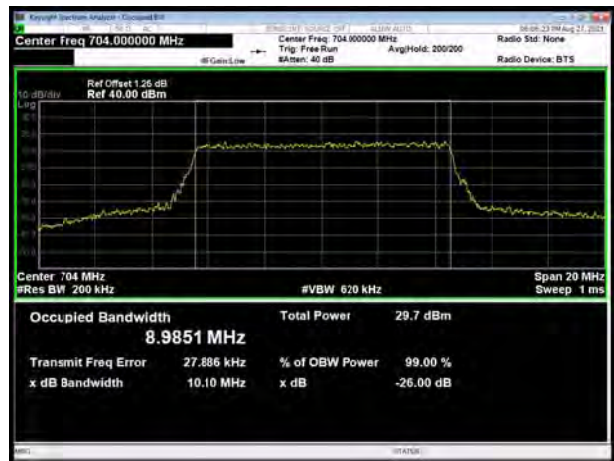




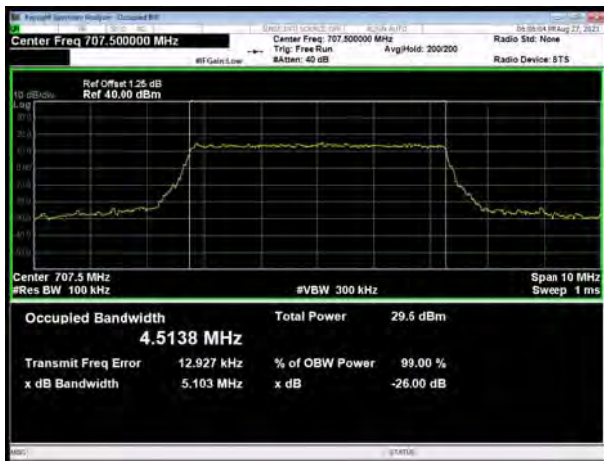
LTE Band 12 QPSK 5MHz CH-Low



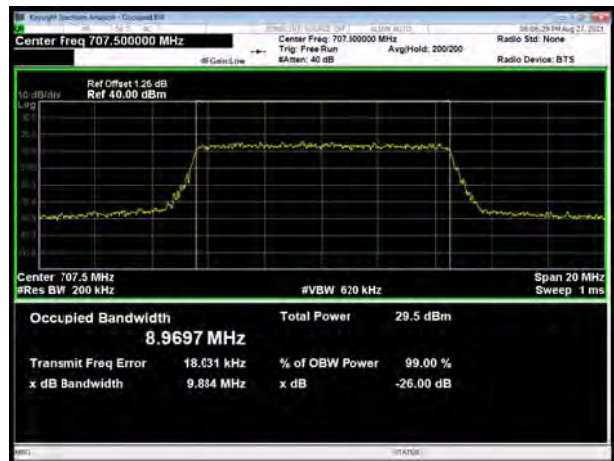
LTE Band 12 QPSK 10MHz CH-Low



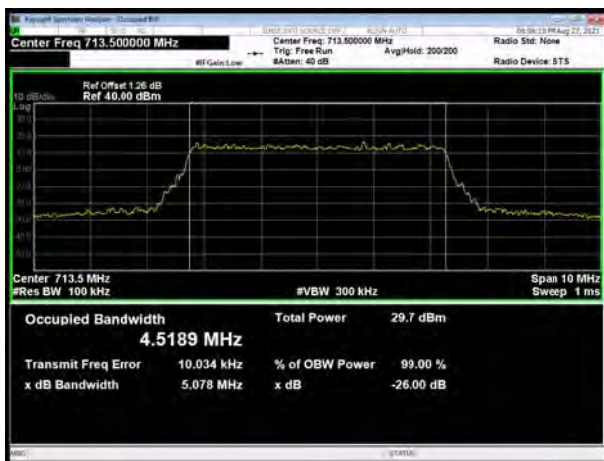
LTE Band 12 QPSK 5MHz CH-Middle



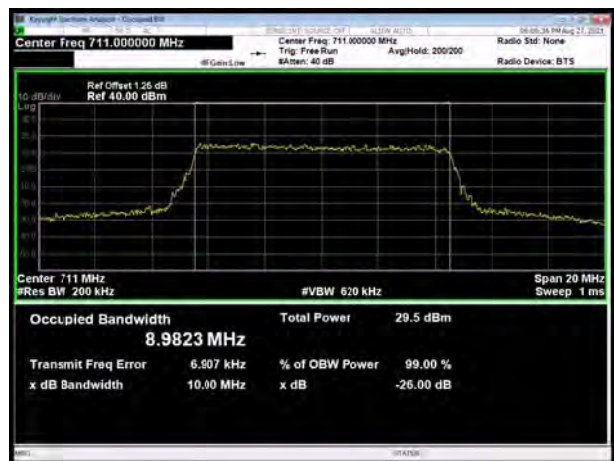
LTE Band 12 QPSK 10MHz CH-Middle



LTE Band 12 QPSK 5MHz CH-High



LTE Band 12 QPSK 10MHz CH-High





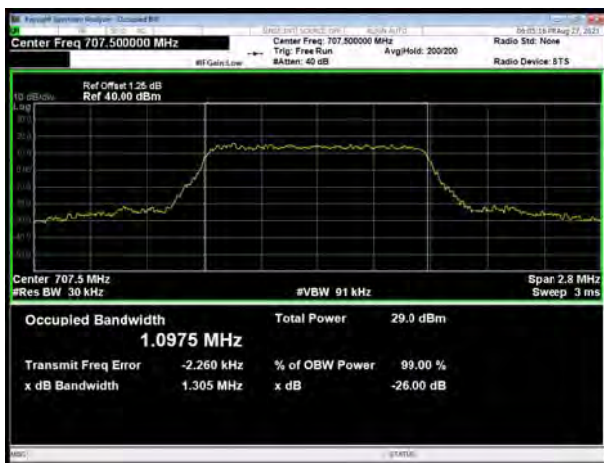
LTE Band 12 16QAM 1.4MHz CH-Low



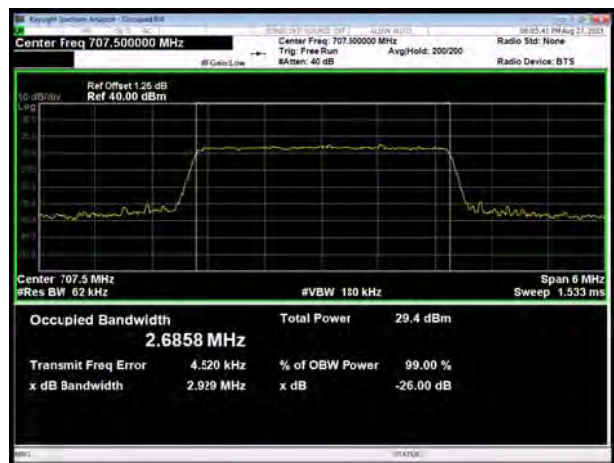
LTE Band 12 16QAM 3MHz CH-Low



LTE Band 12 16QAM 1.4MHz CH-Middle



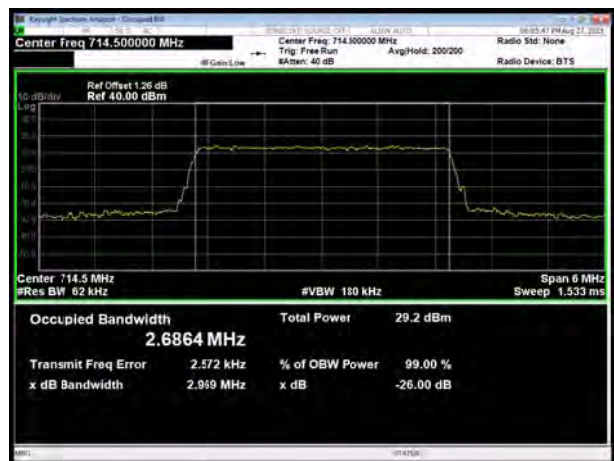
LTE Band 12 16QAM 3MHz CH-Middle



LTE Band 12 16QAM 1.4MHz CH-High

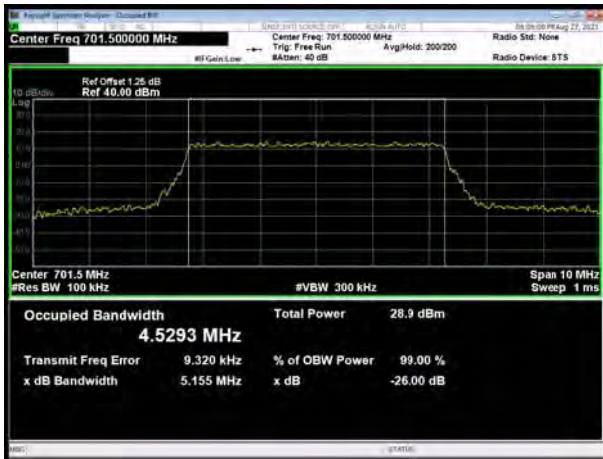


LTE Band 12 16QAM 3MHz CH-High

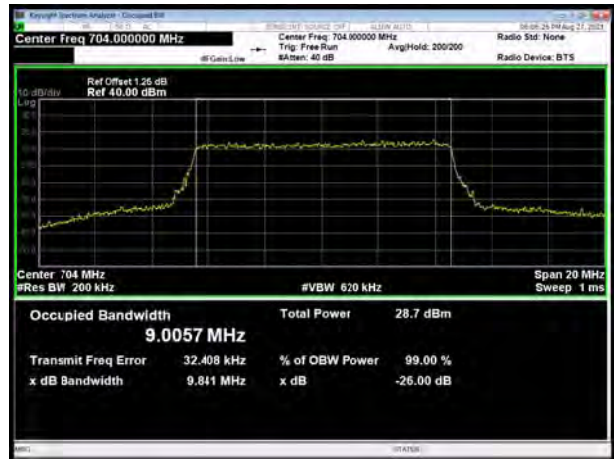




LTE Band 12 16QAM 5MHz CH-Low



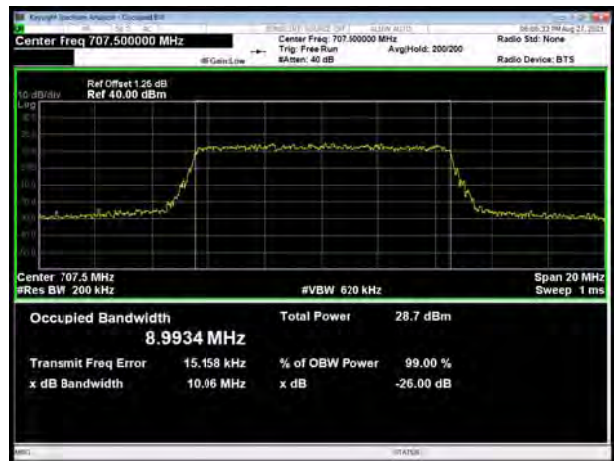
LTE Band 12 16QAM 10MHz CH-Low



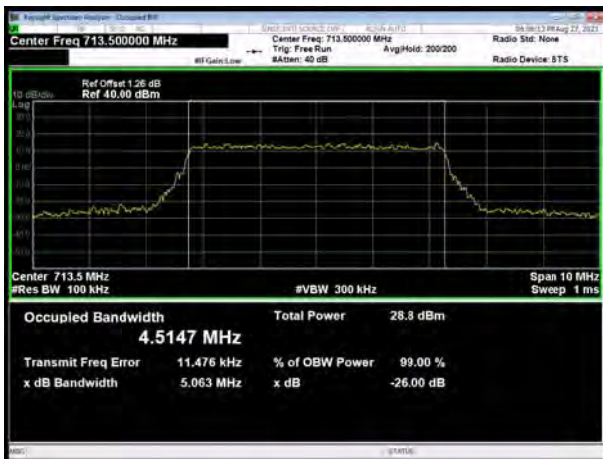
LTE Band 12 16QAM 5MHz CH-Middle



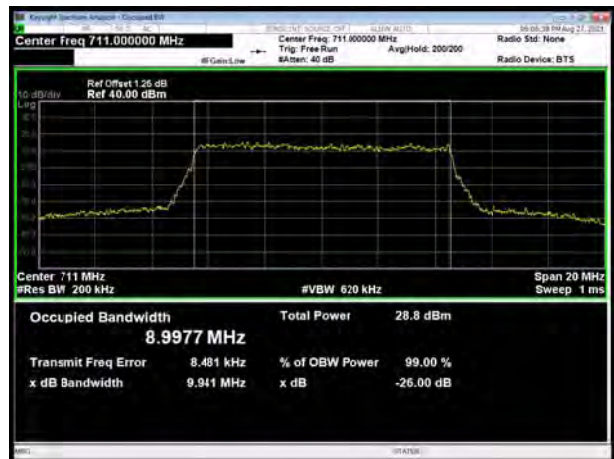
LTE Band 12 16QAM 10MHz CH-Middle



LTE Band 12 16QAM 5MHz CH-High

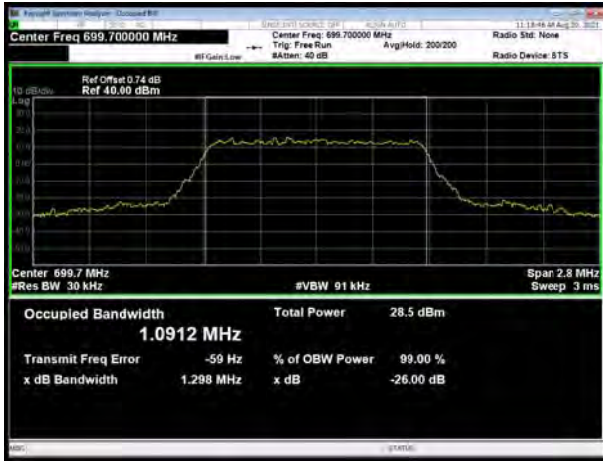


LTE Band 12 16QAM 10MHz CH-High

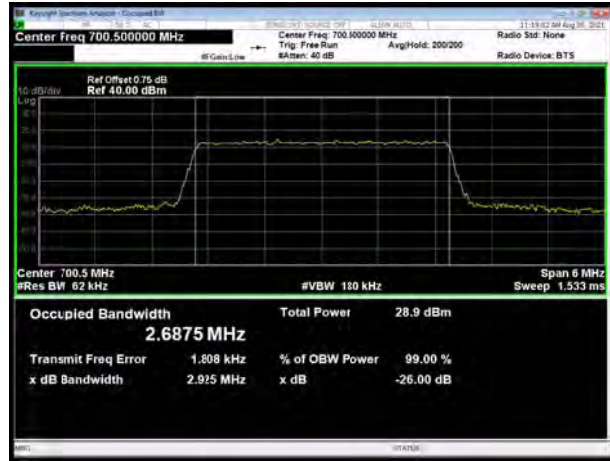




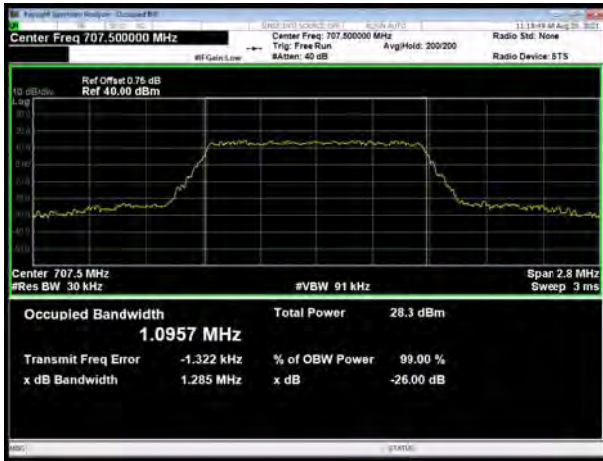
LTE Band 12 64QAM 1.4MHz CH-Low



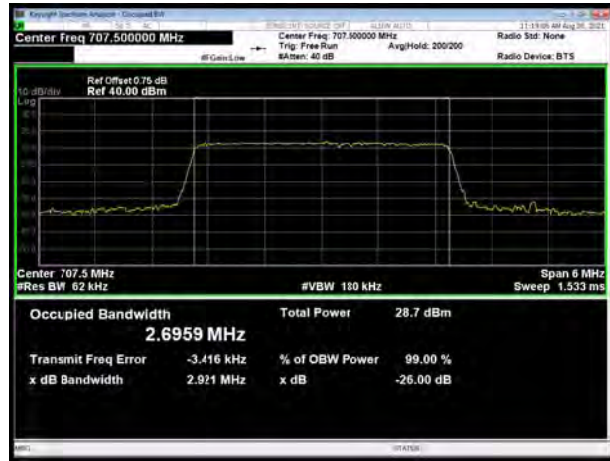
LTE Band 12 64QAM 3MHz CH-Low



LTE Band 12 64QAM 1.4MHz CH-Middle



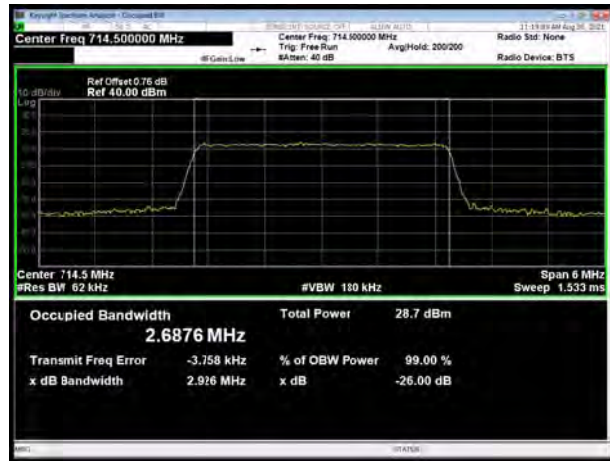
LTE Band 12 64QAM 3MHz CH-Middle



LTE Band 12 64QAM 1.4MHz CH-High

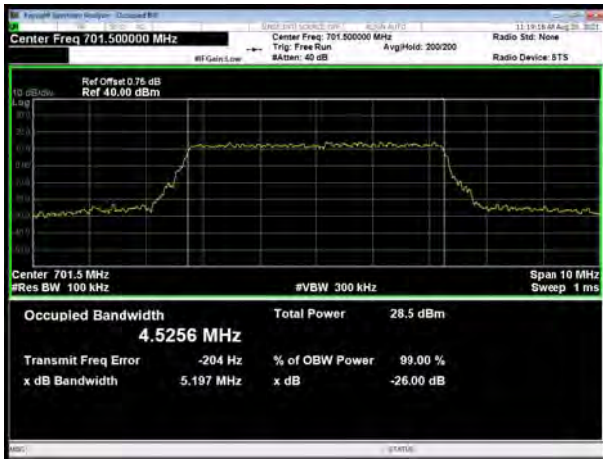


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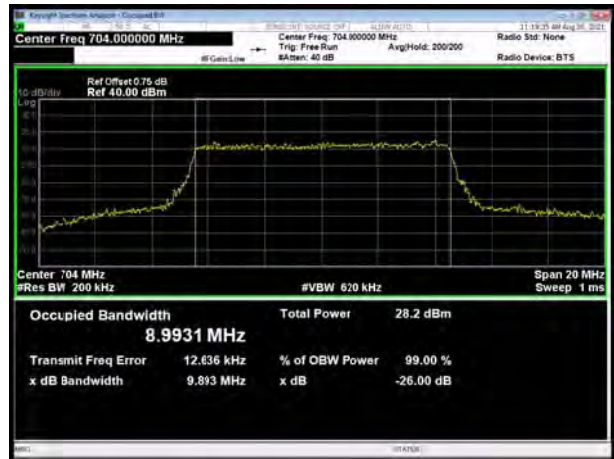




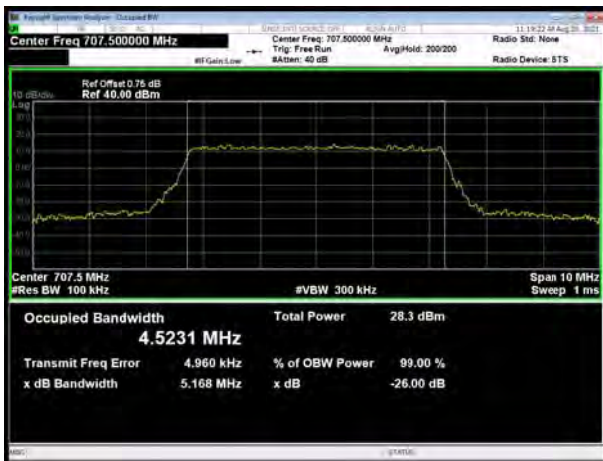
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LTE Band 12 64QAM 10MHz CH-Low



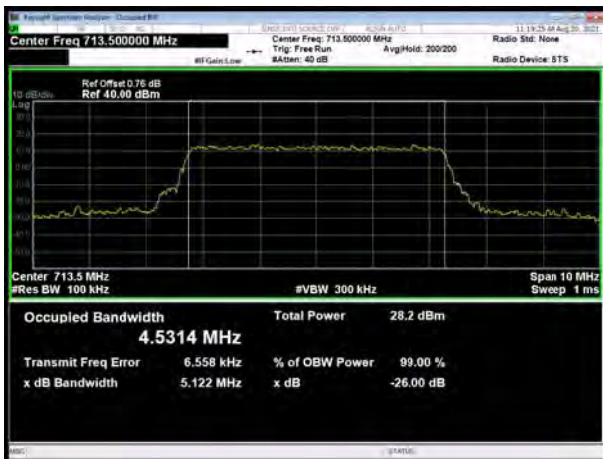
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LTE Band 12 64QAM 10MHz CH-Middle



LTE Band 12 64QAM 5MHz CH-High

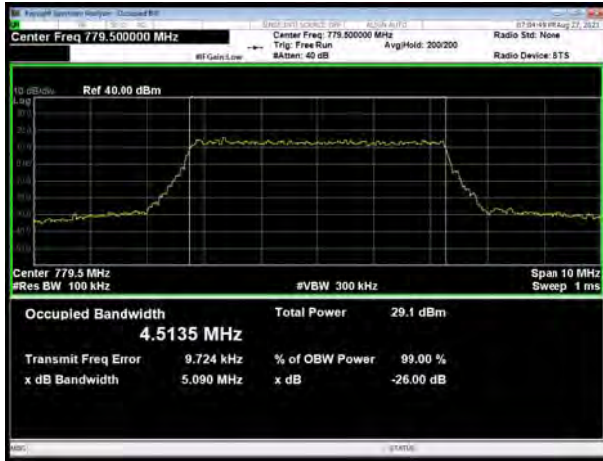


LTE Band 12 64QAM 10MHz CH-High

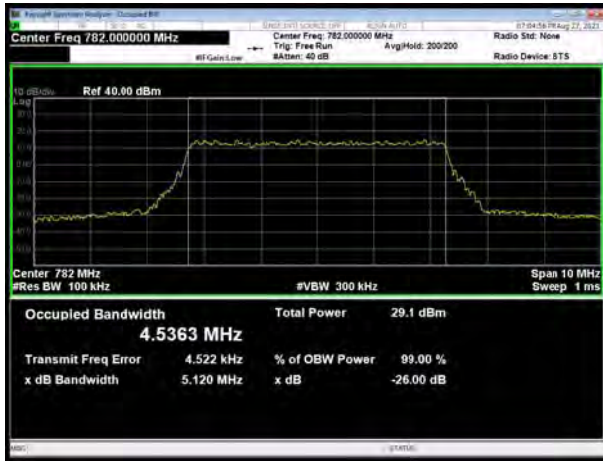




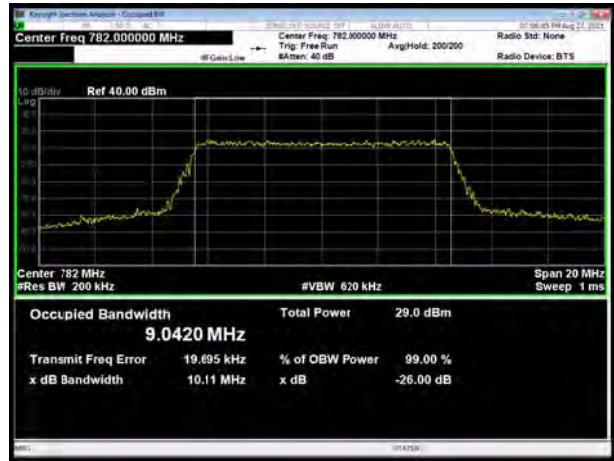
LTE Band 13 QPSK 5MHz CH-Low



LTE Band 13 QPSK 5MHz CH-Middle



LTE Band 13 QPSK 10MHz CH-Middle

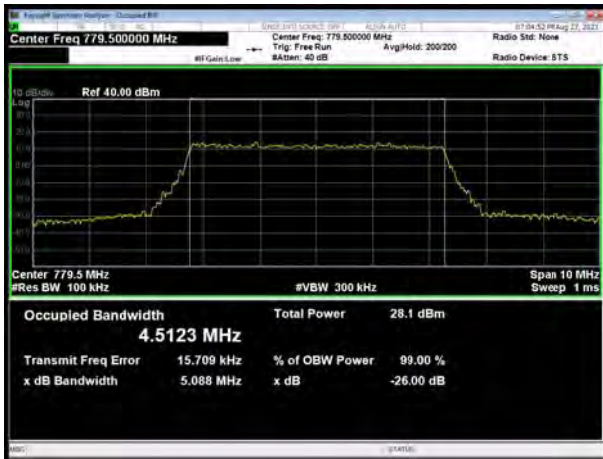


LTE Band 13 QPSK 5MHz CH-High

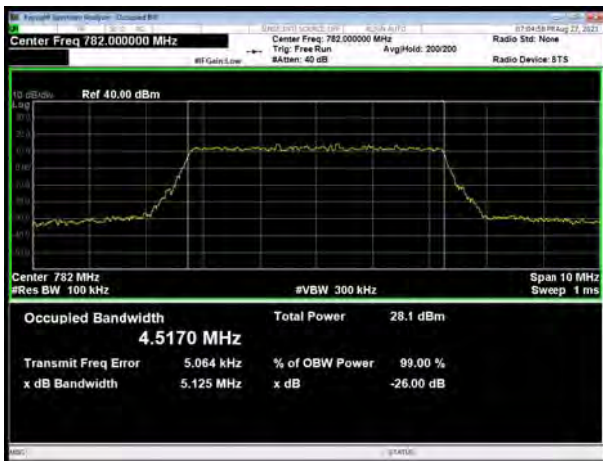




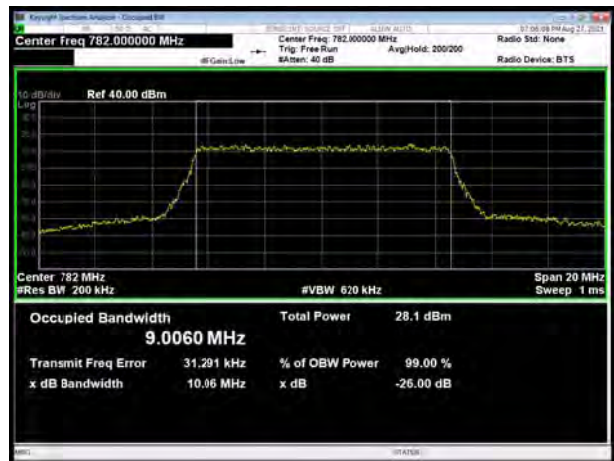
LTE Band 13 16QAM 5MHz CH-Low



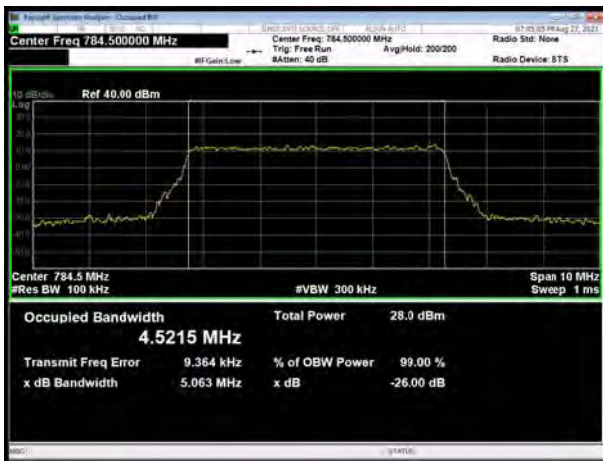
LTE Band 13 16QAM 5MHz CH-Middle



LTE Band 13 16QAM 10MHz CH-Middle

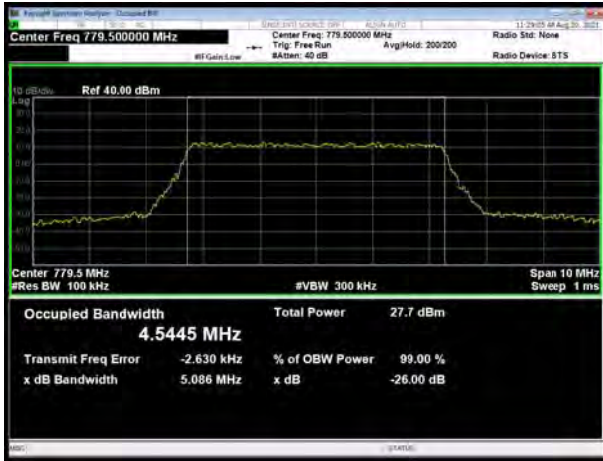


LTE Band 13 16QAM 5MHz CH-High

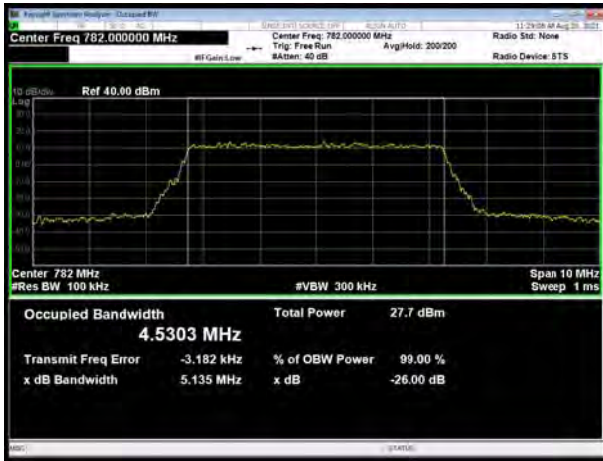




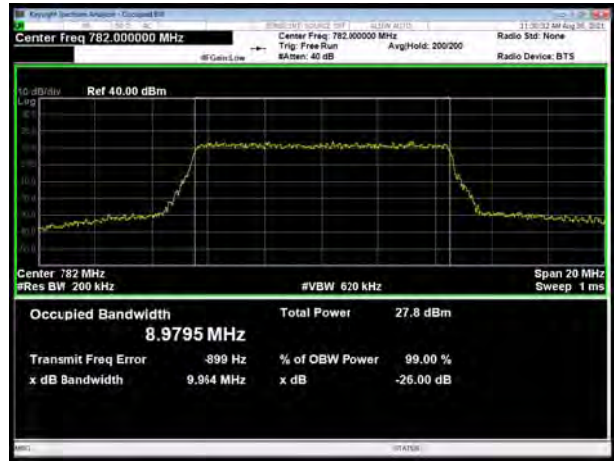
LTE Band 13 64QAM 5MHz CH-Low



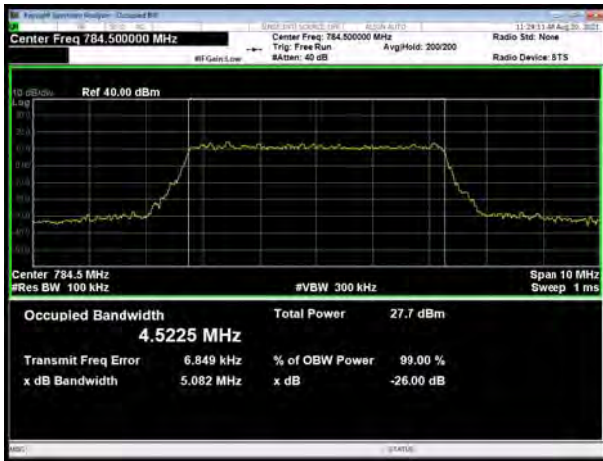
LTE Band 13 64QAM 5MHz CH-Middle



LTE Band 13 64QAM 10MHz CH-Middle

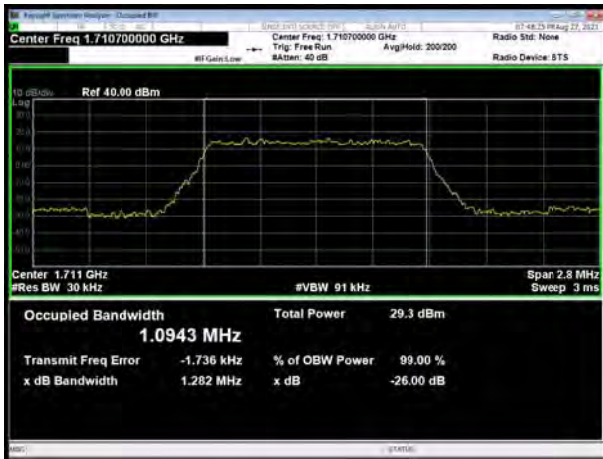


LTE Band 13 64QAM 5MHz CH-High

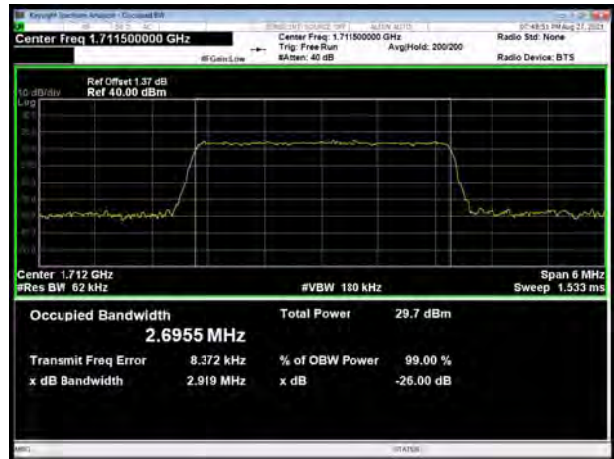




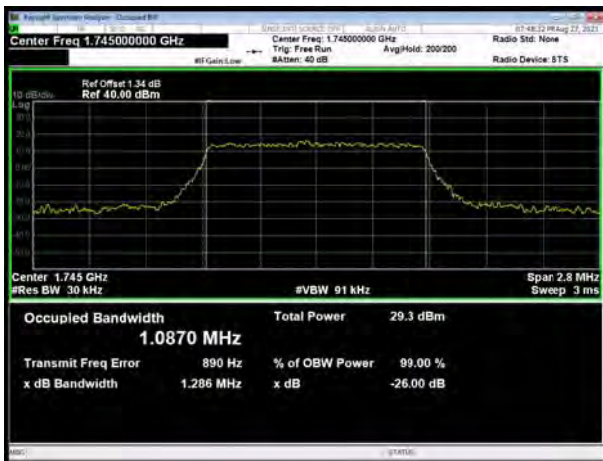
LTE Band 66 QPSK 1.4MHz CH-Low



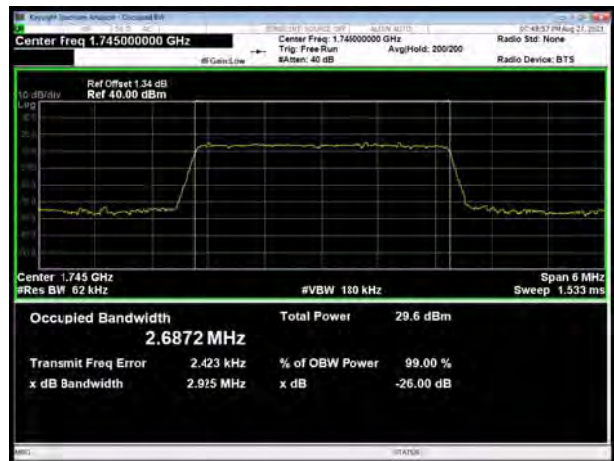
LTE Band 66 QPSK 3MHz CH-Low



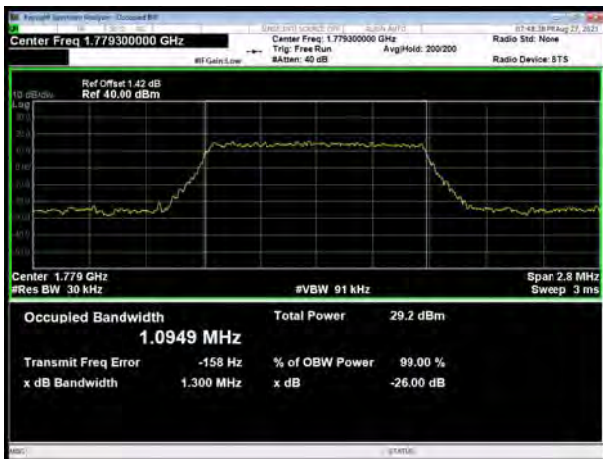
LTE Band 66 QPSK 1.4MHz CH-Middle



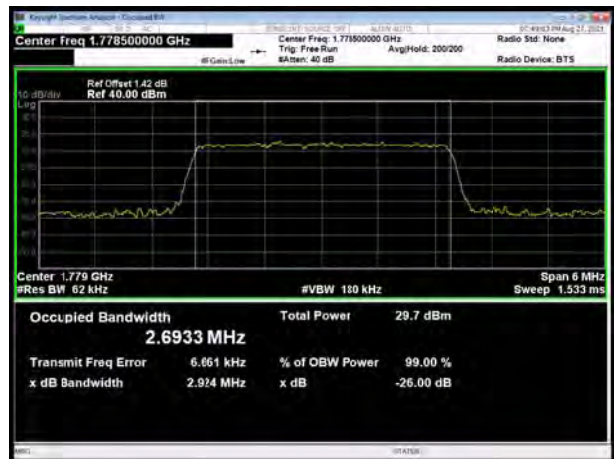
LTE Band 66 QPSK 3MHz CH-Middle



LTE Band 66 QPSK 1.4MHz CH-High

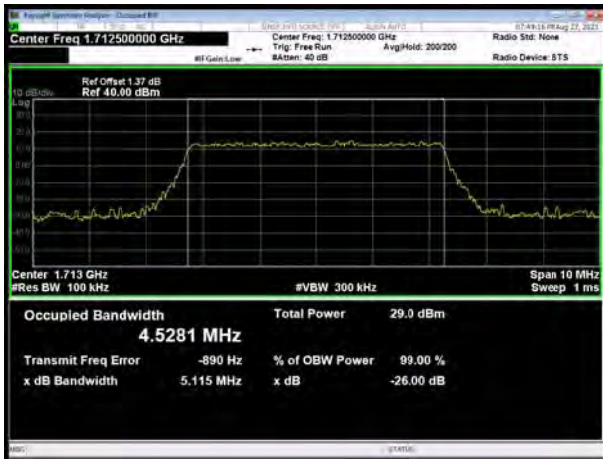


LTE Band 66 QPSK 3MHz CH-High

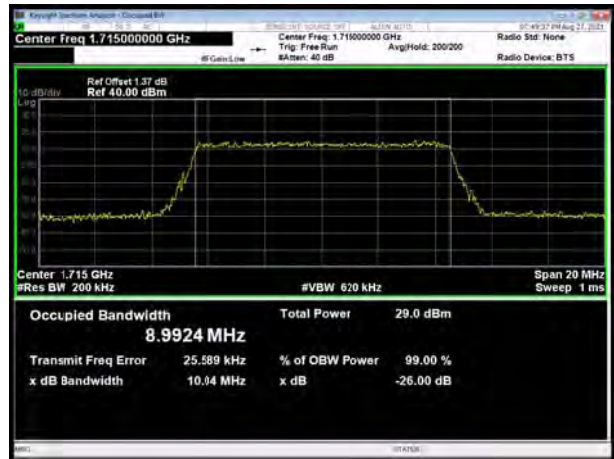




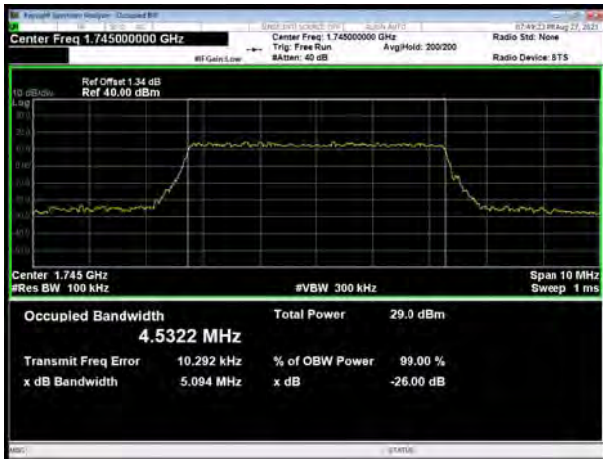
LTE Band 66 QPSK 5MHz CH-Low



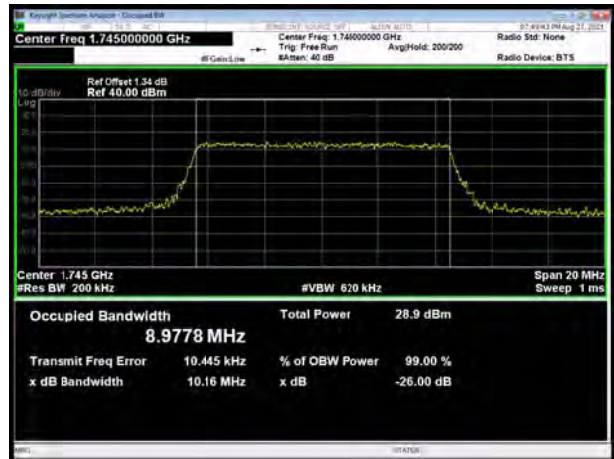
LTE Band 66 QPSK 10MHz CH-Low



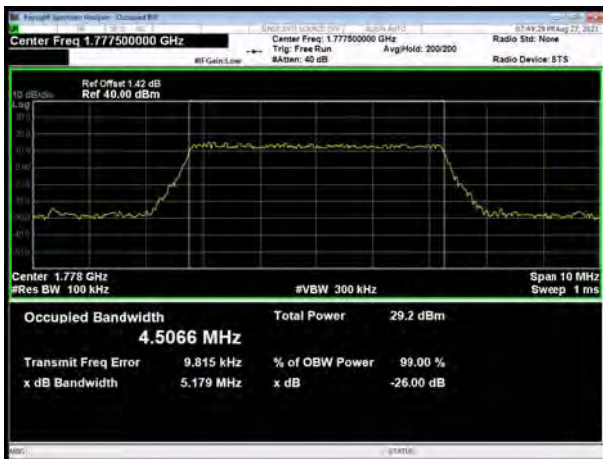
LTE Band 66 QPSK 5MHz CH-Middle



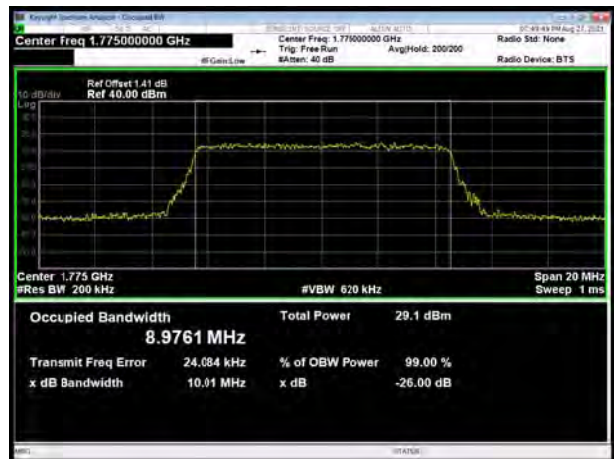
LTE Band 66 QPSK 10MHz CH-Middle



LTE Band 66 QPSK 5MHz CH-High

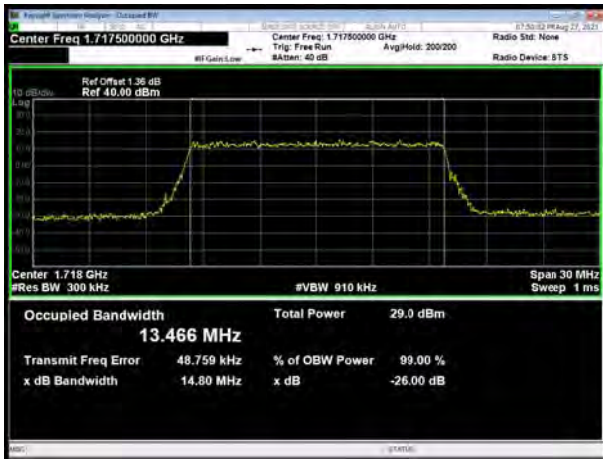


LTE Band 66 QPSK 10MHz CH-High

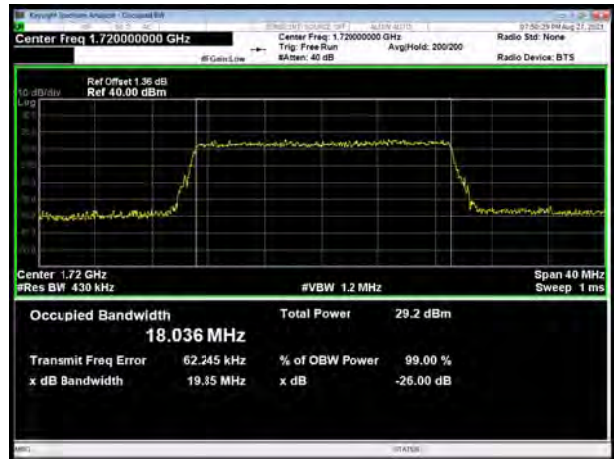




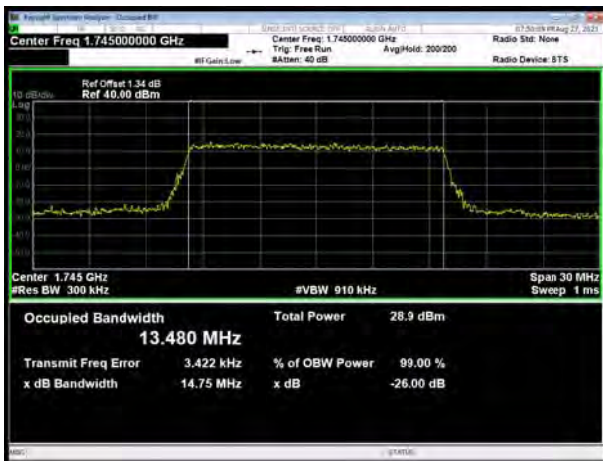
LTE Band 66 QPSK 15MHz CH-Low



LTE Band 66 QPSK 20MHz CH-Low



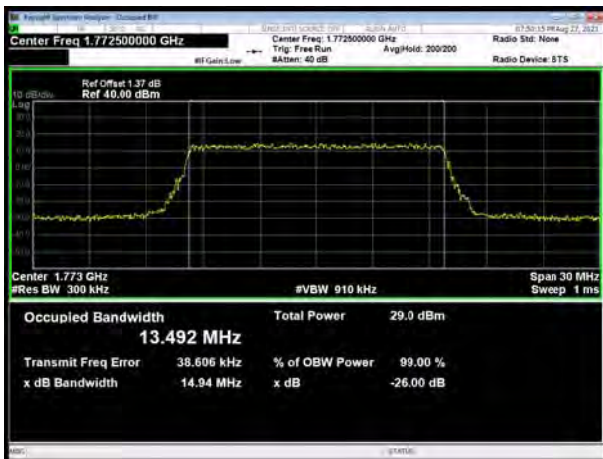
LTE Band 66 QPSK 15MHz CH-Middle



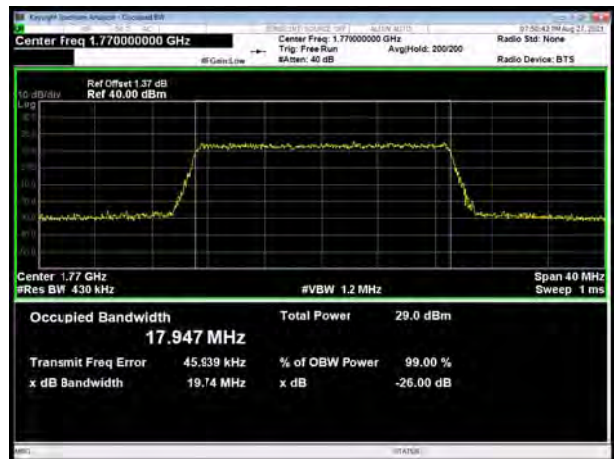
LTE Band 66 QPSK 20MHz CH-Middle



LTE Band 66 QPSK 15MHz CH-High



LTE Band 66 QPSK 20MHz CH-High

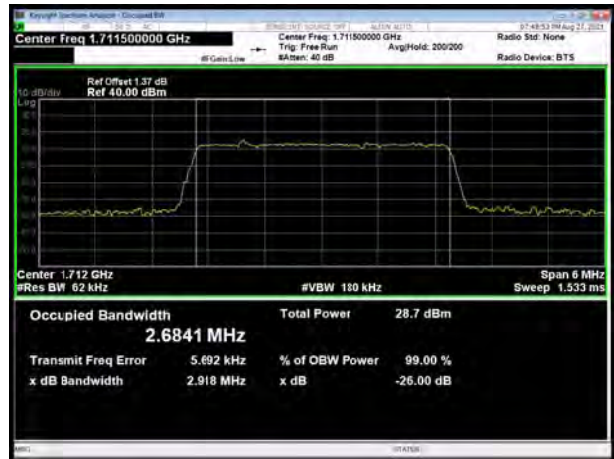




LTE Band 66 16QAM 1.4MHz CH-Low



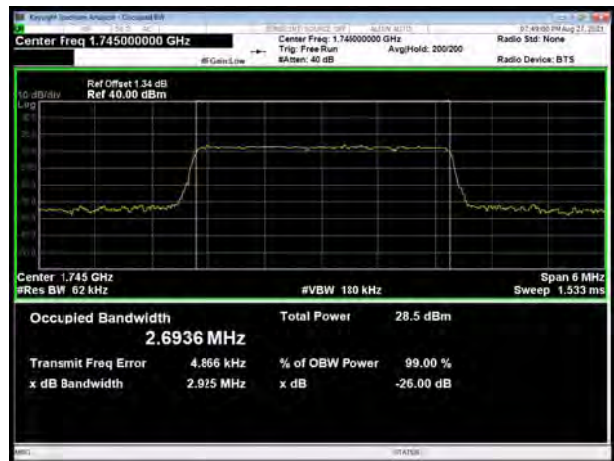
LTE Band 66 16QAM 3MHz CH-Low



LTE Band 66 16QAM 1.4MHz CH-Middle



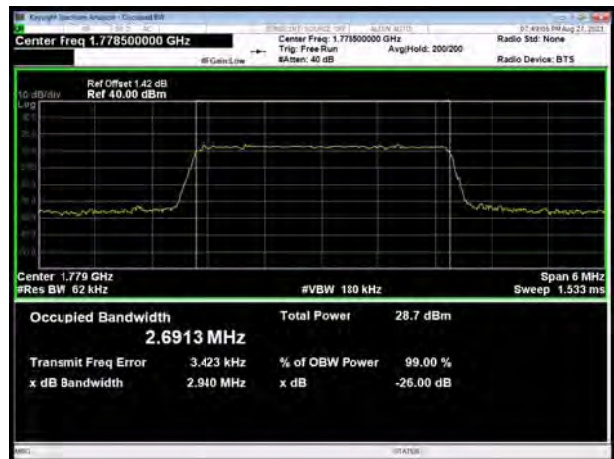
LTE Band 66 16QAM 3MHz CH-Middle



LTE Band 66 16QAM 1.4MHz CH-High

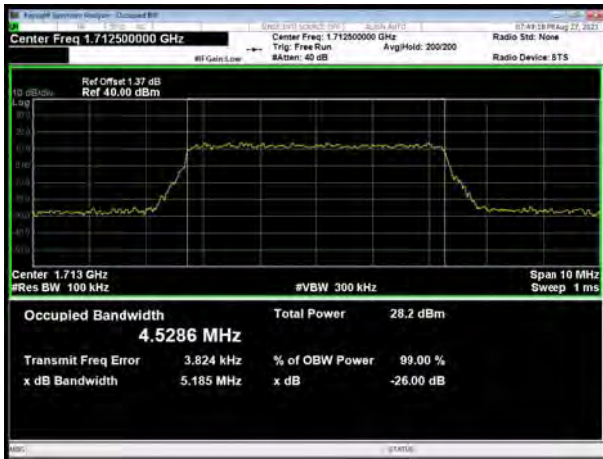


LTE Band 66 16QAM 3MHz CH-High

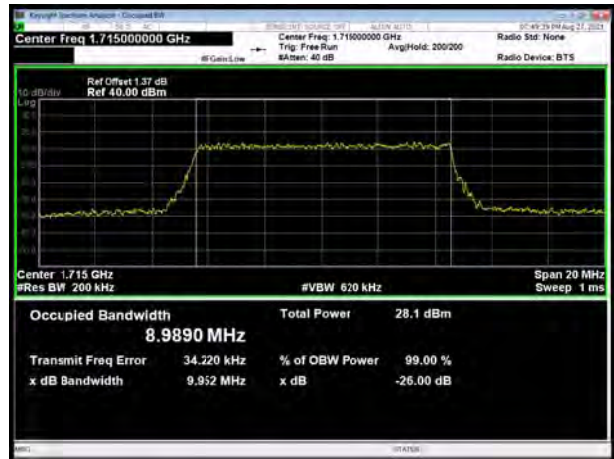




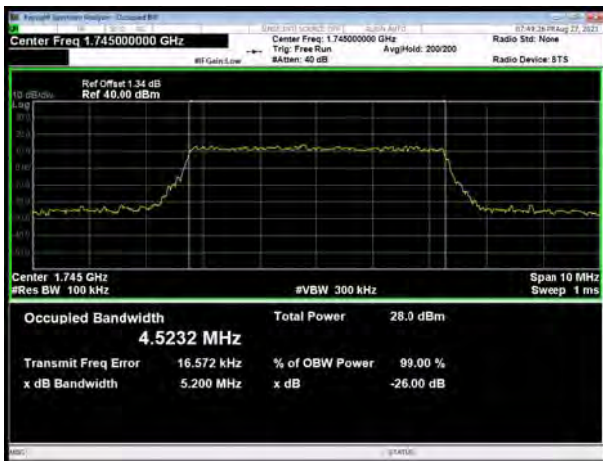
LTE Band 66 16QAM 5MHz CH-Low



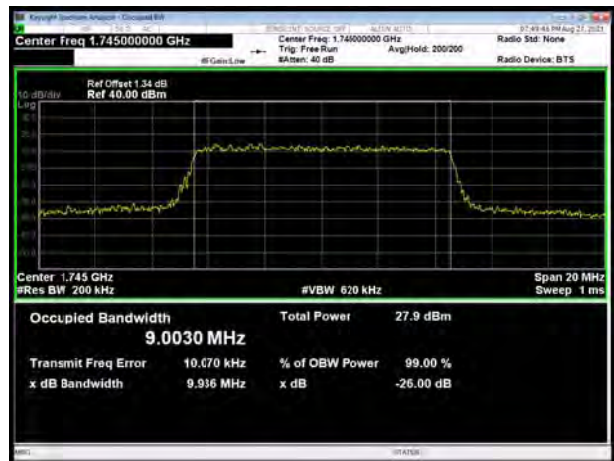
LTE Band 66 16QAM 10MHz CH-Low



LTE Band 66 16QAM 5MHz CH-Middle



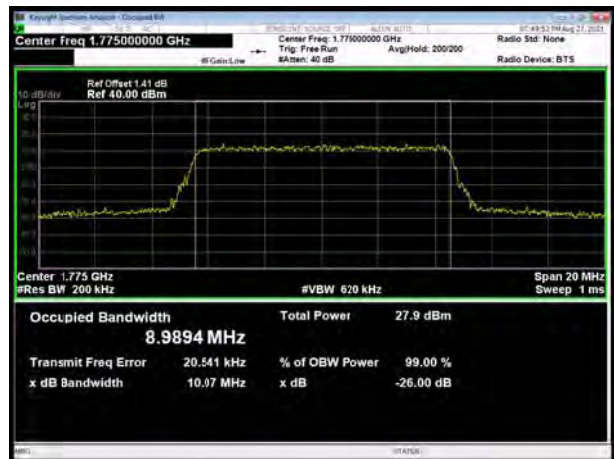
LTE Band 66 16QAM 10MHz CH-Middle



LTE Band 66 16QAM 5MHz CH-High

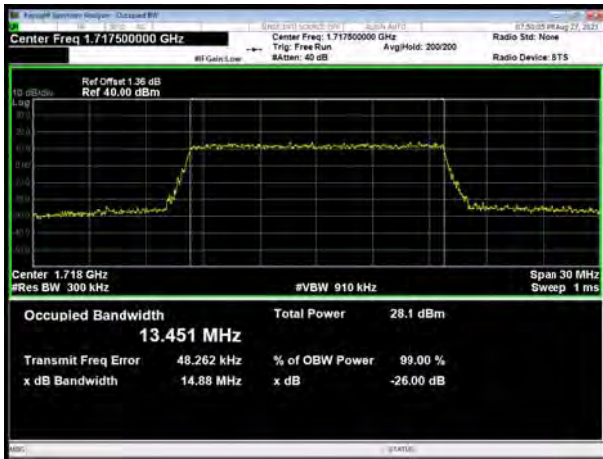


LTE Band 66 16QAM 10MHz CH-High

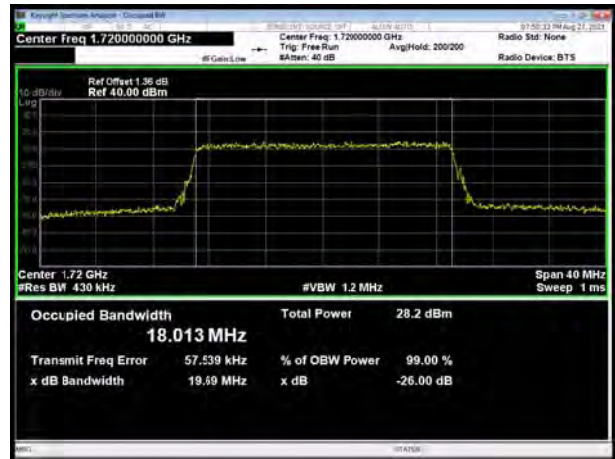




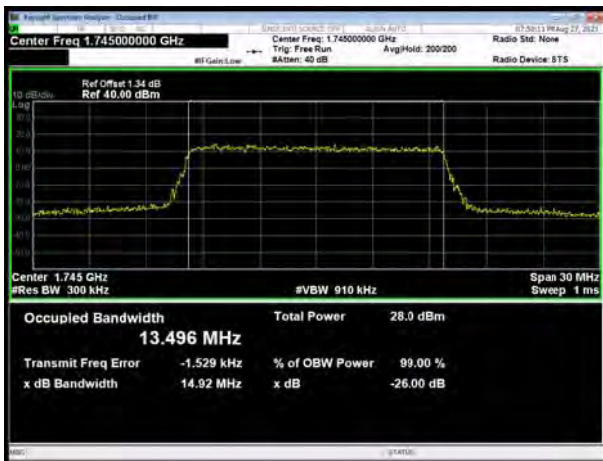
LTE Band 66 16QAM 15MHz CH-Low



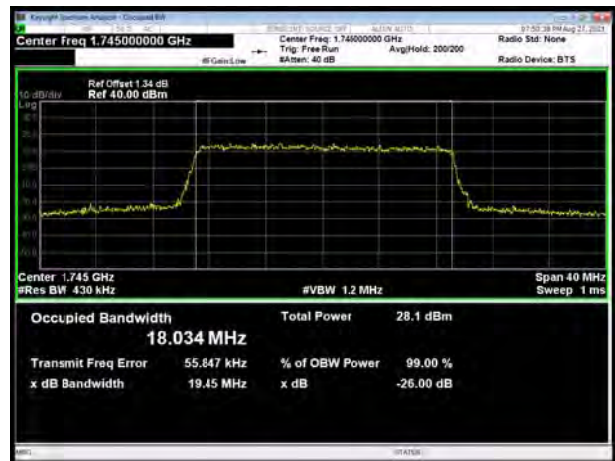
LTE Band 66 16QAM 20MHz CH-Low



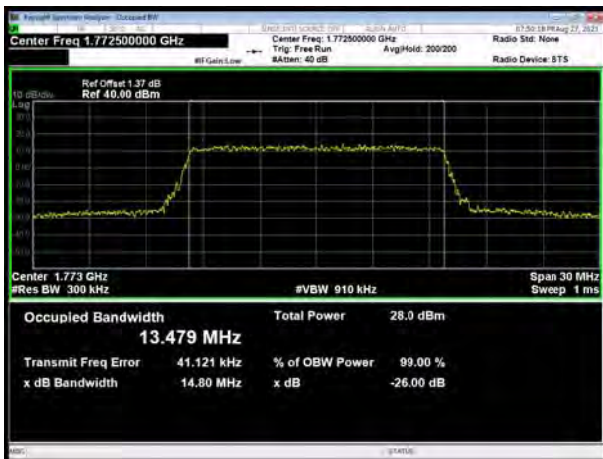
LTE Band 66 16QAM 15MHz CH-Middle



LTE Band 66 16QAM 20MHz CH-Middle



LTE Band 66 16QAM 15MHz CH-High

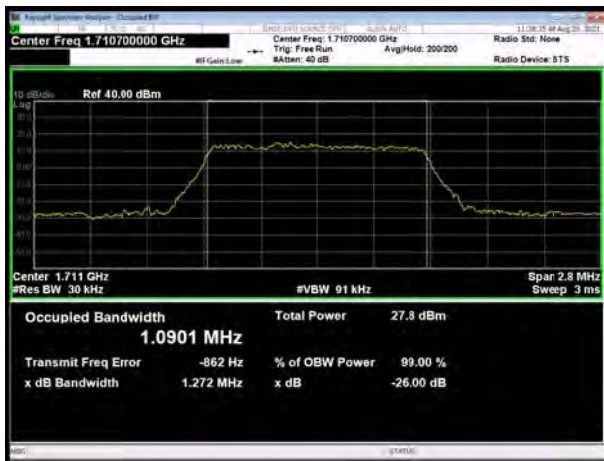


LTE Band 66 16QAM 20MHz CH-High

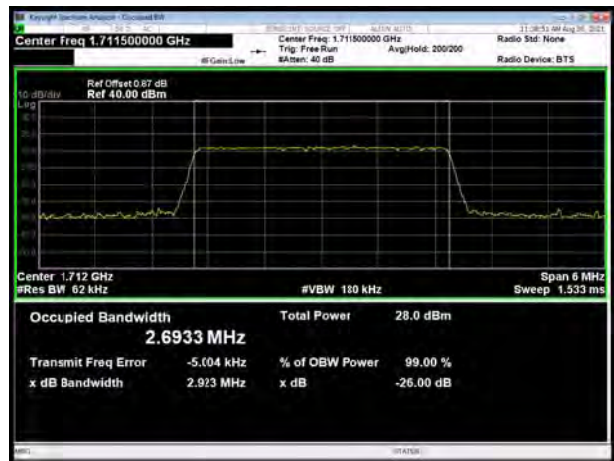




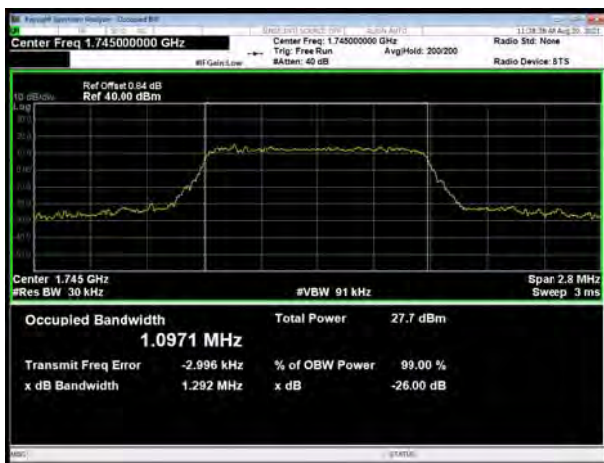
LTE Band 66 64QAM 1.4MHz CH-Low



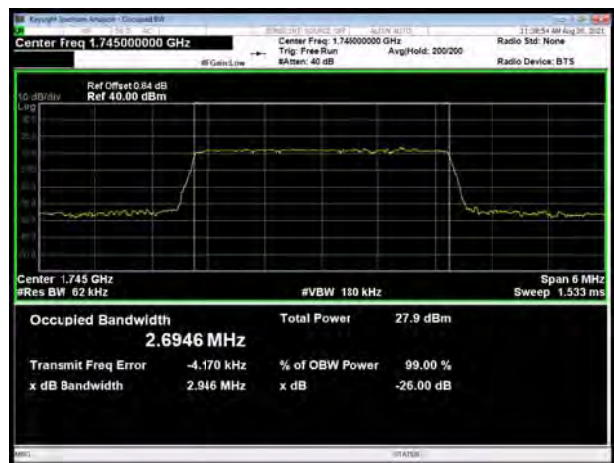
LTE Band 66 64QAM 3MHz CH-Low



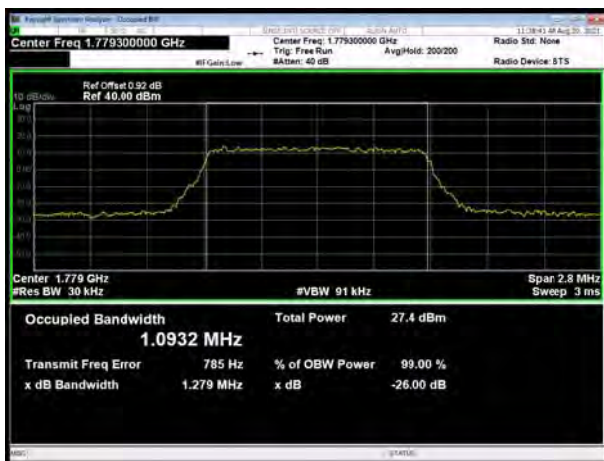
LTE Band 66 64QAM 1.4MHz CH-Middle



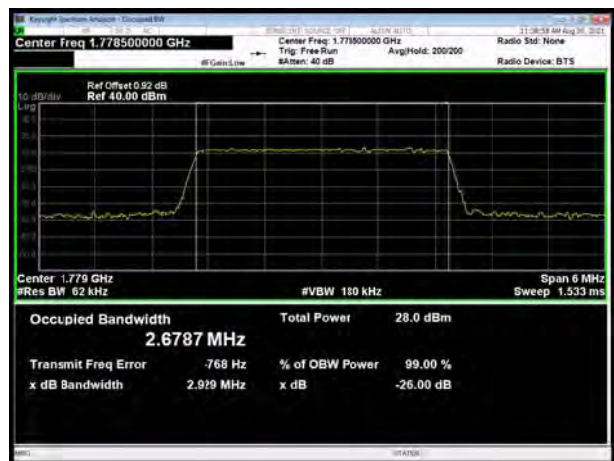
LTE Band 66 64QAM 3MHz CH-Middle



LTE Band 66 64QAM 1.4MHz CH-High

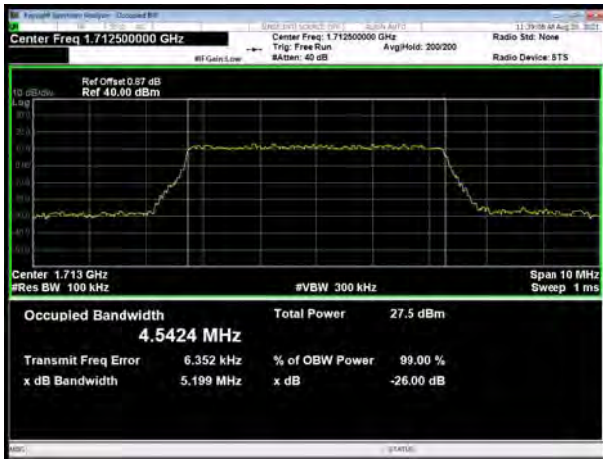


LTE Band 66 64QAM 3MHz CH-High

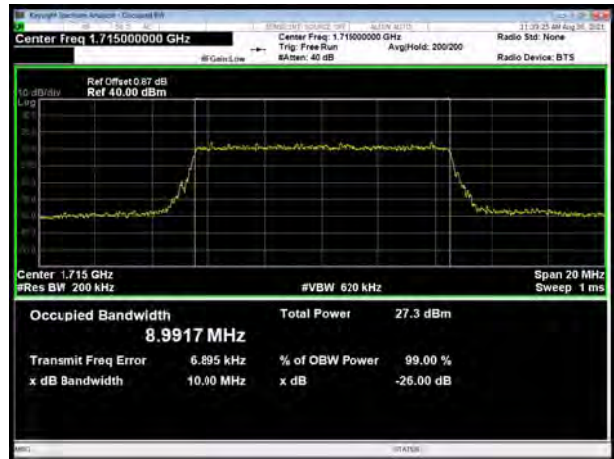




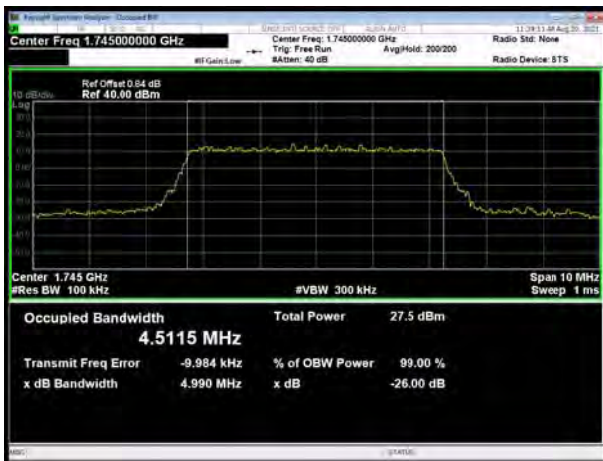
LTE Band 66 64QAM 5MHz CH-Low



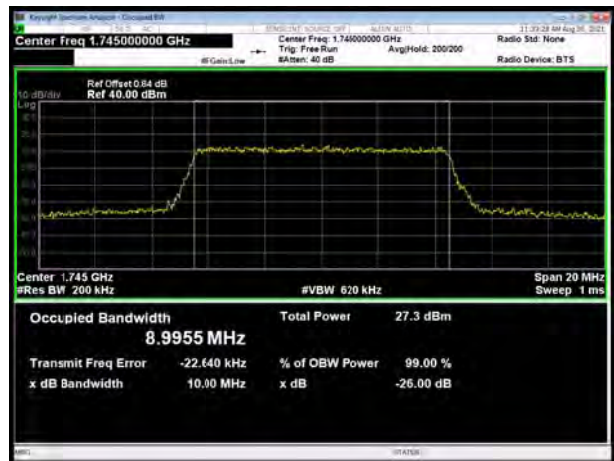
LTE Band 66 64QAM 10MHz CH-Low



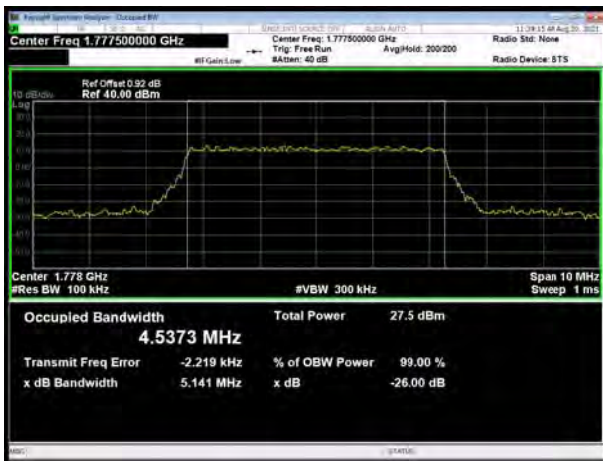
LTE Band 66 64QAM 5MHz CH-Middle



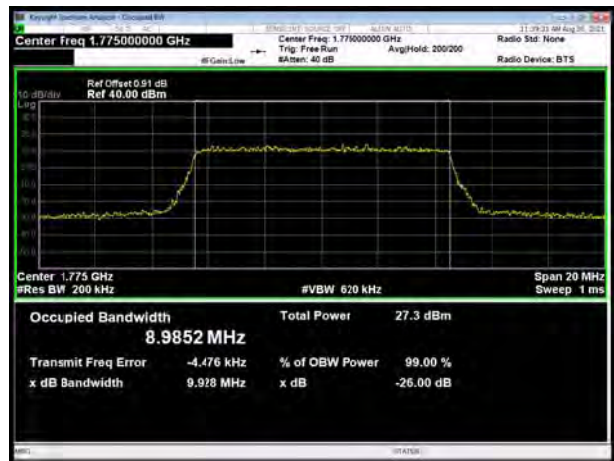
LTE Band 66 64QAM 10MHz CH-Middle



LTE Band 66 64QAM 5MHz CH-High

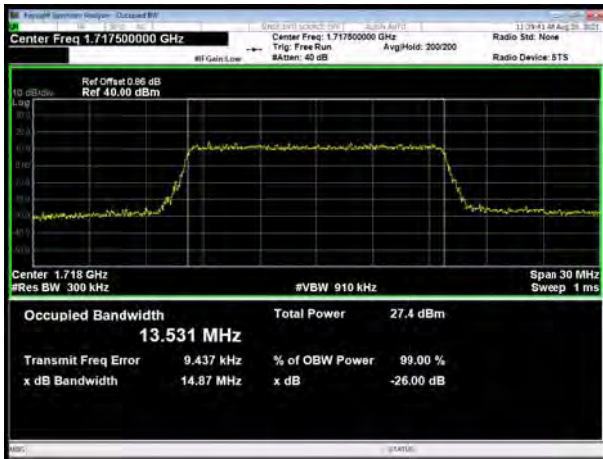


LTE Band 66 64QAM 10MHz CH-High

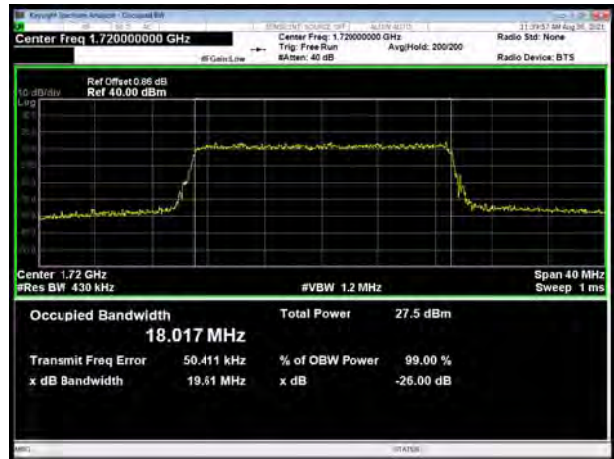




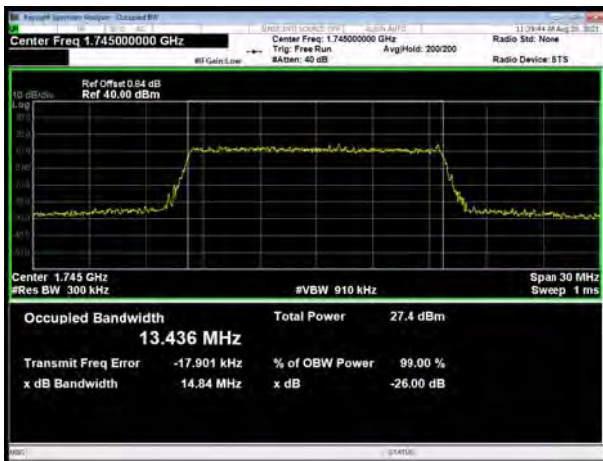
LTE Band 66 64QAM 15MHz CH-Low



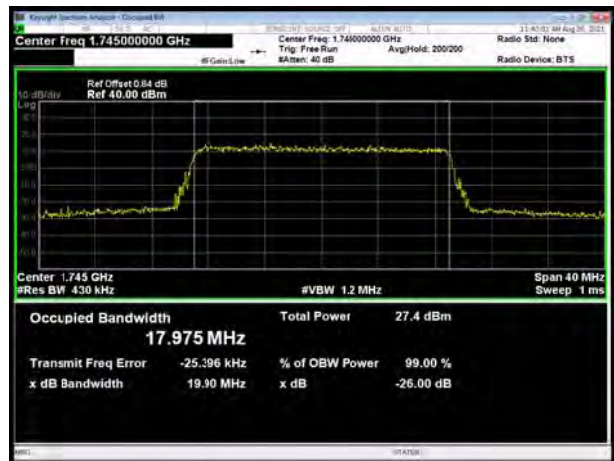
LTE Band 66 64QAM 20MHz CH-Low



LTE Band 66 64QAM 15MHz CH-Middle



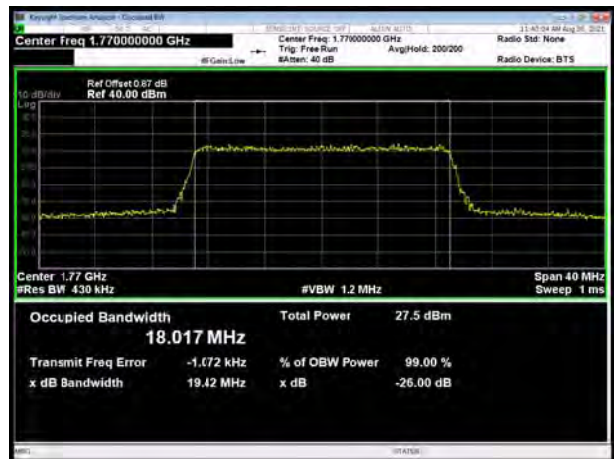
LTE Band 66 64QAM 20MHz CH-Middle



LTE Band 66 64QAM 15MHz CH-High



LTE Band 66 64QAM 20MHz CH-High



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 the middle 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.

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

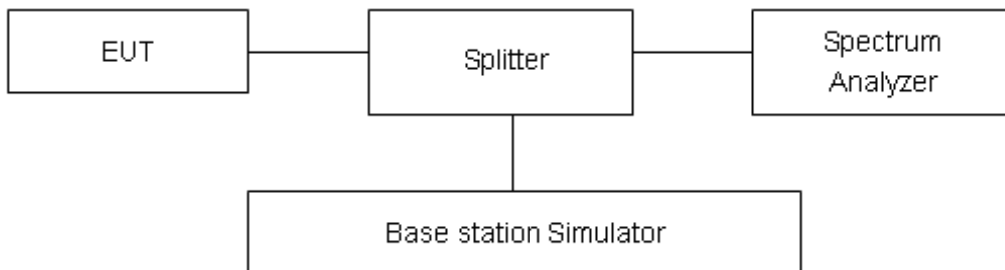
on spectrum analyzer.

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

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

Rule Part 27.53(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)

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

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

Rule Part 27.53(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation. Rule Part 27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

Measurement Uncertainty

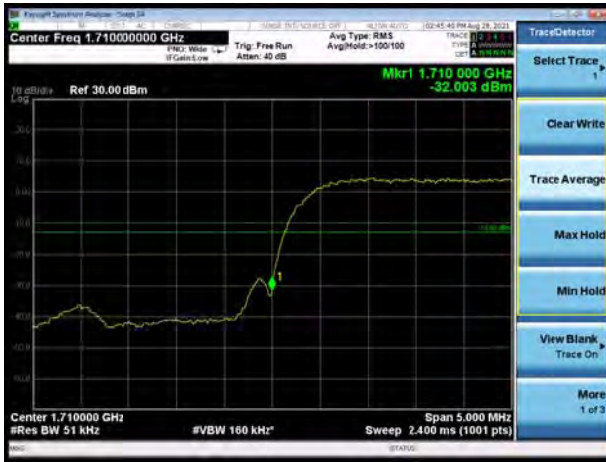
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 0.684$ dB.



Test Result

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

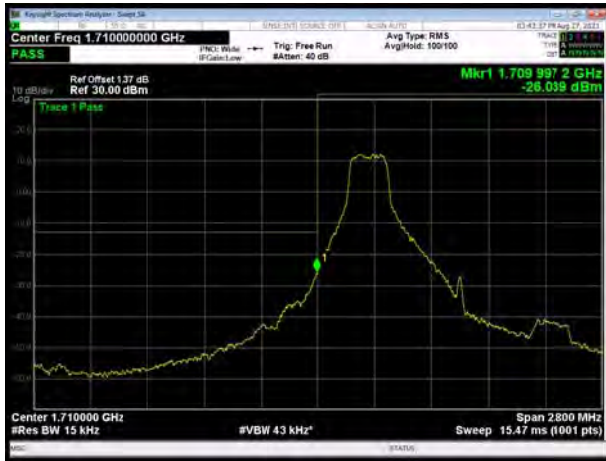
WCDMA Band IV CH-Low



WCDMA Band IV CH-High



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



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



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



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

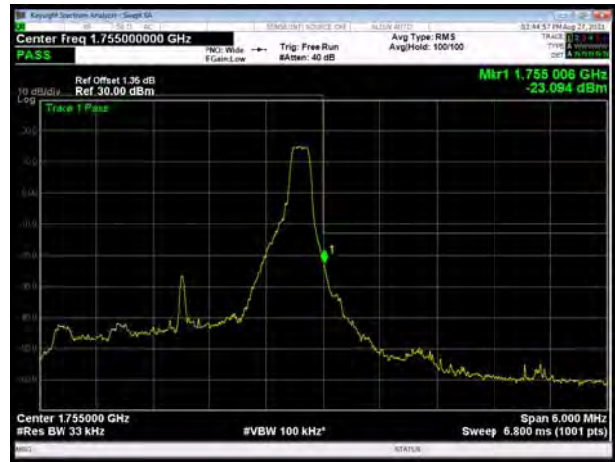




LTE Band 4 QPSK 3MHz CH-Low, 1 RB



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



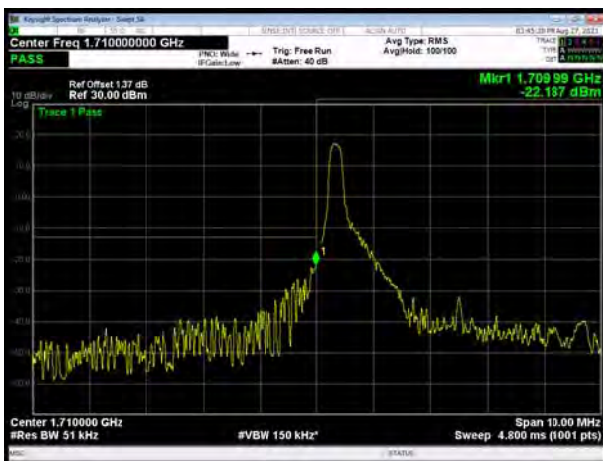
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



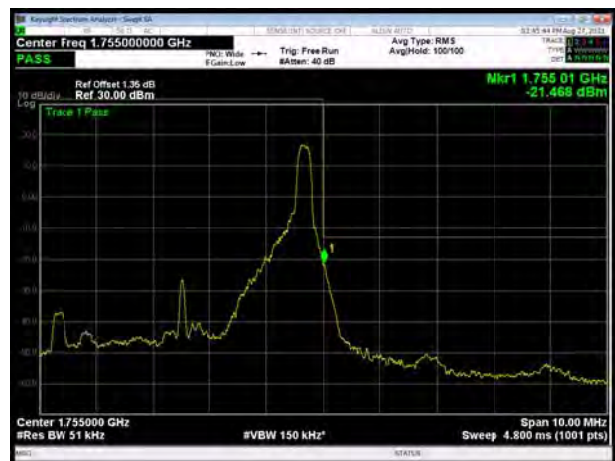
LTE Band 4 QPSK 3MHz CH-High, 100%RB



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

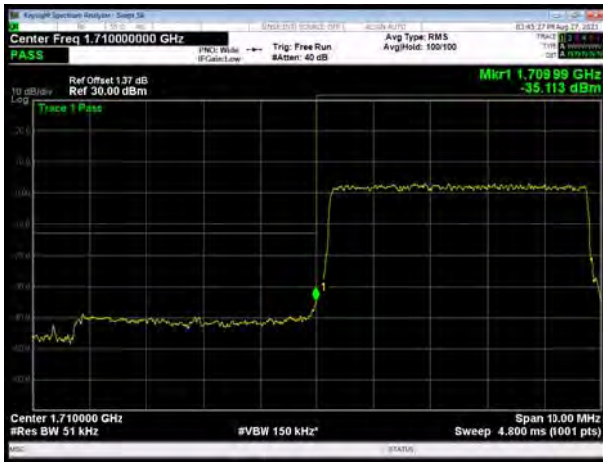


LTE Band 4 QPSK 5MHz CH-High, 1 RB





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



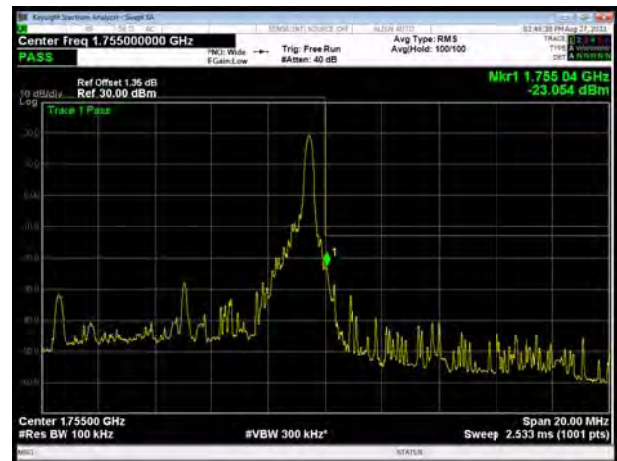
LTE Band 4 QPSK 5MHz CH-High, 100%RB



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



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



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

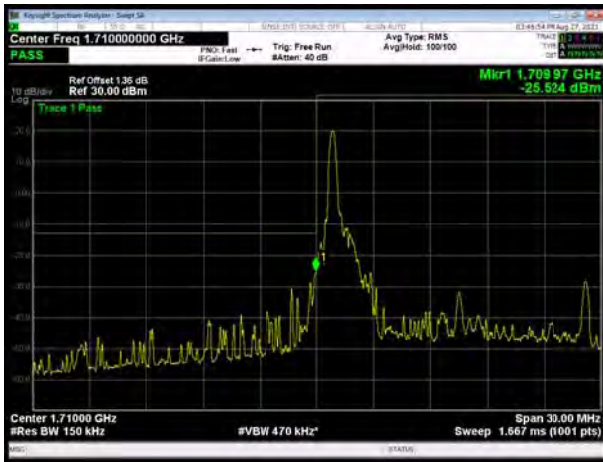


LTE Band 4 QPSK 10MHz CH-High, 100%RB

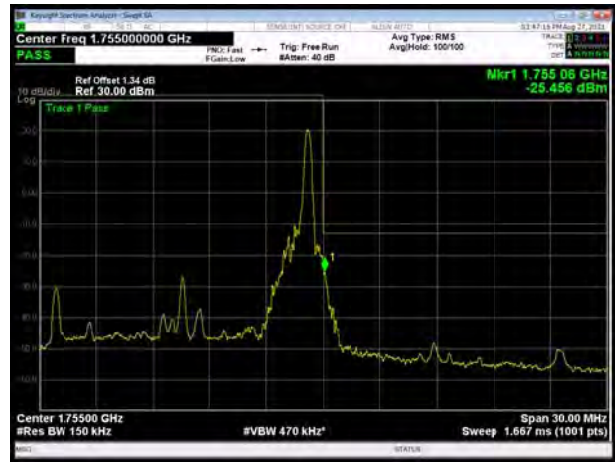




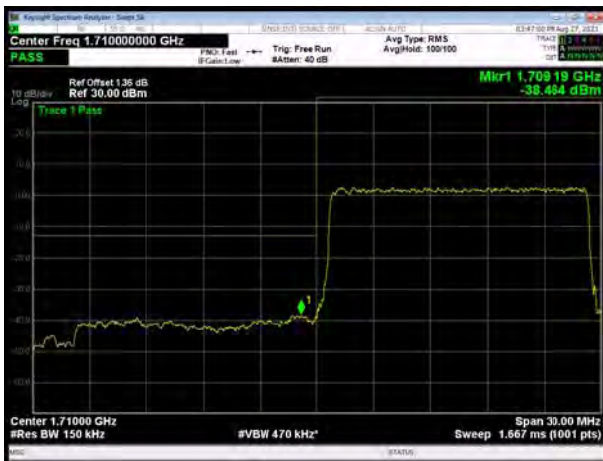
LTE Band 4 QPSK 15MHz CH-Low, 1 RB



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



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



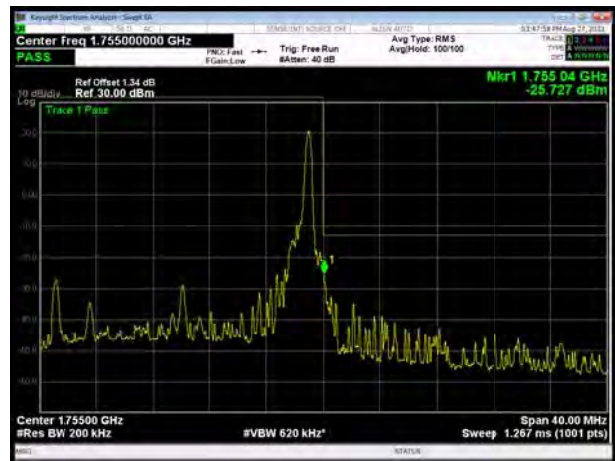
LTE Band 4 QPSK 15MHz CH-High, 100%RB



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

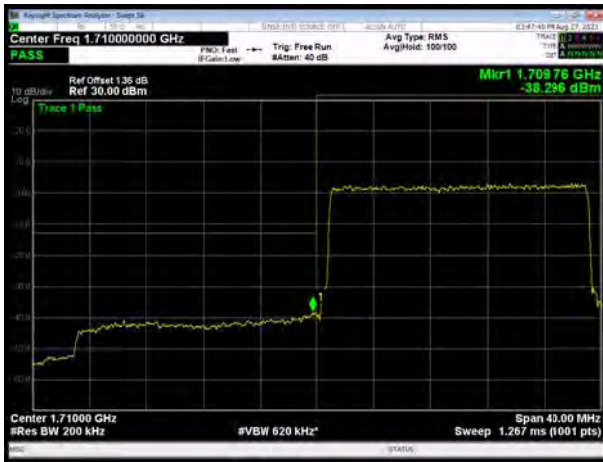


LTE Band 4 QPSK 20MHz CH-High, 1 RB





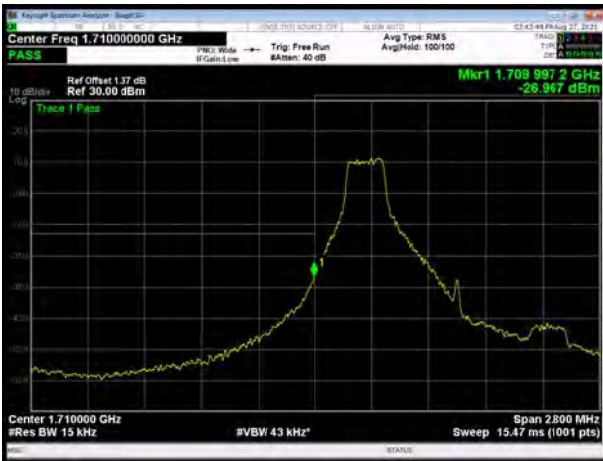
LTE Band 4 QPSK 20MHz CH-Low, 100%RB



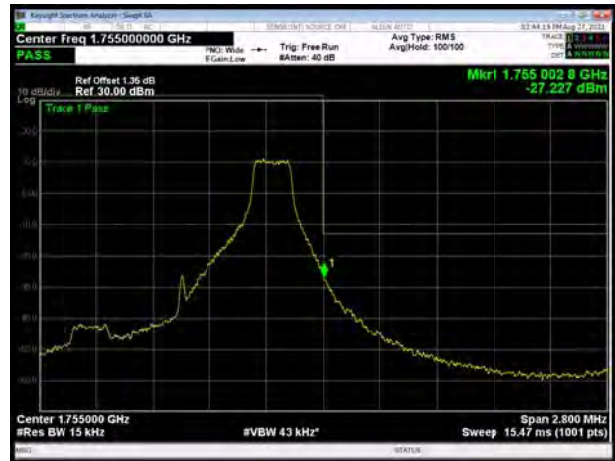
LTE Band 4 QPSK 20MHz CH-High, 100%RB



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



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



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



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





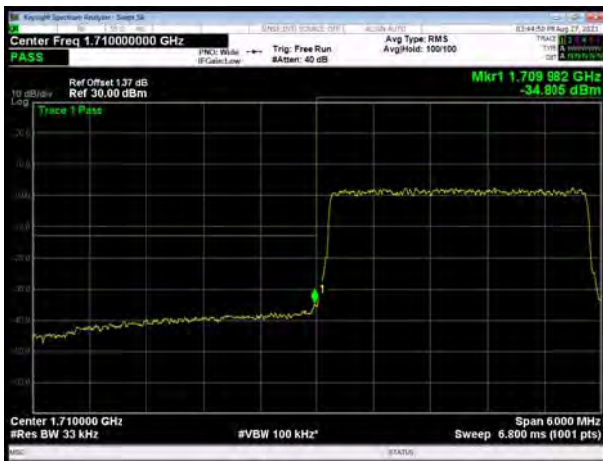
LTE Band 4 16QAM 3MHz CH-Low, 1 RB



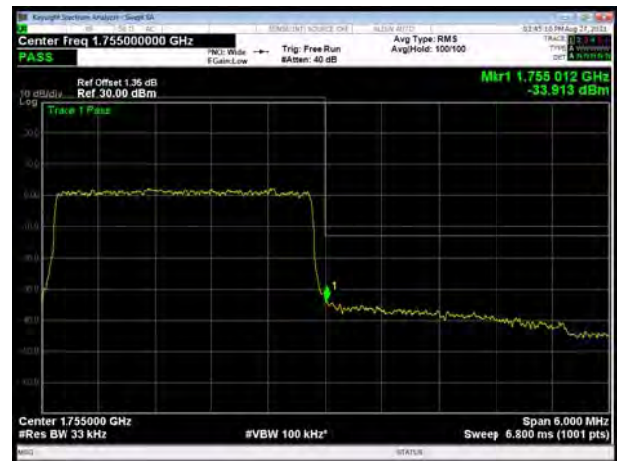
LTE Band 4 16QAM 3MHz CH-High, 1 RB



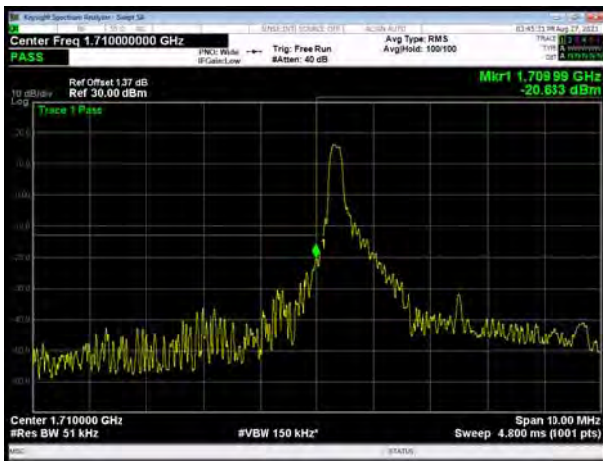
LTE Band 4 16QAM 3MHz CH-Low, 100%RB



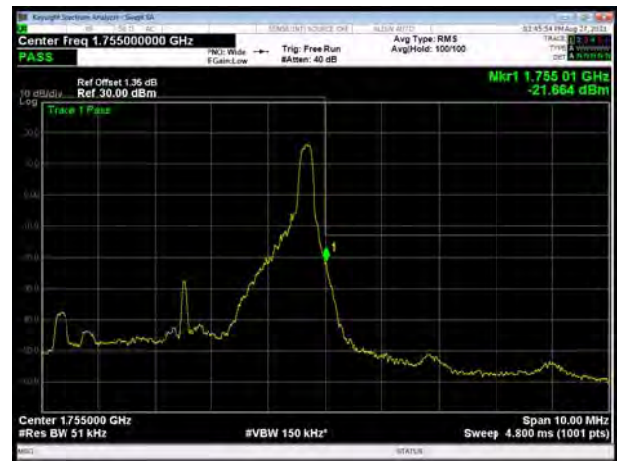
LTE Band 4 16QAM 3MHz CH-High, 100%RB



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



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





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



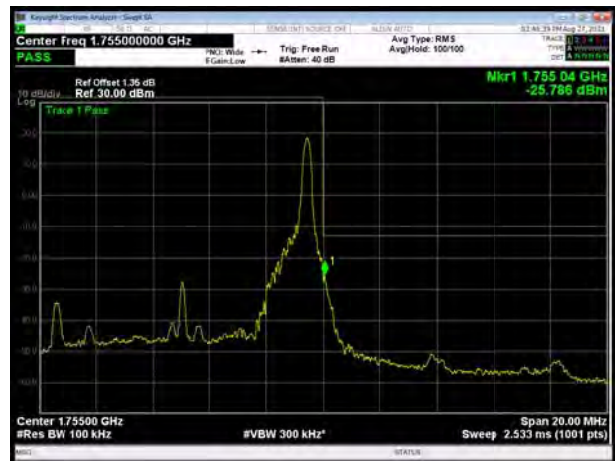
LTE Band 4 16QAM 5MHz CH-High, 100%RB



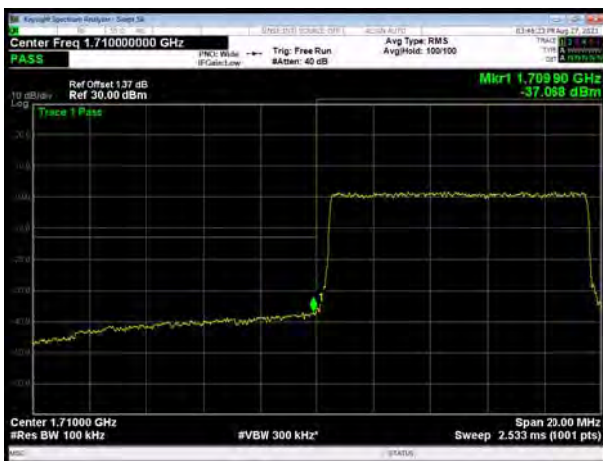
LTE Band 4 16QAM 10MHz CH-Low, 1 RB



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



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

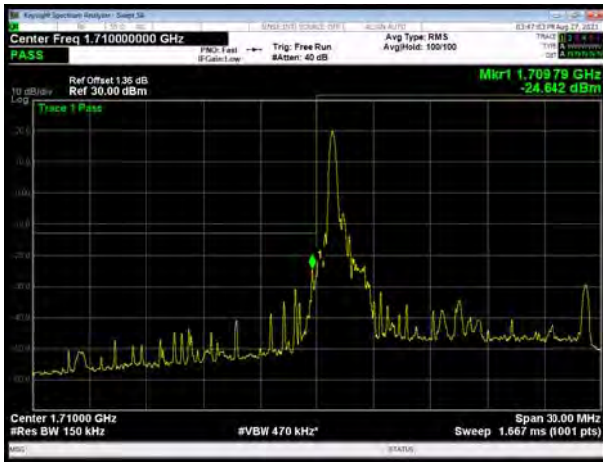


LTE Band 4 16QAM 10MHz CH-High, 100%RB

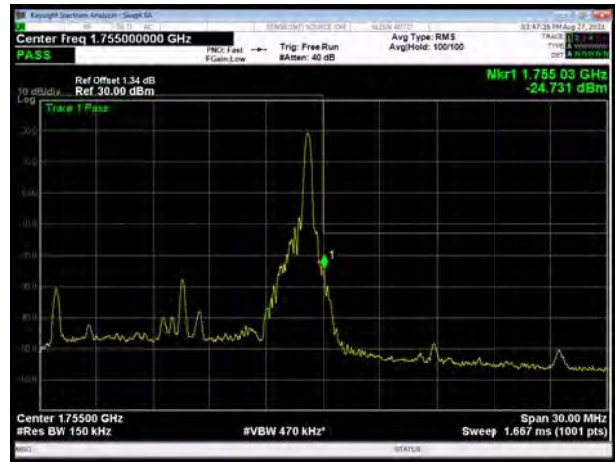




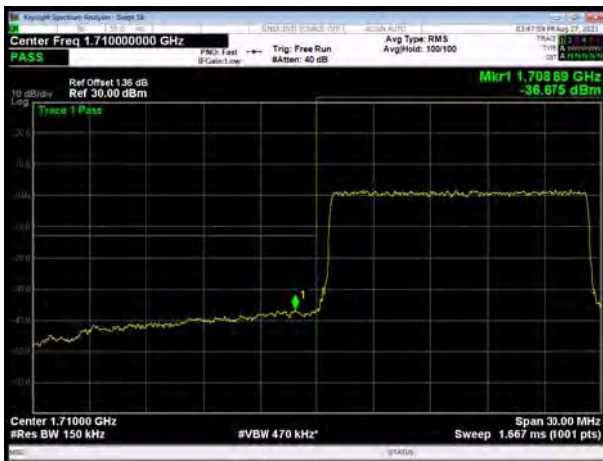
LTE Band 4 16QAM 15MHz CH-Low, 1 RB



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



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



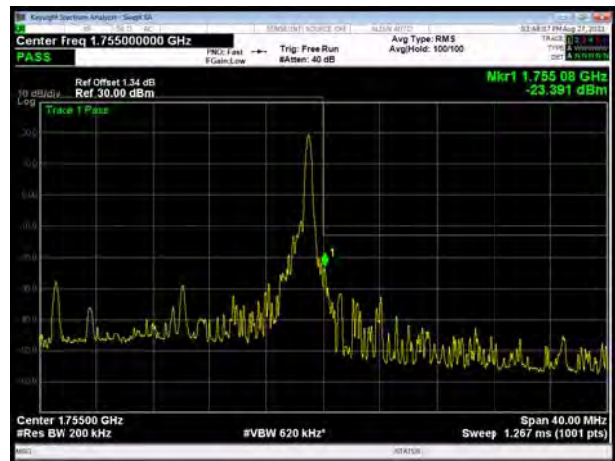
LTE Band 4 16QAM 15MHz CH-High, 100%RB



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

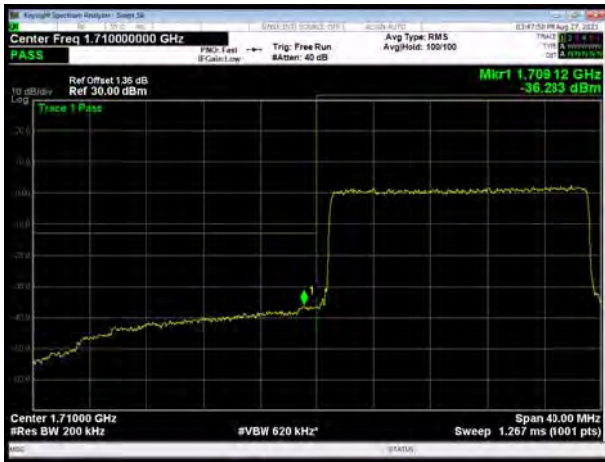


LTE Band 4 16QAM 20MHz CH-High, 1 RB





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



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



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



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



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



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

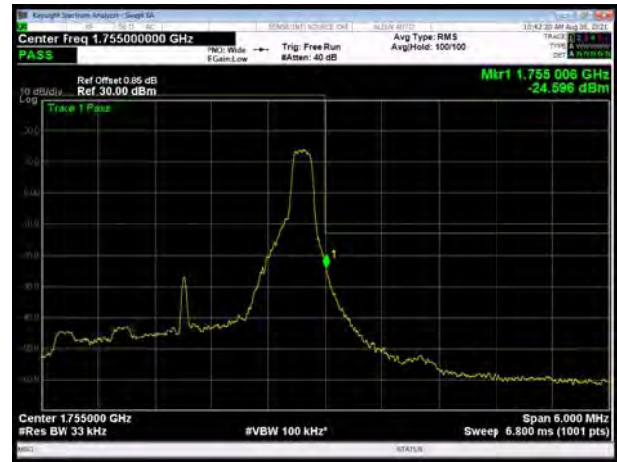




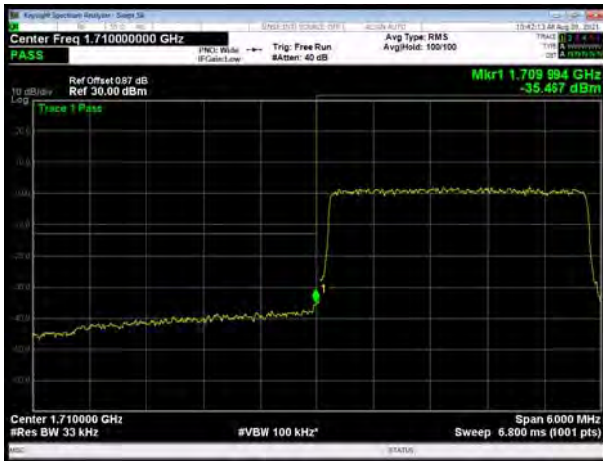
LTE Band 4 64QAM 3MHz CH-Low, 1 RB



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



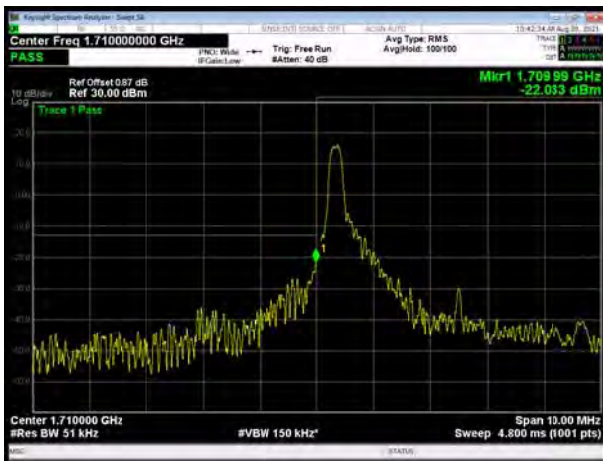
LTE Band 4 64QAM 3MHz CH-Low, 100%RB



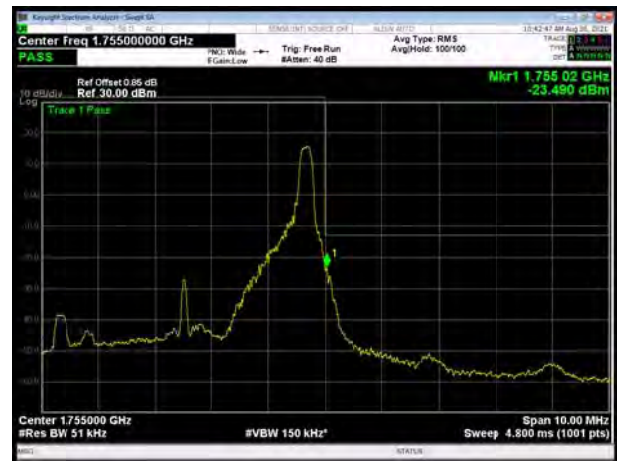
LTE Band 4 64QAM 3MHz CH-High, 100%RB



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



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





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



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



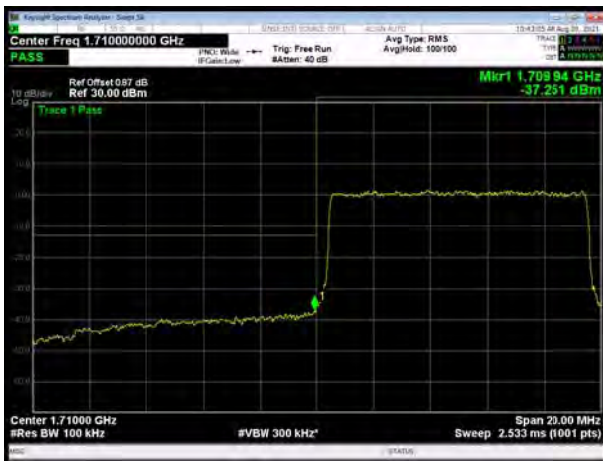
LTE Band 4 64QAM 10MHz CH-Low, 1 RB



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



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



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





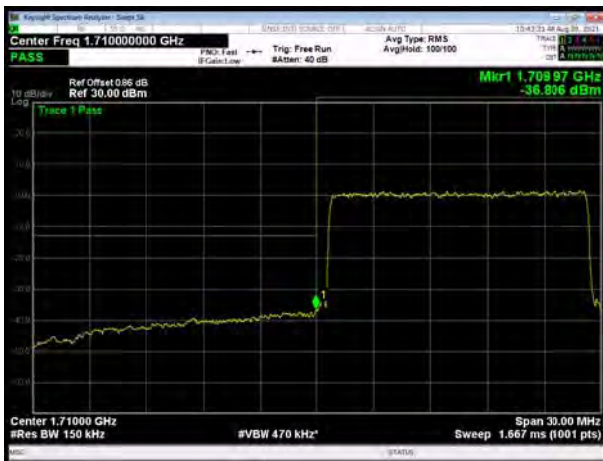
LTE Band 4 64QAM 15MHz CH-Low, 1 RB



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



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



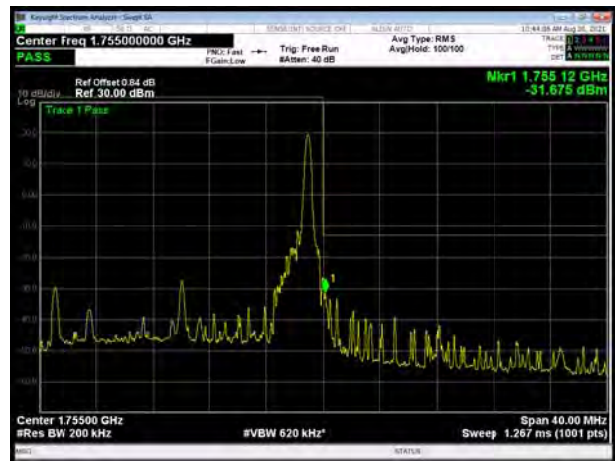
LTE Band 4 64QAM 15MHz CH-High, 100%RB



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

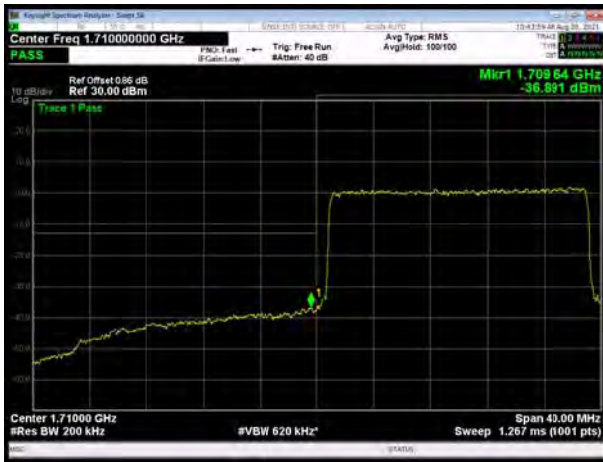


LTE Band 4 64QAM 20MHz CH-High, 1 RB





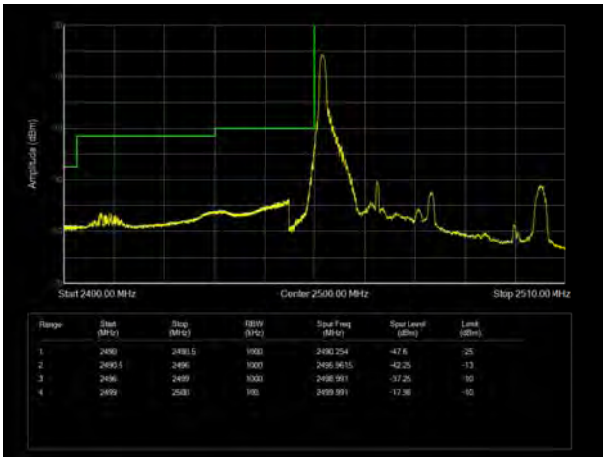
LTE Band 4 64QAM 20MHz CH-Low, 100%RB



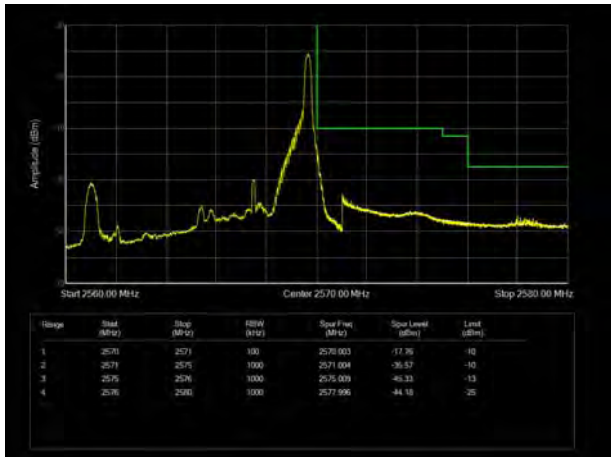
LTE Band 4 64QAM 20MHz CH-High, 100%RB



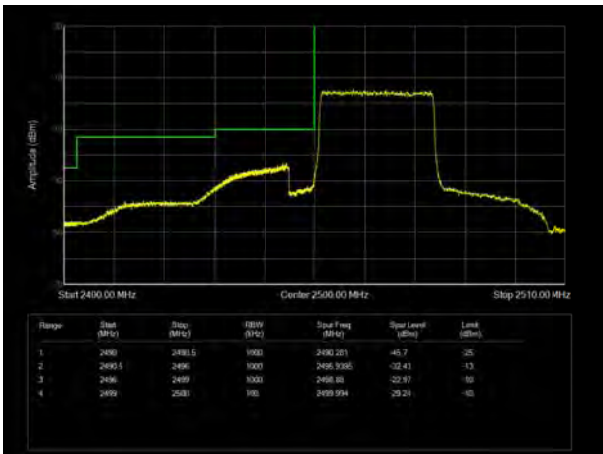
LTE Band 7 QPSK 5MHz CH-Low, 1 RB



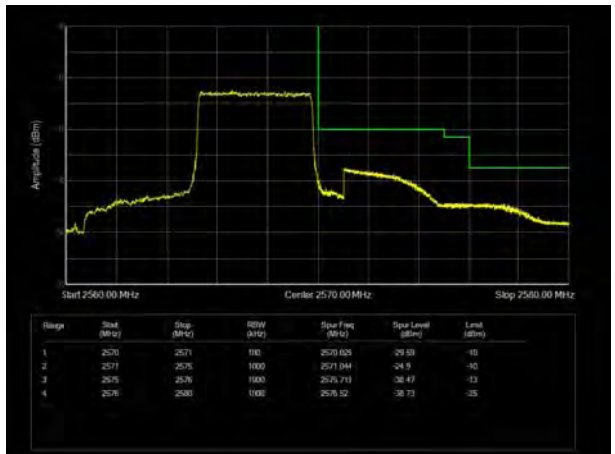
LTE Band 7 QPSK 5MHz CH-High, 1 RB



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

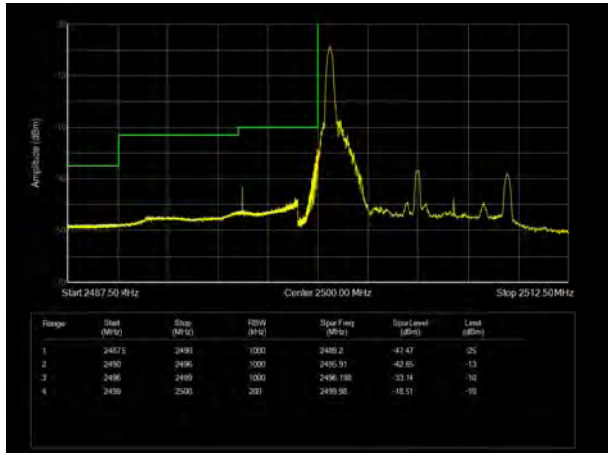


LTE Band 7 QPSK 5MHz CH-High, 100%RB

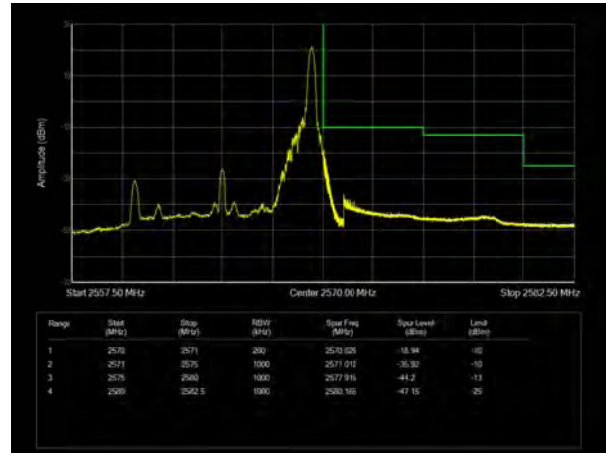




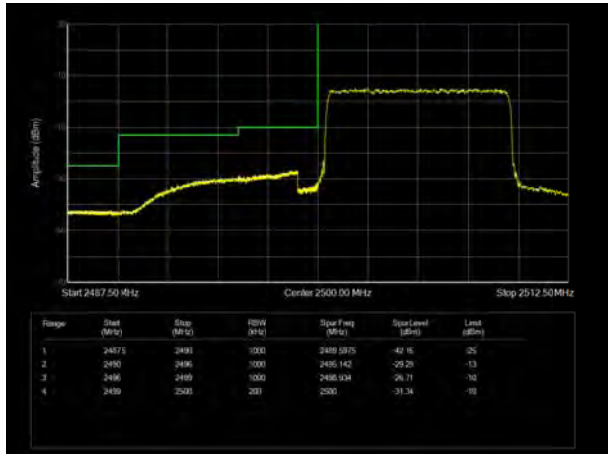
LTE Band 7 QPSK 10MHz CH-Low, 1 RB



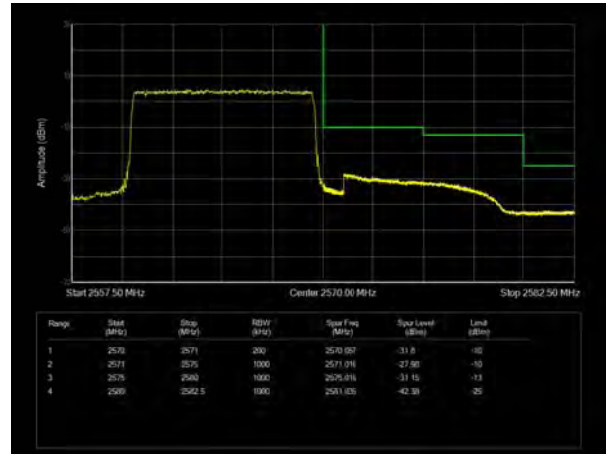
LTE Band 7 QPSK 10MHz CH-High, 1 RB



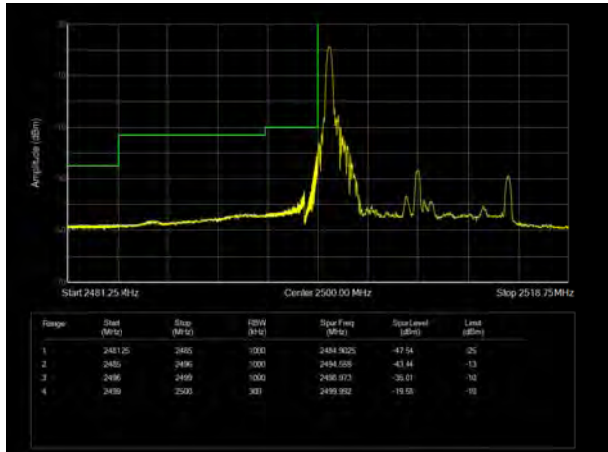
LTE Band 7 QPSK 10MHz CH-Low, 100%RB



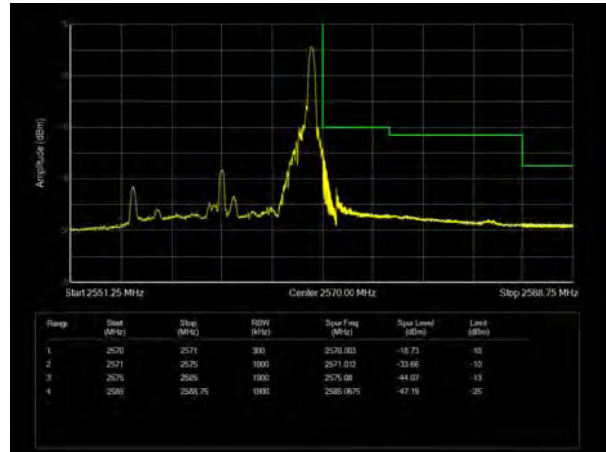
LTE Band 7 QPSK 10MHz CH-High, 100%RB



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

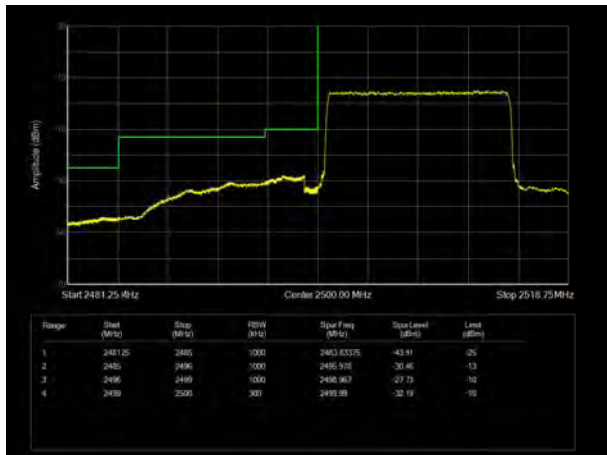


LTE Band 7 QPSK 15MHz CH-High, 1 RB

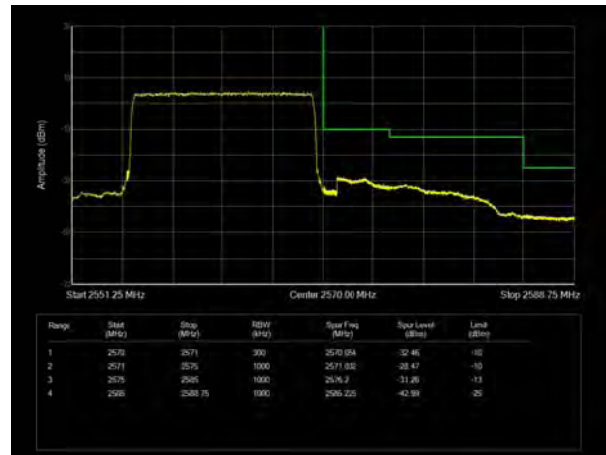




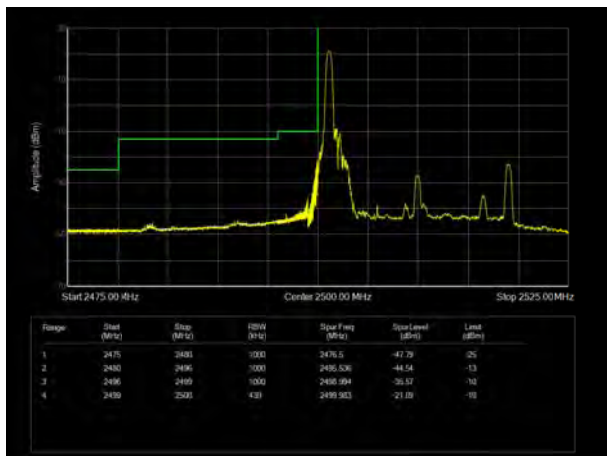
LTE Band 7 QPSK 15MHz CH-Low, 100%RB



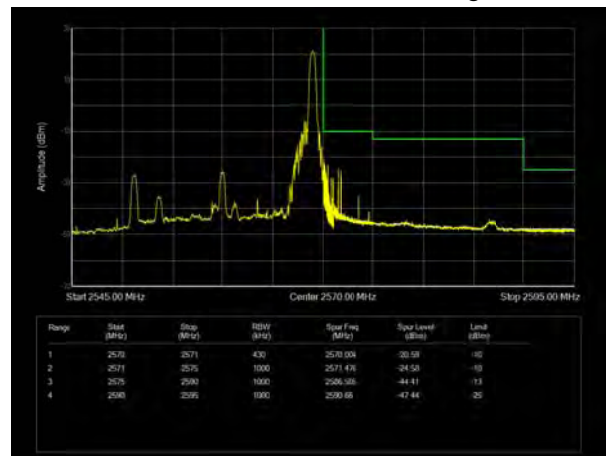
LTE Band 7 QPSK 15MHz CH-High, 100%RB



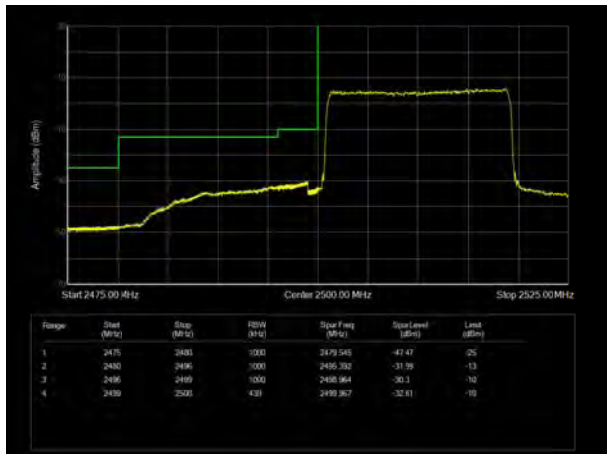
LTE Band 7 QPSK 20MHz CH-Low, 1 RB



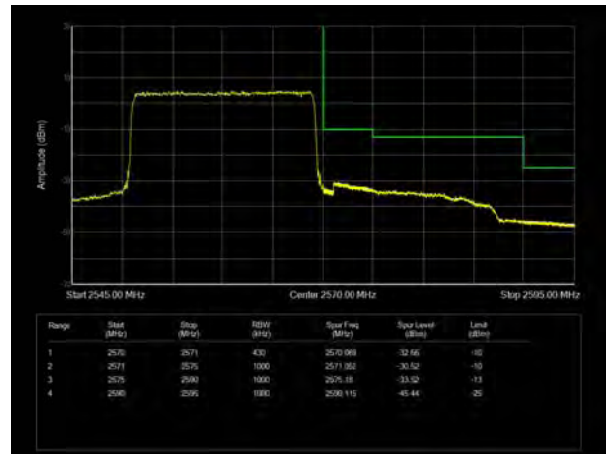
LTE Band 7 QPSK 20MHz CH-High, 1 RB



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

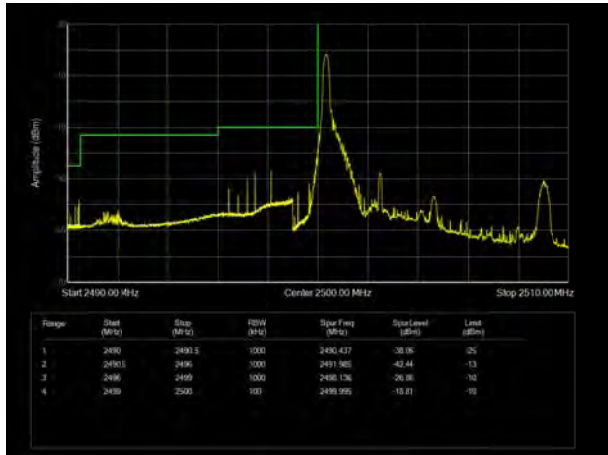


LTE Band 7 QPSK 20MHz CH-High, 100%RB

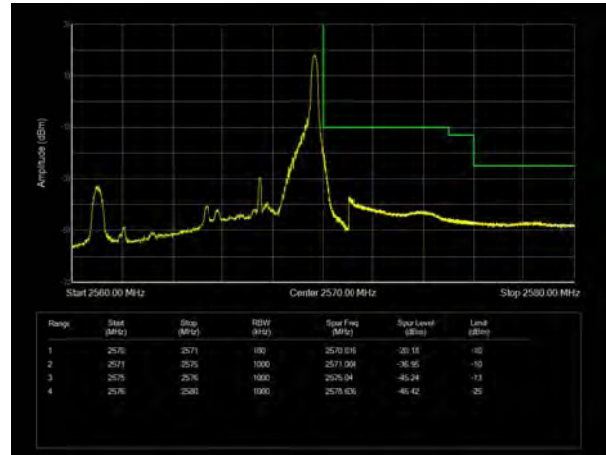




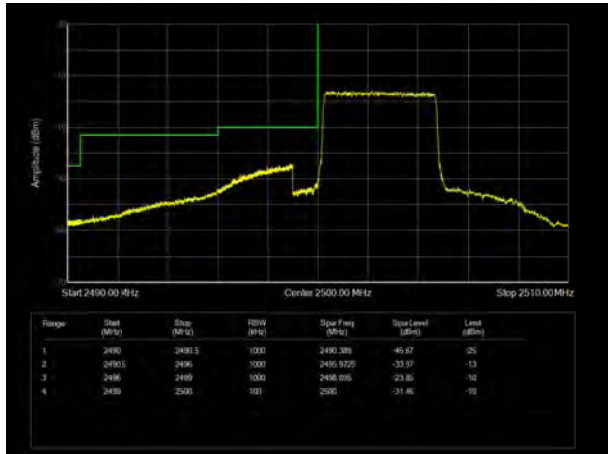
LTE Band 7 16QAM 5MHz CH-Low, 1 RB



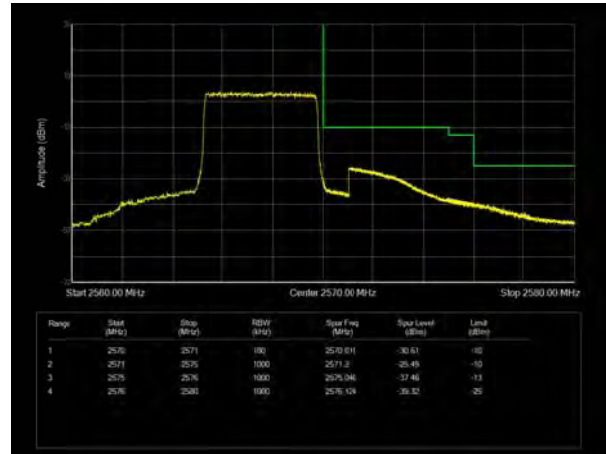
LTE Band 7 16QAM 5MHz CH-High, 1 RB



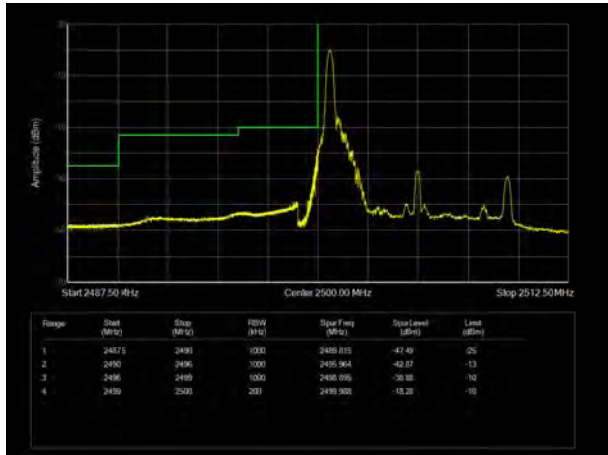
LTE Band 7 16QAM 5MHz CH-Low, 100%RB



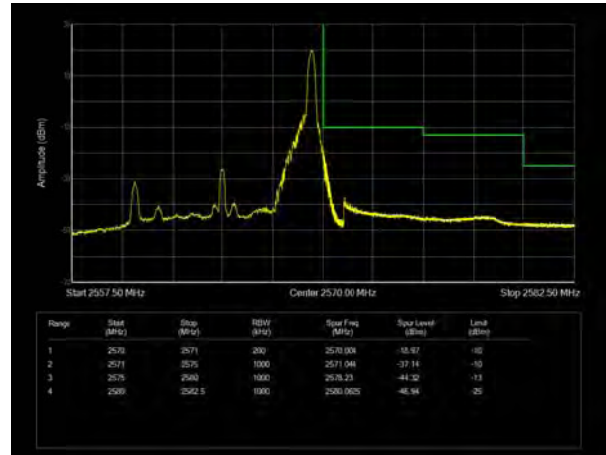
LTE Band 7 16QAM 5MHz CH-High, 100%RB



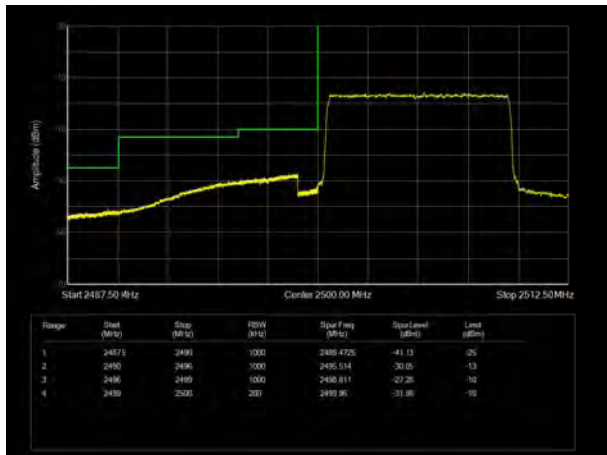
LTE Band 7 16QAM 10MHz CH-Low, 1 RB



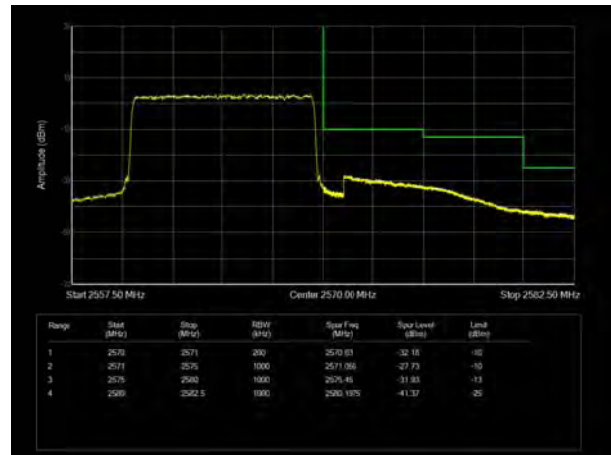
LTE Band 7 16QAM 10MHz CH-High, 1 RB



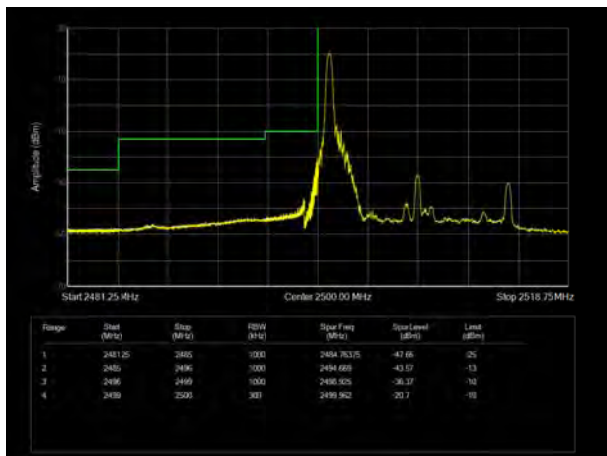
LTE Band 7 16QAM 10MHz CH-Low, 100%RB



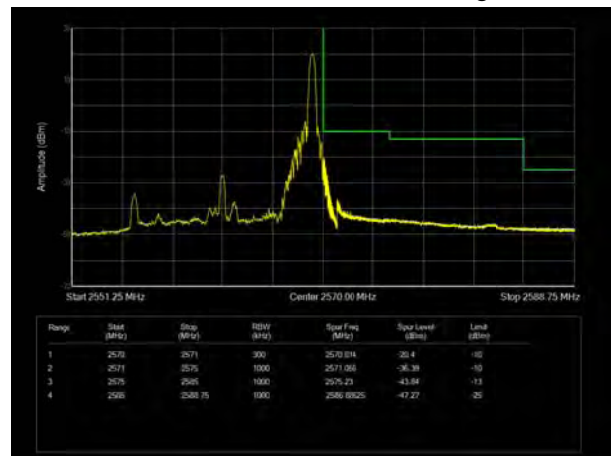
LTE Band 7 16QAM 10MHz CH-High, 100%RB



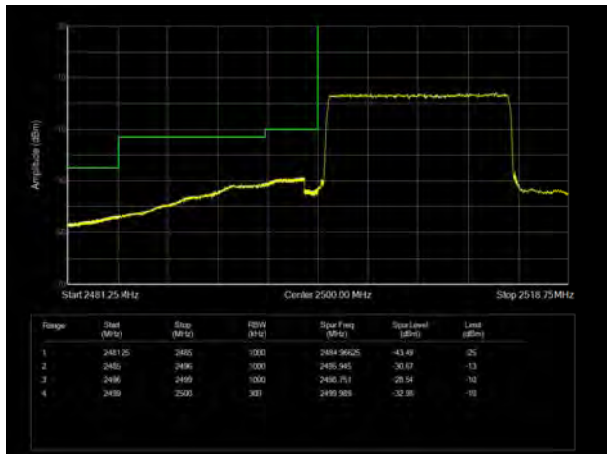
LTE Band 7 16QAM 15MHz CH-Low, 1 RB



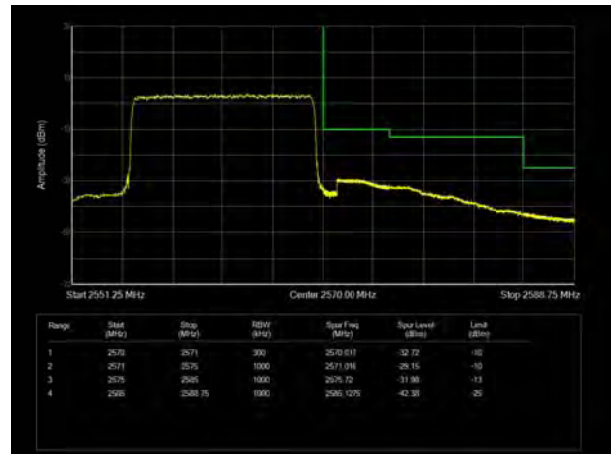
LTE Band 7 16QAM 15MHz CH-High, 1 RB



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

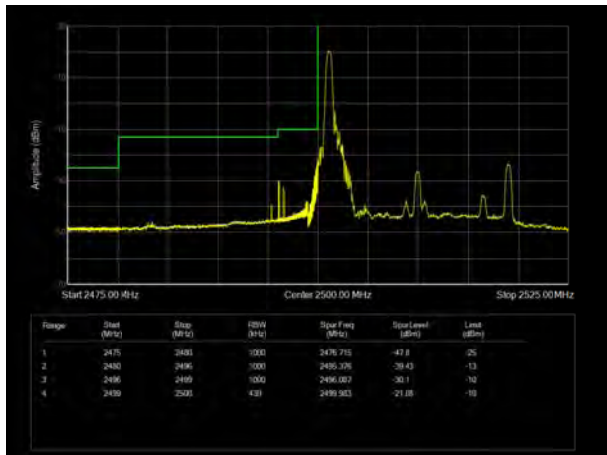


LTE Band 7 16QAM 15MHz CH-High, 100%RB

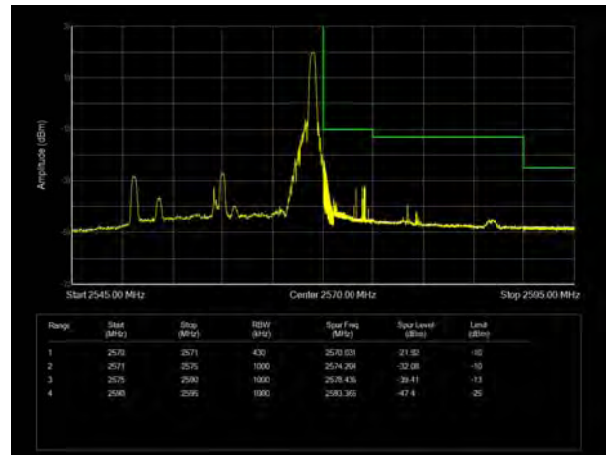




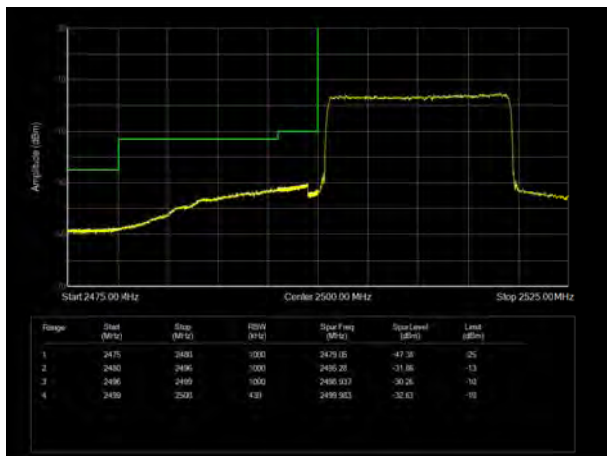
LTE Band 7 16QAM 20MHz CH-Low, 1 RB



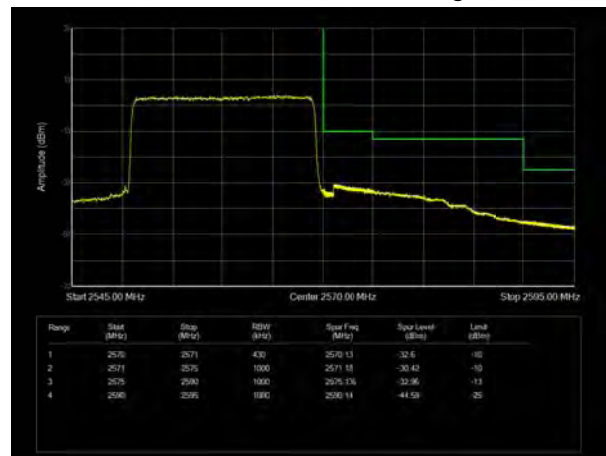
LTE Band 7 16QAM 20MHz CH-High, 1 RB



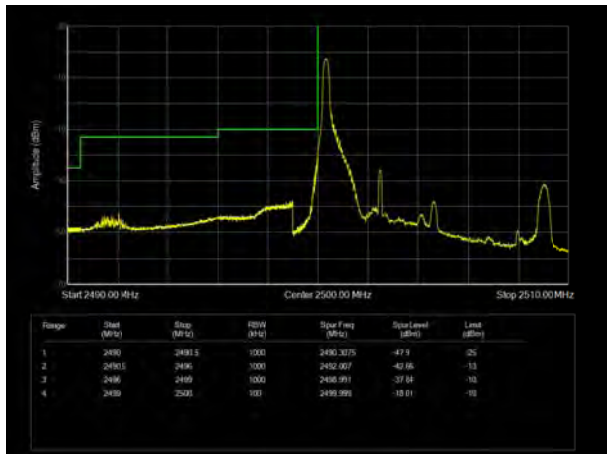
LTE Band 7 16QAM 20MHz CH-Low, 100%RB



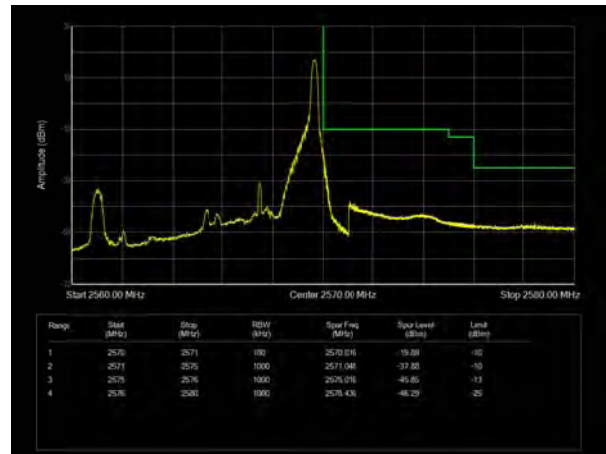
LTE Band 7 16QAM 20MHz CH-High, 100%RB



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

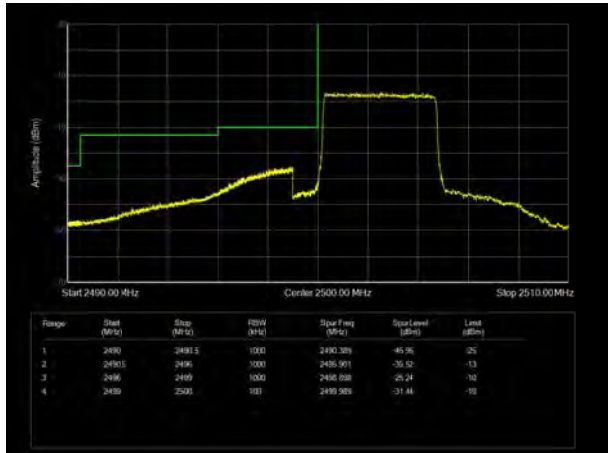


LTE Band 7 64QAM 5MHz CH-High, 1 RB

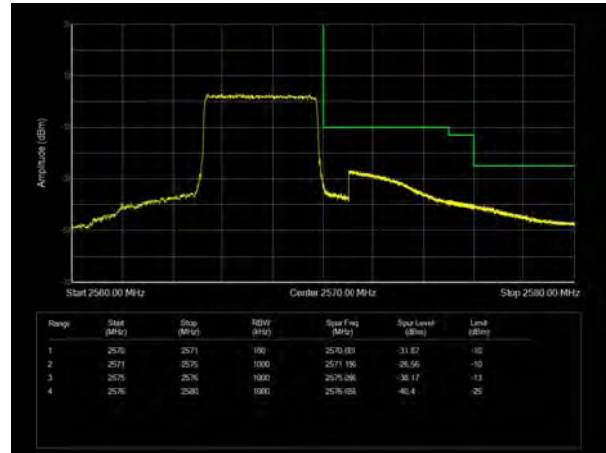




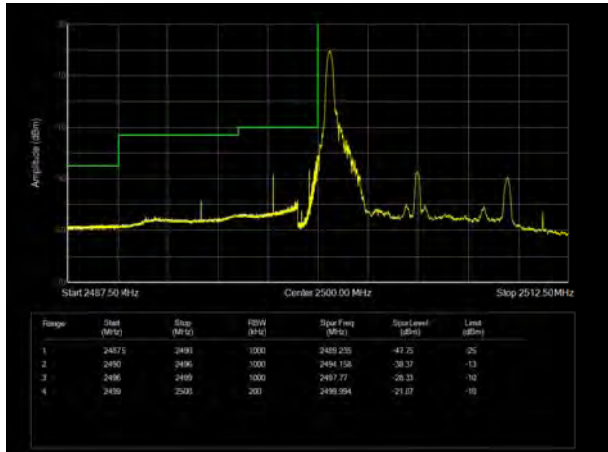
LTE Band 7 64QAM 5MHz CH-Low, 100%RB



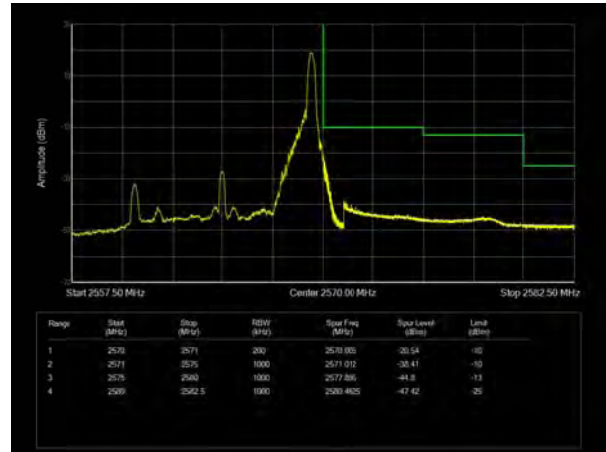
LTE Band 7 64QAM 5MHz CH-High, 100%RB



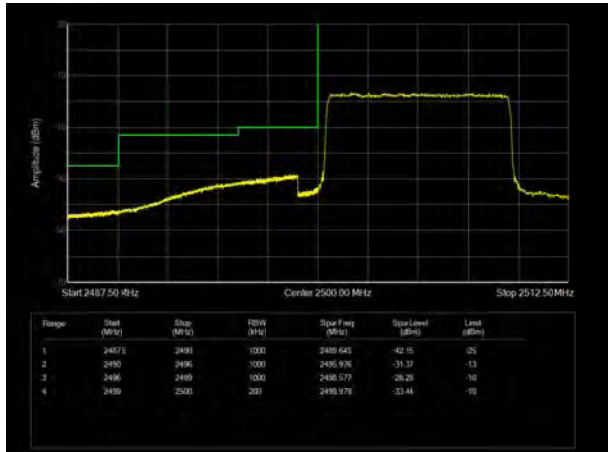
LTE Band 7 64QAM 10MHz CH-Low, 1 RB



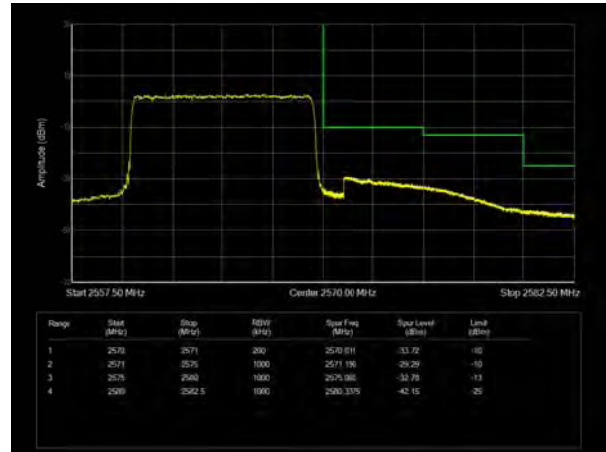
LTE Band 7 64QAM 10MHz CH-High, 1 RB



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

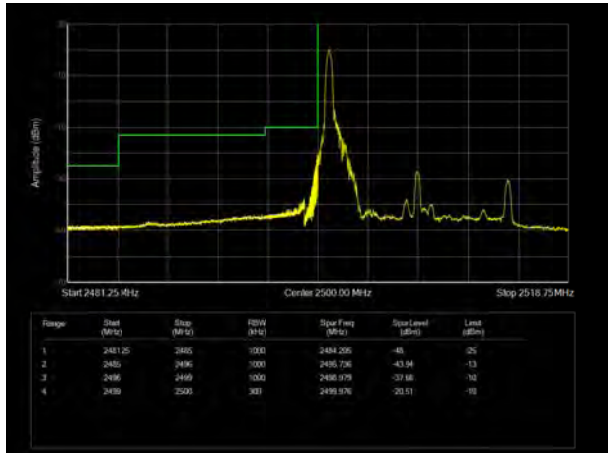


LTE Band 7 64QAM 10MHz CH-High, 100%RB

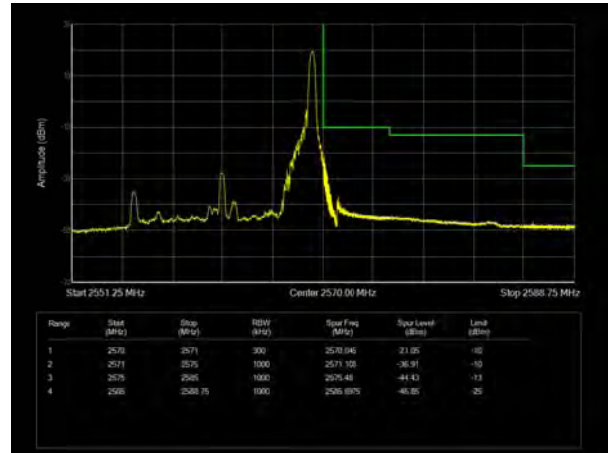




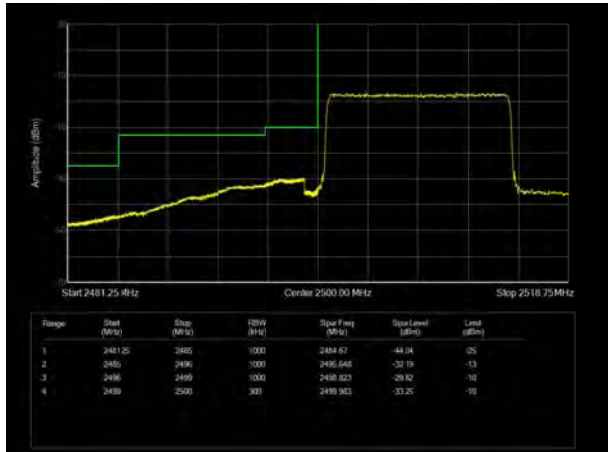
LTE Band 7 64QAM 15MHz CH-Low, 1 RB



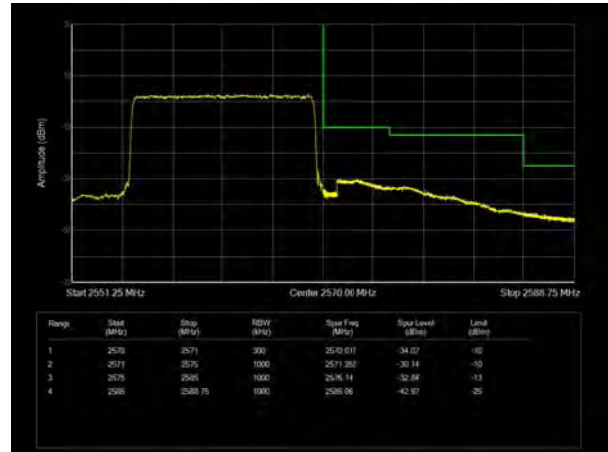
LTE Band 7 64QAM 15MHz CH-High, 1 RB



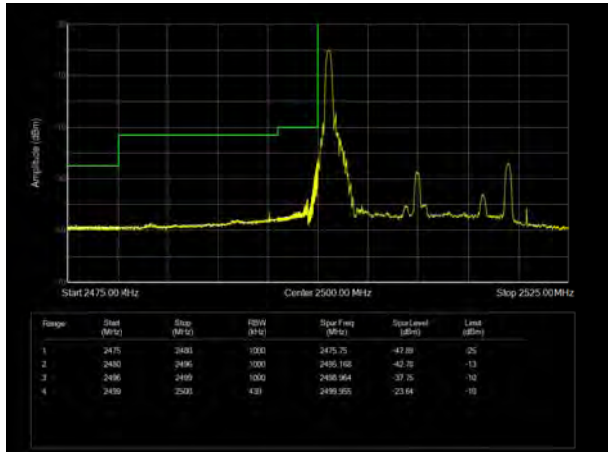
LTE Band 7 64QAM 15MHz CH-Low, 100%RB



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



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



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

