



RF TEST REPORT

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

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

Prepared by: Peng Tao

Approved by: Kai Xu

TA Technology (Shanghai) Co., Ltd.

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000



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	26
5.3	Band Edge Compliance	66
5.4	Peak-to-Average Power Ratio (PAPR)	112
5.5	Frequency Stability.....	119
5.6	Spurious Emissions at Antenna Terminals	131
5.7	Radiates Spurious Emission	149
6	Main Test Instruments	168
ANNEX A: The EUT Appearance		169
ANNEX B: Test Setup Photos		170



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(h)(2)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(h) /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(m)	PASS
7	Radiates Spurious Emission	2.1053 /27.53(h) /27.53(m)	PASS

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

Date of Sample Received: February 7, 2021

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

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

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

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



1 Test Laboratory

1.1 Notes of the Test Report

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

1.2. Test facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3 Testing Location

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

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

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

2.2 General information

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



	2560	-1.1	-4.0
	2580	-1.2	-3.5
	2600	-1.1	-3.1
	2620	-0.9	-3.0
	2640	-0.5	-2.75
	2660	-0.7	-2.6
Memory	6G+128G; 6G+64G		
Test Mode(s)	WCDMA Band IV; LTE Band 4/7/38/41; CA_B7/B38		
Test Modulation	(WCDMA) BPSK, QPSK, 16QAM; (LTE) QPSK, 16QAM, 64QAM, 256QAM(DL only);		
HSDPA UE Category	24		
HSUPA UE Category	7		
LTE Release	R12		
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	20.58 dBm	
	LTE Band 4:	21.97 dBm	
	LTE Band 7:	23.64 dBm	
	LTE Band 38:	23.98 dBm	
	LTE Band 41:	24.23 dBm	
	CA_B7:	22.65 dBm	
	CA_B38:	22.51 dBm	
Rated Power Supply Voltage:	3.87V		
Supply Voltage	Minimum: 3.6V Maximum: 4.45V		
Operating Temperature	Lowest: 0°C Highest: +40°C		
Extreme Temperature	Lowest: -30°C Highest: +50°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 7	2500 ~ 2570	2620 ~ 2690
	LTE Band 38	2570 ~ 2620	2570 ~ 2620
	LTE Band 41	2535 ~ 2655	2535 ~ 2655
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.			



3 Applied Standards

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

Test standards:

FCC CFR47 Part 27C (2019)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2019)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

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

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

All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

The following testing in WCDMA/LTE is set based on the maximum RF Output Power.

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

Test items	Modes/Modulation
	WCDMA Band IV
RF Power Output and Effective Isotropic Radiated Power	RMC HSDPA/HSUPA DC-HSDPA/HSPA+
Occupied Bandwidth	RMC
Band Edge Compliance	RMC
Peak-to-Average Power Ratio	RMC
Frequency Stability	RMC
Spurious Emissions at Antenna Terminals	RMC
Radiates Spurious Emission	RMC



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

Test items	Modes	Bandwidth (MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 4	O	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 4	O	O	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 38	-	-	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 4	O	O	O	O	O	O	O	O	O	O	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	-	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	O	O	-	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	-	O	O	O	O
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 7	-	-	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 38	-	-	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 41	-	-	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 4	O	O	O	O	O	O	O	-	-	O	-	-	O	O	O
	LTE 7	-	-	O	O	O	O	O	-	-	O	-	-	O	O	O
	LTE 38	-	-	O	O	O	O	O	-	-	O	-	-	O	O	O
	LTE 41	-	-	O	O	O	O	O	-	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	-	O	-	-	-	O	-
	LTE 7	-	-	O	-	-	O	O	-	-	O	-	-	-	O	-
	LTE 38	-	-	O	-	-	O	O	-	-	O	-	-	-	O	-
	LTE 41	-	-	O	-	-	O	O	-	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.															

5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

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

Methods of Measurement

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

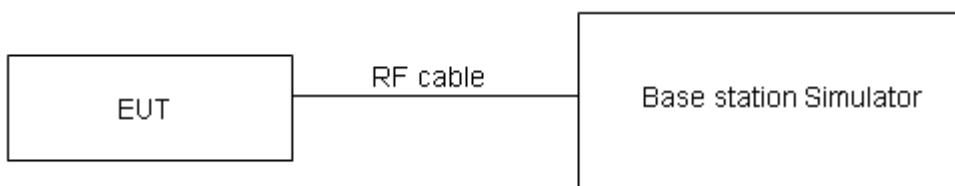
ERP can then be calculated as follows:

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

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

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

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

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

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

Part 27.50(d)(4)Limit	≤ 1 W (30 dBm)
Part 27.50(h)(2) Limit	≤ 2 W (33 dBm)

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=0.4$ 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) Main Antenna			EIRP (dBm) Second Antenna		
		Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)
RMC		22.99	22.96	22.98	19.49	20.16	19.88	19.79	20.16	20.58
HSDPA	Sub - Test 1	21.51	21.42	21.52	18.01	18.62	18.42	18.31	18.62	19.12
	Sub - Test 2	21.47	21.54	21.48	17.97	18.74	18.38	18.27	18.74	19.08
	Sub - Test 3	21.37	21.60	21.64	17.87	18.80	18.54	18.17	18.80	19.24
	Sub - Test 4	21.65	21.30	21.36	18.15	18.50	18.26	18.45	18.50	18.96
HSUPA	Sub - Test 1	20.61	20.58	20.34	17.11	17.78	17.24	17.41	17.78	17.94
	Sub - Test 2	20.15	20.08	20.06	16.65	17.28	16.96	16.95	17.28	17.66
	Sub - Test 3	20.45	20.50	20.58	16.95	17.70	17.48	17.25	17.70	18.18
	Sub - Test 4	19.65	19.60	19.52	16.15	16.80	16.42	16.45	16.80	17.12
	Sub - Test 5	21.05	21.06	20.86	17.55	18.26	17.76	17.85	18.26	18.46
DC-HSDPA	Sub - Test 1	21.57	21.62	21.52	18.07	18.82	18.42	18.37	18.82	19.12
	Sub - Test 2	21.55	21.32	21.62	18.05	18.52	18.52	18.35	18.52	19.22
	Sub - Test 3	21.45	21.30	21.40	17.95	18.50	18.30	18.25	18.50	19.00
	Sub - Test 4	21.59	21.62	21.44	18.09	18.82	18.34	18.39	18.82	19.04
HSPA+	16QAM	21.88	21.87	21.88	18.38	19.07	18.78	18.68	19.07	19.48



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



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



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



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



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



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



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

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



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



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



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

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



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



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



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



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

5.2 Occupied Bandwidth

Ambient condition

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

Method of Measurement

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

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

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

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

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

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

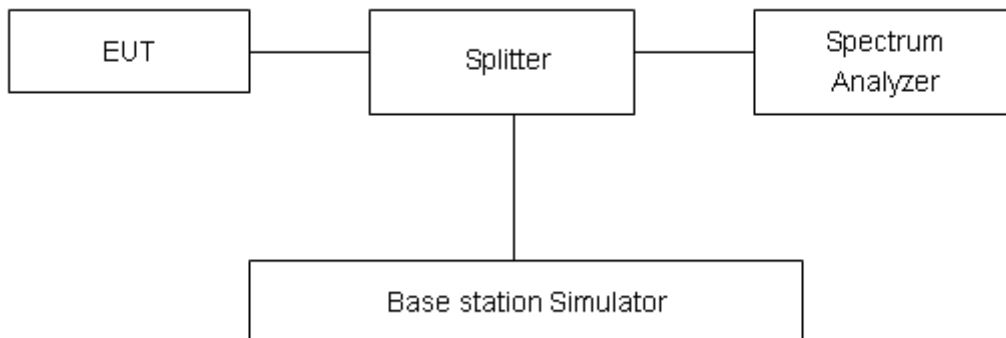
RBW is set to 300 kHz, VBW is set to 910 kHz for LTE Band 4/7/38/41 (15MHz).

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

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

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

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

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



Test Result

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

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



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

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



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

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



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

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



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

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

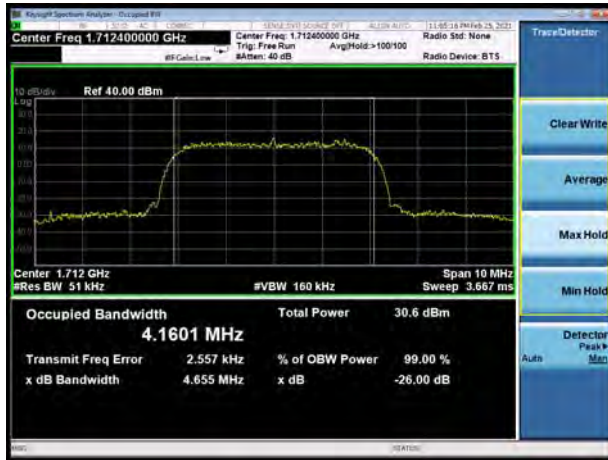


CA_7C_15MHz+15MHz_64QAM	21025	2527.5	21175	2542.5	75#0	75#0	28.59	30.74
CA_7C_15MHz+20MHz_QPSK	21003	2525.3	21174	2542.4	75#0	100#0	32.87	35.23
CA_7C_15MHz+20MHz_16QAM	21003	2525.3	21174	2542.4	75#0	100#0	32.84	35.03
CA_7C_15MHz+20MHz_64QAM	21003	2525.3	21174	2542.4	75#0	100#0	32.87	35.16
CA_7C_20MHz+15MHz_QPSK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

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



WCDMA Band IV CH-Low



WCDMA Band IV CH Middle



WCDMA Band IV CH High





LTE Band 4 QPSK 1.4MHz CH-Low



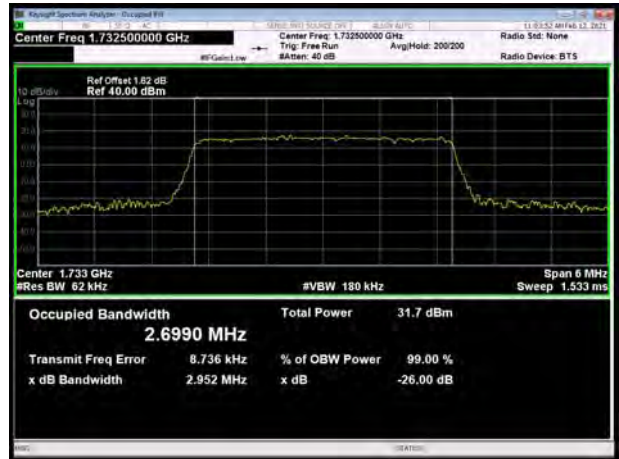
LTE Band 4 QPSK 3MHz CH-Low



LTE Band 4 QPSK 1.4MHz CH-Middle



LTE Band 4 QPSK 3MHz CH-Middle



LTE Band 4 QPSK 1.4MHz CH-High

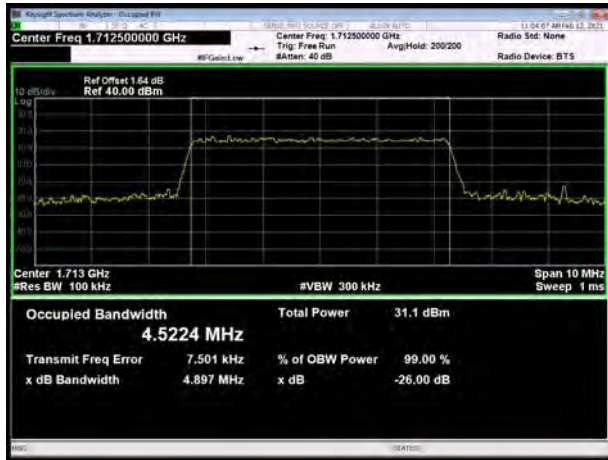


LTE Band 4 QPSK 3MHz CH-High

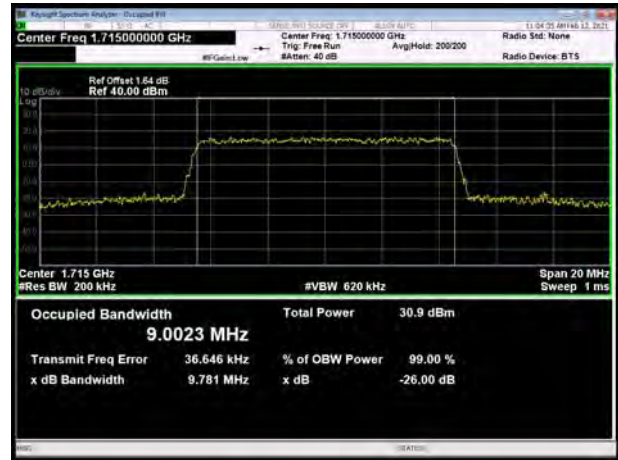




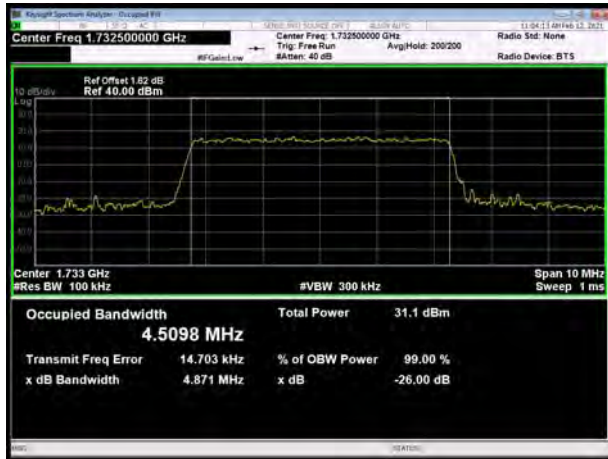
LTE Band 4 QPSK 5MHz CH-Low



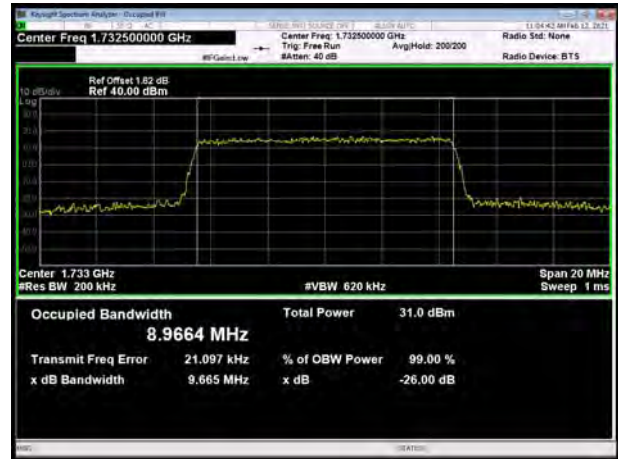
LTE Band 4 QPSK 10MHz CH-Low



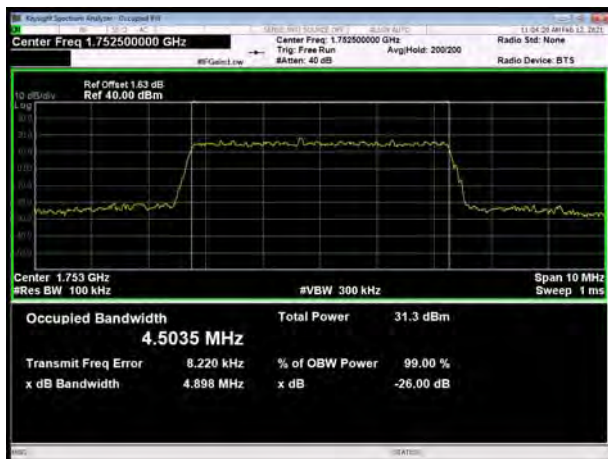
LTE Band 4 QPSK 5MHz CH-Middle



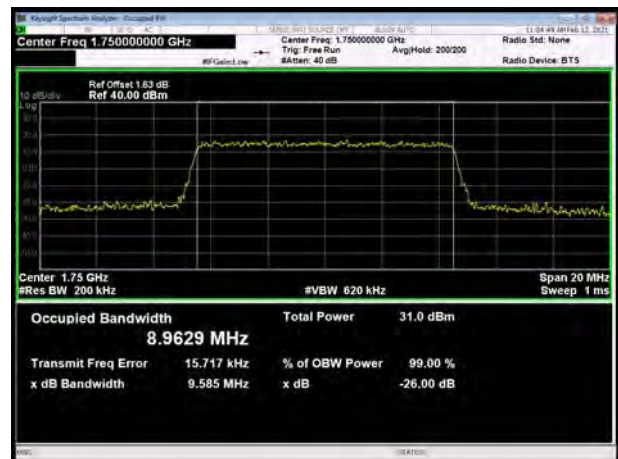
LTE Band 4 QPSK 10MHz CH-Middle



LTE Band 4 QPSK 5MHz CH-High

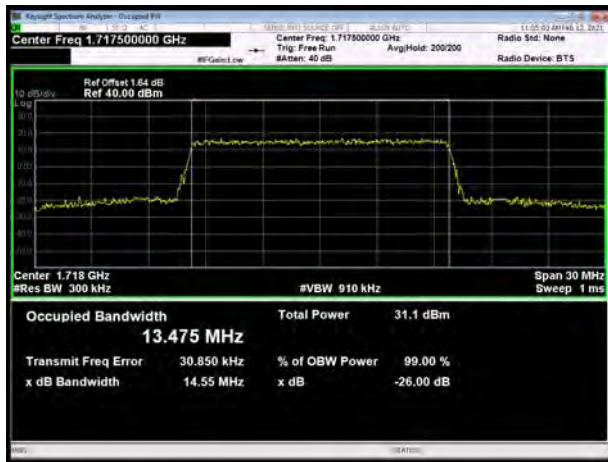


LTE Band 4 QPSK 10MHz CH-High

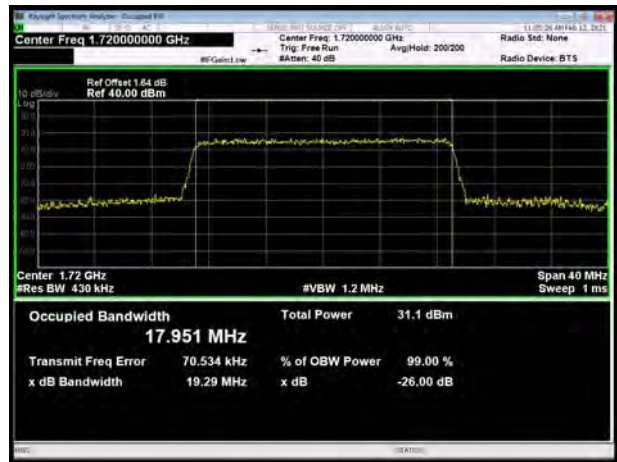




LTE Band 4 QPSK 15MHz CH-Low



LTE Band 4 QPSK 20MHz CH-Low



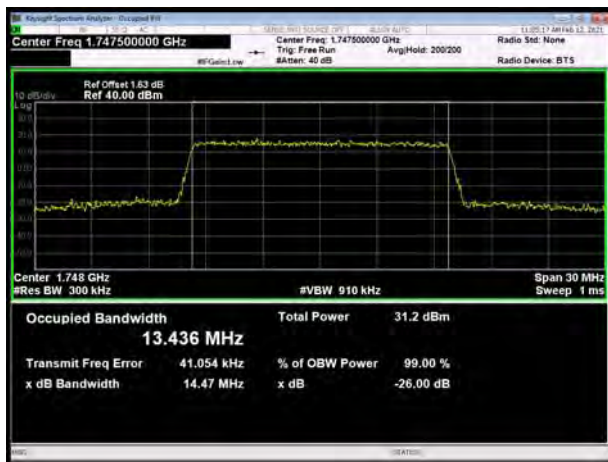
LTE Band 4 QPSK 15MHz CH-Middle



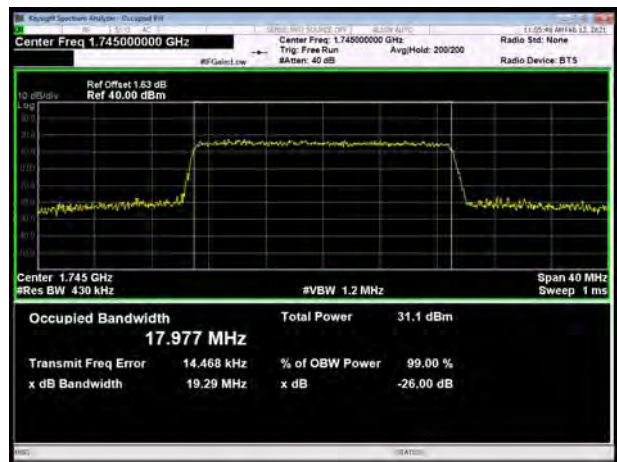
LTE Band 4 QPSK 20MHz CH-Middle



LTE Band 4 QPSK 15MHz CH-High

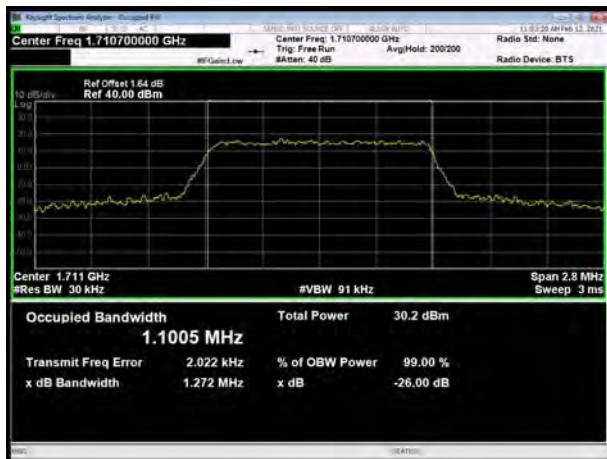


LTE Band 4 QPSK 20MHz CH-High





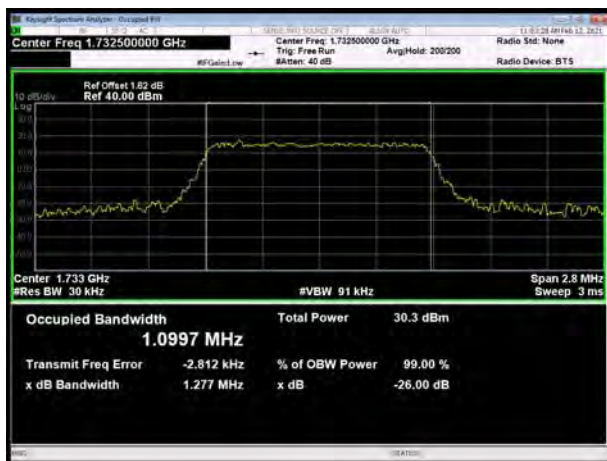
LTE Band 4 16QAM 1.4MHz CH-Low



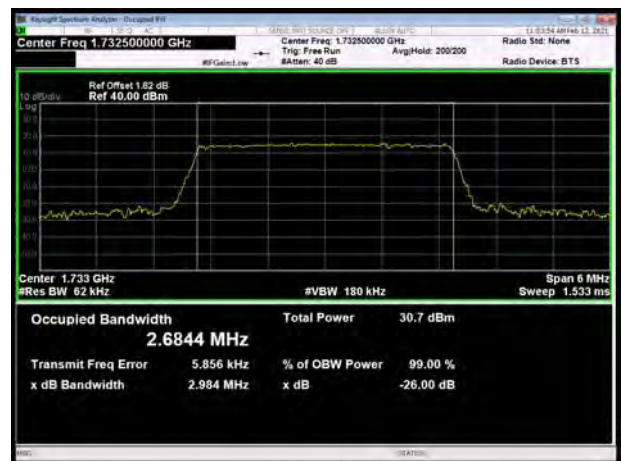
LTE Band 4 16QAM 3MHz CH-Low



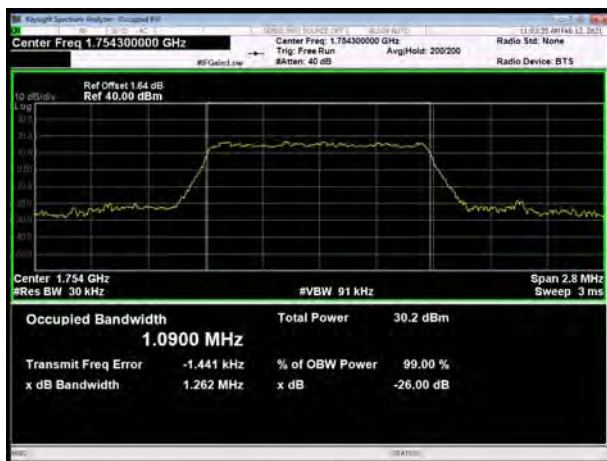
LTE Band 4 16QAM 1.4MHz CH-Middle



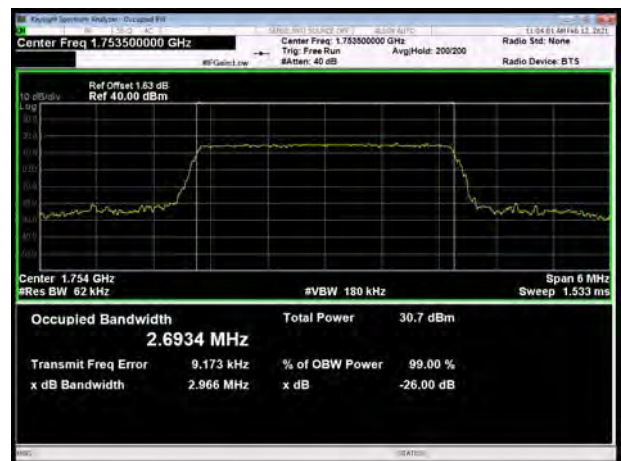
LTE Band 4 16QAM 3MHz CH-Middle



LTE Band 4 16QAM 1.4MHz CH-High

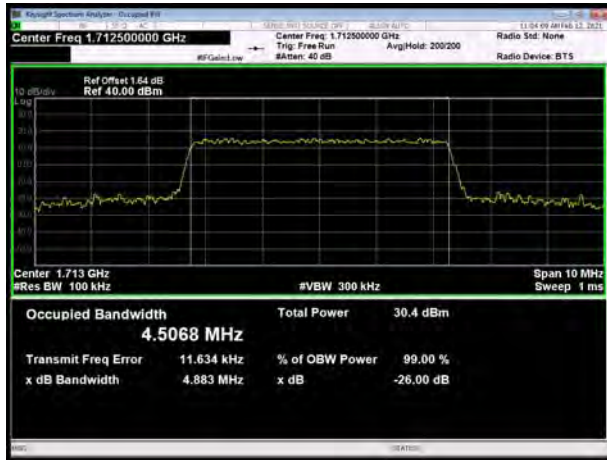


LTE Band 4 16QAM 3MHz CH-High





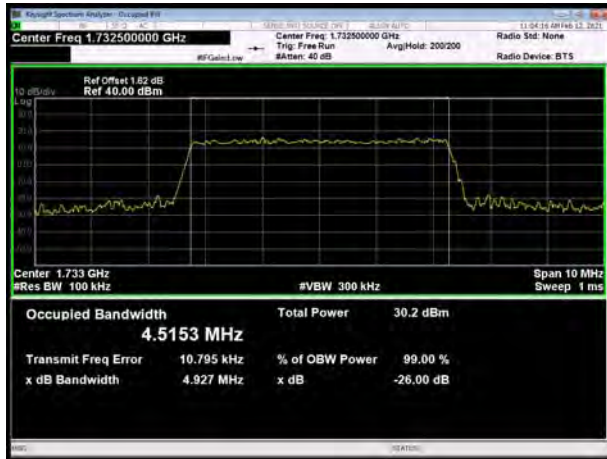
LTE Band 4 16QAM 5MHz CH-Low



LTE Band 4 16QAM 10MHz CH-Low



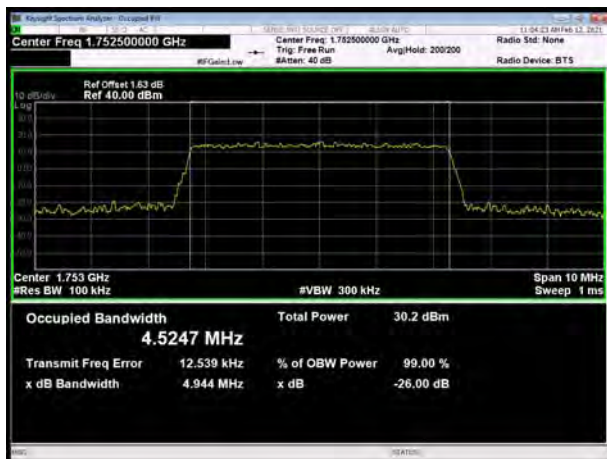
LTE Band 4 16QAM 5MHz CH-Middle



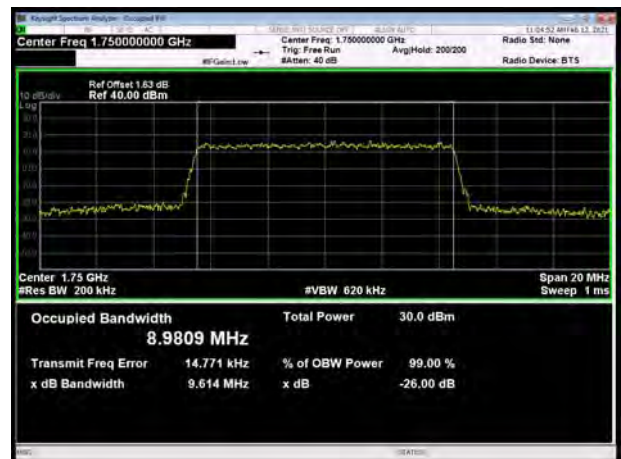
LTE Band 4 16QAM 10MHz CH-Middle



LTE Band 4 16QAM 5MHz CH-High

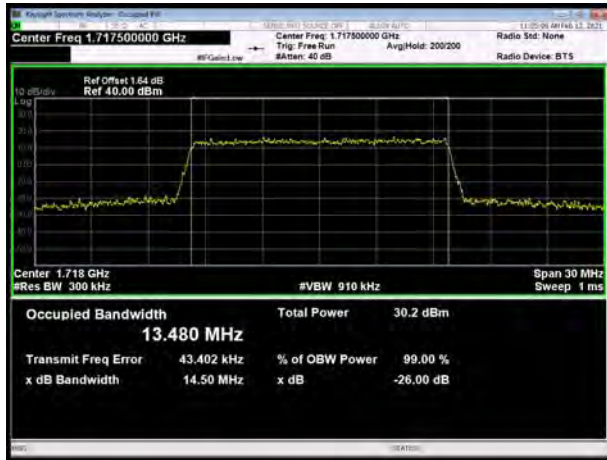


LTE Band 4 16QAM 10MHz CH-High

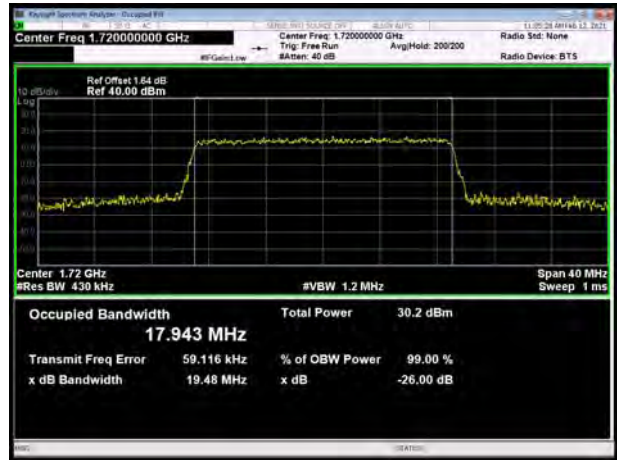




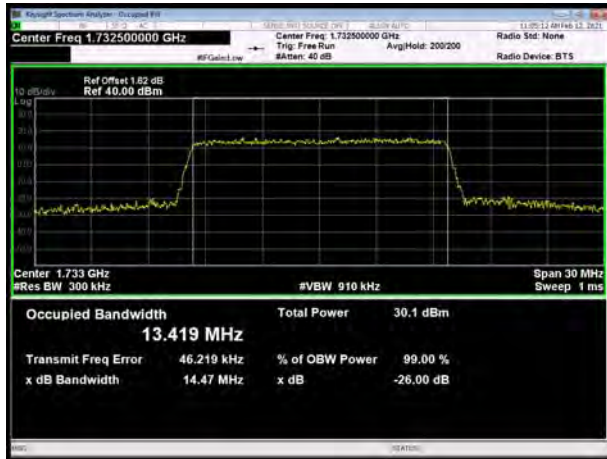
LTE Band 4 16QAM 15MHz CH-Low



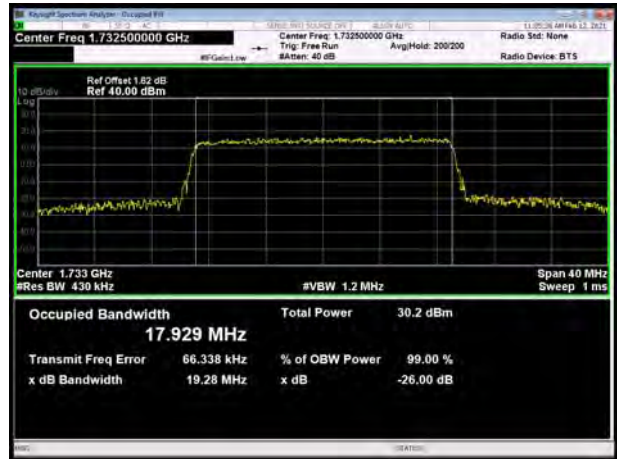
LTE Band 4 16QAM 20MHz CH-Low



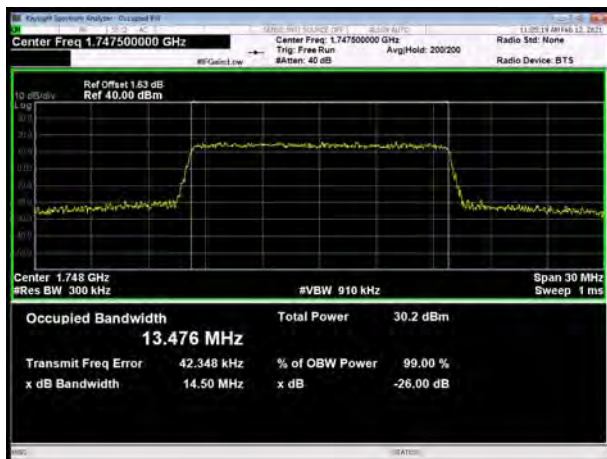
LTE Band 4 16QAM 15MHz CH-Middle



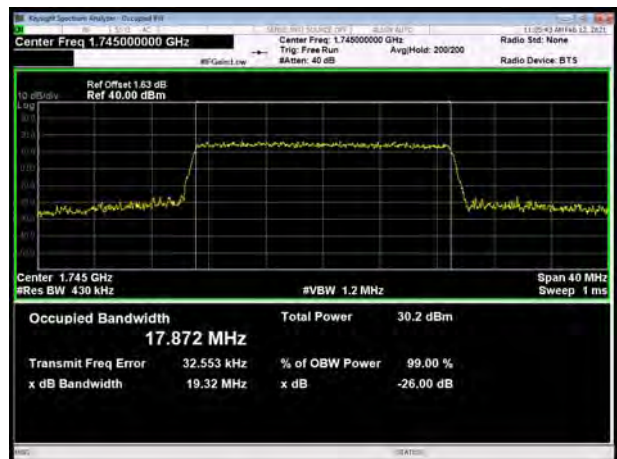
LTE Band 4 16QAM 20MHz CH-Middle



LTE Band 4 16QAM 15MHz CH-High

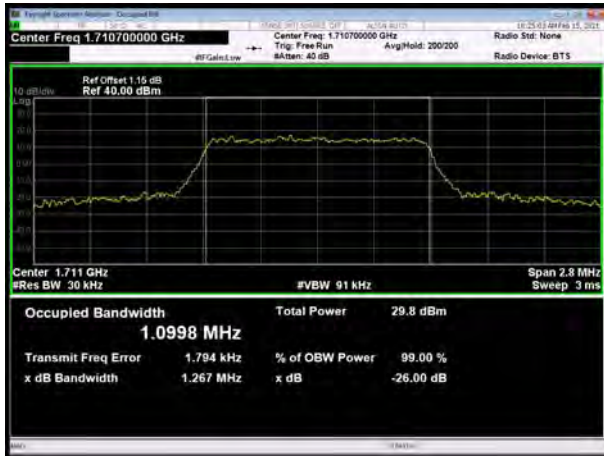


LTE Band 4 16QAM 20MHz CH-High





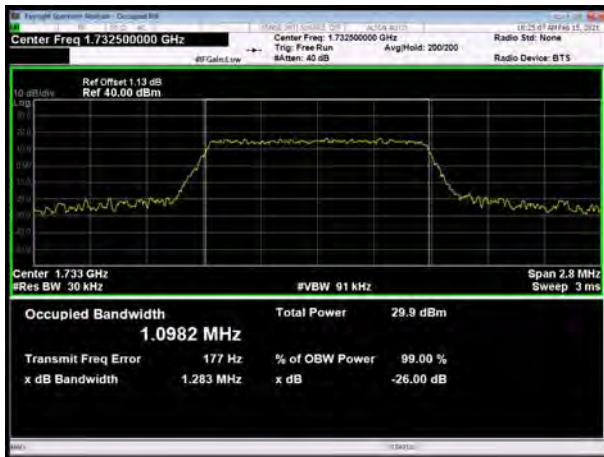
LTE Band 4 1.4MHz 64QAM CH-Low



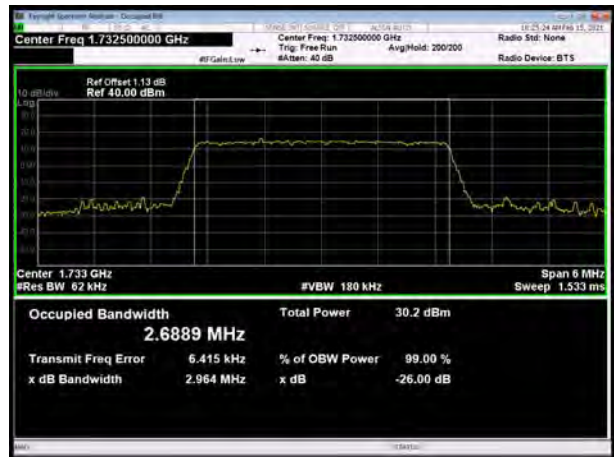
LTE Band 4 3MHz 64QAM CH-Low



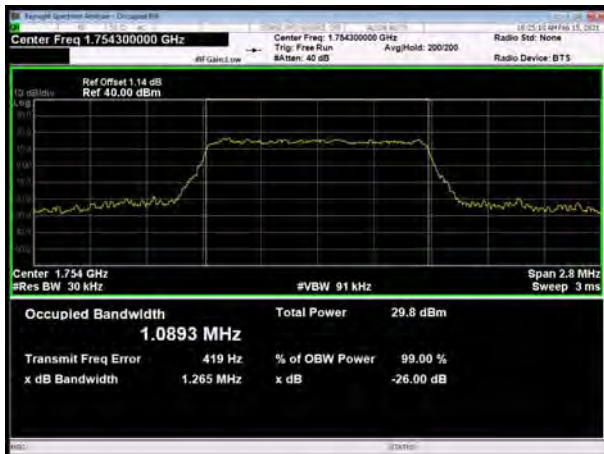
LTE Band 4 1.4MHz 64QAM CH-Middle



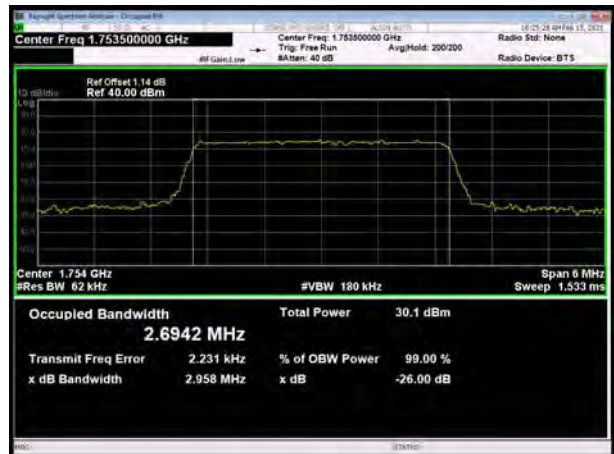
LTE Band 4 3MHz 64QAM CH-Middle



LTE Band 4 1.4MHz 64QAM CH-High

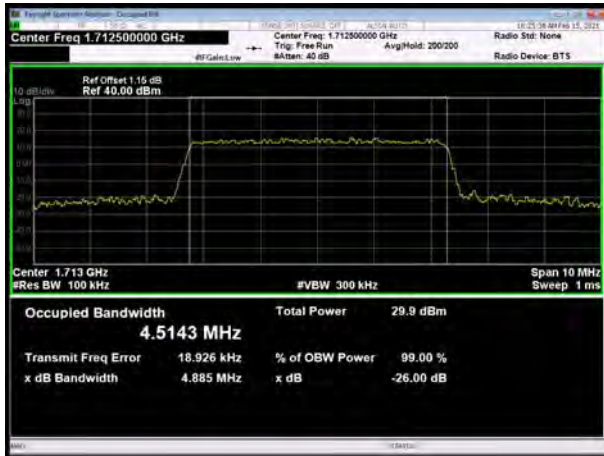


LTE Band 4 3MHz 64QAM CH-High

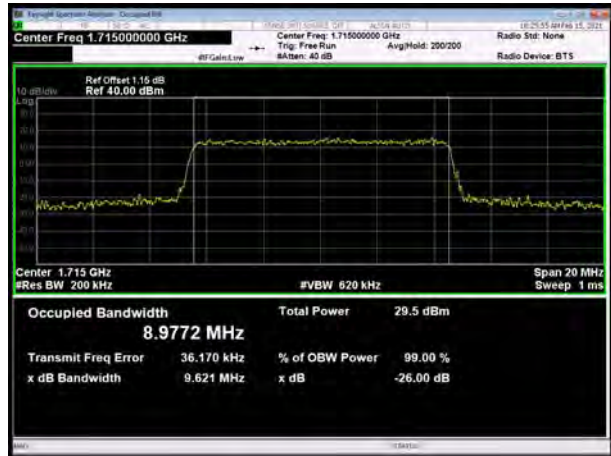




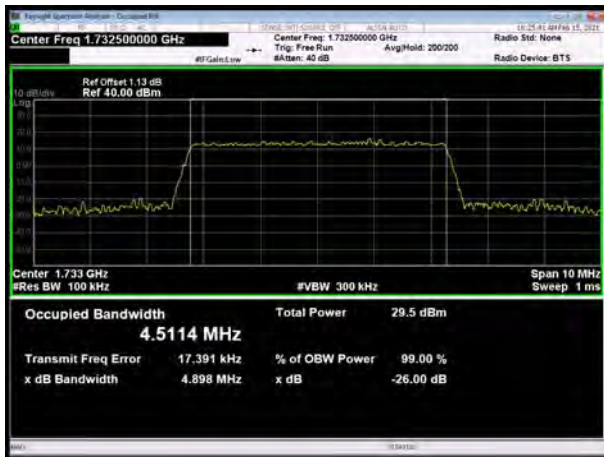
LTE Band 4 5MHz 64QAM CH-Low



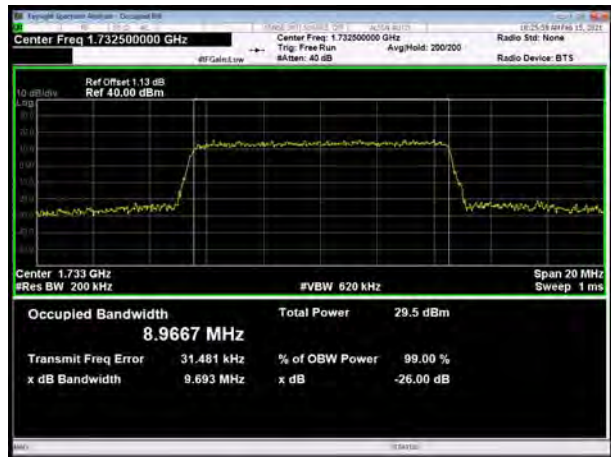
LTE Band 4 10MHz 64QAM CH-Low



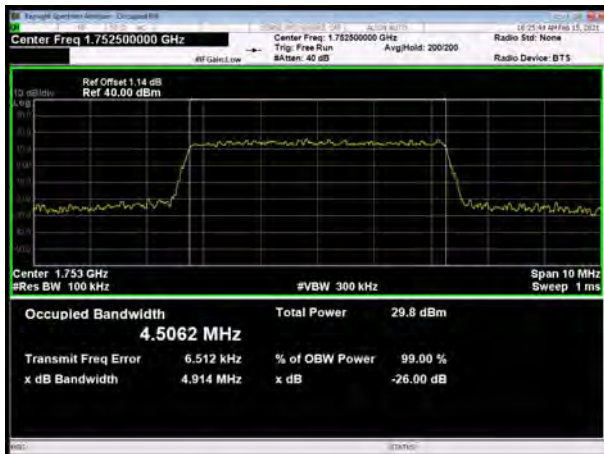
LTE Band 4 5MHz 64QAM CH-Middle



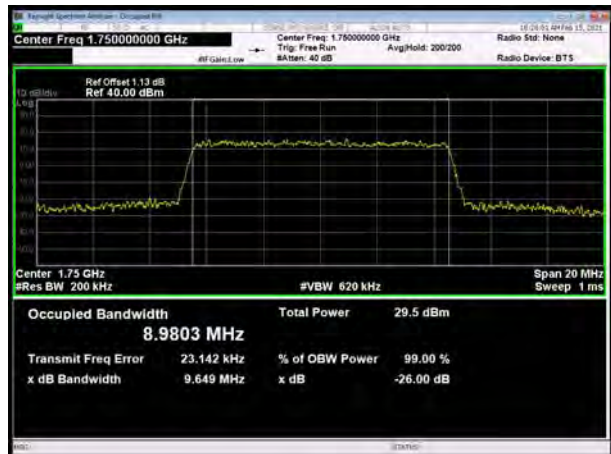
LTE Band 4 10MHz 64QAM CH-Middle



LTE Band 4 5MHz 64QAM CH-High

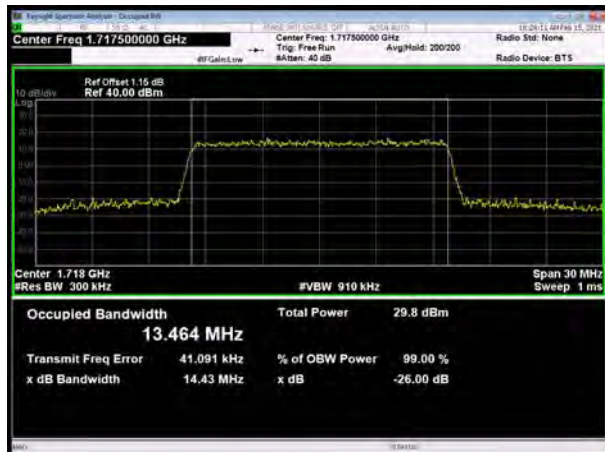


LTE Band 4 10MHz 64QAM CH-High

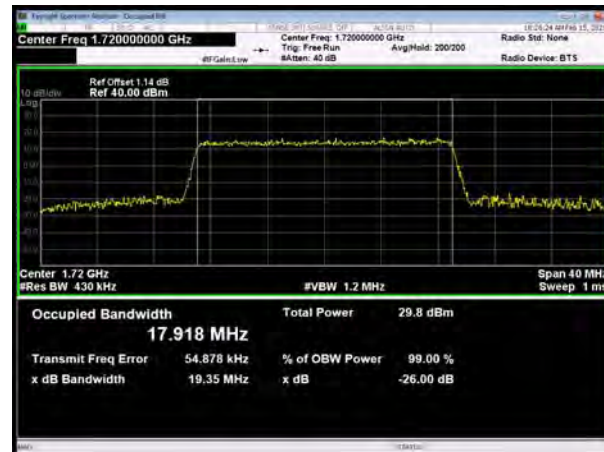




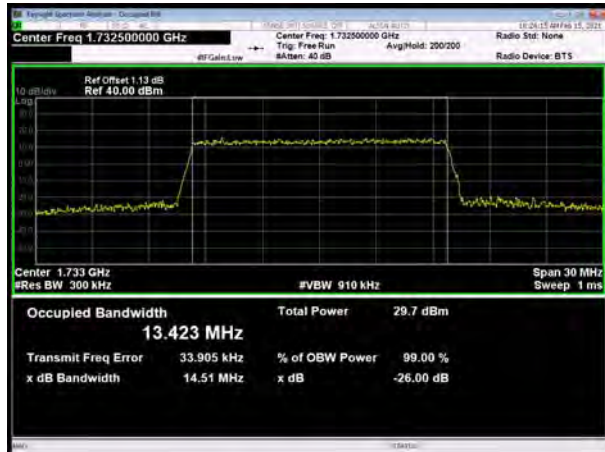
LTE Band 4 15MHz 64QAM CH-Low



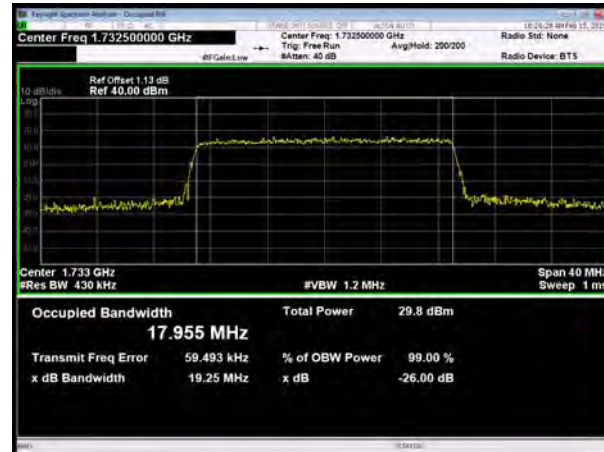
LTE Band 4 20MHz 64QAM CH-Low



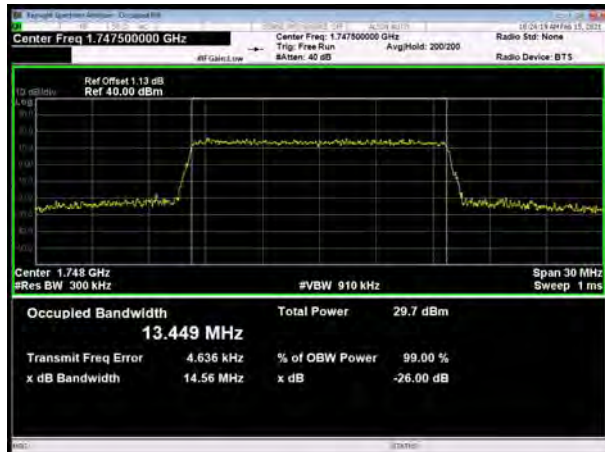
LTE Band 4 15MHz 64QAM CH-Middle



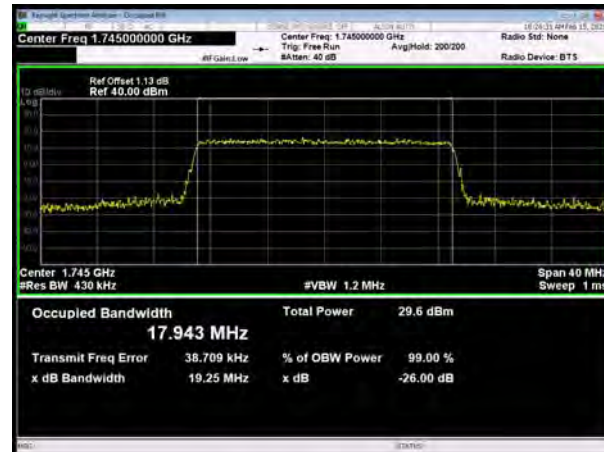
LTE Band 4 20MHz 64QAM CH-Middle



LTE Band 4 15MHz 64QAM CH-High



LTE Band 4 20MHz 64QAM CH-High





LTE Band 7 QPSK 5MHz CH-Low



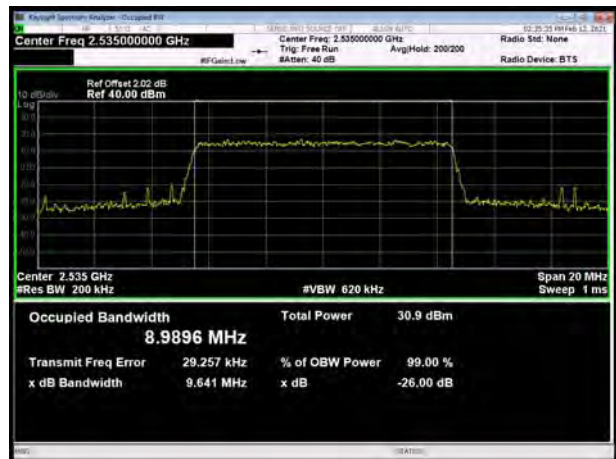
LTE Band 7 QPSK 10MHz CH-Low



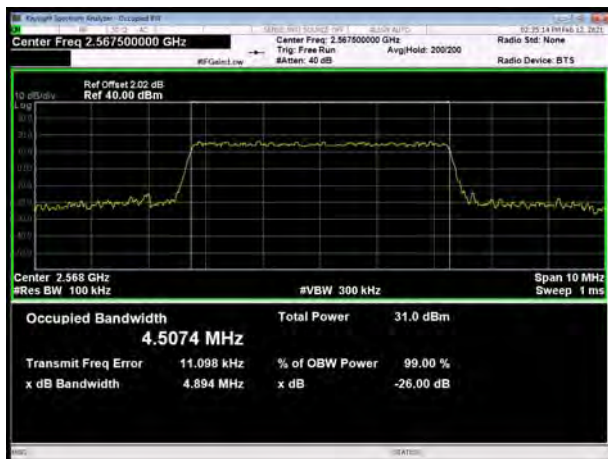
LTE Band 7 QPSK 5MHz CH-Middle



LTE Band 7 QPSK 10MHz CH-Middle



LTE Band 7 QPSK 5MHz CH-High



LTE Band 7 QPSK 10MHz CH-High





LTE Band 7 QPSK 15MHz CH-Low



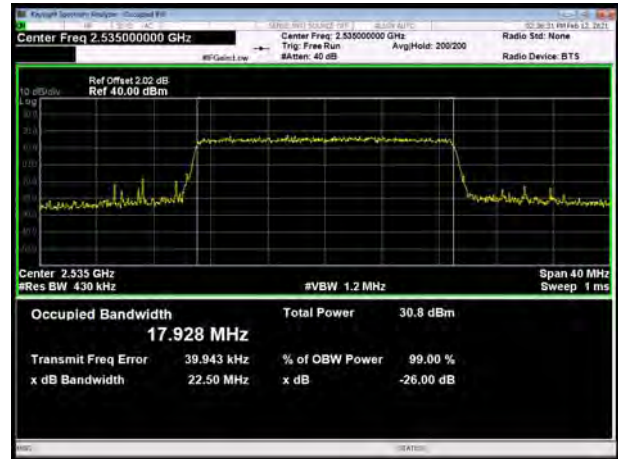
LTE Band 7 QPSK 20MHz CH-Low



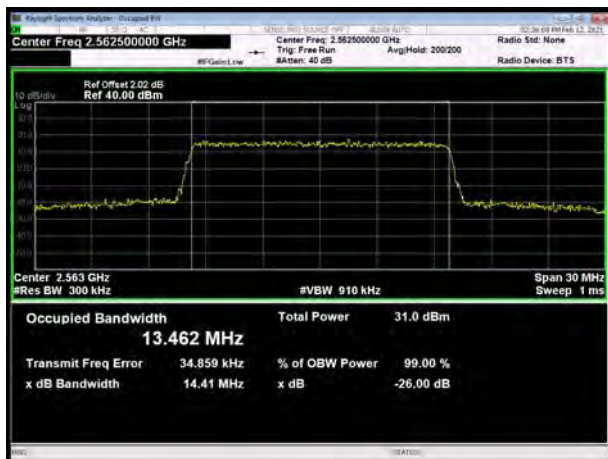
LTE Band 7 QPSK 15MHz CH-Middle



LTE Band 7 QPSK 20MHz CH-Middle



LTE Band 7 QPSK 15MHz CH-High

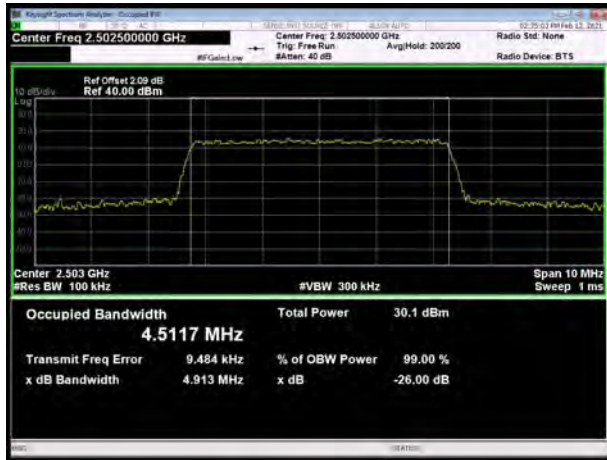


LTE Band 7 QPSK 20MHz CH-High

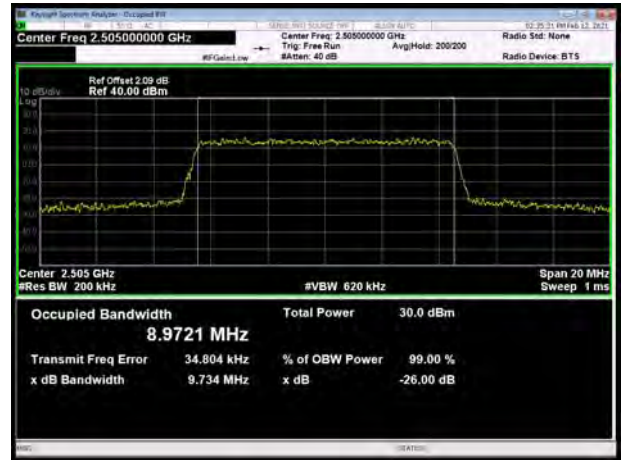




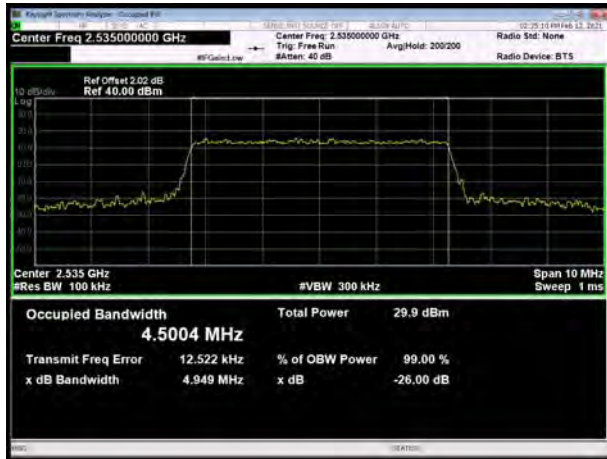
LTE Band 7 16QAM 5MHz CH-Low



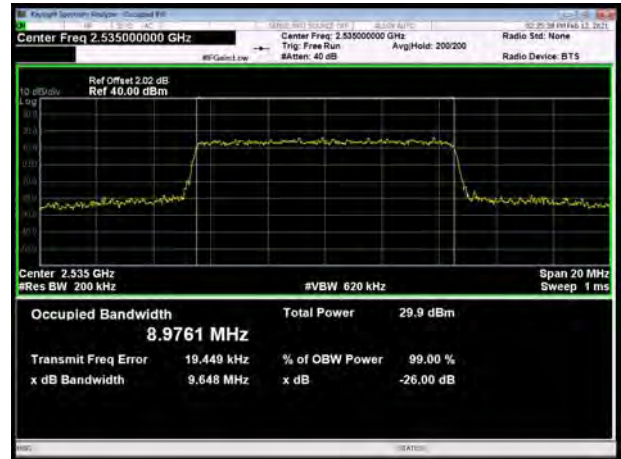
LTE Band 7 16QAM 10MHz CH-Low



LTE Band 7 16QAM 5MHz CH-Middle



LTE Band 7 16QAM 10MHz CH-Middle



LTE Band 7 16QAM 5MHz CH-High

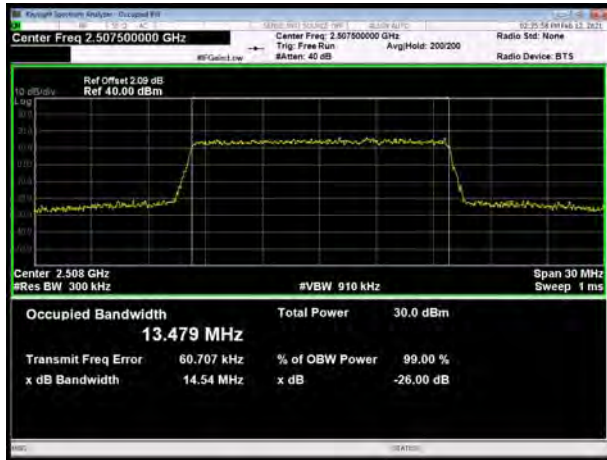


LTE Band 7 16QAM 10MHz CH-High

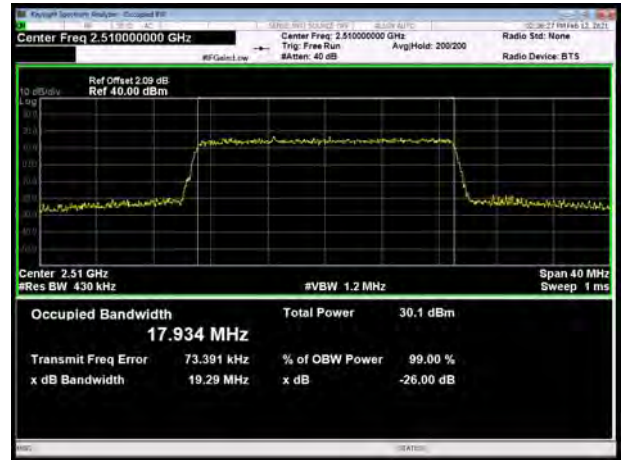




LTE Band 7 16QAM 15MHz CH-Low



LTE Band 7 16QAM 20MHz CH-Low



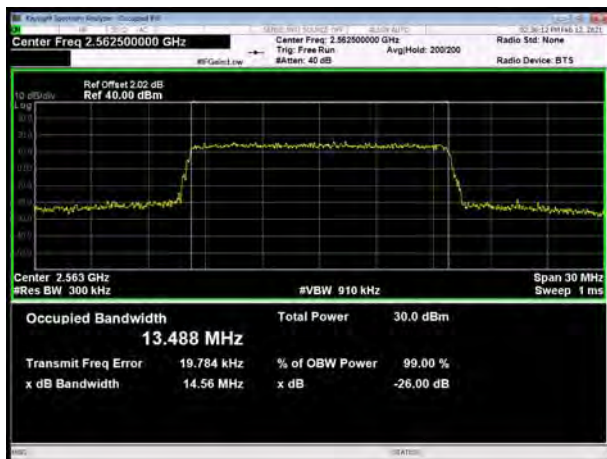
LTE Band 7 16QAM 15MHz CH-Middle



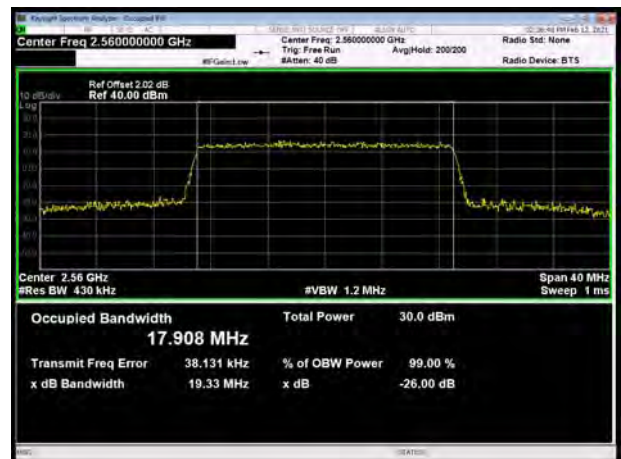
LTE Band 7 16QAM 20MHz CH-Middle



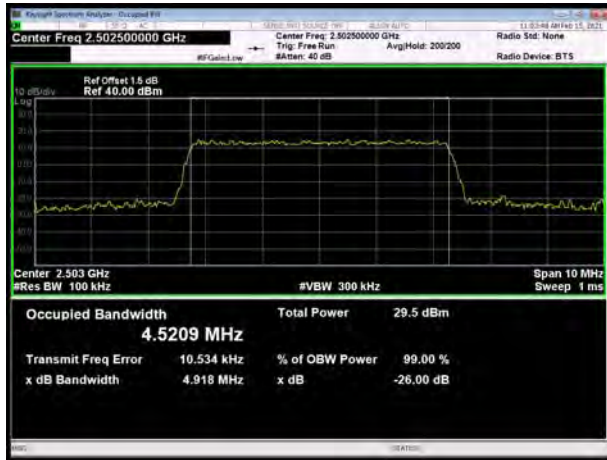
LTE Band 7 16QAM 15MHz CH-High



LTE Band 7 16QAM 20MHz CH-High



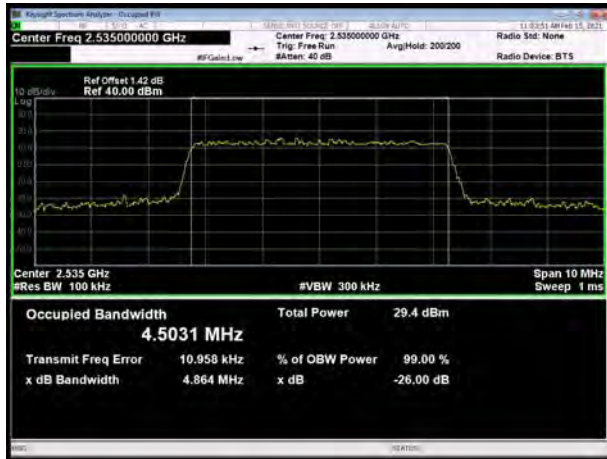
LTE Band 7 64QAM 5MHz CH-Low



LTE Band 7 64QAM 10MHz CH-Low



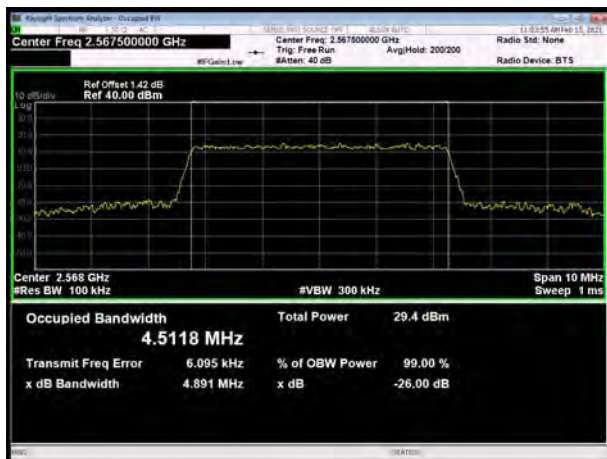
LTE Band 7 64QAM 5MHz CH-Middle



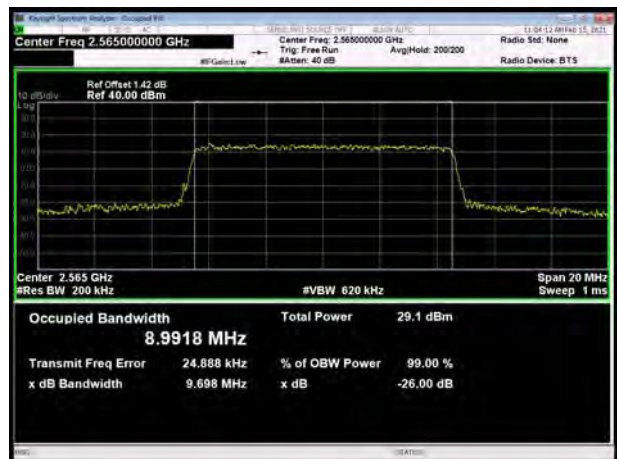
LTE Band 7 64QAM 10MHz CH-Middle



LTE Band 7 64QAM 5MHz CH-High

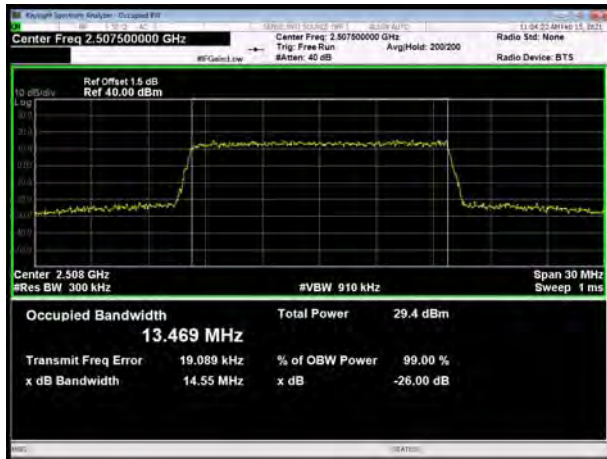


LTE Band 7 64QAM 10MHz CH-High

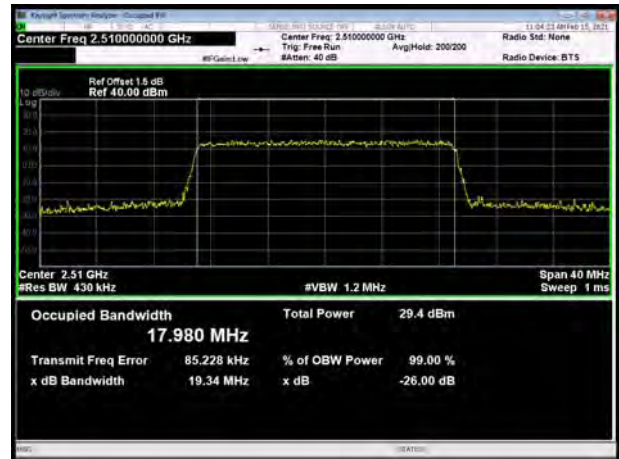




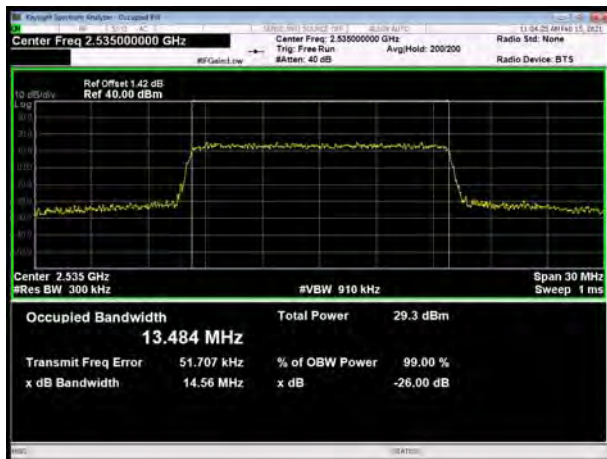
LTE Band 7 64QAM 15MHz CH-Low



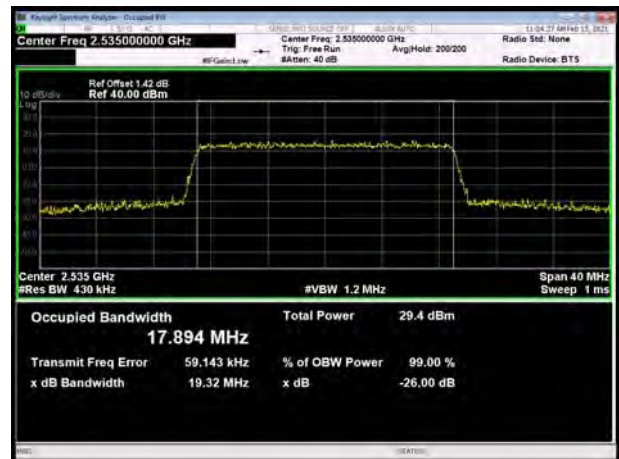
LTE Band 7 64QAM 20MHz CH-Low



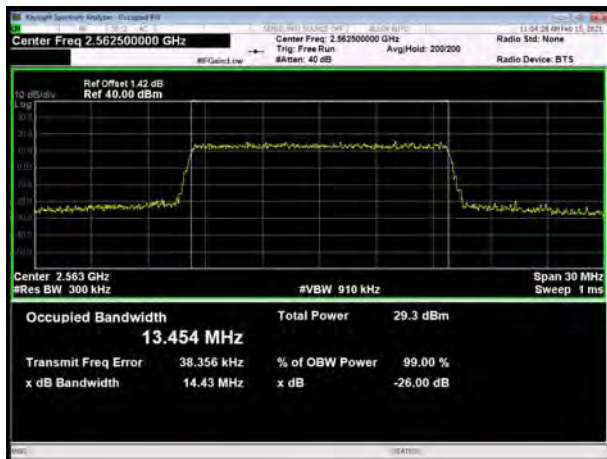
LTE Band 7 64QAM 15MHz CH-Middle



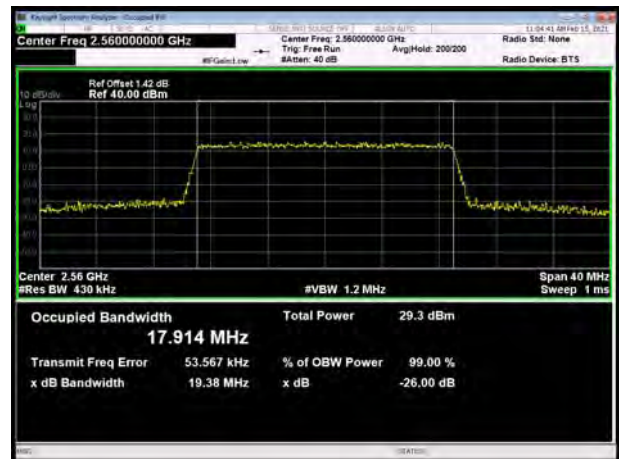
LTE Band 7 64QAM 20MHz CH-Middle



LTE Band 7 64QAM 15MHz CH-High

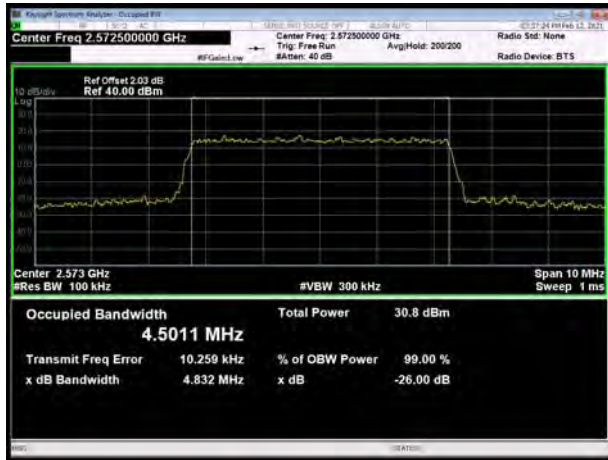


LTE Band 7 64QAM 20MHz CH-High





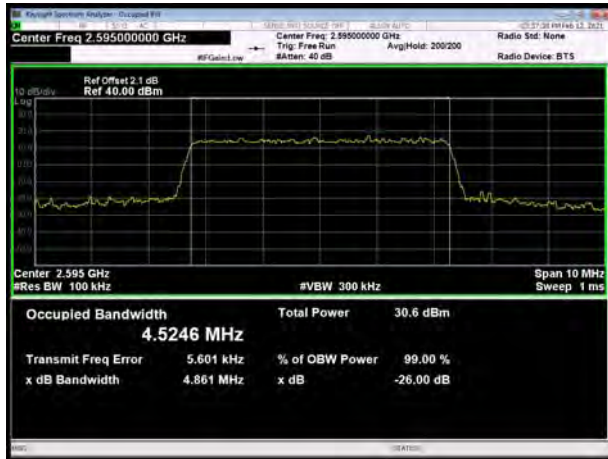
LTE Band 38 QPSK 5MHz CH-Low



LTE Band 38 QPSK 10MHz CH-Low



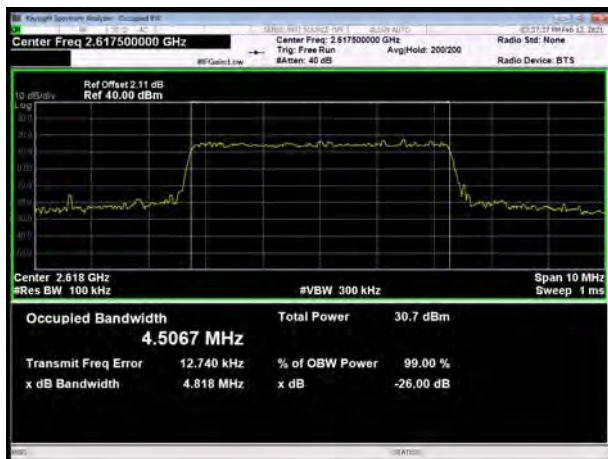
LTE Band 38 QPSK 5MHz CH-Middle



LTE Band 38 QPSK 10MHz CH-Middle



LTE Band 38 QPSK 5MHz CH-High

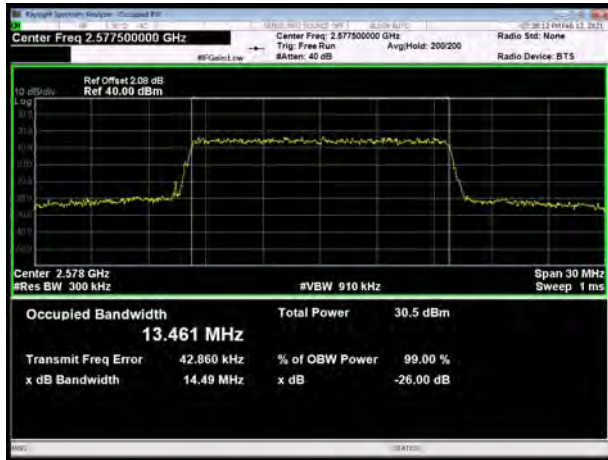


LTE Band 38 QPSK 10MHz CH-High

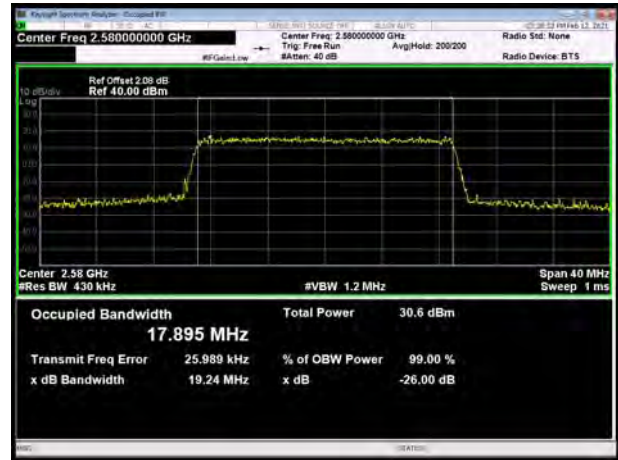




LTE Band 38 QPSK 15MHz CH-Low



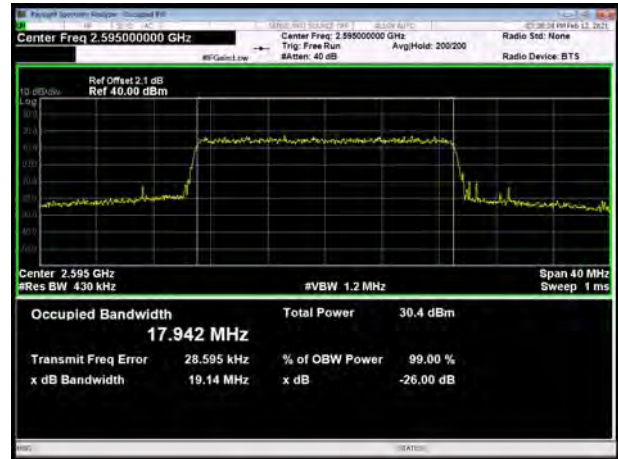
LTE Band 38 QPSK 20MHz CH-Low



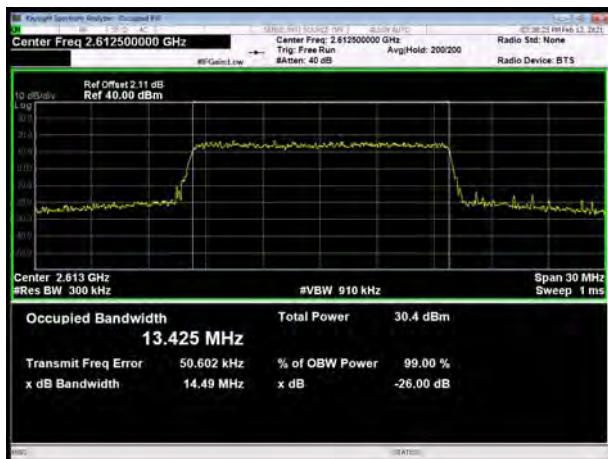
LTE Band 38 QPSK 15MHz CH-Middle



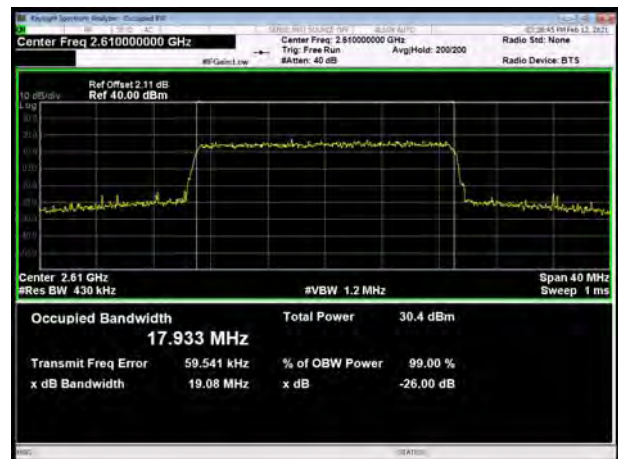
LTE Band 38 QPSK 20MHz CH-Middle



LTE Band 38 QPSK 15MHz CH-High

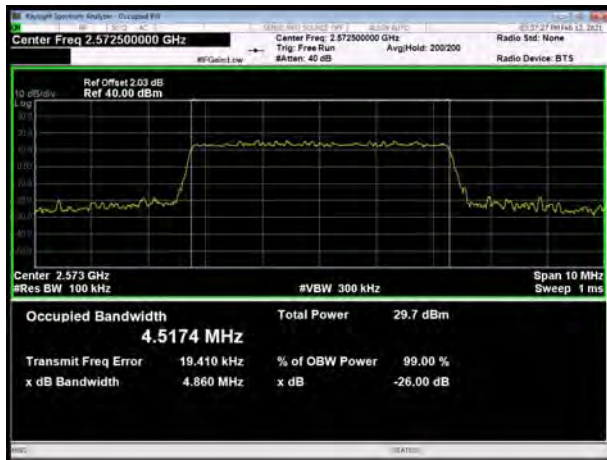


LTE Band 38 QPSK 20MHz CH-High

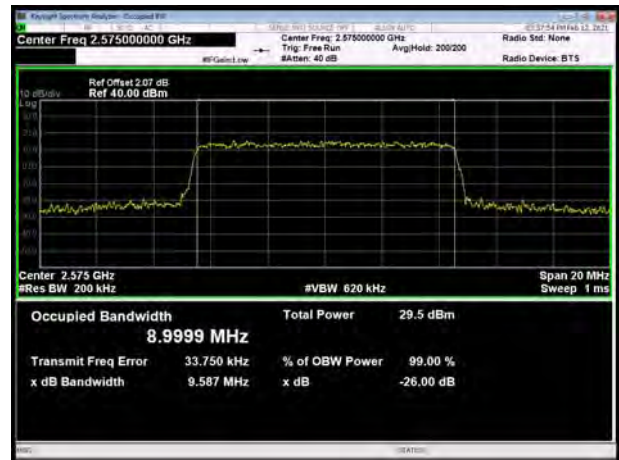




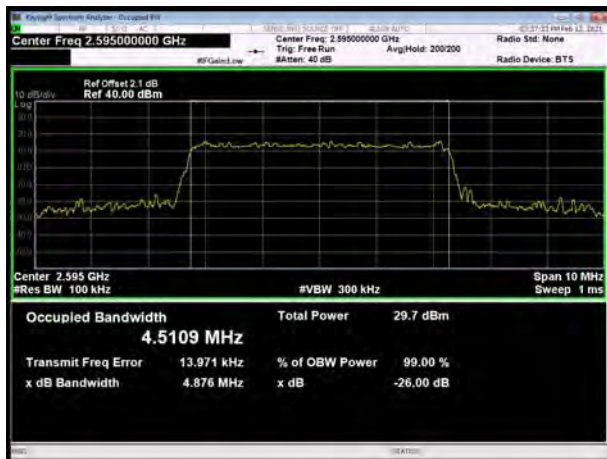
LTE Band 38 16QAM 5MHz CH-Low



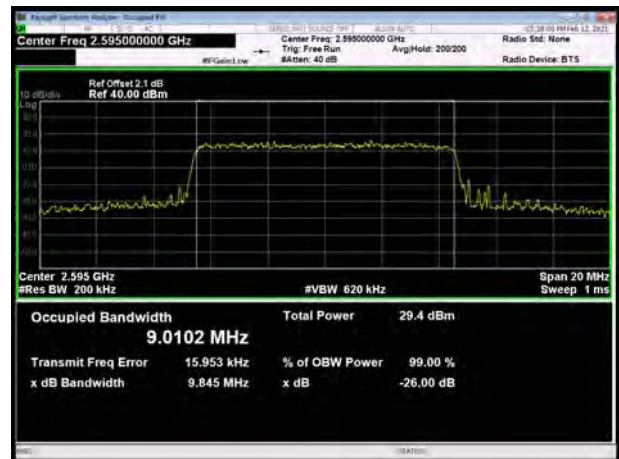
LTE Band 38 16QAM 10MHz CH-Low



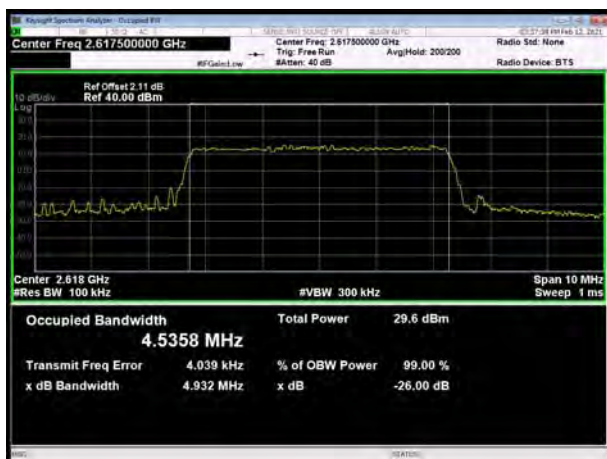
LTE Band 38 16QAM 5MHz CH-Middle



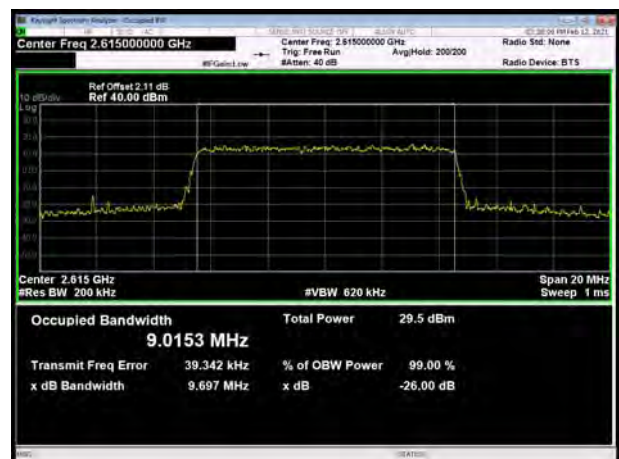
LTE Band 38 16QAM 10MHz CH-Middle



LTE Band 38 16QAM 5MHz CH-High



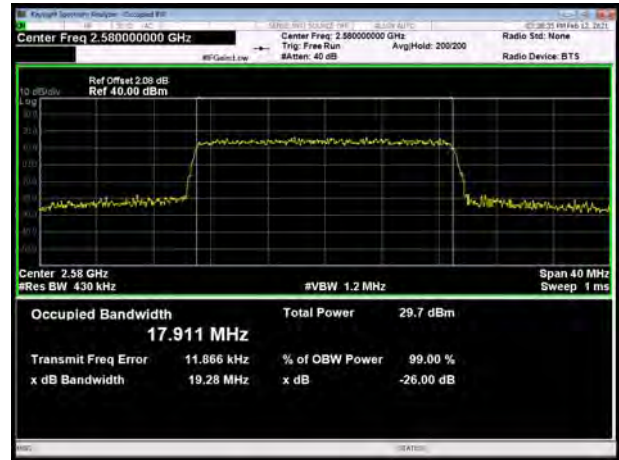
LTE Band 38 16QAM 10MHz CH-High



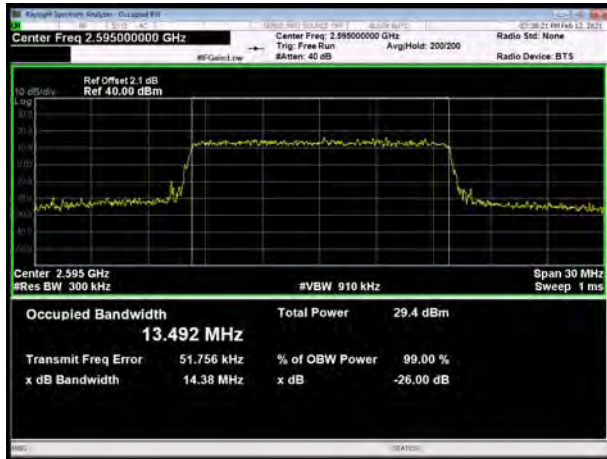
LTE Band 38 16QAM 15MHz CH-Low



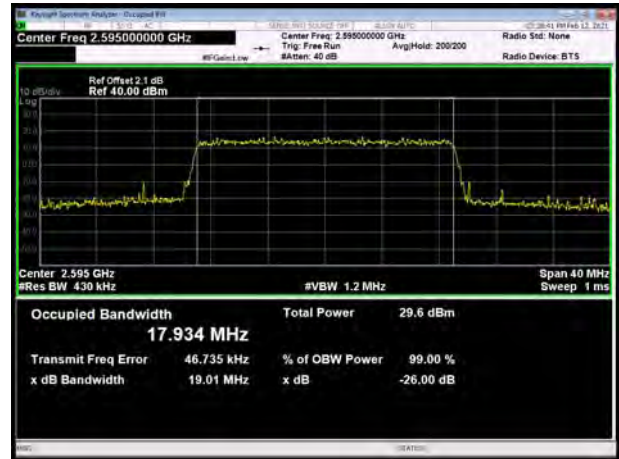
LTE Band 38 16QAM 20MHz CH-Low



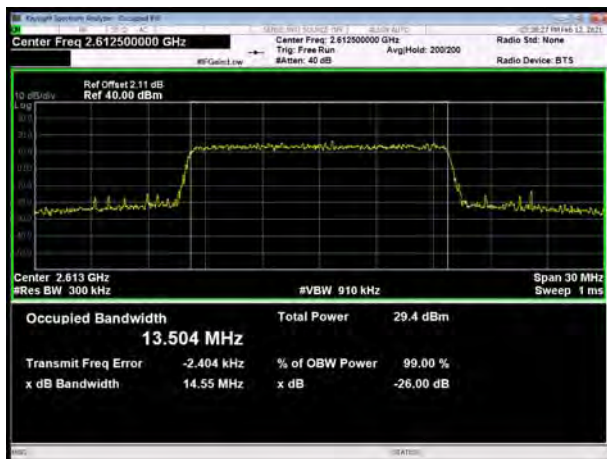
LTE Band 38 16QAM 15MHz CH-Middle



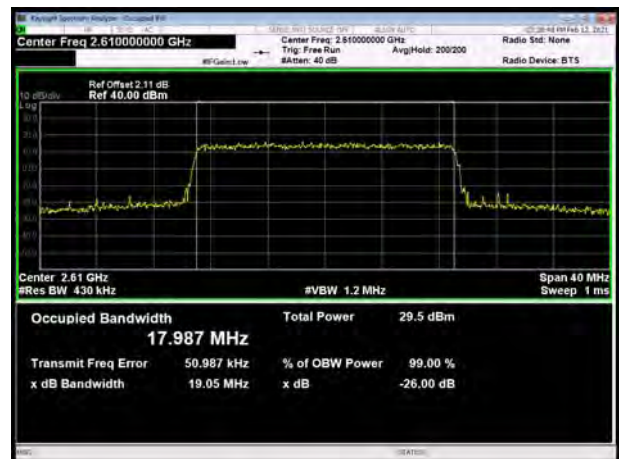
LTE Band 38 16QAM 20MHz CH-Middle



LTE Band 38 16QAM 15MHz CH-High

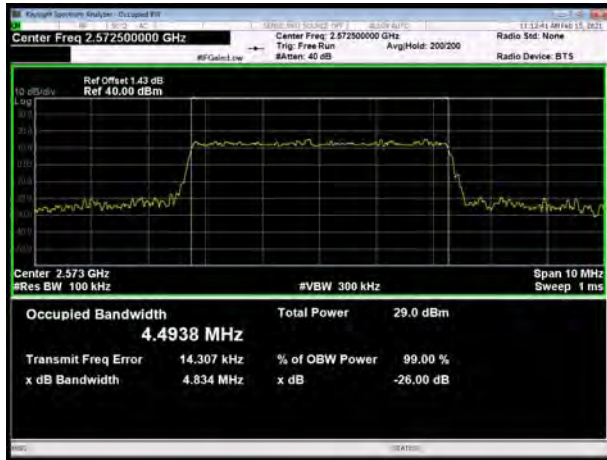


LTE Band 38 16QAM 20MHz CH-High

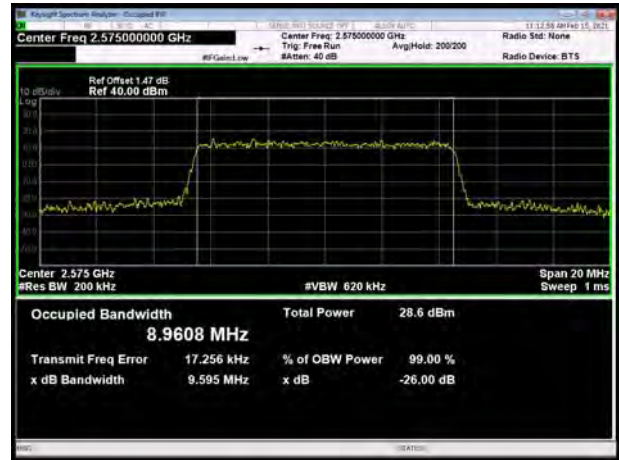




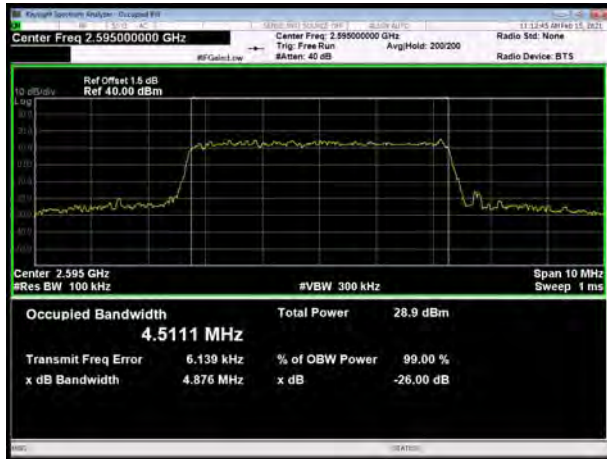
LTE Band 38 64QAM 5MHz CH-Low



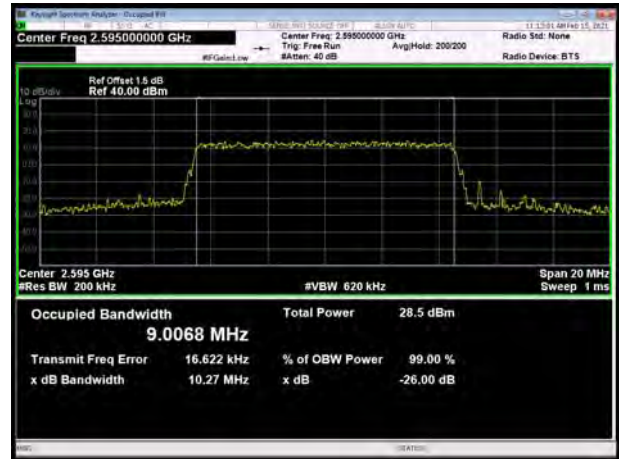
LTE Band 38 64QAM 10MHz CH-Low



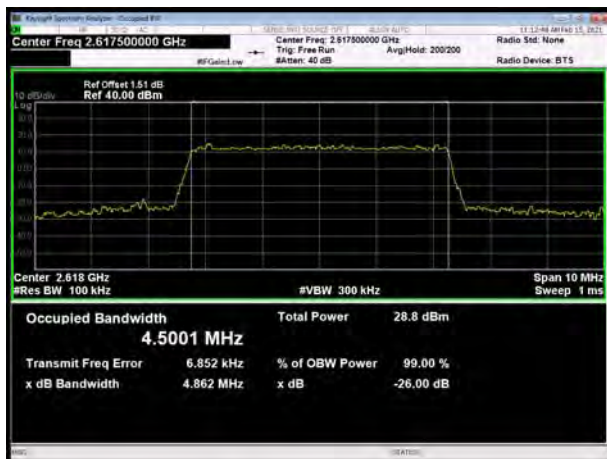
LTE Band 38 64QAM 5MHz CH-Middle



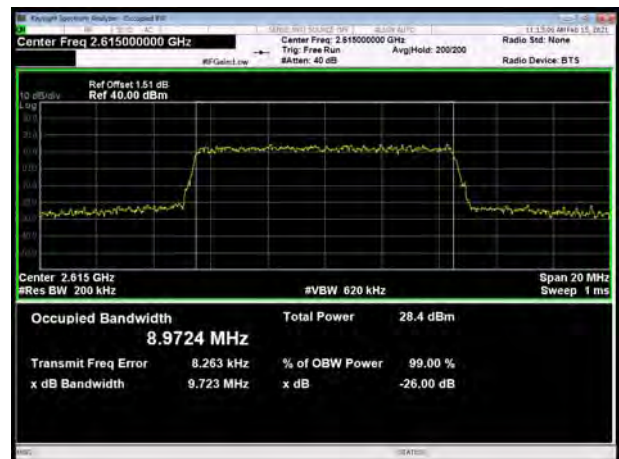
LTE Band 38 64QAM 10MHz CH-Middle



LTE Band 38 64QAM 5MHz CH-High

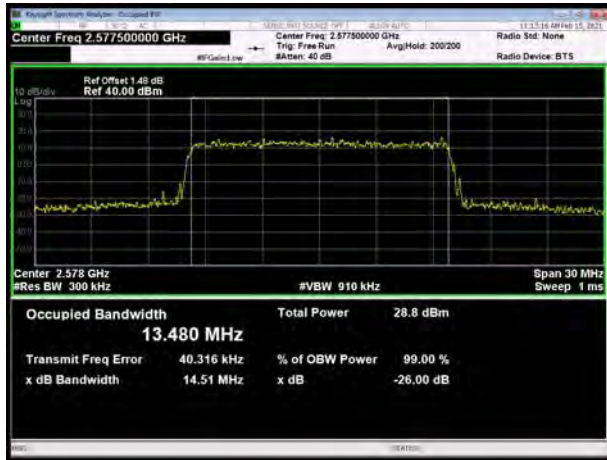


LTE Band 38 64QAM 10MHz CH-High

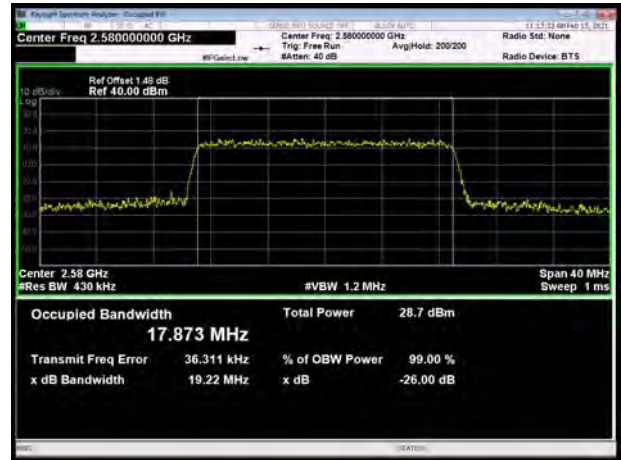




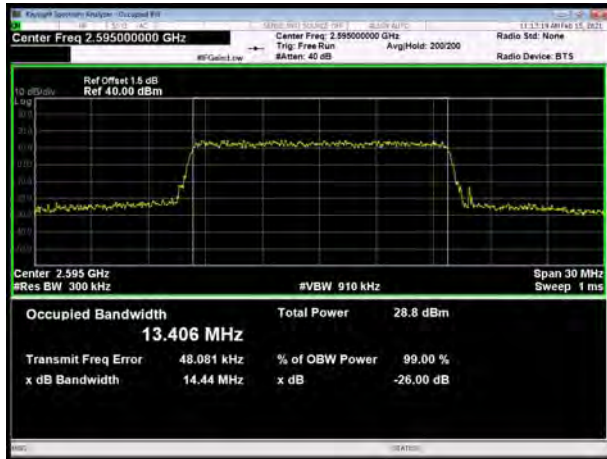
LTE Band 38 64QAM 15MHz CH-Low



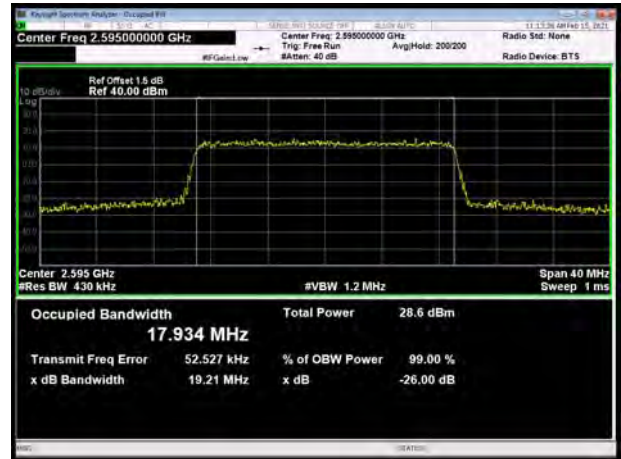
LTE Band 38 64QAM 20MHz CH-Low



LTE Band 38 64QAM 15MHz CH-Middle



LTE Band 38 64QAM 20MHz CH-Middle



LTE Band 38 64QAM 15MHz CH-High



LTE Band 38 64QAM 20MHz CH-High





LTE Band 41 QPSK 5MHz CH-Low



LTE Band 41 QPSK 10MHz CH-Low



LTE Band 41 QPSK 5MHz CH-Middle



LTE Band 41 QPSK 10MHz CH-Middle



LTE Band 41 QPSK 5MHz CH-High



LTE Band 41 QPSK 10MHz CH-High





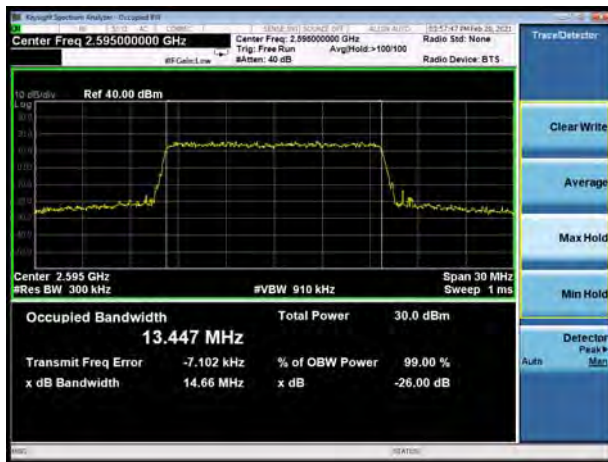
LTE Band 41 QPSK 15MHz CH-Low



LTE Band 41 QPSK 20MHz CH-Low



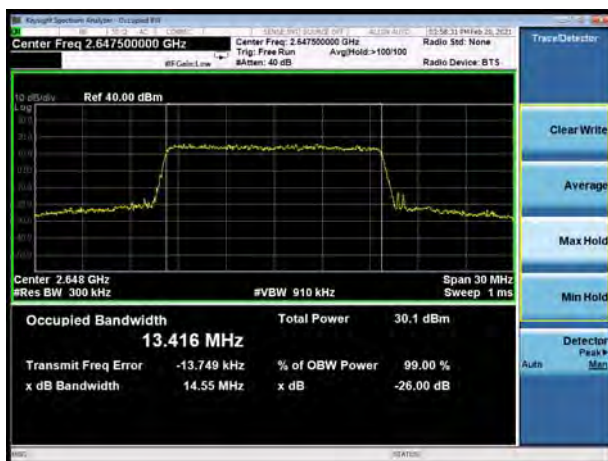
LTE Band 41 QPSK 15MHz CH-Middle



LTE Band 41 QPSK 20MHz CH-Middle



LTE Band 41 QPSK 15MHz CH-High



LTE Band 41 QPSK 20MHz CH-High





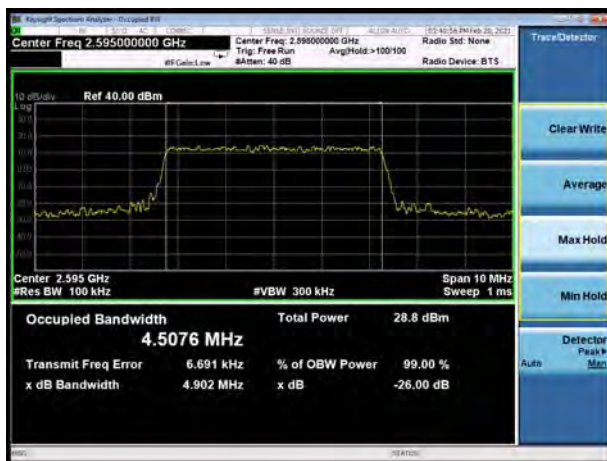
LTE Band 41 16QAM 5MHz CH-Low



LTE Band 41 16QAM 10MHz CH-Low



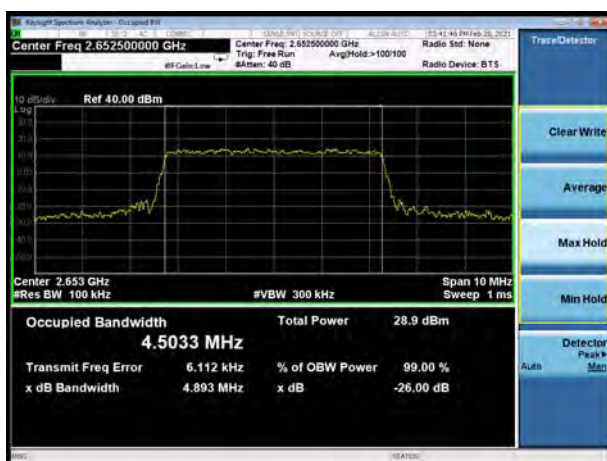
LTE Band 41 16QAM 5MHz CH-Middle



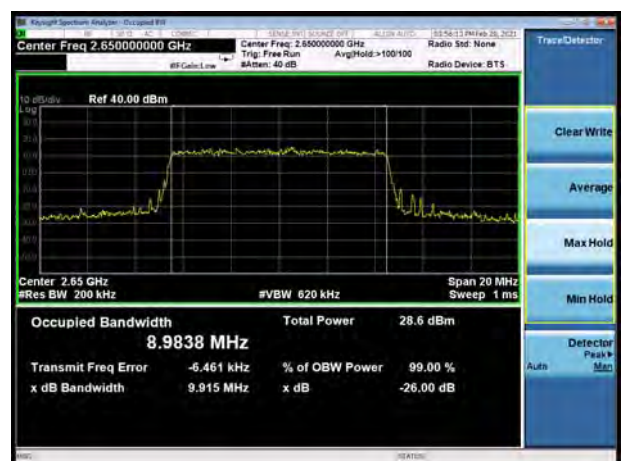
LTE Band 41 16QAM 10MHz CH-Middle



LTE Band 41 16QAM 5MHz CH-High



LTE Band 41 16QAM 10MHz CH-High

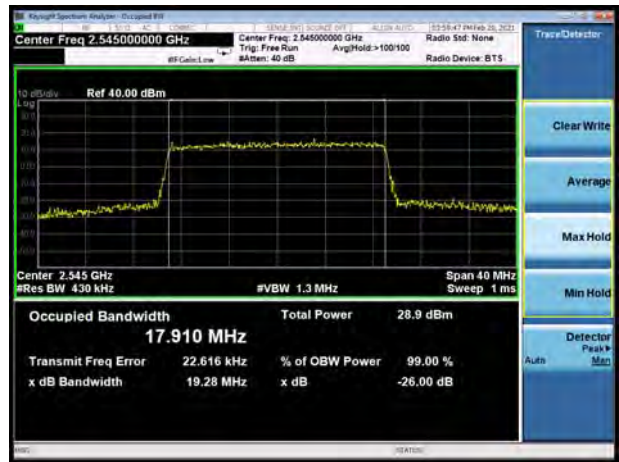




LTE Band 41 16QAM 15MHz CH-Low



LTE Band 41 16QAM 20MHz CH-Low



LTE Band 41 16QAM 15MHz CH-Middle



LTE Band 41 16QAM 20MHz CH-Middle



LTE Band 41 16QAM 15MHz CH-High

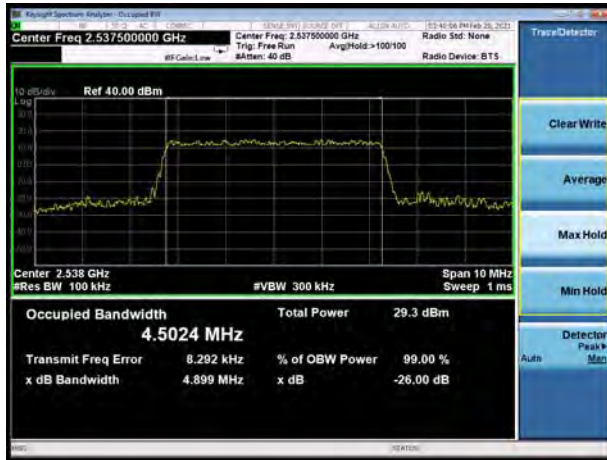


LTE Band 41 16QAM 20MHz CH-High





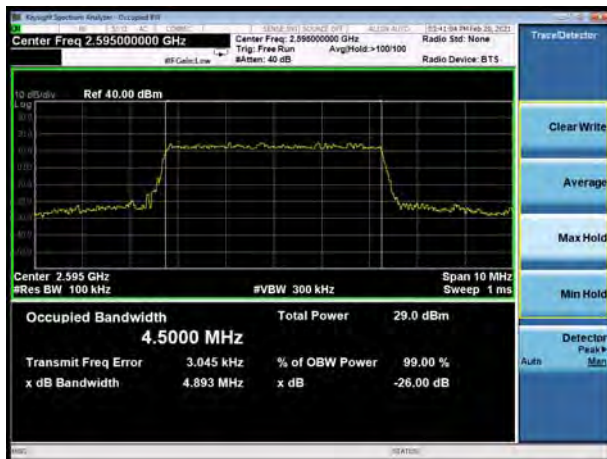
LTE Band 41 64QAM 5MHz CH-Low



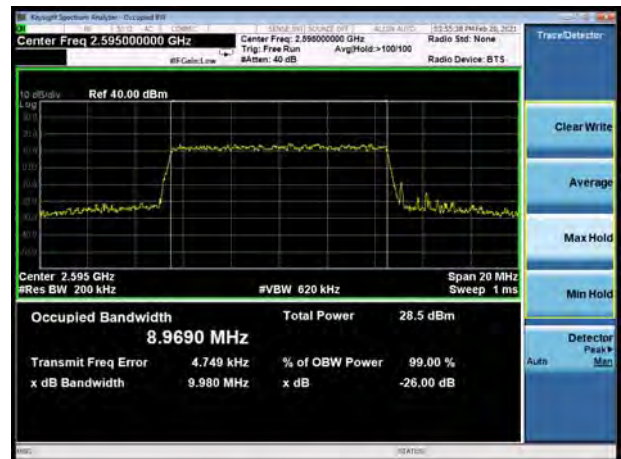
LTE Band 41 64QAM 10MHz CH-Low



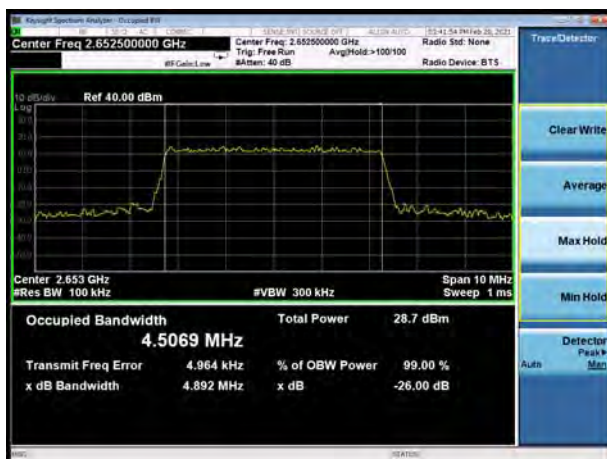
LTE Band 41 64QAM 5MHz CH-Middle



LTE Band 41 64QAM 10MHz CH-Middle



LTE Band 41 64QAM 5MHz CH-High



LTE Band 41 64QAM 10MHz CH-High





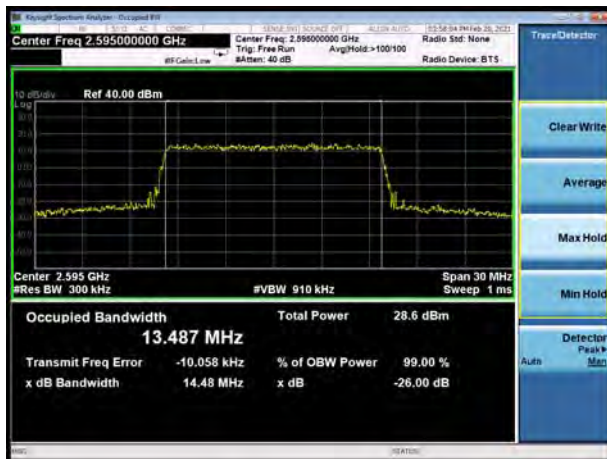
LTE Band 41 64QAM 15MHz CH-Low



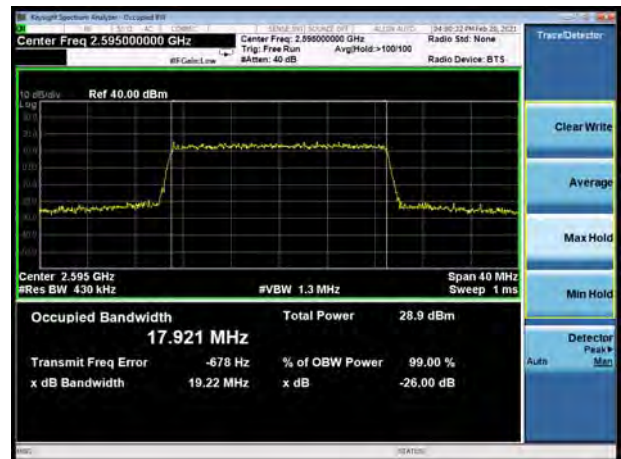
LTE Band 41 64QAM 20MHz CH-Low



LTE Band 41 64QAM 15MHz CH-Middle



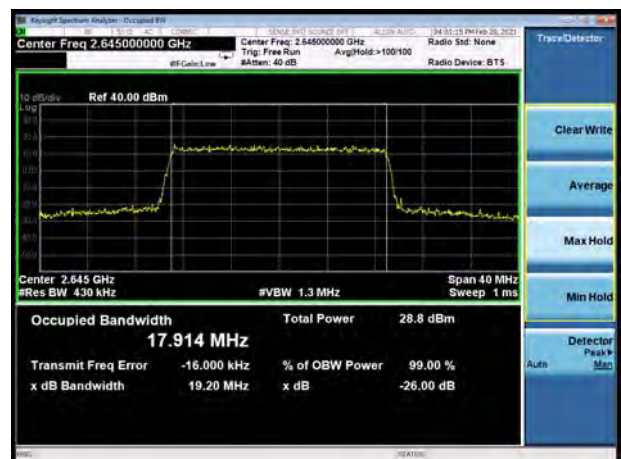
LTE Band 41 64QAM 20MHz CH-Middle



LTE Band 41 64QAM 15MHz CH-High



LTE Band 41 64QAM 20MHz CH-High

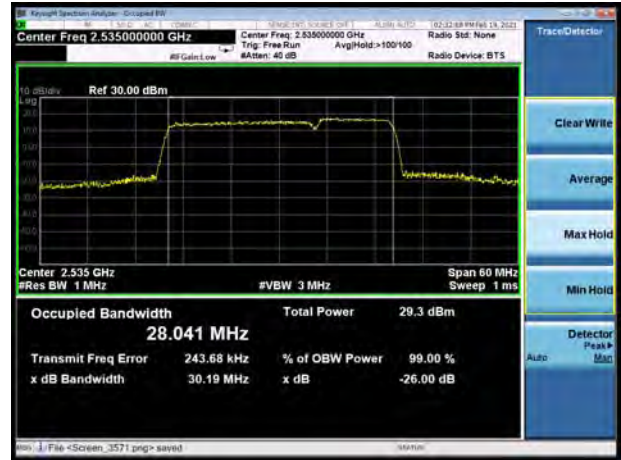




CA_7C QPSK 10MHz+20MHz



CA_7C QPSK 20MHz+10MHz



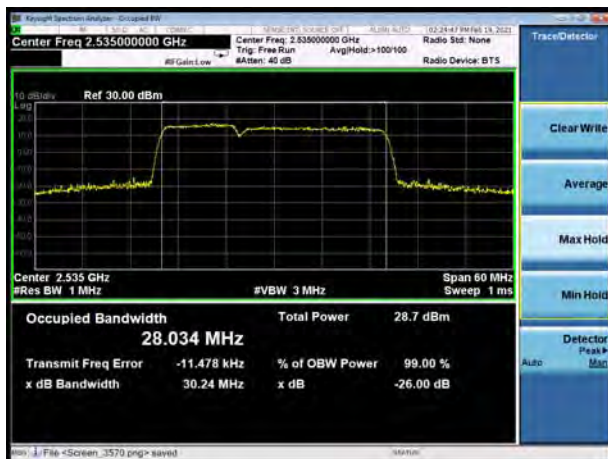
CA_7C 16QAM 10MHz+20MHz



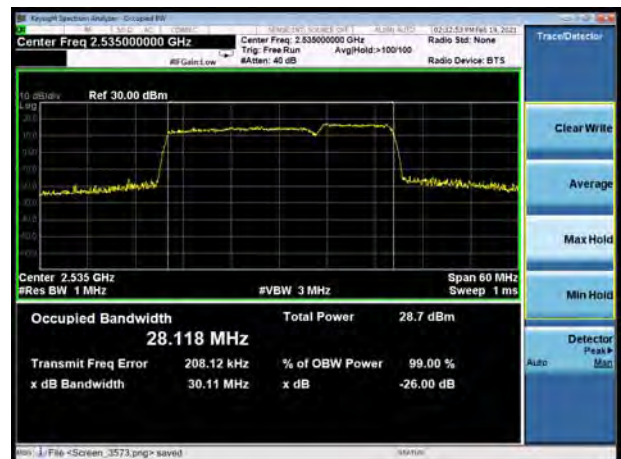
CA_7C 16QAM 20MHz+10MHz



CA_7C 64QAM 10MHz+20MHz

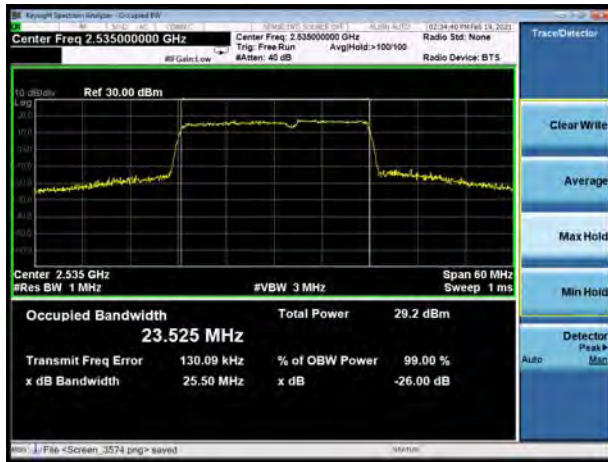


CA_7C 64QAM 20MHz+10MHz





CA_7C QPSK 15MHz+10MHz



CA_7C QPSK 15MHz+15MHz



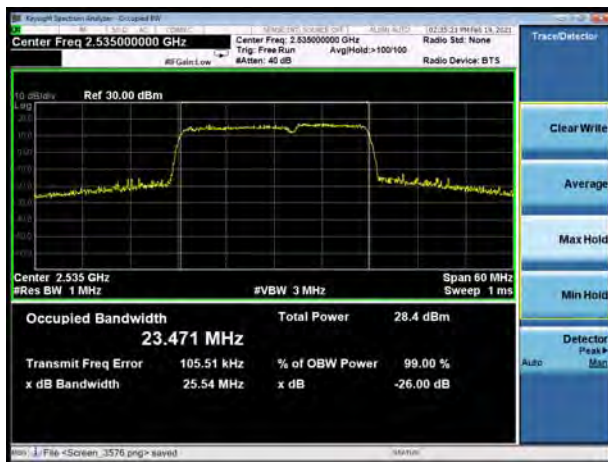
CA_7C 16QAM 15MHz+10MHz



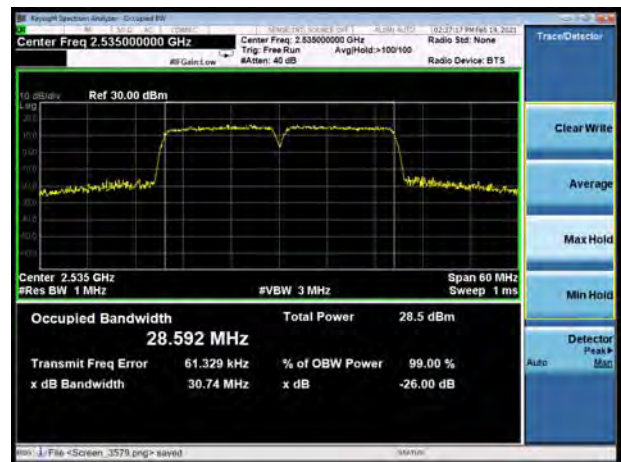
CA_7C 16QAM 15MHz+15MHz



CA_7C 64QAM 15MHz+10MHz

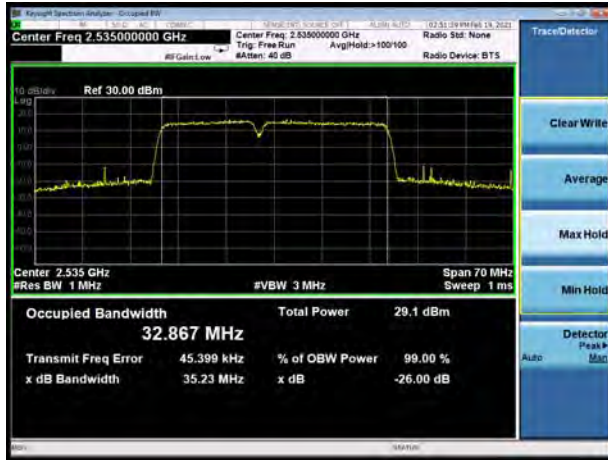


CA_7C 64QAM 15MHz+15MHz

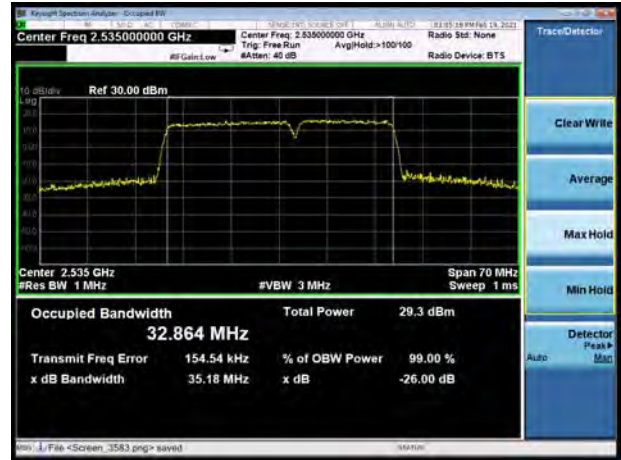




CA_7C QPSK 15MHz+20MHz



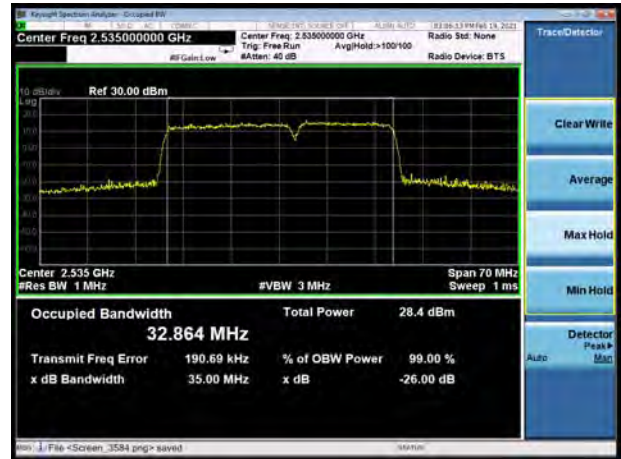
CA_7C QPSK 20MHz+15MHz



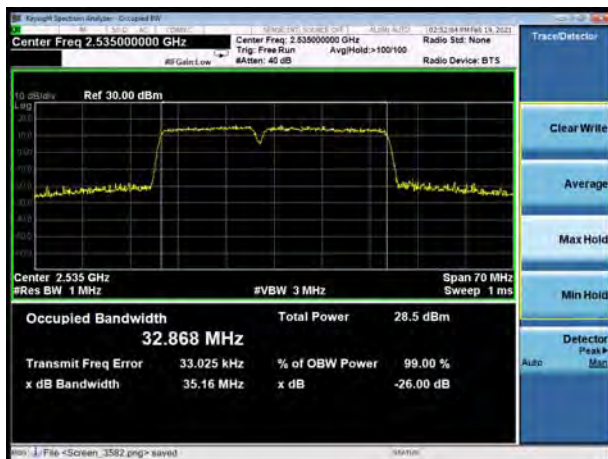
CA_7C 16QAM 15MHz+20MHz



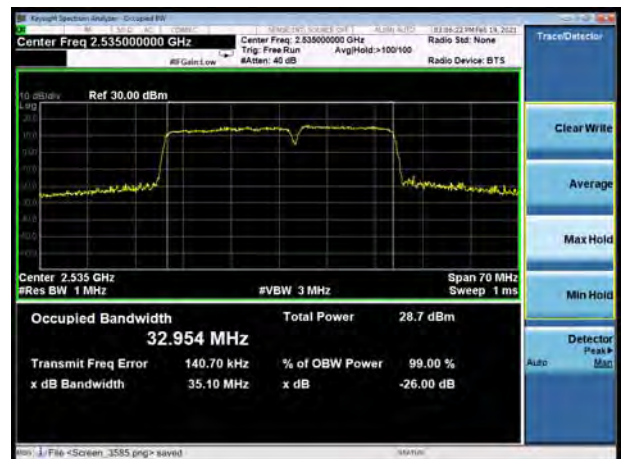
CA_7C 16QAM 20MHz+15MHz



CA_7C 64QAM 15MHz+20MHz



CA_7C 64QAM 20MHz+15MHz





CA_7C QPSK 20MHz+20MHz



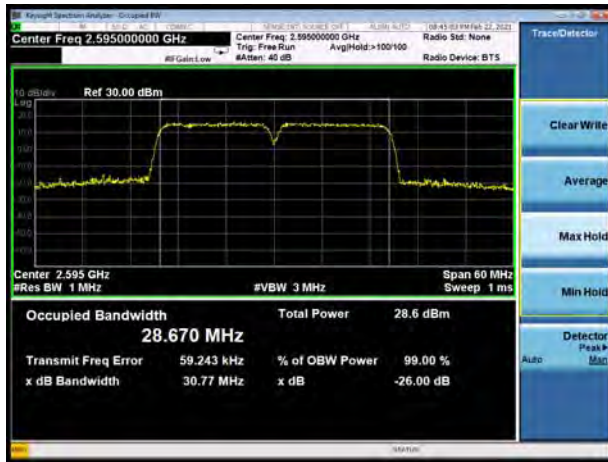
CA_7C 16QAM 20MHz+20MHz



CA_7C 64QAM 20MHz+20MHz



CA_38C QPSK 15MHz+15MHz



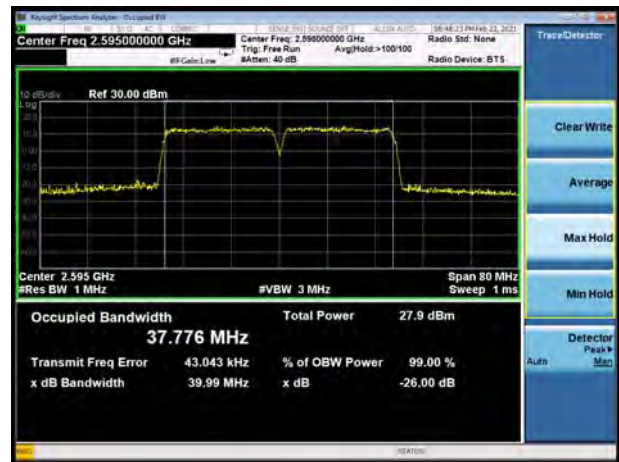
CA_38C QPSK 20MHz+20MHz



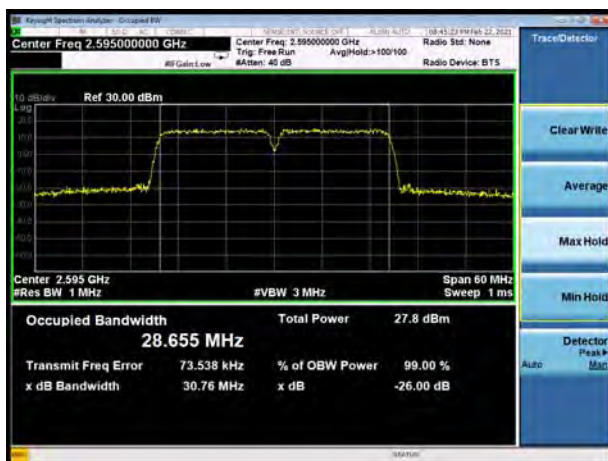
CA_38C 16QAM 15MHz+15MHz



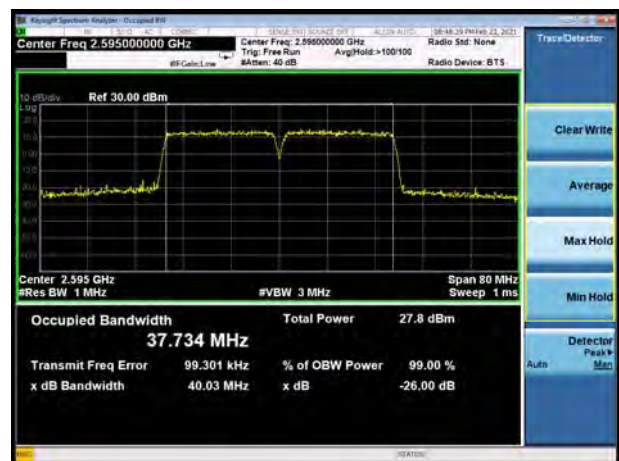
CA_38C 16QAM 20MHz+20MHz



CA_38C 64QAM 15MHz+15MHz



CA_38C 64QAM 20MHz+20MHz



5.3 Band Edge Compliance

Ambient condition

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

Method of Measurement

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

The testing follows KDB 971168 D01 v03r01 Section 6.0

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

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

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

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

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

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

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

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

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

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

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

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

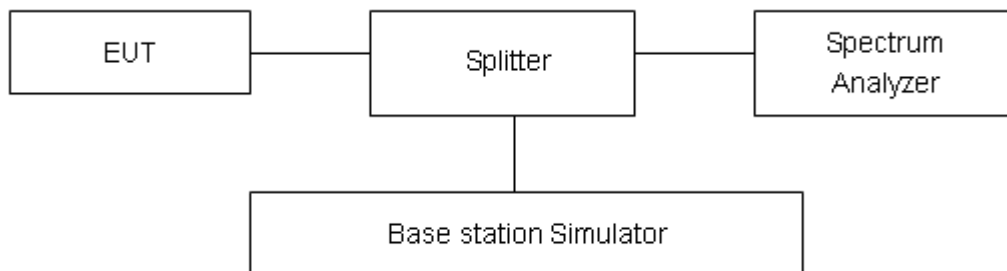
on spectrum analyzer.

Set spectrum analyzer with RMS detector.

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

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

Test Setup



Limits

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

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

Rule Part 27.53(m) (4)/ specifies that “for BRS and EBS stations. For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section. In addition, the attenuation factor shall not be less 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 + 10log(P)] (dB)
= [30 + 10log (P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

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.

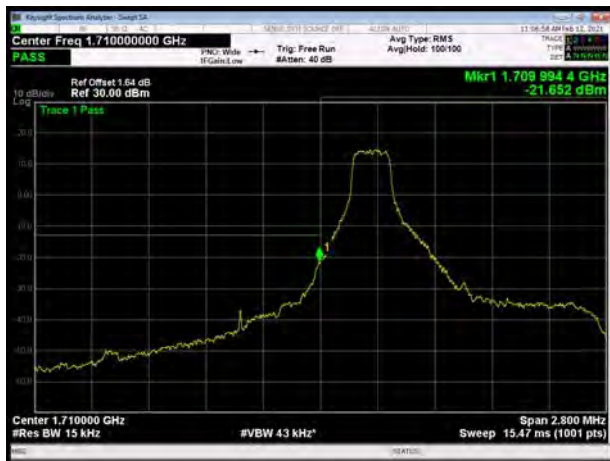
WCDMA Band IV CH-Low



WCDMA Band IV CH-High



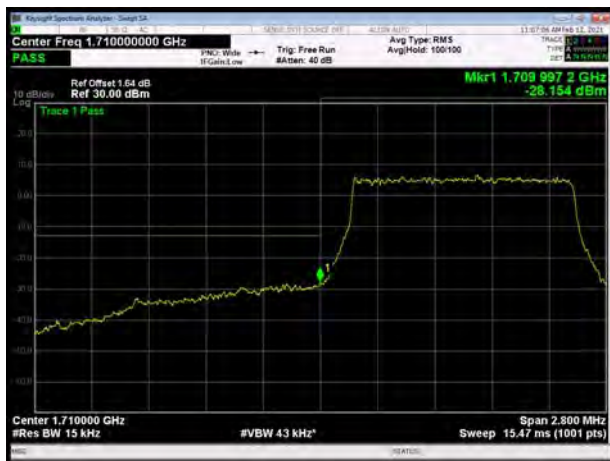
LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB



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



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

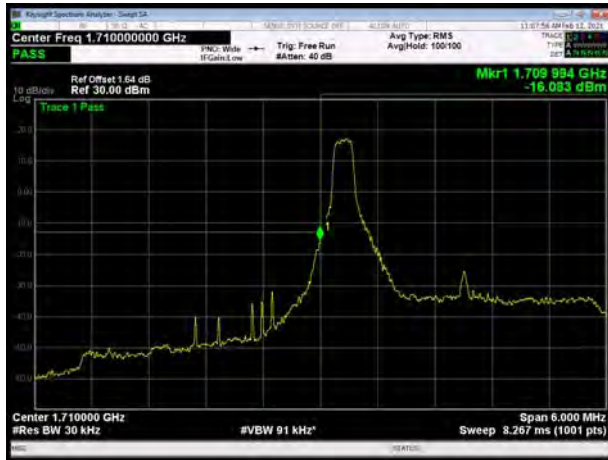


LTE Band 4 QPSK 1.4MHz CH-High, 100%RB

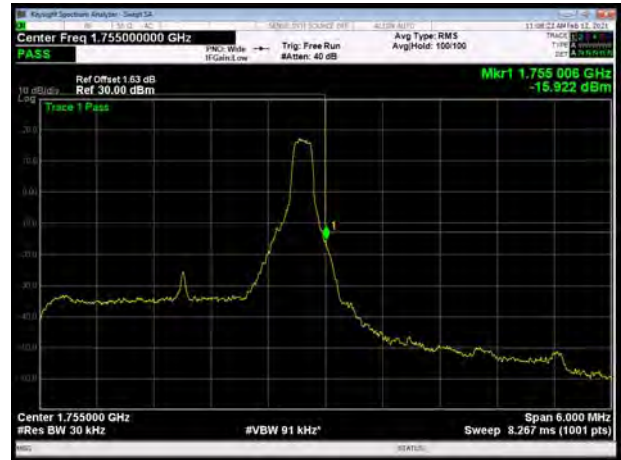




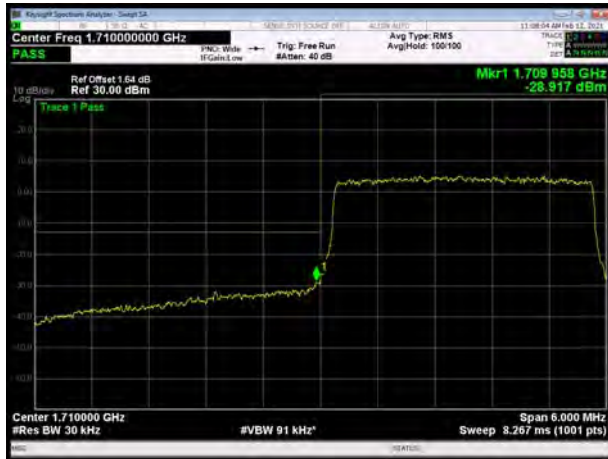
LTE Band 4 QPSK 3MHz CH-Low, 1 RB



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



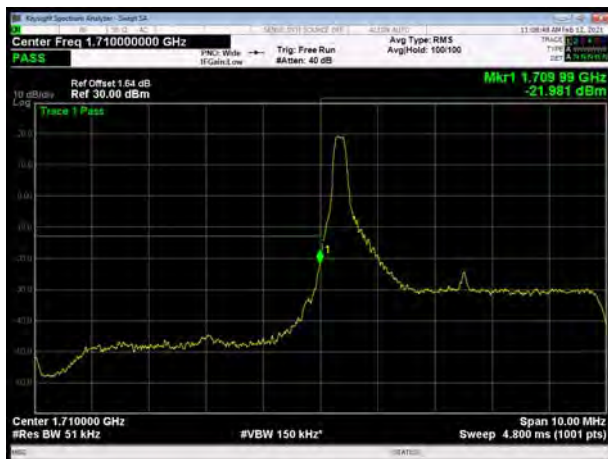
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



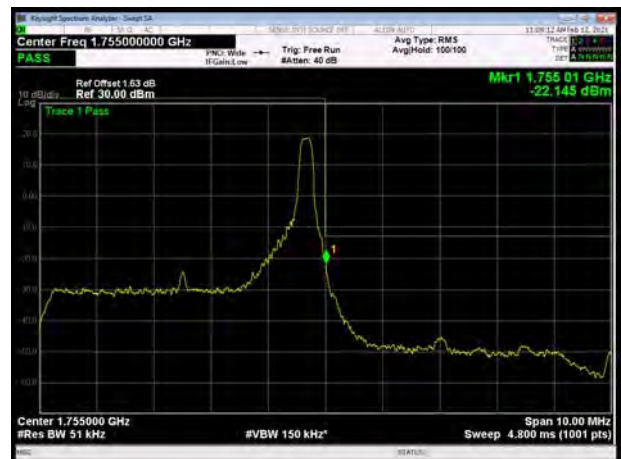
LTE Band 4 QPSK 3MHz CH-High, 100%RB



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

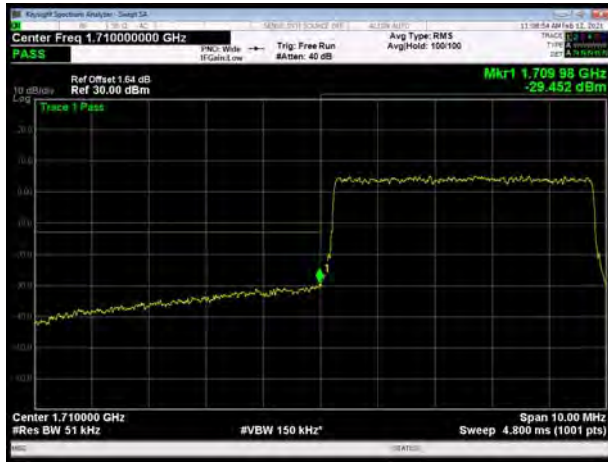


LTE Band 4 QPSK 5MHz CH-High, 1 RB

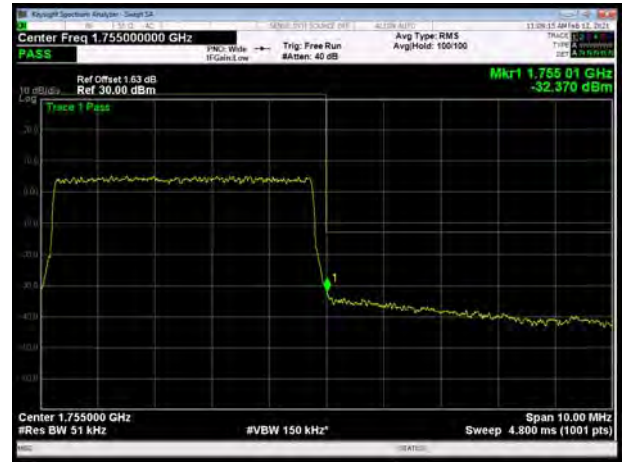




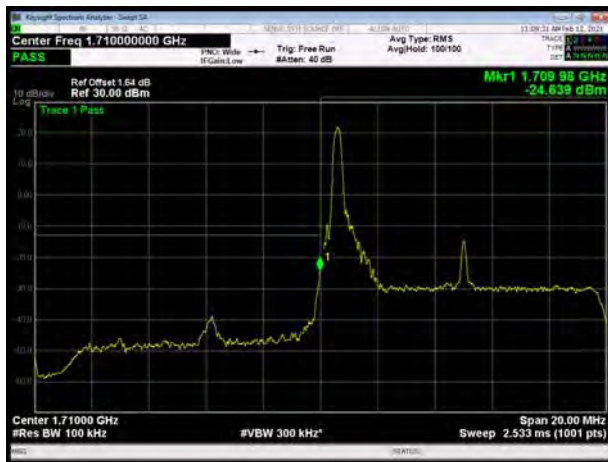
LTE Band 4 QPSK 5MHz CH-Low, 100%RB



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



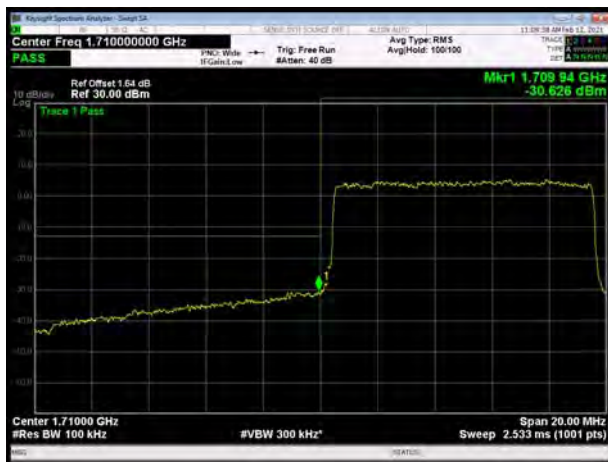
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



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



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

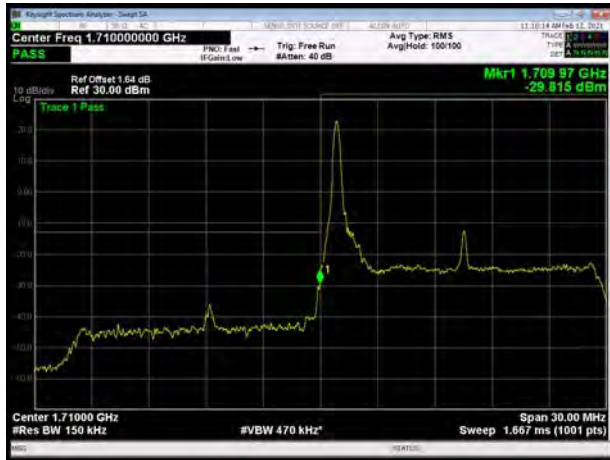


LTE Band 4 QPSK 10MHz CH-High, 100%RB

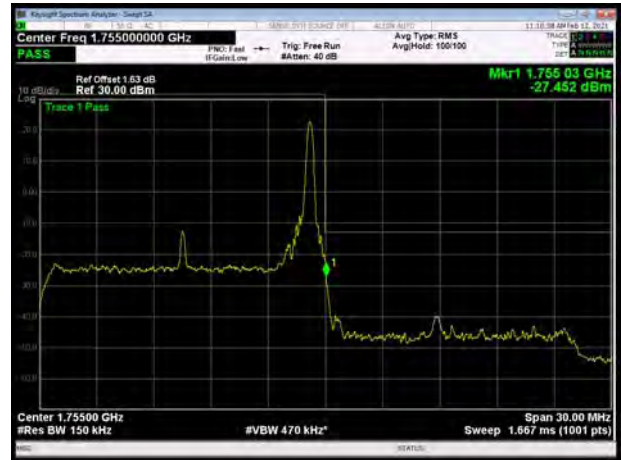




LTE Band 4 QPSK 15MHz CH-Low, 1 RB



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



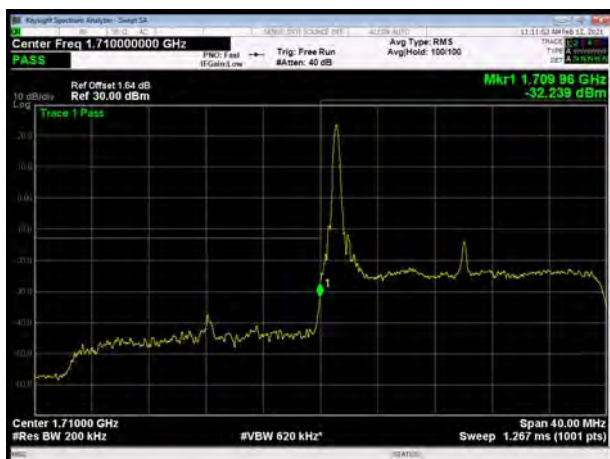
LTE Band 4 QPSK 15MHz CH-Low, 100%RB



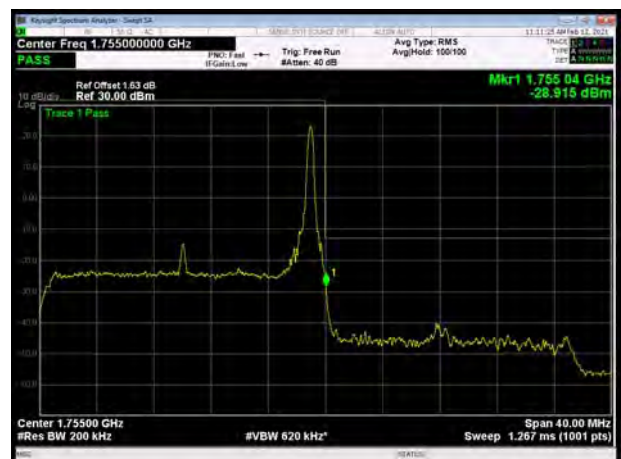
LTE Band 4 QPSK 15MHz CH-High, 100%RB



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

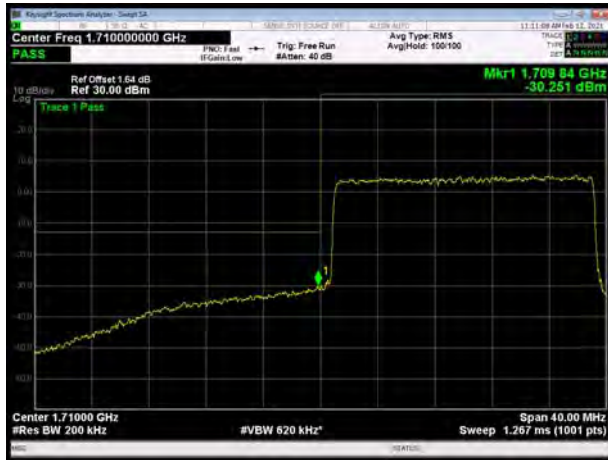


LTE Band 4 QPSK 20MHz CH-High, 1 RB

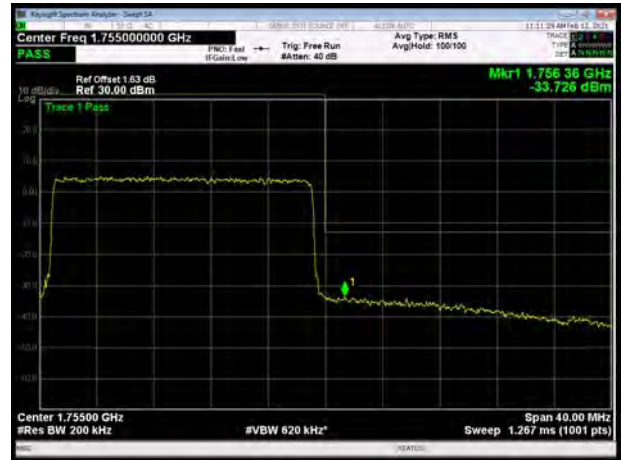




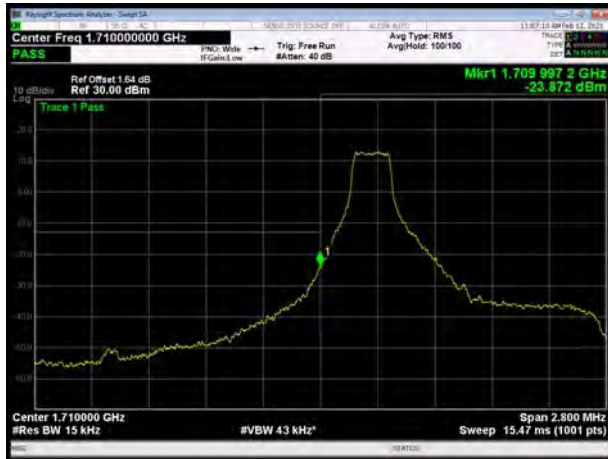
LTE Band 4 QPSK 20MHz CH-Low, 100%RB



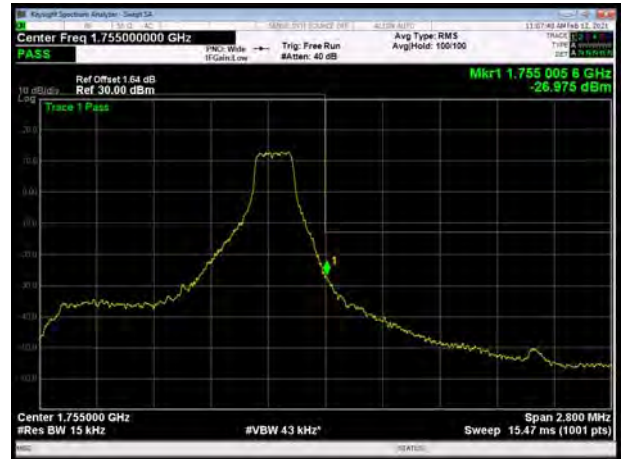
LTE Band 4 QPSK 20MHz CH-High, 100%RB



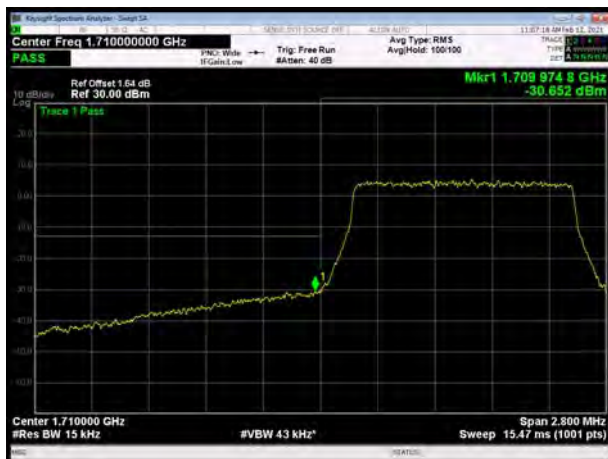
LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB



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



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

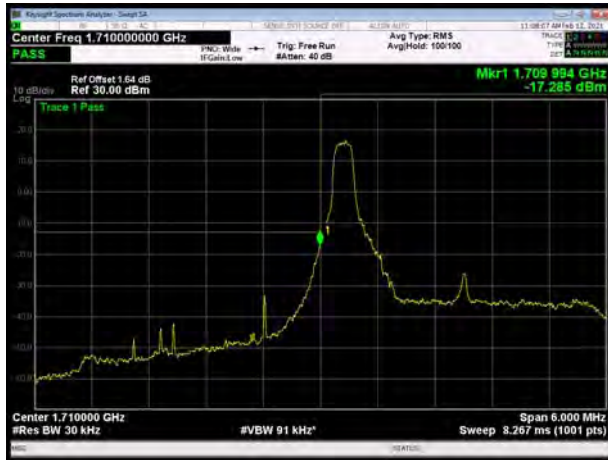


LTE Band 4 16QAM 1.4MHz CH-High, 100%RB





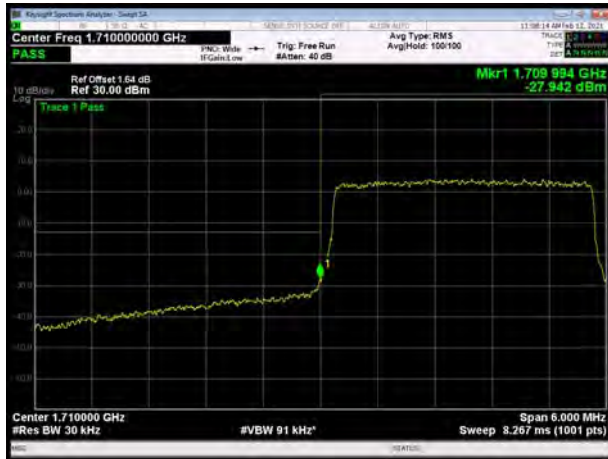
LTE Band 4 16QAM 3MHz CH-Low, 1 RB



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



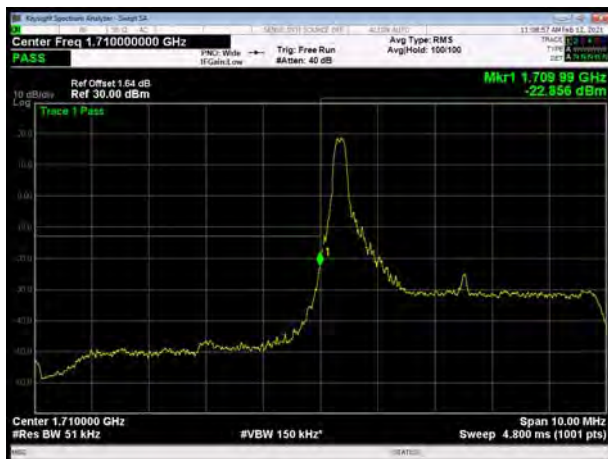
LTE Band 4 16QAM 3MHz CH-Low, 100%RB



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



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

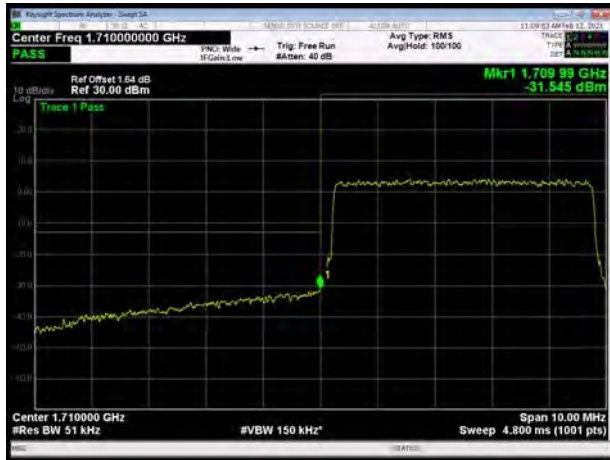


LTE Band 4 16QAM 5MHz CH-High, 1 RB





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



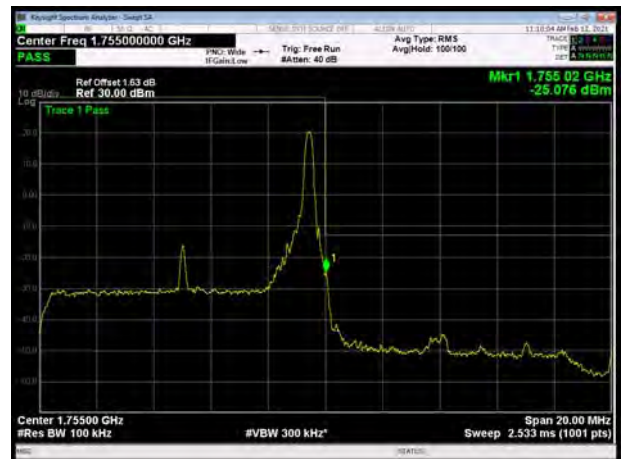
LTE Band 4 16QAM 5MHz CH-High, 100%RB



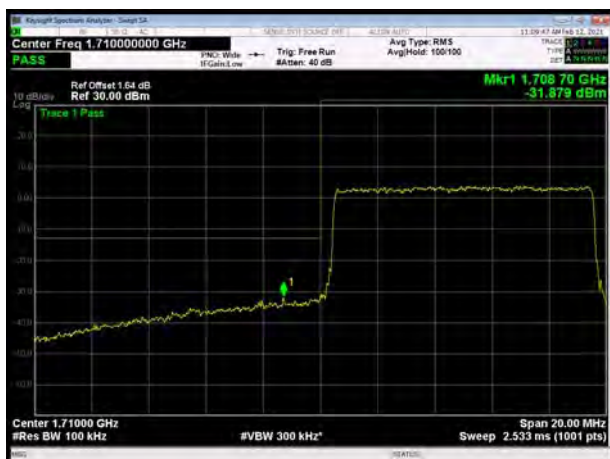
LTE Band 4 16QAM 10MHz CH-Low, 1 RB



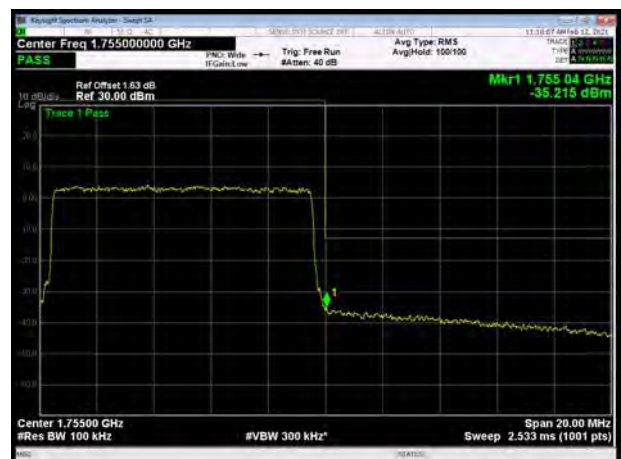
LTE Band 4 16QAM 10MHz CH-High, 1 RB



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

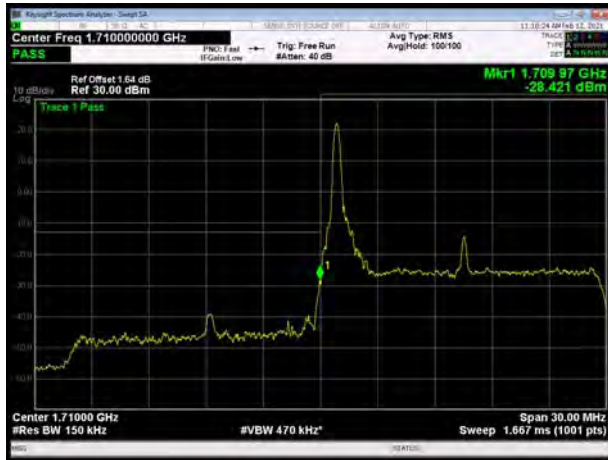


LTE Band 4 16QAM 10MHz CH-High, 100%RB





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



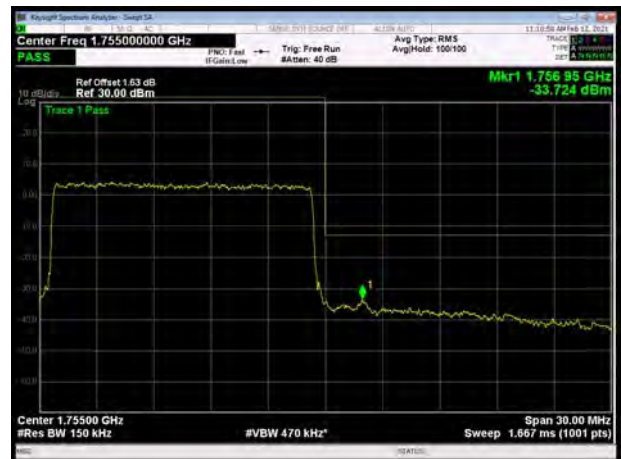
LTE Band 4 16QAM 15MHz CH-High, 1 RB



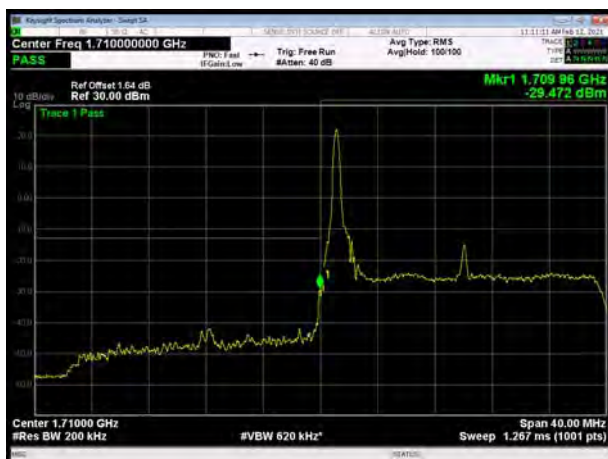
LTE Band 4 16QAM 15MHz CH-Low, 100%RB



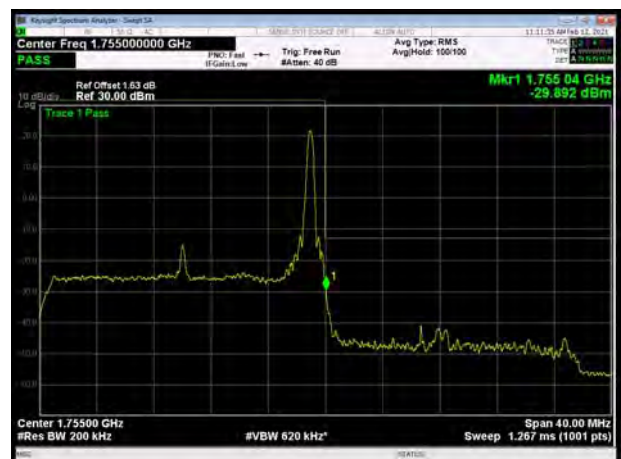
LTE Band 4 16QAM 15MHz CH-High, 100%RB



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

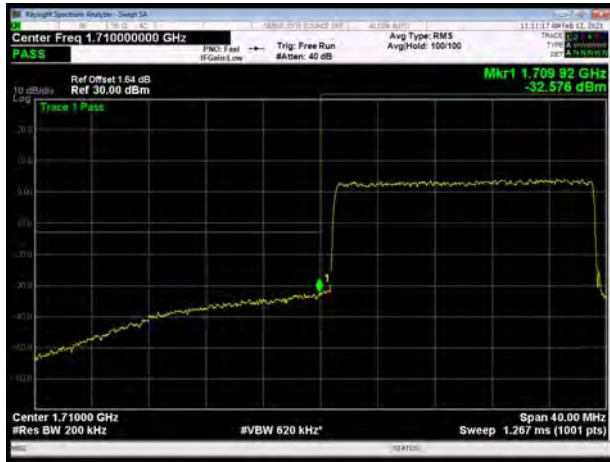


LTE Band 4 16QAM 20MHz CH-High, 1 RB





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

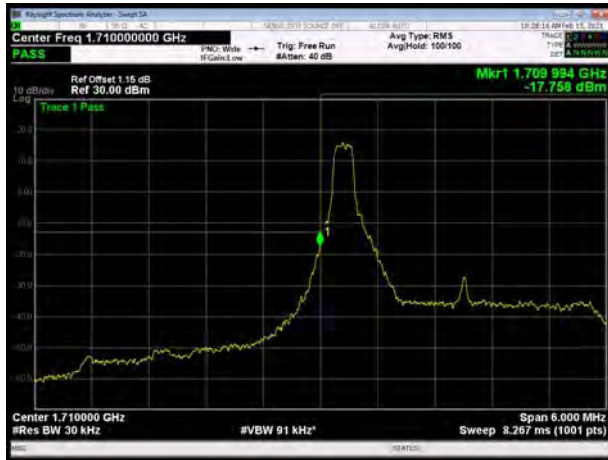


LTE Band 4 64QAM 1.4MHz CH-High, 100%RB

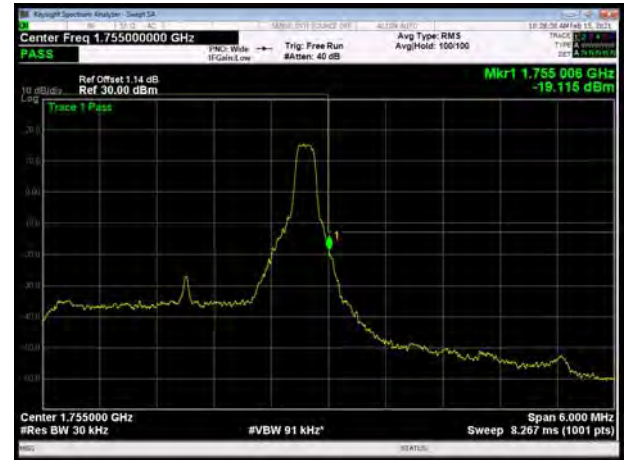




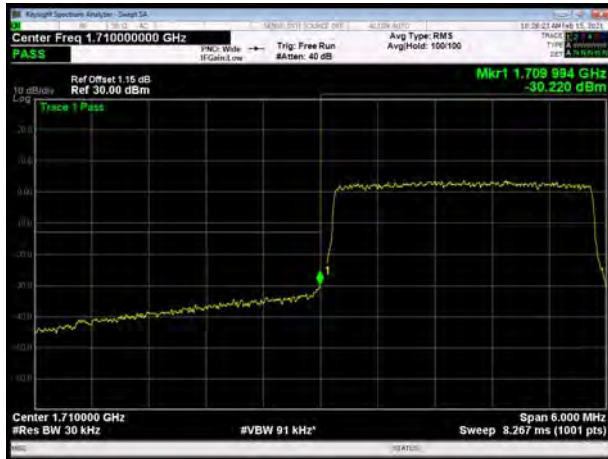
LTE Band 4 64QAM 3MHz CH-Low, 1 RB



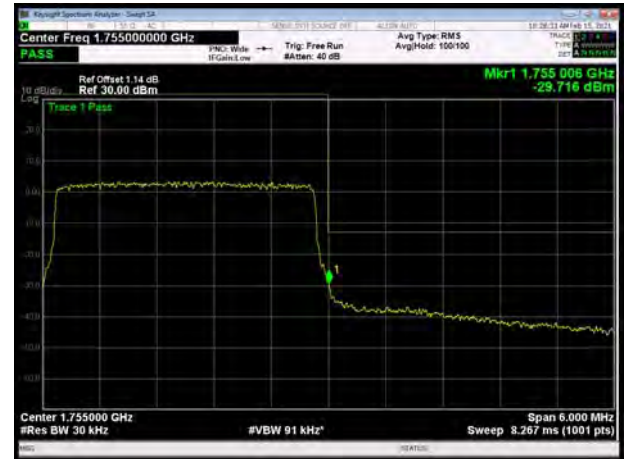
LTE Band 4 64QAM 3MHz CH-High, 1 RB



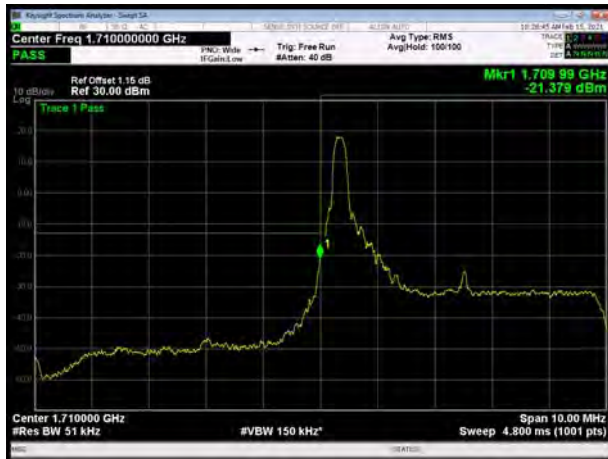
LTE Band 4 64QAM 3MHz CH-Low, 100%RB



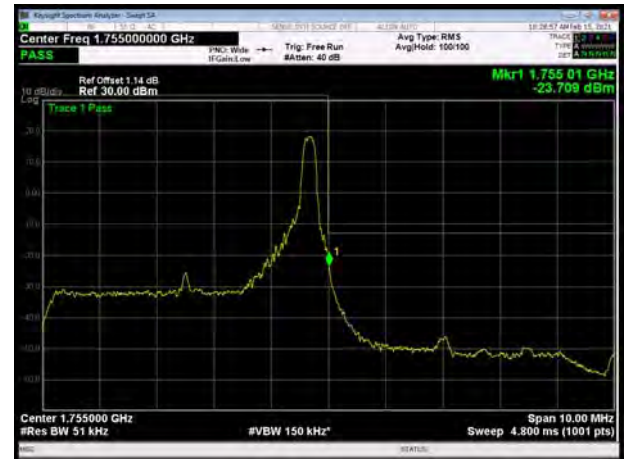
LTE Band 4 64QAM 3MHz CH-High, 100%RB



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

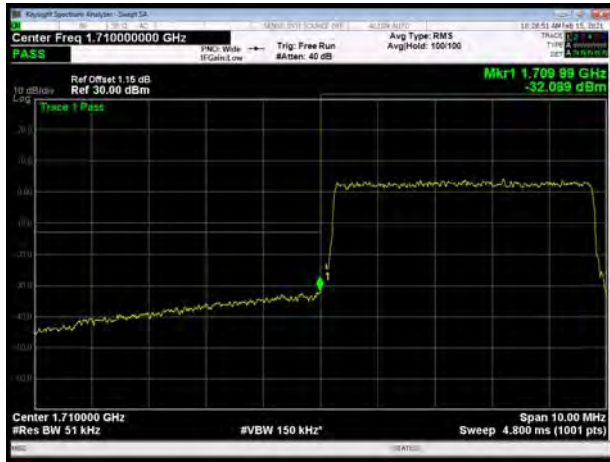


LTE Band 4 64QAM 5MHz CH-High, 1 RB





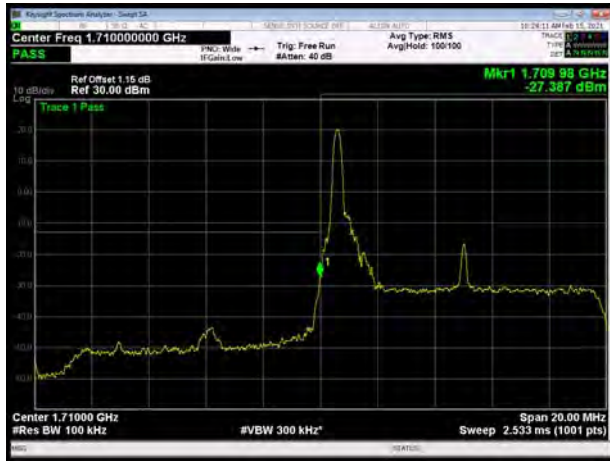
LTE Band 4 64QAM 5MHz CH-Low, 100%RB



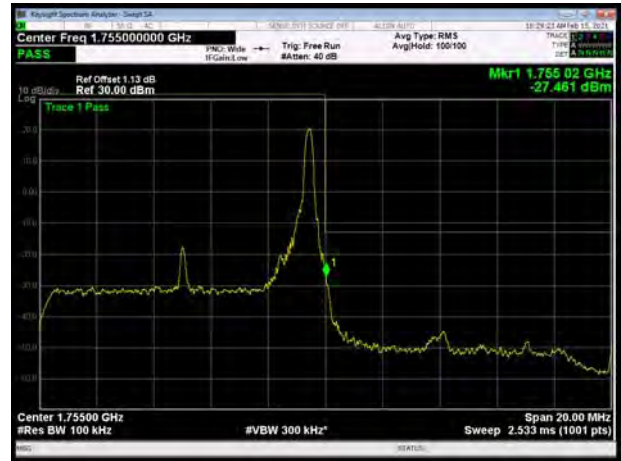
LTE Band 4 64QAM 5MHz CH-High, 100%RB



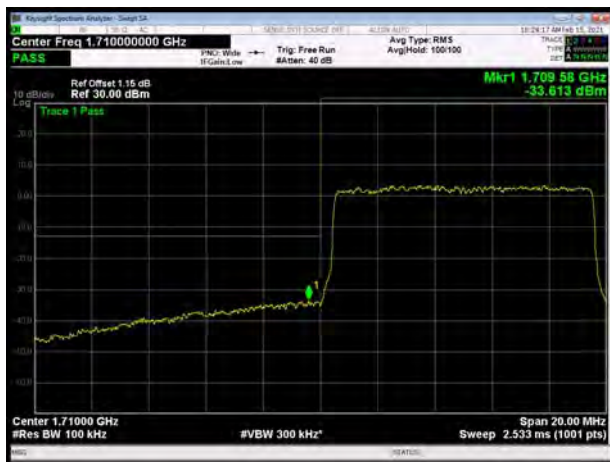
LTE Band 4 64QAM 10MHz CH-Low, 1 RB



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

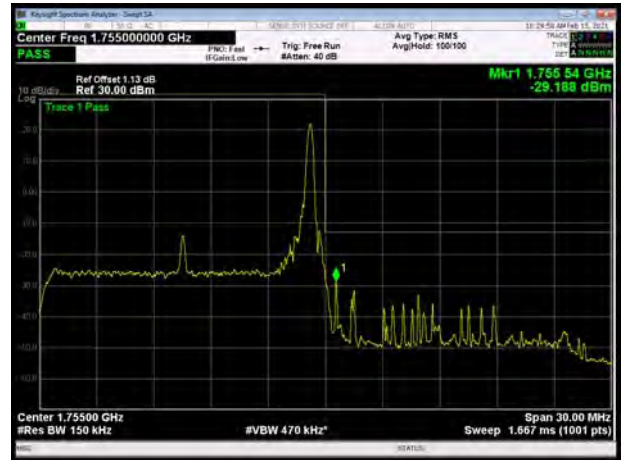




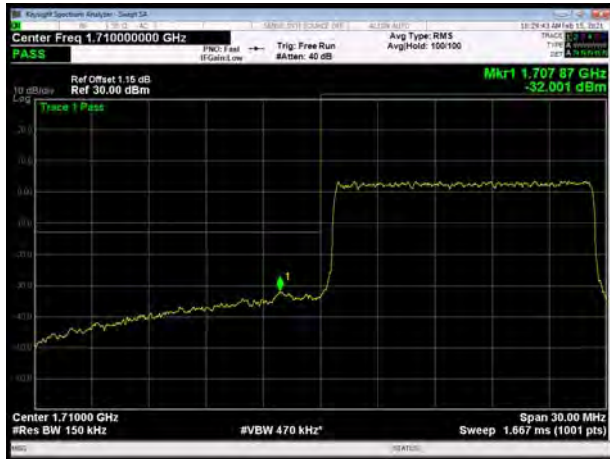
LTE Band 4 64QAM 15MHz CH-Low, 1 RB



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



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



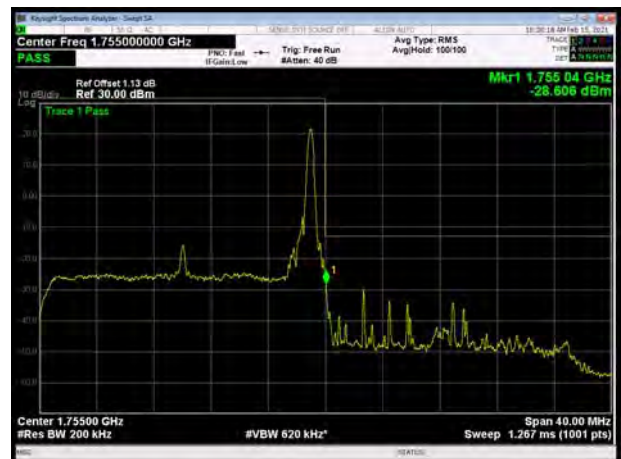
LTE Band 4 64QAM 15MHz CH-High, 100%RB



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



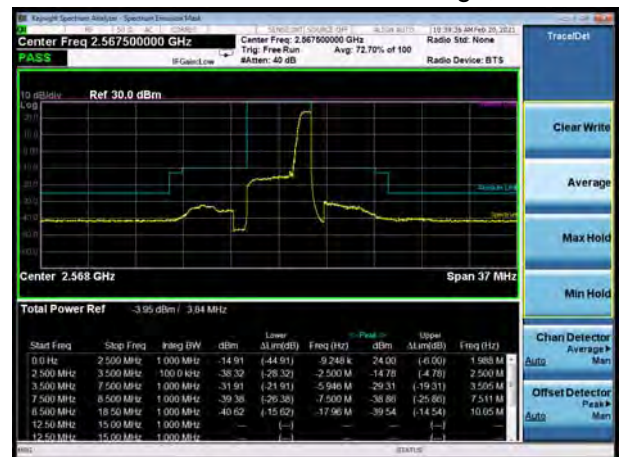
LTE Band 4 64QAM 20MHz CH-High, 100%RB



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



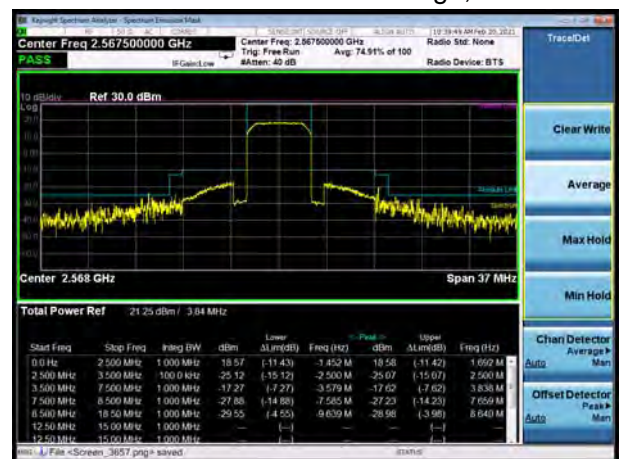
LTE Band 7 QPSK 5MHz CH-High, 1 RB



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



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

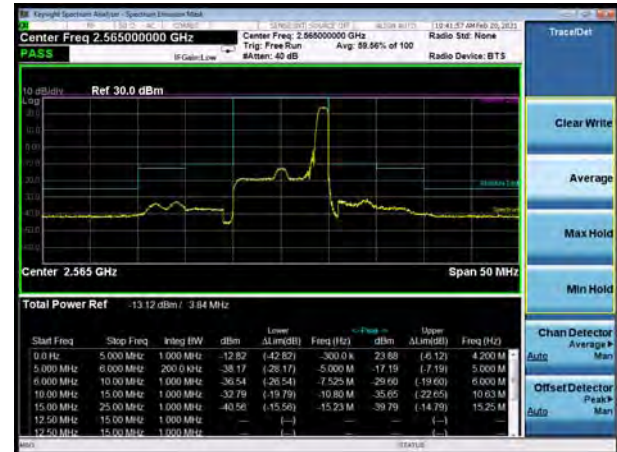




LTE Band 7 QPSK 10MHz CH-Low, 1 RB



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



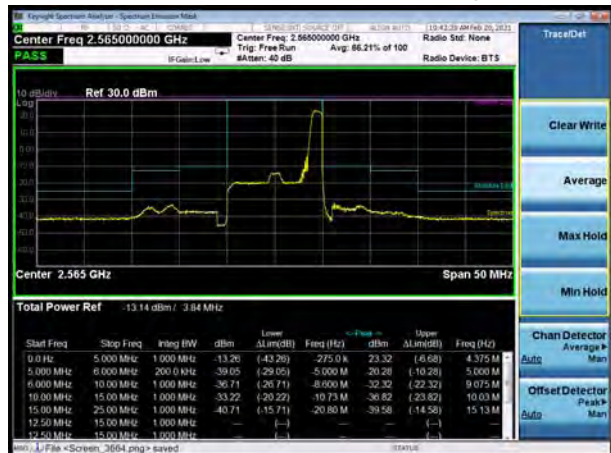
LTE Band 7 16QAM 5MHz CH-High, 100%RB



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



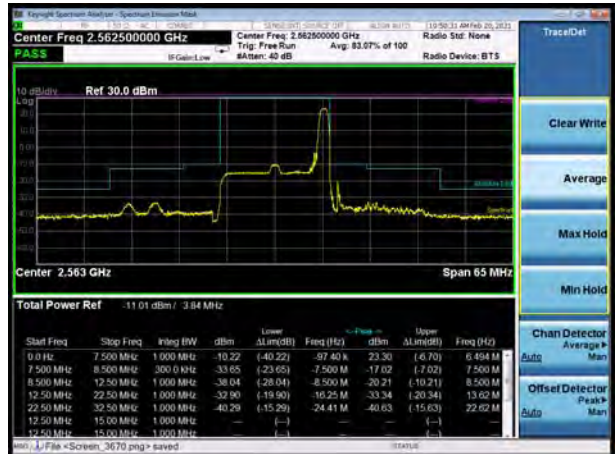
LTE Band 7 16QAM 10MHz CH-High, 100%RB



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

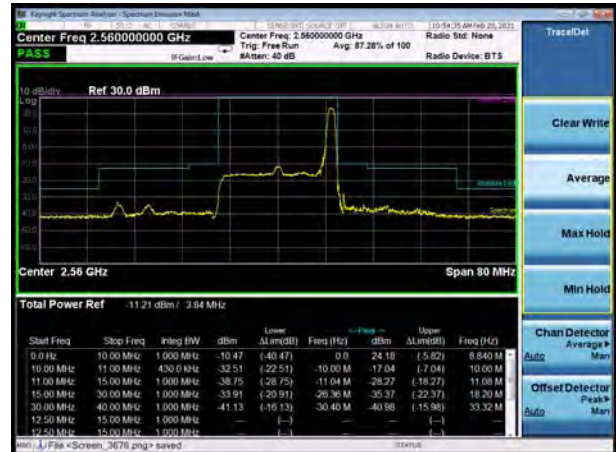




LTE Band 7 16QAM 20MHz CH-Low, 1 RB



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



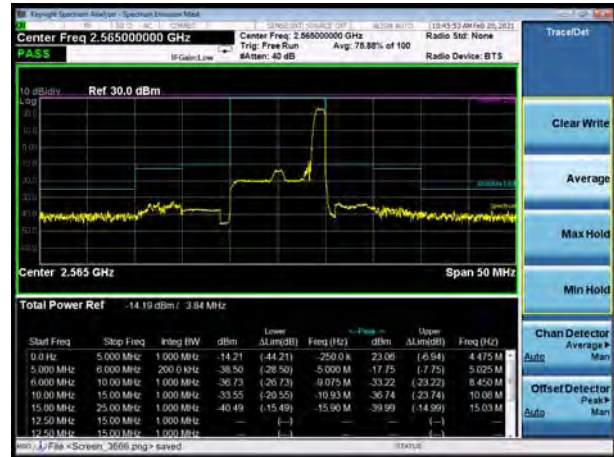
LTE Band 7 64QAM 5MHz CH-High, 100%RB



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

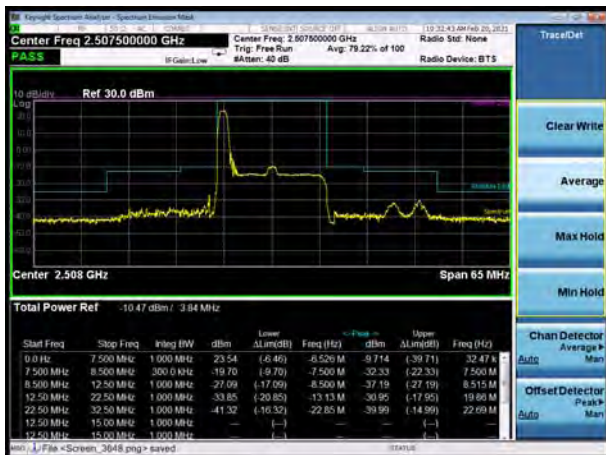


LTE Band 7 64QAM 10MHz CH-High, 100%RB





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





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



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



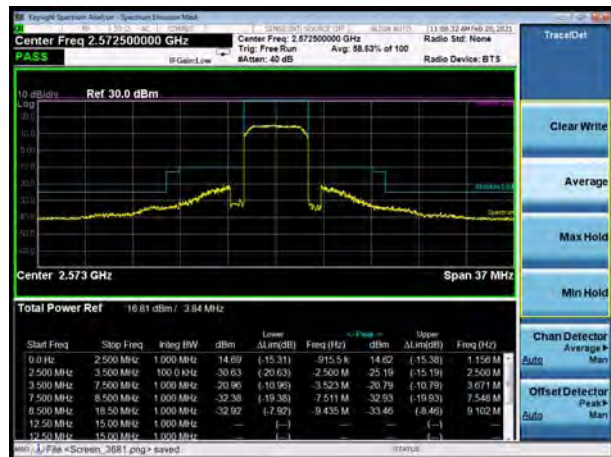
LTE Band 38 QPSK 5MHz CH-Low, 1 RB



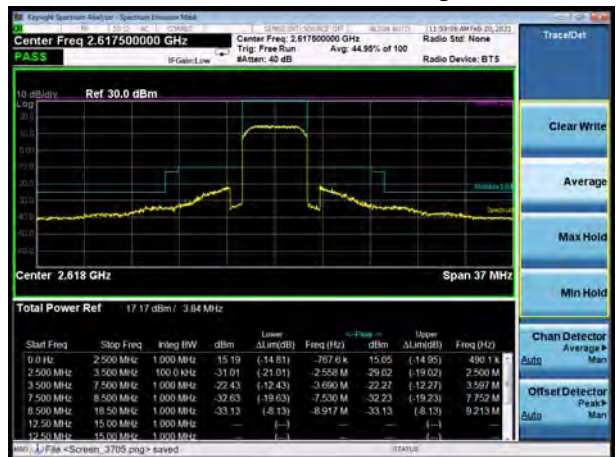
LTE Band 38 QPSK 5MHz CH-High, 1 RB



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



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





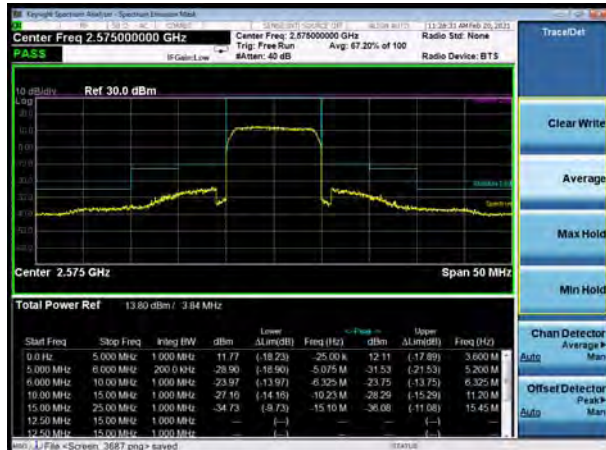
LTE Band 38 QPSK 10MHz CH-Low, 1 RB



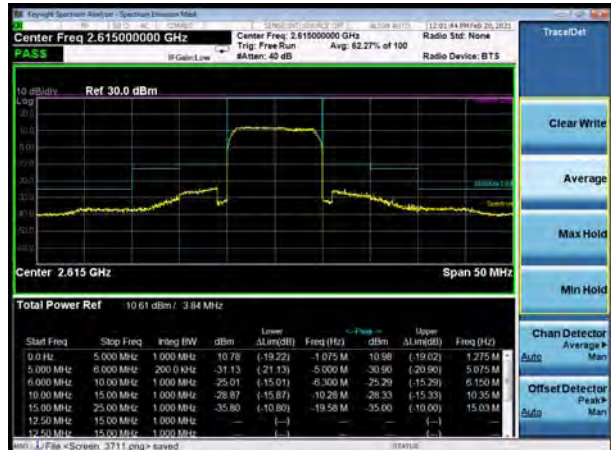
LTE Band 38 QPSK 10MHz CH-High, 1 RB



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



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



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

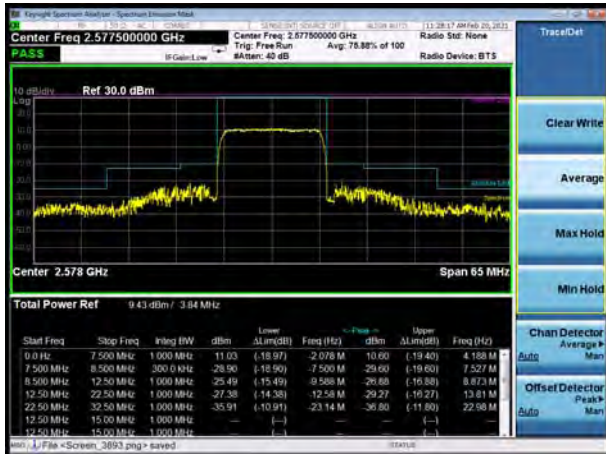


LTE Band 38 QPSK 15MHz CH-High, 1 RB





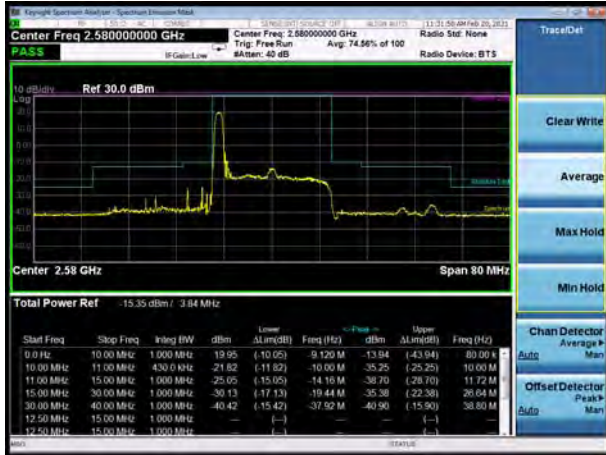
LTE Band 38 QPSK 15MHz CH-Low, 100%RB



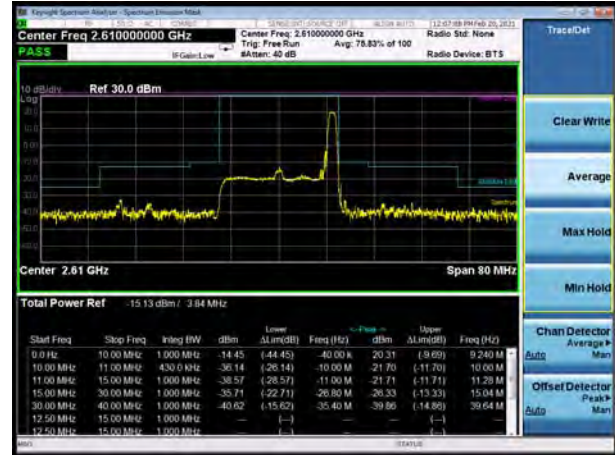
LTE Band 38 QPSK 15MHz CH-High, 100%RB



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



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



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



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





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



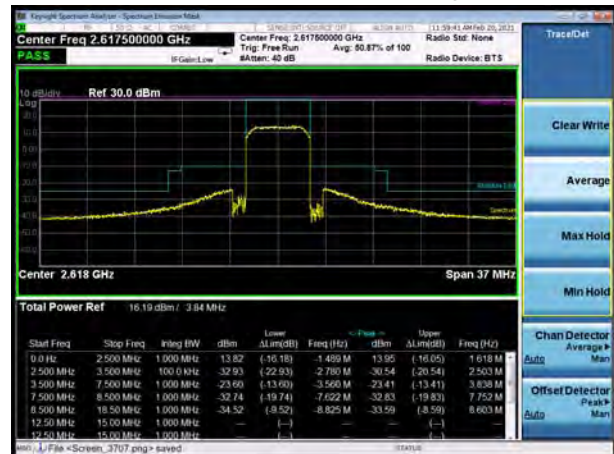
LTE Band 38 16QAM 5MHz CH-High, 1 RB



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



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



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

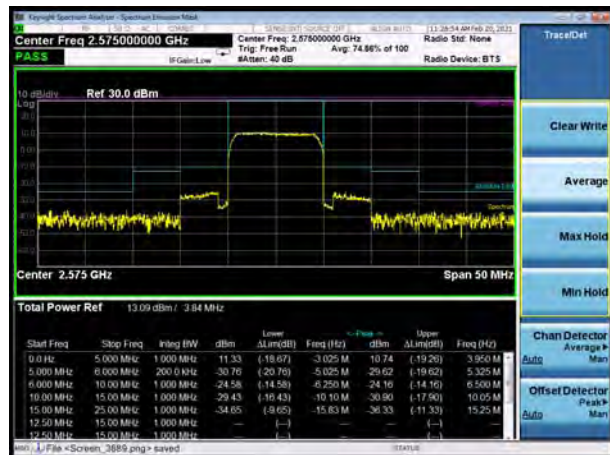


LTE Band 38 16QAM 10MHz CH-High, 1 RB





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



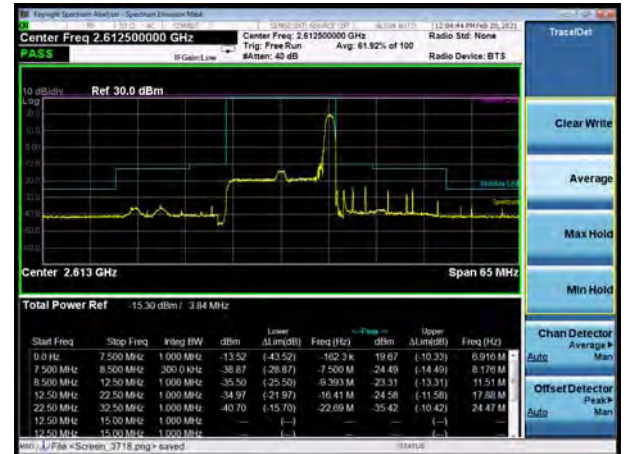
LTE Band 38 16QAM 10MHz CH-High, 100%RB



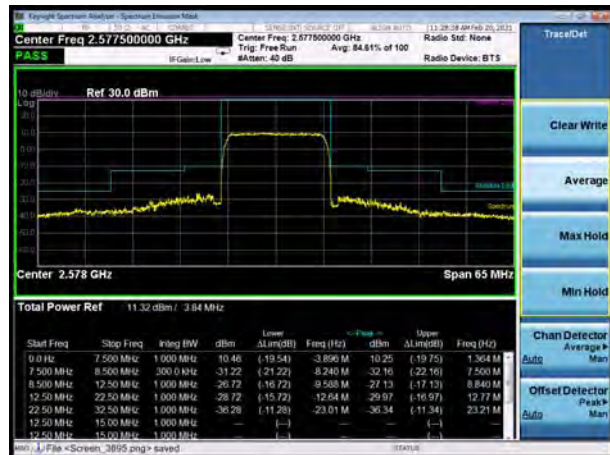
LTE Band 38 16QAM 15MHz CH-Low, 1 RB



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



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



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





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



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



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



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



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



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

