RF TEST REPORT

Applicant	ZTE Corporation
FCC ID	SRQ-ZTEA2022PG
Product	5G NR/LTE/WCDMA/GSM(GPRS) Multi-Mode Digital Mobile Phone
Marketing	ZTE Axon 30 Ultra 5G
Model	ZTE A2022PG
Report No.	R2103A0263-R3V1
Issue Date	May 11, 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*

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TABLE OF CONTENT

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	April 26, 2021
Rev.1	Update information in Page 6-7; Update test data.	May 11, 2021
Note: This revised report (Report No. R2103A0263-R3V1) supersedes and replaces the previously issued report (Report No. R2103A0263-R3). Please discard or destroy the previously issued report and dispose of it accordingly.		

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046 27.50(d)(4) 27.50(c)(10) 27.50(h)(2)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(h) 27.53(g) 27.53(m)	PASS
4	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 27.54	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 27.53(h) 27.53(g) 27.53(m)	PASS
7	Radiates Spurious Emission	2.1053 27.53(h) 27.53(g) 27.53(m)	PASS
Date of Testing: March 19, 2021~ May 10, 2021 Date of Sample Received: March 18, 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.			

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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
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2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

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

2.2 General information

EUT Description		
Model	ZTE A2022PG	
IMEI	IMEI 1:861959050001059 IMEI 2:861959050002059	
Hardware Version	ZTE A2022PGHW1.0	
Software Version 1	MyOS11.0.0_A2022PG_GLB	
Software Version 2	MyOS11.0.0_A2022PG_TEL	
Power Supply	Battery / AC adapter	
Antenna Type	Internal Antenna	
Antenna Gain	WCDMA Band IV:	-0.72dBi
	LTE Band 4	-0.72 dBi
	LTE Band 7	-0.09 dBi
	LTE Band 12	-7.16 dBi
	LTE Band 17	-7.16 dBi
	LTE Band 38	-0.09 dBi
	LTE Band 41	-0.09 dBi
Test Mode(s)	WCDMA Band IV LTE Band 4/7/12/17/38/41; CA_7C,CA_41C	
Test Modulation	(WCDMA) BPSK, QPSK; (LTE) QPSK, 16QAM, 64QAM;	
LTE Category	13	
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	24.77 dBm
	LTE Band 4	23.78 dBm
	LTE Band 7	24.30 dBm
	LTE Band 12	17.45 dBm
	LTE Band 17	17.45 dBm
	LTE Band 38	24.15 dBm

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	LTE Band 41	24.58 dBm	
Rated Power Supply Voltage	3.85V		
Operating Voltage	Minimum: 3.4V Maximum: 4.2V		
Operating Temperature	Lowest: -10°C Highest: +45°C		
Extreme Temperature	Lowest: -30°C Highest: +50°C		
FLASH	8+128G,12+256G		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 7	2500 ~ 2570	2620 ~ 2690
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 17	704 ~ 716	734 ~ 746
	LTE Band 38	2570 ~ 2620	2570 ~ 2620
	LTE Band 41	2496 ~ 2690	2496 ~ 2690
EUT Accessory			
Adapter 1	Manufacturer: ShenZhen KunXing Technology Co., Ltd. Model: STC-A59152050AC-Z		
Adapter 2	Manufacturer: ShenZhen KunXing Technology Co., Ltd. Model: STC-A59152050AC-A		
Earphone	Manufacturer: Shen zhen FDC Electronic Co.,Ltd. Model: DEM-9A		
Battery	Manufacturer: Zhuhai CosMX Battery Co., Ltd. Model: Li3941T44P8h826453		
USB Cable	Manufacturer: Shenzhen Luxshare Precision Industry Co.,Ltd. Model: TC20-TC20-W-100-M-6A-HSF		
Type-C to 3.5 mm Headphone Jack Adapter	Manufacture: HUIZHOU JUWEI ELECTRONICS CO. ,LTD Model: JWUB1389-Z01		
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There is more than one FLASH/Adapter, each one should be applied throughout the compliance test respectively, and however, only the worst case (12+256G/Adapter 1) will be recorded in this report. 3.The two different software versions are for different market requirement..			

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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

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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 inLTE is set based on the maximum RF Output Power.
The following testing in different Bandwidth is set to detailin the following table:
Test modes are chosen to be reported as the worst case configuration below:

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

Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/7/12/17/38/41:

Test items	Modes	Bandwidth (MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16 QAM	64 QAM	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 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O	O
	LTE 17	-	-	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	LTE 4	O	O	O	O	O	O	O	O	O	-	-	O	O	O	O

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Bandwidth	LTE 7	-	-	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	-	-	O	O	O	O
	LTE 17	-	-	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	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 12	O	O	O	O	-	-	O	O	O	O	-	O	O	-	O
	LTE 17	-	-	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	O	-	O
Peak-to-Average Power Ratio	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 12	O	O	O	O	-	-	O	O	O	-	-	O	O	O	O
	LTE 17	-	-	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
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 12	O	O	O	O	-	-	O	O	O	O	-	-	-	O	-
	LTE 17	-	-	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 12	O	O	O	O	-	-	O	-	-	O	-	-	O	O	O
	LTE 17	-	-	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 12	O	-	O	O	-	-	O	-	-	O	-	-	-	O	-
	LTE 17	-	-	O	O	-	-	O	-	-	O	-	-	-	O	-
	LTE 38	-	-	O	-	-	O	O	-	-	O	-	-	-	O	-
	LTE 41	-	-	O	-	-	O	O	-	-	O	-	-	-	O	-
Note	1. The mark “O” means that this configuration is chosen for testing. 2. The mark “-” means that this configuration is not testing.															

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5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power Ambient condition

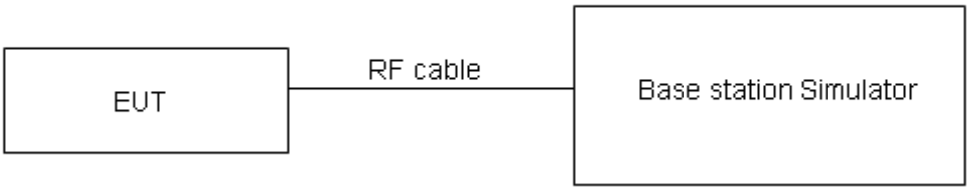
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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:
EIRP (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBi)
where:dBd refers to gain relative to an ideal dipole.
EIRP (dBm) = ERP (dBm) + 2.15 (dB.)

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(b) (10) specifies that “Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP”
Rule Part 27.50(c) (10) specifies that “Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP”
Rule Part 27.50(d) (4) specifies that “Fixed, mobile and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”
Rule Part 27.50(h) (2) specifies that “Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.”
Rule Part 27.50(a) (3) specifies that “(i) For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations

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compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. ”

Part 27.50(c)(10)Limit	≤ 3 W (34.77 dBm)
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.

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Test Results

WCDMA Band IV		Maximum Output Power (dBm)			EIRP (dBm)		
		Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)
RMC		12.2k	24.49	24.77	24.67	23.77	24.05
AMR		12.2k	24.43	24.93	24.77	23.71	24.21
HSDPA	Sub - Test 1	24.05	24.29	24.21	23.33	23.57	23.49
	Sub - Test 2	23.97	24.37	24.11	23.25	23.65	23.39
	Sub - Test 3	23.49	23.83	23.65	22.77	23.11	22.93
	Sub - Test 4	23.41	23.65	23.69	22.69	22.93	22.97
HSUPA	Sub - Test 1	23.83	24.21	24.19	23.11	23.49	23.47
	Sub - Test 2	22.91	23.19	23.01	22.19	22.47	22.29
	Sub - Test 3	23.57	23.87	23.51	22.85	23.15	22.79
	Sub - Test 4	23.15	23.21	23.23	22.43	22.49	22.51
	Sub - Test 5	23.91	24.39	24.27	23.19	23.67	23.55

LTE Band 4				Maximum Output Power(dBm)			EIRP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				19957/ 1710.7	20175/ 1732.5	20393/ 1754.3	19957/ 1710.7	20175/ 1732.5	20393/ 1754.3
1.4MHz	QPSK	1	0	24.16	24.46	24.33	23.44	23.74	23.61
		1	2	24.04	24.29	24.12	23.32	23.57	23.40
		1	5	24.08	24.19	24.11	23.36	23.47	23.39
		3	0	24.19	24.33	24.39	23.47	23.61	23.67
		3	2	24.15	24.30	24.39	23.43	23.58	23.67
		3	3	24.22	24.22	24.25	23.50	23.50	23.53
		6	0	23.32	23.38	23.39	22.60	22.66	22.67
	16QAM	1	0	23.89	23.71	23.73	23.17	22.99	23.01
		1	2	23.87	23.89	23.80	23.15	23.17	23.08
		1	5	23.44	23.47	23.52	22.72	22.75	22.80
		3	0	23.31	23.33	23.36	22.59	22.61	22.64
		3	2	23.34	23.34	23.36	22.62	22.62	22.64
		3	3	23.18	23.23	23.27	22.46	22.51	22.55
		6	0	22.30	22.36	22.46	21.58	21.64	21.74

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	64QAM	1	0	23.55	23.48	23.55	22.83	22.76	22.83
		1	2	23.59	23.54	23.58	22.87	22.82	22.86
		1	5	23.50	23.50	23.52	22.78	22.78	22.80
		3	0	23.37	23.34	23.40	22.65	22.62	22.68
		3	2	23.43	23.39	23.48	22.71	22.67	22.76
		3	3	23.29	23.27	23.33	22.57	22.55	22.61
		6	0	22.25	22.24	22.33	21.53	21.52	21.61
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				19965/ 1711.5	20175/ 1732.5	20385/ 1753.5	19965/ 1711.5	20175/ 1732.5	20385/ 1753.5
3MHz	QPSK	1	0	24.18	24.50	24.36	23.46	23.78	23.64
		1	7	24.02	24.32	24.16	23.30	23.60	23.44
		1	14	24.11	24.24	24.15	23.39	23.52	23.43
		8	0	23.29	23.45	23.52	22.57	22.73	22.80
		8	4	23.27	23.40	23.51	22.55	22.68	22.79
		8	7	23.32	23.33	23.35	22.60	22.61	22.63
		15	0	23.32	23.42	23.42	22.60	22.70	22.70
	16QAM	1	0	23.92	23.73	23.76	23.20	23.01	23.04
		1	7	23.90	23.89	23.84	23.18	23.17	23.12
		1	14	23.46	23.51	23.55	22.74	22.79	22.83
		8	0	22.42	22.46	22.48	21.70	21.74	21.76
		8	4	22.45	22.47	22.48	21.73	21.75	21.76
		8	7	22.28	22.35	22.40	21.56	21.63	21.68
		15	0	22.33	22.40	22.49	21.61	21.68	21.77
	64QAM	1	0	23.58	23.50	23.58	22.86	22.78	22.86
		1	7	23.62	23.54	23.60	22.90	22.82	22.88
		1	14	23.52	23.49	23.55	22.80	22.77	22.83
		8	0	22.48	22.47	22.52	21.76	21.75	21.80
		8	4	22.54	22.52	22.60	21.82	21.80	21.88
		8	7	22.39	22.39	22.46	21.67	21.67	21.74
		15	0	22.28	22.28	22.36	21.56	21.56	21.64
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				19975/ 1712.5	20175/ 1732.5	20375/ 1752.5	19975/ 1712.5	20175/ 1732.5	20375/ 1752.5
5MHz	QPSK	1	0	24.15	24.48	24.32	23.43	23.76	23.60
		1	13	24.00	24.28	24.13	23.28	23.56	23.41
		1	24	24.08	24.19	24.11	23.36	23.47	23.39

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		12	0	23.26	23.40	23.48	22.54	22.68	22.76
		12	6	23.25	23.36	23.46	22.53	22.64	22.74
		12	13	23.30	23.31	23.31	22.58	22.59	22.59
		25	0	23.32	23.41	23.40	22.60	22.69	22.68
	16QAM	1	0	23.89	23.69	23.73	23.17	22.97	23.01
		1	13	23.87	23.87	23.81	23.15	23.15	23.09
		1	24	23.43	23.49	23.51	22.71	22.77	22.79
		12	0	22.40	22.42	22.45	21.68	21.70	21.73
		12	6	22.42	22.42	22.44	21.70	21.70	21.72
		12	13	22.25	22.30	22.36	21.53	21.58	21.64
		25	0	22.31	22.36	22.44	21.59	21.64	21.72
	64QAM	1	0	23.55	23.50	23.55	22.83	22.78	22.83
		1	13	23.59	23.56	23.57	22.87	22.84	22.85
		1	24	23.53	23.47	23.51	22.81	22.75	22.79
		12	0	22.46	22.43	22.53	21.74	21.71	21.81
		12	6	22.51	22.47	22.56	21.79	21.75	21.84
		12	13	22.36	22.34	22.42	21.64	21.62	21.70
		25	0	22.26	22.24	22.31	21.54	21.52	21.59
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20000/ 1715	20175/ 1732.5	20350/ 1750	20000/ 1715	20175/ 1732.5	20350/ 1750
10MHz	QPSK	1	0	24.17	24.49	24.35	23.45	23.77	23.63
		1	25	24.03	24.33	24.17	23.31	23.61	23.45
		1	49	24.10	24.23	24.14	23.38	23.51	23.42
		25	0	23.29	23.45	23.52	22.57	22.73	22.80
		25	13	23.28	23.41	23.50	22.56	22.69	22.78
		25	25	23.32	23.35	23.36	22.60	22.63	22.64
		50	0	23.36	23.43	23.44	22.64	22.71	22.72
	16QAM	1	0	23.91	23.72	23.75	23.19	23.00	23.03
		1	25	23.90	23.91	23.84	23.18	23.19	23.12
		1	49	23.46	23.51	23.54	22.74	22.79	22.82
		25	0	22.43	22.47	22.49	21.71	21.75	21.77
		25	13	22.44	22.46	22.47	21.72	21.74	21.75
		25	25	22.28	22.35	22.40	21.56	21.63	21.68
		50	0	22.34	22.41	22.48	21.62	21.69	21.76
	64QAM	1	0	23.57	23.49	23.57	22.85	22.77	22.85
		1	25	23.62	23.56	23.60	22.90	22.84	22.88

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		1	49	23.52	23.49	23.54	22.80	22.77	22.82
		25	0	22.49	22.48	22.53	21.77	21.76	21.81
		25	13	22.53	22.51	22.59	21.81	21.79	21.87
		25	25	22.39	22.39	22.46	21.67	21.67	21.74
		50	0	22.29	22.29	22.35	21.57	21.57	21.63
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
15MHz	QPSK	1	0	24.16	24.45	24.33	23.44	23.73	23.61
		1	38	24.01	24.32	24.14	23.29	23.60	23.42
		1	74	24.07	24.18	24.10	23.35	23.46	23.38
		36	0	23.27	23.41	23.49	22.55	22.69	22.77
		36	18	23.25	23.36	23.46	22.53	22.64	22.74
		36	39	23.29	23.32	23.32	22.57	22.60	22.60
		75	0	23.34	23.39	23.39	22.62	22.67	22.67
	16QAM	1	0	23.86	23.70	23.73	23.14	22.98	23.01
		1	38	23.88	23.88	23.82	23.16	23.16	23.10
		1	74	23.43	23.47	23.51	22.71	22.75	22.79
		36	0	22.40	22.45	22.46	21.68	21.73	21.74
		36	18	22.41	22.41	22.43	21.69	21.69	21.71
		36	39	22.26	22.31	22.37	21.54	21.59	21.65
		75	0	22.31	22.36	22.44	21.59	21.64	21.72
	64QAM	1	0	23.52	23.47	23.55	22.80	22.75	22.83
		1	38	23.60	23.53	23.58	22.88	22.81	22.86
		1	74	23.53	23.48	23.55	22.81	22.76	22.83
		36	0	22.48	22.50	22.54	21.76	21.78	21.82
		36	18	22.51	22.48	22.58	21.79	21.76	21.86
		36	39	22.37	22.35	22.43	21.65	21.63	21.71
		75	0	22.26	22.24	22.31	21.54	21.52	21.59
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20050/ 1720	20175/ 1732.5	20300/ 1745	20050/ 1720	20175/ 1732.5	20300/ 1745
20MHz	QPSK	1	0	24.13	24.41	24.30	23.41	23.69	23.58
		1	50	24.00	24.28	24.12	23.28	23.56	23.40
		1	99	24.05	24.17	24.07	23.33	23.45	23.35
		50	0	23.24	23.36	23.45	22.52	22.64	22.73
		50	25	23.23	23.32	23.43	22.51	22.60	22.71

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		50	50	23.26	23.27	23.28	22.54	22.55	22.56
		100	0	23.31	23.34	23.35	22.59	22.62	22.63
	16QAM	1	0	23.57	23.66	23.68	22.85	22.94	22.96
		1	50	23.84	23.86	23.78	23.12	23.14	23.06
		1	99	23.41	23.44	23.49	22.69	22.72	22.77
		50	0	22.37	22.41	22.43	21.65	21.69	21.71
		50	25	22.38	22.39	22.40	21.66	21.67	21.68
		50	50	22.23	22.26	22.33	21.51	21.54	21.61
		100	0	22.29	22.32	22.41	21.57	21.60	21.69
	64QAM	1	0	23.50	23.43	23.50	22.78	22.71	22.78
		1	50	23.56	23.51	23.54	22.84	22.79	22.82
		1	99	23.47	23.42	23.49	22.75	22.70	22.77
		50	0	22.43	22.42	22.47	21.71	21.70	21.75
		50	25	22.47	22.44	22.52	21.75	21.72	21.80
		50	50	22.34	22.30	22.39	21.62	21.58	21.67
		100	0	22.24	22.20	22.28	21.52	21.48	21.56

LTE Band 7				Maximum Output Power(dBm)			EIRP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20775/ 2502.5	21100/ 2535	21425/ 2567.5	20775/ 2502.5	21100/ 2535	21425/ 2567.5
5MHz	QPSK	1	0	24.37	24.27	24.15	24.28	24.18	24.06
		1	13	24.21	24.10	24.03	24.12	24.01	23.94
		1	24	24.20	24.20	24.25	24.11	24.11	24.16
		12	0	23.36	23.12	23.18	23.27	23.03	23.09
		12	6	23.33	23.30	23.29	23.24	23.21	23.20
		12	13	23.39	23.36	23.25	23.30	23.27	23.16
		25	0	23.31	23.31	23.32	23.22	23.22	23.23
	16QAM	1	0	23.53	23.73	23.65	23.44	23.64	23.56
		1	13	23.51	23.42	23.39	23.42	23.33	23.30
		1	24	23.43	23.40	23.40	23.34	23.31	23.31
		12	0	22.35	22.25	22.33	22.26	22.16	22.24
		12	6	22.40	22.29	22.37	22.31	22.20	22.28
		12	13	22.31	22.34	22.34	22.22	22.25	22.25
		25	0	22.26	22.32	22.25	22.17	22.23	22.16
	64QAM	1	0	23.17	23.17	23.22	23.08	23.08	23.13

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		1	13	23.08	23.06	23.10	22.99	22.97	23.01
		1	24	23.23	23.16	23.18	23.14	23.07	23.09
		12	0	22.06	21.99	22.10	21.97	21.90	22.01
		12	6	22.16	22.11	22.18	22.07	22.02	22.09
		12	13	21.95	21.94	21.98	21.86	21.85	21.89
		25	0	21.98	21.98	22.02	21.89	21.89	21.93
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20800/ 2505	21100/ 2535	21400/ 2565	20800/ 2505	21100/ 2535	21400/ 2565
10MHz	QPSK	1	0	24.39	24.28	24.18	24.30	24.19	24.09
		1	25	24.24	24.15	24.07	24.15	24.06	23.98
		1	49	24.22	24.24	24.28	24.13	24.15	24.19
		25	0	23.39	23.17	23.22	23.30	23.08	23.13
		25	13	23.36	23.35	23.33	23.27	23.26	23.24
		25	25	23.41	23.40	23.30	23.32	23.31	23.21
		50	0	23.35	23.33	23.36	23.26	23.24	23.27
	16QAM	1	0	23.55	23.76	23.67	23.46	23.67	23.58
		1	25	23.54	23.46	23.42	23.45	23.37	23.33
		1	49	23.46	23.42	23.43	23.37	23.33	23.34
		25	0	22.38	22.30	22.37	22.29	22.21	22.28
		25	13	22.42	22.33	22.40	22.33	22.24	22.31
		25	25	22.34	22.39	22.38	22.25	22.30	22.29
		50	0	22.29	22.37	22.29	22.20	22.28	22.20
	64QAM	1	0	23.19	23.16	23.24	23.10	23.07	23.15
		1	25	23.11	23.06	23.13	23.02	22.97	23.04
		1	49	23.22	23.18	23.21	23.13	23.09	23.12
		25	0	22.09	22.04	22.10	22.00	21.95	22.01
		25	13	22.18	22.15	22.21	22.09	22.06	22.12
		25	25	21.98	21.99	22.02	21.89	21.90	21.93
		50	0	22.01	22.03	22.06	21.92	21.94	21.97
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20825/ 2507.5	21100/ 2535	21375/ 2562.5	20825/ 2507.5	21100/ 2535	21375/ 2562.5
15MHz	QPSK	1	0	24.38	24.24	24.16	24.29	24.15	24.07
		1	38	24.22	24.14	24.04	24.13	24.05	23.95
		1	74	24.19	24.19	24.24	24.10	24.10	24.15
		36	0	23.37	23.13	23.19	23.28	23.04	23.10

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		36	18	23.33	23.30	23.29	23.24	23.21	23.20
		36	39	23.38	23.37	23.26	23.29	23.28	23.17
		75	0	23.33	23.29	23.31	23.24	23.20	23.22
	16QAM	1	0	23.50	23.74	23.65	23.41	23.65	23.56
		1	38	23.52	23.43	23.40	23.43	23.34	23.31
		1	74	23.43	23.38	23.40	23.34	23.29	23.31
		36	0	22.35	22.28	22.34	22.26	22.19	22.25
		36	18	22.39	22.28	22.36	22.30	22.19	22.27
		36	39	22.32	22.35	22.35	22.23	22.26	22.26
		75	0	22.26	22.32	22.25	22.17	22.23	22.16
	64QAM	1	0	23.14	23.14	23.22	23.05	23.05	23.13
		1	38	23.09	23.03	23.11	23.00	22.94	23.02
		1	74	23.23	23.17	23.22	23.14	23.08	23.13
		36	0	22.08	22.06	22.11	21.99	21.97	22.02
		36	18	22.16	22.12	22.20	22.07	22.03	22.11
		36	39	21.96	21.95	21.99	21.87	21.86	21.90
		75	0	21.98	21.98	22.02	21.89	21.89	21.93

BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				20850/ 2510	21100/ 2535	21350/ 2560	20850/ 2510	21100/ 2535	21350/ 2560
20MHz	QPSK	1	0	24.35	24.20	24.13	24.26	24.11	24.04
		1	50	24.21	24.10	24.02	24.12	24.01	23.93
		1	99	24.17	24.18	24.21	24.08	24.09	24.12
		50	0	23.34	23.08	23.15	23.25	22.99	23.06
		50	25	23.31	23.26	23.26	23.22	23.17	23.17
		50	50	23.35	23.32	23.22	23.26	23.23	23.13
		100	0	23.30	23.24	23.27	23.21	23.15	23.18
	16QAM	1	0	23.67	23.70	23.60	23.58	23.61	23.51
		1	50	23.48	23.41	23.36	23.39	23.32	23.27
		1	99	23.41	23.35	23.38	23.32	23.26	23.29
		50	0	22.32	22.24	22.31	22.23	22.15	22.22
		50	25	22.36	22.26	22.33	22.27	22.17	22.24
		50	50	22.29	22.30	22.31	22.20	22.21	22.22
		100	0	22.24	22.28	22.22	22.15	22.19	22.13
	64QAM	1	0	23.12	23.10	23.17	23.03	23.01	23.08
		1	50	23.05	23.01	23.07	22.96	22.92	22.98
		1	99	23.17	23.11	23.16	23.08	23.02	23.07

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		50	0	22.03	21.98	22.04	21.94	21.89	21.95
		50	25	22.12	22.08	22.14	22.03	21.99	22.05
		50	50	21.93	21.90	21.95	21.84	21.81	21.86
		100	0	21.96	21.94	21.99	21.87	21.85	21.90

LTE Band 12				Maximum Output Power(dBm)			ERP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23017/ 699.7	23095/ 707.5	23173/ 715.3	23017/ 699.7	23095/ 707.5	23173/ 715.3
1.4MHz	QPSK	1	0	24.59	24.51	24.54	17.43	17.35	17.38
		1	2	24.51	24.38	24.47	17.35	17.22	17.31
		1	5	24.47	24.57	24.29	17.31	17.41	17.13
		3	0	24.47	24.36	24.44	17.31	17.20	17.28
		3	2	24.39	24.43	24.40	17.23	17.27	17.24
		3	3	24.39	24.45	24.36	17.23	17.29	17.20
		6	0	23.58	23.45	23.46	16.42	16.29	16.30
	16QAM	1	0	23.69	23.80	23.76	16.53	16.64	16.60
		1	2	23.67	23.64	23.61	16.51	16.48	16.45
		1	5	23.70	23.69	23.63	16.54	16.53	16.47
		3	0	23.47	23.47	23.40	16.31	16.31	16.24
		3	2	23.43	23.39	23.36	16.27	16.23	16.20
		3	3	23.34	23.32	23.24	16.18	16.16	16.08
		6	0	22.45	22.43	22.40	15.29	15.27	15.24
	64QAM	1	0	23.76	23.79	23.81	16.60	16.63	16.65
		1	2	23.64	23.65	23.69	16.48	16.49	16.53
		1	5	23.79	23.88	23.82	16.63	16.72	16.66
		3	0	23.58	23.57	23.61	16.42	16.41	16.45
		3	2	23.54	23.55	23.58	16.38	16.39	16.42
		3	3	23.60	23.62	23.62	16.44	16.46	16.46
		6	0	22.57	22.60	22.64	15.41	15.44	15.48
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23025/ 700.5	23095/ 707.5	23165/ 714.5	23025/ 700.5	23095/ 707.5	23165/ 714.5
3MHz	QPSK	1	0	24.60	24.54	24.56	17.44	17.38	17.40
		1	7	24.50	24.42	24.52	17.34	17.26	17.36
		1	14	24.49	24.61	24.32	17.33	17.45	17.16
		8	0	23.57	23.48	23.57	16.41	16.32	16.41

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		8	4	23.52	23.54	23.51	16.36	16.38	16.35
		8	7	23.49	23.58	23.47	16.33	16.42	16.31
		15	0	23.62	23.50	23.51	16.46	16.34	16.35
	16QAM	1	0	23.71	23.81	23.78	16.55	16.65	16.62
		1	7	23.70	23.66	23.65	16.54	16.50	16.49
		1	14	23.72	23.73	23.65	16.56	16.57	16.49
		8	0	22.59	22.61	22.53	15.43	15.45	15.37
		8	4	22.53	22.51	22.47	15.37	15.35	15.31
		8	7	22.44	22.44	22.37	15.28	15.28	15.21
		15	0	22.49	22.48	22.42	15.33	15.32	15.26
	64QAM	1	0	23.78	23.80	23.83	16.62	16.64	16.67
		1	7	23.67	23.67	23.71	16.51	16.51	16.55
		1	14	23.81	23.87	23.84	16.65	16.71	16.68
		8	0	22.70	22.71	22.74	15.54	15.55	15.58
		8	4	22.64	22.67	22.69	15.48	15.51	15.53
		8	7	22.70	22.74	22.75	15.54	15.58	15.59
		15	0	22.61	22.65	22.66	15.45	15.49	15.50
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23035/ 701.5	23095/ 707.5	23155/ 713.5	23035/ 701.5	23095/ 707.5	23155/ 713.5
5MHz	QPSK	1	0	24.59	24.50	24.54	17.43	17.34	17.38
		1	13	24.48	24.41	24.49	17.32	17.25	17.33
		1	24	24.46	24.56	24.28	17.30	17.40	17.12
		12	0	23.55	23.44	23.54	16.39	16.28	16.38
		12	6	23.49	23.49	23.47	16.33	16.33	16.31
		12	13	23.46	23.55	23.43	16.30	16.39	16.27
		25	0	23.60	23.46	23.46	16.44	16.30	16.30
	16QAM	1	0	23.66	23.79	23.76	16.50	16.63	16.60
		1	13	23.68	23.63	23.63	16.52	16.47	16.47
		1	24	23.69	23.69	23.62	16.53	16.53	16.46
		12	0	22.56	22.59	22.50	15.40	15.43	15.34
		12	6	22.50	22.46	22.43	15.34	15.30	15.27
		12	13	22.42	22.40	22.34	15.26	15.24	15.18
		25	0	22.46	22.43	22.38	15.30	15.27	15.22
	64QAM	1	0	23.73	23.78	23.81	16.57	16.62	16.65
		1	13	23.65	23.64	23.69	16.49	16.48	16.53
		1	24	23.82	23.86	23.85	16.66	16.70	16.69

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		12	0	22.69	22.73	22.75	15.53	15.57	15.59
		12	6	22.62	22.64	22.68	15.46	15.48	15.52
		12	13	22.68	22.70	22.72	15.52	15.54	15.56
		25	0	22.58	22.60	22.62	15.42	15.44	15.46
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23060/ 704	23095/ 707.5	23130/ 711	23060/ 704	23095/ 707.5	23130/ 711
10MHz	QPSK	1	0	24.56	24.46	24.51	17.40	17.30	17.35
		1	25	24.47	24.37	24.47	17.31	17.21	17.31
		1	49	24.44	24.55	24.25	17.28	17.39	17.09
		25	0	23.52	23.39	23.50	16.36	16.23	16.34
		25	13	23.47	23.45	23.44	16.31	16.29	16.28
		25	25	23.43	23.50	23.39	16.27	16.34	16.23
		50	0	23.57	23.41	23.42	16.41	16.25	16.26
	16QAM	1	0	23.77	23.75	23.71	16.61	16.59	16.55
		1	25	23.64	23.61	23.59	16.48	16.45	16.43
		1	49	23.67	23.66	23.60	16.51	16.50	16.44
		25	0	22.53	22.55	22.47	15.37	15.39	15.31
		25	13	22.47	22.44	22.40	15.31	15.28	15.24
		25	25	22.39	22.35	22.30	15.23	15.19	15.14
		50	0	22.44	22.39	22.35	15.28	15.23	15.19
	64QAM	1	0	23.71	23.74	23.76	16.55	16.58	16.60
		1	25	23.61	23.62	23.65	16.45	16.46	16.49
		1	49	23.76	23.80	23.79	16.60	16.64	16.63
		25	0	22.64	22.65	22.68	15.48	15.49	15.52
		25	13	22.58	22.60	22.62	15.42	15.44	15.46
		25	25	22.65	22.65	22.68	15.49	15.49	15.52
		50	0	22.56	22.56	22.59	15.40	15.40	15.43

LTE Band 17				Maximum Output Power(dBm)			ERP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23755/ 706.5	23790/ 710	23825/ 713.5	23755/ 706.5	23790/ 710	23825/ 713.5
5MHz	QPSK	1	0	24.58	24.53	24.47	17.42	17.37	17.31
		1	13	24.39	24.61	24.38	17.23	17.45	17.22
		1	24	24.43	24.38	24.26	17.27	17.22	17.10
		12	0	23.37	23.44	23.42	16.21	16.28	16.26

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		12	6	23.44	23.48	23.53	16.28	16.32	16.37
		12	13	23.54	23.57	23.49	16.38	16.41	16.33
		25	0	23.40	23.36	23.35	16.24	16.20	16.19
	16QAM	1	0	23.80	23.52	23.50	16.64	16.36	16.34
		1	13	23.82	23.83	23.84	16.66	16.67	16.68
		1	24	23.63	23.71	23.69	16.47	16.55	16.53
		12	0	22.39	22.45	22.47	15.23	15.29	15.31
		12	6	22.56	22.63	22.60	15.40	15.47	15.44
		12	13	22.52	22.63	22.58	15.36	15.47	15.42
		25	0	22.40	22.50	22.45	15.24	15.34	15.29
	64QAM	1	0	23.58	23.58	23.66	16.42	16.42	16.50
		1	13	23.73	23.67	23.75	16.57	16.51	16.59
		1	24	23.85	23.79	23.84	16.69	16.63	16.68
		12	0	22.74	22.72	22.77	15.58	15.56	15.61
		12	6	22.66	22.62	22.70	15.50	15.46	15.54
		12	13	22.53	22.52	22.56	15.37	15.36	15.40
		25	0	22.57	22.57	22.61	15.41	15.41	15.45
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				23780/ 709	23790/ 710	23800/ 711	23780/ 709	23790/ 710	23800/ 711
10MHz	QPSK	1	0	24.55	24.49	24.44	17.39	17.33	17.28
		1	25	24.38	24.57	24.36	17.22	17.41	17.20
		1	49	24.41	24.37	24.23	17.25	17.21	17.07
		25	0	23.34	23.39	23.38	16.18	16.23	16.22
		25	13	23.42	23.44	23.50	16.26	16.28	16.34
		25	25	23.51	23.52	23.45	16.35	16.36	16.29
		50	0	23.37	23.31	23.31	16.21	16.15	16.15
	16QAM	1	0	23.41	23.48	23.45	16.25	16.32	16.29
		1	25	23.78	23.81	23.80	16.62	16.65	16.64
		1	49	23.61	23.68	23.67	16.45	16.52	16.51
		25	0	22.36	22.41	22.44	15.20	15.25	15.28
		25	13	22.53	22.61	22.57	15.37	15.45	15.41
		25	25	22.49	22.58	22.54	15.33	15.42	15.38
		50	0	22.38	22.46	22.42	15.22	15.30	15.26
	64QAM	1	0	23.56	23.54	23.61	16.40	16.38	16.45
		1	25	23.69	23.65	23.71	16.53	16.49	16.55
		1	49	23.79	23.73	23.78	16.63	16.57	16.62

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		25	0	22.69	22.64	22.70	15.53	15.48	15.54
		25	13	22.62	22.58	22.64	15.46	15.42	15.48
		25	25	22.50	22.47	22.52	15.34	15.31	15.36
		50	0	22.55	22.53	22.58	15.39	15.37	15.42

LTE Band 38				Maximum Output Power(dBm)			EIRP (dBm)		
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
5MHz	QPSK	1	0	24.12	24.08	24.17	24.03	23.99	24.08
		1	13	24.08	24.13	24.11	23.99	24.04	24.02
		1	24	24.22	23.99	24.11	24.13	23.90	24.02
		12	0	23.17	23.31	23.17	23.08	23.22	23.08
		12	6	23.36	23.19	23.20	23.27	23.10	23.11
		12	13	23.34	23.36	23.23	23.25	23.27	23.14
		25	0	23.25	23.27	23.23	23.16	23.18	23.14
	16QAM	1	0	23.23	23.21	23.17	23.14	23.12	23.08
		1	13	23.21	23.13	23.20	23.12	23.04	23.11
		1	24	23.31	23.40	23.35	23.22	23.31	23.26
		12	0	22.27	22.28	22.33	22.18	22.19	22.24
		12	6	22.33	22.35	22.28	22.24	22.26	22.19
		12	13	22.26	22.43	22.30	22.17	22.34	22.21
		25	0	22.23	22.24	22.29	22.14	22.15	22.20
	64QAM	1	0	22.97	22.97	23.02	22.88	22.88	22.93
		1	13	22.99	22.97	23.01	22.90	22.88	22.92
		1	24	23.15	23.08	23.10	23.06	22.99	23.01
		12	0	21.94	21.87	21.98	21.85	21.78	21.89
		12	6	22.02	21.97	22.04	21.93	21.88	21.95
		12	13	22.01	22.00	22.04	21.92	21.91	21.95
		25	0	22.03	22.03	22.07	21.94	21.94	21.98
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				37800/ 2575	38000/ 2595	38200/ 2615	37800/ 2575	38000/ 2595	38200/ 2615
10MHz	QPSK	1	0	24.14	24.09	24.20	24.05	24.00	24.11
		1	25	24.11	24.18	24.15	24.02	24.09	24.06
		1	49	24.24	24.03	24.14	24.15	23.94	24.05
		25	0	23.20	23.36	23.21	23.11	23.27	23.12

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		25	13	23.39	23.24	23.24	23.30	23.15	23.15
		25	25	23.36	23.40	23.28	23.27	23.31	23.19
		50	0	23.29	23.29	23.27	23.20	23.20	23.18
	16QAM	1	0	23.25	23.24	23.19	23.16	23.15	23.10
		1	25	23.24	23.17	23.23	23.15	23.08	23.14
		1	49	23.34	23.42	23.38	23.25	23.33	23.29
		25	0	22.30	22.33	22.37	22.21	22.24	22.28
		25	13	22.35	22.39	22.31	22.26	22.30	22.22
		25	25	22.29	22.48	22.34	22.20	22.39	22.25
		50	0	22.26	22.29	22.33	22.17	22.20	22.24
	64QAM	1	0	22.99	22.96	23.04	22.90	22.87	22.95
		1	25	23.02	22.97	23.04	22.93	22.88	22.95
		1	49	23.14	23.10	23.13	23.05	23.01	23.04
		25	0	21.97	21.92	21.98	21.88	21.83	21.89
		25	13	22.04	22.01	22.07	21.95	21.92	21.98
		25	25	22.04	22.05	22.08	21.95	21.96	21.99
		50	0	22.06	22.08	22.11	21.97	21.99	22.02
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
15MHz	QPSK	1	0	24.13	24.05	24.18	24.04	23.96	24.09
		1	38	24.09	24.17	24.12	24.00	24.08	24.03
		1	74	24.21	23.98	24.10	24.12	23.89	24.01
		36	0	23.18	23.32	23.18	23.09	23.23	23.09
		36	18	23.36	23.19	23.20	23.27	23.10	23.11
		36	39	23.33	23.37	23.24	23.24	23.28	23.15
		75	0	23.27	23.25	23.22	23.18	23.16	23.13
	16QAM	1	0	23.20	23.22	23.17	23.11	23.13	23.08
		1	38	23.22	23.14	23.21	23.13	23.05	23.12
		1	74	23.31	23.38	23.35	23.22	23.29	23.26
		36	0	22.27	22.31	22.34	22.18	22.22	22.25
		36	18	22.32	22.34	22.27	22.23	22.25	22.18
		36	39	22.27	22.44	22.31	22.18	22.35	22.22
		75	0	22.23	22.24	22.29	22.14	22.15	22.20
	64QAM	1	0	22.94	22.94	23.02	22.85	22.85	22.93
		1	38	23.00	22.94	23.02	22.91	22.85	22.93
		1	74	23.15	23.09	23.14	23.06	23.00	23.05

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		36	0	21.96	21.94	21.99	21.87	21.85	21.90
		36	18	22.02	21.98	22.06	21.93	21.89	21.97
		36	39	22.02	22.01	22.05	21.93	21.92	21.96
		75	0	22.03	22.03	22.07	21.94	21.94	21.98
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				37850/ 2580	38000/ 2595	38150/ 2610	37850/ 2580	38000/ 2595	38150/ 2610
20MHz	QPSK	1	0	24.10	24.01	24.15	24.01	23.92	24.06
		1	50	24.08	24.13	24.10	23.99	24.04	24.01
		1	99	24.19	23.97	24.07	24.10	23.88	23.98
		50	0	23.15	23.27	23.14	23.06	23.18	23.05
		50	25	23.34	23.15	23.17	23.25	23.06	23.08
		50	50	23.30	23.32	23.20	23.21	23.23	23.11
		100	0	23.24	23.20	23.18	23.15	23.11	23.09
	16QAM	1	0	23.22	23.18	23.12	23.13	23.09	23.03
		1	50	23.18	23.12	23.17	23.09	23.03	23.08
		1	99	23.29	23.35	23.33	23.20	23.26	23.24
		50	0	22.24	22.27	22.31	22.15	22.18	22.22
		50	25	22.29	22.32	22.24	22.20	22.23	22.15
		50	50	22.24	22.39	22.27	22.15	22.30	22.18
		100	0	22.21	22.20	22.26	22.12	22.11	22.17
	64QAM	1	0	22.92	22.90	22.97	22.83	22.81	22.88
		1	50	22.96	22.92	22.98	22.87	22.83	22.89
		1	99	23.09	23.03	23.08	23.00	22.94	22.99
		50	0	21.91	21.86	21.92	21.82	21.77	21.83
		50	25	21.98	21.94	22.00	21.89	21.85	21.91
		50	50	21.99	21.96	22.01	21.90	21.87	21.92
		100	0	22.01	21.99	22.04	21.92	21.90	21.95

LTE Band 41				Maximum Output Power(dBm)			EIRP (dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				39675/ 2498.5	40620/ 2593	41565/ 2687.5	39675/ 2498.5	40620/ 2593	41565/ 2687.5
5MHz	QPSK	1	0	24.35	24.39	24.66	24.26	24.30	24.57
		1	13	24.35	24.47	24.49	24.26	24.38	24.40
		1	24	24.50	24.52	24.54	24.41	24.43	24.45
		12	0	23.50	23.49	23.53	23.41	23.40	23.44

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		12	6	23.58	23.54	23.58	23.49	23.45	23.49
		12	13	23.61	23.62	23.56	23.52	23.53	23.47
		25	0	23.56	23.58	23.64	23.47	23.49	23.55
	16QAM	1	0	23.56	23.48	23.52	23.47	23.39	23.43
		1	13	23.54	23.49	23.52	23.45	23.40	23.43
		1	24	23.62	23.57	23.67	23.53	23.48	23.58
		12	0	22.55	22.53	22.58	22.46	22.44	22.49
		12	6	22.63	22.66	22.72	22.54	22.57	22.63
		12	13	22.65	22.62	22.72	22.56	22.53	22.63
		25	0	22.63	22.60	22.70	22.54	22.51	22.61
	64QAM	1	0	23.12	23.15	23.16	23.03	23.06	23.07
		1	13	23.12	23.14	23.14	23.03	23.05	23.05
		1	24	23.29	23.27	23.23	23.20	23.18	23.14
		12	0	22.09	22.08	22.10	22.00	21.99	22.01
		12	6	22.19	22.17	22.18	22.10	22.08	22.09
		12	13	22.21	22.16	22.17	22.12	22.07	22.08
		25	0	22.22	22.19	22.19	22.13	22.10	22.10

BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				39700/ 2501	40620/ 2593	41540/ 2685	39700/ 2501	40620/ 2593	41540/ 2685
10MHz	QPSK	1	0	24.37	24.42	24.67	24.28	24.33	24.58
		1	25	24.38	24.51	24.54	24.29	24.42	24.45
		1	49	24.52	24.55	24.58	24.43	24.46	24.49
		25	0	23.53	23.53	23.58	23.44	23.44	23.49
		25	13	23.61	23.58	23.63	23.52	23.49	23.54
		25	25	23.63	23.67	23.60	23.54	23.58	23.51
		50	0	23.60	23.62	23.66	23.51	23.53	23.57
	16QAM	1	0	23.58	23.50	23.55	23.49	23.41	23.46
		1	25	23.57	23.52	23.56	23.48	23.43	23.47
		1	49	23.65	23.60	23.69	23.56	23.51	23.60
		25	0	22.58	22.57	22.63	22.49	22.48	22.54
		25	13	22.65	22.69	22.76	22.56	22.60	22.67
		25	25	22.68	22.66	22.77	22.59	22.57	22.68
		50	0	22.66	22.64	22.75	22.57	22.55	22.66
	64QAM	1	0	23.12	23.17	23.18	23.03	23.08	23.09
		1	25	23.14	23.17	23.17	23.05	23.08	23.08
		1	49	23.27	23.26	23.26	23.18	23.17	23.17

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		25	0	22.05	22.11	22.10	21.96	22.02	22.01
		25	13	22.14	22.19	22.21	22.05	22.10	22.12
		25	25	22.16	22.19	22.21	22.07	22.10	22.12
		50	0	22.18	22.22	22.23	22.09	22.13	22.14
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				39725/ 2503.5	40620/ 2593	41515/ 2682.5	39725/ 2503.5	40620/ 2593	41515/ 2682.5
15MHz	QPSK	1	0	24.36	24.40	24.62	24.27	24.31	24.53
		1	38	24.36	24.47	24.51	24.27	24.38	24.42
		1	74	24.49	24.50	24.55	24.40	24.41	24.46
		36	0	23.51	23.49	23.53	23.42	23.40	23.44
		36	18	23.58	23.53	23.57	23.49	23.44	23.48
		36	39	23.60	23.62	23.56	23.51	23.53	23.47
		75	0	23.58	23.56	23.61	23.49	23.47	23.52
	16QAM	1	0	23.53	23.48	23.54	23.44	23.39	23.45
		1	38	23.55	23.50	23.55	23.46	23.41	23.46
		1	74	23.62	23.57	23.64	23.53	23.48	23.55
		36	0	22.55	22.54	22.60	22.46	22.45	22.51
		36	18	22.62	22.65	22.72	22.53	22.56	22.63
		36	39	22.66	22.62	22.72	22.57	22.53	22.63
		75	0	22.63	22.59	22.69	22.54	22.50	22.60
	64QAM	1	0	23.09	23.12	23.16	23.00	23.03	23.07
		1	38	23.11	23.15	23.15	23.02	23.06	23.06
		1	74	23.28	23.27	23.27	23.19	23.18	23.18
		36	0	22.12	22.10	22.11	22.03	22.01	22.02
		36	18	22.15	22.17	22.20	22.06	22.08	22.11
		36	39	22.17	22.17	22.18	22.08	22.08	22.09
		75	0	22.18	22.19	22.19	22.09	22.10	22.10
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)					
				39750/ 2506	40620/ 2593	41490/ 2680	39750/ 2506	40620/ 2593	41490/ 2680
20MHz	QPSK	1	0	24.33	24.37	24.59	24.24	24.28	24.50
		1	50	24.35	24.46	24.49	24.26	24.37	24.40
		1	99	24.47	24.48	24.52	24.38	24.39	24.43
		50	0	23.48	23.46	23.49	23.39	23.37	23.40
		50	25	23.56	23.51	23.54	23.47	23.42	23.45
		50	50	23.57	23.59	23.52	23.48	23.50	23.43

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		100	0	23.55	23.53	23.57	23.46	23.44	23.48
	16QAM	1	0	23.39	23.43	23.49	23.30	23.34	23.40
		1	50	23.51	23.46	23.51	23.42	23.37	23.42
		1	99	23.60	23.55	23.62	23.51	23.46	23.53
		50	0	22.52	22.51	22.57	22.43	22.42	22.48
		50	25	22.59	22.62	22.69	22.50	22.53	22.60
		50	50	22.63	22.59	22.68	22.54	22.50	22.59
		100	0	22.61	22.57	22.66	22.52	22.48	22.57
	64QAM	1	0	23.05	23.10	23.11	22.96	23.01	23.02
		1	50	23.09	23.11	23.11	23.00	23.02	23.02
		1	99	23.22	23.21	23.21	23.13	23.12	23.12
		50	0	22.04	22.05	22.04	21.95	21.96	21.95
		50	25	22.11	22.13	22.14	22.02	22.04	22.05
		50	50	22.12	22.14	22.14	22.03	22.05	22.05
		100	0	22.14	22.17	22.16	22.05	22.08	22.07

CA_7C	PCC	SCC	PCC RB		SCC1 RB		Maximum output power (dBm)			EIRP (dBm)		
	Frequency(MHz)	Frequency(MHz)	Size	Offset	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10MHz+20MHz	2505.5	2519.9	1	49	1	0	24.12	23.18	22.74	24.03	23.09	22.65
			50	0	100	0	21.15	19.32	19.11	21.06	19.23	19.02
	2525.6	2540	1	49	1	0	24.14	23.20	22.71	24.05	23.11	22.62
			50	0	100	0	20.77	19.91	19.35	20.68	19.82	19.26
	2545.6	2560	1	49	1	0	24.03	23.13	22.52	23.94	23.04	22.43
			50	0	100	0	21.30	20.53	19.96	21.21	20.44	19.87
20MHz+10MHz	2510	2524.4	1	99	1	0	24.25	23.77	23.03	24.16	23.68	22.94
			100	0	50	0	21.65	20.03	19.38	21.56	19.94	19.29
	2530.1	2544.5	1	99	1	0	24.23	23.75	23.17	24.14	23.66	23.08
			100	0	50	0	20.03	19.24	18.56	19.94	19.15	18.47
	2550.1	2564.5	1	99	1	0	24.02	23.47	22.87	23.93	23.38	22.78
			100	0	50	0	20.45	19.14	18.63	20.36	19.05	18.54
15MHz+15MHz	2507.5	2522.5	1	74	1	0	23.64	22.79	22.31	23.55	22.7	22.22
			75	0	75	0	20.79	19.48	19.11	20.7	19.39	19.02
	2527.5	2542.5	1	74	1	0	23.87	23.49	23.00	23.78	23.4	22.91
			75	0	75	0	19.35	18.26	17.70	19.26	18.17	17.61
	2547.5	2562.5	1	74	1	0	23.58	22.83	22.25	23.49	22.74	22.16
			75	0	75	0	20.98	20.42	19.87	20.89	20.33	19.78
15MHz+20MHz	2507.8	2524.9	1	74	1	0	24.14	23.27	22.76	24.05	23.18	22.67
			75	0	100	0	21.23	20.11	19.56	21.14	20.02	19.47
	2525.3	2542.4	1	74	1	0	23.87	23.03	22.46	23.78	22.94	22.37
			75	0	100	0	19.67	19.97	19.65	19.58	19.88	19.56

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	2542.9	2560	1	74	1	0	23.95	23.40	22.47	23.86	23.31	22.38
			75	0	100	0	20.80	20.34	19.65	20.71	20.25	19.56
20MHz+15MHz	2510	2527.1	1	99	1	0	24.22	23.94	23.33	24.13	23.85	23.24
			100	0	75	0	21.19	19.78	19.02	21.1	19.69	18.93
	2527.6	2544.7	1	99	1	0	24.15	23.82	23.37	24.06	23.73	23.28
			100	0	75	0	19.81	18.90	18.25	19.72	18.81	18.16
	2545.1	2562.2	1	99	1	0	24.09	23.14	22.67	24	23.05	22.58
			100	0	75	0	19.87	18.76	18.18	19.78	18.67	18.09
20MHz+20MHz	2510	2529.8	1	99	1	0	23.94	23.32	22.66	23.85	23.23	22.57
			1	0	1	99	11.43	12.05	12.27	11.34	11.96	12.18
			100	0	100	0	20.90	19.83	19.42	20.81	19.74	19.33
	2525.1	2544.9	1	99	1	0	24.12	23.82	23.33	24.03	23.73	23.24
			1	0	1	99	12.77	13.38	13.12	12.68	13.29	13.03
			100	0	100	0	19.55	18.49	18.10	19.46	18.4	18.01
	2540.2	2560	1	99	1	0	23.95	23.42	22.89	23.86	23.33	22.8
			1	0	1	99	12.82	13.51	13.77	12.73	13.42	13.68
			100	0	100	0	19.56	18.91	18.39	19.47	18.82	18.3

CA_41C	PCC	SCC	PCC RB		SCC1 RB		Maximum output power (dBm)			EIRP (dBm)		
	Frequency(MHz)	Frequency(MHz)	Size	Offset	Size	QPSK	QPSK	QPSK	64QAM	QPSK	QPSK	64QAM
5MHz+20MHz	2499.3	2511	1	24	1	0	23.70	22.95	22.42	23.61	22.86	22.33
			25	0	100	0	21.68	20.76	20.23	21.59	20.67	20.14
	2583.8	2595.5	1	24	1	0	23.44	22.66	22.14	23.35	22.57	22.05
			25	0	100	0	21.43	20.48	20.00	21.34	20.39	19.91
	2668.3	2680	1	24	1	0	23.53	22.86	22.26	23.44	22.77	22.17
			25	0	100	0	21.46	20.51	20.11	21.37	20.42	20.02
20MHz+5MHz	2506	2517.7	1	99	1	0	23.73	23.17	22.70	23.64	23.08	22.61
			1	0	1	24	14.22	14.58	14.24	14.13	14.49	14.15
			100	0	25	0	21.76	20.71	20.15	21.67	20.62	20.06
	2590.5	2602.2	1	99	1	0	23.54	22.92	22.44	23.45	22.83	22.35
			1	0	1	24	14.91	15.18	14.99	14.82	15.09	14.90
			100	0	25	0	21.44	20.46	20.01	21.35	20.37	19.92
	2675	2686.7	1	99	1	0	23.57	23.01	22.58	23.48	22.92	22.49
			1	0	1	24	14.67	15.03	14.68	14.58	14.94	14.59
			100	0	25	0	21.45	20.52	20.12	21.36	20.43	20.03
10MHz+20MHz	2501.5	2515.9	1	49	1	0	23.68	22.93	22.38	23.59	22.84	22.29
			50	0	100	0	21.75	20.74	20.26	21.66	20.65	20.17
	2583.6	2598	1	49	1	0	23.46	22.63	22.15	23.37	22.54	22.06
			50	0	100	0	21.48	20.51	19.96	21.39	20.42	19.87
	2665.6	2680	1	49	1	0	23.46	22.62	22.03	23.37	22.53	21.94
			50	0	100	0	21.49	20.53	20.01	21.40	20.44	19.92

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20MHz+10MHz	2506	2520.4	1	99	1	0	23.83	23.02	22.45	23.74	22.93	22.36
			100	0	50	0	21.79	20.80	20.27	21.70	20.71	20.18
	2588.1	2602.5	1	99	1	0	23.57	22.73	22.19	23.48	22.64	22.10
			100	0	50	0	21.40	20.54	20.09	21.31	20.45	20.00
	2670.1	2684.5	1	99	1	0	23.58	22.86	22.43	23.49	22.77	22.34
			100	0	50	0	21.45	20.52	20.08	21.36	20.43	19.99
15MHz+15MHz	2503.5	2518.5	1	74	1	0	23.66	23.09	22.66	23.57	23.00	22.57
			75	0	75	0	21.64	20.75	20.23	21.55	20.66	20.14
	2585.5	2600.5	1	74	1	0	23.41	22.72	22.25	23.32	22.63	22.16
			75	0	75	0	21.43	20.53	20.00	21.34	20.44	19.91
	2667.5	2682.5	1	74	1	0	23.36	22.82	22.28	23.27	22.73	22.19
			75	0	75	0	21.46	20.55	20.03	21.37	20.46	19.94
15MHz+20MHz	2503.8	2520.9	1	74	1	0	23.66	23.09	22.43	23.57	23.00	22.34
			75	0	100	0	21.73	20.81	20.26	21.64	20.72	20.17
	2583.3	2600.4	1	74	1	0	23.32	22.71	22.16	23.23	22.62	22.07
			75	0	100	0	21.49	20.56	20.01	21.40	20.47	19.92
	2662.9	2680	1	74	1	0	23.40	22.71	22.37	23.31	22.62	22.28
			75	0	100	0	21.49	20.55	20.03	21.40	20.46	19.94
20MHz+15MHz	2506	2523.1	1	99	1	0	23.77	23.12	22.66	23.68	23.03	22.57
			100	0	75	0	21.66	20.80	20.18	21.57	20.71	20.09
	2585.6	2602.7	1	99	1	0	23.54	22.85	22.26	23.45	22.76	22.17
			100	0	75	0	21.43	20.57	20.08	21.34	20.48	19.99
	2665.1	2682.2	1	99	1	0	23.56	22.89	22.16	23.47	22.80	22.07
			100	0	75	0	21.46	20.52	19.89	21.37	20.43	19.80
20MHz+20MHz	2506	2525.8	1	99	1	0	23.77	23.13	22.75	23.68	23.04	22.66
			1	0	1	99	13.80	14.16	13.85	13.71	14.07	13.76
			100	0	100	0	21.74	20.85	20.27	21.65	20.76	20.18
	2583.1	2602.9	1	99	1	0	23.43	22.85	22.21	23.34	22.76	22.12
			1	0	1	99	14.59	14.95	14.52	14.50	14.86	14.43
			100	0	100	0	21.54	20.58	20.04	21.45	20.49	19.95
	2660.2	2680	1	99	1	0	23.53	22.82	22.36	23.44	22.73	22.27
			1	0	1	99	14.32	14.66	14.36	14.23	14.57	14.27
			100	0	100	0	21.51	20.57	20.01	21.42	20.48	19.92

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5.2 Occupied Bandwidth

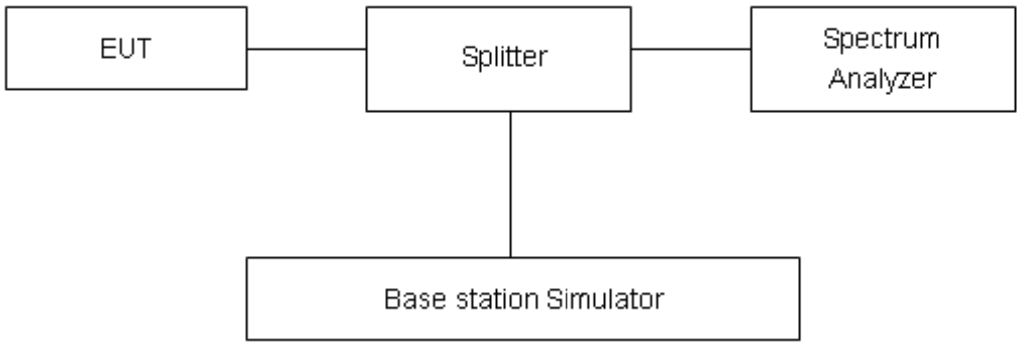
Ambient condition

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 4/12 (1.4MHz).
RBW is set to 62 kHz, VBW is set to 180 kHz for LTE Band 4/12 (3MHz).
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7/12/17/38/41 (5MHz).
RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4/7/12/17/38/41 (10MHz).
RBW is set to 300 kHz, VBW is set to 910 kHz for LTE Band 4/7/17/38/41 (15MHz).
RBW is set to 430 kHz, VBW is set to 1.2MHz for LTE Band 4/7/17/38/41 (20MHz)
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=624Hz.

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Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band IV (RMC)	1312	1712.4	4.1414	4.707
	1413	1732.6	4.1523	4.695
	1513	1752.6	4.1488	4.708

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	19957	1710.7	1.0944	1.236
			20175	1732.5	1.0909	1.239
			20393	1754.3	1.0959	1.246
		3	19965	1711.5	2.7023	3.017
			20175	1732.5	2.6927	2.994
			20385	1753.5	2.7056	3.006
		5	19975	1712.5	4.5412	4.959
			20175	1732.5	4.5098	4.950
			20375	1752.5	4.5056	4.921
		10	20000	1715	8.9954	9.787
			20175	1732.5	8.9608	9.823
			20350	1750	8.9669	9.697
		15	20025	1717.5	13.5250	14.670
			20175	1732.5	13.4720	14.450
			20325	1747.5	13.4880	14.630
		20	20050	1720	18.0050	19.420
			20175	1732.5	17.9310	19.340
			20300	1745	18.0240	19.680
	16QAM	1.4	19957	1710.7	1.0942	1.247
			20175	1732.5	1.0963	1.246
			20393	1754.3	1.0940	1.214
		3	19965	1711.5	2.6881	3.060
			20175	1732.5	2.6904	3.013
			20385	1753.5	2.7007	2.989
		5	19975	1712.5	4.5101	4.934
			20175	1732.5	4.5152	4.956
			20375	1752.5	4.5239	4.936
		10	20000	1715	9.0062	9.820
			20175	1732.5	8.9868	9.773
			20350	1750	8.9862	9.670

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		15	20025	1717.5	13.4930	14.620
			20175	1732.5	13.4470	14.620
			20325	1747.5	13.4660	14.470
		20	20050	1720	17.9740	19.540
			20175	1732.5	17.9840	19.590
			20300	1745	18.0250	19.750
	64QAM	1.4	19957	1710.7	1.0913	1.246
			20175	1732.5	1.0957	1.243
			20393	1754.3	1.0922	1.234
		3	19965	1711.5	2.6932	3.005
			20175	1732.5	2.6921	2.990
			20385	1753.5	2.6932	3.024
		5	19975	1712.5	4.5074	4.944
			20175	1732.5	4.5195	4.982
			20375	1752.5	4.5115	5.011
		10	20000	1715	9.0083	9.737
			20175	1732.5	8.9446	9.704
			20350	1750	8.9785	9.748
		15	20025	1717.5	13.4980	14.750
			20175	1732.5	13.4500	14.520
			20325	1747.5	13.5020	14.580
		20	20050	1720	17.9680	19.300
			20175	1732.5	17.9250	19.180
			20300	1745	18.0010	19.500

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LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	20775	2502.5	4.4938	4.982
			21100	2535	4.5107	4.928
			21425	2567.5	4.5228	4.981
		10	20800	2505	8.9456	9.776
			21100	2535	8.9470	9.694
			21400	2565	8.9679	9.716
		15	20825	2507.5	13.4650	14.560
			21100	2535	13.4260	14.550
			21375	2562.5	13.4320	14.440
		20	20850	2510	17.9730	19.290
			21100	2535	17.9080	19.340
			21350	2560	17.8850	19.460
	16QAM	5	20775	2502.5	4.5368	4.960
			21100	2535	4.5053	4.968
			21425	2567.5	4.5284	4.949
		10	20800	2505	8.9851	9.753
			21100	2535	8.9620	9.746
			21400	2565	8.9437	9.714
		15	20825	2507.5	13.4400	14.500
			21100	2535	13.4770	14.580
			21375	2562.5	13.4390	14.510
		20	20850	2510	17.8740	19.210
			21100	2535	17.9330	19.390
			21350	2560	17.9630	19.390
	64QAM	5	20775	2502.5	4.5111	4.992
			21100	2535	4.5091	4.914
			21425	2567.5	4.5227	4.930
		10	20800	2505	8.9823	9.753
			21100	2535	8.9575	9.687
			21400	2565	8.9656	9.779
		15	20825	2507.5	13.4480	14.520
			21100	2535	13.4520	14.630
			21375	2562.5	13.4600	14.600
		20	20850	2510	17.9290	19.210
			21100	2535	17.9360	19.430
			21350	2560	17.9190	19.170

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LTE Band 12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	23017	699.7	1.0946	1.234
			23095	707.5	1.0895	1.239
			23173	715.3	1.0965	1.232
		3	23025	700.5	2.6975	2.996
			23095	707.5	2.7007	2.975
			23165	714.5	2.7039	2.983
		5	23035	701.5	4.5295	4.938
			23095	707.5	4.5120	4.919
			23155	713.5	4.5092	4.930
		10	23060	704	8.9807	9.908
			23095	707.5	8.9768	9.840
			23130	711	8.9949	9.780
	16QAM	1.4	23017	699.7	1.0939	1.239
			23095	707.5	1.0927	1.230
			23173	715.3	1.0899	1.228
		3	23025	700.5	2.6896	3.007
			23095	707.5	2.7037	2.999
			23165	714.5	2.6912	3.012
		5	23035	701.5	4.5097	4.908
			23095	707.5	4.5020	4.911
			23155	713.5	4.5226	4.942
		10	23060	704	9.0024	9.666
			23095	707.5	8.9617	9.690
			23130	711	8.9562	9.719
	64QAM	1.4	23017	699.7	1.0900	1.240
			23095	707.5	1.0941	1.230
			23173	715.3	1.0916	1.228
		3	23025	700.5	2.6928	3.044
			23095	707.5	2.6908	3.019
			23165	714.5	2.7017	3.015
		5	23035	701.5	4.5041	4.910
			23095	707.5	4.5099	4.972
			23155	713.5	4.5137	4.947
		10	23060	704	8.9679	9.740
			23095	707.5	8.9463	9.634
			23130	711	8.9791	9.797

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LTE Band 17						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	23755	706.5	4.4985	4.937
			23790	710	4.5070	4.911
			23825	713.5	4.5104	4.997
		10	23780	709	8.9838	9.730
			23790	710	8.9516	9.735
			23800	711	8.9699	9.800
	16QAM	5	23755	706.5	4.5099	4.949
			23790	710	4.5005	4.924
			23825	713.5	4.5210	4.997
		10	23780	709	8.9765	9.692
			23790	710	8.9585	9.725
			23800	711	8.9647	9.690
	64QAM	5	23755	706.5	4.5230	4.972
			23790	710	4.5034	4.931
			23825	713.5	4.5175	4.913
		10	23780	709	8.9827	9.800
			23790	710	8.9491	9.646
			23800	711	8.9554	9.772

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LTE Band 38						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	37775	2572.5	4.4862	4.851
			38000	2595	4.5081	4.969
			38225	2617.5	4.5155	4.889
		10	37800	2575	8.9668	9.791
			38000	2595	8.9967	9.644
			38200	2615	8.9678	9.611
		15	37825	2577.5	13.4450	14.580
			38000	2595	13.4610	14.510
			38175	2612.5	13.4800	14.380
		20	37850	2580	17.9470	19.250
			38000	2595	17.8950	19.230
			38150	2610	17.9200	19.260
	16QAM	5	37775	2572.5	4.5037	4.936
			38000	2595	4.5104	4.923
			38225	2617.5	4.5060	4.934
		10	37800	2575	8.9833	9.660
			38000	2595	8.9746	9.641
			38200	2615	8.9784	9.721
		15	37825	2577.5	13.4490	14.410
			38000	2595	13.4260	14.430
			38175	2612.5	13.4260	14.300
		20	37850	2580	17.9600	19.200
			38000	2595	17.8600	19.380
			38150	2610	17.8860	19.290
	64QAM	5	37775	2572.5	4.5048	4.885
			38000	2595	4.4793	4.935
			38225	2617.5	4.5101	4.859
		10	37800	2575	8.9740	9.794
			38000	2595	8.9834	9.674
			38200	2615	8.9925	9.607
		15	37825	2577.5	13.4550	14.520
			38000	2595	13.4300	14.560
			38175	2612.5	13.4240	14.470
		20	37850	2580	17.9440	19.410
			38000	2595	17.9300	19.230
			38150	2610	17.9820	19.160

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LTE Band 41						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	39675	2498.5	4.5026	4.936
			40620	2593	4.5107	4.915
			41565	2687.5	4.4873	4.886
		10	39700	2501	8.9849	9.739
			40620	2593	8.9435	9.721
			41540	2685	8.9775	9.646
		15	39725	2503.5	13.4900	14.560
			40620	2593	13.4860	14.550
			41515	2682.5	13.4600	14.660
		20	39750	2506	17.9330	19.220
			40620	2593	17.9100	19.240
			41490	2680	17.9250	19.090
	16QAM	5	39675	2498.5	4.5145	4.937
			40620	2593	4.5101	4.908
			41565	2687.5	4.5034	4.886
		10	39700	2501	8.9754	9.650
			40620	2593	8.9752	9.712
			41540	2685	8.9974	9.653
		15	39725	2503.5	13.4610	14.590
			40620	2593	13.4200	14.670
			41515	2682.5	13.4750	14.560
		20	39750	2506	17.8510	19.230
			40620	2593	17.9620	19.250
			41490	2680	17.8720	19.340
	64QAM	5	39675	2498.5	4.4909	4.887
			40620	2593	4.4981	4.858
			41565	2687.5	4.5107	4.843
		10	39700	2501	8.9832	9.757
			40620	2593	8.9767	9.706
			41540	2685	8.9907	9.758
		15	39725	2503.5	13.4880	14.390
			40620	2593	13.4170	14.660
			41515	2682.5	13.4450	14.320
		20	39750	2506	17.8700	19.230
			40620	2593	17.9260	19.220
			41490	2680	17.8780	19.420

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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	28.01	30.13
CA_7C_10MHz+20MHz_16QAM	21006	2525.6	21150	2540	50#0	75#0	28.03	30.03
CA_7C_10MHz+20MHz_64QAM	21006	2525.6	21150	2540	50#0	75#0	28.01	29.89
CA_7C_20MHz+10MHz_QPSK	21051	2530.1	21195	2544.5	75#0	50#0	28.12	30.14
CA_7C_20MHz+10MHz_16QAM	21051	2530.1	21195	2544.5	75#0	50#0	28.05	29.95
CA_7C_20MHz+10MHz_64QAM	21051	2530.1	21195	2544.5	75#0	50#0	28.04	30.05
CA_7C_15MHz+10MHz_QPSK	21051	2530.1	21171	2542.1	75#0	75#0	23.60	25.51
CA_7C_15MHz+10MHz_16QAM	21025	2527.5	21175	2542.5	75#0	75#0	23.51	25.45
CA_7C_15MHz+10MHz_64QAM	21025	2527.5	21175	2542.5	75#0	75#0	23.47	25.43
CA_7C_15MHz+15MHz_QPSK	21025	2527.5	21175	2542.5	75#0	75#0	28.66	30.59
CA_7C_15MHz+15MHz_16QAM	21025	2527.5	21175	2542.5	75#0	75#0	28.60	30.72
CA_7C_15MHz+15MHz_64QAM	21025	2527.5	21175	2542.5	75#0	75#0	28.64	30.62
CA_7C_15MHz+20MHz_QPSK	21003	2525.3	21174	2542.4	75#0	100#0	32.81	35.04
CA_7C_15MHz+20MHz_16QAM	21003	2525.3	21174	2542.4	75#0	100#0	32.80	34.95
CA_7C_15MHz+20MHz_64QAM	21003	2525.3	21174	2542.4	75#0	100#0	32.84	35.05
CA_7C_20MHz+15MHz_QPSK	21026	2527.6	21197	2544.7	100#0	75#0	32.88	35.15
CA_7C_20MHz+15MHz_16QAM	21026	2527.6	21197	2544.7	100#0	75#0	32.92	34.94
CA_7C_20MHz+15MHz_64QAM	21026	2527.6	21197	2544.7	100#0	75#0	32.87	35.04
CA_7C_20MHz+20MHz_QPSK	21001	2525.1	21199	2544.9	100#0	100#0	37.73	40.03
CA_7C_20MHz+20MHz_16QAM	21001	2525.1	21199	2544.9	100#0	100#0	37.70	40.09
CA_7C_20MHz+20MHz_64QAM	21001	2525.1	21199	2544.9	100#0	100#0	37.70	39.89

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CA_41C	PCC		SCC1		PCC RB	SCC1 RB	Bandwidth(MHz)	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)			99% Power	-26dBc
CA_41C_5MHz+20MHz_QPSK	40528	2583.8	40645	2595.5	25#0	100#0	23.32	25.15
CA_41C_5MHz+20MHz_16QAM	40528	2583.8	40645	2595.5	25#0	100#0	23.29	25.05
CA_41C_5MHz+20MHz_64QAM	40528	2583.8	40645	2595.5	25#0	100#0	23.29	25.07
CA_41C_20MHz+5MHz_QPSK	40595	2590.5	40712	2602.2	100#0	25#0	23.36	25.14
CA_41C_20MHz+5MHz_16QAM	40595	2590.5	40712	2602.2	100#0	25#0	23.22	25.04
CA_41C_20MHz+5MHz_64QAM	40595	2590.5	40712	2602.2	100#0	25#0	23.37	24.99
CA_41C_10MHz+20MHz_QPSK	40549	2583.6	40669	2598	50#0	75#0	28.08	29.93
CA_41C_10MHz+20MHz_16QAM	40549	2583.6	40669	2598	50#0	75#0	28.01	29.77
CA_41C_10MHz+20MHz_64QAM	40549	2583.6	40669	2598	50#0	75#0	28.01	29.96
CA_41C_20MHz+10MHz_QPSK	40571	2588.1	40691	2602.5	75#0	50#0	28.03	30.15
CA_41C_20MHz+10MHz_16QAM	40571	2588.1	40691	2602.5	75#0	50#0	27.96	30.00
CA_41C_20MHz+10MHz_64QAM	40571	2588.1	40691	2602.5	75#0	50#0	28.00	30.03
CA_41C_15MHz+15MHz_QPSK	40545	2585.5	40695	2600.5	75#0	75#0	28.58	30.67
CA_41C_15MHz+15MHz_16QAM	40545	2585.5	40695	2600.5	75#0	75#0	28.62	30.72
CA_41C_15MHz+15MHz_64QAM	40545	2585.5	40695	2600.5	75#0	75#0	28.59	30.79
CA_41C_15MHz+20MHz_QPSK	40523	2583.3	40694	2600.4	75#0	100#0	32.79	35.06
CA_41C_15MHz+20MHz_16QAM	40523	2583.3	40694	2600.4	75#0	100#0	32.84	34.82
CA_41C_15MHz+20MHz_64QAM	40523	2583.3	40694	2600.4	75#0	100#0	32.79	35.02
CA_41C_20MHz+15MHz_QPSK	40546	2585.6	40717	2602.7	100#0	75#0	32.85	35.08
CA_41C_20MHz+15MHz_16QAM	40546	2585.6	40717	2602.7	100#0	75#0	32.79	35.01
CA_41C_20MHz+15MHz_64QAM	40546	2585.6	40717	2602.7	100#0	75#0	32.83	35.12
CA_41C_20MHz+20MHz_QPSK	40521	2583.1	40719	2602.9	100#0	100#0	37.65	40.27
CA_41C_20MHz+20MHz_16QAM	40521	2583.1	40719	2602.9	100#0	100#0	37.64	39.95
CA_41C_20MHz+20MHz_64QAM	40521	2583.1	40719	2602.9	100#0	100#0	37.74	39.92

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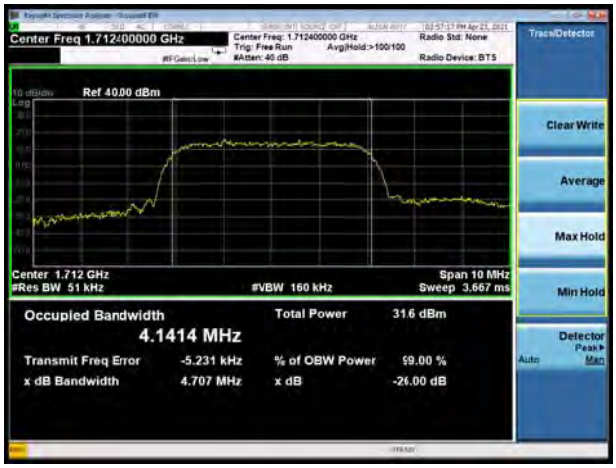
WCDMA Band IV CH-Low



WCDMA Band IV CH Middle

WCDMA Band IV CH High

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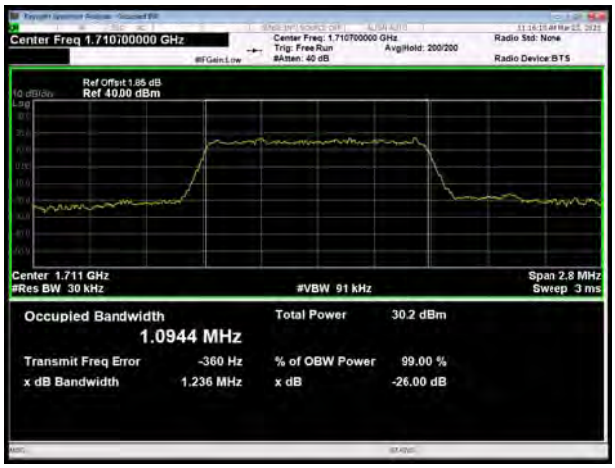
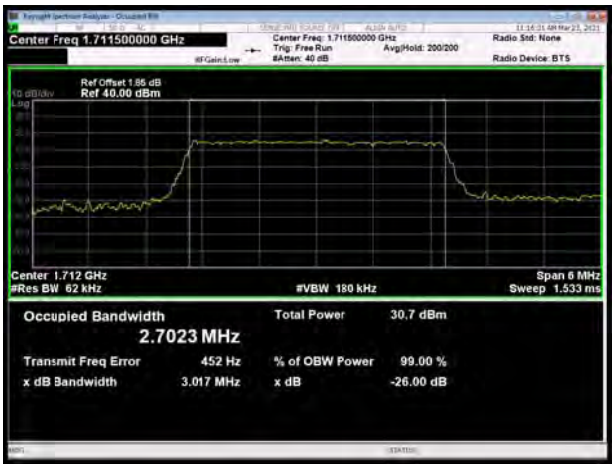
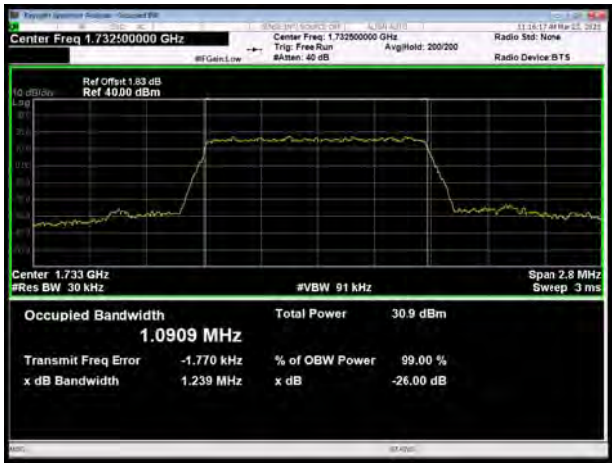
LTE Band 4 QPSK 1.4MHz CH-Low



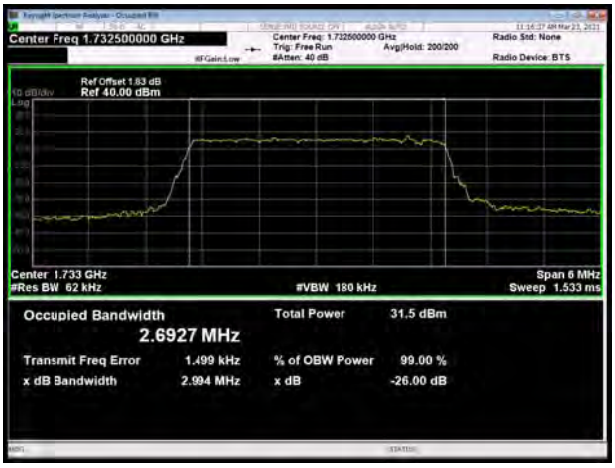
LTE Band 4 QPSK 3MHz CH-Low



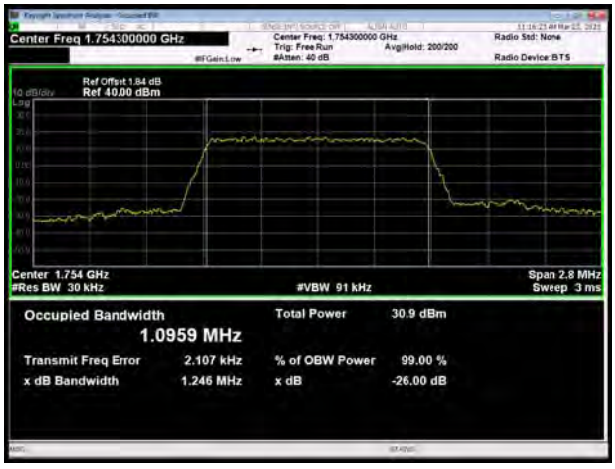
LTE Band 4 QPSK 1.4MHz CH-Middle



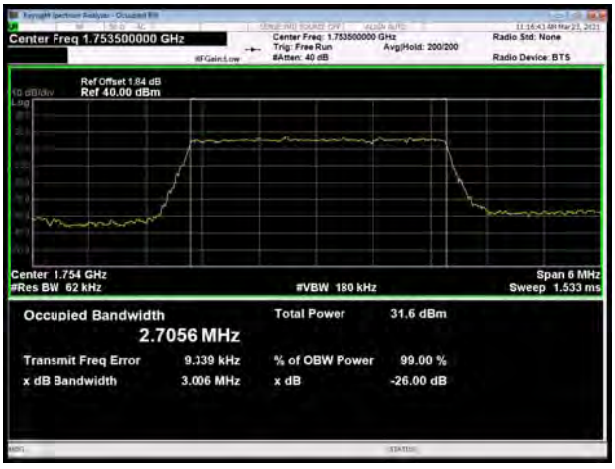
LTE Band 4 QPSK 3MHz CH-Middle



LTE Band 4 QPSK 1.4MHz CH-High



LTE Band 4 QPSK 3MHz CH-High



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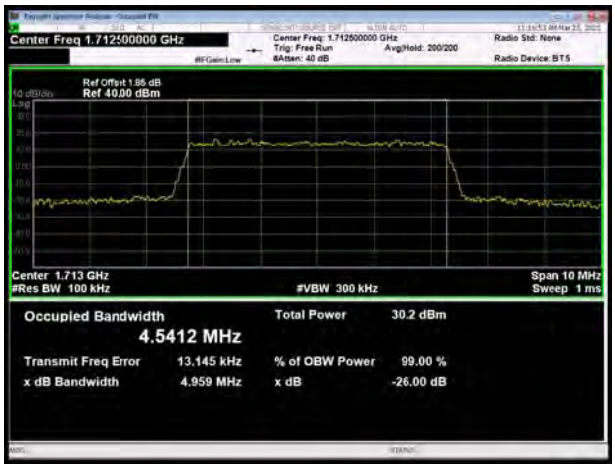
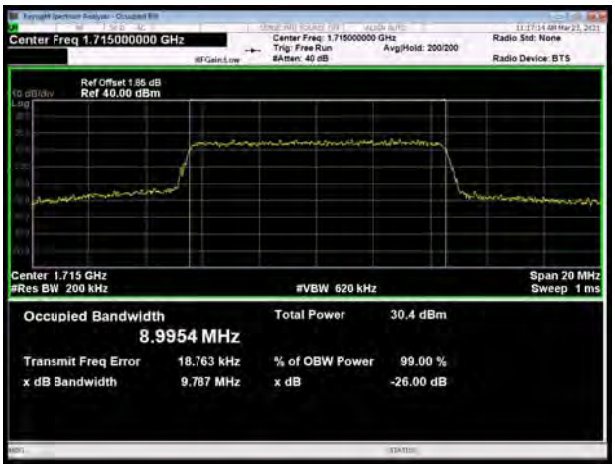
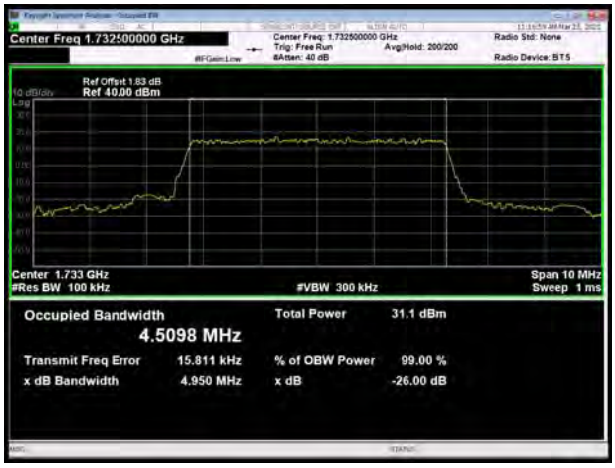
LTE Band 4 QPSK 5MHz CH-Low



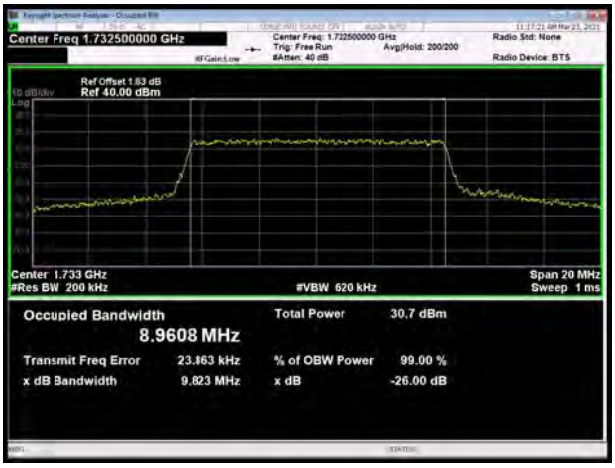
LTE Band 4 QPSK 10MHz CH-Low



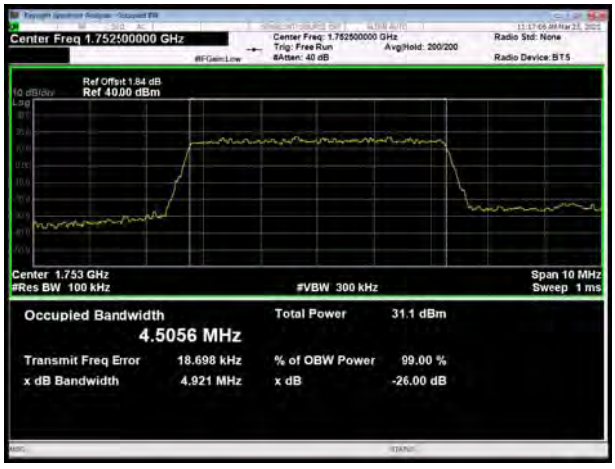
LTE Band 4 QPSK 5MHz CH-Middle



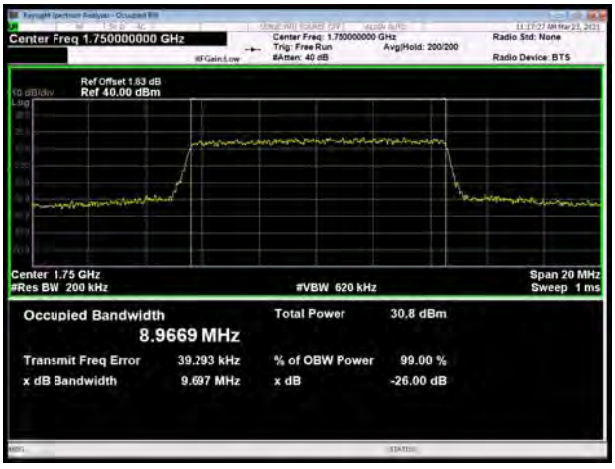
LTE Band 4 QPSK 10MHz CH-Middle



LTE Band 4 QPSK 5MHz CH-High



LTE Band 4 QPSK 10MHz CH-High



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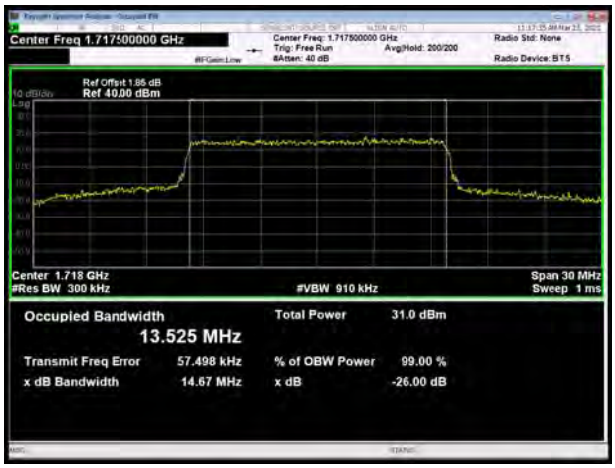
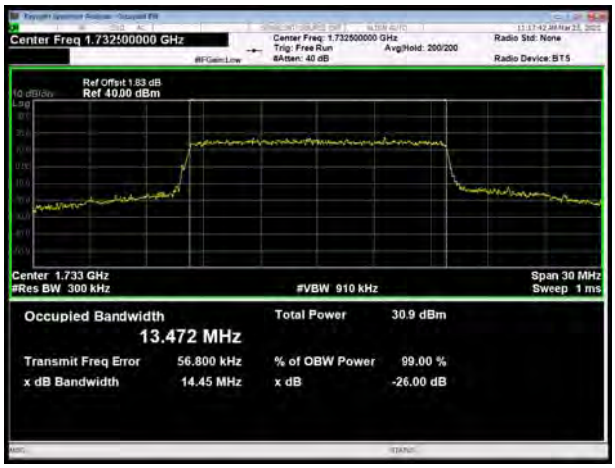
LTE Band 4 QPSK 15MHz CH-Low



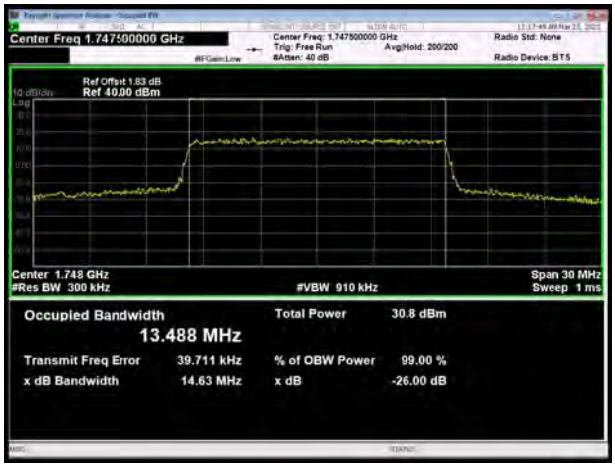
LTE Band 4 QPSK 20MHz CH-Low

LTE Band 4 QPSK 15MHz CH-Middle

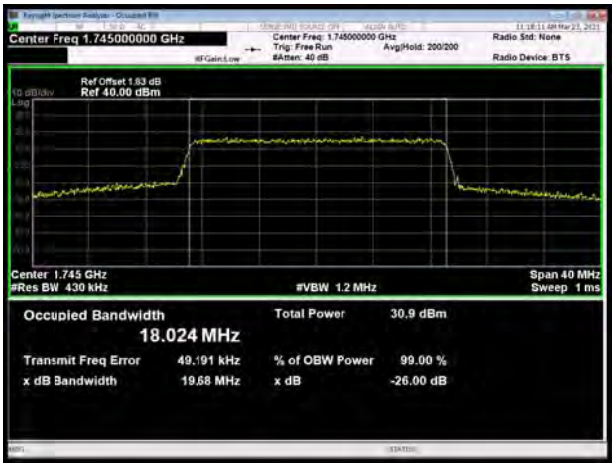


LTE Band 4 QPSK 20MHz CH-Middle

LTE Band 4 QPSK 15MHz CH-High



LTE Band 4 QPSK 20MHz CH-High



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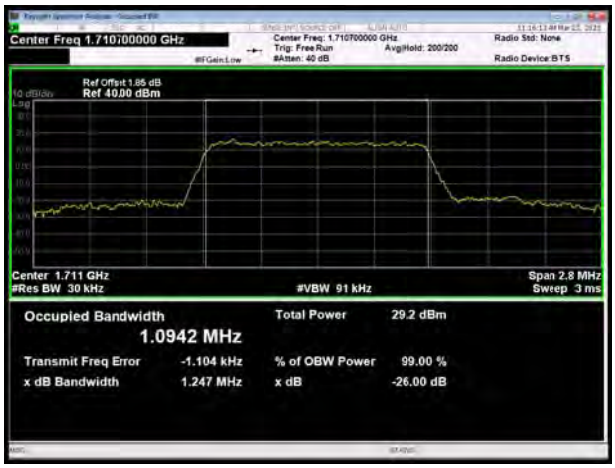
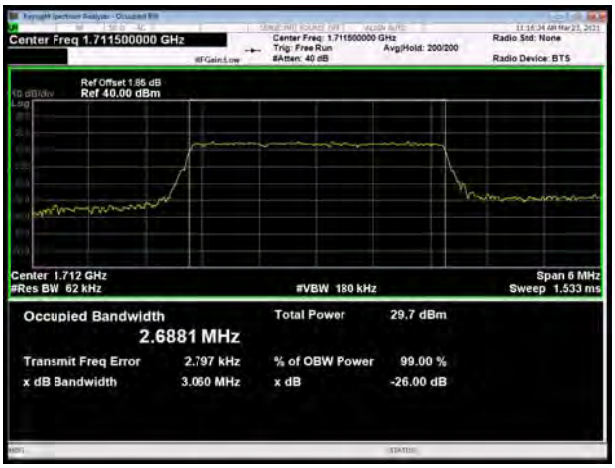
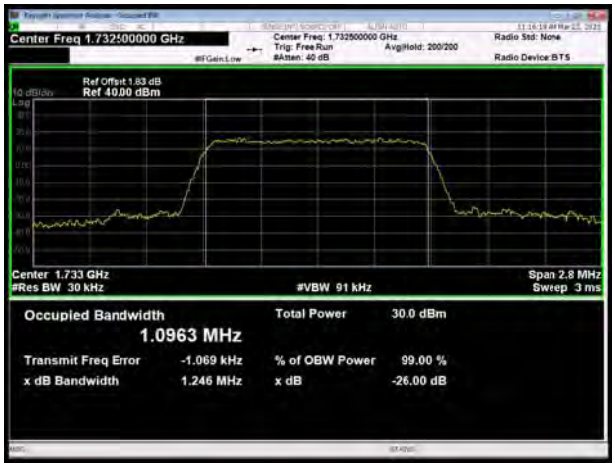
LTE Band 4 16QAM 1.4MHz CH-Low



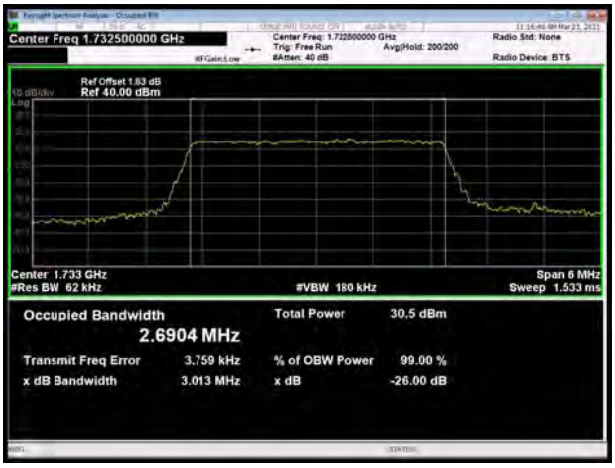
LTE Band 4 16QAM 3MHz CH-Low



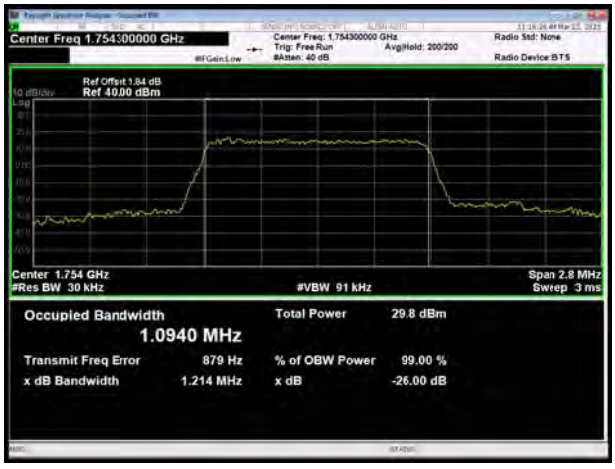
LTE Band 4 16QAM 1.4MHz CH-Middle



LTE Band 4 16QAM 3MHz CH-Middle



LTE Band 4 16QAM 1.4MHz CH-High



LTE Band 4 16QAM 3MHz CH-High

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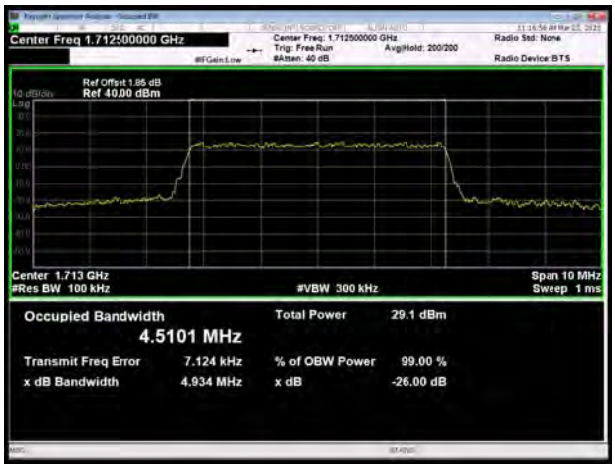
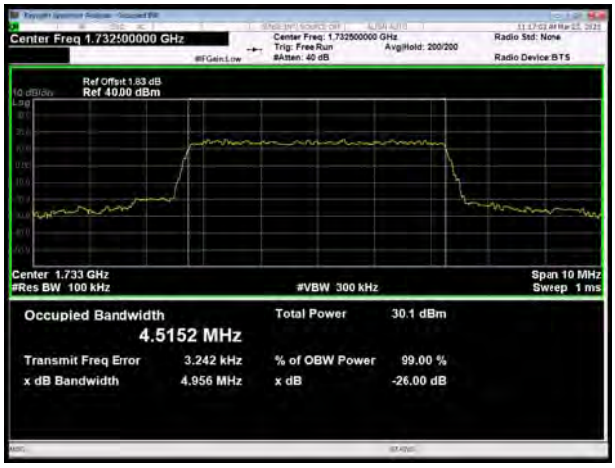
LTE Band 4 16QAM 5MHz CH-Low



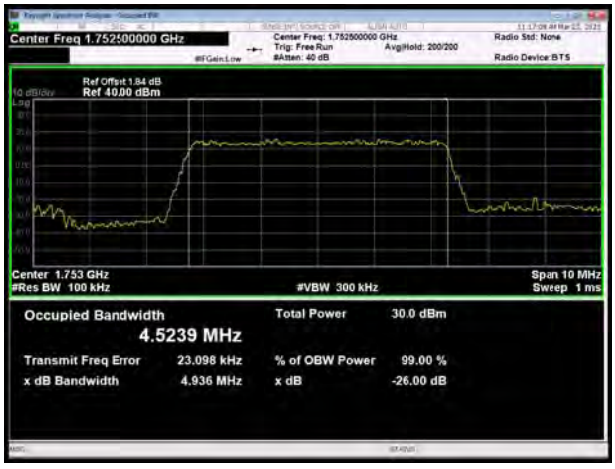
LTE Band 4 16QAM 10MHz CH-Low

LTE Band 4 16QAM 5MHz CH-Middle

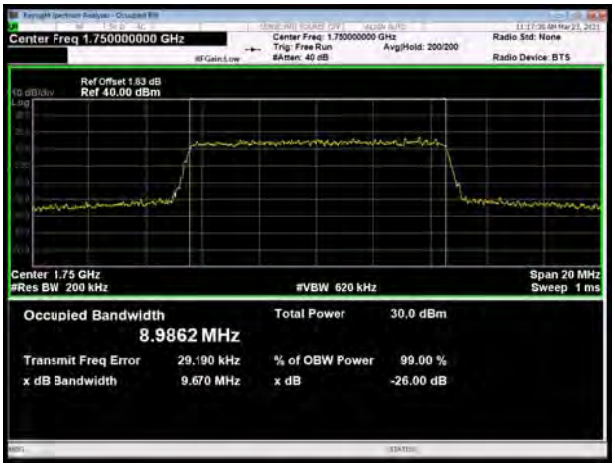


LTE Band 4 16QAM 10MHz CH-Middle

LTE Band 4 16QAM 5MHz CH-High



LTE Band 4 16QAM 10MHz CH-High



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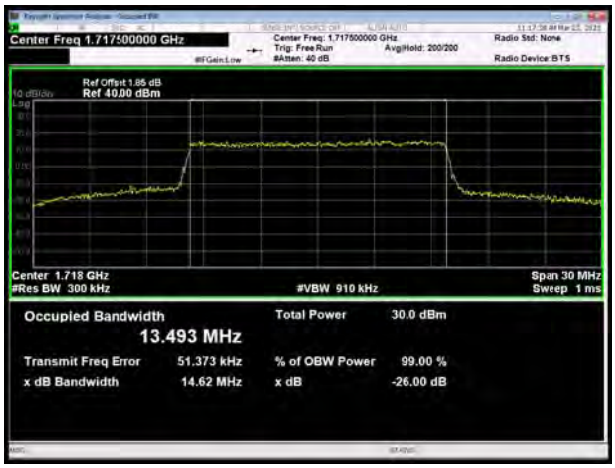
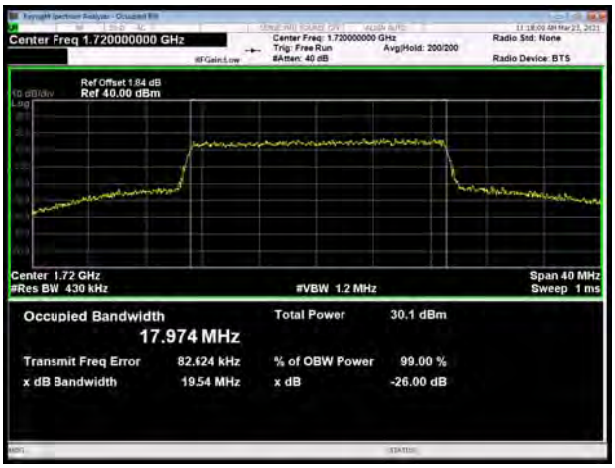
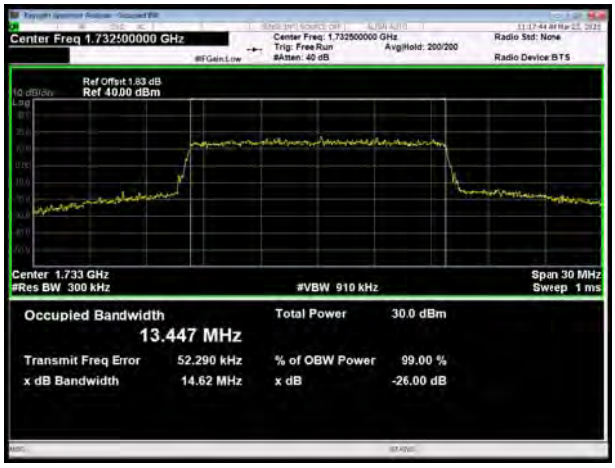
LTE Band 4 16QAM 15MHz CH-Low



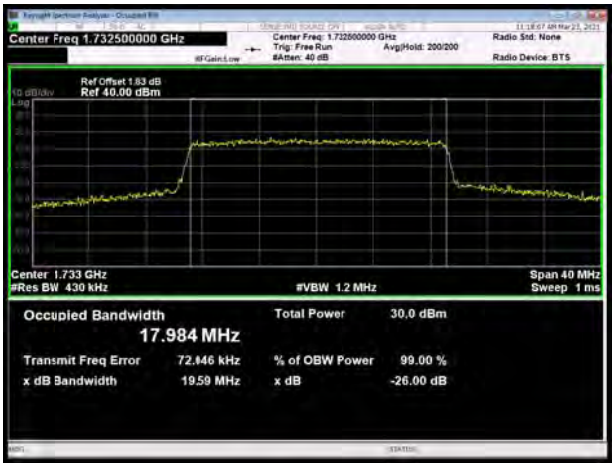
LTE Band 4 16QAM 20MHz CH-Low



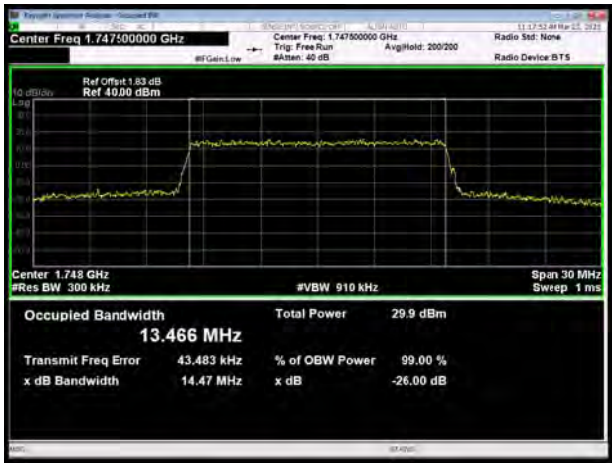
LTE Band 4 16QAM 15MHz CH-Middle



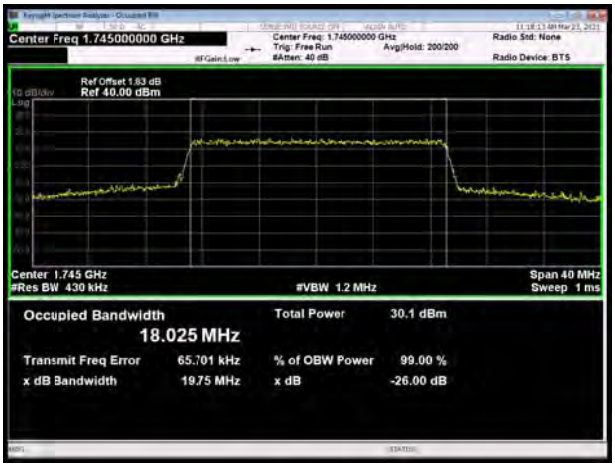
LTE Band 4 16QAM 20MHz CH-Middle



LTE Band 4 16QAM 15MHz CH-High



LTE Band 4 16QAM 20MHz CH-High



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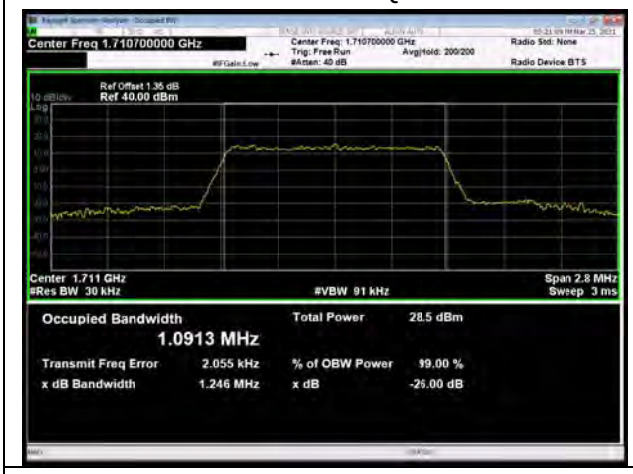
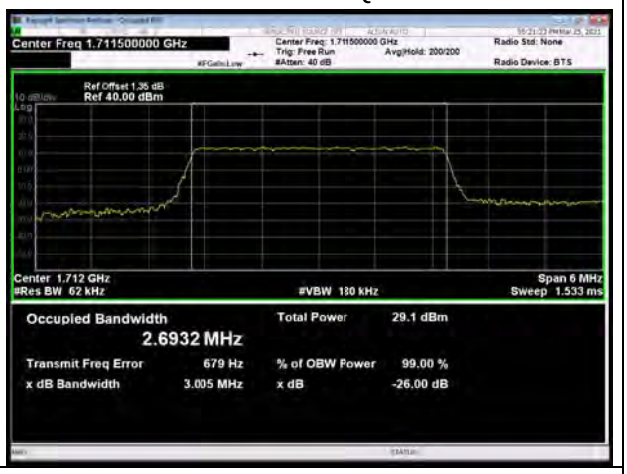
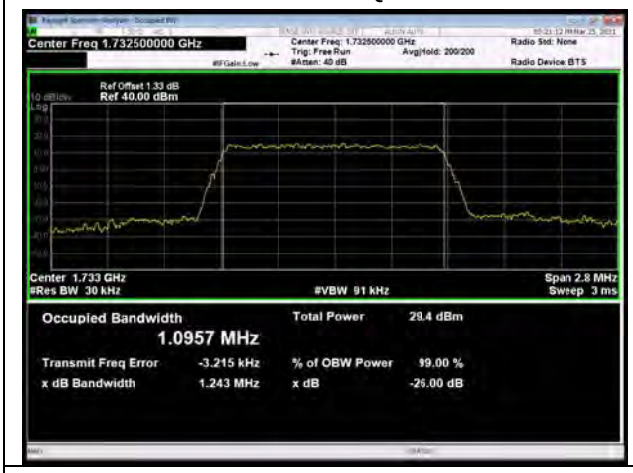
LTE Band 4 1.4MHz 64QAM CH-Low



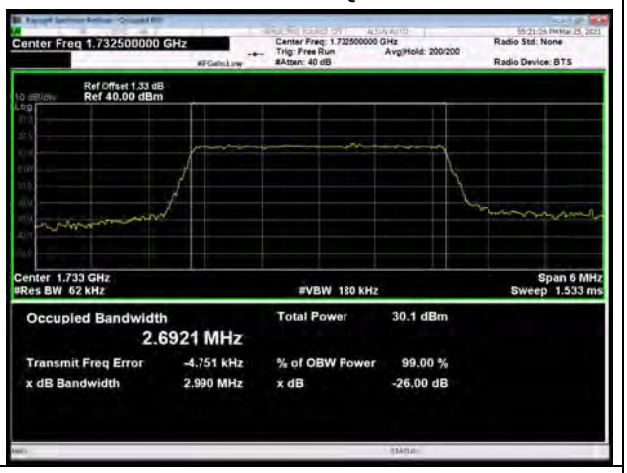
LTE Band 4 3MHz 64QAM CH-Low



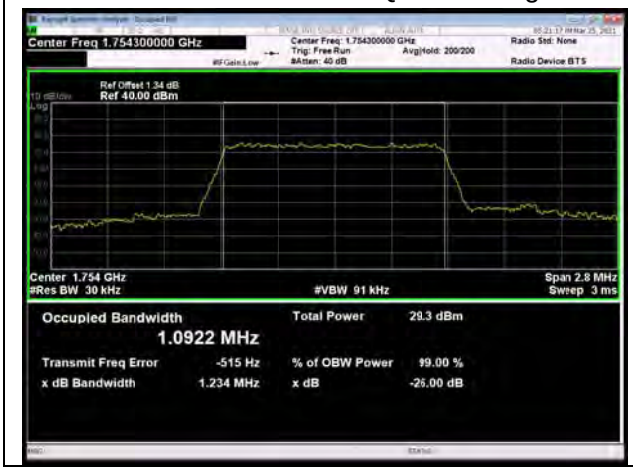
LTE Band 4 1.4MHz 64QAM CH-Middle



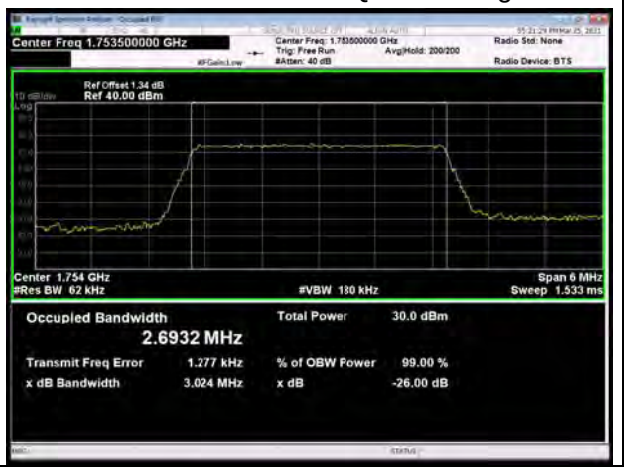
LTE Band 4 3MHz 64QAM CH-Middle



LTE Band 4 1.4MHz 64QAM CH-High



LTE Band 4 3MHz 64QAM CH-High



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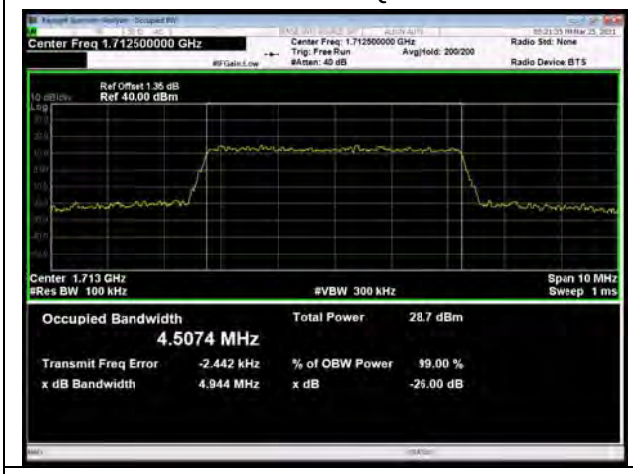
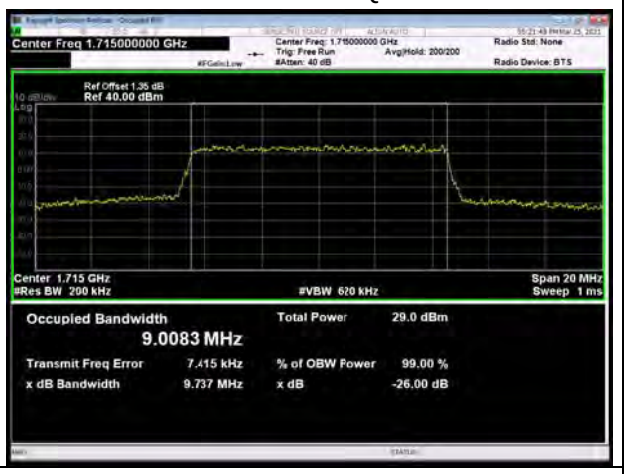
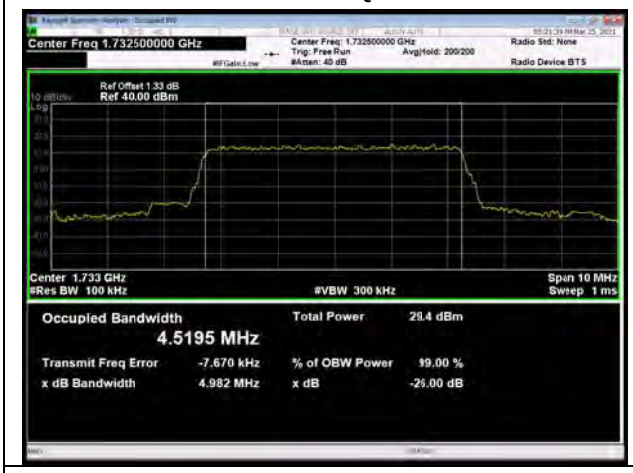
LTE Band 4 5MHz 64QAM CH-Low



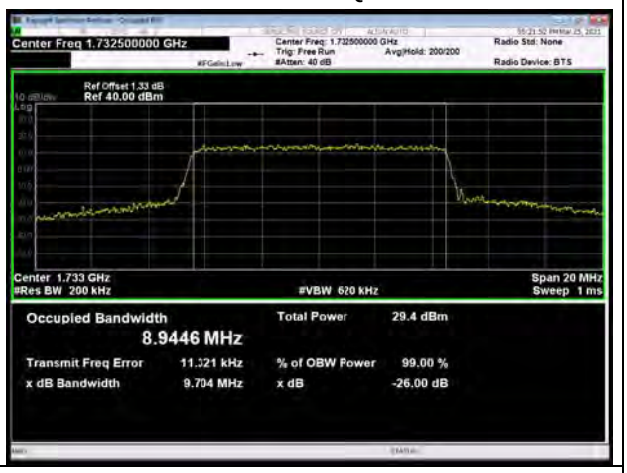
LTE Band 4 10MHz 64QAM CH-Low



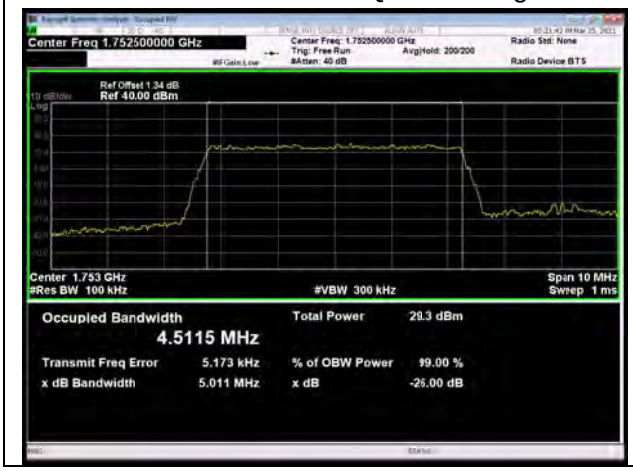
LTE Band 4 5MHz 64QAM CH-Middle



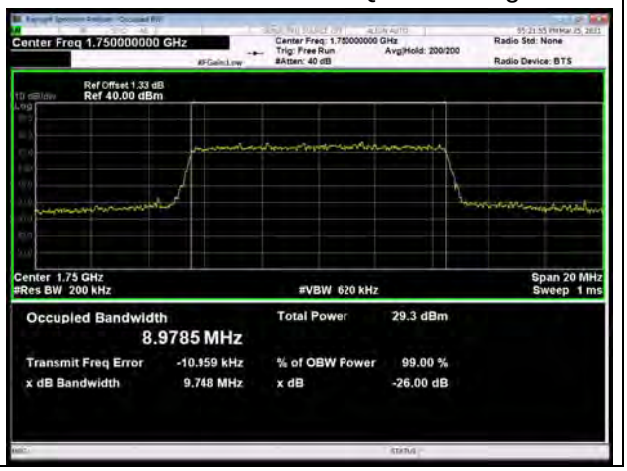
LTE Band 4 10MHz 64QAM CH-Middle



LTE Band 4 5MHz 64QAM CH-High



LTE Band 4 10MHz 64QAM CH-High



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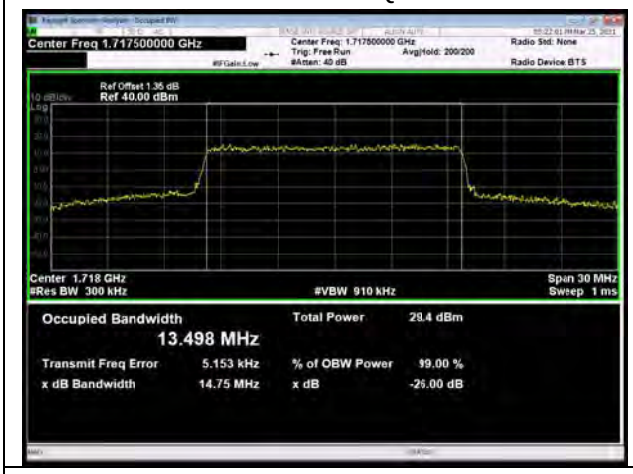
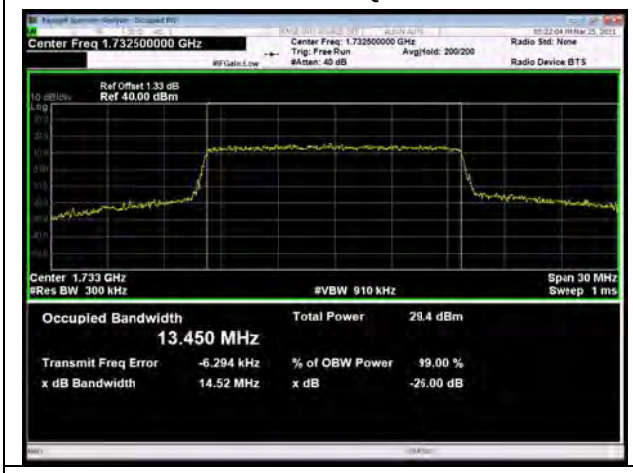
LTE Band 4 15MHz 64QAM CH-Low

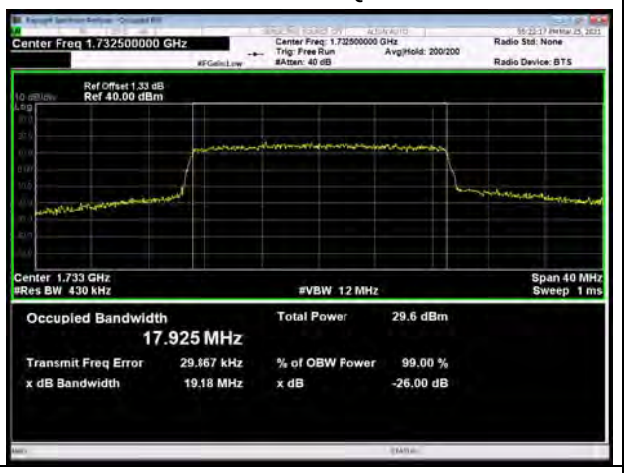


LTE Band 4 20MHz 64QAM CH-Low

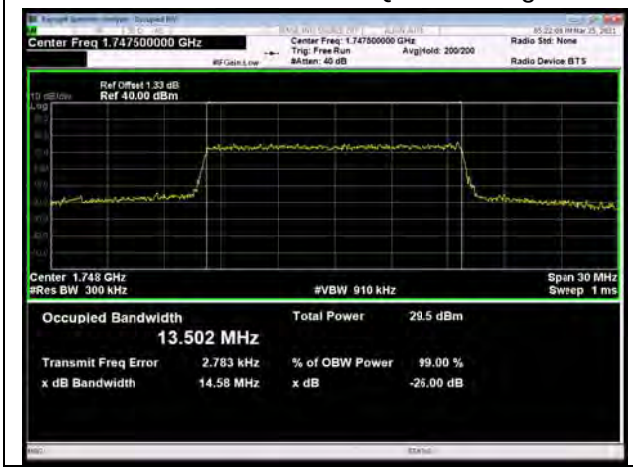
LTE Band 4 15MHz 64QAM CH-Middle



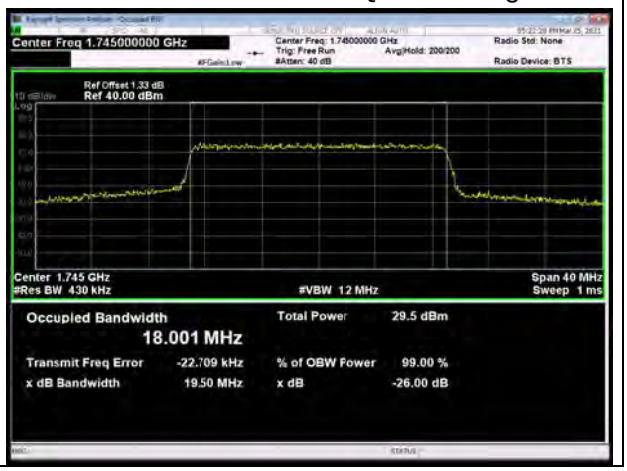
LTE Band 4 20MHz 64QAM CH-Middle



LTE Band 4 15MHz 64QAM CH-High



LTE Band 4 20MHz 64QAM CH-High



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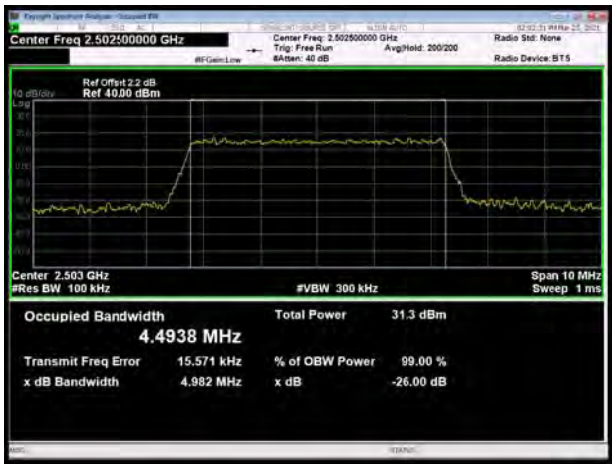
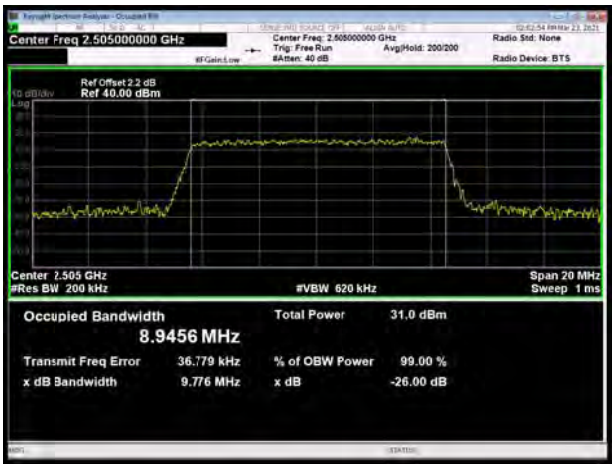
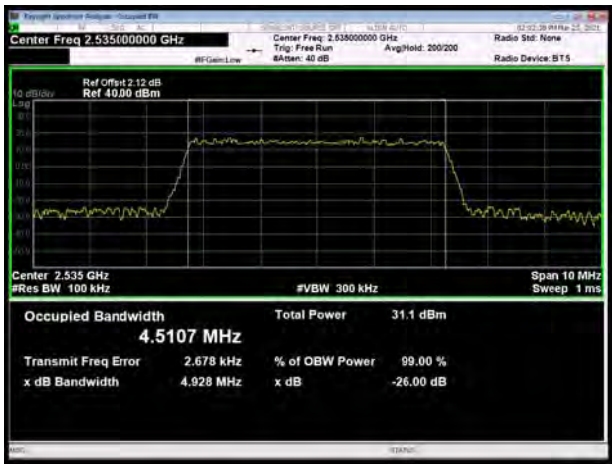
LTE Band 7 QPSK 5MHz CH-Low



LTE Band 7 QPSK 10MHz CH-Low

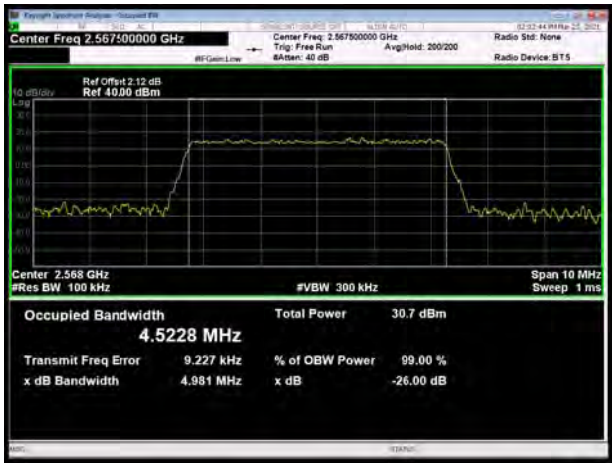


LTE Band 7 QPSK 5MHz CH-Middle

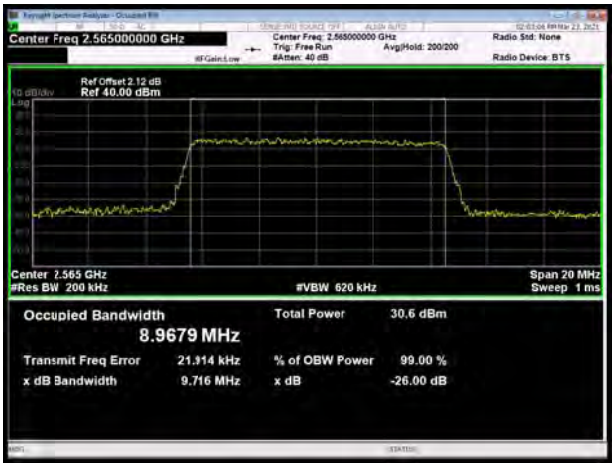


LTE Band 7 QPSK 10MHz CH-Middle

LTE Band 7 QPSK 5MHz CH-High



LTE Band 7 QPSK 10MHz CH-High



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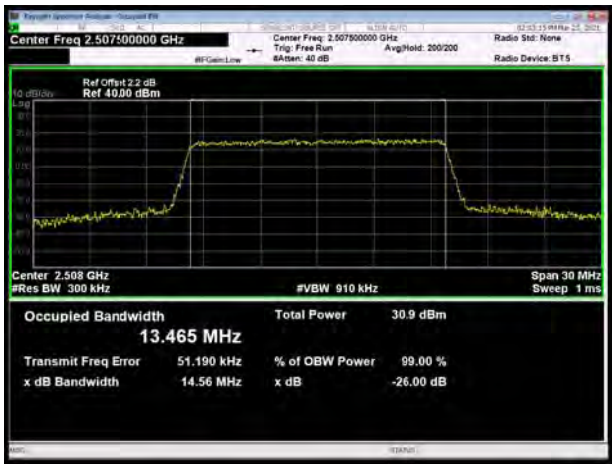
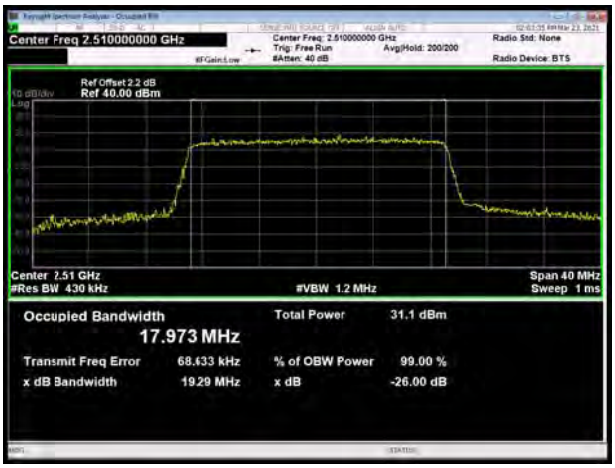
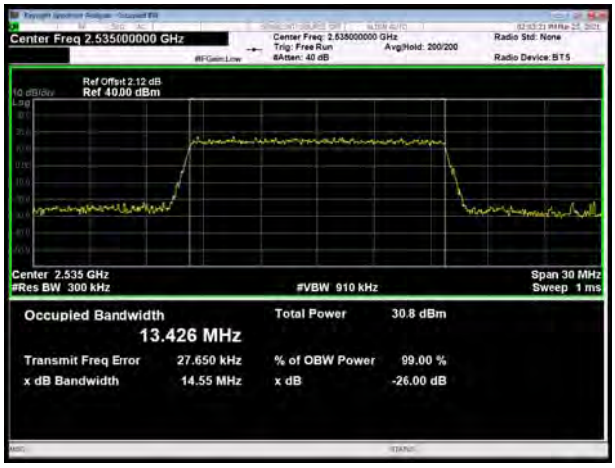
LTE Band 7 QPSK 15MHz CH-Low



LTE Band 7 QPSK 20MHz CH-Low

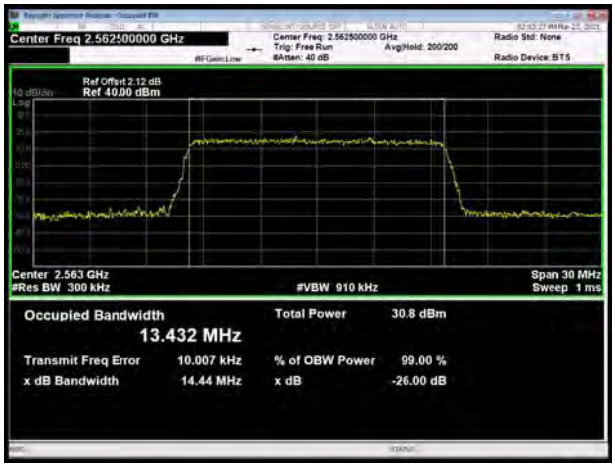


LTE Band 7 QPSK 15MHz CH-Middle



LTE Band 7 QPSK 20MHz CH-Middle

LTE Band 7 QPSK 15MHz CH-High



LTE Band 7 QPSK 20MHz CH-High

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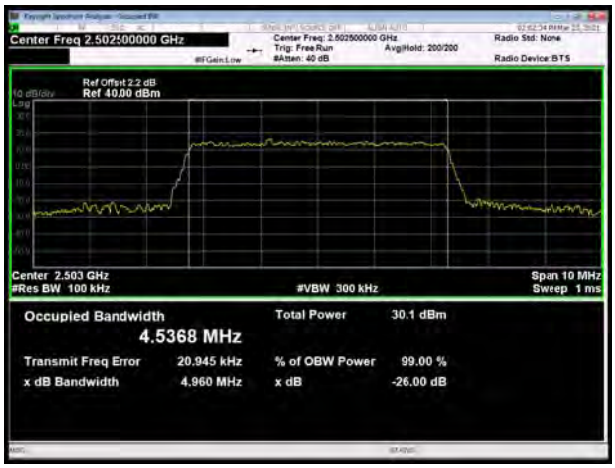
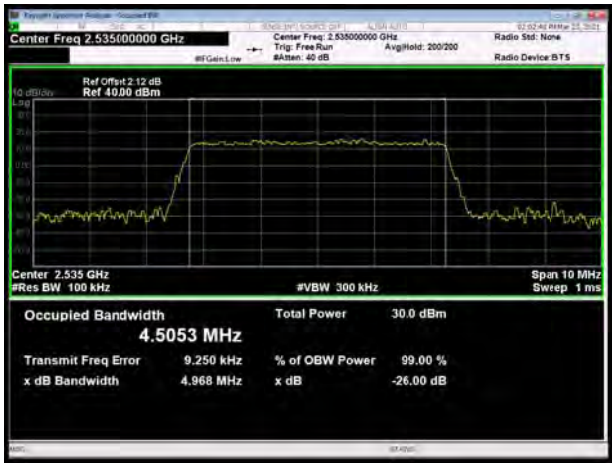
LTE Band 7 16QAM 5MHz CH-Low

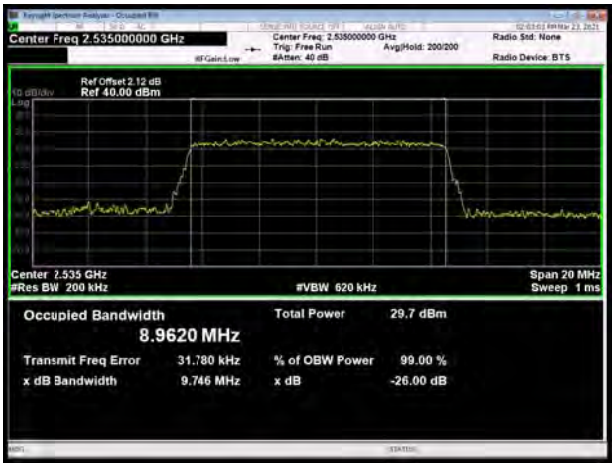


LTE Band 7 16QAM 10MHz CH-Low

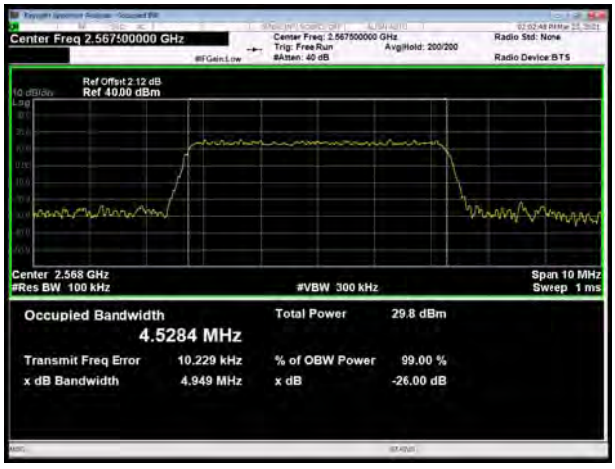
LTE Band 7 16QAM 5MHz CH-Middle



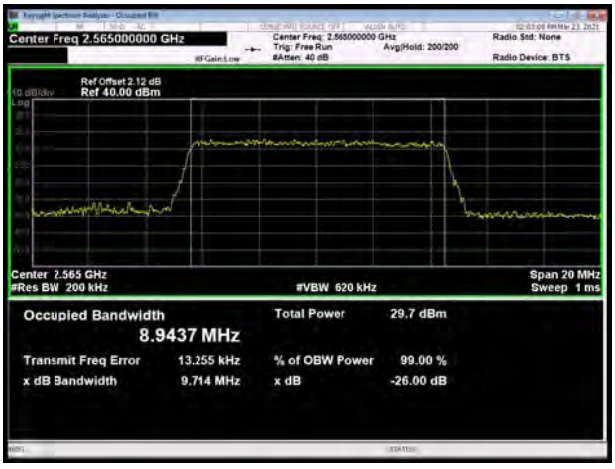
LTE Band 7 16QAM 10MHz CH-Middle



LTE Band 7 16QAM 5MHz CH-High



LTE Band 7 16QAM 10MHz CH-High



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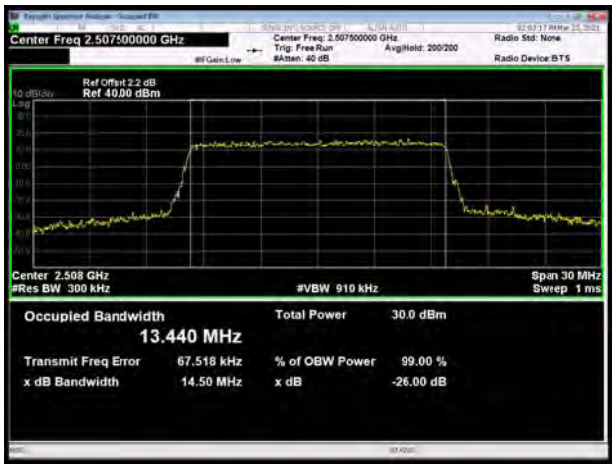
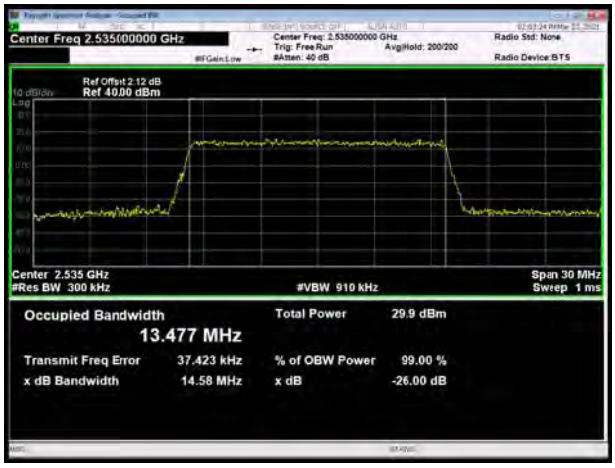
LTE Band 7 16QAM 15MHz CH-Low

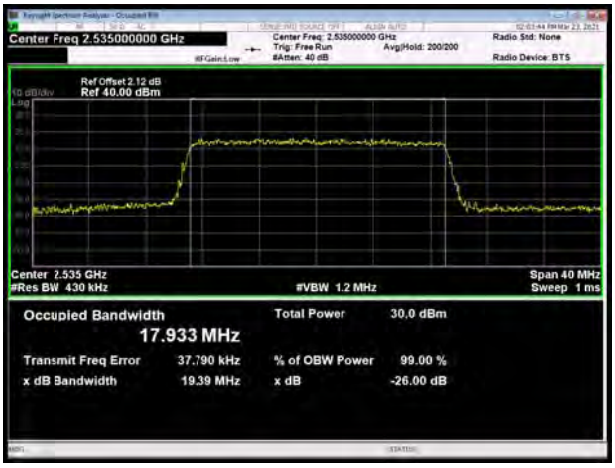


LTE Band 7 16QAM 20MHz CH-Low

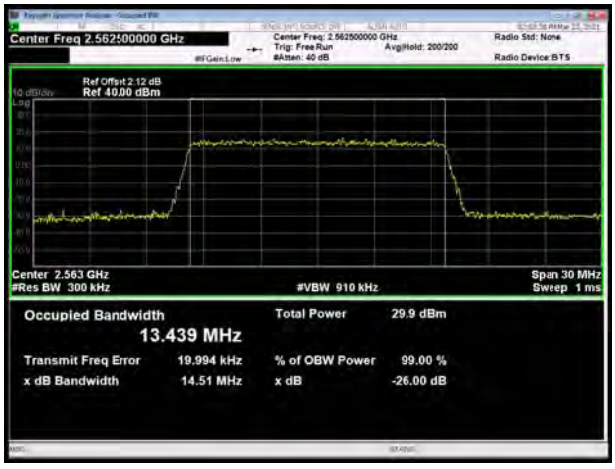
LTE Band 7 16QAM 15MHz CH-Middle



LTE Band 7 16QAM 20MHz CH-Middle



LTE Band 7 16QAM 15MHz CH-High



LTE Band 7 16QAM 20MHz CH-High

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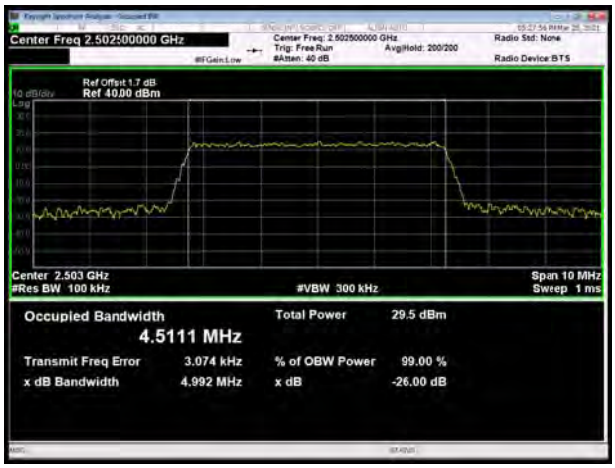
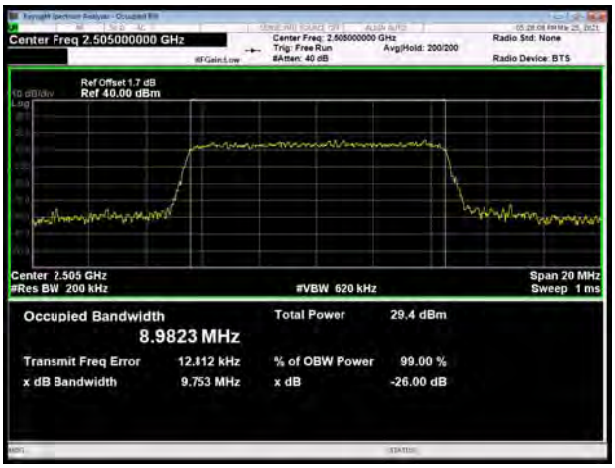
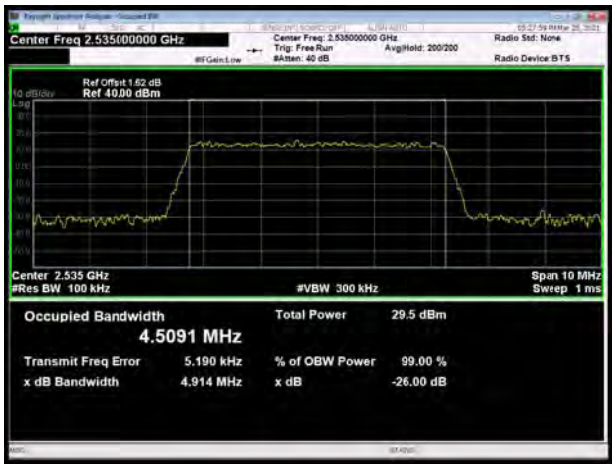
LTE Band 7 64QAM 5MHz CH-Low



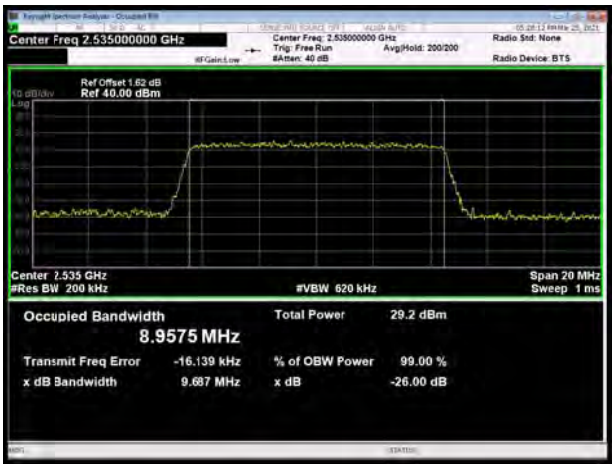
LTE Band 7 64QAM 10MHz CH-Low



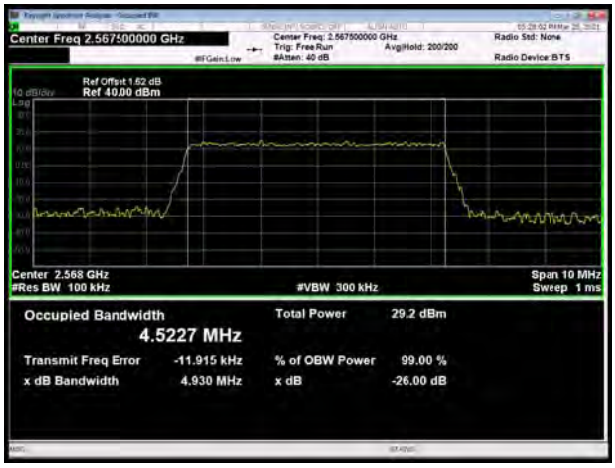
LTE Band 7 64QAM 5MHz CH-Middle



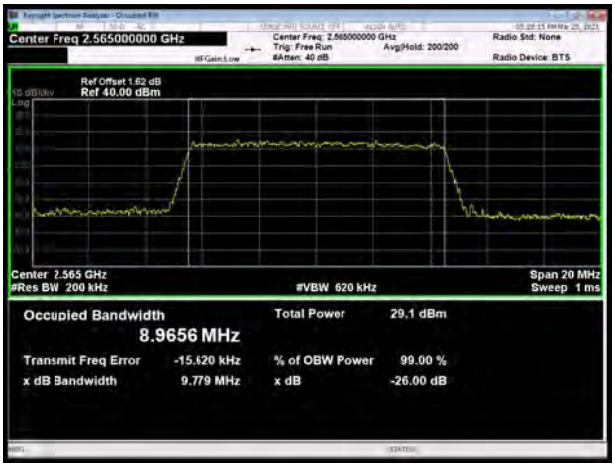
LTE Band 7 64QAM 10MHz CH-Middle



LTE Band 7 64QAM 5MHz CH-High



LTE Band 7 64QAM 10MHz CH-High



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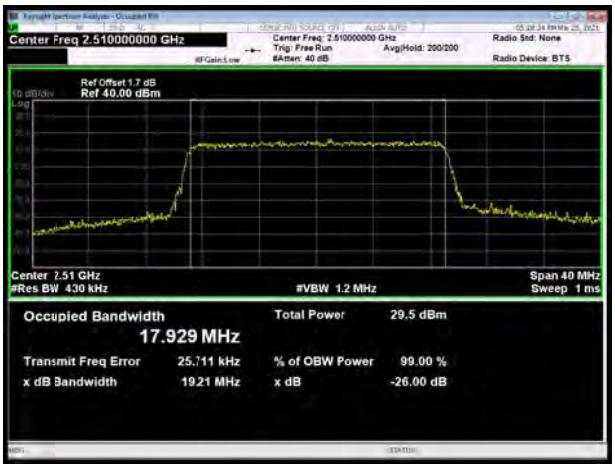
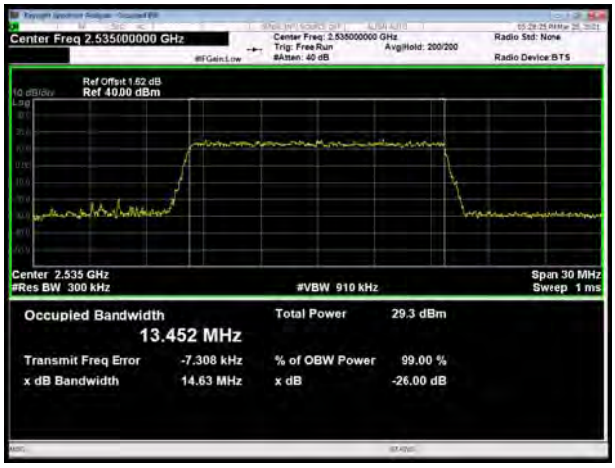
LTE Band 7 64QAM 15MHz CH-Low

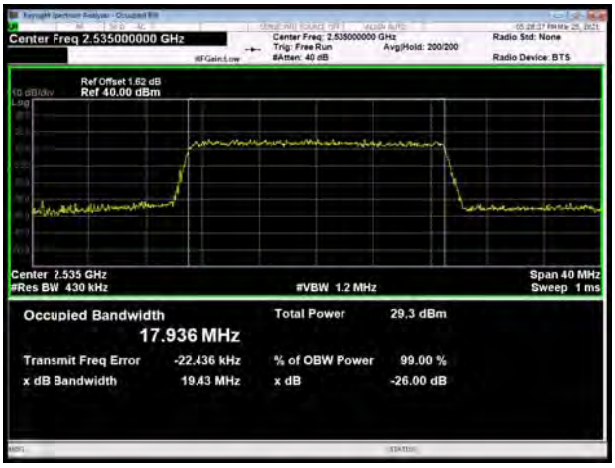
LTE Band 7 64QAM 20MHz CH-Low



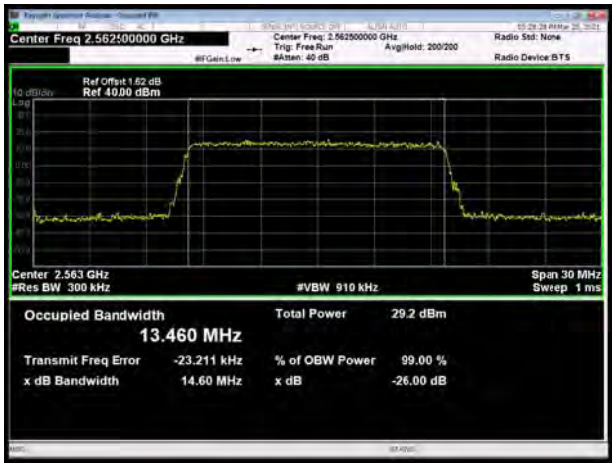
LTE Band 7 64QAM 15MHz CH-Middle



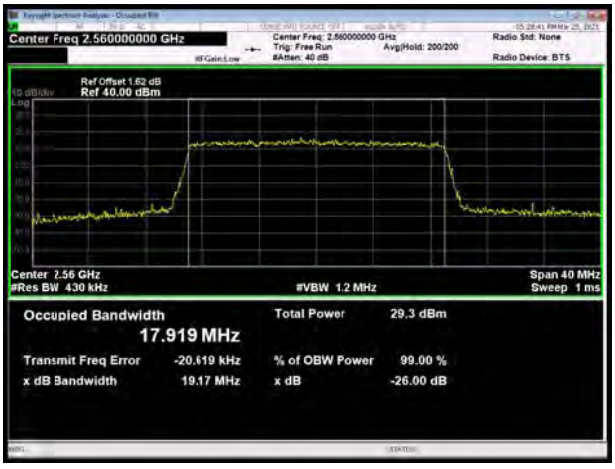
LTE Band 7 64QAM 20MHz CH-Middle



LTE Band 7 64QAM 15MHz CH-High



LTE Band 7 64QAM 20MHz CH-High



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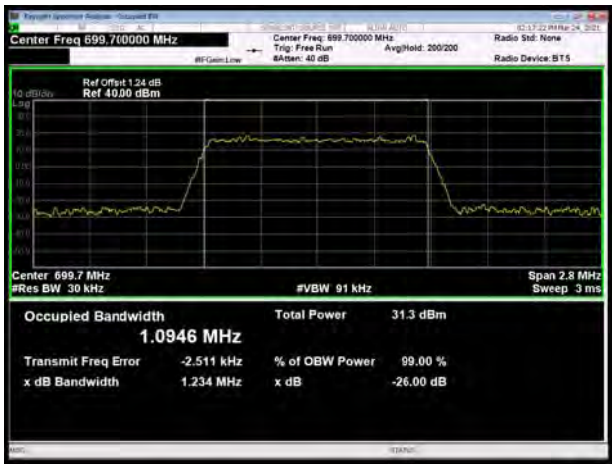
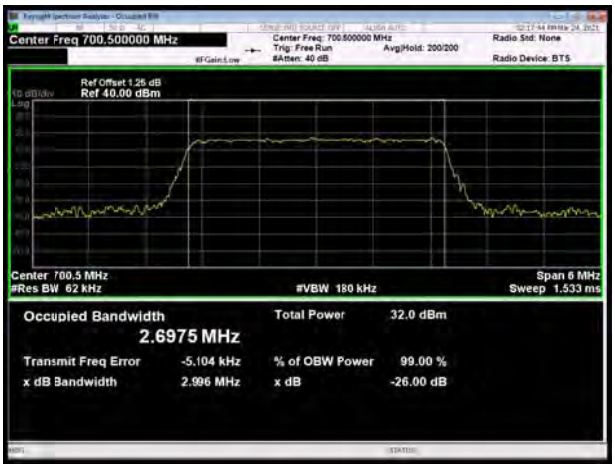
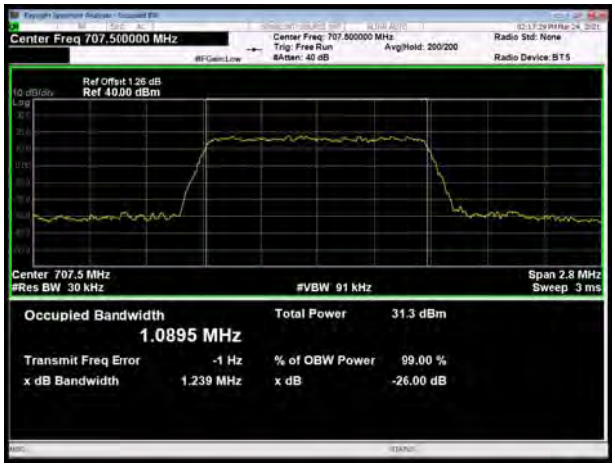
LTE Band 12 QPSK 1.4MHz CH-Low



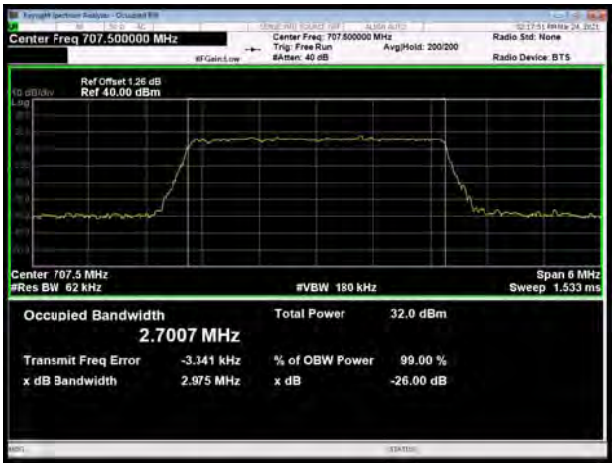
LTE Band 12 QPSK 3MHz CH-Low



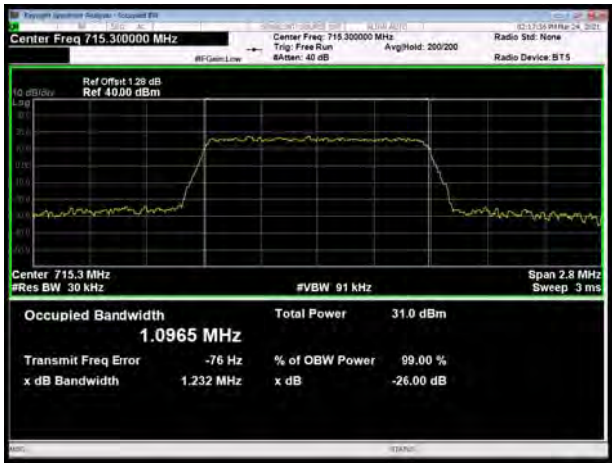
LTE Band 12 QPSK 1.4MHz CH-Middle



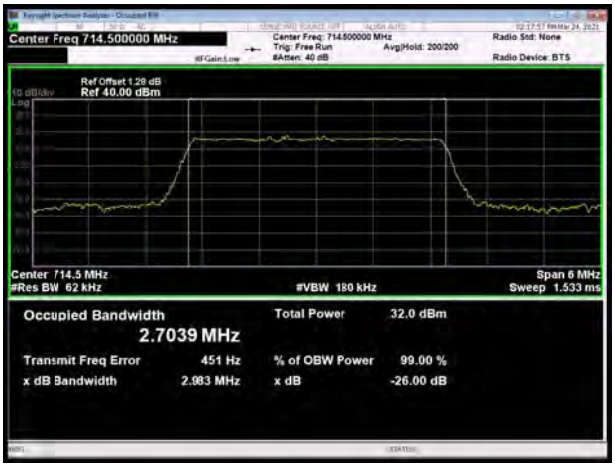
LTE Band 12 QPSK 3MHz CH-Middle



LTE Band 12 QPSK 1.4MHz CH-High



LTE Band 12 QPSK 3MHz CH-High



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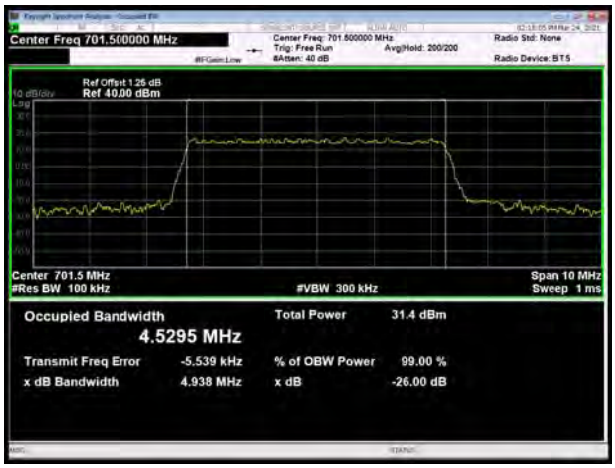
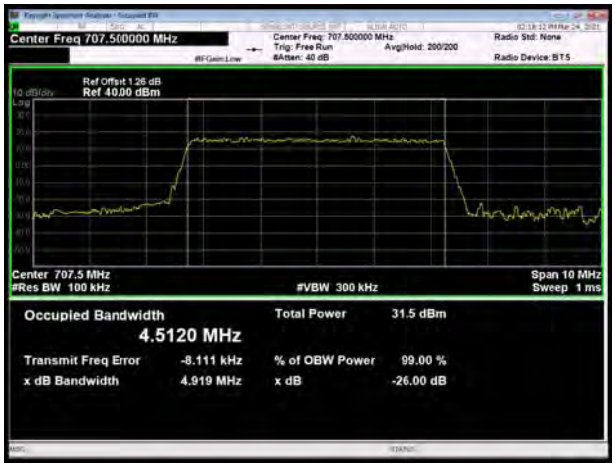
LTE Band 12 QPSK 5MHz CH-Low



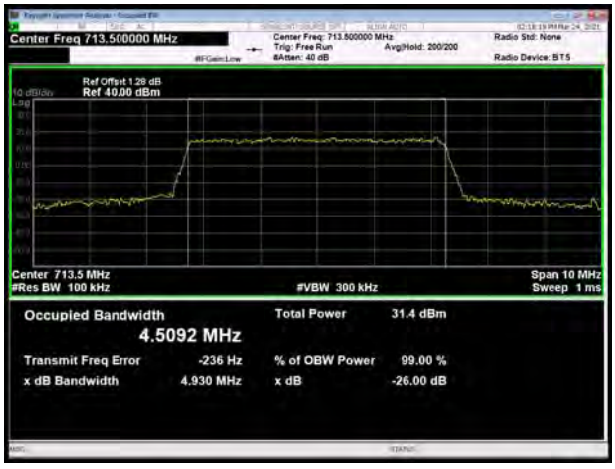
LTE Band 12 QPSK 10MHz CH-Low

LTE Band 12 QPSK 5MHz CH-Middle



LTE Band 12 QPSK 10MHz CH-Middle

LTE Band 12 QPSK 5MHz CH-High



LTE Band 12 QPSK 10MHz CH-High

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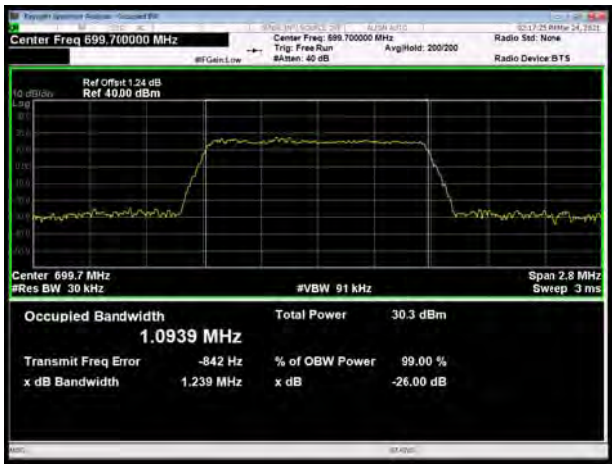
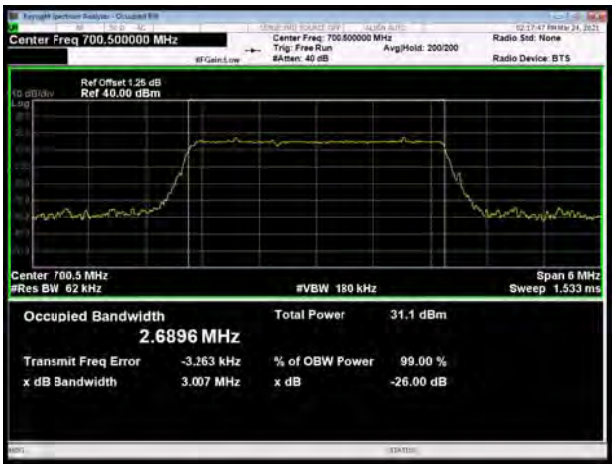
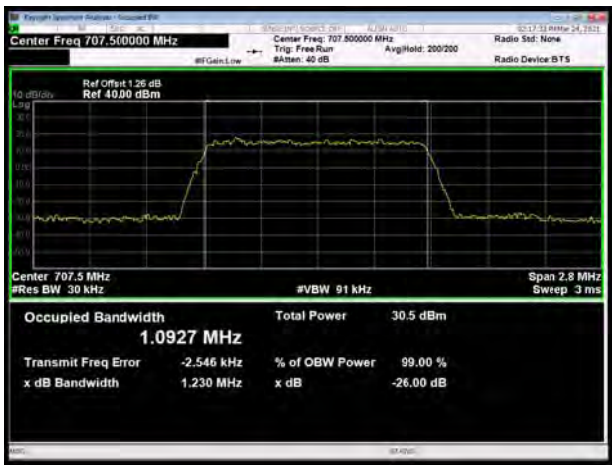
LTE Band 12 16QAM 1.4MHz CH-Low



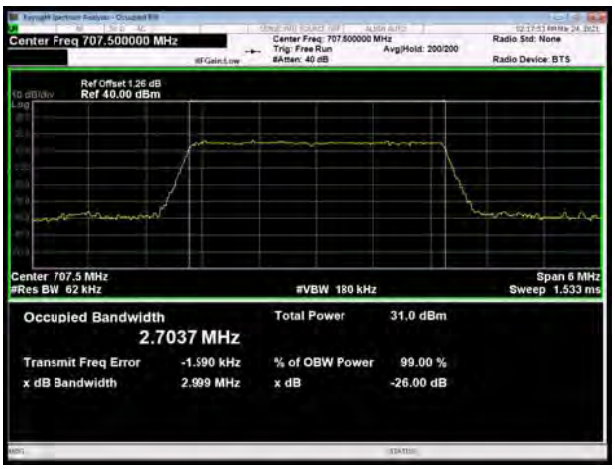
LTE Band 12 16QAM 3MHz CH-Low



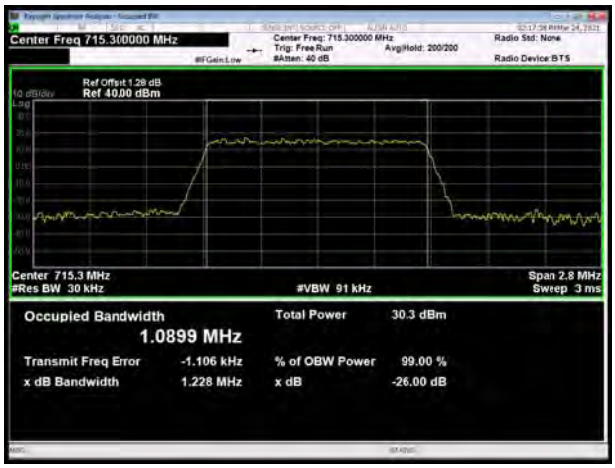
LTE Band 12 16QAM 1.4MHz CH-Middle



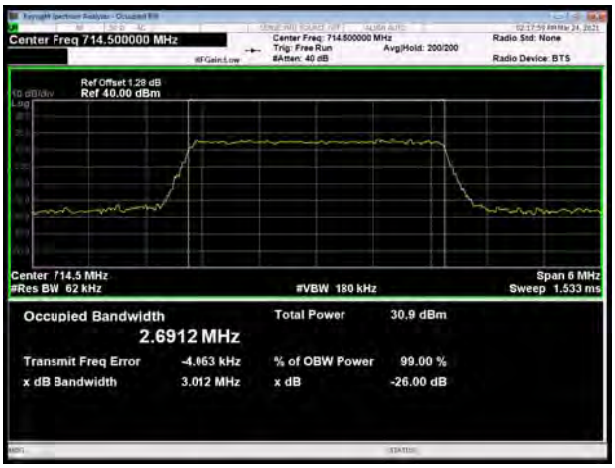
LTE Band 12 16QAM 3MHz CH-Middle



LTE Band 12 16QAM 1.4MHz CH-High



LTE Band 12 16QAM 3MHz CH-High



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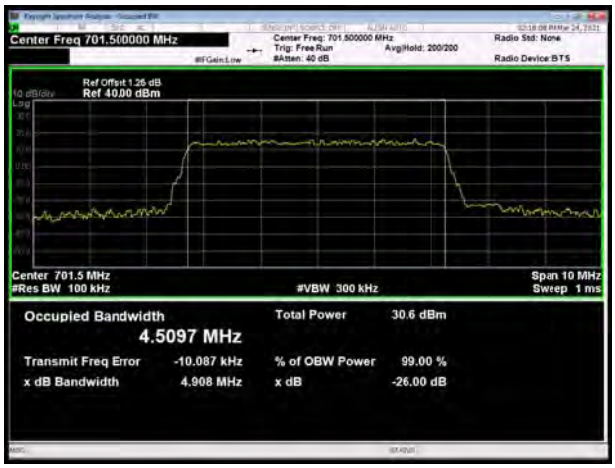
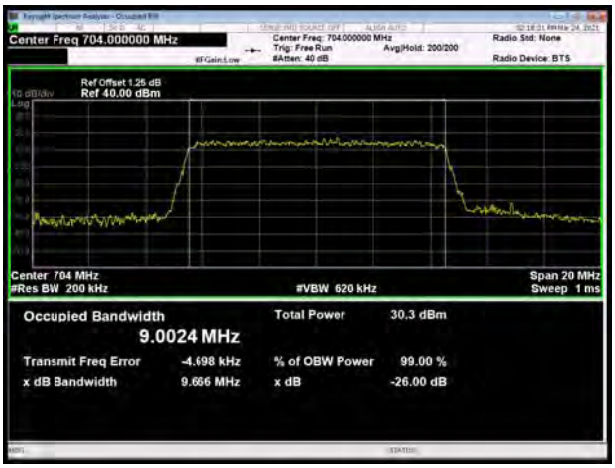
LTE Band 12 16QAM 5MHz CH-Low

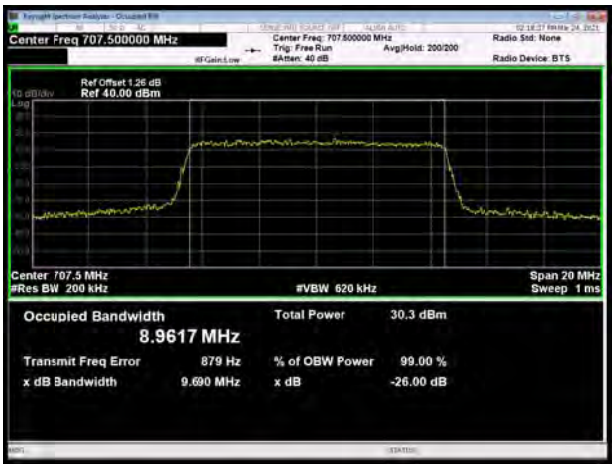


LTE Band 12 16QAM 10MHz CH-Low

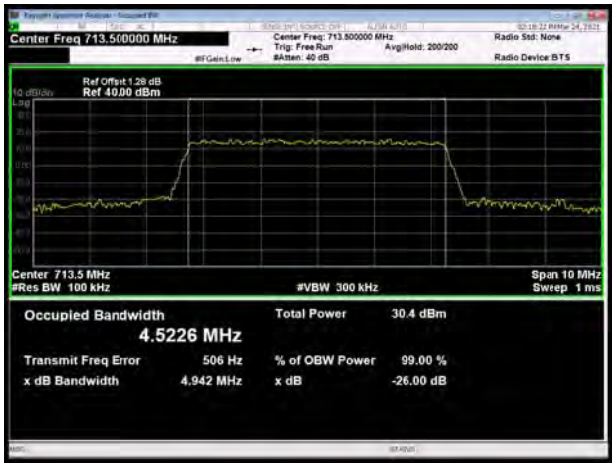


LTE Band 12 16QAM 5MHz CH-Middle

LTE Band 12 16QAM 10MHz CH-Middle



LTE Band 12 16QAM 5MHz CH-High



LTE Band 12 16QAM 10MHz CH-High

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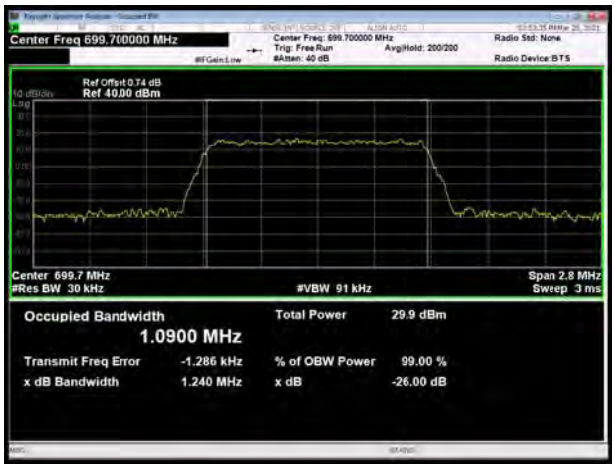
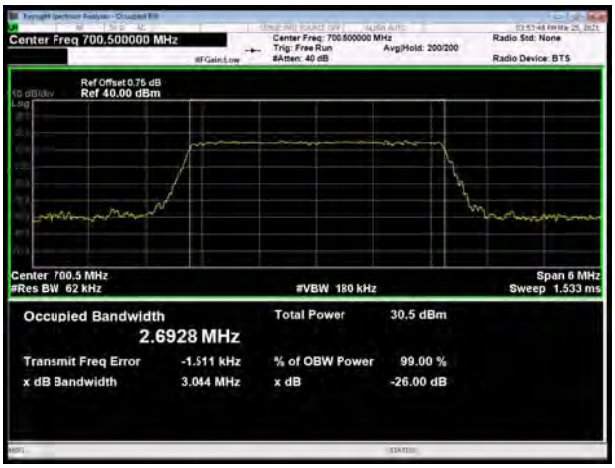
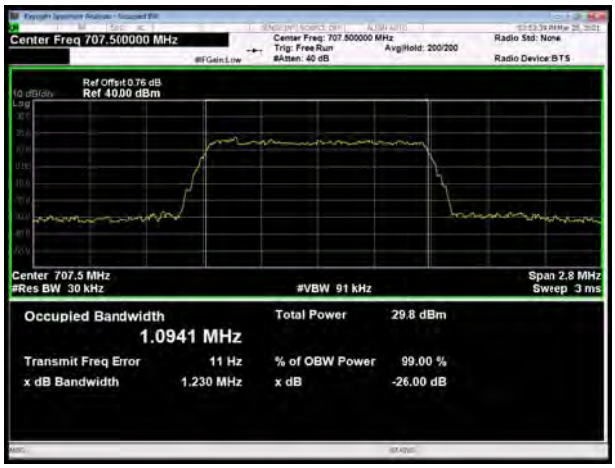
LTE Band 12 64QAM 1.4MHz CH-Low



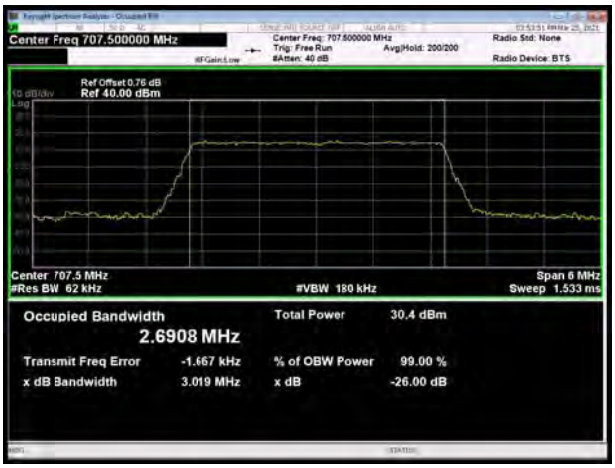
LTE Band 12 64QAM 3MHz CH-Low



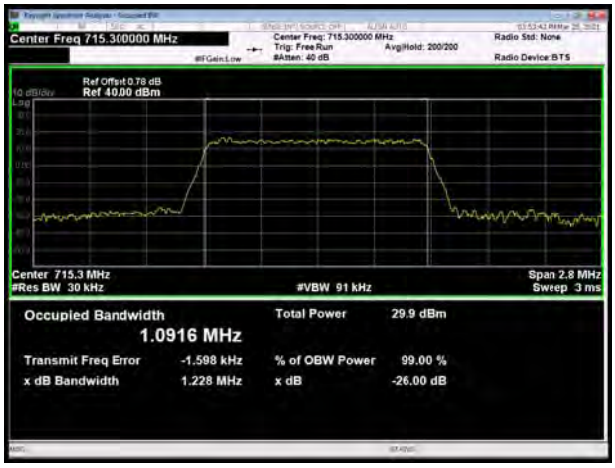
LTE Band 12 64QAM 1.4MHz CH-Middle



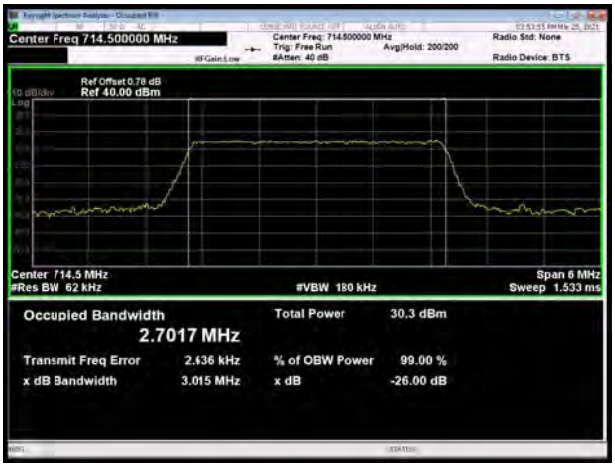
LTE Band 12 64QAM 3MHz CH-Middle



LTE Band 12 64QAM 1.4MHz CH-High



LTE Band 12 64QAM 3MHz CH-High



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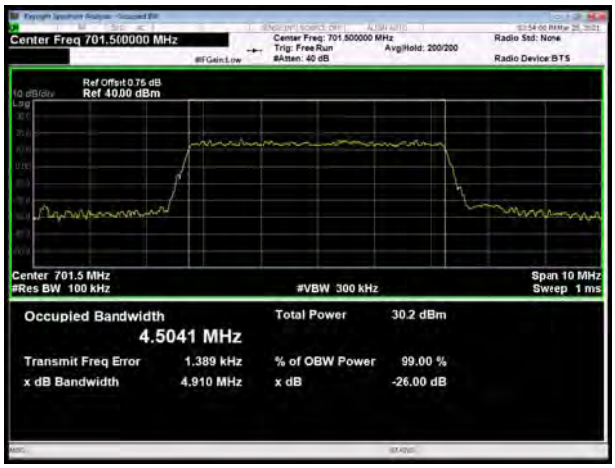
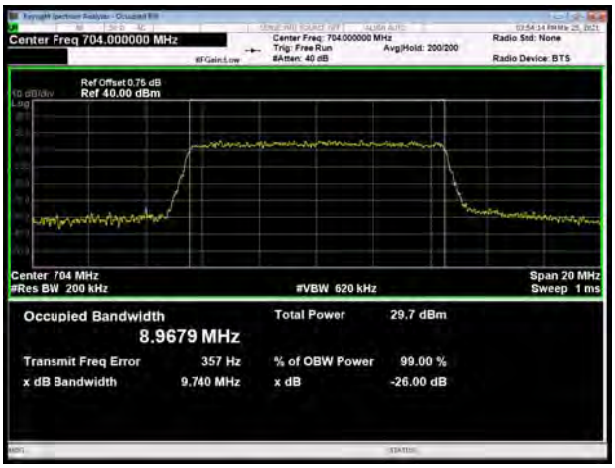
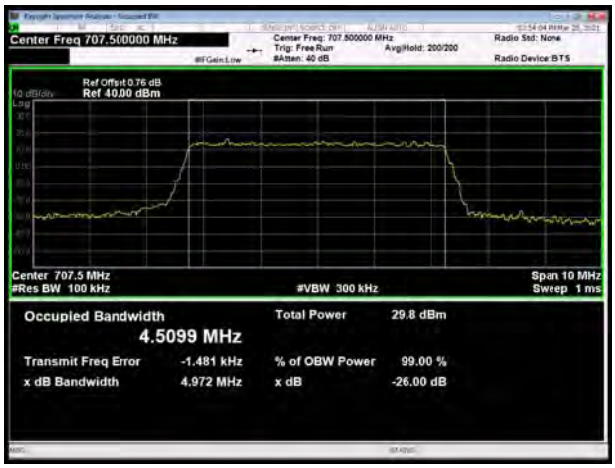
LTE Band 12 64QAM 5MHz CH-Low



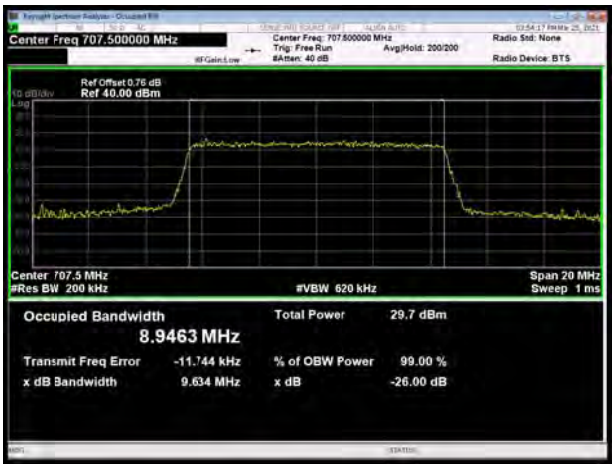
LTE Band 12 64QAM 10MHz CH-Low



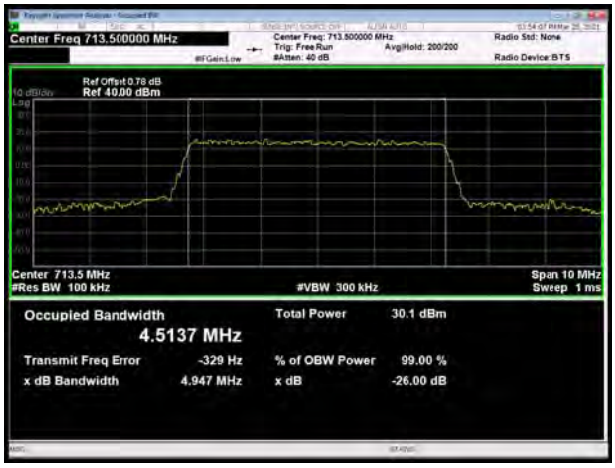
LTE Band 12 64QAM 5MHz CH-Middle



LTE Band 12 64QAM 10MHz CH-Middle



LTE Band 12 64QAM 5MHz CH-High



LTE Band 12 64QAM 10MHz CH-High

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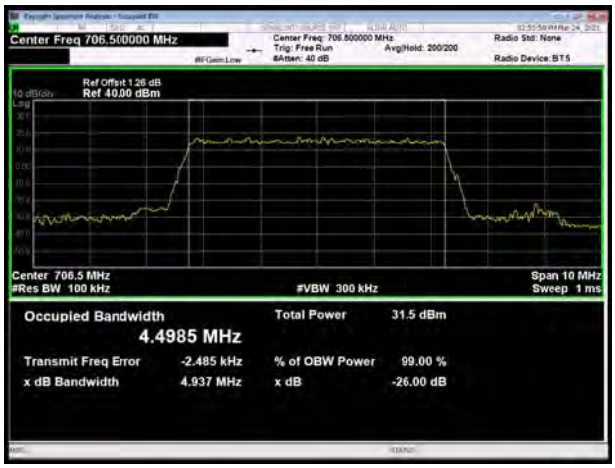
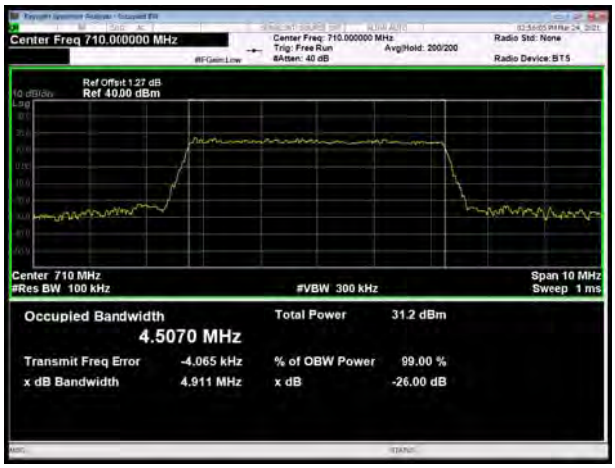
LTE Band 17 QPSK 5MHz CH-Low



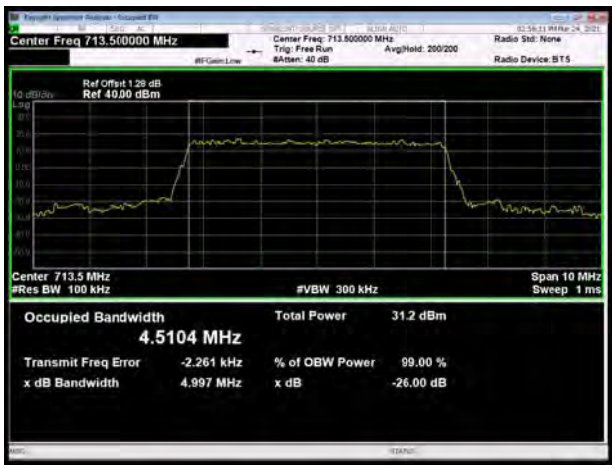
LTE Band 17 QPSK 10MHz CH-Low

LTE Band 17 QPSK 5MHz CH-Middle

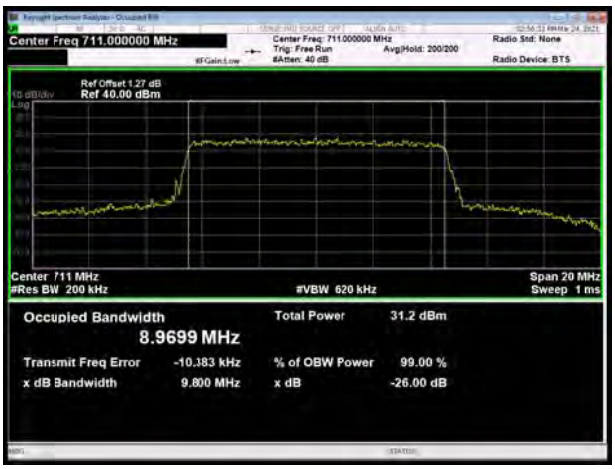


LTE Band 17 QPSK 10MHz CH-Middle

LTE Band 17 QPSK 5MHz CH-High



LTE Band 17 QPSK 10MHz CH-High



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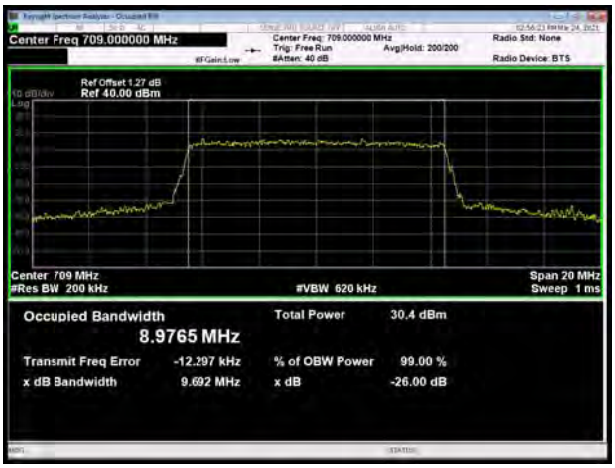
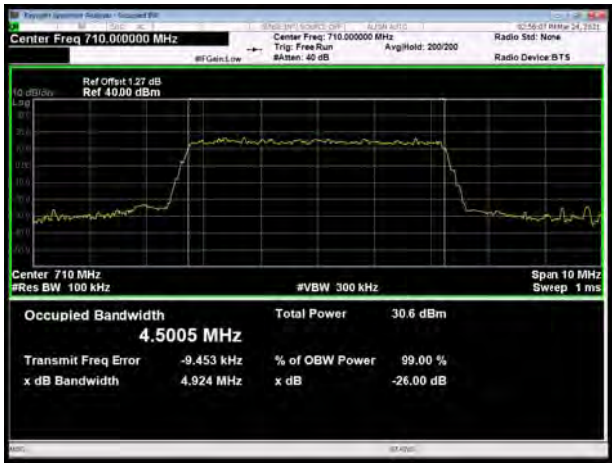
LTE Band 17 16QAM 5MHz CH-Low

LTE Band 17 16QAM 10MHz CH-Low

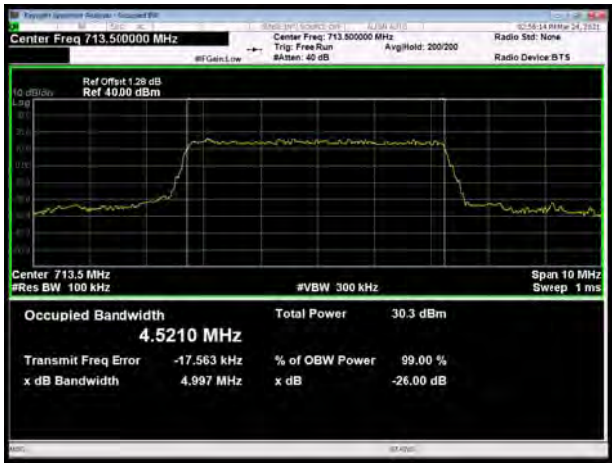


LTE Band 17 16QAM 5MHz CH-Middle

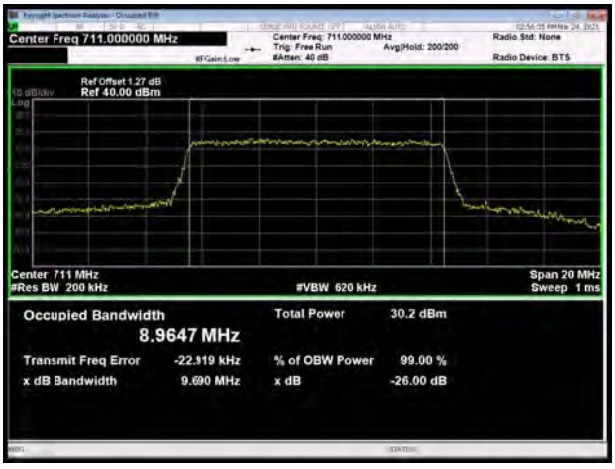


LTE Band 17 16QAM 10MHz CH-Middle

LTE Band 17 16QAM 5MHz CH-High



LTE Band 17 16QAM 10MHz CH-High



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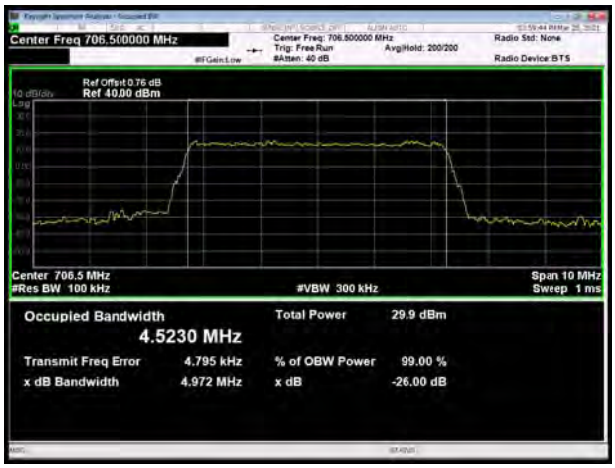
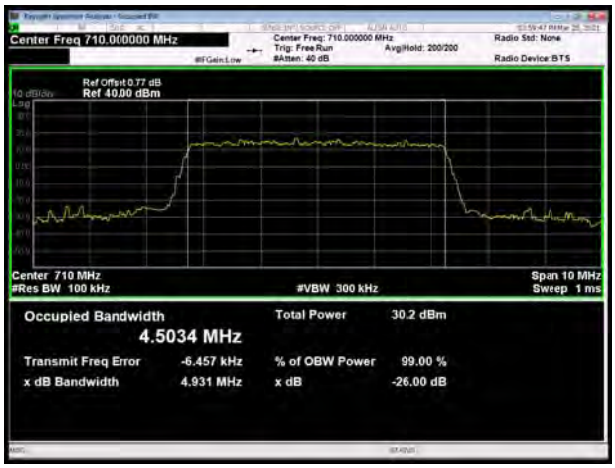
LTE Band 17 64QAM 5MHz CH-Low

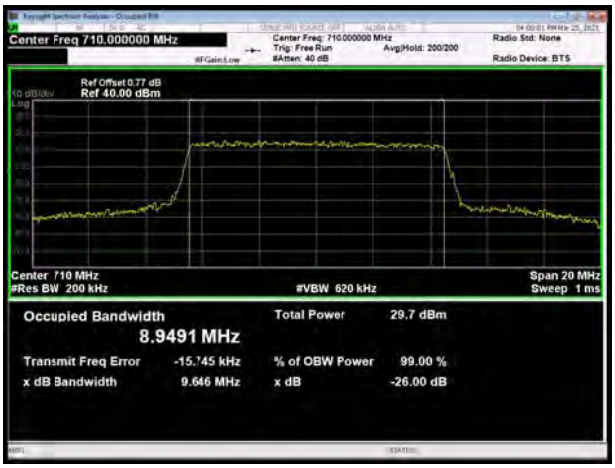


LTE Band 17 64QAM 10MHz CH-Low

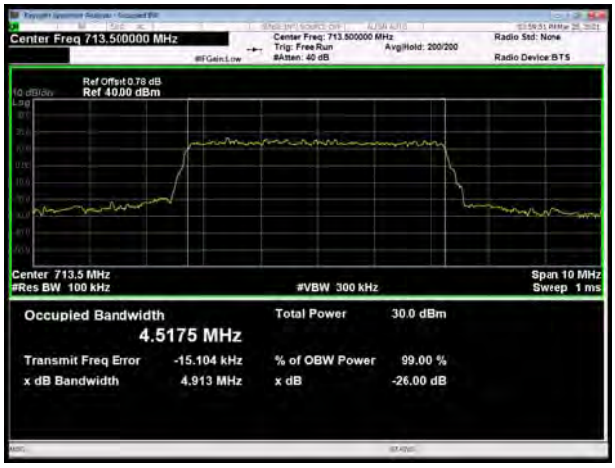
LTE Band 17 64QAM 5MHz CH-Middle



LTE Band 17 64QAM 10MHz CH-Middle



LTE Band 17 64QAM 5MHz CH-High



LTE Band 17 64QAM 10MHz CH-High

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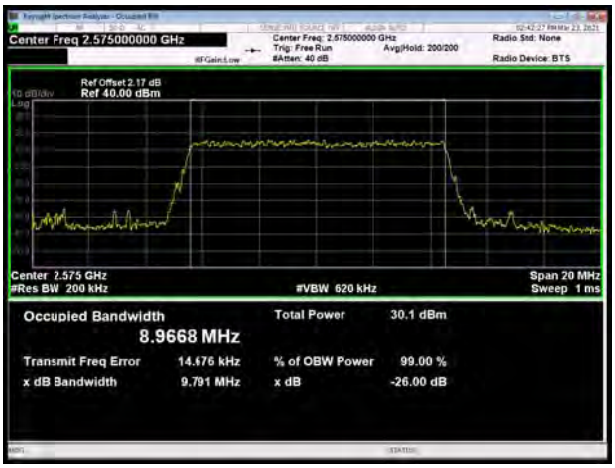
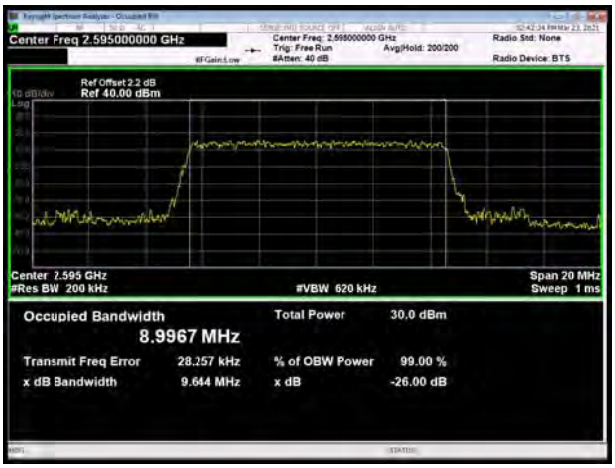
LTE Band 38 QPSK 5MHz CH-Low

LTE Band 38 QPSK 10MHz CH-Low

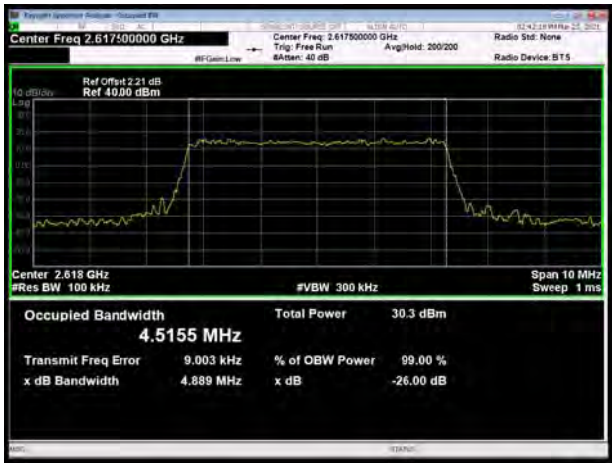


LTE Band 38 QPSK 5MHz CH-Middle

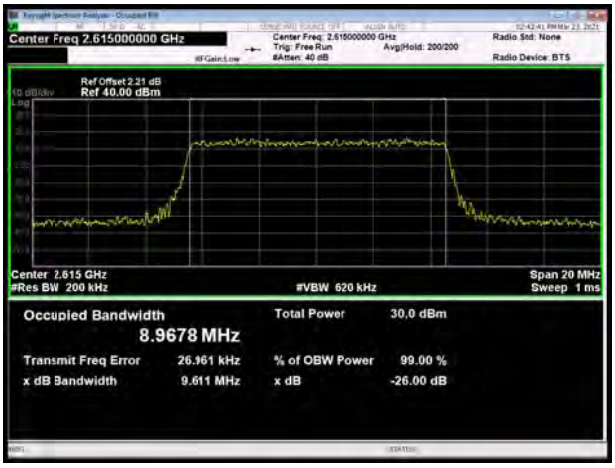
LTE Band 38 QPSK 10MHz CH-Middle



LTE Band 38 QPSK 5MHz CH-High



LTE Band 38 QPSK 10MHz CH-High



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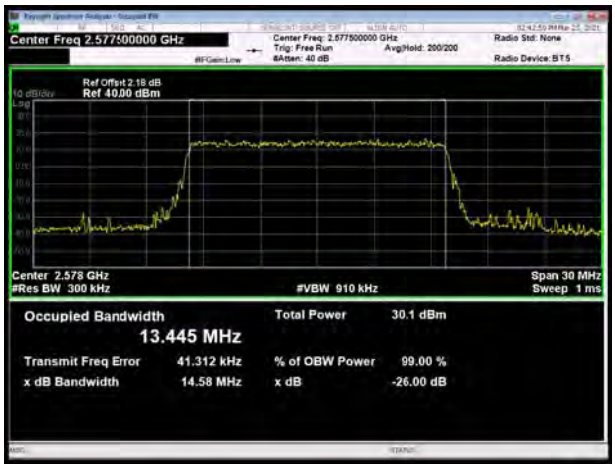
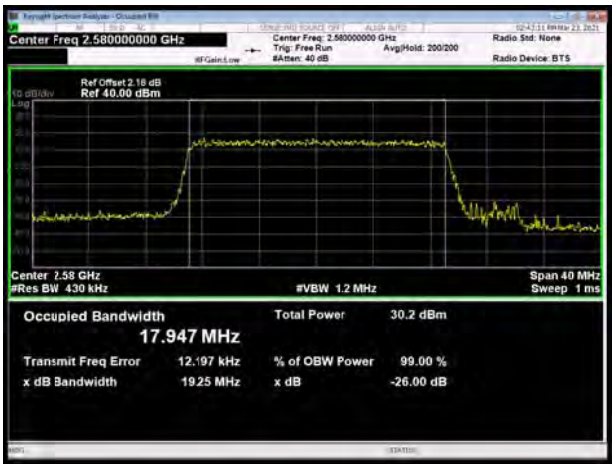
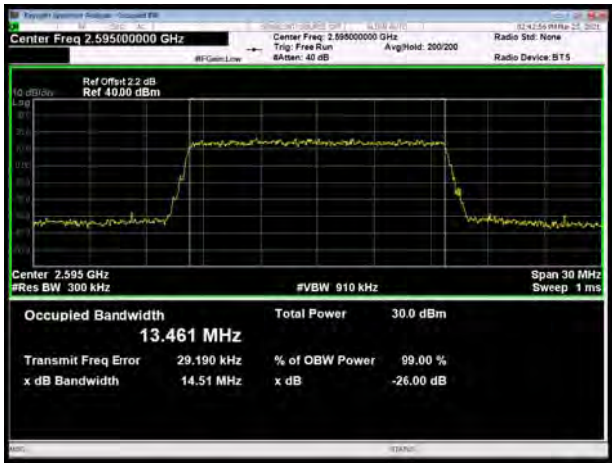
LTE Band 38 QPSK 15MHz CH-Low



LTE Band 38 QPSK 20MHz CH-Low

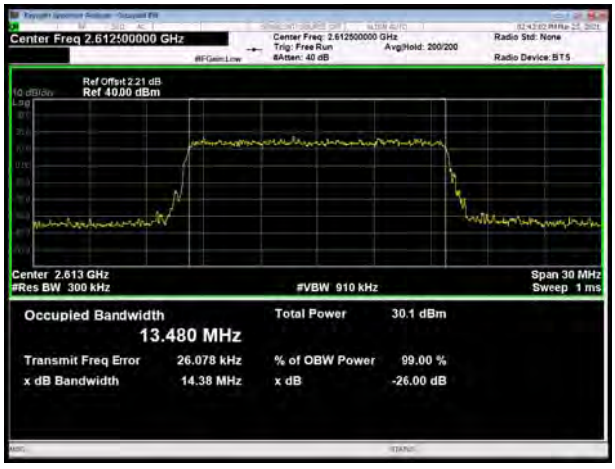


LTE Band 38 QPSK 15MHz CH-Middle

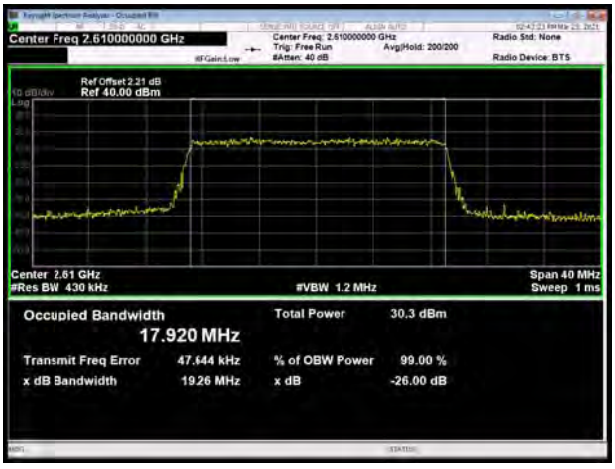


LTE Band 38 QPSK 20MHz CH-Middle

LTE Band 38 QPSK 15MHz CH-High



LTE Band 38 QPSK 20MHz CH-High



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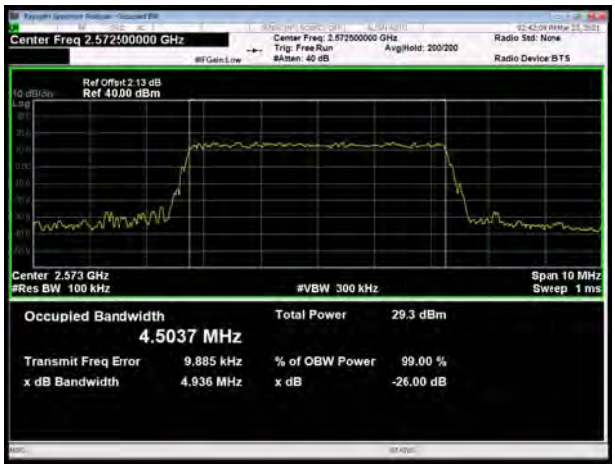
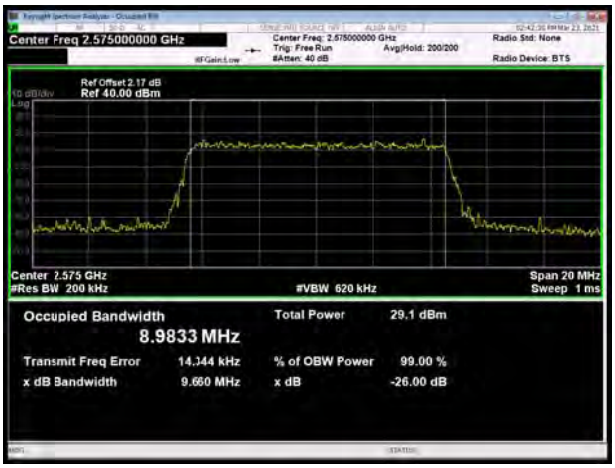
LTE Band 38 16QAM 5MHz CH-Low

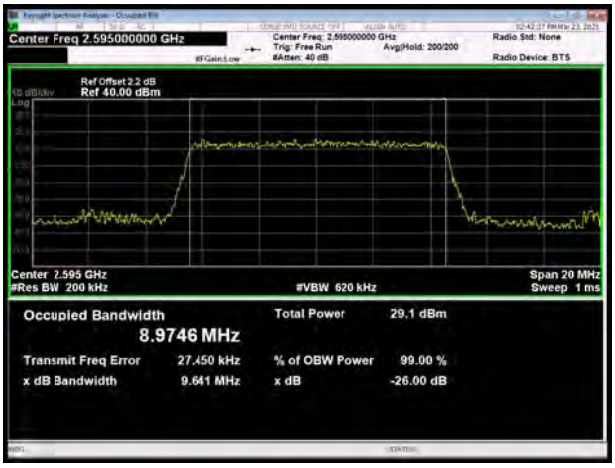


LTE Band 38 16QAM 10MHz CH-Low

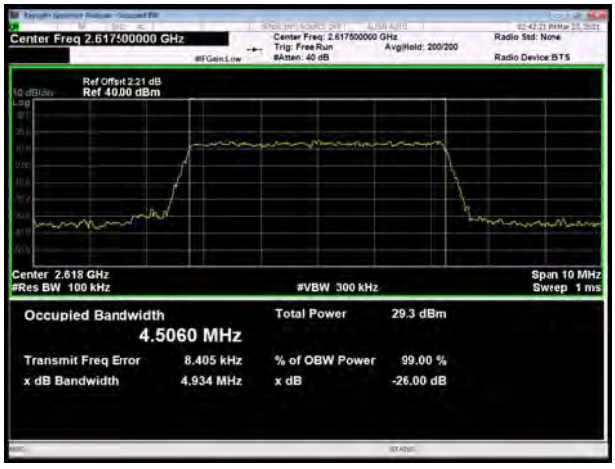


LTE Band 38 16QAM 5MHz CH-Middle

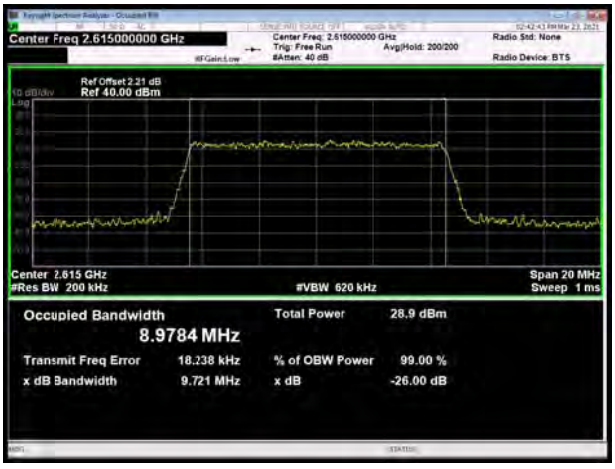
LTE Band 38 16QAM 10MHz CH-Middle



LTE Band 38 16QAM 5MHz CH-High



LTE Band 38 16QAM 10MHz CH-High



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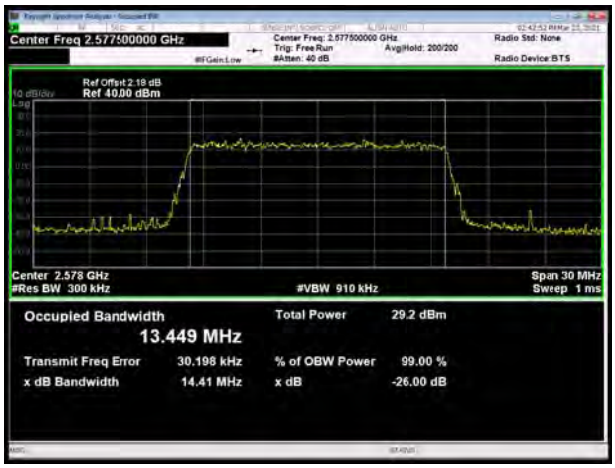
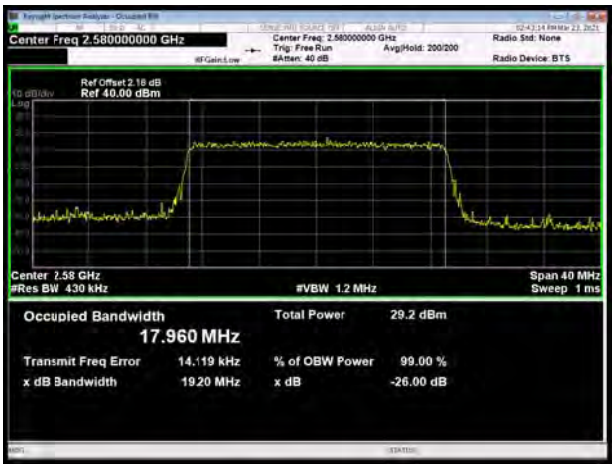
LTE Band 38 16QAM 15MHz CH-Low

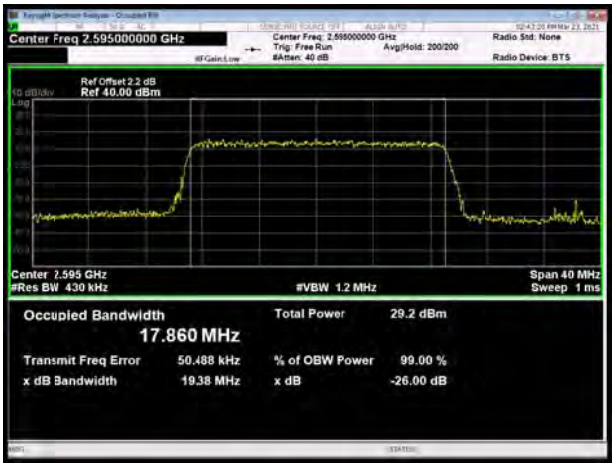


LTE Band 38 16QAM 20MHz CH-Low



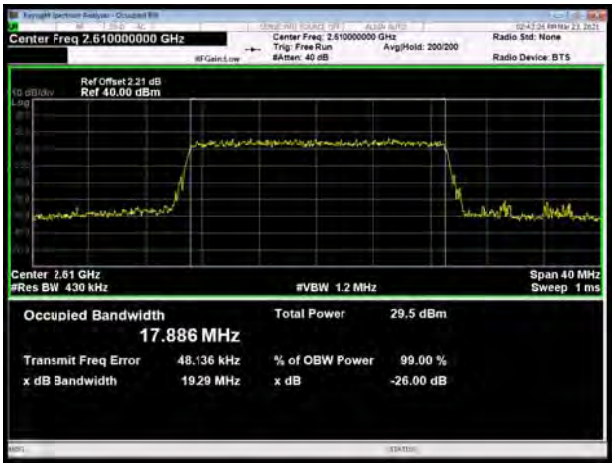
LTE Band 38 16QAM 15MHz CH-Middle

LTE Band 38 16QAM 20MHz CH-Middle



LTE Band 38 16QAM 15MHz CH-High

LTE Band 38 16QAM 20MHz CH-High



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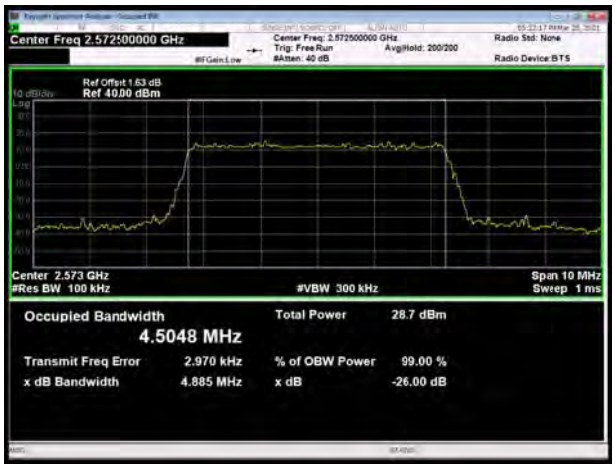
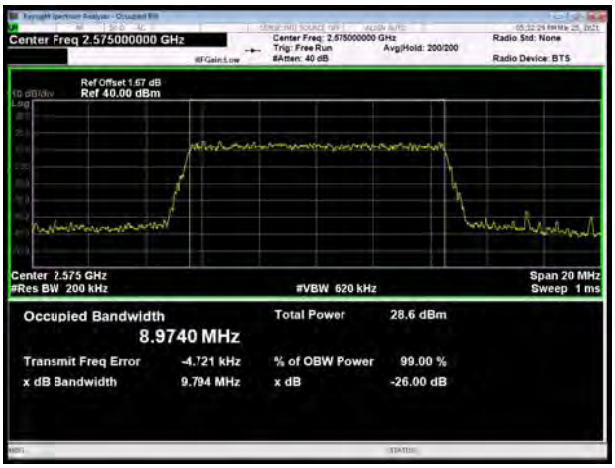
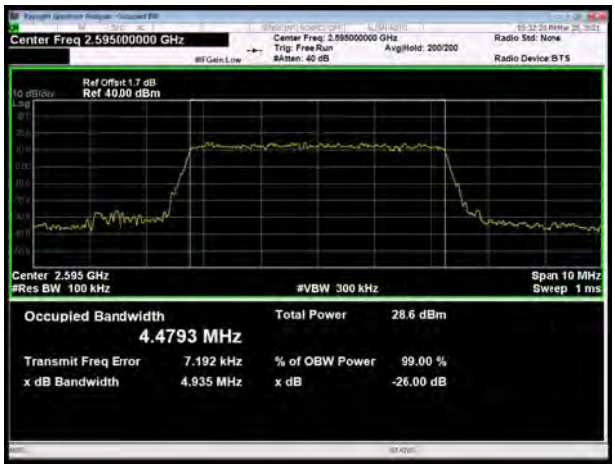
LTE Band 38 64QAM 5MHz CH-Low



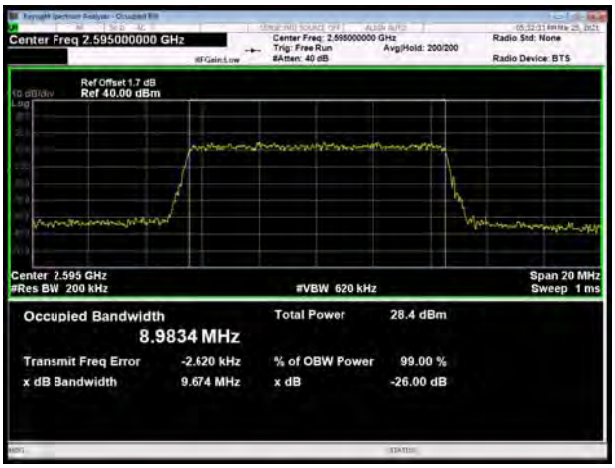
LTE Band 38 64QAM 10MHz CH-Low



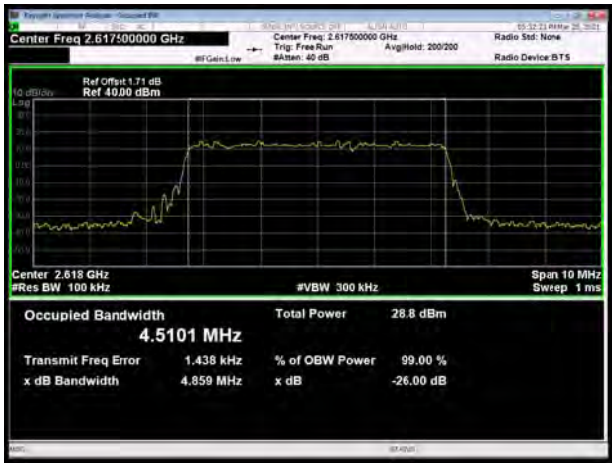
LTE Band 38 64QAM 5MHz CH-Middle



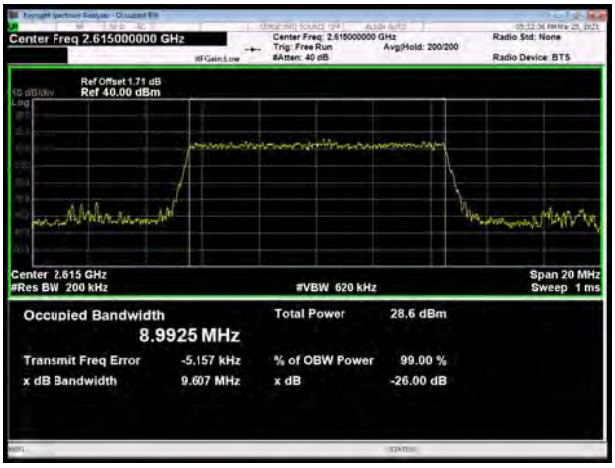
LTE Band 38 64QAM 10MHz CH-Middle



LTE Band 38 64QAM 5MHz CH-High



LTE Band 38 64QAM 10MHz CH-High



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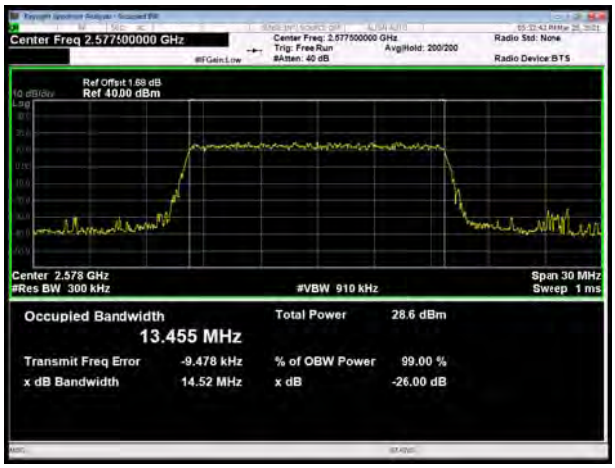
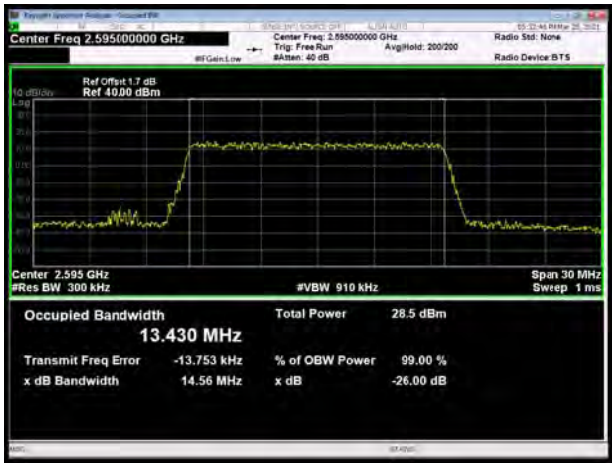
LTE Band 38 64QAM 15MHz CH-Low

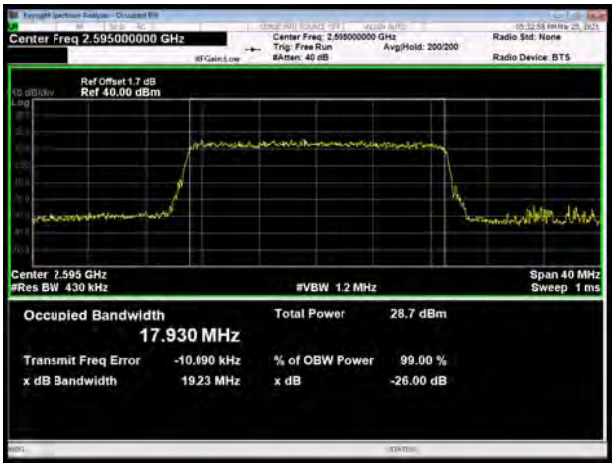


LTE Band 38 64QAM 20MHz CH-Low

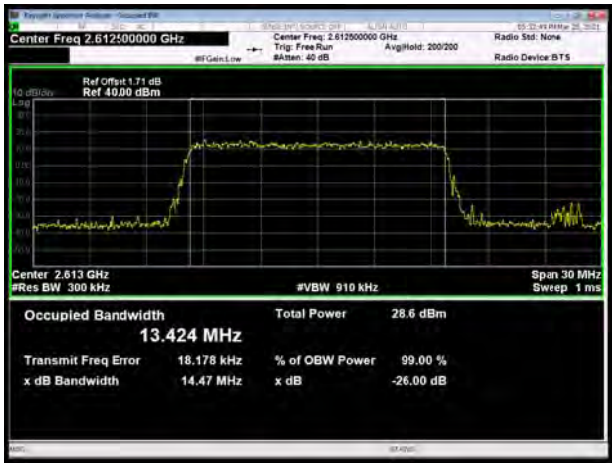
LTE Band 38 64QAM 15MHz CH-Middle



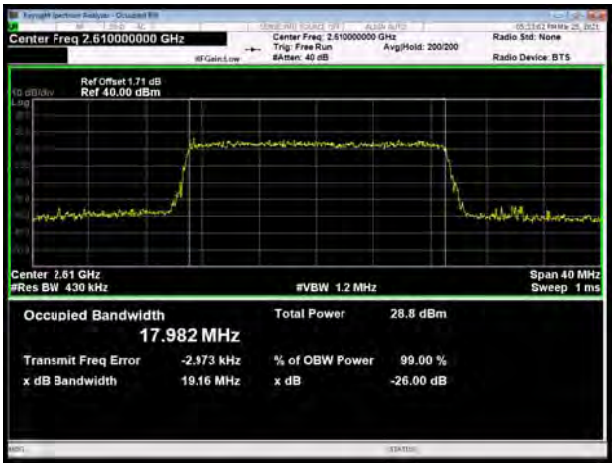
LTE Band 38 64QAM 20MHz CH-Middle



LTE Band 38 64QAM 15MHz CH-High



LTE Band 38 64QAM 20MHz CH-High



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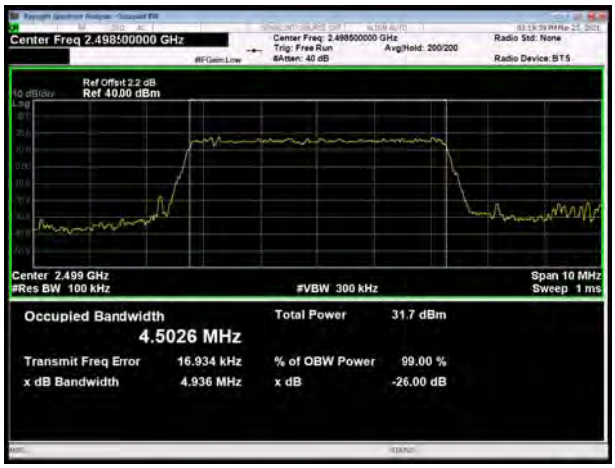
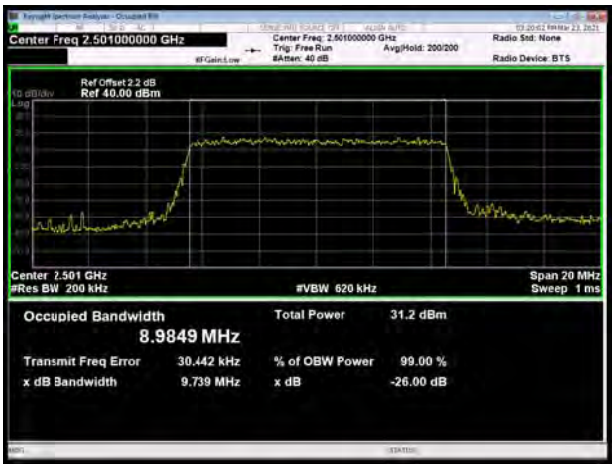
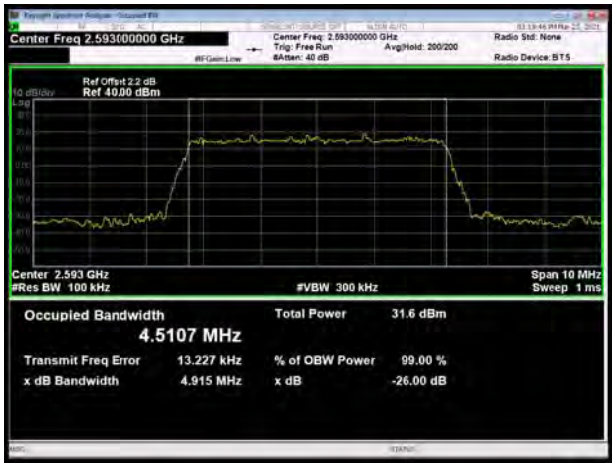
LTE Band 41 QPSK 5MHz CH-Low



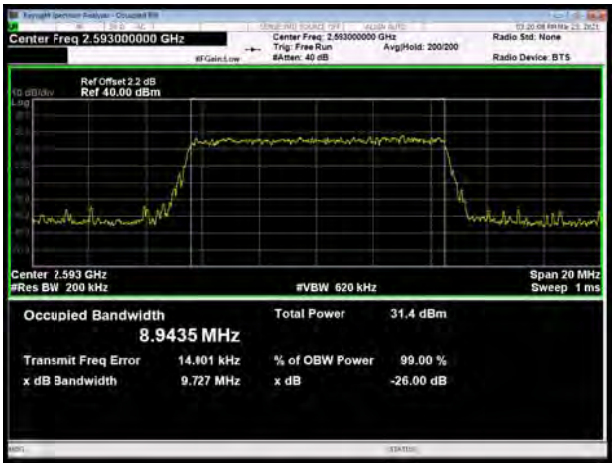
LTE Band 41 QPSK 10MHz CH-Low



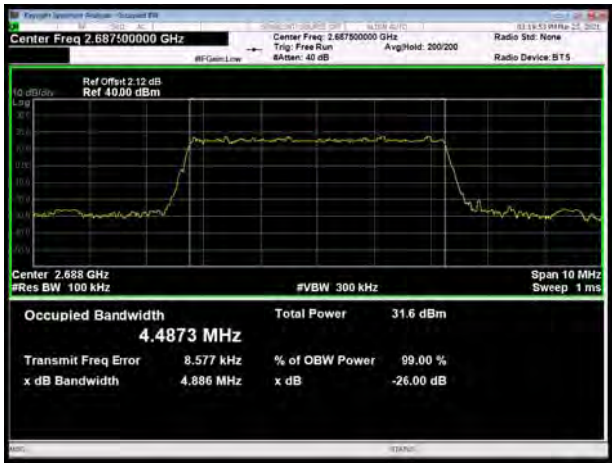
LTE Band 41 QPSK 5MHz CH-Middle



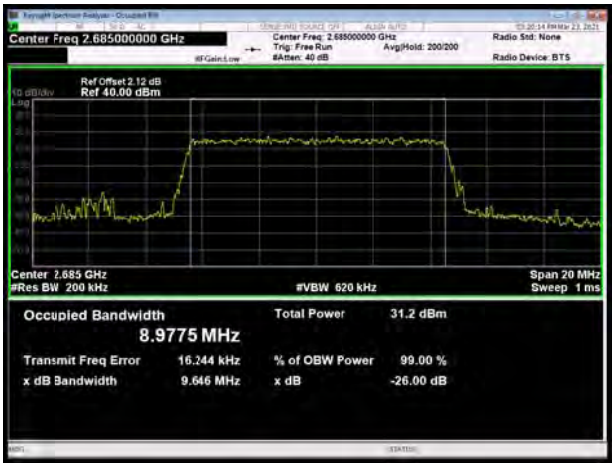
LTE Band 41 QPSK 10MHz CH-Middle



LTE Band 41 QPSK 5MHz CH-High



LTE Band 41 QPSK 10MHz CH-High



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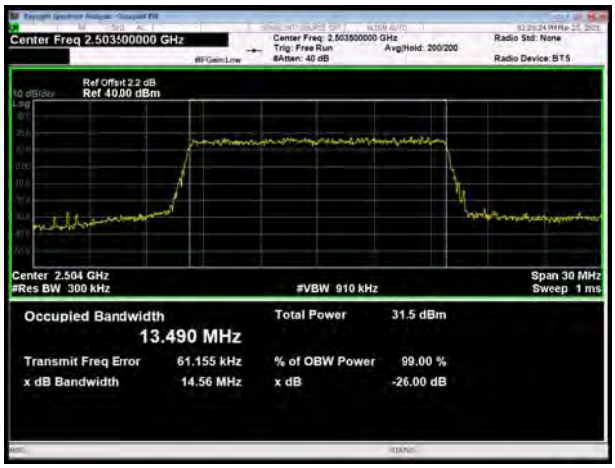
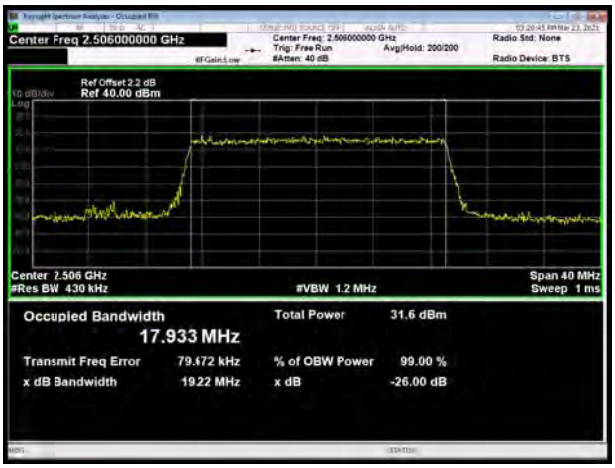
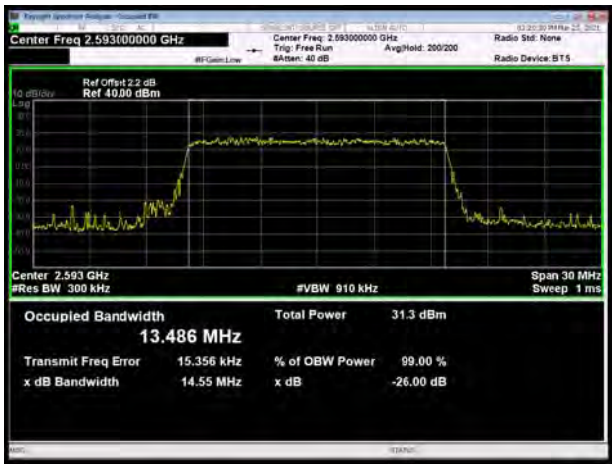
LTE Band 41 QPSK 15MHz CH-Low



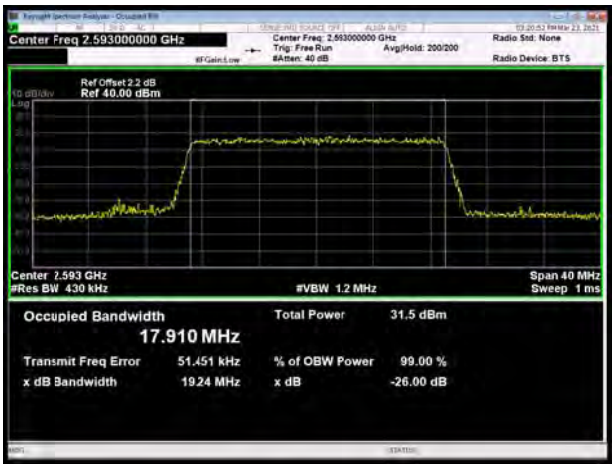
LTE Band 41 QPSK 20MHz CH-Low



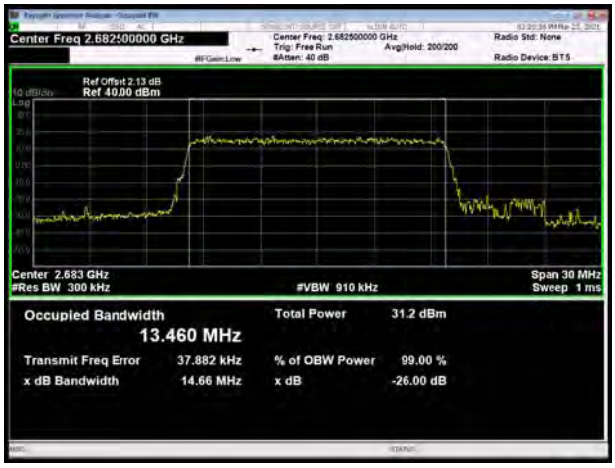
LTE Band 41 QPSK 15MHz CH-Middle



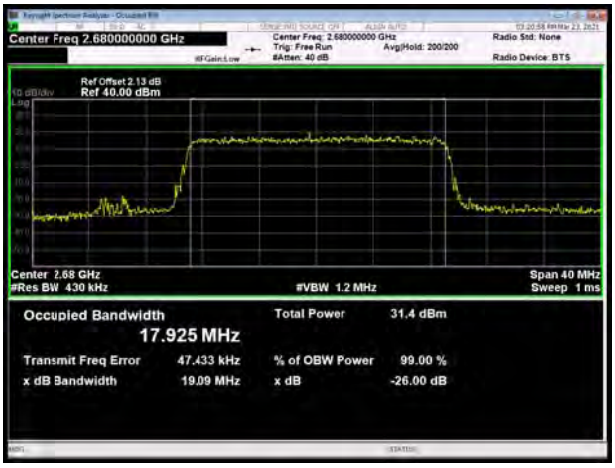
LTE Band 41 QPSK 20MHz CH-Middle



LTE Band 41 QPSK 15MHz CH-High



LTE Band 41 QPSK 20MHz CH-High



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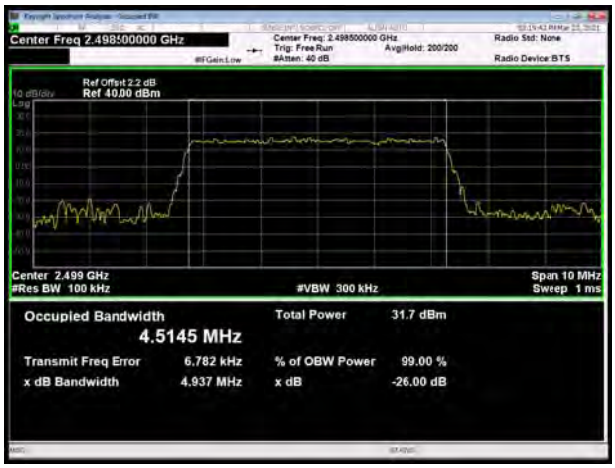
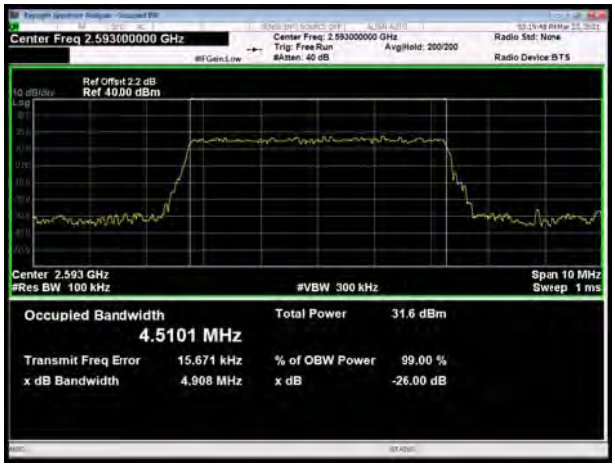
LTE Band 41 16QAM 5MHz CH-Low

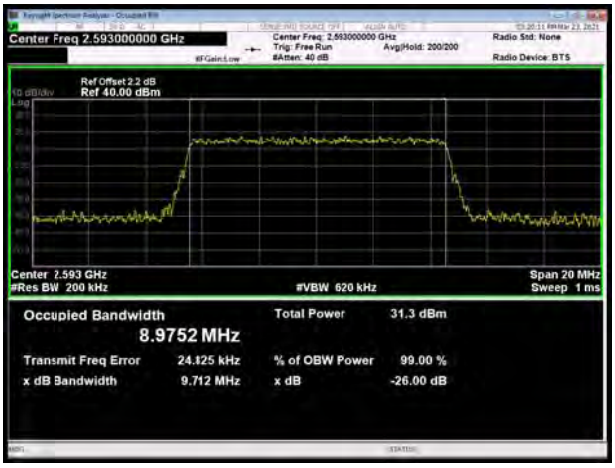


LTE Band 41 16QAM 10MHz CH-Low

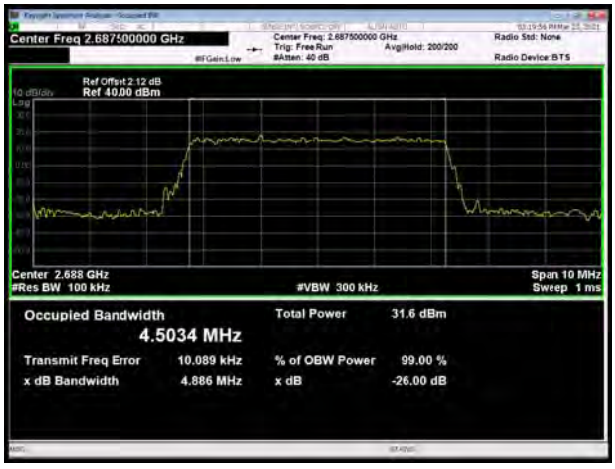
LTE Band 41 16QAM 5MHz CH-Middle



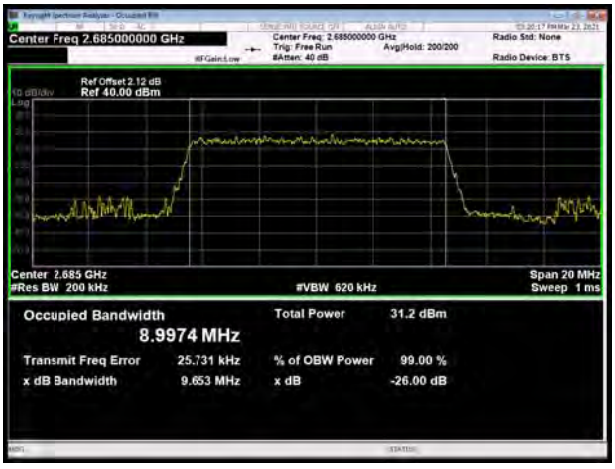
LTE Band 41 16QAM 10MHz CH-Middle



LTE Band 41 16QAM 5MHz CH-High



LTE Band 41 16QAM 10MHz CH-High



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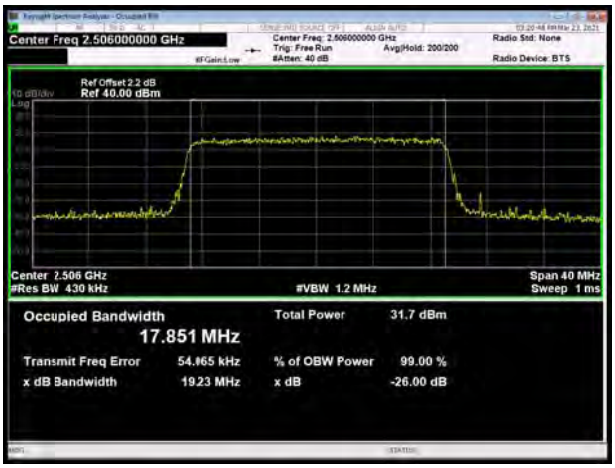
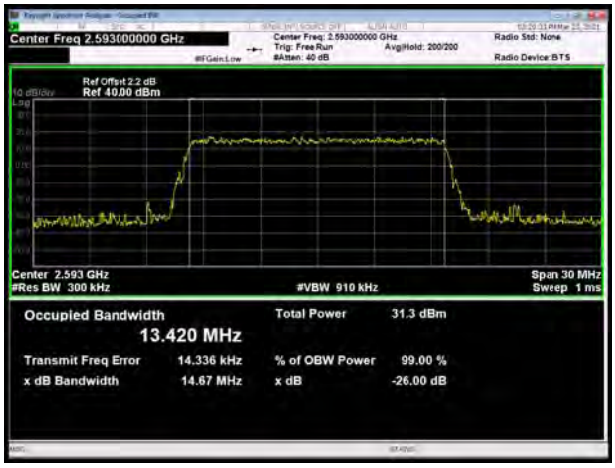
LTE Band 41 16QAM 15MHz CH-Low

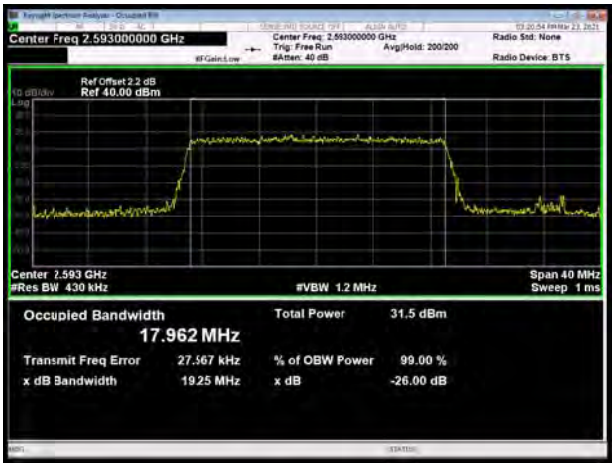
LTE Band 41 16QAM 20MHz CH-Low



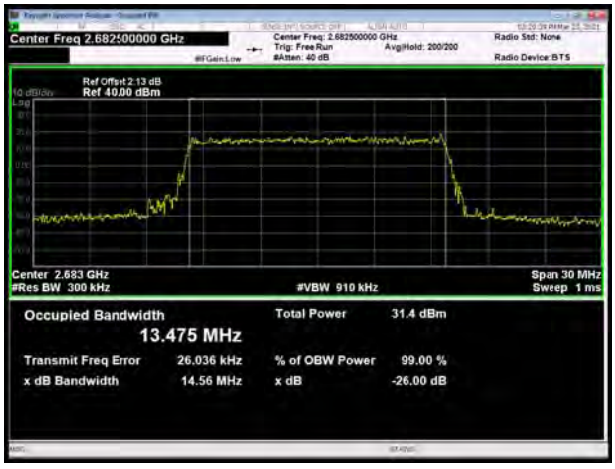
LTE Band 41 16QAM 15MHz CH-Middle



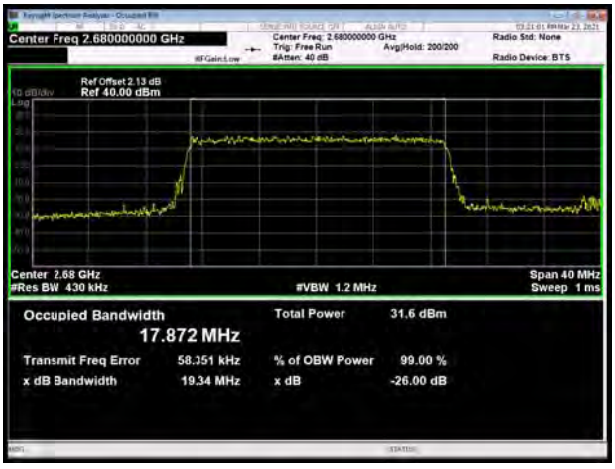
LTE Band 41 16QAM 20MHz CH-Middle



LTE Band 41 16QAM 15MHz CH-High



LTE Band 41 16QAM 20MHz CH-High



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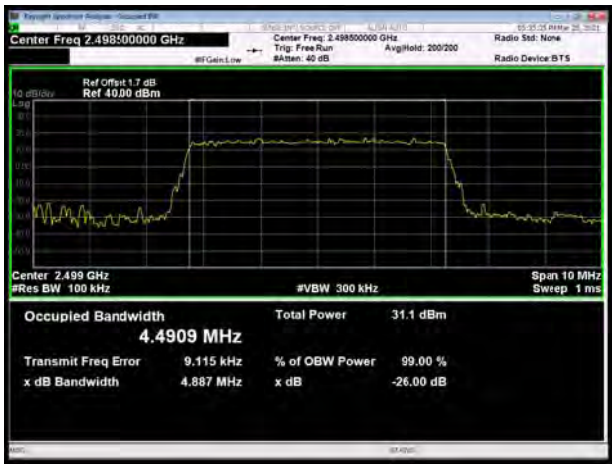
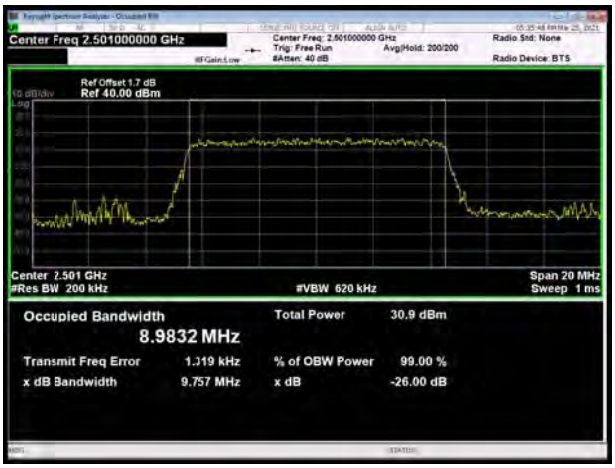
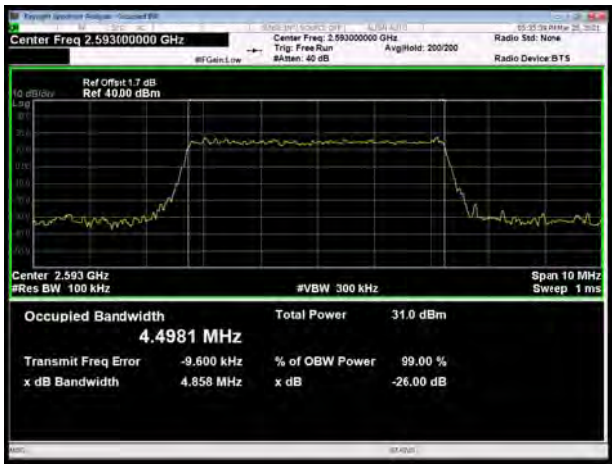
LTE Band 41 64QAM 5MHz CH-Low



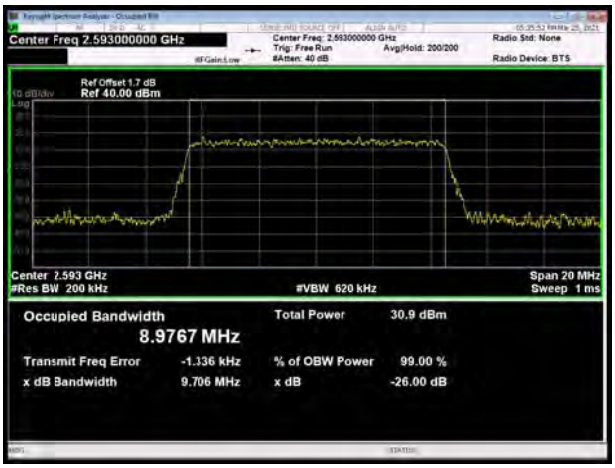
LTE Band 41 64QAM 10MHz CH-Low



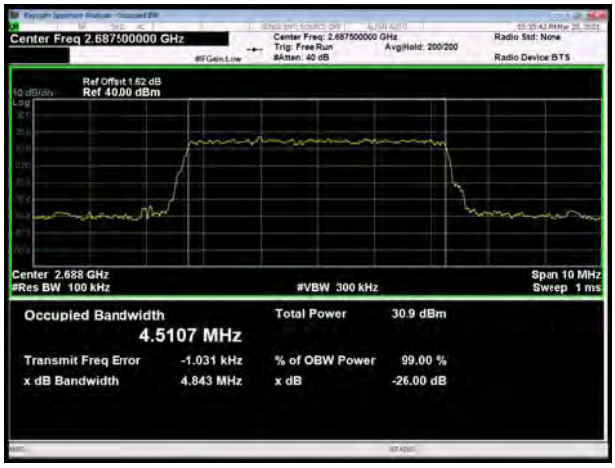
LTE Band 41 64QAM 5MHz CH-Middle



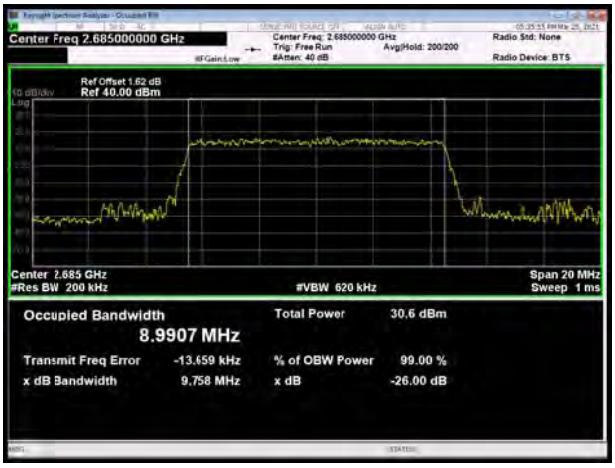
LTE Band 41 64QAM 10MHz CH-Middle



LTE Band 41 64QAM 5MHz CH-High



LTE Band 41 64QAM 10MHz CH-High



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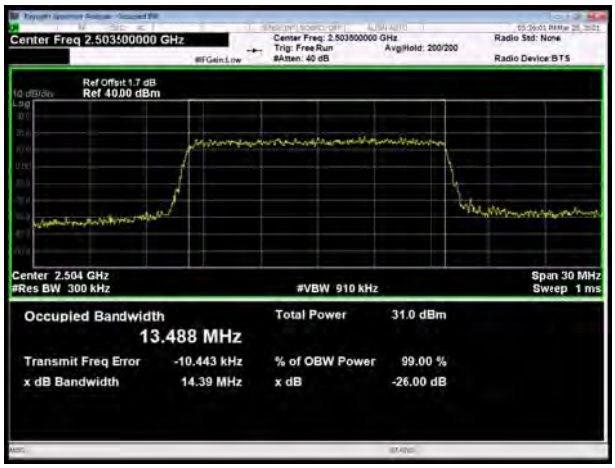
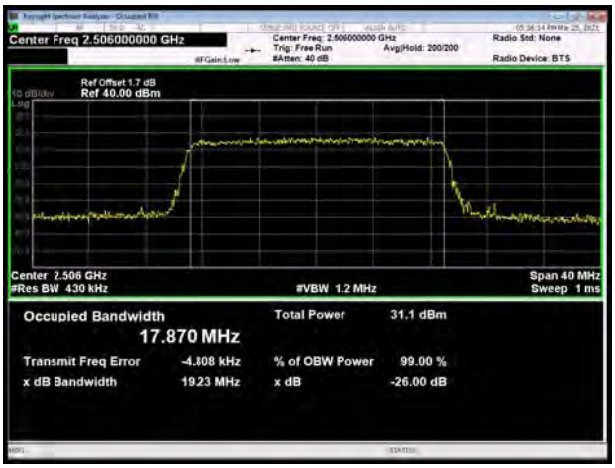
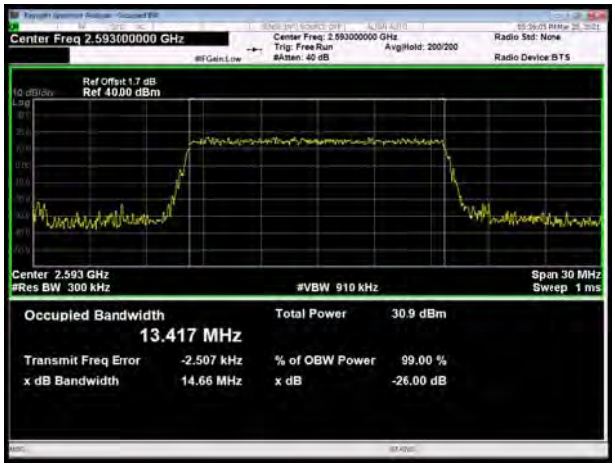
LTE Band 41 64QAM 15MHz CH-Low



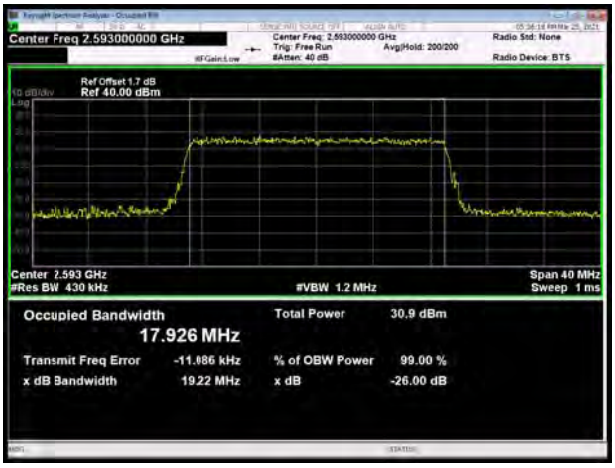
LTE Band 41 64QAM 20MHz CH-Low



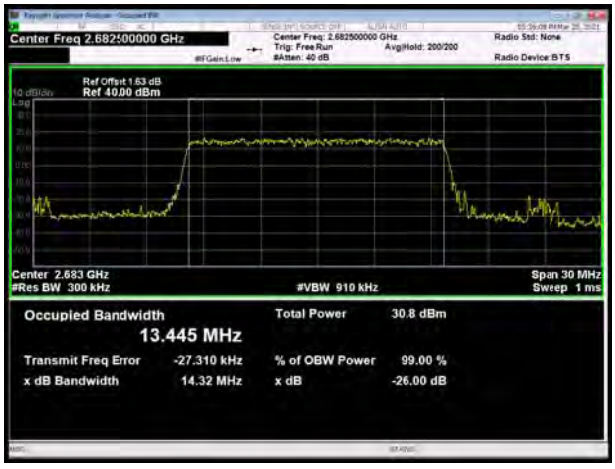
LTE Band 41 64QAM 15MHz CH-Middle



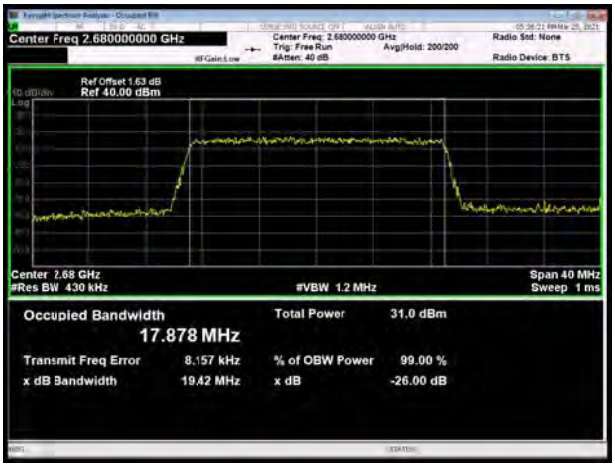
LTE Band 41 64QAM 20MHz CH-Middle



LTE Band 41 64QAM 15MHz CH-High



LTE Band 41 64QAM 20MHz CH-High



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CA_7C QPSK 10MHz+20MHz

CA_7C QPSK 15MHz+10MHz

CA_7C 16QAM 10MHz+20MHz

CA_7C 16QAM 15MHz+10MHz

CA_7C 64QAM 10MHz+20MHz

CA_7C 64QAM 15MHz+10MHz

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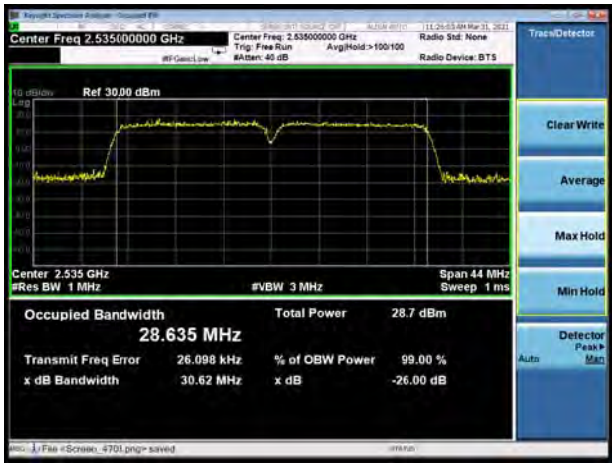
CA_7C QPSK 15MHz +15MHz

CA_7C QPSK 15MHz+20MHz

CA_7C 16QAM 15MHz +15MHz

CA_7C 16QAM 15MHz+20MHz

CA_7C 64QAM 15MHz +15MHz



CA_7C 64QAM 15MHz+20MHz

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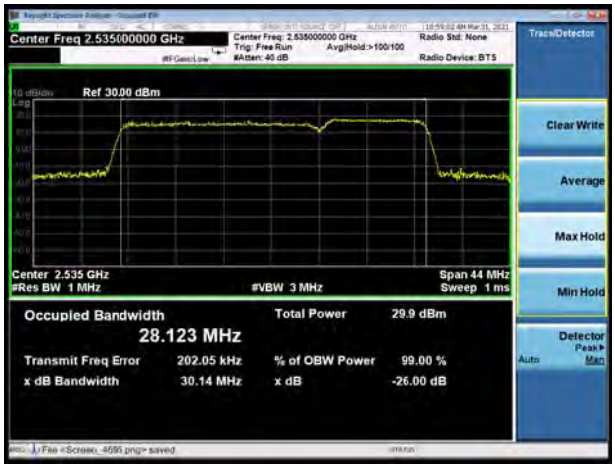
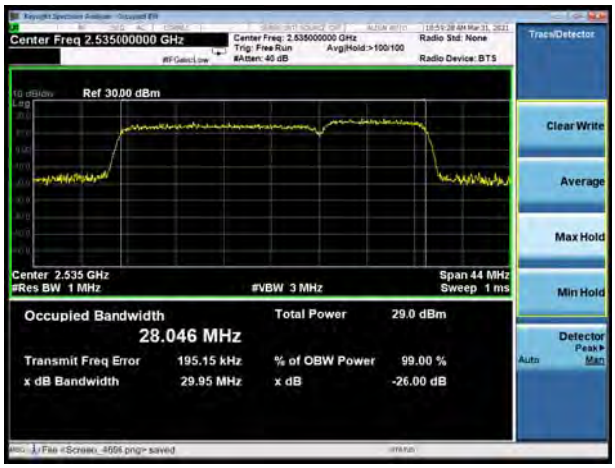
CA_7C QPSK 20MHz +10MHz



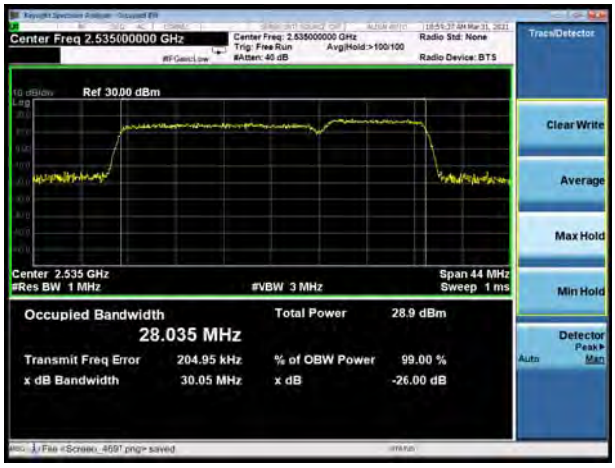
CA_7C QPSK 20MHz +15MHz

CA_7C 16QAM 20MHz +10MHz



CA_7C 16QAM 20MHz +15MHz

CA_7C 64QAM 20MHz +10MHz



CA_7C 64QAM 20MHz +15MHz

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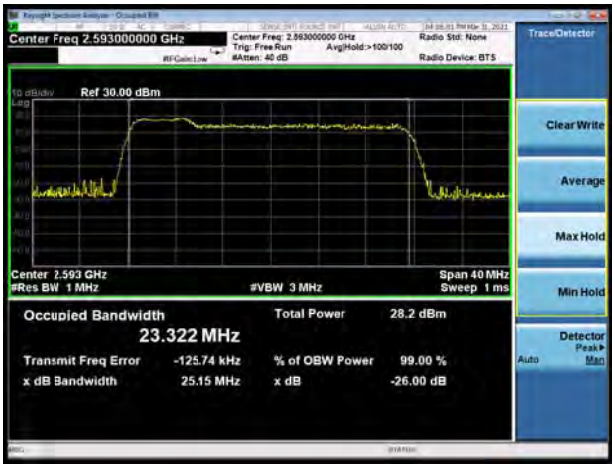
CA_7C QPSK 20MHz +20MHz

CA_41C QPSK 5MHz +20MHz



CA_7C 16QAM 20MHz +20MHz

CA_41C 16QAM 5MHz +20MHz

CA_7C 64QAM 20MHz +20MHz

CA_41C 64QAM 5MHz +20MHz

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CA_41C QPSK 10MHz +20MHz

CA_41C QPSK 15MHz +15MHz

CA_41C 16QAM 10MHz +20MHz

CA_41C 16QAM 15MHz +15MHz

CA_41C 64QAM 10MHz +20MHz

CA_41C 64QAM 15MHz +15MHz

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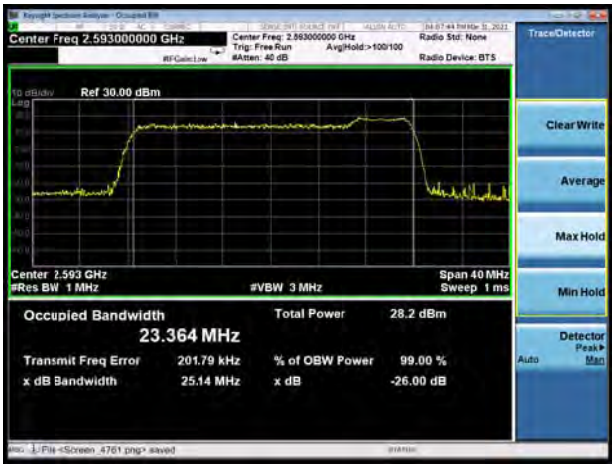
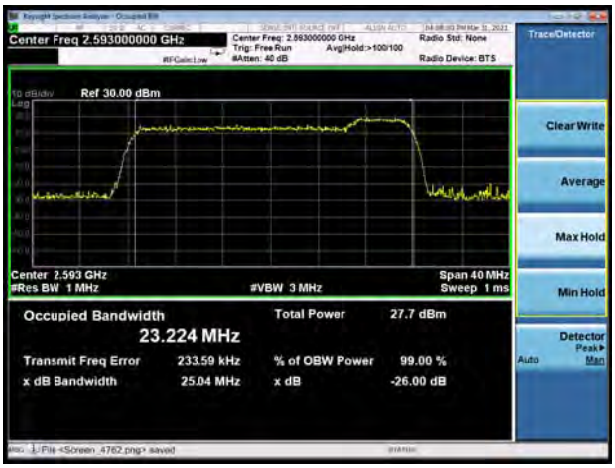
CA_41C QPSK 15MHz +20MHz

CA_41C QPSK 20MHz +5MHz



CA_41C 16QAM 15MHz +20MHz

CA_41C 16QAM 20MHz +5MHz



CA_41C 64QAM 15MHz +20MHz

CA_41C 64QAM 20MHz +5MHz

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CA_41C QPSK 20MHz +10MHz

CA_41C QPSK 20MHz +15MHz

CA_41C 16QAM 20MHz +10MHz

CA_41C 16QAM 20MHz +15MHz

CA_41C 64QAM 20MHz +10MHz

CA_41C 64QAM 20MHz +15MHz

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CA_41C QPSK 20MHz +20MHz

CA_41C 16QAM 20MHz +20MHz

CA_41C 64QAM 20MHz +20MHz

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5.3 Band Edge Compliance

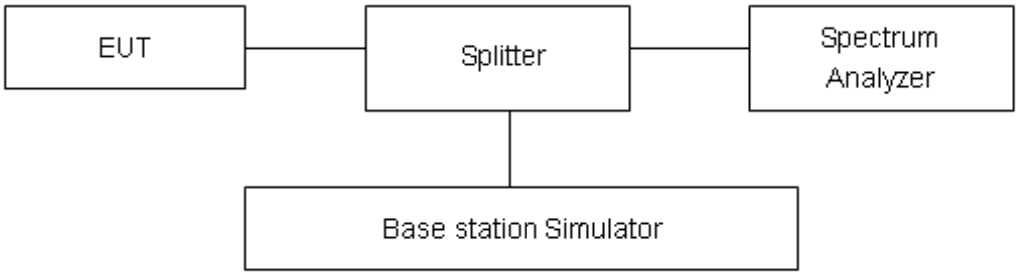
Ambient condition

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

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.
The testing follows KDB 971168 D01 v03r01 Section 6.0
The EUT was connected to spectrum analyzer and system simulator via a power divider.
The band edges of low and high channels for the highest RF powers were measured.
For LTE Band 7/38/ the middle channel, high channel of LTE Band 41 set RBW >= 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 >= 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 4/12 (1.4MHz).
RBW is set to 30 kHz, VBW is set to 91 kHz for LTE Band 4/12 (3MHz).
RBW is set to 51 kHz, VBW is set to 150 kHz for LTE Band4/12/17 (5MHz).
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 4/1217 (10MHz).
RBW is set to 150 kHz, VBW is set to 470 kHz for LTE Band 4 (15MHz).
RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4 (20MHz)
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 12(1.4MHz/3MHz/5MHz/10MHz).
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

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2320 MHz.

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

Rule Part 27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Rule Part 27.53(m) (4)/ specifies that "for BRS and EBS stations. For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.
Example:
The limit line is derived from 43 + 10log (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=0.684dB.

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Test Result

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

WCDMA Band IV CH-Low	WCDMA Band IV CH-High
	

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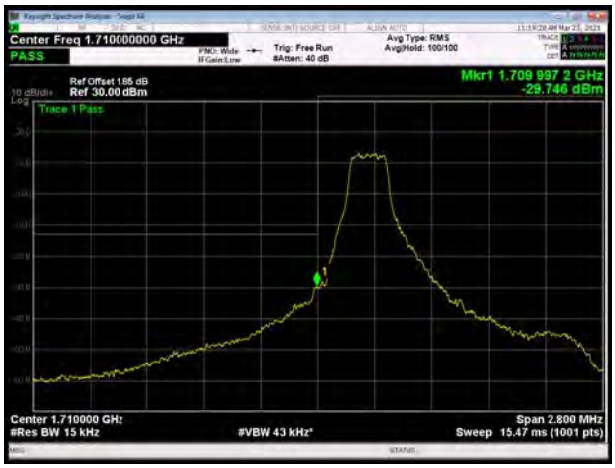
LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB

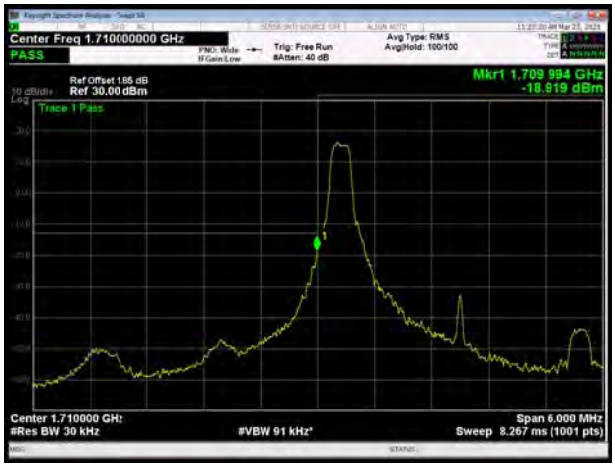


LTE Band 4 QPSK 1.4MHz CH-High, 1 RB

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

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