



RF TEST REPORT

Applicant Honor Device Co., Ltd.

FCC ID 2AYGCNZA-LX9N

Product Smart Phone

Model NZA-LX9N

Report No. R2101A0067-R3V1

Issue Date February 7, 2021

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

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	February 5, 2021
Rev.1	Update operating frequency range for LTE Band 66.	February 7, 2021
Note: This revised report (Report No. R2101A0067-R3V1) supersedes and replaces the previously issued report (Report No. R2101A0067-R3). Please discard or destroy the previously issued report and dispose of it accordingly.		

Summary of Measurement Results

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

Date of Testing: January 20, 2021 ~ January 28, 2021

Date of Sample Received: January 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.



1 Test Laboratory

1.1 Notes of the Test Report

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

1.2. Test facility

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

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

A2LA (Certificate Number: 3857.01)

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

1.3 Testing Location

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

2.1 Applicant and Manufacturer Information

Applicant	Honor Device Co., Ltd.
Applicant address	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China
Manufacturer	Honor Device Co., Ltd.
Manufacturer address	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China

2.2 General information

EUT Description			
Model:	NZA-LX9N		
SN:	L4H0120C21000132		
Hardware Version:	HL1WKGM		
Software Version:	5.0.0.76		
Power Supply:	Battery/AC Adapter		
Antenna Type	Internal Antenna		
Antenna Gain	Band	Main Antenna(dBi)	Second Antenna(dBi)
	WCDMA Band IV	-0.3	-4.9
	LTE Band 4	-0.3	-4.9
	LTE Band 7	-0.9	-5.7
	LTE Band 38	-0.9	-5.7
	LTE Band 41	-0.9	-5.7
	LTE Band 66	-0.3	-4.9
Test Mode(s)	WCDMA Band IV; LTE Band 4/7/38/41/66;		
Test Modulation	(WCDMA) BPSK, QPSK, 16QAM; (LTE)QPSK 16QAM;		
HSDPA UE Category	14		
HSUPA UE Category	7		
DC-HSDPA UE Category	24		
HSPA+ UE Category	7		
LTE Category	4		
Maximum E.I.R.P.	WCDMA Band IV:	23.43dBm	
	LTE Band 4:	23.57dBm	
	LTE Band 7:	23.28dBm	
	LTE Band 38:	22.79dBm	



	LTE Band 41:		23.10dBm
	LTE Band 66:		23.32dBm
Rated Power Supply Voltage:	3.85V		
Extreme Voltage	3.27V~4.43V		
Extreme Temperature	-30°C ~ 50°C		
Operating Voltage	3.6V~4.43V		
Operating Temperature	0°C ~35°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 7	2500 ~ 2570	2620 ~ 2690
	LTE Band 38	2570 ~ 2620	2570 ~ 2620
	LTE Band 41	2535 ~ 2675	2535 ~ 2675
	LTE Band 66	1710 ~ 1780	2110 ~ 2180
EUT Accessory			
Accessory	Model	Manufacture	No.
Adapter	HW-100225E00	Honor Device Co., Ltd. (Manufacturer: BYD)	1
		Honor Device Co., Ltd. (Manufacturer: Phitek)	2
		Honor Device Co., Ltd. (Manufacturer: HUNTKEY)	3
	HW-100225B00	Honor Device Co., Ltd. (Manufacturer: BYD)	4
		Honor Device Co., Ltd. (Manufacturer: HUNTKEY)	5
	HW-100225U00	Honor Device Co., Ltd. (Manufacturer: BYD)	6
		Honor Device Co., Ltd. (Manufacturer: HUNTKEY)	7
	HW-100225A00	Honor Device Co., Ltd. (Manufacturer: BYD)	8
		Honor Device Co., Ltd. (Manufacturer: HUNTKEY)	9
Battery	HB526488EEW	Honor Device Co., Ltd. (Manufacturer: Sunwoda)	1
		Honor Device Co., Ltd. (Manufacturer: Desay)	2
		Honor Device Co., Ltd. (Manufacturer: NVT)	3
	HB536488EEW	Honor Device Co., Ltd. (Manufacturer: Sunwoda)	4
		Honor Device Co., Ltd. (Manufacturer: Desay)	5
		Honor Device Co., Ltd. (Manufacturer: NVT)	6
Earphone	MEND1532B528A11	Jiangxi Lianchuang Hongsheng Electronic Co. ,LTD.	1
	1293-3283-3.5mm-339	Boluo County Quancheng Electronic Co.,ltd.	2
	EPAB542-2WH05-DH	FOXCONN INTERCONNECT TECHNOLOGY LIMITED	3
USB Cable	18-93C2CHO-001HF	Freeport resources Enterprises Corp.	1
	WA0020	NingBo Broad Telecommunication Co., Ltd.	2
	L99UC131-CS-H	Luxshare Precision industry Co., Ltd.	3
	203-1572-0	MING JI ELECTRONICS CO., LTD.	4
	CUDU01B-HC295-EH	FOXCONN INTERCONNECT TECHNOLOGY	5



LIMITED

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 Adapter / USB cable/ Battery and Earphone, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 6/ USB cable 3/ Battery 2 and Earphone 3) will be recorded in this report.



3 Applied Standards

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

Test standards:

FCC CFR47 Part 27C (2019)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2019)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

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

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

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

Subsequently, only the worst case emissions are reported.

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

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

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

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

Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/7/38/41/66:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	O	O	O	O	O	O



Occupied Bandwidth	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 4	O	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 7	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 38	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 41	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 66	O	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 7	-	-	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 38	-	-	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 41	-	-	O	O	O	O	O	O	O	-	-	-	O	-
	LTE 66	O	O	O	O	O	O	O	O	O	-	-	-	O	-
Spurious Emissions at Antenna Terminals	LTE 4	O	O	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 7	-	-	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 38	-	-	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 41	-	-	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 66	O	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 7	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 38	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 41	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 66	O	-	O	-	-	O	O	-	O	-	-	-	O	-
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.														

5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

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

Methods of Measurement

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

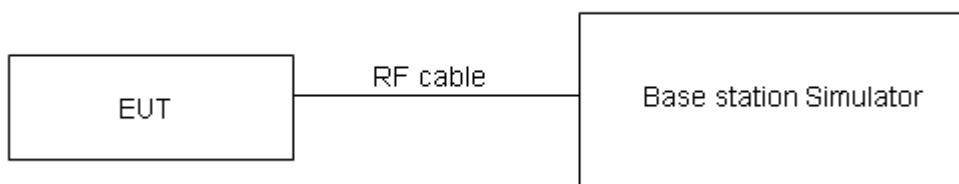
ERP can then be calculated as follows:

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

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

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

Test Setup



Limits

No specific RF power output requirements in part 2.1046.

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

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

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



Measurement Uncertainty

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



Test Results

WCDMA Band IV		Maximum Output Power (dBm)			EIRP (dBm)					
					Main Antenna			Second Antenna		
		Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513	Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)	1712.4 (MHz)	1732.6 (MHz)	1752.6 (MHz)
RMC		23.66	23.67	23.73	23.36	23.37	23.43	18.76	18.77	18.83
HSDPA	Sub - Test 1	22.72	22.53	22.89	22.42	22.23	22.59	17.82	17.63	17.99
	Sub - Test 2	22.82	22.79	22.77	22.52	22.49	22.47	17.92	17.89	17.87
	Sub - Test 3	22.08	22.01	22.23	21.78	21.71	21.93	17.18	17.11	17.33
	Sub - Test 4	22.02	22.01	22.09	21.72	21.71	21.79	17.12	17.11	17.19
HSUPA	Sub - Test 1	20.56	20.51	20.57	20.26	20.21	20.27	15.66	15.61	15.67
	Sub - Test 2	20.50	20.63	20.71	20.20	20.33	20.41	15.60	15.73	15.81
	Sub - Test 3	21.62	21.59	21.87	21.32	21.29	21.57	16.72	16.69	16.97
	Sub - Test 4	20.02	20.01	20.17	19.72	19.71	19.87	15.12	15.11	15.27
	Sub - Test 5	21.80	21.57	21.73	21.50	21.27	21.43	16.90	16.67	16.83
DC-HSDPA	Sub - Test 1	22.74	22.57	22.81	22.44	22.27	22.51	17.84	17.67	17.91
	Sub - Test 2	22.74	22.69	22.69	22.44	22.39	22.39	17.84	17.79	17.79
	Sub - Test 3	22.20	22.27	22.25	21.90	21.97	21.95	17.30	17.37	17.35
	Sub - Test 4	22.08	22.21	22.21	21.78	21.91	21.91	17.18	17.31	17.31
HSPA+	16QAM	22.55	22.58	22.63	22.25	22.28	22.33	17.65	17.68	17.73



LTE Band 4				Maximum Output Power(dBm)			EIRP (dBm)					
							Main Antenna			Second Antenna		
				Channel/Frequency(MHz)								
Band width	Modulation	RB size	RB offset	19957 /1710.7	20175 /1732.5	20393 /1754.3	19957 /1710.7	20175 /1732.5	20393 /1754.3	19957 /1710.7	20175 /1732.5	20393 /1754.3
1.4MHz	QPSK	1	0	23.53	23.50	23.46	23.23	23.20	23.16	18.63	18.60	18.56
		1	2	23.84	23.83	23.71	23.54	23.53	23.41	18.94	18.93	18.81
		1	5	23.39	23.28	23.36	23.09	22.98	23.06	18.49	18.38	18.46
		3	0	23.73	23.76	23.62	23.43	23.46	23.32	18.83	18.86	18.72
		3	2	23.62	23.74	23.61	23.32	23.44	23.31	18.72	18.84	18.71
		3	3	23.62	23.61	23.50	23.32	23.31	23.20	18.72	18.71	18.60
		6	0	22.69	22.74	22.65	22.39	22.44	22.35	17.79	17.84	17.75
	16QAM	1	0	22.89	22.92	22.98	22.59	22.62	22.68	17.99	18.02	18.08
		1	2	22.87	22.85	22.89	22.57	22.55	22.59	17.97	17.95	17.99
		1	5	22.89	22.83	22.90	22.59	22.53	22.60	17.99	17.93	18.00
		3	0	22.72	22.62	22.69	22.42	22.32	22.39	17.82	17.72	17.79
		3	2	22.77	22.72	22.80	22.47	22.42	22.50	17.87	17.82	17.90
		3	3	22.67	22.64	22.70	22.37	22.34	22.40	17.77	17.74	17.80
		6	0	21.84	21.83	21.93	21.54	21.53	21.63	16.94	16.93	17.03
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				19965 /1711.5	20175 /1732.5	20385 /1753.5	19965 /1711.5	20175 /1732.5	20385 /1753.5	19965 /1711.5	20175 /1732.5	20385 /1753.5
3MHz	QPSK	1	0	23.55	23.54	23.49	23.25	23.24	23.19	18.65	18.64	18.59
		1	7	23.82	23.86	23.75	23.52	23.56	23.45	18.92	18.96	18.85
		1	14	23.42	23.33	23.40	23.12	23.03	23.10	18.52	18.43	18.50
		8	0	22.83	22.88	22.75	22.53	22.58	22.45	17.93	17.98	17.85
		8	4	22.74	22.84	22.73	22.44	22.54	22.43	17.84	17.94	17.83
		8	7	22.72	22.72	22.60	22.42	22.42	22.30	17.82	17.82	17.70
		15	0	22.69	22.78	22.68	22.39	22.48	22.38	17.79	17.88	17.78
	16QAM	1	0	22.92	22.94	23.01	22.62	22.64	22.71	18.02	18.04	18.11
		1	7	22.90	22.85	22.93	22.60	22.55	22.63	18.00	17.95	18.03
		1	14	22.91	22.87	22.93	22.61	22.57	22.63	18.01	17.97	18.03
		8	0	21.83	21.75	21.81	21.53	21.45	21.51	16.93	16.85	16.91
		8	4	21.88	21.85	21.92	21.58	21.55	21.62	16.98	16.95	17.02
		8	7	21.77	21.76	21.83	21.47	21.46	21.53	16.87	16.86	16.93
		15	0	21.87	21.87	21.96	21.57	21.57	21.66	16.97	16.97	17.06
Band	Modulation	RB size	RB offset	Channel/Frequency(MHz)								



width				19975 /1712.5	20175 /1732.5	20375 /1752.5	19975 /1712.5	20175 /1732.5	20375 /1752.5	19975 /1712.5	20175 /1732.5	20375 /1752.5
5MHz	QPSK	1	0	23.52	23.52	23.45	23.22	23.22	23.15	18.62	18.62	18.55
		1	13	23.80	23.82	23.72	23.50	23.52	23.42	18.90	18.92	18.82
		1	24	23.39	23.28	23.36	23.09	22.98	23.06	18.49	18.38	18.46
		12	0	22.80	22.83	22.71	22.50	22.53	22.41	17.90	17.93	17.81
		12	6	22.72	22.80	22.68	22.42	22.50	22.38	17.82	17.90	17.78
		12	13	22.70	22.70	22.56	22.40	22.40	22.26	17.80	17.80	17.66
		25	0	22.69	22.77	22.66	22.39	22.47	22.36	17.79	17.87	17.76
	16QAM	1	0	22.89	22.90	22.98	22.59	22.60	22.68	17.99	18.00	18.08
		1	13	22.87	22.83	22.90	22.57	22.53	22.60	17.97	17.93	18.00
		1	24	22.88	22.85	22.89	22.58	22.55	22.59	17.98	17.95	17.99
		12	0	21.81	21.71	21.78	21.51	21.41	21.48	16.91	16.81	16.88
		12	6	21.85	21.80	21.88	21.55	21.50	21.58	16.95	16.90	16.98
		12	13	21.74	21.71	21.79	21.44	21.41	21.49	16.84	16.81	16.89
		25	0	21.85	21.83	21.91	21.55	21.53	21.61	16.95	16.93	17.01
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				20000 1715	20175 /1732.5	20350 /1750	20000 1715	20175 /1732.5	20350 /1750	20000 1715	20175 /1732.5	20350 /1750
10MHz	QPSK	1	0	23.54	23.53	23.48	23.24	23.23	23.18	18.64	18.63	18.58
		1	25	23.83	23.87	23.76	23.53	23.57	23.46	18.93	18.97	18.86
		1	49	23.41	23.32	23.39	23.11	23.02	23.09	18.51	18.42	18.49
		25	0	22.83	22.88	22.75	22.53	22.58	22.45	17.93	17.98	17.85
		25	13	22.75	22.85	22.72	22.45	22.55	22.42	17.85	17.95	17.82
		25	25	22.72	22.74	22.61	22.42	22.44	22.31	17.82	17.84	17.71
		50	0	22.73	22.79	22.70	22.43	22.49	22.40	17.83	17.89	17.80
	16QAM	1	0	22.91	22.93	23.00	22.61	22.63	22.70	18.01	18.03	18.10
		1	25	22.90	22.87	22.93	22.60	22.57	22.63	18.00	17.97	18.03
		1	49	22.91	22.87	22.92	22.61	22.57	22.62	18.01	17.97	18.02
		25	0	21.84	21.76	21.82	21.54	21.46	21.52	16.94	16.86	16.92
		25	13	21.87	21.84	21.91	21.57	21.54	21.61	16.97	16.94	17.01
		25	25	21.77	21.76	21.83	21.47	21.46	21.53	16.87	16.86	16.93
		50	0	21.88	21.88	21.95	21.58	21.58	21.65	16.98	16.98	17.05
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				20025 /1717.5	20175 /1732.5	20325 /1747.5	20025 /1717.5	20175 /1732.5	20325 /1747.5	20025 /1717.5	20175 /1732.5	20325 /1747.5
15MHz	QPSK	1	0	23.53	23.49	23.46	23.23	23.19	23.16	18.63	18.59	18.56
		1	38	23.81	23.86	23.73	23.51	23.56	23.43	18.91	18.96	18.83



		1	74	23.38	23.27	23.35	23.08	22.97	23.05	18.48	18.37	18.45
		36	0	22.81	22.84	22.72	22.51	22.54	22.42	17.91	17.94	17.82
		36	18	22.72	22.80	22.68	22.42	22.50	22.38	17.82	17.90	17.78
		36	39	22.69	22.71	22.57	22.39	22.41	22.27	17.79	17.81	17.67
		75	0	22.71	22.75	22.65	22.41	22.45	22.35	17.81	17.85	17.75
	16QAM	1	0	22.86	22.91	22.98	22.56	22.61	22.68	17.96	18.01	18.08
		1	38	22.88	22.84	22.91	22.58	22.54	22.61	17.98	17.94	18.01
		1	74	22.88	22.83	22.89	22.58	22.53	22.59	17.98	17.93	17.99
		36	0	21.81	21.74	21.79	21.51	21.44	21.49	16.91	16.84	16.89
		36	18	21.84	21.79	21.87	21.54	21.49	21.57	16.94	16.89	16.97
		36	39	21.75	21.72	21.80	21.45	21.42	21.50	16.85	16.82	16.90
		75	0	21.85	21.83	21.91	21.55	21.53	21.61	16.95	16.93	17.01
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				20050 /1720	20175 /1732.5	20300 /1745	20050 /1720	20175 /1732.5	20300 /1745	20050 /1720	20175 /1732.5	20300 /1745
20MHz	QPSK	1	0	23.50	23.45	23.43	23.20	23.15	23.13	18.60	18.55	18.53
		1	50	23.80	23.82	23.71	23.50	23.52	23.41	18.90	18.92	18.81
		1	99	23.36	23.26	23.32	23.06	22.96	23.02	18.46	18.36	18.42
		50	0	22.78	22.79	22.68	22.48	22.49	22.38	17.88	17.89	17.78
		50	25	22.70	22.76	22.65	22.40	22.46	22.35	17.80	17.86	17.75
		50	50	22.66	22.66	22.53	22.36	22.36	22.23	17.76	17.76	17.63
		100	0	22.68	22.70	22.61	22.38	22.40	22.31	17.78	17.80	17.71
	16QAM	1	0	22.91	22.87	22.93	22.61	22.57	22.63	18.01	17.97	18.03
		1	50	22.84	22.82	22.87	22.54	22.52	22.57	17.94	17.92	17.97
		1	99	22.86	22.80	22.87	22.56	22.50	22.57	17.96	17.90	17.97
		50	0	21.78	21.70	21.76	21.48	21.40	21.46	16.88	16.80	16.86
		50	25	21.81	21.77	21.84	21.51	21.47	21.54	16.91	16.87	16.94
		50	50	21.72	21.67	21.76	21.42	21.37	21.46	16.82	16.77	16.86
		100	0	21.83	21.79	21.88	21.53	21.49	21.58	16.93	16.89	16.98



LTE Band 7				Maximum Output Power(dBm)			EIRP (dBm)					
							Main Antenna			Second Antenna		
				Channel/Frequency(MHz)								
Band width	Modulation	RB size	RB offset	20775 /2502.5	21100 /2535	21425 /2567.5	20775 /2502.5	21100 /2535	21425 /2567.5	20775 /2502.5	21100 /2535	21425 /2567.5
5MHz	QPSK	1	0	23.10	23.66	22.95	22.20	22.76	22.05	17.40	17.96	17.25
		1	13	23.57	24.13	23.64	22.67	23.23	22.74	17.87	18.43	17.94
		1	24	23.46	23.85	23.43	22.56	22.95	22.53	17.76	18.15	17.73
		12	0	22.35	23.04	22.42	21.45	22.14	21.52	16.65	17.34	16.72
		12	6	22.55	23.12	22.54	21.65	22.22	21.64	16.85	17.42	16.84
		12	13	22.91	23.01	22.80	22.01	22.11	21.90	17.21	17.31	17.10
		25	0	22.65	23.06	22.63	21.75	22.16	21.73	16.95	17.36	16.93
	16QAM	1	0	23.23	22.72	22.80	22.33	21.82	21.90	17.53	17.02	17.10
		1	13	23.21	23.17	23.24	22.31	22.27	22.34	17.51	17.47	17.54
		1	24	22.94	22.91	22.95	22.04	22.01	22.05	17.24	17.21	17.25
		12	0	22.19	22.09	22.16	21.29	21.19	21.26	16.49	16.39	16.46
		12	6	22.10	22.05	22.13	21.20	21.15	21.23	16.40	16.35	16.43
		12	13	22.02	21.99	22.07	21.12	21.09	21.17	16.32	16.29	16.37
		25	0	21.99	21.97	22.05	21.09	21.07	21.15	16.29	16.27	16.35
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				20800 /2505	21100 /2535	21400 /2565	20800 /2505	21100 /2535	21400 /2565	20800 /2505	21100 /2535	21400 /2565
10MHz	QPSK	1	0	23.12	23.67	22.98	22.22	22.77	22.08	17.42	17.97	17.28
		1	25	23.60	24.18	23.68	22.70	23.28	22.78	17.90	18.48	17.98
		1	49	23.48	23.89	23.46	22.58	22.99	22.56	17.78	18.19	17.76
		25	0	22.38	23.09	22.46	21.48	22.19	21.56	16.68	17.39	16.76
		25	13	22.58	23.17	22.58	21.68	22.27	21.68	16.88	17.47	16.88
		25	25	22.93	23.05	22.85	22.03	22.15	21.95	17.23	17.35	17.15
		50	0	22.69	23.08	22.67	21.79	22.18	21.77	16.99	17.38	16.97
	16QAM	1	0	23.25	22.75	22.82	22.35	21.85	21.92	17.55	17.05	17.12
		1	25	23.24	23.21	23.27	22.34	22.31	22.37	17.54	17.51	17.57
		1	49	22.97	22.93	22.98	22.07	22.03	22.08	17.27	17.23	17.28
		25	0	22.22	22.14	22.20	21.32	21.24	21.30	16.52	16.44	16.50
		25	13	22.12	22.09	22.16	21.22	21.19	21.26	16.42	16.39	16.46
		25	25	22.05	22.04	22.11	21.15	21.14	21.21	16.35	16.34	16.41
		50	0	22.02	22.02	22.09	21.12	21.12	21.19	16.32	16.32	16.39



Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				20825 /2507.5	21100 /2535	21375 /2562.5	20825 /2507.5	21100 /2535	21375 /2562.5	20825 /2507.5	21100 /2535	21375 /2562.5
15MHz	QPSK	1	0	23.11	23.63	22.96	22.21	22.73	22.06	17.41	17.93	17.26
		1	38	23.58	24.17	23.65	22.68	23.27	22.75	17.88	18.47	17.95
		1	74	23.45	23.84	23.42	22.55	22.94	22.52	17.75	18.14	17.72
		36	0	22.36	23.05	22.43	21.46	22.15	21.53	16.66	17.35	16.73
		36	18	22.55	23.12	22.54	21.65	22.22	21.64	16.85	17.42	16.84
		36	39	22.90	23.02	22.81	22.00	22.12	21.91	17.20	17.32	17.11
		75	0	22.67	23.04	22.62	21.77	22.14	21.72	16.97	17.34	16.92
	16QAM	1	0	23.20	22.73	22.80	22.30	21.83	21.90	17.50	17.03	17.10
		1	38	23.22	23.18	23.25	22.32	22.28	22.35	17.52	17.48	17.55
		1	74	22.94	22.89	22.95	22.04	21.99	22.05	17.24	17.19	17.25
		36	0	22.19	22.12	22.17	21.29	21.22	21.27	16.49	16.42	16.47
		36	18	22.09	22.04	22.12	21.19	21.14	21.22	16.39	16.34	16.42
		36	39	22.03	22.00	22.08	21.13	21.10	21.18	16.33	16.30	16.38
		75	0	21.99	21.97	22.05	21.09	21.07	21.15	16.29	16.27	16.35
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				20850 /2510	21100 /2535	21350 /2560	20850 /2510	21100 /2535	21350 /2560	20850 /2510	21100 /2535	21350 /2560
20MHz	QPSK	1	0	23.08	23.59	22.93	22.18	22.69	22.03	17.38	17.89	17.23
		1	50	23.57	24.13	23.63	22.67	23.23	22.73	17.87	18.43	17.93
		1	99	23.43	23.83	23.39	22.53	22.93	22.49	17.73	18.13	17.69
		50	0	22.33	23.00	22.39	21.43	22.10	21.49	16.63	17.30	16.69
		50	25	22.53	23.08	22.51	21.63	22.18	21.61	16.83	17.38	16.81
		50	50	22.87	22.97	22.77	21.97	22.07	21.87	17.17	17.27	17.07
		100	0	22.64	22.99	22.58	21.74	22.09	21.68	16.94	17.29	16.88
	16QAM	1	0	22.73	22.69	22.75	21.83	21.79	21.85	17.03	16.99	17.05
		1	50	23.18	23.16	23.21	22.28	22.26	22.31	17.48	17.46	17.51
		1	99	22.92	22.86	22.93	22.02	21.96	22.03	17.22	17.16	17.23
		50	0	22.16	22.08	22.14	21.26	21.18	21.24	16.46	16.38	16.44
		50	25	22.06	22.02	22.09	21.16	21.12	21.19	16.36	16.32	16.39
		50	50	22.00	21.95	22.04	21.10	21.05	21.14	16.30	16.25	16.34
		100	0	21.97	21.93	22.02	21.07	21.03	21.12	16.27	16.23	16.32



LTE Band 38				Maximum Output Power(dBm)			EIRP (dBm)					
							Main Antenna			Second Antenna		
				Channel/Frequency(MHz)								
Band width	Modulation	RB size	RB offset	37775 /2572.5	38000 /2595	38225 /2617.5	37775 /2572.5	38000 /2595	38225 /2617.5	37775 /2572.5	38000 /2595	38225 /2617.5
5MHz	QPSK	1	0	23.20	23.23	23.28	22.30	22.33	22.38	17.50	17.53	17.58
		1	13	23.60	23.56	23.65	22.70	22.66	22.75	17.90	17.86	17.95
		1	24	23.35	23.49	23.37	22.45	22.59	22.47	17.65	17.79	17.67
		12	0	22.41	22.41	22.55	21.51	21.51	21.65	16.71	16.71	16.85
		12	6	22.53	22.53	22.56	21.63	21.63	21.66	16.83	16.83	16.86
		12	13	22.50	22.49	22.53	21.60	21.59	21.63	16.80	16.79	16.83
		25	0	22.47	22.55	22.63	21.57	21.65	21.73	16.77	16.85	16.93
	16QAM	1	0	22.64	22.17	22.25	21.74	21.27	21.35	16.94	16.47	16.55
		1	13	22.62	22.58	22.65	21.72	21.68	21.75	16.92	16.88	16.95
		1	24	22.34	22.31	22.35	21.44	21.41	21.45	16.64	16.61	16.65
		12	0	21.62	21.52	21.59	20.72	20.62	20.69	15.92	15.82	15.89
		12	6	21.58	21.53	21.61	20.68	20.63	20.71	15.88	15.83	15.91
		12	13	21.62	21.59	21.67	20.72	20.69	20.77	15.92	15.89	15.97
		25	0	21.60	21.58	21.66	20.70	20.68	20.76	15.90	15.88	15.96
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				37800 /2575	38000 /2595	38200 /2615	37800 /2575	38000 /2595	38200 /2615	37800 /2575	38000 /2595	38200 /2615
10MHz	QPSK	1	0	23.22	23.24	23.31	22.32	22.34	22.41	17.52	17.54	17.61
		1	25	23.63	23.61	23.69	22.73	22.71	22.79	17.93	17.91	17.99
		1	49	23.37	23.53	23.40	22.47	22.63	22.50	17.67	17.83	17.70
		25	0	22.44	22.46	22.59	21.54	21.56	21.69	16.74	16.76	16.89
		25	13	22.56	22.58	22.60	21.66	21.68	21.70	16.86	16.88	16.90
		25	25	22.52	22.53	22.58	21.62	21.63	21.68	16.82	16.83	16.88
		50	0	22.51	22.57	22.67	21.61	21.67	21.77	16.81	16.87	16.97
	16QAM	1	0	22.66	22.20	22.27	21.76	21.30	21.37	16.96	16.50	16.57
		1	25	22.65	22.62	22.68	21.75	21.72	21.78	16.95	16.92	16.98
		1	49	22.37	22.33	22.38	21.47	21.43	21.48	16.67	16.63	16.68
		25	0	21.65	21.57	21.63	20.75	20.67	20.73	15.95	15.87	15.93
		25	13	21.60	21.57	21.64	20.70	20.67	20.74	15.90	15.87	15.94
		25	25	21.65	21.64	21.71	20.75	20.74	20.81	15.95	15.94	16.01
		50	0	21.63	21.63	21.70	20.73	20.73	20.80	15.93	15.93	16.00



Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				37825 /2577.5	38000 /2595	38175 /2612.5	37825 /2577.5	38000 /2595	38175 /2612.5	37825 /2577.5	38000 /2595	38175 /2612.5
15MHz	QPSK	1	0	23.21	23.20	23.29	22.31	22.30	22.39	17.51	17.50	17.59
		1	38	23.61	23.60	23.66	22.71	22.70	22.76	17.91	17.90	17.96
		1	74	23.34	23.48	23.36	22.44	22.58	22.46	17.64	17.78	17.66
		36	0	22.42	22.42	22.56	21.52	21.52	21.66	16.72	16.72	16.86
		36	18	22.53	22.53	22.56	21.63	21.63	21.66	16.83	16.83	16.86
		36	39	22.49	22.50	22.54	21.59	21.60	21.64	16.79	16.80	16.84
		75	0	22.49	22.53	22.62	21.59	21.63	21.72	16.79	16.83	16.92
	16QAM	1	0	22.61	22.18	22.25	21.71	21.28	21.35	16.91	16.48	16.55
		1	38	22.63	22.59	22.66	21.73	21.69	21.76	16.93	16.89	16.96
		1	74	22.34	22.29	22.35	21.44	21.39	21.45	16.64	16.59	16.65
		36	0	21.62	21.55	21.60	20.72	20.65	20.70	15.92	15.85	15.90
		36	18	21.57	21.52	21.60	20.67	20.62	20.70	15.87	15.82	15.90
		36	39	21.63	21.60	21.68	20.73	20.70	20.78	15.93	15.90	15.98
		75	0	21.60	21.58	21.66	20.70	20.68	20.76	15.90	15.88	15.96
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				37850 /2580	38000 /2595	38150 /2610	37850 /2580	38000 /2595	38150 /2610	37850 /2580	38000 /2595	38150 /2610
20MHz	QPSK	1	0	23.18	23.16	23.26	22.28	22.26	22.36	17.48	17.46	17.56
		1	50	23.60	23.56	23.64	22.70	22.66	22.74	17.90	17.86	17.94
		1	99	23.32	23.47	23.33	22.42	22.57	22.43	17.62	17.77	17.63
		50	0	22.39	22.37	22.52	21.49	21.47	21.62	16.69	16.67	16.82
		50	25	22.51	22.49	22.53	21.61	21.59	21.63	16.81	16.79	16.83
		50	50	22.46	22.45	22.50	21.56	21.55	21.60	16.76	16.75	16.80
		100	0	22.46	22.48	22.58	21.56	21.58	21.68	16.76	16.78	16.88
	16QAM	1	0	22.18	22.14	22.20	21.28	21.24	21.30	16.48	16.44	16.50
		1	50	22.59	22.57	22.62	21.69	21.67	21.72	16.89	16.87	16.92
		1	99	22.32	22.26	22.33	21.42	21.36	21.43	16.62	16.56	16.63
		50	0	21.59	21.51	21.57	20.69	20.61	20.67	15.89	15.81	15.87
		50	25	21.54	21.50	21.57	20.64	20.60	20.67	15.84	15.80	15.87
		50	50	21.60	21.55	21.64	20.70	20.65	20.74	15.90	15.85	15.94
		100	0	21.58	21.54	21.63	20.68	20.64	20.73	15.88	15.84	15.93



LTE Band 41				Maximum Output Power(dBm)			EIRP (dBm)					
							Main Antenna			Second Antenna		
				Channel/Frequency(MHz)								
Band width	Modulation	RB size	RB offset	40065 /2537.5	40740 /2605	41415 /2672.5	40065 /2537.5	40740 /2605	41415 /2672.5	40065 /2537.5	40740 /2605	41415 /2672.5
5MHz	QPSK	1	0	23.42	23.57	23.60	22.52	22.67	22.70	17.72	17.87	17.90
		1	13	23.90	23.96	23.95	23.00	23.06	23.05	18.20	18.26	18.25
		1	24	23.66	23.70	23.75	22.76	22.80	22.85	17.96	18.00	18.05
		12	0	22.74	23.01	22.98	21.84	22.11	22.08	17.04	17.31	17.28
		12	6	22.80	22.96	22.97	21.90	22.06	22.07	17.10	17.26	17.27
		12	13	22.84	22.95	23.01	21.94	22.05	22.11	17.14	17.25	17.31
		25	0	22.87	22.95	23.01	21.97	22.05	22.11	17.17	17.25	17.31
	16QAM	1	0	23.03	22.72	23.04	22.13	21.82	22.14	17.33	17.02	17.34
		1	13	23.01	23.04	23.02	22.11	22.14	22.12	17.31	17.34	17.32
		1	24	22.93	22.94	22.94	22.03	22.04	22.04	17.23	17.24	17.24
		12	0	21.98	21.95	21.95	21.08	21.05	21.05	16.28	16.25	16.25
		12	6	22.00	22.03	22.04	21.10	21.13	21.14	16.30	16.33	16.34
		12	13	22.06	22.11	22.10	21.16	21.21	21.20	16.36	16.41	16.40
		25	0	21.89	21.95	21.93	20.99	21.05	21.03	16.19	16.25	16.23
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				40090 /2540	40740 /2605	41390 /2670	40090 /2540	40740 /2605	41390 /2670	40090 /2540	40740 /2605	41390 /2670
10MHz	QPSK	1	0	23.44	23.60	23.62	22.54	22.70	22.72	17.74	17.90	17.92
		1	25	23.93	24.00	23.98	23.03	23.10	23.08	18.23	18.30	18.28
		1	49	23.68	23.73	23.77	22.78	22.83	22.87	17.98	18.03	18.07
		25	0	22.77	23.05	23.01	21.87	22.15	22.11	17.07	17.35	17.31
		25	13	22.83	23.00	23.00	21.93	22.10	22.10	17.13	17.30	17.30
		25	25	22.86	23.00	23.03	21.96	22.10	22.13	17.16	17.30	17.33
		50	0	22.91	22.99	23.05	22.01	22.09	22.15	17.21	17.29	17.35
	16QAM	1	0	23.05	22.74	23.06	22.15	21.84	22.16	17.35	17.04	17.36
		1	25	23.04	23.07	23.05	22.14	22.17	22.15	17.34	17.37	17.35
		1	49	22.96	22.97	22.97	22.06	22.07	22.07	17.26	17.27	17.27
		25	0	22.01	21.99	21.98	21.11	21.09	21.08	16.31	16.29	16.28
		25	13	22.02	22.06	22.06	21.12	21.16	21.16	16.32	16.36	16.36
		25	25	22.09	22.15	22.13	21.19	21.25	21.23	16.39	16.45	16.43
		50	0	21.92	21.99	21.96	21.02	21.09	21.06	16.22	16.29	16.26



Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				40115 /2542.5	40740 /2605	41165 /2647.5	40115 /2542.5	40740 /2605	41165 /2647.5	40115 /2542.5	40740 /2605	41165 /2647.5
15MHz	QPSK	1	0	23.43	23.58	23.61	22.53	22.68	22.71	17.73	17.88	17.91
		1	38	23.91	23.97	23.96	23.01	23.07	23.06	18.21	18.27	18.26
		1	74	23.65	23.69	23.74	22.75	22.79	22.84	17.95	17.99	18.04
		36	0	22.75	23.02	22.99	21.85	22.12	22.09	17.05	17.32	17.29
		36	18	22.80	22.96	22.97	21.90	22.06	22.07	17.10	17.26	17.27
		36	39	22.83	22.96	23.00	21.93	22.06	22.10	17.13	17.26	17.30
		75	0	22.89	22.94	23.03	21.99	22.04	22.13	17.19	17.24	17.33
	16QAM	1	0	23.00	22.72	23.01	22.10	21.82	22.11	17.30	17.02	17.31
		1	38	23.02	23.05	23.03	22.12	22.15	22.13	17.32	17.35	17.33
		1	74	22.93	22.94	22.94	22.03	22.04	22.04	17.23	17.24	17.24
		36	0	21.98	21.96	21.95	21.08	21.06	21.05	16.28	16.26	16.25
		36	18	21.99	22.02	22.03	21.09	21.12	21.13	16.29	16.32	16.33
		36	39	22.07	22.12	22.11	21.17	21.22	21.21	16.37	16.42	16.41
		75	0	21.89	21.95	21.93	20.99	21.05	21.03	16.19	16.25	16.23
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				40240 /2555	40740 /2605	41340 /2665	40240 /2555	40740 /2605	41340 /2665	40240 /2555	40740 /2605	41340 /2665
20MHz	QPSK	1	0	23.40	23.55	23.58	22.50	22.65	22.68	17.70	17.85	17.88
		1	50	23.90	23.95	23.94	23.00	23.05	23.04	18.20	18.25	18.24
		1	99	23.63	23.66	23.72	22.73	22.76	22.82	17.93	17.96	18.02
		50	0	22.72	22.98	22.96	21.82	22.08	22.06	17.02	17.28	17.26
		50	25	22.78	22.93	22.95	21.88	22.03	22.05	17.08	17.23	17.25
		50	50	22.80	22.92	22.97	21.90	22.02	22.07	17.10	17.22	17.27
		100	0	22.86	22.90	23.00	21.96	22.00	22.10	17.16	17.20	17.30
	16QAM	1	0	22.65	22.67	22.70	21.75	21.77	21.80	16.95	16.97	17.00
		1	50	22.98	23.01	22.99	22.08	22.11	22.09	17.28	17.31	17.29
		1	99	22.91	22.92	22.92	22.01	22.02	22.02	17.21	17.22	17.22
		50	0	21.95	21.93	21.92	21.05	21.03	21.02	16.25	16.23	16.22
		50	25	21.96	21.99	22.00	21.06	21.09	21.10	16.26	16.29	16.30
		50	50	22.04	22.08	22.08	21.14	21.18	21.18	16.34	16.38	16.38
		100	0	21.87	21.92	21.91	20.97	21.02	21.01	16.17	16.22	16.21



LTE Band 66				Maximum Output Power(dBm)			EIRP (dBm)					
							Main Antenna			Second Antenna		
				Channel/Frequency(MHz)								
Band width	Modulation	RB size	RB offset	131979 /1710.7	132322 /1745	132665 /1779.3	131979 /1710.7	132322 /1745	132665 /1779.3	131979 /1710.7	132322 /1745	132665 /1779.3
1.4MHz	QPSK	1	0	23.06	23.22	23.22	22.76	22.92	22.92	18.16	18.32	18.32
		1	2	23.50	23.58	23.55	23.20	23.28	23.25	18.60	18.68	18.65
		1	5	23.45	23.27	23.37	23.15	22.97	23.07	18.55	18.37	18.47
		3	0	23.38	23.58	23.52	23.08	23.28	23.22	18.48	18.68	18.62
		3	2	23.41	23.53	23.52	23.11	23.23	23.22	18.51	18.63	18.62
		3	3	23.45	23.50	23.56	23.15	23.20	23.26	18.55	18.60	18.66
		6	0	22.45	22.57	22.66	22.15	22.27	22.36	17.55	17.67	17.76
	16QAM	1	0	22.63	22.34	22.38	22.33	22.04	22.08	17.73	17.44	17.48
		1	2	22.61	22.64	22.63	22.31	22.34	22.33	17.71	17.74	17.73
		1	5	22.48	22.56	22.55	22.18	22.26	22.25	17.58	17.66	17.65
		3	0	22.42	22.47	22.46	22.12	22.17	22.16	17.52	17.57	17.56
		3	2	22.49	22.54	22.57	22.19	22.24	22.27	17.59	17.64	17.67
		3	3	22.55	22.68	22.64	22.25	22.38	22.34	17.65	17.78	17.74
		6	0	21.44	21.58	21.57	21.14	21.28	21.27	16.54	16.68	16.67
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				131987 /1711.5	132322 /1745	132657 /1778.5	131987 /1711.5	132322 /1745	132657 /1778.5	131987 /1711.5	132322 /1745	132657 /1778.5
3MHz	QPSK	1	0	23.08	23.26	23.25	22.78	22.96	22.95	18.18	18.36	18.35
		1	7	23.48	23.61	23.59	23.18	23.31	23.29	18.58	18.71	18.69
		1	14	23.48	23.32	23.41	23.18	23.02	23.11	18.58	18.42	18.51
		8	0	22.48	22.70	22.65	22.18	22.40	22.35	17.58	17.80	17.75
		8	4	22.53	22.63	22.64	22.23	22.33	22.34	17.63	17.73	17.74
		8	7	22.55	22.61	22.66	22.25	22.31	22.36	17.65	17.71	17.76
		15	0	22.45	22.61	22.69	22.15	22.31	22.39	17.55	17.71	17.79
	16QAM	1	0	22.66	22.36	22.41	22.36	22.06	22.11	17.76	17.46	17.51
		1	7	22.64	22.64	22.67	22.34	22.34	22.37	17.74	17.74	17.77
		1	14	22.50	22.60	22.58	22.20	22.30	22.28	17.60	17.70	17.68
		8	0	21.53	21.60	21.58	21.23	21.30	21.28	16.63	16.70	16.68
		8	4	21.60	21.67	21.69	21.30	21.37	21.39	16.70	16.77	16.79
		8	7	21.65	21.80	21.77	21.35	21.50	21.47	16.75	16.90	16.87
		15	0	21.47	21.62	21.60	21.17	21.32	21.30	16.57	16.72	16.70



Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				131997 /1712.5	132322 /1745	132647 /1777.5	131997 /1712.5	132322 /1745	132647 /1777.5	131997 /1712.5	132322 /1745	132647 /1777.5
5MHz	QPSK	1	0	23.05	23.24	23.21	22.75	22.94	22.91	18.15	18.34	18.31
		1	13	23.46	23.57	23.56	23.16	23.27	23.26	18.56	18.67	18.66
		1	24	23.45	23.27	23.37	23.15	22.97	23.07	18.55	18.37	18.47
		12	0	22.45	22.65	22.61	22.15	22.35	22.31	17.55	17.75	17.71
		12	6	22.51	22.59	22.59	22.21	22.29	22.29	17.61	17.69	17.69
		12	13	22.53	22.59	22.62	22.23	22.29	22.32	17.63	17.69	17.72
		25	0	22.45	22.60	22.67	22.15	22.30	22.37	17.55	17.70	17.77
	16QAM	1	0	22.63	22.32	22.38	22.33	22.02	22.08	17.73	17.42	17.48
		1	13	22.61	22.62	22.64	22.31	22.32	22.34	17.71	17.72	17.74
		1	24	22.47	22.58	22.54	22.17	22.28	22.24	17.57	17.68	17.64
		12	0	21.51	21.56	21.55	21.21	21.26	21.25	16.61	16.66	16.65
		12	6	21.57	21.62	21.65	21.27	21.32	21.35	16.67	16.72	16.75
		12	13	21.62	21.75	21.73	21.32	21.45	21.43	16.72	16.85	16.83
		25	0	21.45	21.58	21.55	21.15	21.28	21.25	16.55	16.68	16.65
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				132022 /1715	132322 /1745	132622 /1775	132022 /1715	132322 /1745	132622 /1775	132022 /1715	132322 /1745	132622 /1775
10MHz	QPSK	1	0	23.07	23.25	23.24	22.77	22.95	22.94	18.17	18.35	18.34
		1	25	23.49	23.62	23.60	23.19	23.32	23.30	18.59	18.72	18.70
		1	49	23.47	23.31	23.40	23.17	23.01	23.10	18.57	18.41	18.50
		25	0	22.48	22.70	22.65	22.18	22.40	22.35	17.58	17.80	17.75
		25	13	22.54	22.64	22.63	22.24	22.34	22.33	17.64	17.74	17.73
		25	25	22.55	22.63	22.67	22.25	22.33	22.37	17.65	17.73	17.77
		50	0	22.49	22.62	22.71	22.19	22.32	22.41	17.59	17.72	17.81
	16QAM	1	0	22.65	22.35	22.40	22.35	22.05	22.10	17.75	17.45	17.50
		1	25	22.64	22.66	22.67	22.34	22.36	22.37	17.74	17.76	17.77
		1	49	22.50	22.60	22.57	22.20	22.30	22.27	17.60	17.70	17.67
		25	0	21.54	21.61	21.59	21.24	21.31	21.29	16.64	16.71	16.69
		25	13	21.59	21.66	21.68	21.29	21.36	21.38	16.69	16.76	16.78
		25	25	21.65	21.80	21.77	21.35	21.50	21.47	16.75	16.90	16.87
		50	0	21.48	21.63	21.59	21.18	21.33	21.29	16.58	16.73	16.69
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				132047 /1717.5	132322 /1745	132597 /1772.5	132047 /1717.5	132322 /1745	132597 /1772.5	132047 /1717.5	132322 /1745	132597 /1772.5
15MHz	QPSK	1	0	23.06	23.21	23.22	22.76	22.91	22.92	18.16	18.31	18.32



		1	38	23.47	23.61	23.57	23.17	23.31	23.27	18.57	18.71	18.67
		1	74	23.44	23.26	23.36	23.14	22.96	23.06	18.54	18.36	18.46
		36	0	22.46	22.66	22.62	22.16	22.36	22.32	17.56	17.76	17.72
		36	18	22.51	22.59	22.59	22.21	22.29	22.29	17.61	17.69	17.69
		36	39	22.52	22.60	22.63	22.22	22.30	22.33	17.62	17.70	17.73
		75	0	22.47	22.58	22.66	22.17	22.28	22.36	17.57	17.68	17.76
		1	0	22.60	22.33	22.38	22.30	22.03	22.08	17.70	17.43	17.48
	16QAM	1	38	22.62	22.63	22.65	22.32	22.33	22.35	17.72	17.73	17.75
		1	74	22.47	22.56	22.54	22.17	22.26	22.24	17.57	17.66	17.64
		36	0	21.51	21.59	21.56	21.21	21.29	21.26	16.61	16.69	16.66
		36	18	21.56	21.61	21.64	21.26	21.31	21.34	16.66	16.71	16.74
		36	39	21.63	21.76	21.74	21.33	21.46	21.44	16.73	16.86	16.84
		75	0	21.45	21.58	21.55	21.15	21.28	21.25	16.55	16.68	16.65
Band width	Modulation	RB size	RB offset	Channel/Frequency(MHz)								
				132072 /1720	132322 /1745	132572 /1770	132072 /1720	132322 /1745	132572 /1770	132072 /1720	132322 /1745	132572 /1770
20MHz	QPSK	1	0	23.03	23.17	23.19	22.73	22.87	22.89	18.13	18.27	18.29
		1	50	23.46	23.57	23.55	23.16	23.27	23.25	18.56	18.67	18.65
		1	99	23.42	23.25	23.33	23.12	22.95	23.03	18.52	18.35	18.43
		50	0	22.43	22.61	22.58	22.13	22.31	22.28	17.53	17.71	17.68
		50	25	22.49	22.55	22.56	22.19	22.25	22.26	17.59	17.65	17.66
		50	50	22.49	22.55	22.59	22.19	22.25	22.29	17.59	17.65	17.69
		100	0	22.44	22.53	22.62	22.14	22.23	22.32	17.54	17.63	17.72
	16QAM	1	0	22.56	22.29	22.33	22.26	21.99	22.03	17.66	17.39	17.43
		1	50	22.58	22.61	22.61	22.28	22.31	22.31	17.68	17.71	17.71
		1	99	22.45	22.53	22.52	22.15	22.23	22.22	17.55	17.63	17.62
		50	0	21.48	21.55	21.53	21.18	21.25	21.23	16.58	16.65	16.63
		50	25	21.53	21.59	21.61	21.23	21.29	21.31	16.63	16.69	16.71
		50	50	21.60	21.71	21.70	21.30	21.41	21.40	16.70	16.81	16.80
		100	0	21.43	21.54	21.52	21.13	21.24	21.22	16.53	16.64	16.62

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 4/66 (1.4MHz).

RBW is set to 62 kHz, VBW is set to 180 kHz for LTE Band 4/66 (3MHz).

RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7/38/41/66 (5MHz).

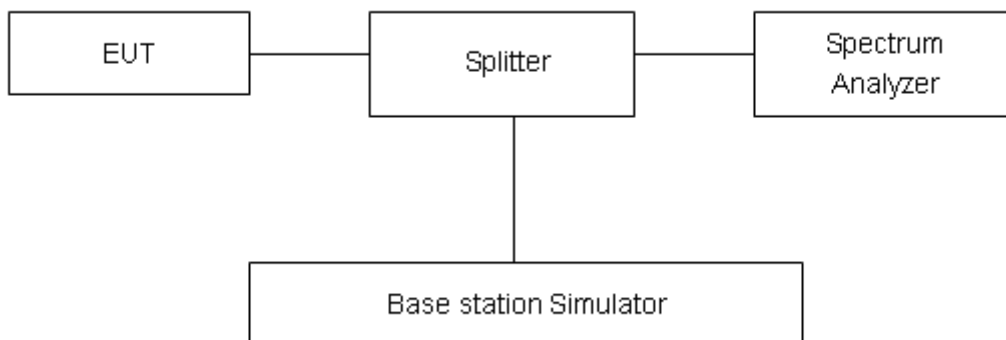
RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4/7/38/41/66 (10MHz).

RBW is set to 300 kHz, VBW is set to 910 kHz for LTE Band 4/7/38/41/66 (15MHz).

RBW is set to 430 kHz, VBW is set to 1.2 MHz for LTE Band 4/7/38/41/66 (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 $k = 2$, $U=624\text{Hz}$.



Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
WCDMA Band IV (RMC)	1312	1712.4	4.1587	4.661
	1413	1732.6	4.1605	4.683
	1513	1752.6	4.1683	4.701

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	19957	1710.7	1.1082	1.278
			20175	1732.5	1.0954	1.273
			20393	1754.3	1.0934	1.277
		3	19965	1711.5	2.6807	2.900
			20175	1732.5	2.6874	2.894
			20385	1753.5	2.6980	2.914
		5	19975	1712.5	4.5041	4.865
			20175	1732.5	4.4989	4.930
			20375	1752.5	4.5206	4.846
		10	20000	1715	8.9938	9.762
			20175	1732.5	8.9732	9.672
			20350	1750	9.0022	9.657
		15	20025	1717.5	13.4520	14.480
			20175	1732.5	13.4770	14.590
			20325	1747.5	13.4520	14.440
		20	20050	1720	17.9370	19.190
			20175	1732.5	17.9900	19.310
			20300	1745	17.9040	19.250
	16QAM	1.4	19957	1710.7	1.0958	1.277
			20175	1732.5	1.0986	1.293
			20393	1754.3	1.0907	1.272
		3	19965	1711.5	2.6832	2.922
			20175	1732.5	2.6901	2.935
			20385	1753.5	2.6906	2.923
		5	19975	1712.5	4.5180	4.940
			20175	1732.5	4.5072	4.862
			20375	1752.5	4.5023	4.934
		10	20000	1715	8.9858	9.664
			20175	1732.5	8.9988	9.687
			20350	1750	8.9708	9.813



		15	20025	1717.5	13.4160	14.450
			20175	1732.5	13.4440	14.630
			20325	1747.5	13.4270	14.520
		20	20050	1720	17.8920	19.260
			20175	1732.5	17.9870	19.230
			20300	1745	17.9510	19.290

LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	20775	2502.5	4.4974	4.832
			21100	2535	4.5080	4.882
			21425	2567.5	4.5076	4.894
		10	20800	2505	8.9928	9.730
			21100	2535	8.9900	9.752
			21400	2565	8.9820	9.708
		15	20825	2507.5	13.5030	14.510
			21100	2535	13.4650	14.440
			21375	2562.5	13.4610	14.490
		20	20850	2510	17.9460	19.330
			21100	2535	17.9580	19.190
			21350	2560	17.9520	19.340
	16QAM	5	20775	2502.5	4.5080	4.935
			21100	2535	4.5008	4.855
			21425	2567.5	4.5071	4.978
		10	20800	2505	8.9764	9.757
			21100	2535	8.9935	9.761
			21400	2565	8.9840	9.732
		15	20825	2507.5	13.4830	14.540
			21100	2535	13.4750	14.520
			21375	2562.5	13.4300	14.360
		20	20850	2510	17.9750	19.400
			21100	2535	17.9570	19.260
			21350	2560	17.9070	19.200

LTE Band 38						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	37775	2572.5	4.5083	4.890
			38000	2595	4.5011	4.940
			38225	2617.5	4.5072	4.892



		10	37800	2575	9.0184	9.629
			38000	2595	9.0026	10.130
			38200	2615	8.9964	9.877
		15	37825	2577.5	13.4680	14.350
			38000	2595	13.4680	14.320
			38175	2612.5	13.4810	14.470
		20	37850	2580	17.9670	19.430
			38000	2595	17.9400	20.670
			38150	2610	17.9210	19.070
	16QAM	5	37775	2572.5	4.5006	5.001
			38000	2595	4.5102	4.855
			38225	2617.5	4.4896	4.907
		10	37800	2575	8.9747	9.896
			38000	2595	9.0029	9.939
			38200	2615	9.0089	9.604
		15	37825	2577.5	13.4900	14.570
			38000	2595	13.4310	14.460
			38175	2612.5	13.4890	14.930
		20	37850	2580	17.9400	18.950
			38000	2595	17.9410	20.220
			38150	2610	17.9730	19.940

LTE Band 41						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	40065	2537.5	4.5040	5.250
			40740	2605	4.5028	4.956
			41415	2672.5	4.5023	5.031
		10	40090	2540	8.9960	10.050
			40740	2605	8.9963	10.240
			41390	2670	9.0033	10.040
		15	40115	2542.5	13.5060	15.110
			40740	2605	13.4890	14.610
			41365	2667.5	13.4980	15.030
		20	40140	2545	17.9820	20.760
			40740	2605	17.9900	22.140
			41340	2665	18.0010	22.050
	16QAM	5	40065	2537.5	4.5090	5.265
			40740	2605	4.5072	5.156
			41415	2672.5	4.5110	5.411



		10	40090	2540	8.9734	10.180
			40740	2605	8.9755	10.220
			41390	2670	8.9913	10.150
		15	40115	2542.5	13.4680	14.710
			40740	2605	13.4910	15.570
			41365	2667.5	13.5010	15.500
		20	40140	2545	17.9790	19.800
			40740	2605	17.9530	20.390
			41340	2665	17.9800	22.050

LTE Band 66						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	131979	1710.7	1.1066	1.276
			132322	1745	1.0936	1.284
			132665	1779.3	1.0926	1.289
		3	131987	1711.5	2.6895	2.920
			132322	1745	2.6906	2.925
			132657	1778.5	2.6988	2.912
		5	131997	1712.5	4.5307	5.189
			132322	1745	4.5126	5.094
			132647	1777.5	4.5203	5.149
		10	132022	1715	8.9669	9.890
			132322	1745	8.9969	10.040
			132622	1775	9.0033	10.090
		15	132047	1717.5	13.4520	14.720
			132322	1745	13.5240	14.790
			132597	1772.5	13.4790	14.860
		20	132072	1720	17.9600	19.420
			132322	1745	17.9570	19.860
			132572	1770	17.9810	19.800
	16QAM	1.4	131979	1710.7	1.0984	1.273
			132322	1745	1.0977	1.274
			132665	1779.3	1.0876	1.273
		3	131987	1711.5	2.6854	2.923
			132322	1745	2.6865	2.889
			132657	1778.5	2.6907	2.921
		5	131997	1712.5	4.5190	5.023
			132322	1745	4.5282	5.206
			132647	1777.5	4.5124	5.089



		10	132022	1715	8.9890	9.899
			132322	1745	9.0041	9.923
			132622	1775	9.0232	10.010
		15	132047	1717.5	13.4810	14.750
			132322	1745	13.5270	14.840
			132597	1772.5	13.4830	14.960
		20	132072	1720	17.9580	19.840
			132322	1745	18.0250	19.610
			132572	1770	17.9790	19.590



WCDMA Band IV CH-Low



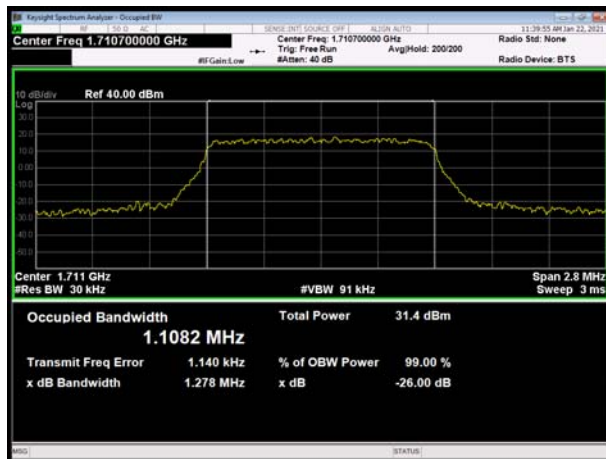
WCDMA Band IV CH Middle



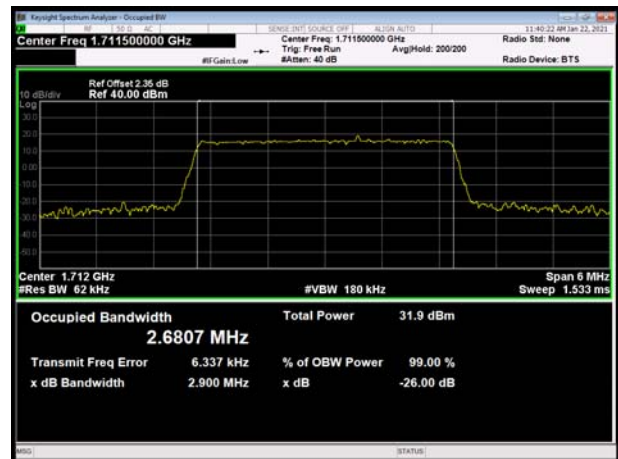
WCDMA Band IV CH High



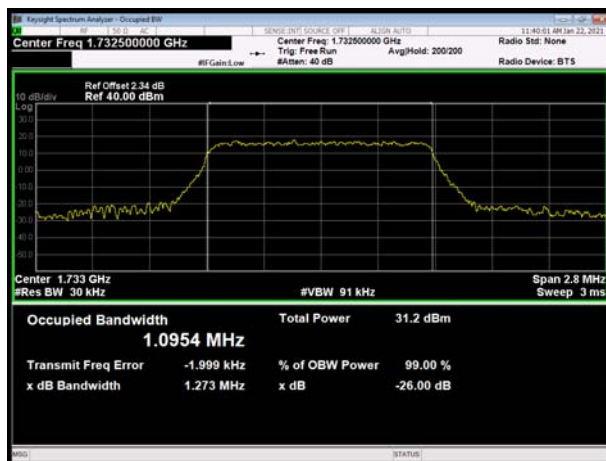
LTE Band 4 QPSK 1.4MHz CH-Low



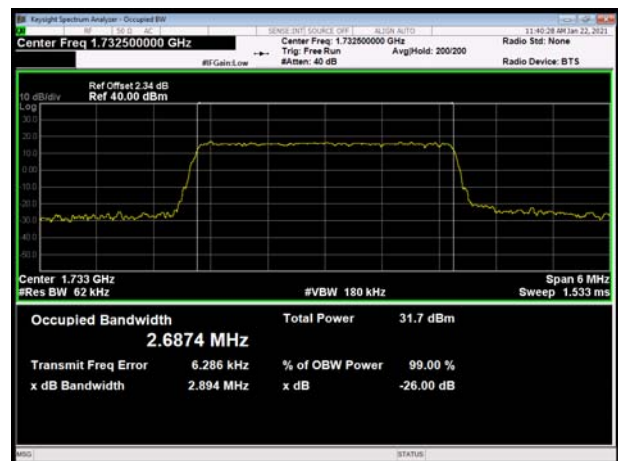
LTE Band 4 QPSK 3MHz CH-Low



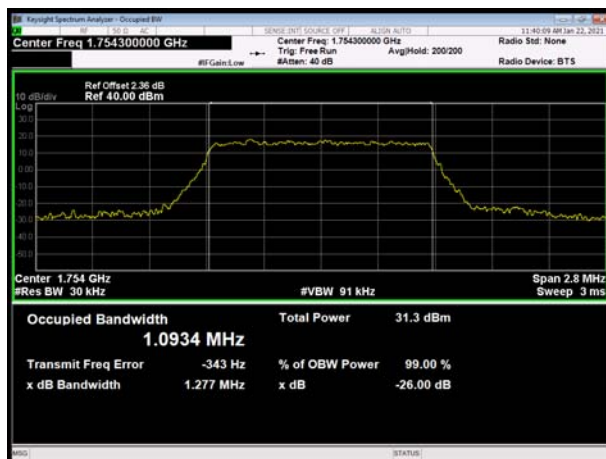
LTE Band 4 QPSK 1.4MHz CH-Middle



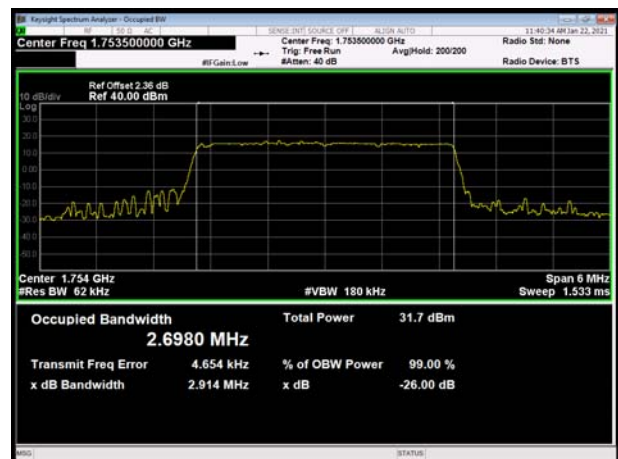
LTE Band 4 QPSK 3MHz CH-Middle



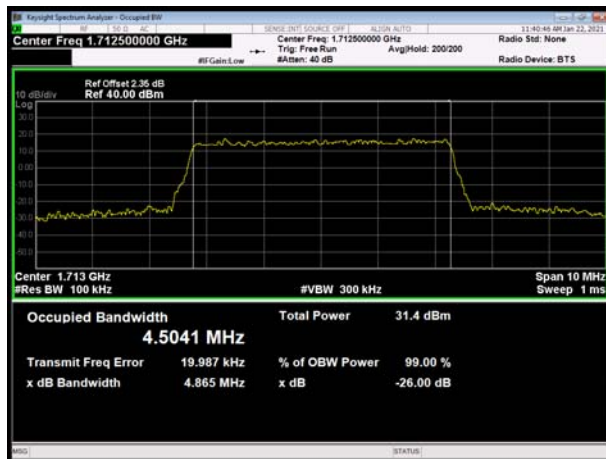
LTE Band 4 QPSK 1.4MHz CH-High



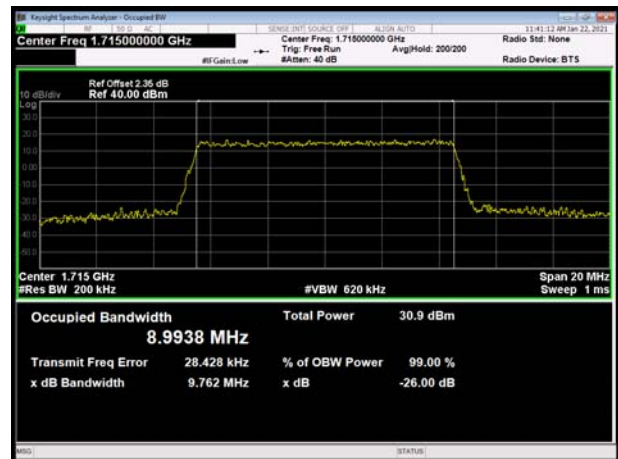
LTE Band 4 QPSK 3MHz CH-High



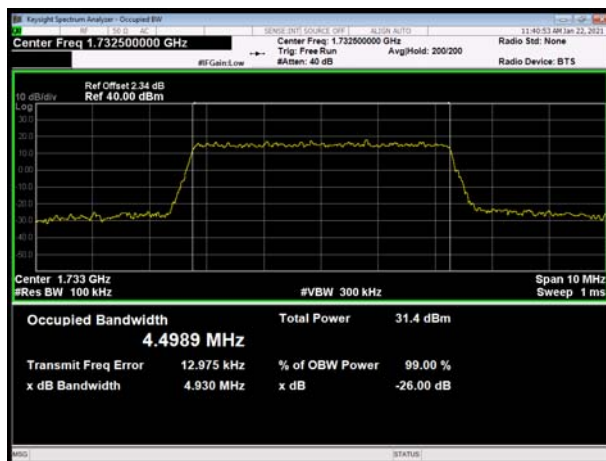
LTE Band 4 QPSK 5MHz CH-Low



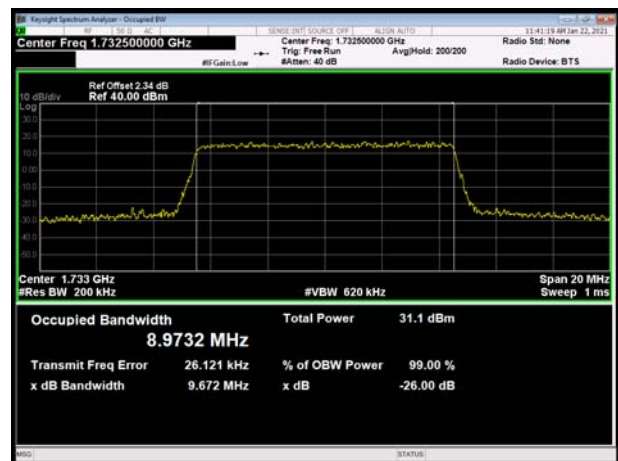
LTE Band 4 QPSK 10MHz CH-Low



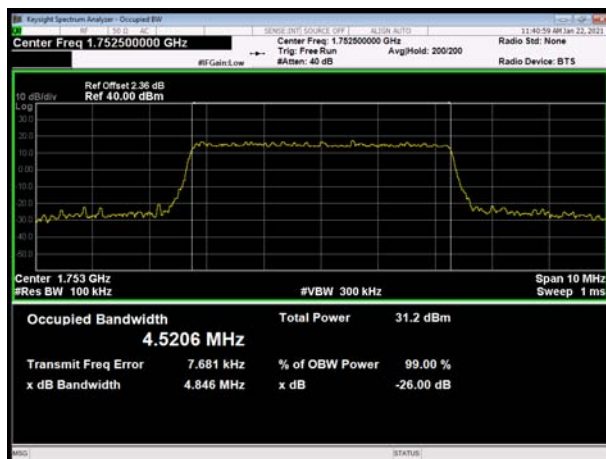
LTE Band 4 QPSK 5MHz CH-Middle



LTE Band 4 QPSK 10MHz CH-Middle



LTE Band 4 QPSK 5MHz CH-High

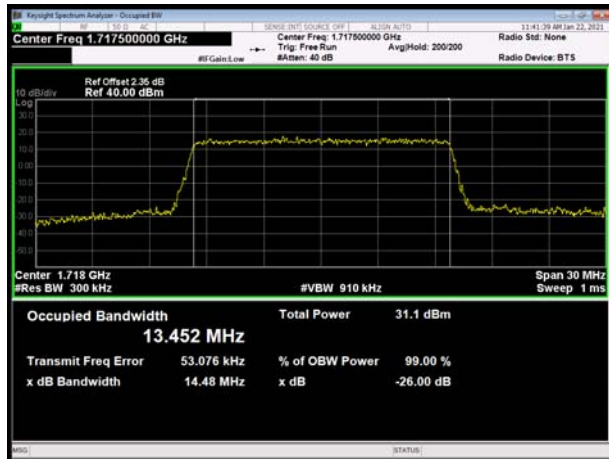


LTE Band 4 QPSK 10MHz CH-High

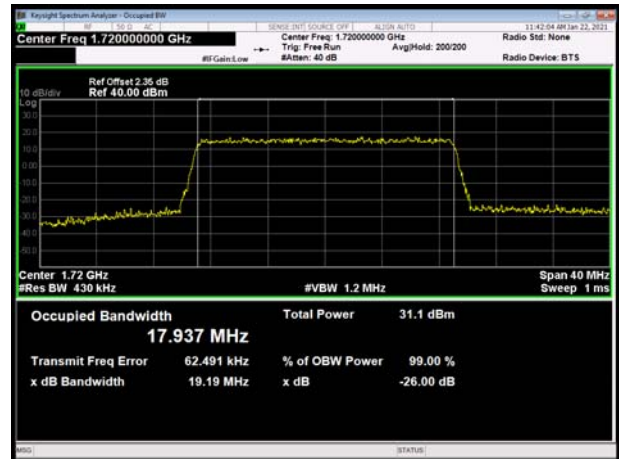




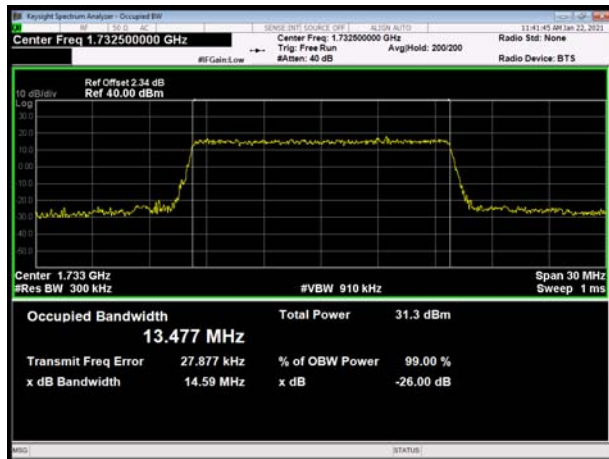
LTE Band 4 QPSK 15MHz CH-Low



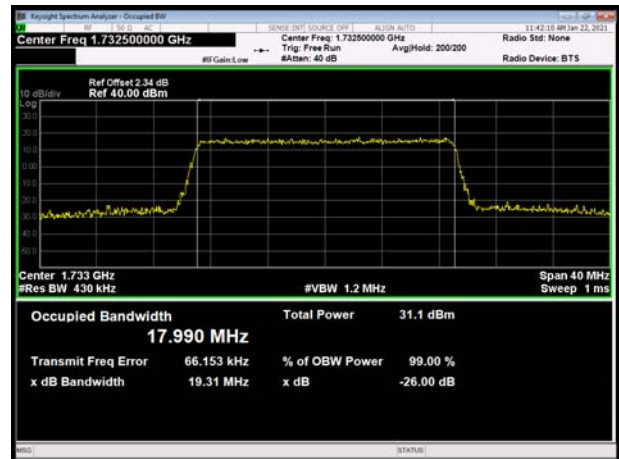
LTE Band 4 QPSK 20MHz CH-Low



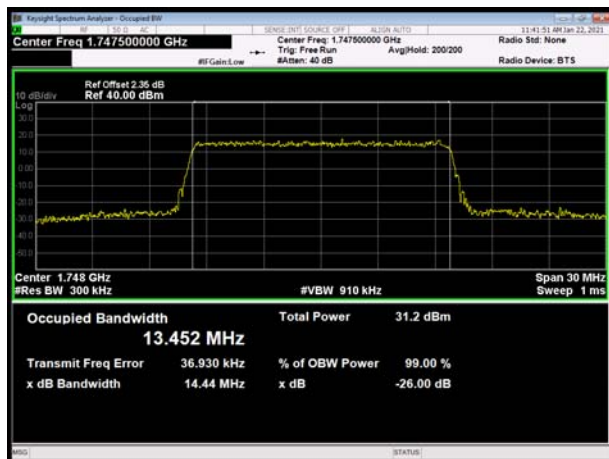
LTE Band 4 QPSK 15MHz CH-Middle



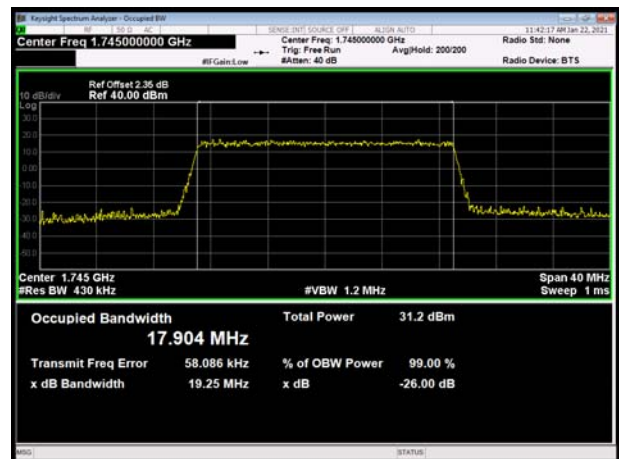
LTE Band 4 QPSK 20MHz CH-Middle



LTE Band 4 QPSK 15MHz CH-High

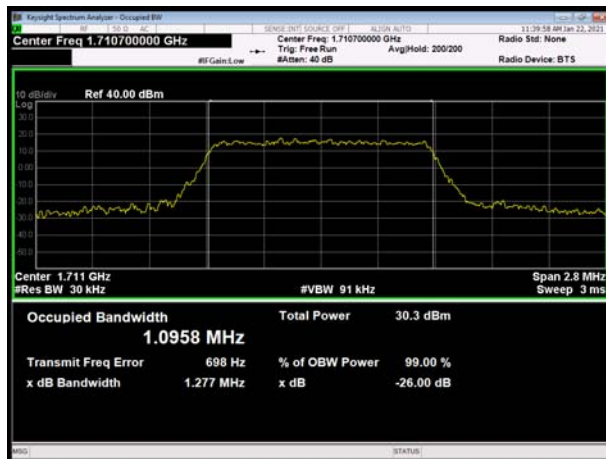


LTE Band 4 QPSK 20MHz CH-High

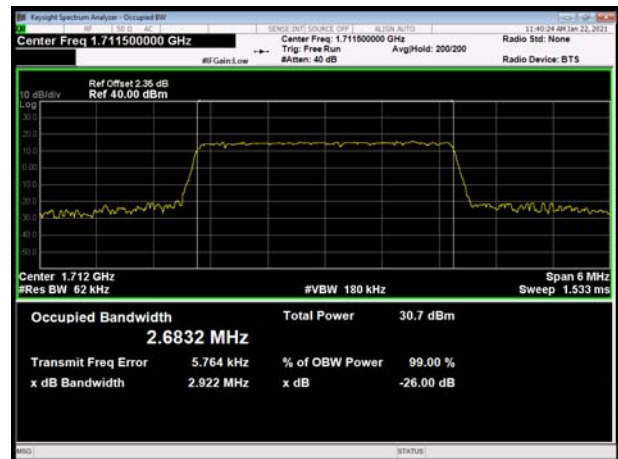




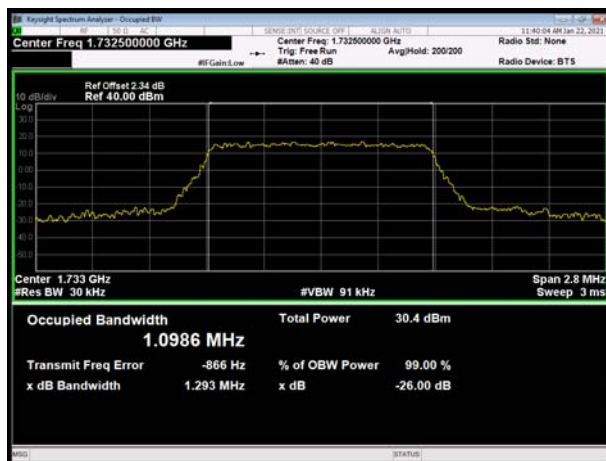
LTE Band 4 16QAM 1.4MHz CH-Low



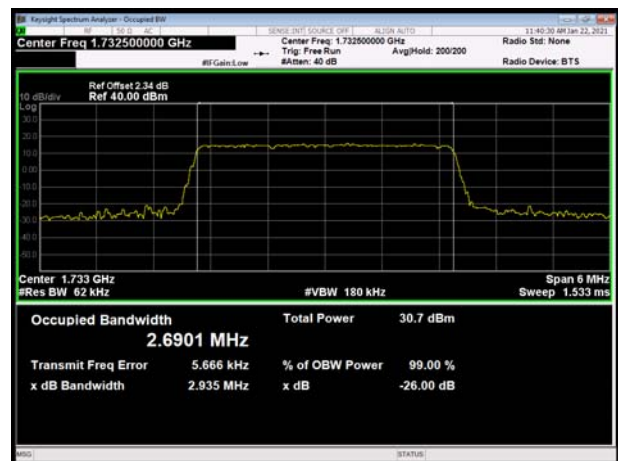
LTE Band 4 16QAM 3MHz CH-Low



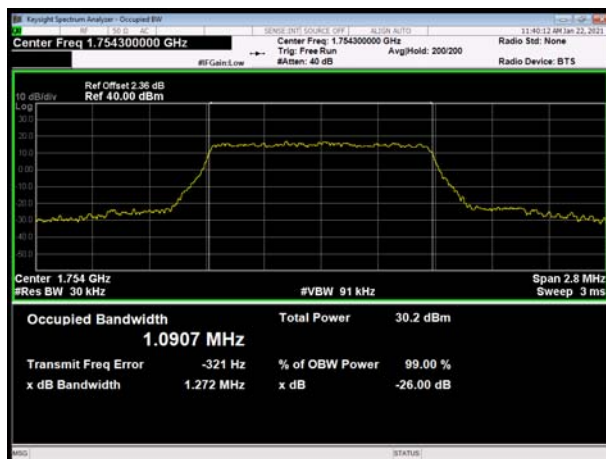
LTE Band 4 16QAM 1.4MHz CH-Middle



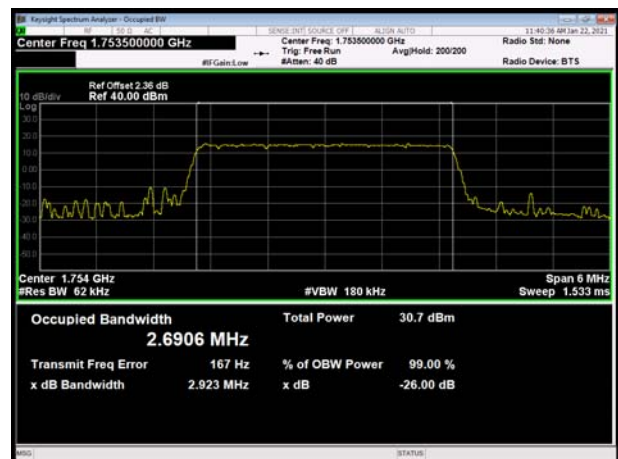
LTE Band 4 16QAM 3MHz CH-Middle



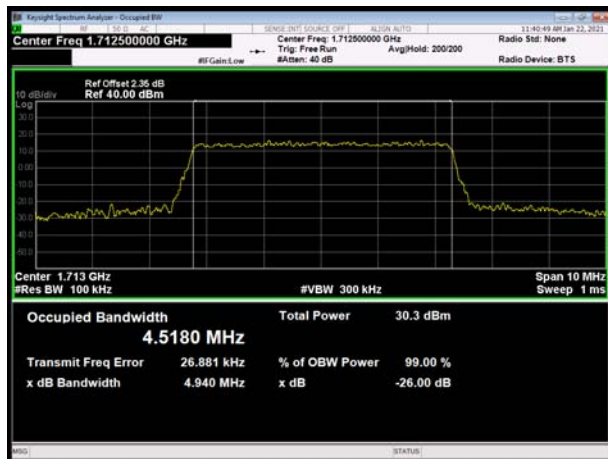
LTE Band 4 16QAM 1.4MHz CH-High



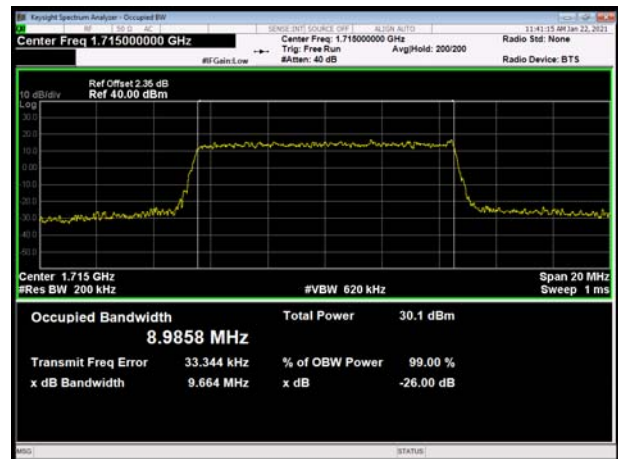
LTE Band 4 16QAM 3MHz CH-High



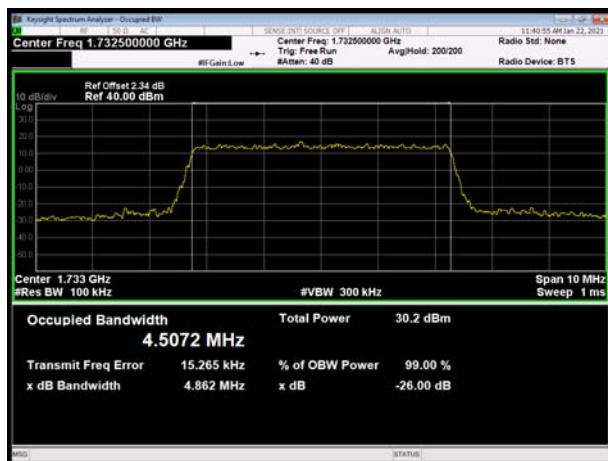
LTE Band 4 16QAM 5MHz CH-Low



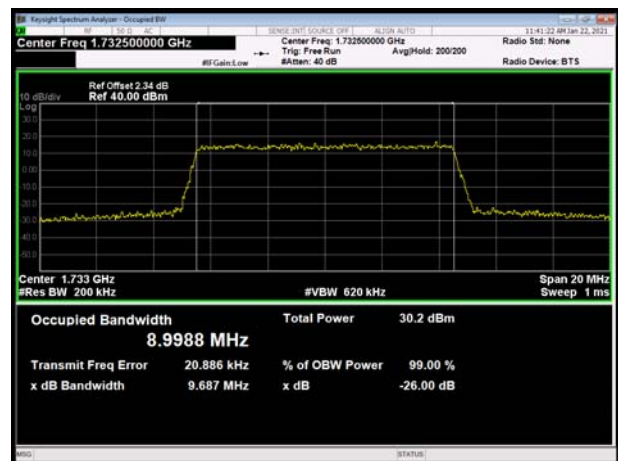
LTE Band 4 16QAM 10MHz CH-Low



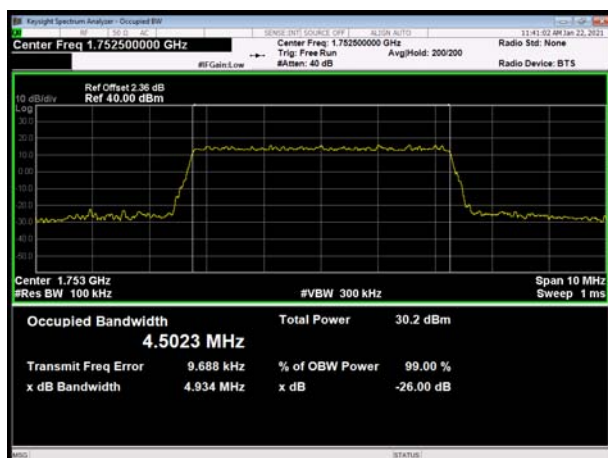
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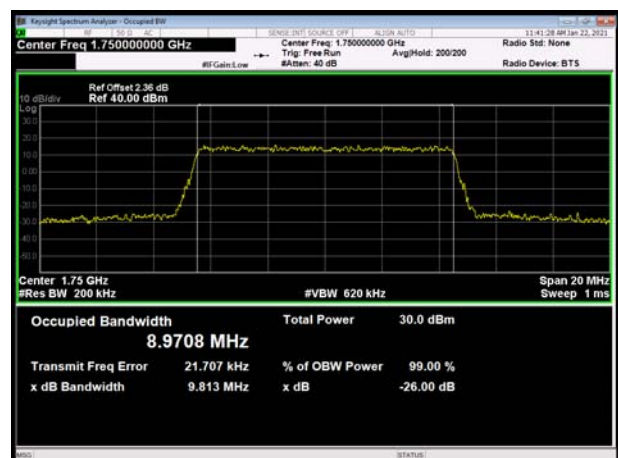
LTE Band 4 16QAM 10MHz CH-Middle



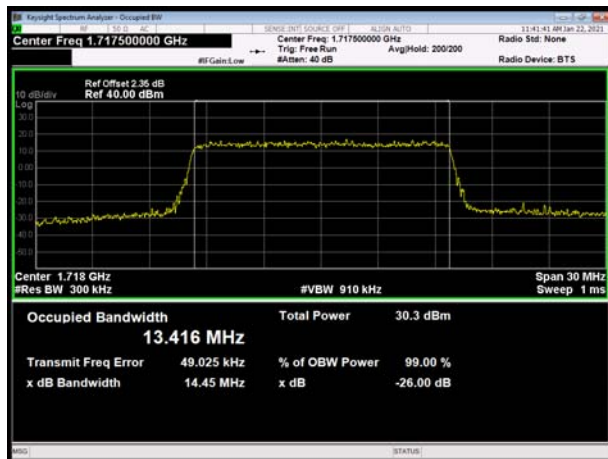
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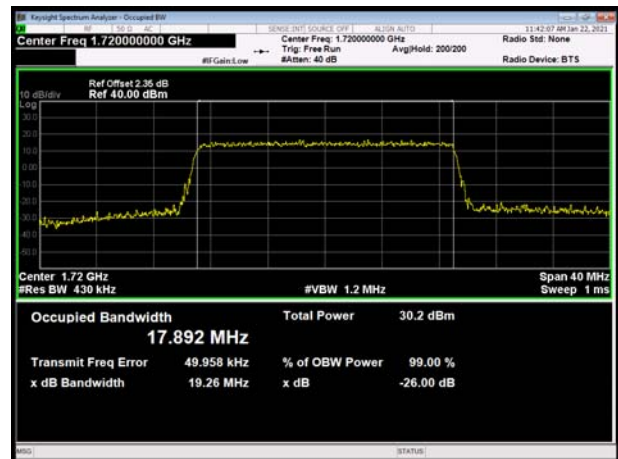
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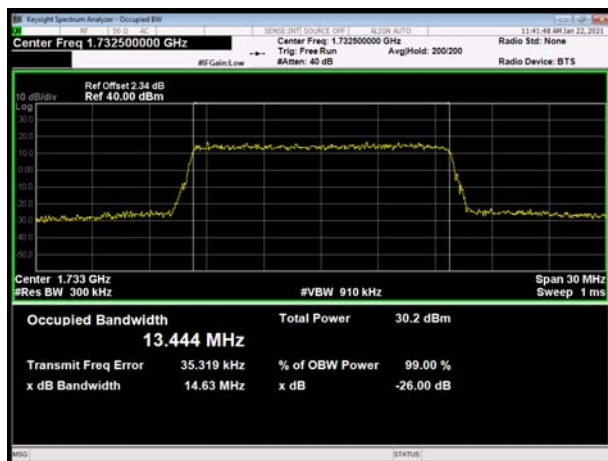
LTE Band 4 16QAM 15MHz CH-Low



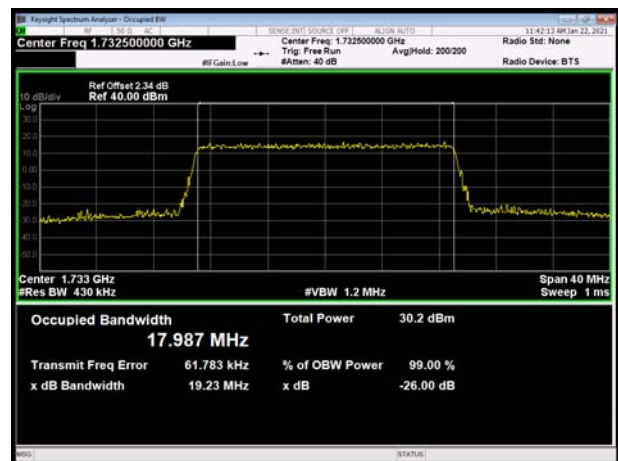
LTE Band 4 16QAM 20MHz CH-Low



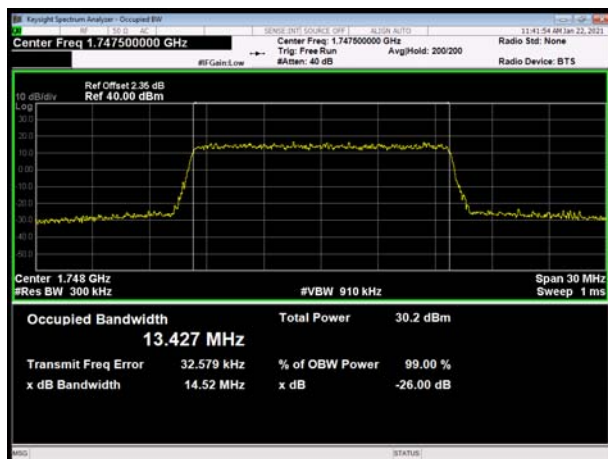
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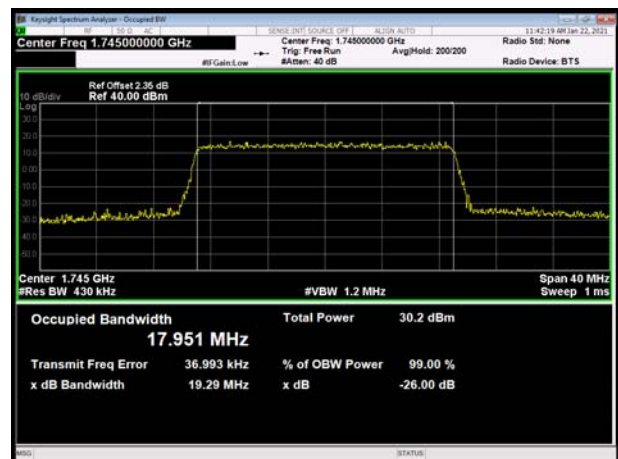
LTE Band 4 16QAM 20MHz CH-Middle



LTE Band 4 16QAM 15MHz CH-High

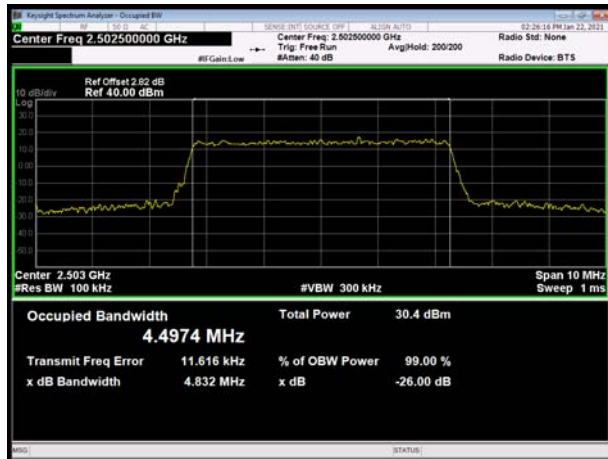


LTE Band 4 16QAM 20MHz CH-High

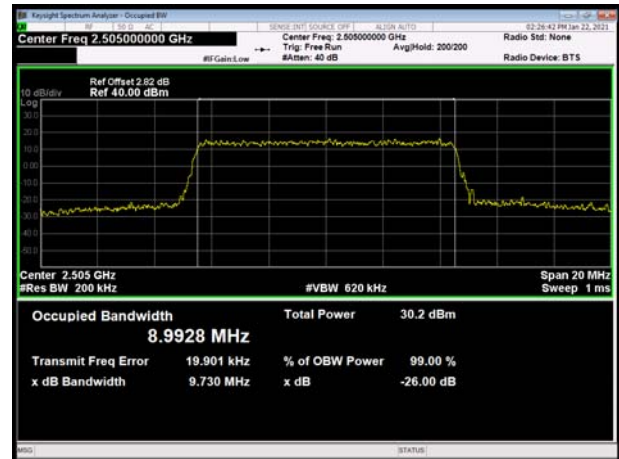




LTE Band 7 QPSK 5MHz CH-Low



LTE Band 7 QPSK 10MHz CH-Low



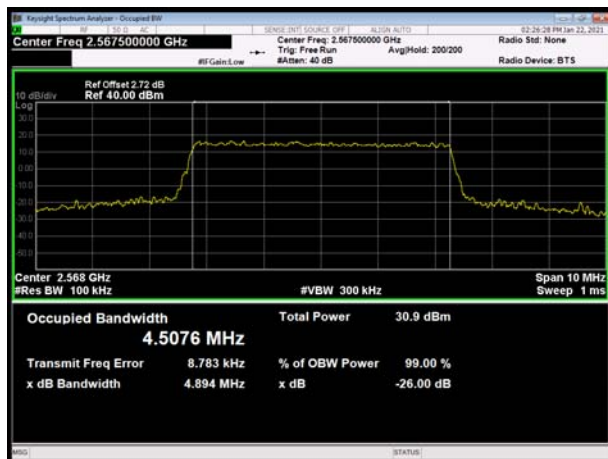
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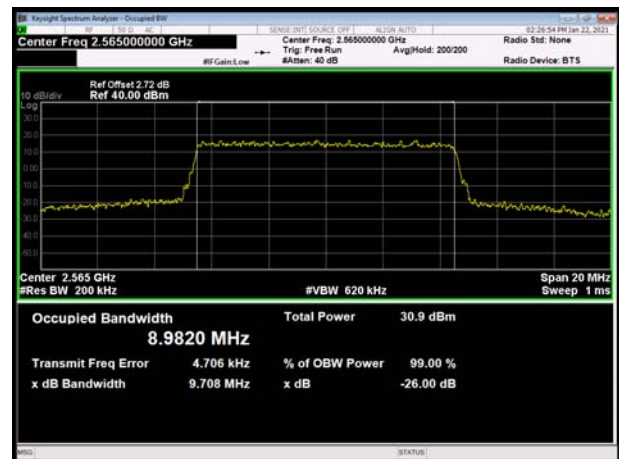
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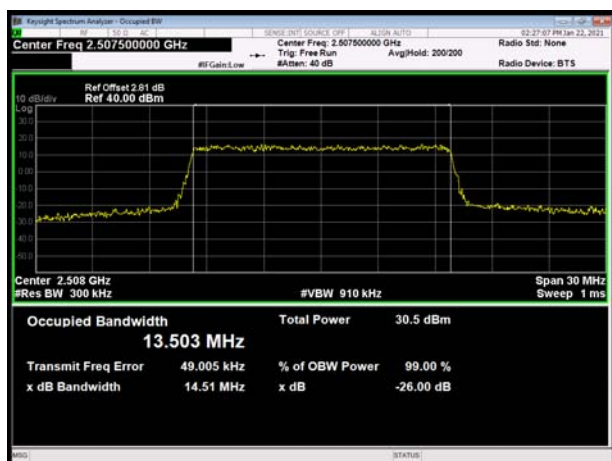
LTE Band 7 QPSK 5MHz CH-High



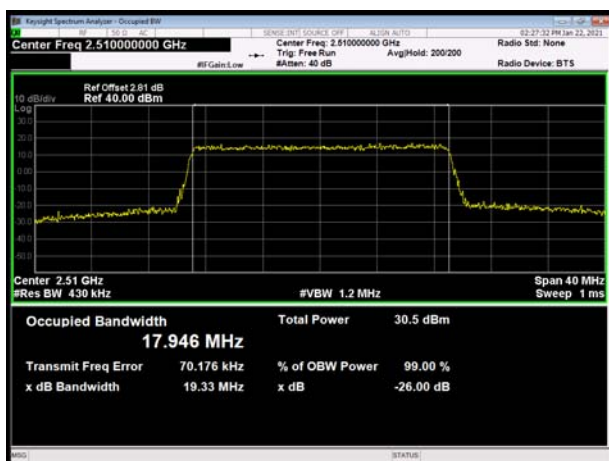
LTE Band 7 QPSK 10MHz CH-High



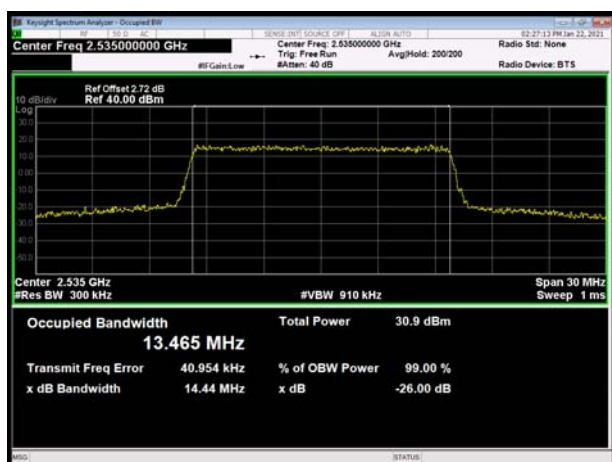
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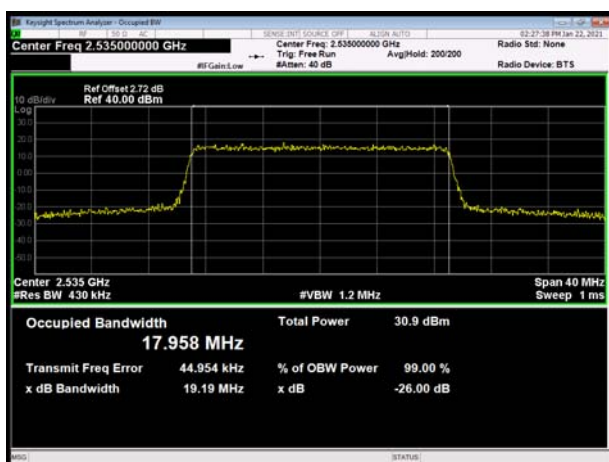
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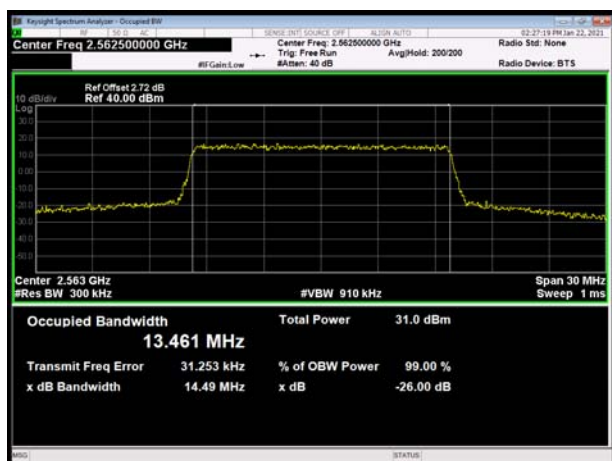
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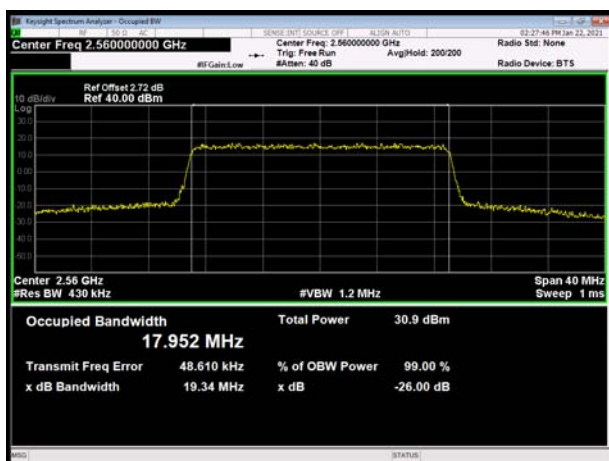
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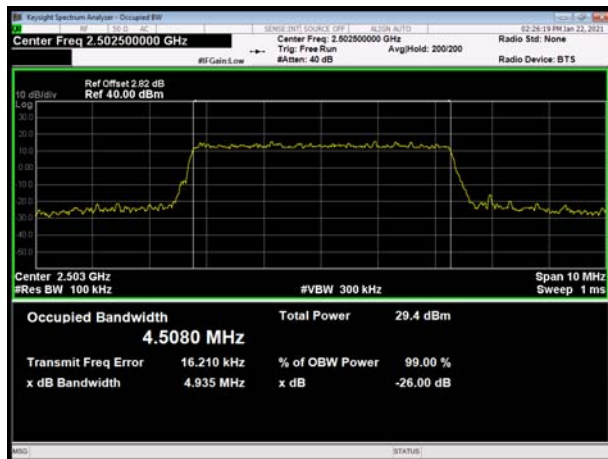
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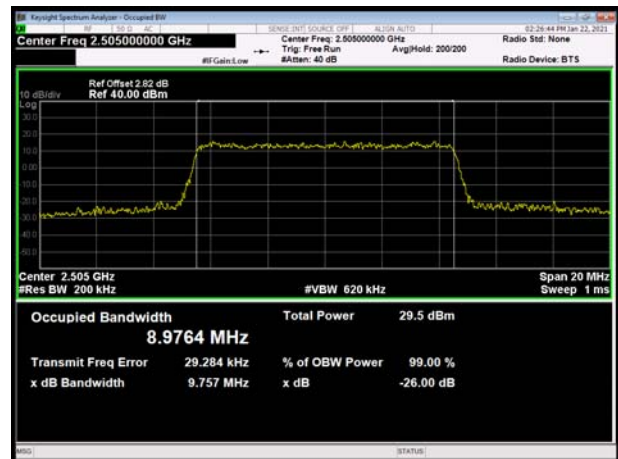
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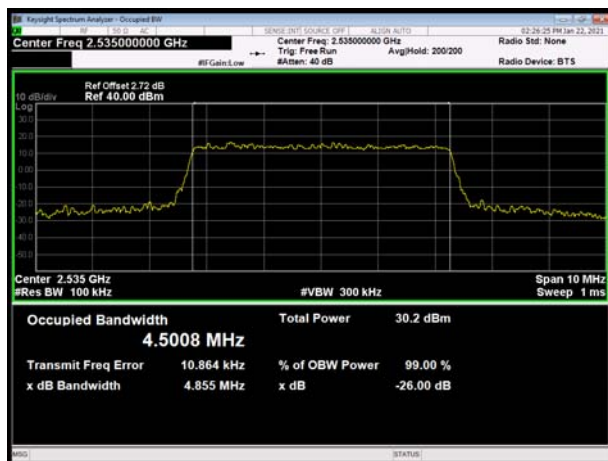
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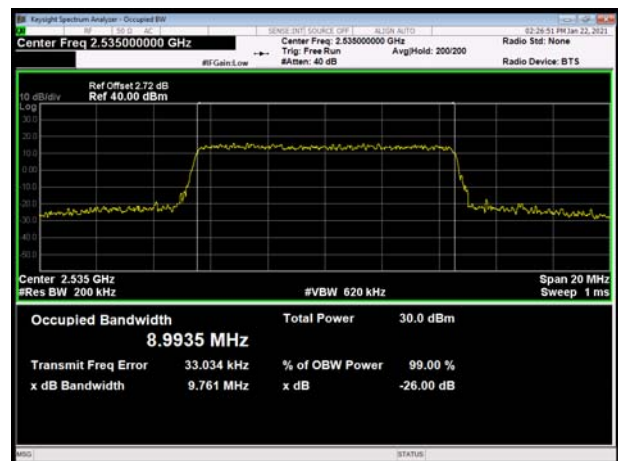
LTE Band 7 16QAM 10MHz CH-Low



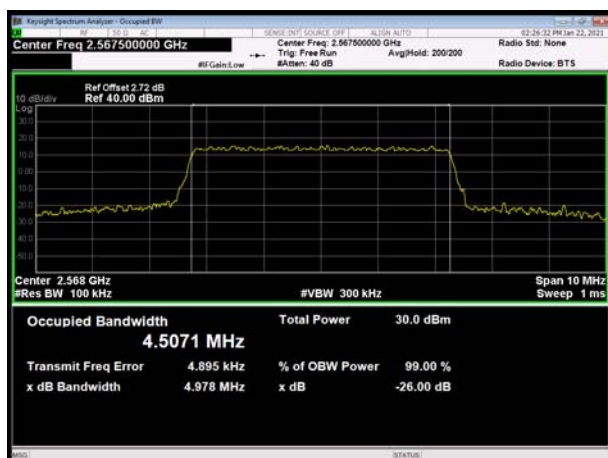
LTE Band 7 16QAM 5MHz CH-Middle



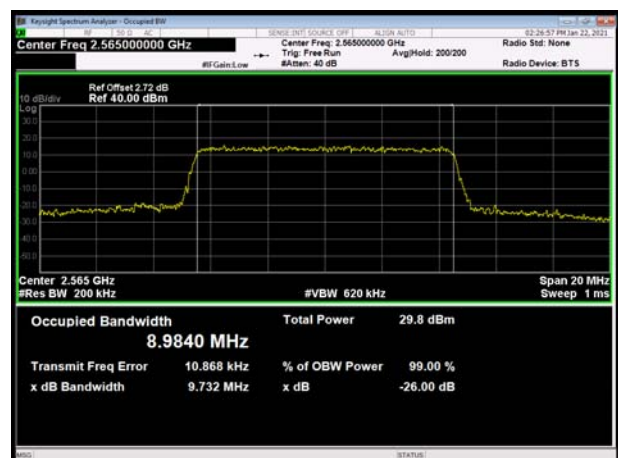
LTE Band 7 16QAM 10MHz CH-Middle



LTE Band 7 16QAM 5MHz CH-High



LTE Band 7 16QAM 10MHz CH-High



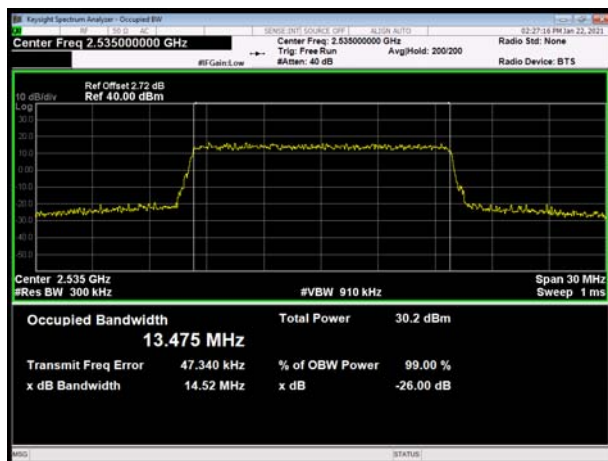
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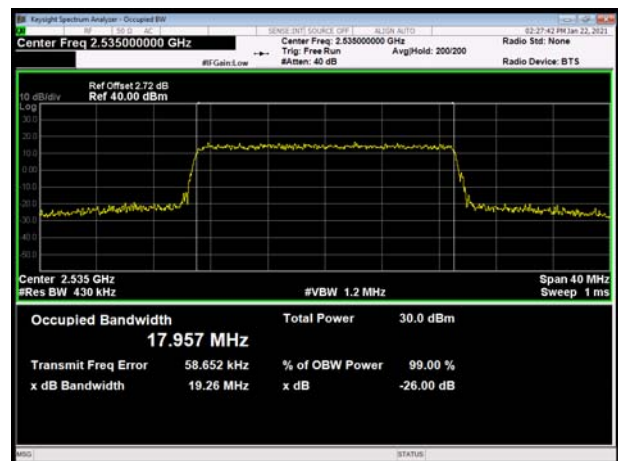
LTE Band 7 16QAM 20MHz CH-Low



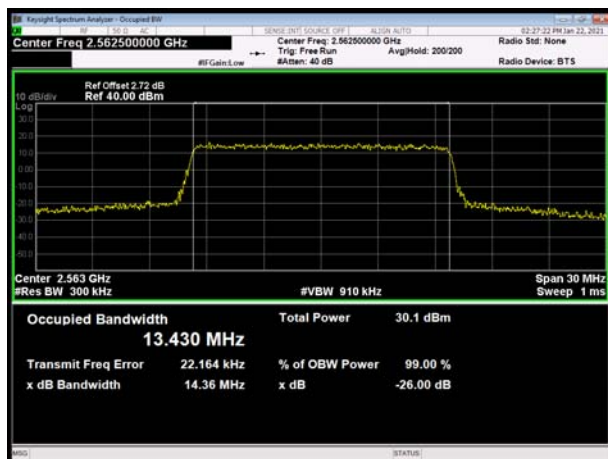
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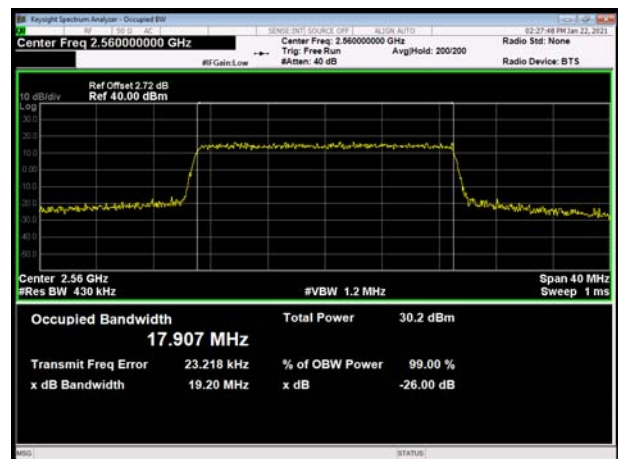
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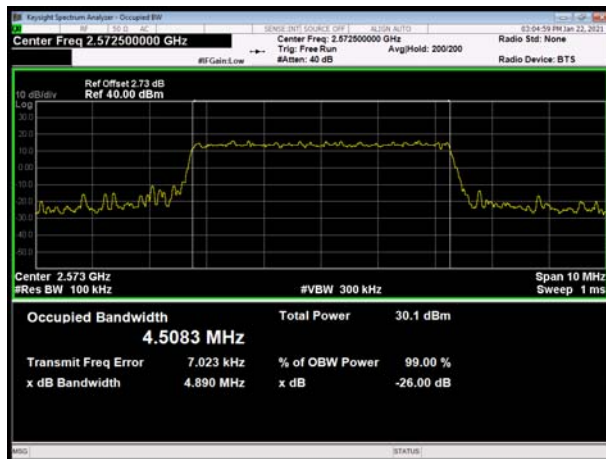
LTE Band 7 16QAM 15MHz CH-High



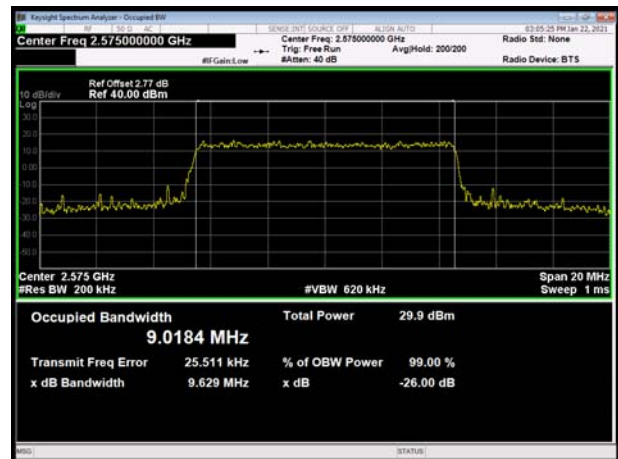
LTE Band 7 16QAM 20MHz CH-High



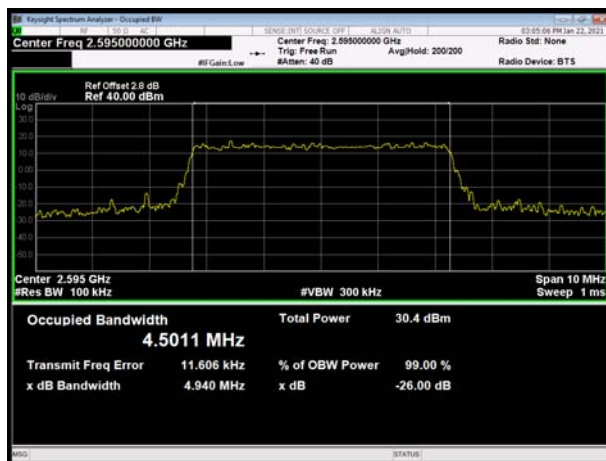
LTE Band 38 QPSK 5MHz CH-Low



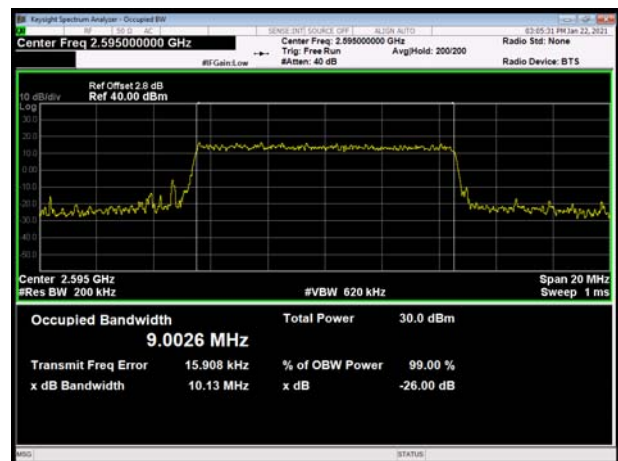
LTE Band 38 QPSK 10MHz CH-Low



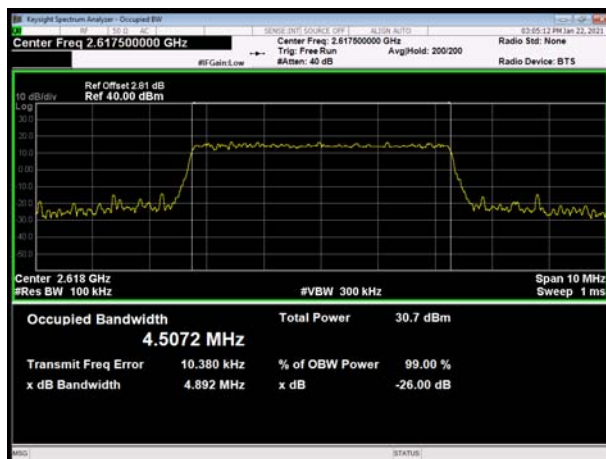
LTE Band 38 QPSK 5MHz CH-Middle



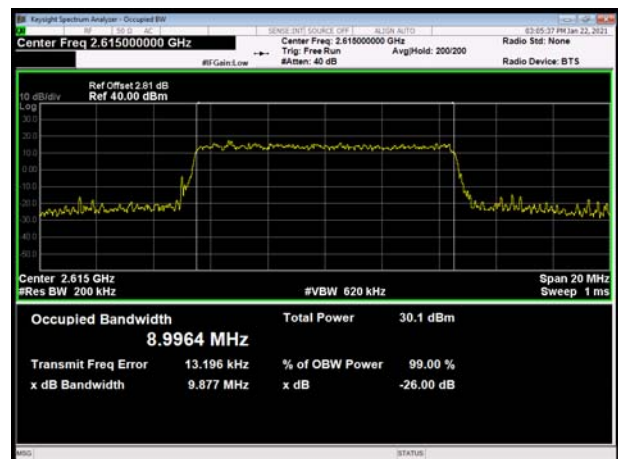
LTE Band 38 QPSK 10MHz CH-Middle



LTE Band 38 QPSK 5MHz CH-High

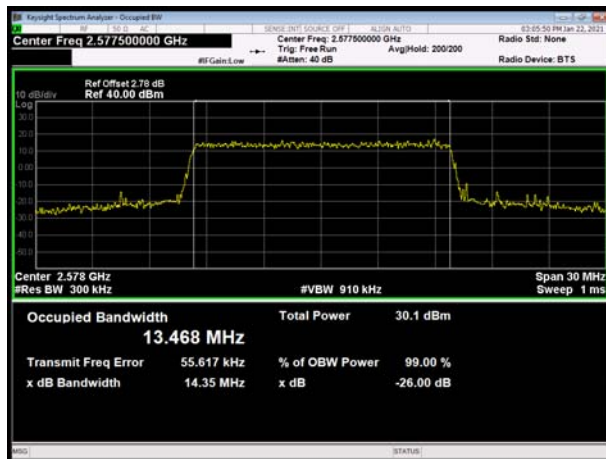


LTE Band 38 QPSK 10MHz CH-High

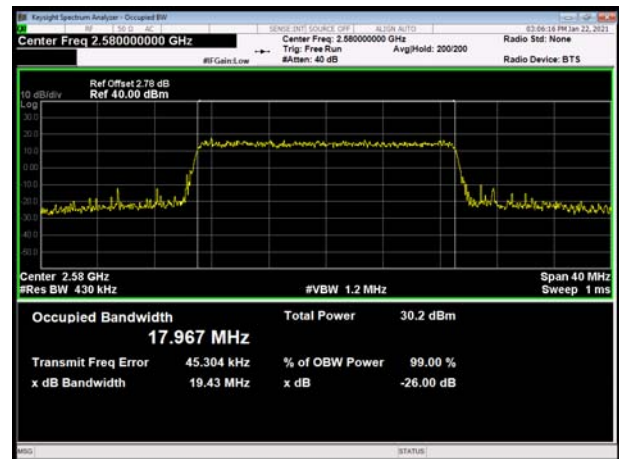




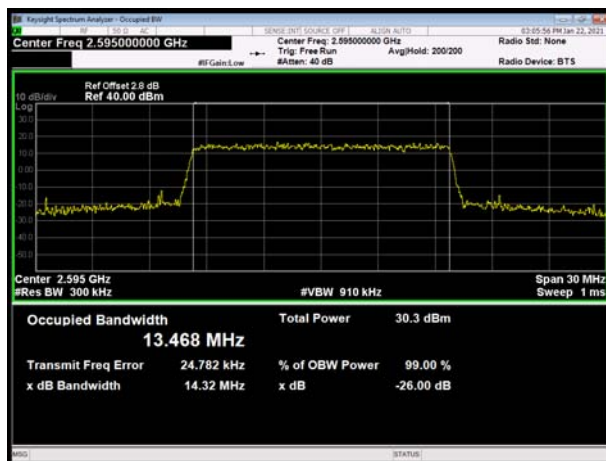
LTE Band 38 QPSK 15MHz CH-Low



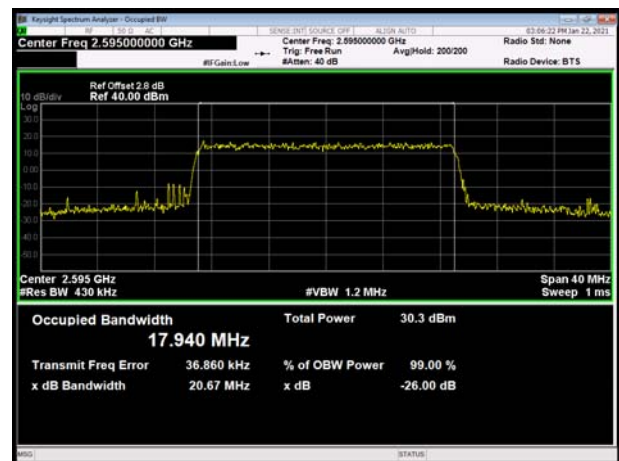
LTE Band 38 QPSK 20MHz CH-Low



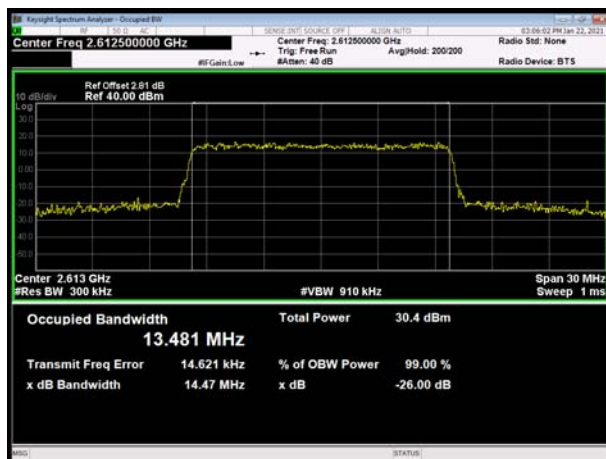
LTE Band 38 QPSK 15MHz CH-Middle



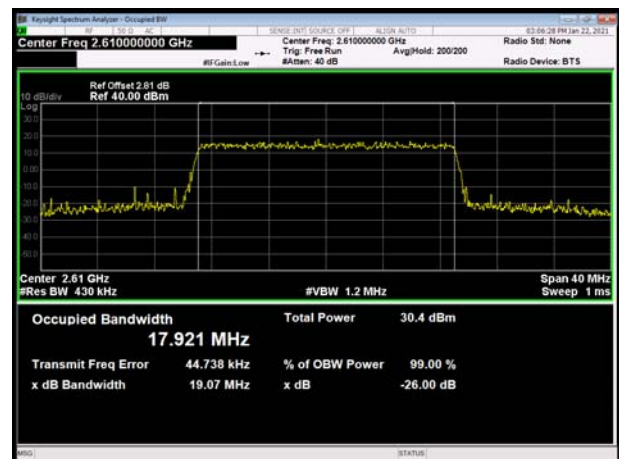
LTE Band 38 QPSK 20MHz CH-Middle



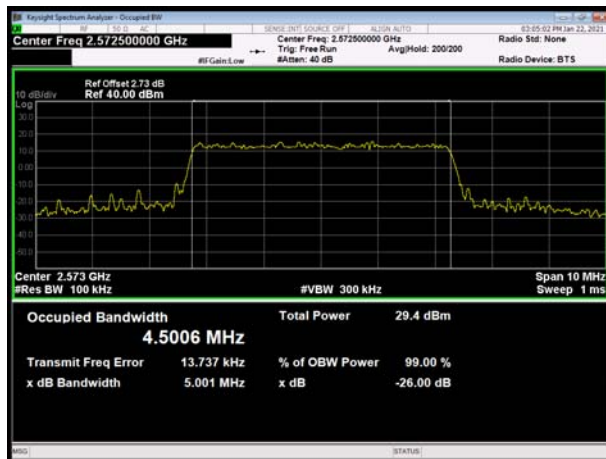
LTE Band 38 QPSK 15MHz CH-High



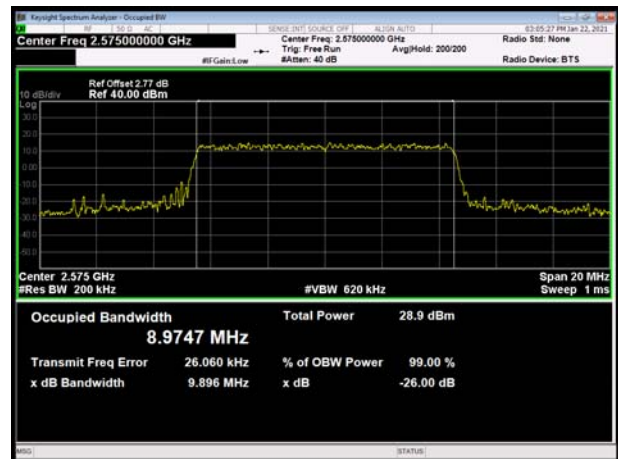
LTE Band 38 QPSK 20MHz CH-High



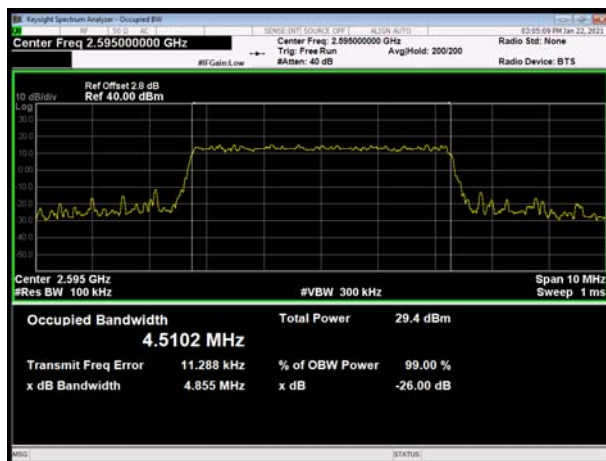
LTE Band 38 16QAM 5MHz CH-Low



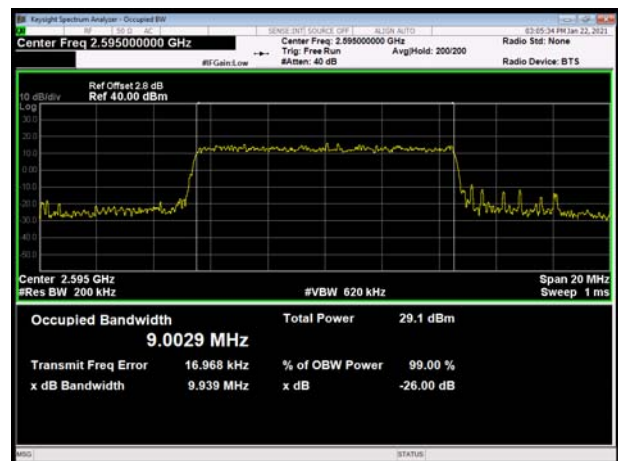
LTE Band 38 16QAM 10MHz CH-Low



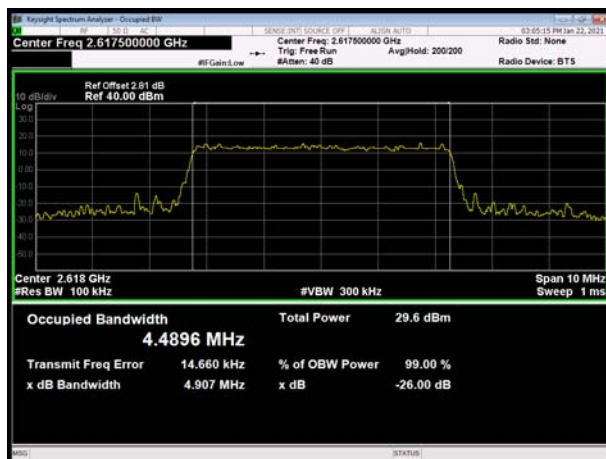
LTE Band 38 16QAM 5MHz CH-Middle



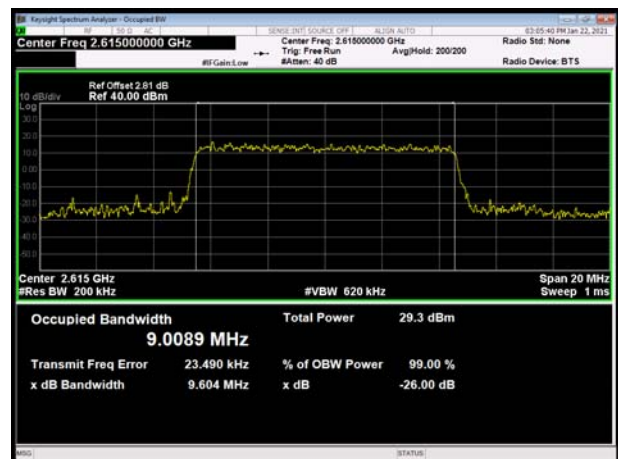
LTE Band 38 16QAM 10MHz CH-Middle



LTE Band 38 16QAM 5MHz CH-High

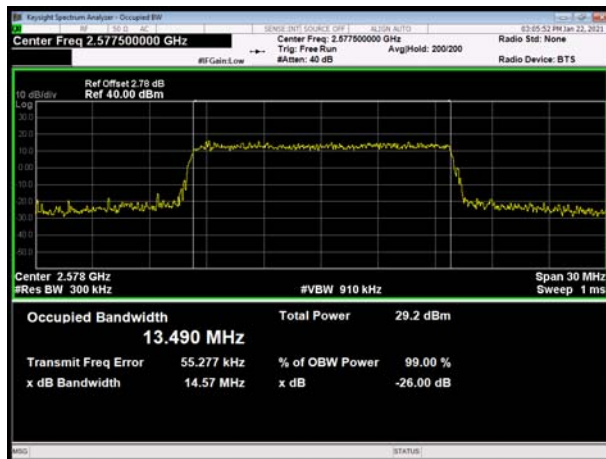


LTE Band 38 16QAM 10MHz CH-High

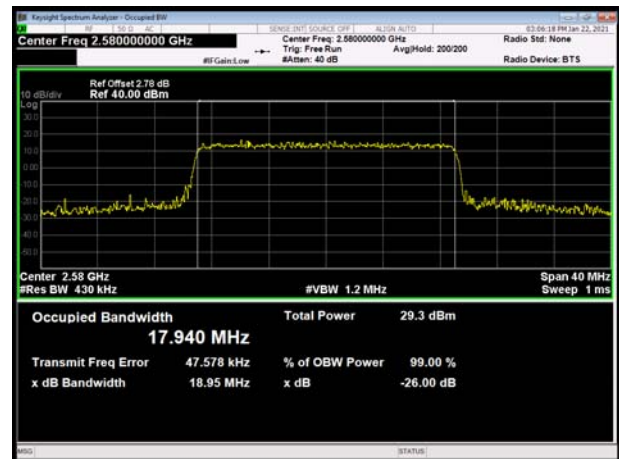




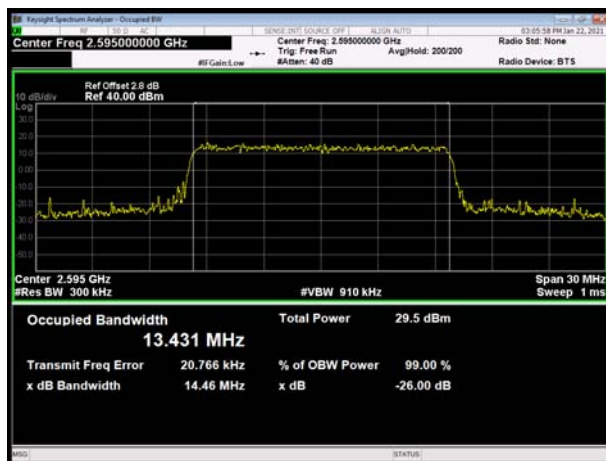
LTE Band 38 16QAM 15MHz CH-Low



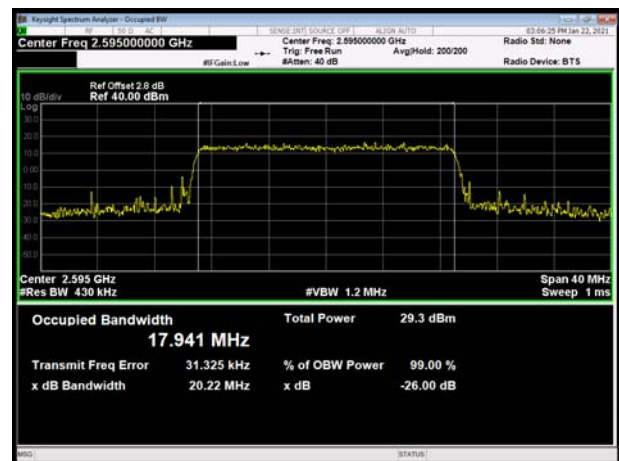
LTE Band 38 16QAM 20MHz CH-Low



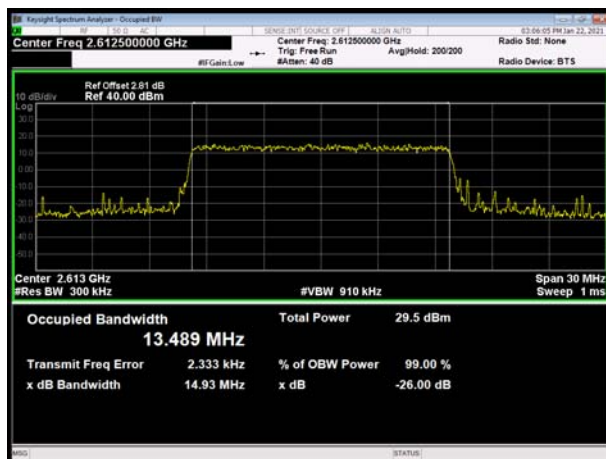
LTE Band 38 16QAM 15MHz CH-Middle



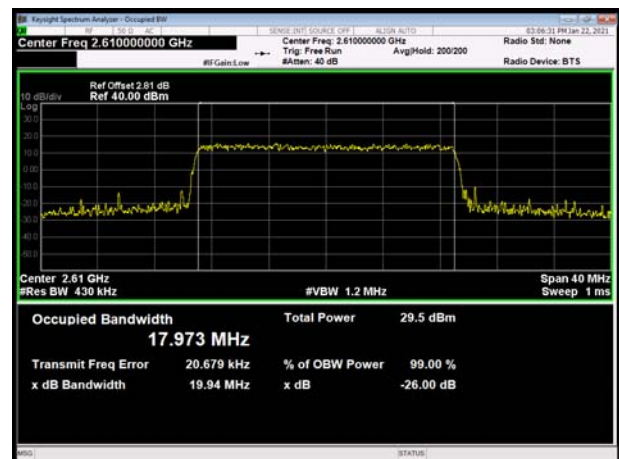
LTE Band 38 16QAM 20MHz CH-Middle



LTE Band 38 16QAM 15MHz CH-High



LTE Band 38 16QAM 20MHz CH-High





LTE Band 41 QPSK 5MHz CH-Low



LTE Band 41 QPSK 10MHz CH-Low



LTE Band 41 QPSK 5MHz CH-Middle



LTE Band 41 QPSK 10MHz CH-Middle



LTE Band 41 QPSK 5MHz CH-High



LTE Band 41 QPSK 10MHz CH-High





LTE Band 41 QPSK 15MHz CH-Low



LTE Band 41 QPSK 20MHz CH-Low



LTE Band 41 QPSK 15MHz CH-Middle



LTE Band 41 QPSK 20MHz CH-Middle



LTE Band 41 QPSK 15MHz CH-High



LTE Band 41 QPSK 20MHz CH-High





LTE Band 41 16QAM 5MHz CH-Low



LTE Band 41 16QAM 10MHz CH-Low



LTE Band 41 16QAM 5MHz CH-Middle



LTE Band 41 16QAM 10MHz CH-Middle



LTE Band 41 16QAM 5MHz CH-High

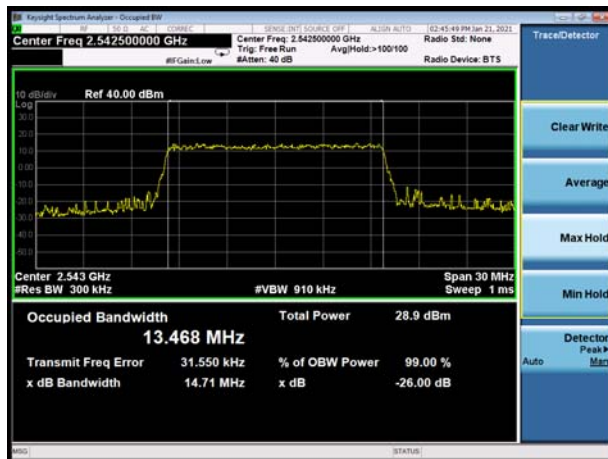


LTE Band 41 16QAM 10MHz CH-High

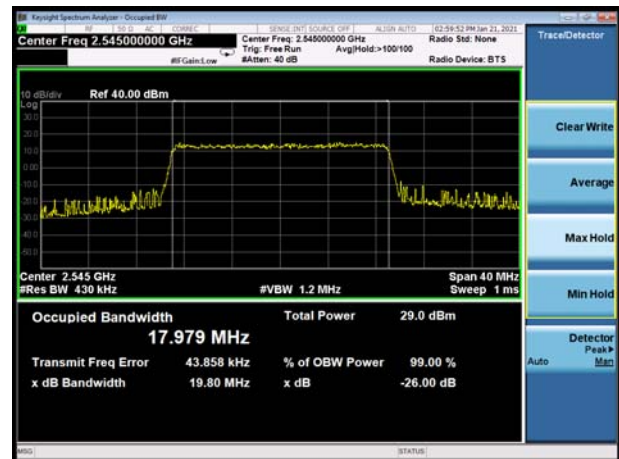




LTE Band 41 16QAM 15MHz CH-Low



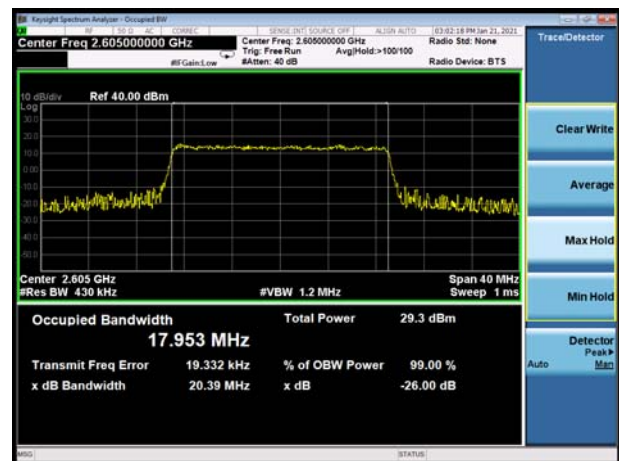
LTE Band 41 16QAM 20MHz CH-Low



LTE Band 41 16QAM 15MHz CH-Middle



LTE Band 41 16QAM 20MHz CH-Middle



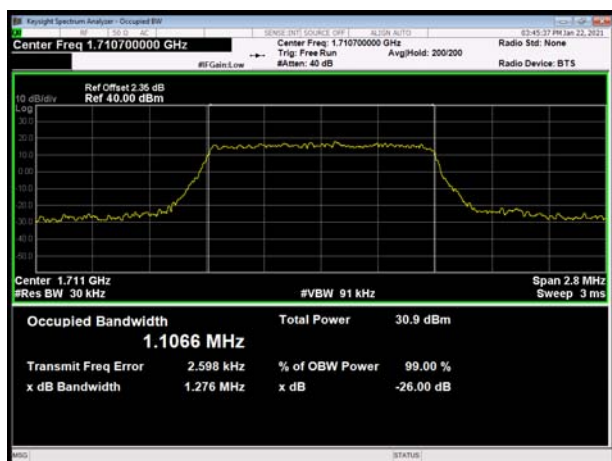
LTE Band 41 16QAM 15MHz CH-High



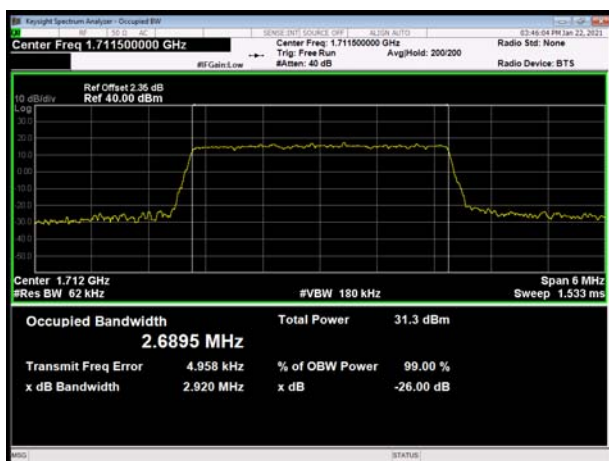
LTE Band 41 16QAM 20MHz CH-High



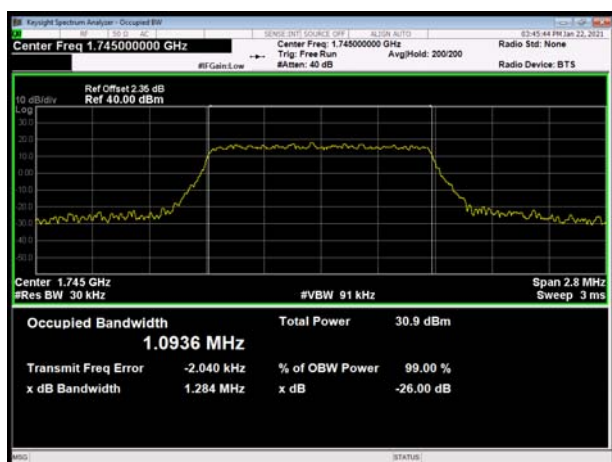
LTE Band 66 QPSK 1.4MHz CH-Low



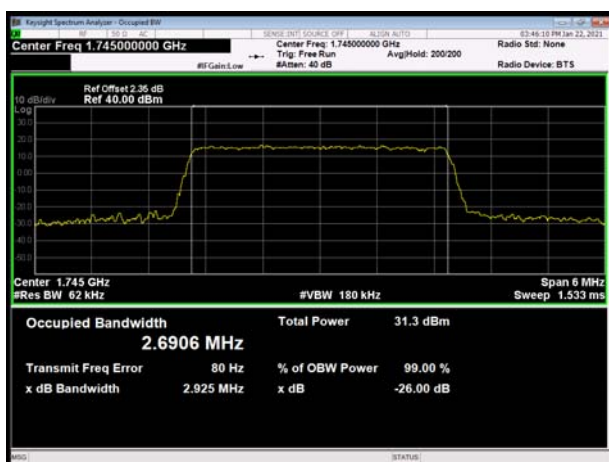
LTE Band 66 QPSK 3MHz CH-Low



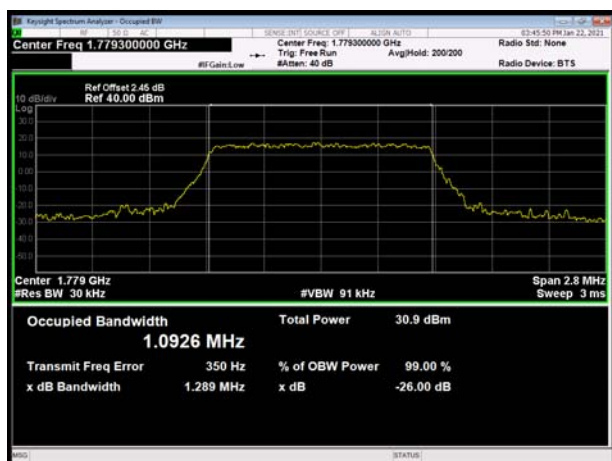
LTE Band 66 QPSK 1.4MHz CH-Middle



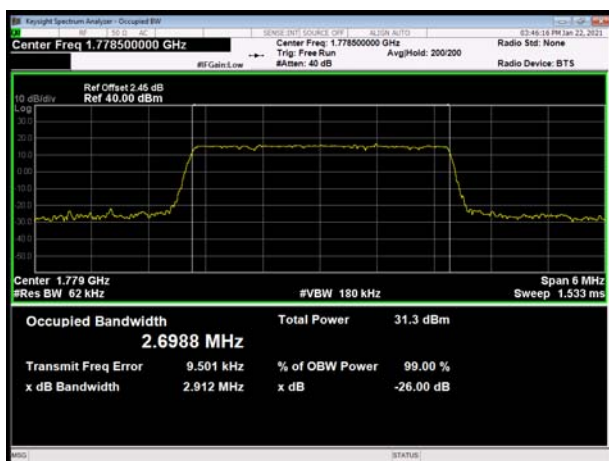
LTE Band 66 QPSK 3MHz CH-Middle



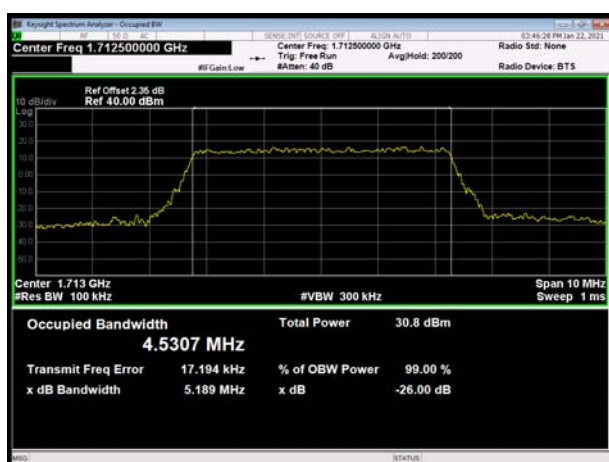
LTE Band 66 QPSK 1.4MHz CH-High



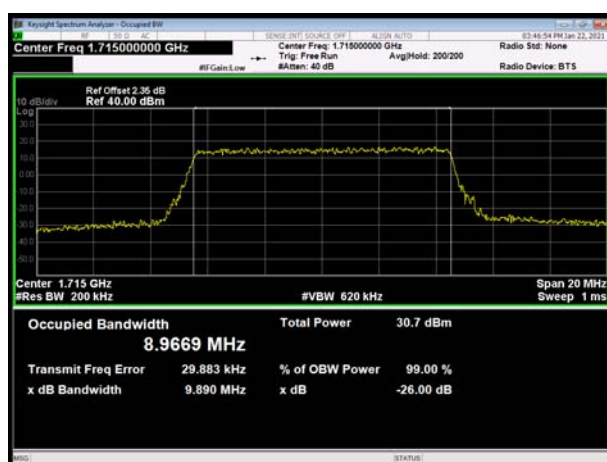
LTE Band 66 QPSK 3MHz CH-High



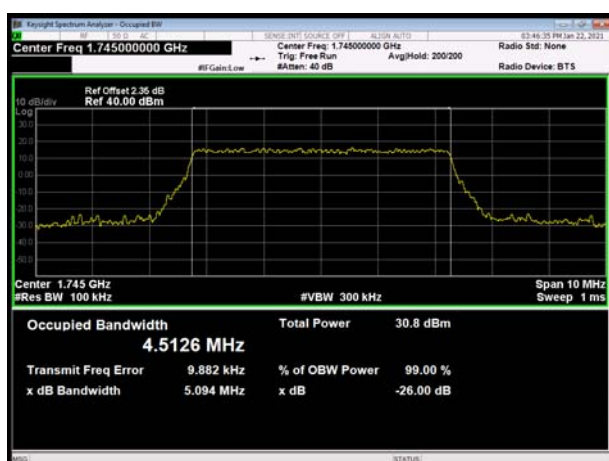
LTE Band 66 QPSK 5MHz CH-Low



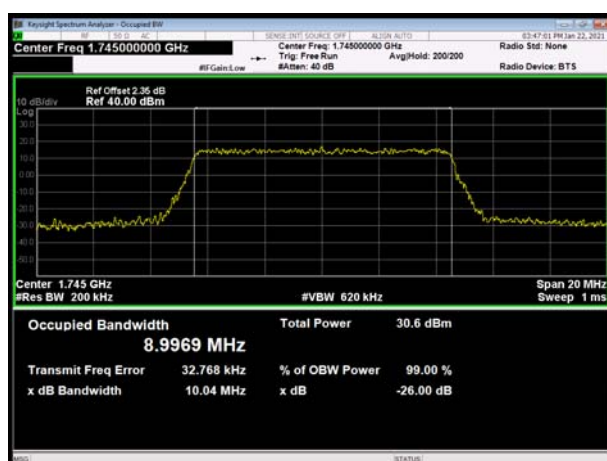
LTE Band 66 QPSK 10MHz CH-Low



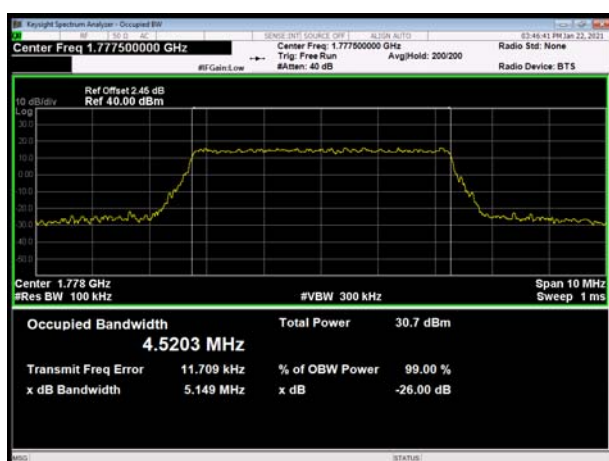
LTE Band 66 QPSK 5MHz CH-Middle



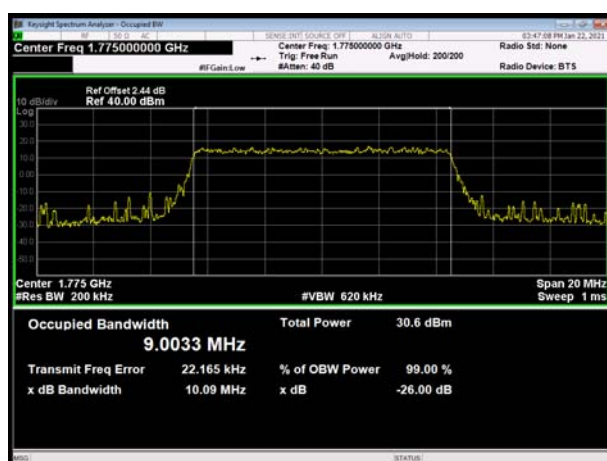
LTE Band 66 QPSK 10MHz CH-Middle



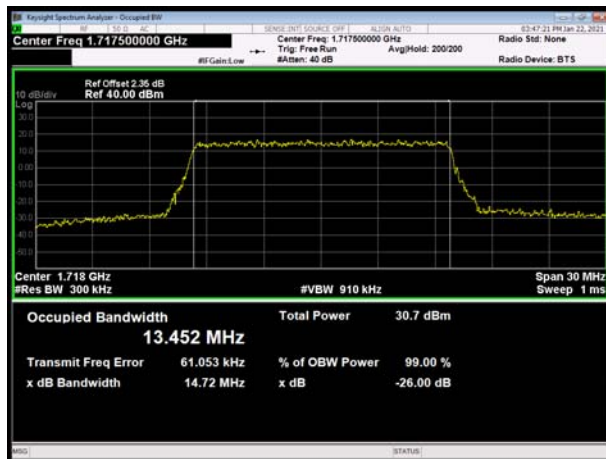
LTE Band 66 QPSK 5MHz CH-High



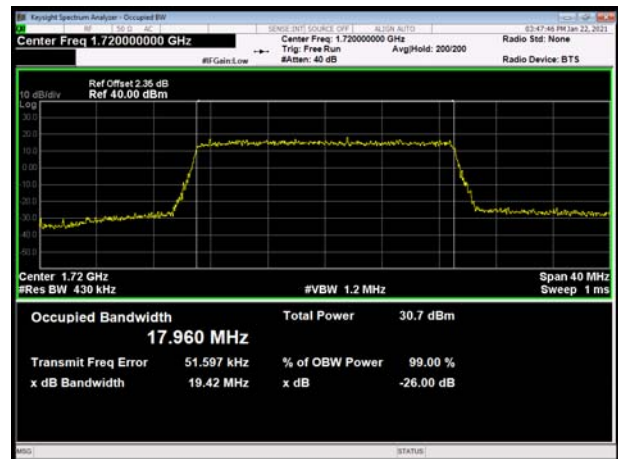
LTE Band 66 QPSK 10MHz CH-High



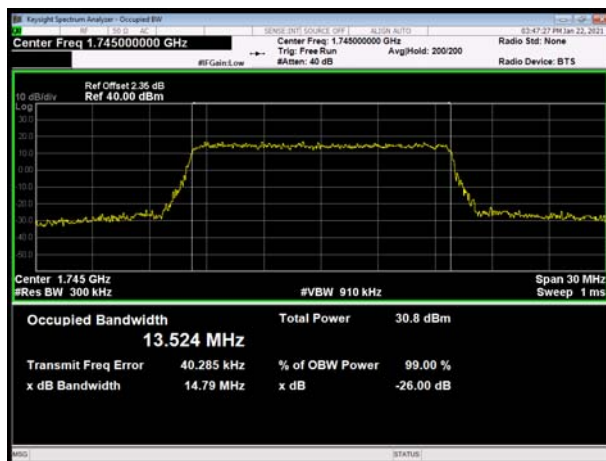
LTE Band 66 QPSK 15MHz CH-Low



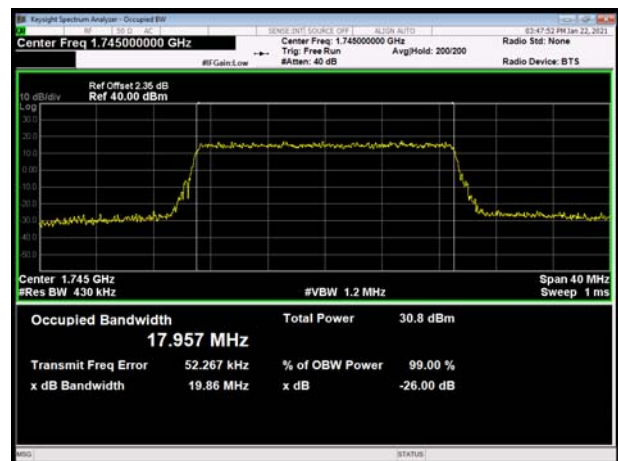
LTE Band 66 QPSK 20MHz CH-Low



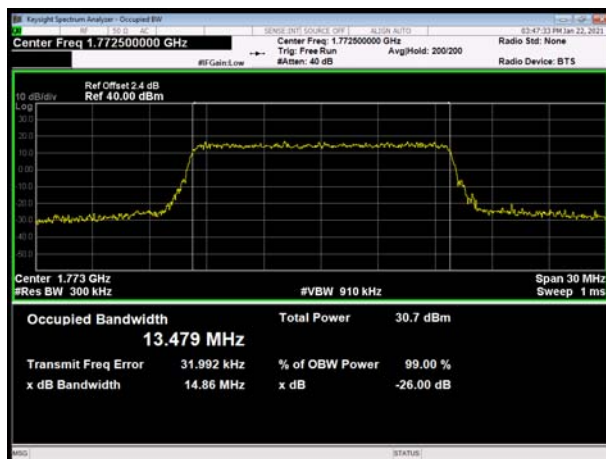
LTE Band 66 QPSK 15MHz CH-Middle



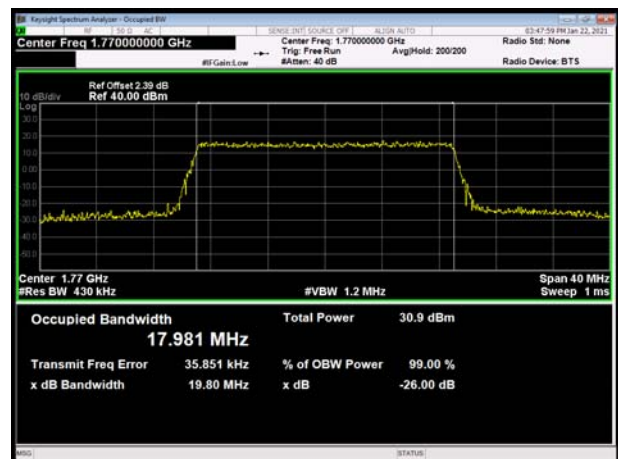
LTE Band 66 QPSK 20MHz CH-Middle



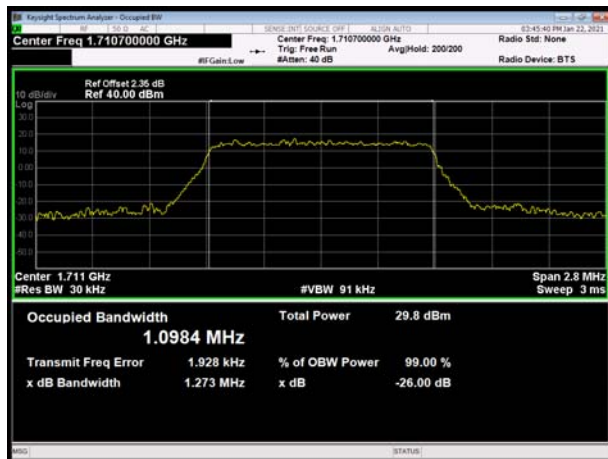
LTE Band 66 QPSK 15MHz CH-High



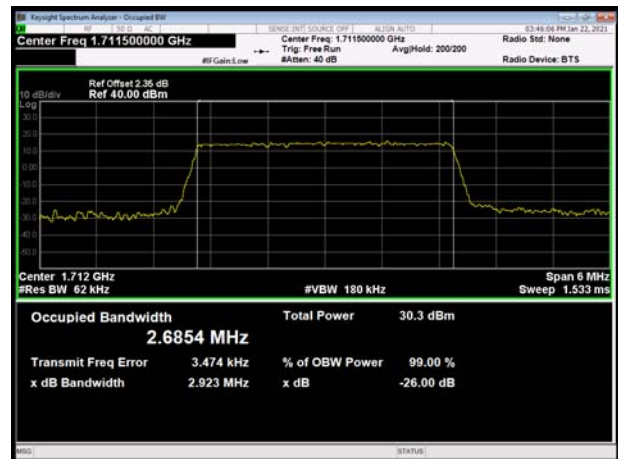
LTE Band 66 QPSK 20MHz CH-High



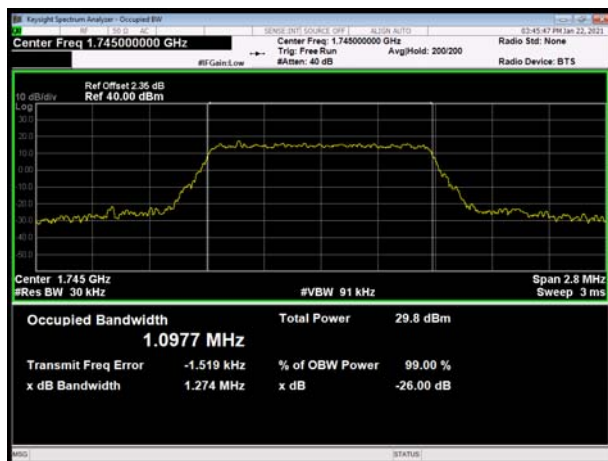
LTE Band 66 16QAM 1.4MHz CH-Low



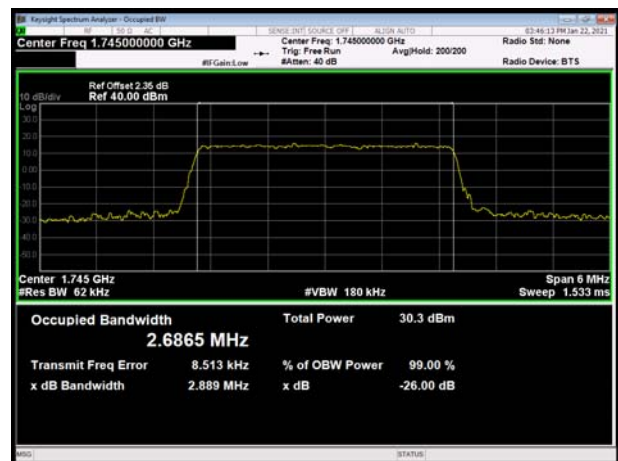
LTE Band 66 16QAM 3MHz CH-Low



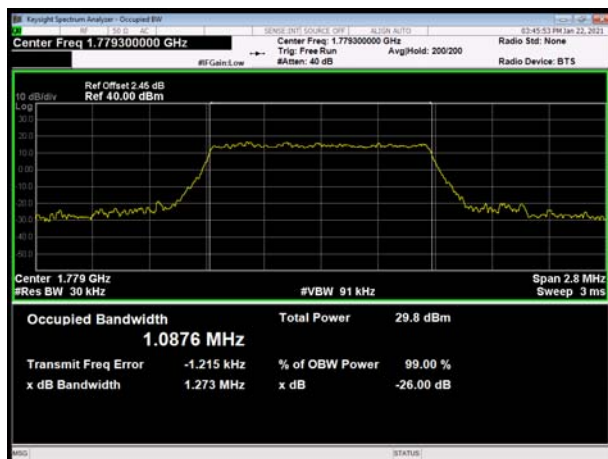
LTE Band 66 16QAM 1.4MHz CH-Middle



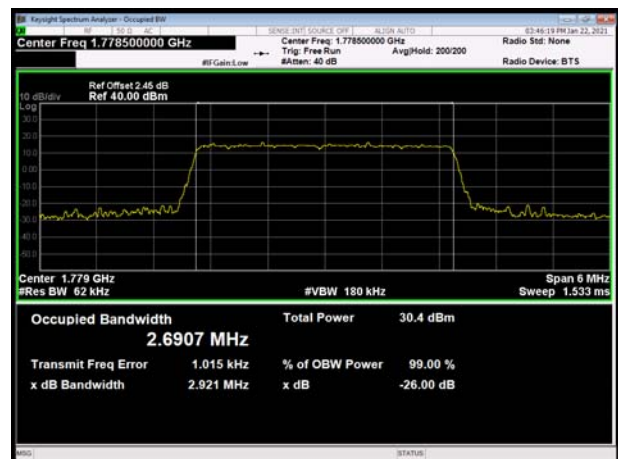
LTE Band 66 16QAM 3MHz CH-Middle



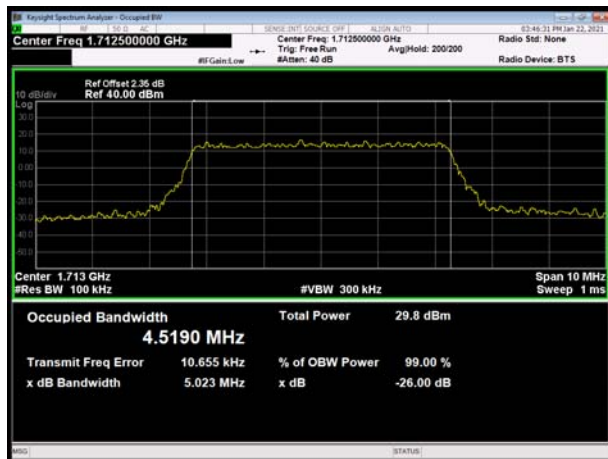
LTE Band 66 16QAM 1.4MHz CH-High



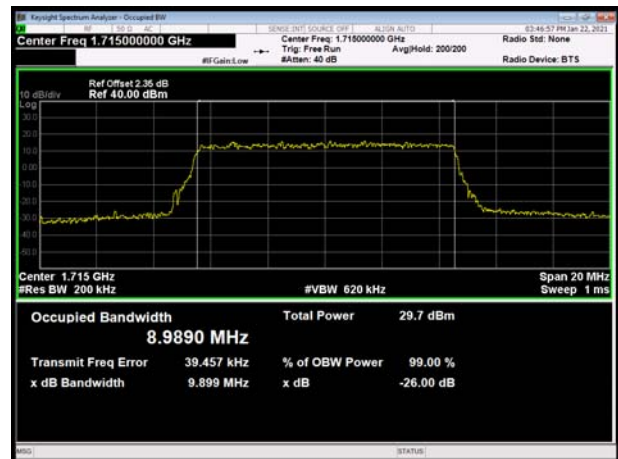
LTE Band 66 16QAM 3MHz CH-High



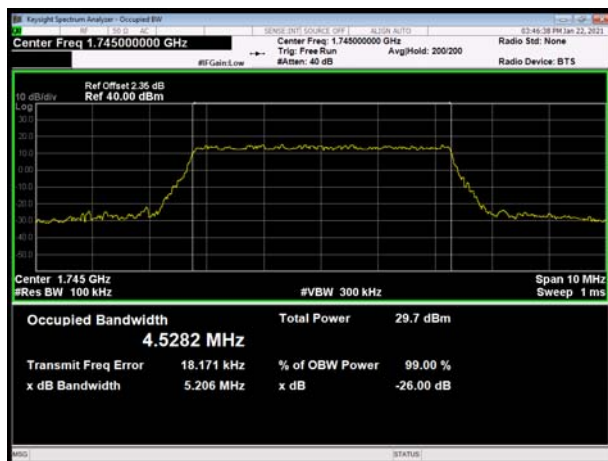
LTE Band 66 16QAM 5MHz CH-Low



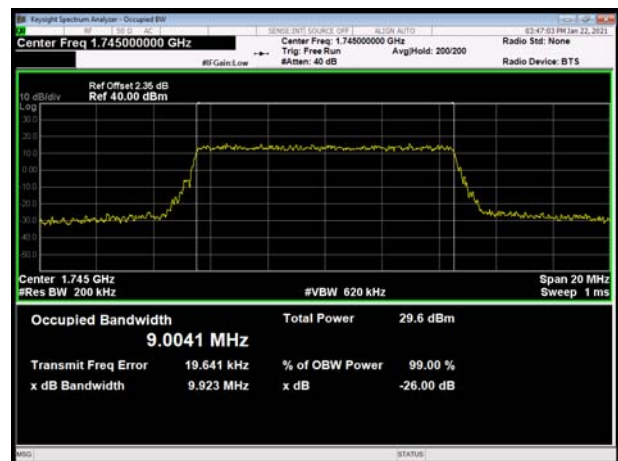
LTE Band 66 16QAM 10MHz CH-Low



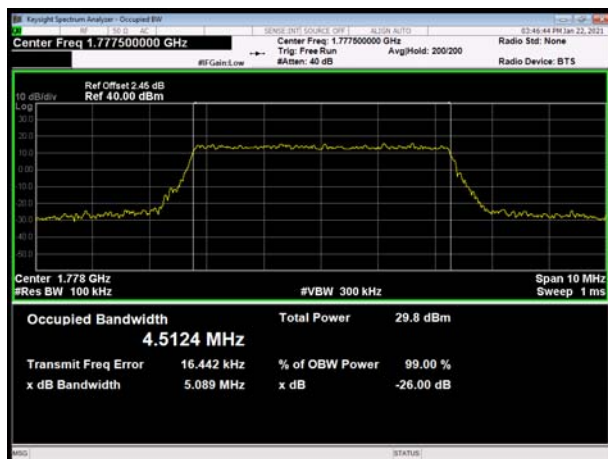
LTE Band 66 16QAM 5MHz CH-Middle



LTE Band 66 16QAM 10MHz CH-Middle



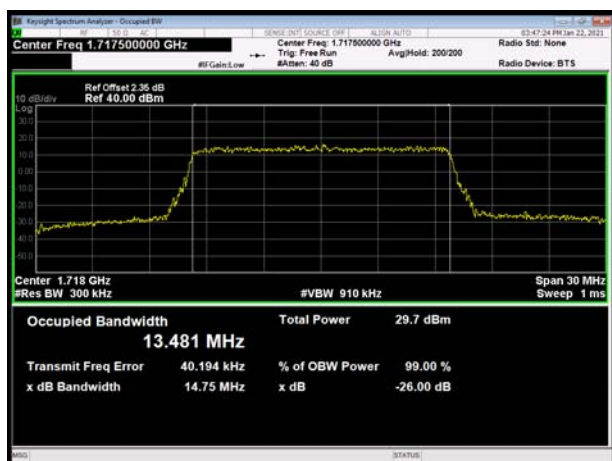
LTE Band 66 16QAM 5MHz CH-High



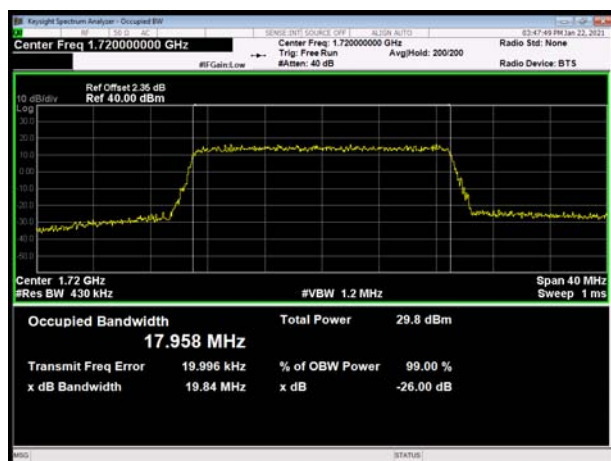
LTE Band 66 16QAM 10MHz CH-High



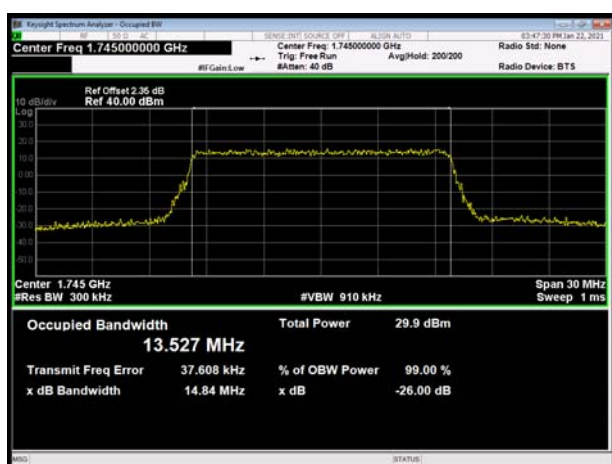
LTE Band 66 16QAM 15MHz CH-Low



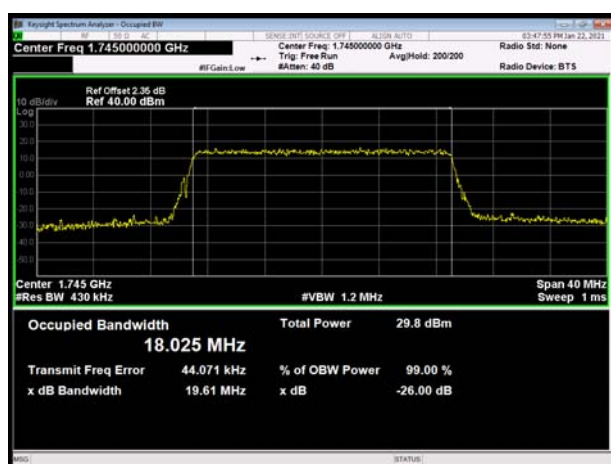
LTE Band 66 16QAM 20MHz CH-Low



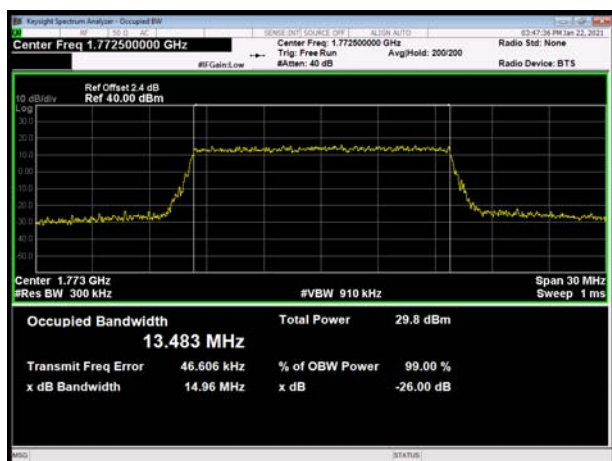
LTE Band 66 16QAM 15MHz CH-Middle



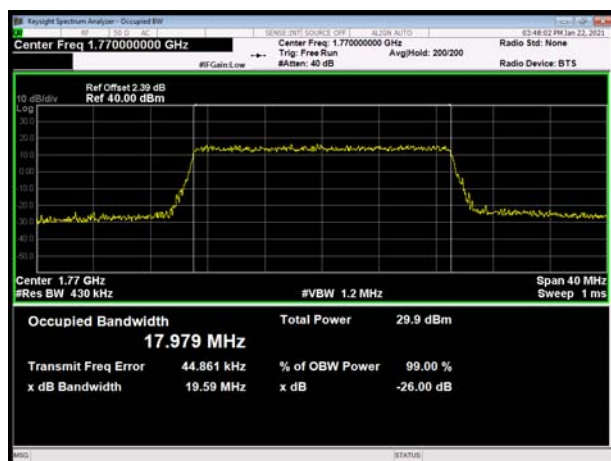
LTE Band 66 16QAM 20MHz CH-Middle



LTE Band 66 16QAM 15MHz CH-High



LTE Band 66 16QAM 20MHz CH-High



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 set RBW $\geq$ 1% EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.

For LTE Band 41 low channel set RBW $\geq$ 2% EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used. RBW is set to 51 kHz, VBW is set to 160 kHz for WCDMA Band IV.

RBW is set to 15 kHz, VBW is set to 43 kHz for LTE Band 4/66 (1.4MHz).

RBW is set to 30 kHz, VBW is set to 91 kHz for LTE Band 4/66 (3MHz).

RBW is set to 51 kHz, VBW is set to 150 kHz for LTE Band 4/66 (5MHz).

RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 4/66 (10MHz).

RBW is set to 150 kHz, VBW is set to 470 kHz for LTE Band 4/66 (15MHz).

RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4/66 (20MHz)

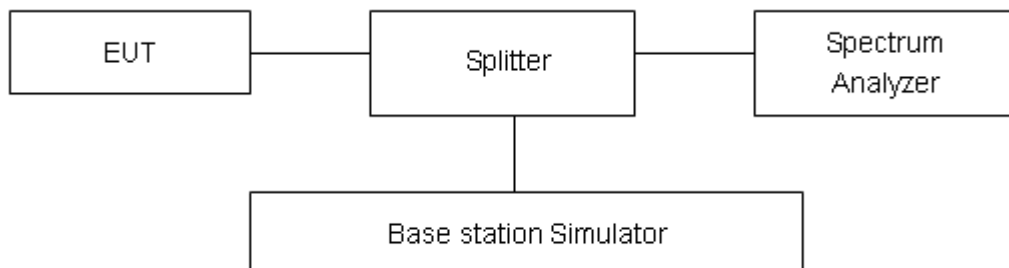
on spectrum analyzer.

Set spectrum analyzer with RMS detector.

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

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

Test Setup





Limits

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

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

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

Example:

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

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

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

Measurement Uncertainty

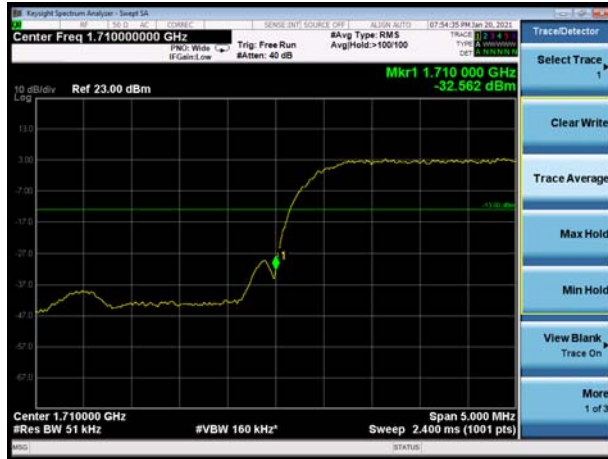
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U=0.684$ dB.



Test Result

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

WCDMA Band IV CH-Low



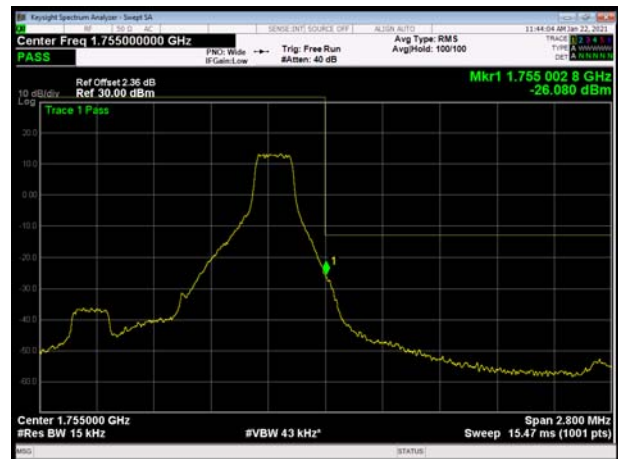
WCDMA Band IV CH-High



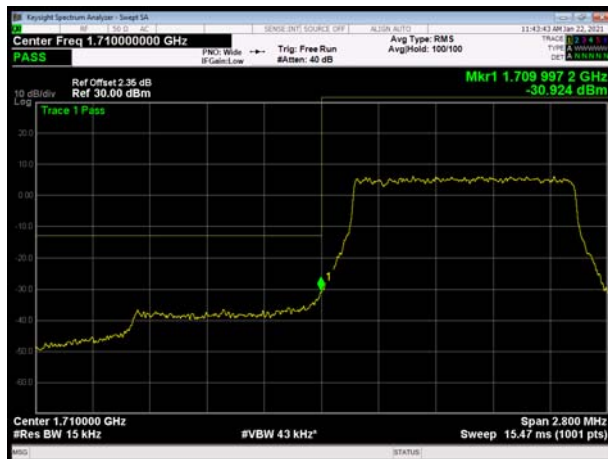
LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB



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



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

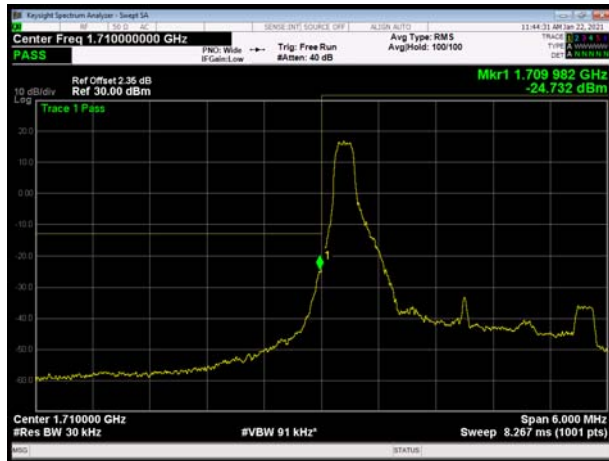


LTE Band 4 QPSK 1.4MHz CH-High, 100%RB

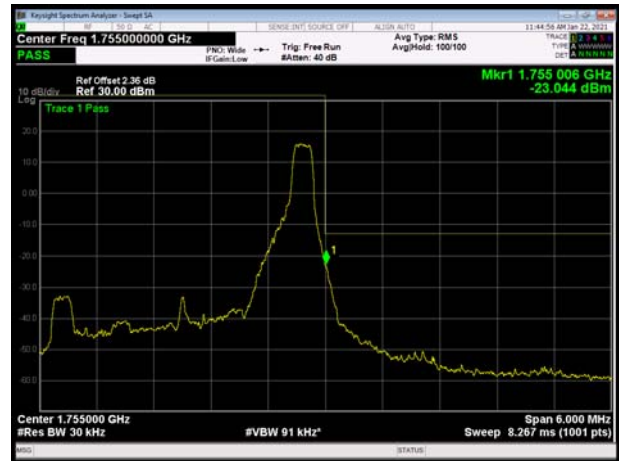




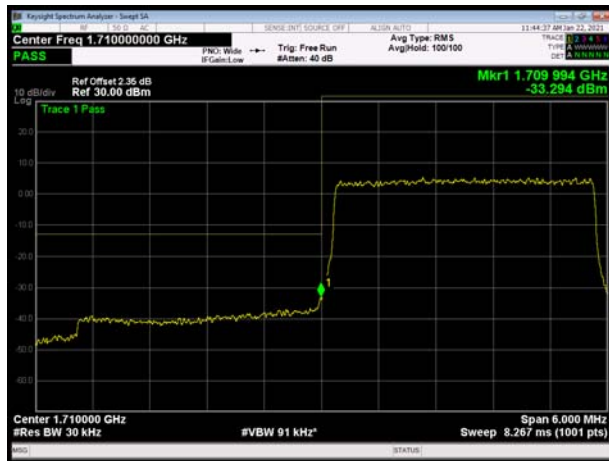
LTE Band 4 QPSK 3MHz CH-Low, 1 RB



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



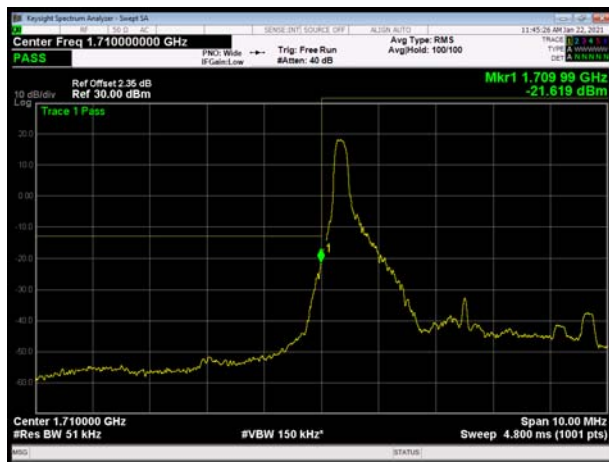
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



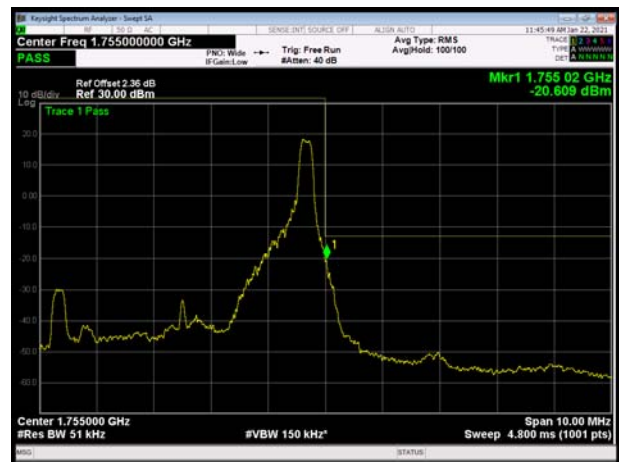
LTE Band 4 QPSK 3MHz CH-High, 100%RB



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

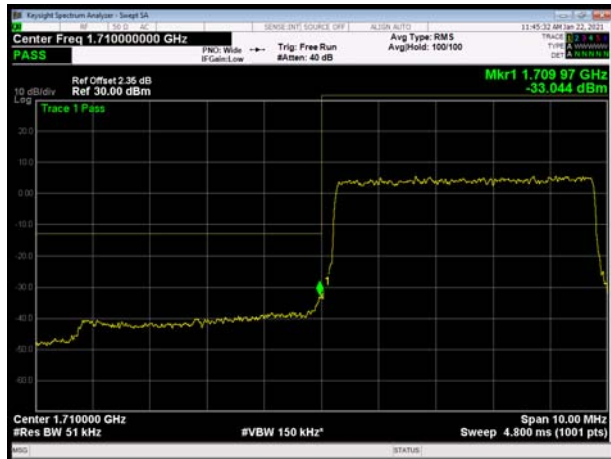


LTE Band 4 QPSK 5MHz CH-High, 1 RB





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



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



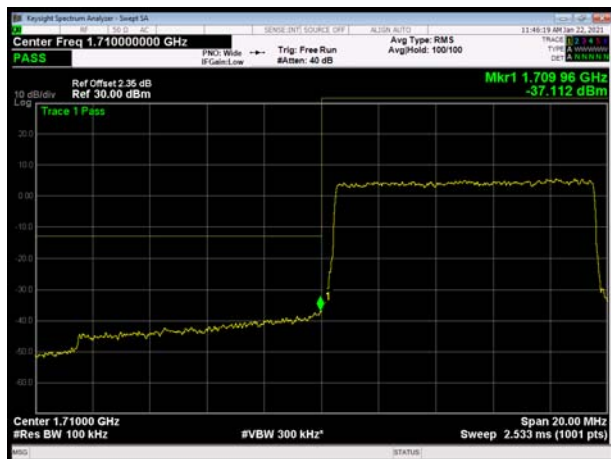
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



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



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



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





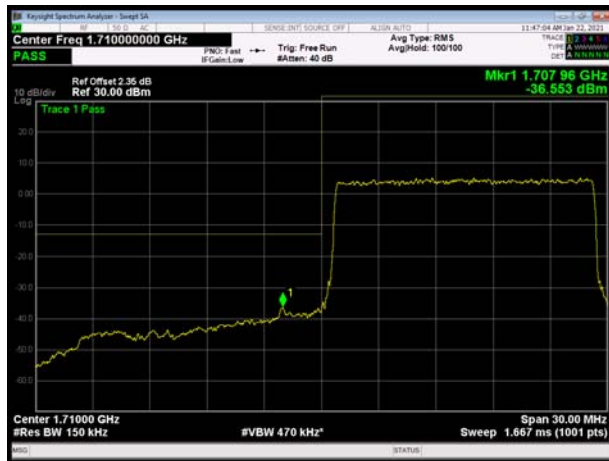
LTE Band 4 QPSK 15MHz CH-Low, 1 RB



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



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



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



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



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

