RF TEST REPORT

Applicant	HMD Global Oy
FCC ID	2AJOTTA-1223
Product	mobile phone
Brand	Nokia
Model	TA-1223
Report No.	R2001A0040-R3V1
Issue Date	March 16, 2020

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.

Peng Tao

Performed by: Peng Tao

Kai Xu

Approved by: Kai Xu

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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(b)(10) /27.50(c)(10) /27.50(h)(2)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(h) /27.53(g) /27.53(f) /27.53(c) /27.53(m)	PASS
4	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 27.54	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 /27.53(h) /27.53(g) /27.53(f) /27.53(c) /27.53(m)	PASS
7	Radiates Spurious Emission	2.1053 /27.53(h) /27.53(g) /27.53(m) /27.53(f) /27.53(c)	PASS
Date of Testing: January 16, 2020 ~ February 28, 2020			
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.			

Note: This revised report (Report No.: R2001A0040-R3V1) supersedes and replaces the previously issued report (Report No.: R2001A0040-R3). Please discard or destroy the previously issued report and dispose of it accordingly.

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 electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission 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	HMD Global Oy
Applicant address	Bertel Jungin aukio 9,02600 ESPOO. FINLAND
Manufacturer	HMD Global Oy
Manufacturer address	Bertel Jungin aukio 9,02600 ESPOO. FINLAND

2.2 General information

EUT Description			
Model	TA-1223		
IMEI	IMEI 1:355795100012570 IMEI 2:355795100015342		
Hardware Version	LLDM528		
Software Version	LLDB7749		
Power Supply	Battery/AC adapter		
Antenna Type	Internal Antenna		
Test Mode(s)	WCDMA Band IV; LTE Band 4/7/12/13/17/66;		
Test Modulation	(GSM)GMSK,8PSK; (WCDMA) BPSK, QPSK; (LTE)QPSK 16QAM 64QAM;		
HSDPA UE Category	24		
HSUPA UE Category	6		
LTE Category	4		
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	23.40dBm	
	LTE Band 4:	23.18dBm	
	LTE Band 7:	22.88dBm	
	LTE Band 12:	15.90dBm	
	LTE Band 13:	14.55dBm	
	LTE Band 17:	15.48dBm	
	LTE Band 66:	22.46dBm	
Rated Power Supply Voltage:	3.8V		
Extreme Voltage	Minimum: 3.6V Maximum: 4.4V		
Extreme Temperature	Lowest: -10°C Highest: +55°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 7	2500 ~ 2570	2620 ~ 2690

	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 13	777 ~ 787	746 ~ 756
	LTE Band 17	704~716	734 ~ 746
	LTE Band 66	1710 ~ 1780	2110 ~ 2180
EUT Accessory			
Adapter 1	Manufacturer: SHENZHEN TIANYIN ELECTRONICS CO.,LTD. Model: CH-21E		
Adapter 2	Manufacturer: Jiangsu Chenyang Electron Co., Ltd. Model: AD-10WE		
Adapter 3	Manufacturer: SHENZHEN TIANYIN ELECTRONICS CO.,LTD. Model: CH-21U		
Adapter 4	Manufacturer: SHENZHEN TIANYIN ELECTRONICS CO.,LTD. Model: CH-21N		
Adapter 5	Manufacturer: SHENZHEN TIANYIN ELECTRONICS CO.,LTD. Model: CH-21X		
Adapter 6	Manufacturer: SHENZHEN TIANYIN ELECTRONICS CO.,LTD. Model: CH-21A		
Adapter 7	Manufacturer: DONGGUAN AOHAI POWER TECHNOLOGY CO., LTD. Model: AD-10WR		
Adapter 8	Manufacturer: SHENZHEN TIANYIN ELECTRONICS CO.,LTD. Model: CH-21B		
Battery 1	Manufacturer: Jiade Energy Technology(Zhuhai)Co., Ltd. Model: LC-620U		
Battery 2	Manufacturer: Veken Model: LC-620U		
Earphone 1	Manufacturer: Huizhou New Leader Industry Co., Ltd. Model: NLD-EM300M-03SF		
Earphone 2	Manufacturer: Xiaolin Electronics Model: XL-5178		
USB Cable 1	Manufacturer: Xiamen Li Qi Electronics Co., Ltd. Model: LQ03500090		
USB Cable 2	Manufacturer: Saibao (Jiangxi) Industrial Co. , Ltd. Model: SLQ-A125A		

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, Battery, Earphone and USB Cable, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 1, Battery 1) will be recorded in this report.

Antenna Gain:

Band	Antenna Gain(dBi)		
	Low channel	Middle channel	High channel
WCDMA Band IV:	-1.20	-0.50	-0.60
LTE Band 4:	-1.20	-0.50	-0.60
LTE Band 7:	-0.40	-1.00	-0.80
LTE Band 12:	-6.52	-5.73	-5.73
LTE Band 13:	-6.59	-6.59	-6.59
LTE Band 17:	-5.73	-5.73	-5.73
LTE Band 66:	-1.20	-0.60	-0.50

3 Applied Standards

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

Test standards:

FCC CFR47 Part 27C (2019)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2019)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

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

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

All mode and data rates and positions and RB size and modulations were investigated.
Subsequently, only the worst case emissions are reported.
The following testing in WCDMA/LTE is set based on the maximum RF Output Power.
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 for WCDMA Band IV:

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

Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/7/12/13/17/66:

Test items	Modes	Bandwidth (MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	50%	100%	L	M	H
RF Power Output and Effective Isotropic Radiated Power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O	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 13	-	-	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 66	O	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	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 13	-	-	O	O	-	-	O	O	O			O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	O	-	-	O	O	O	O
	LTE 66	O	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	-	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 13	-	-	O	O	-	-	O	O	O	O	-	O	O	-	O
	LTE 17	-	-	O	O	-	-	O	O	O	O	-	O	O	-	O
	LTE 66	O	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	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 13	-	-	O	O	-	-	O	O	O	-	-	O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	O	-	-	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	O	O	O	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 13	-	-	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 66	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Spurious Emissions at Antenna Terminals	LTE 4	O	O	O	O	O	O	O	-	-	O	-	-	O	O	O
	LTE 7	-	-	O	O	O	O	O	-	-	O	-	-	O	O	O
	LTE 12	O	O	O	O	-	-	O	-	-	O	-	-	O	O	O
	LTE 13	-	-	O	O	-	-	O	-	-	O	-	-	O	O	O
	LTE 17	-	-	O	O	-	-	O	-	-	O	-	-	O	O	O
	LTE 66	O	O	O	O	O	O	O	-	-	O	-	-	O	O	O
Radiates	LTE 4	O	-	O	-	-	O	O	-	-	O	-	-	-	O	-

Spurious Emission	LTE 7	-	-	O	-	-	O	O	-	-	O	-	-	-	O	-
	LTE 12	O	-	O	O	-	-	O	-	-	O	-	-	-	O	-
	LTE 13	-	-	O	O	-	-	O	-	-	O	-	-	-	O	-
	LTE 17	-	-	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

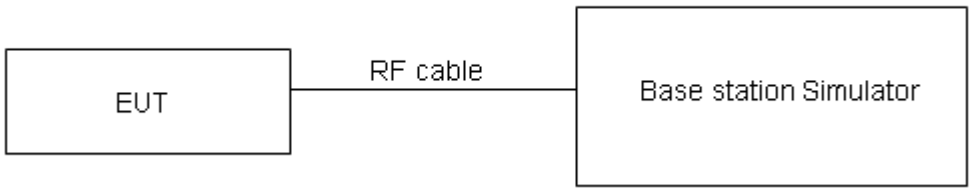
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

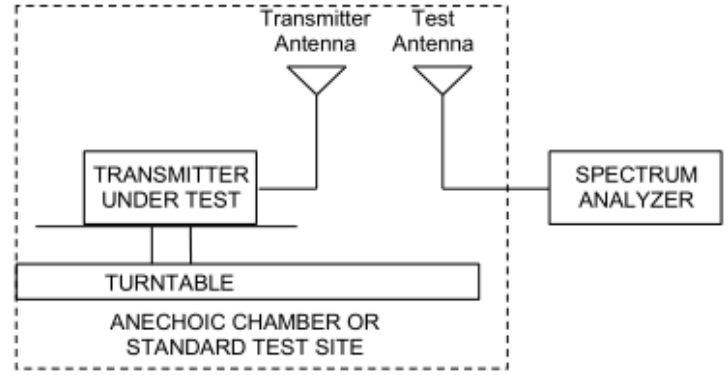
During the process of the testing, The EUT is controlled by the Base Station Simulator to ensure max power transmission and proper modulation.

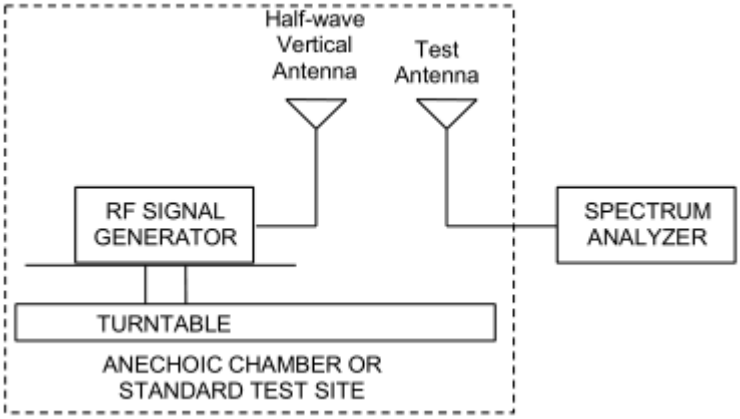
1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
a) Connect the equipment as illustrated. Mount the equipment with the manufacturer specified antenna in a vertical orientation on a manufacturer specified mounting surface located on a non-conducting rotating platform of a RF anechoic chamber (preferred) or a standard radiation site.
b) Key the transmitter, then rotate the EUT 360° azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment. (Note: several batteries may be needed to offset the effect of battery voltage droop, which should not exceed 5% of the manufactured specified battery voltage during transmission).
c) Replace the transmitter under test with a vertically polarized half-wave dipole (or an antenna whose gain is known relative to an ideal half-wave dipole). The center of the antenna should be at the same location as the center of the antenna under test.
d) Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading.LOSS = Generator Output Power (dBm) – Analyzer reading (dBm)
e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation:ERP (dBm) = LVL (dBm) + LOSS (dB)
f) The maximum ERP is the maximum value determined in the preceding step.
g) When calculating ERP, in addition to knowing the antenna radiation and matching characteristics, it is necessary to know the loss values of all elements (e.g.transmission line attenuation, mismatches, filters, combiners) interposed between the point where transmitter output power is measured, and the point where power is applied to the antenna. 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.)
The RB allocation refers to section 5.1, using the maximum output power configuration.

Test Setup



The loss between RF output port of the EUT and the input port of the tester has been taken into consideration.





Note: Area side:2.4mX3.6m

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

Limits

No specific RF power output requirements in part 2.1046.

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

Rule Part 27.50(c) (10) specifies that “Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP”

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

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

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

Test Results

WCDMA Band IV		Conducted 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	23.82	23.90	23.80	22.62	23.40	23.20
AMR	12.2k	23.66	23.73	23.65	22.46	23.23	23.05
HSDPA	Sub - Test 1	23.24	23.32	23.22	22.04	22.82	22.62
	Sub - Test 2	23.23	23.31	23.21	22.03	22.81	22.61
	Sub - Test 3	22.72	22.80	22.70	21.52	22.30	22.10
	Sub - Test 4	22.71	22.79	22.69	21.51	22.29	22.09
HSUPA	Sub - Test 1	23.20	23.28	23.18	22.00	22.78	22.58
	Sub - Test 2	22.19	22.27	22.17	20.99	21.77	21.57
	Sub - Test 3	22.67	22.76	22.66	21.47	22.26	22.06
	Sub - Test 4	22.16	22.25	22.15	20.96	21.75	21.55
	Sub - Test 5	23.15	23.24	23.14	21.95	22.74	22.54

LTE Band 4									
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				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	23.64	23.22	23.62	22.44	22.72	23.02
		1	2	23.61	23.64	23.56	22.41	23.14	22.96
		1	5	23.61	23.45	23.43	22.41	22.95	22.83
		3	0	23.56	23.60	23.62	22.36	23.10	23.02
		3	2	23.65	23.64	23.60	22.45	23.14	23.00
		3	3	23.52	23.52	23.47	22.32	23.02	22.87
		6	0	22.67	22.72	22.56	21.47	22.22	21.96
	16QAM	1	0	22.95	23.32	22.89	21.75	22.82	22.29
		1	2	22.93	22.96	22.90	21.73	22.46	22.30
		1	5	22.84	22.93	22.88	21.64	22.43	22.28
		3	0	22.68	22.73	22.64	21.48	22.23	22.04
		3	2	22.83	22.71	22.62	21.63	22.21	22.02
		3	3	22.60	22.63	22.54	21.40	22.13	21.94
		6	0	21.77	21.69	21.72	20.57	21.19	21.12
	64QAM	1	0	22.84	22.87	22.79	21.64	22.37	22.19
		1	2	22.92	22.77	22.71	21.72	22.27	22.11
		1	5	22.73	22.70	22.61	21.53	22.20	22.01
		3	0	22.60	22.65	22.67	21.40	22.15	22.07
		3	2	22.82	22.60	22.69	21.62	22.10	22.09
		3	3	22.61	22.60	22.57	21.41	22.10	21.97
		6	0	21.76	21.72	21.64	20.56	21.22	21.04
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				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	23.66	23.26	23.65	22.46	22.76	23.05
		1	7	23.59	23.67	23.60	22.39	23.17	23.00
		1	14	23.64	23.50	23.47	22.44	23.00	22.87
		8	0	22.66	22.72	22.75	21.46	22.22	22.15
		8	4	22.77	22.74	22.72	21.57	22.24	22.12
		8	7	22.62	22.63	22.57	21.42	22.13	21.97
		15	0	22.67	22.76	22.59	21.47	22.26	21.99
	16QAM	1	0	22.98	23.34	22.92	21.78	22.84	22.32
		1	7	22.96	22.96	22.94	21.76	22.46	22.34
		1	14	22.86	22.97	22.91	21.66	22.47	22.31
		8	0	21.79	21.86	21.76	20.59	21.36	21.16
		8	4	21.94	21.84	21.74	20.74	21.34	21.14

		8	7	21.70	21.75	21.67	20.50	21.25	21.07
		15	0	21.80	21.73	21.75	20.60	21.23	21.15
	64QAM	1	0	22.87	22.89	22.82	21.67	22.39	22.22
		1	7	22.95	22.77	22.73	21.75	22.27	22.13
		1	14	22.75	22.69	22.64	21.55	22.19	22.04
		8	0	21.71	21.78	21.79	20.51	21.28	21.19
		8	4	21.93	21.73	21.81	20.73	21.23	21.21
		8	7	21.71	21.72	21.70	20.51	21.22	21.10
		15	0	21.79	21.76	21.67	20.59	21.26	21.07
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				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	23.63	23.24	23.61	22.43	22.74	23.01
		1	13	23.57	23.63	23.57	22.37	23.13	22.97
		1	24	23.61	23.45	23.43	22.41	22.95	22.83
		12	0	22.63	22.67	22.71	21.43	22.17	22.11
		12	6	22.75	22.70	22.67	21.55	22.20	22.07
		12	13	22.60	22.61	22.53	21.40	22.11	21.93
		25	0	22.67	22.75	22.57	21.47	22.25	21.97
	16QAM	1	0	22.95	23.30	22.89	21.75	22.80	22.29
		1	13	22.93	22.94	22.91	21.73	22.44	22.31
		1	24	22.83	22.95	22.87	21.63	22.45	22.27
		12	0	21.77	21.82	21.73	20.57	21.32	21.13
		12	6	21.91	21.79	21.70	20.71	21.29	21.10
		12	13	21.67	21.70	21.63	20.47	21.20	21.03
		25	0	21.78	21.69	21.70	20.58	21.19	21.10
	64QAM	1	0	22.84	22.89	22.79	21.64	22.39	22.19
		1	13	22.92	22.79	22.70	21.72	22.29	22.10
		1	24	22.76	22.67	22.60	21.56	22.17	22.00
		12	0	21.69	21.74	21.80	20.49	21.24	21.20
		12	6	21.90	21.68	21.77	20.70	21.18	21.17
		12	13	21.68	21.67	21.66	20.48	21.17	21.06
		25	0	21.77	21.72	21.62	20.57	21.22	21.02
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				20000/ 1715	20175/ 1732.5	20350/ 1750	20000/ 1715	20175/ 1732.5	20350/ 1750
10MHz	QPSK	1	0	23.65	23.25	23.64	22.45	22.75	23.04
		1	25	23.60	23.68	23.61	22.40	23.18	23.01
		1	49	23.63	23.49	23.46	22.43	22.99	22.86
		25	0	22.66	22.72	22.75	21.46	22.22	22.15
		25	13	22.78	22.75	22.71	21.58	22.25	22.11

		25	25	22.62	22.65	22.58	21.42	22.15	21.98
		50	0	22.71	22.77	22.61	21.51	22.27	22.01
	16QAM	1	0	22.97	23.33	22.91	21.77	22.83	22.31
		1	25	22.96	22.98	22.94	21.76	22.48	22.34
		1	49	22.86	22.97	22.90	21.66	22.47	22.30
		25	0	21.80	21.87	21.77	20.60	21.37	21.17
		25	13	21.93	21.83	21.73	20.73	21.33	21.13
		25	25	21.70	21.75	21.67	20.50	21.25	21.07
		50	0	21.81	21.74	21.74	20.61	21.24	21.14
	64QAM	1	0	22.86	22.88	22.81	21.66	22.38	22.21
		1	25	22.95	22.79	22.73	21.75	22.29	22.13
		1	49	22.75	22.69	22.63	21.55	22.19	22.03
		25	0	21.72	21.79	21.80	20.52	21.29	21.20
		25	13	21.92	21.72	21.80	20.72	21.22	21.20
		25	25	21.71	21.72	21.70	20.51	21.22	21.10
		50	0	21.80	21.77	21.66	20.60	21.27	21.06
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				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	23.64	23.21	23.62	22.44	22.71	23.02
		1	38	23.58	23.67	23.58	22.38	23.17	22.98
		1	74	23.60	23.44	23.42	22.40	22.94	22.82
		36	0	22.64	22.68	22.72	21.44	22.18	22.12
		36	18	22.75	22.70	22.67	21.55	22.20	22.07
		36	39	22.59	22.62	22.54	21.39	22.12	21.94
		75	0	22.69	22.73	22.56	21.49	22.23	21.96
	16QAM	1	0	22.92	23.31	22.89	21.72	22.81	22.29
		1	38	22.94	22.95	22.92	21.74	22.45	22.32
		1	74	22.83	22.93	22.87	21.63	22.43	22.27
		36	0	21.77	21.85	21.74	20.57	21.35	21.14
		36	18	21.90	21.78	21.69	20.70	21.28	21.09
		36	39	21.68	21.71	21.64	20.48	21.21	21.04
		75	0	21.78	21.69	21.70	20.58	21.19	21.10
	64QAM	1	0	22.81	22.86	22.79	21.61	22.36	22.19
		1	38	22.93	22.76	22.71	21.73	22.26	22.11
		1	74	22.76	22.68	22.64	21.56	22.18	22.04
		36	0	21.71	21.81	21.81	20.51	21.31	21.21
		36	18	21.90	21.69	21.79	20.70	21.19	21.19
		36	39	21.69	21.68	21.67	20.49	21.18	21.07
		75	0	21.77	21.72	21.62	20.57	21.22	21.02
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					

				20050/ 1720	20175/ 1732.5	20300/ 1745	20050/ 1720	20175/ 1732.5	20300/ 1745
20MHz	QPSK	1	0	23.61	23.17	23.59	22.41	22.67	22.99
		1	50	23.57	23.63	23.56	22.37	23.13	22.96
		1	99	23.58	23.43	23.39	22.38	22.93	22.79
		50	0	22.61	22.63	22.68	21.41	22.13	22.08
		50	25	22.73	22.66	22.64	21.53	22.16	22.04
		50	50	22.56	22.57	22.50	21.36	22.07	21.90
		100	0	22.66	22.68	22.52	21.46	22.18	21.92
	16QAM	1	0	22.79	23.27	22.84	21.59	22.77	22.24
		1	50	22.90	22.93	22.88	21.70	22.43	22.28
		1	99	22.81	22.90	22.85	21.61	22.40	22.25
		50	0	21.74	21.81	21.71	20.54	21.31	21.11
		50	25	21.87	21.76	21.66	20.67	21.26	21.06
		50	50	21.65	21.66	21.60	20.45	21.16	21.00
		100	0	21.76	21.65	21.67	20.56	21.15	21.07
	64QAM	1	0	22.79	22.82	22.74	21.59	22.32	22.14
		1	50	22.89	22.74	22.67	21.69	22.24	22.07
		1	99	22.70	22.62	22.58	21.50	22.12	21.98
		50	0	21.66	21.73	21.74	20.46	21.23	21.14
		50	25	21.86	21.65	21.73	20.66	21.15	21.13
		50	50	21.66	21.63	21.63	20.46	21.13	21.03
		100	0	21.75	21.68	21.59	20.55	21.18	20.99

LTE Band 7									
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				20775/ 2502.5	21100/ 2535	21425/ 2567.5	20775/ 2502.5	21100/ 2535	21425/ 2567.5
5MHz	QPSK	1	0	23.21	23.09	22.96	22.81	22.09	22.16
		1	13	23.25	23.00	23.06	22.85	22.00	22.26
		1	24	23.14	23.17	23.05	22.74	22.17	22.25
		12	0	22.27	22.03	22.10	21.87	21.03	21.30
		12	6	22.24	22.08	22.12	21.84	21.08	21.32
		12	13	22.18	22.06	22.13	21.78	21.06	21.33
		25	0	22.21	22.13	22.09	21.81	21.13	21.29
	16QAM	1	0	22.51	22.42	22.34	22.11	21.42	21.54
		1	13	22.49	22.51	22.64	22.09	21.51	21.84
		1	24	22.32	22.52	22.53	21.92	21.52	21.73
		12	0	21.36	21.05	21.22	20.96	20.05	20.42
		12	6	21.36	21.15	21.31	20.96	20.15	20.51
		12	13	21.24	21.22	21.34	20.84	20.22	20.54

		25	0	21.31	21.17	21.24	20.91	20.17	20.44
	64QAM	1	0	22.40	22.26	22.28	22.00	21.26	21.48
		1	13	22.47	22.23	22.68	22.07	21.23	21.88
		1	24	22.37	22.51	22.48	21.97	21.51	21.68
		12	0	21.29	21.06	21.22	20.89	20.06	20.42
		12	6	21.33	21.13	21.27	20.93	20.13	20.47
		12	13	21.26	21.17	21.35	20.86	20.17	20.55
		25	0	21.31	21.22	21.23	20.91	20.22	20.43
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				20800/ 2505	21100/ 2535	21400/ 2565	20800/ 2505	21100/ 2535	21400/ 2565
10MHz	QPSK	1	0	23.23	23.10	22.99	22.83	22.10	22.19
		1	25	23.28	23.05	23.10	22.88	22.05	22.30
		1	49	23.16	23.21	23.08	22.76	22.21	22.28
		25	0	22.30	22.08	22.14	21.90	21.08	21.34
		25	13	22.27	22.13	22.16	21.87	21.13	21.36
		25	25	22.20	22.10	22.18	21.80	21.10	21.38
		50	0	22.25	22.15	22.13	21.85	21.15	21.33
	16QAM	1	0	22.53	22.45	22.36	22.13	21.45	21.56
		1	25	22.52	22.55	22.67	22.12	21.55	21.87
		1	49	22.35	22.54	22.56	21.95	21.54	21.76
		25	0	21.39	21.10	21.26	20.99	20.10	20.46
		25	13	21.38	21.19	21.34	20.98	20.19	20.54
		25	25	21.27	21.27	21.38	20.87	20.27	20.58
		50	0	21.34	21.22	21.28	20.94	20.22	20.48
	64QAM	1	0	22.42	22.25	22.30	22.02	21.25	21.50
		1	25	22.50	22.23	22.71	22.10	21.23	21.91
		1	49	22.36	22.53	22.51	21.96	21.53	21.71
		25	0	21.32	21.11	21.22	20.92	20.11	20.42
		25	13	21.35	21.17	21.30	20.95	20.17	20.50
		25	25	21.29	21.22	21.39	20.89	20.22	20.59
		50	0	21.34	21.27	21.27	20.94	20.27	20.47
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				20825/ 2507.5	21100/ 2535	21375/ 2562.5	20825/ 2507.5	21100/ 2535	21375/ 2562.5
15MHz	QPSK	1	0	23.22	23.06	22.97	22.82	22.06	22.17
		1	38	23.26	23.04	23.07	22.86	22.04	22.27
		1	74	23.13	23.16	23.04	22.73	22.16	22.24
		36	0	22.28	22.04	22.11	21.88	21.04	21.31
		36	18	22.24	22.08	22.12	21.84	21.08	21.32
		36	39	22.17	22.07	22.14	21.77	21.07	21.34

		75	0	22.23	22.11	22.08	21.83	21.11	21.28
	16QAM	1	0	22.48	22.43	22.34	22.08	21.43	21.54
		1	38	22.50	22.52	22.65	22.10	21.52	21.85
		1	74	22.32	22.50	22.53	21.92	21.50	21.73
		36	0	21.36	21.08	21.23	20.96	20.08	20.43
		36	18	21.35	21.14	21.30	20.95	20.14	20.50
		36	39	21.25	21.23	21.35	20.85	20.23	20.55
		75	0	21.31	21.17	21.24	20.91	20.17	20.44
	64QAM	1	0	22.37	22.23	22.28	21.97	21.23	21.48
		1	38	22.48	22.20	22.69	22.08	21.20	21.89
		1	74	22.37	22.52	22.52	21.97	21.52	21.72
		36	0	21.31	21.13	21.23	20.91	20.13	20.43
		36	18	21.33	21.14	21.29	20.93	20.14	20.49
		36	39	21.27	21.18	21.36	20.87	20.18	20.56
		75	0	21.31	21.22	21.23	20.91	20.22	20.43

Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				20850/ 2510	21100/ 2535	21350/ 2560	20850/ 2510	21100/ 2535	21350/ 2560
20MHz	QPSK	1	0	23.19	23.02	22.94	22.79	22.02	22.14
		1	50	23.25	23.00	23.05	22.85	22.00	22.25
		1	99	23.11	23.15	23.01	22.71	22.15	22.21
		50	0	22.25	21.99	22.07	21.85	20.99	21.27
		50	25	22.22	22.04	22.09	21.82	21.04	21.29
		50	50	22.14	22.02	22.10	21.74	21.02	21.30
		100	0	22.20	22.06	22.04	21.80	21.06	21.24
	16QAM	1	0	22.39	22.39	22.29	21.99	21.39	21.49
		1	50	22.46	22.50	22.61	22.06	21.50	21.81
		1	99	22.30	22.47	22.51	21.90	21.47	21.71
		50	0	21.33	21.04	21.20	20.93	20.04	20.40
		50	25	21.32	21.12	21.27	20.92	20.12	20.47
		50	50	21.22	21.18	21.31	20.82	20.18	20.51
		100	0	21.29	21.13	21.21	20.89	20.13	20.41
	64QAM	1	0	22.35	22.19	22.23	21.95	21.19	21.43
		1	50	22.44	22.18	22.65	22.04	21.18	21.85
		1	99	22.31	22.46	22.46	21.91	21.46	21.66
		50	0	21.26	21.05	21.16	20.86	20.05	20.36
		50	25	21.29	21.10	21.23	20.89	20.10	20.43
		50	50	21.24	21.13	21.32	20.84	20.13	20.52
		100	0	21.29	21.18	21.20	20.89	20.18	20.40

LTE Band 12									
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				23017/ 699.7	23095/ 707.5	23173/ 715.3	23017/ 699.7	23095/ 707.5	23173/ 715.3
1.4MHz	QPSK	1	0	23.17	23.31	23.15	14.50	15.43	15.27
		1	2	23.27	23.12	23.18	14.60	15.24	15.30
		1	5	23.23	23.23	23.21	14.56	15.35	15.33
		3	0	23.70	23.71	23.68	15.03	15.83	15.80
		3	2	23.76	23.78	23.73	15.09	15.90	15.85
		3	3	23.76	23.64	23.68	15.09	15.76	15.80
		6	0	22.77	22.71	22.74	14.10	14.83	14.86
	16QAM	1	0	23.06	23.25	23.17	14.39	15.37	15.29
		1	2	23.04	23.21	23.15	14.37	15.33	15.27
		1	5	23.15	23.10	23.10	14.48	15.22	15.22
		3	0	22.70	22.86	22.72	14.03	14.98	14.84
		3	2	22.81	22.81	22.76	14.14	14.93	14.88
		3	3	22.84	22.78	22.76	14.17	14.90	14.88
		6	0	21.85	21.92	21.83	13.18	14.04	13.95
	64QAM	1	0	22.82	22.81	22.87	14.15	14.93	14.99
		1	2	22.93	22.90	22.87	14.26	15.02	14.99
		1	5	22.89	22.94	22.87	14.22	15.06	14.99
		3	0	22.76	22.71	22.77	14.09	14.83	14.89
		3	2	22.80	22.77	22.70	14.13	14.89	14.82
		3	3	22.81	22.80	22.66	14.14	14.92	14.78
		6	0	21.84	21.88	21.75	13.17	14.00	13.87
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				23025/ 700.5	23095/ 707.5	23165/ 714.5	23025/ 700.5	23095/ 707.5	23165/ 714.5
3MHz	QPSK	1	0	23.19	23.35	23.18	14.52	15.47	15.30
		1	7	23.25	23.15	23.22	14.58	15.27	15.34
		1	14	23.26	23.28	23.25	14.59	15.40	15.37
		8	0	22.80	22.83	22.81	14.13	14.95	14.93
		8	4	22.88	22.88	22.85	14.21	15.00	14.97
		8	7	22.86	22.75	22.78	14.19	14.87	14.90
		15	0	22.77	22.75	22.77	14.10	14.87	14.89
	16QAM	1	0	23.09	23.27	23.20	14.42	15.39	15.32
		1	7	23.07	23.21	23.19	14.40	15.33	15.31
		1	14	23.17	23.14	23.13	14.50	15.26	15.25
		8	0	21.81	21.99	21.84	13.14	14.11	13.96

		8	4	21.92	21.94	21.88	13.25	14.06	14.00
		8	7	21.94	21.90	21.89	13.27	14.02	14.01
		15	0	21.88	21.96	21.86	13.21	14.08	13.98
	64QAM	1	0	22.85	22.83	22.90	14.18	14.95	15.02
		1	7	22.96	22.90	22.89	14.29	15.02	15.01
		1	14	22.91	22.93	22.90	14.24	15.05	15.02
		8	0	21.87	21.84	21.89	13.20	13.96	14.01
		8	4	21.91	21.90	21.82	13.24	14.02	13.94
		8	7	21.91	21.92	21.79	13.24	14.04	13.91
		15	0	21.87	21.92	21.78	13.20	14.04	13.90
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				23035/ 701.5	23095/ 707.5	23155/ 713.5	23035/ 701.5	23095/ 707.5	23155/ 713.5
5MHz	QPSK	1	0	23.16	23.33	23.14	14.49	15.45	15.26
		1	13	23.23	23.11	23.19	14.56	15.23	15.31
		1	24	23.23	23.23	23.21	14.56	15.35	15.33
		12	0	22.77	22.78	22.77	14.10	14.90	14.89
		12	6	22.86	22.84	22.80	14.19	14.96	14.92
		12	13	22.84	22.73	22.74	14.17	14.85	14.86
		25	0	22.77	22.74	22.75	14.10	14.86	14.87
	16QAM	1	0	23.06	23.23	23.17	14.39	15.35	15.29
		1	13	23.04	23.19	23.16	14.37	15.31	15.28
		1	24	23.14	23.12	23.09	14.47	15.24	15.21
		12	0	21.79	21.95	21.81	13.12	14.07	13.93
		12	6	21.89	21.89	21.84	13.22	14.01	13.96
		12	13	21.91	21.85	21.85	13.24	13.97	13.97
		25	0	21.86	21.92	21.81	13.19	14.04	13.93
	64QAM	1	0	22.82	22.83	22.87	14.15	14.95	14.99
		1	13	22.93	22.92	22.86	14.26	15.04	14.98
		1	24	22.92	22.91	22.86	14.25	15.03	14.98
		12	0	21.85	21.80	21.90	13.18	13.92	14.02
		12	6	21.88	21.85	21.78	13.21	13.97	13.90
		12	13	21.88	21.87	21.75	13.21	13.99	13.87
		25	0	21.85	21.88	21.73	13.18	14.00	13.85
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				23060/ 704	23095/ 707.5	23130/ 711	23060/ 704	23095/ 707.5	23130/ 711
10MHz	QPSK	1	0	23.14	23.26	23.12	14.47	15.38	15.24
		1	25	23.23	23.11	23.18	14.56	15.23	15.30
		1	49	23.20	23.21	23.17	14.53	15.33	15.29
		25	0	22.75	22.74	22.74	14.08	14.86	14.86

		25	13	22.84	22.80	22.77	14.17	14.92	14.89
		25	25	22.80	22.69	22.71	14.13	14.81	14.83
		50	0	22.76	22.67	22.70	14.09	14.79	14.82
	16QAM	1	0	23.11	23.20	23.12	14.44	15.32	15.24
		1	25	23.01	23.18	23.13	14.34	15.30	15.25
		1	49	23.12	23.07	23.07	14.45	15.19	15.19
		25	0	21.76	21.94	21.79	13.09	14.06	13.91
		25	13	21.85	21.86	21.80	13.18	13.98	13.92
		25	25	21.89	21.81	21.82	13.22	13.93	13.94
		50	0	21.84	21.88	21.78	13.17	14.00	13.90
	64QAM	1	0	22.77	22.76	22.82	14.10	14.88	14.94
		1	25	22.90	22.87	22.83	14.23	14.99	14.95
		1	49	22.86	22.86	22.84	14.19	14.98	14.96
		25	0	21.82	21.79	21.84	13.15	13.91	13.96
		25	13	21.84	21.82	21.74	13.17	13.94	13.86
		25	25	21.86	21.83	21.72	13.19	13.95	13.84
		50	0	21.83	21.84	21.70	13.16	13.96	13.82

LTE Band 13									
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				23205/ 779.5	23230/ 782	23255/ 784.5	23205/ 779.5	23230/ 782	23255/ 784.5
5MHz	QPSK	1	0	23.16	23.10	23.14	14.42	14.36	14.40
		1	13	23.26	23.16	23.26	14.52	14.42	14.52
		1	24	23.29	23.15	23.26	14.55	14.41	14.52
		12	0	22.83	22.73	22.81	14.09	13.99	14.07
		12	6	22.82	22.72	22.80	14.08	13.98	14.06
		12	13	22.81	22.69	22.77	14.07	13.95	14.03
		25	0	22.87	22.79	22.86	14.13	14.05	14.12
	16QAM	1	0	22.99	22.76	22.87	14.25	14.02	14.13
		1	13	22.97	22.83	22.94	14.23	14.09	14.20
		1	24	23.11	23.03	23.09	14.37	14.29	14.35
		12	0	21.99	21.86	21.96	13.25	13.12	13.22
		12	6	22.00	21.86	21.96	13.26	13.12	13.22
		12	13	21.97	21.87	21.95	13.23	13.13	13.21
		25	0	21.83	21.73	21.81	13.09	12.99	13.07
	64QAM	1	0	22.94	22.87	22.84	14.20	14.13	14.10
		1	13	22.66	22.56	22.63	13.92	13.82	13.89
		1	24	22.90	22.78	22.84	14.16	14.04	14.10
		12	0	21.96	21.79	21.93	13.22	13.05	13.19
		12	6	21.90	21.76	21.86	13.16	13.02	13.12

		12	13	21.88	21.78	21.86	13.14	13.04	13.12
		25	0	21.89	21.79	21.87	13.15	13.05	13.13
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				/	23230/ 782	/	/	23230/ 782	/
10MHz	QPSK	1	0	/	23.03	/	/	14.29	/
		1	25	/	23.16	/	/	14.42	/
		1	49	/	23.13	/	/	14.39	/
		25	0	/	22.69	/	/	13.95	/
		25	13	/	22.68	/	/	13.94	/
		25	25	/	22.65	/	/	13.91	/
		50	0	/	22.72	/	/	13.98	/
	16QAM	1	0	/	22.73	/	/	13.99	/
		1	25	/	22.82	/	/	14.08	/
		1	49	/	22.98	/	/	14.24	/
		25	0	/	21.85	/	/	13.11	/
		25	13	/	21.83	/	/	13.09	/
		25	25	/	21.83	/	/	13.09	/
		50	0	/	21.69	/	/	12.95	/
	64QAM	1	0	/	22.80	/	/	14.06	/
		1	25	/	22.51	/	/	13.77	/
		1	49	/	22.73	/	/	13.99	/
		25	0	/	21.78	/	/	13.04	/
		25	13	/	21.73	/	/	12.99	/
		25	25	/	21.74	/	/	13.00	/
		50	0	/	21.75	/	/	13.01	/

LTE Band 17									
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				23755/ 706.5	23790/ 710	23825/ 713.5	23755/ 706.5	23790/ 710	23825/ 713.5
5MHz	QPSK	1	0	23.22	23.28	23.24	15.34	15.40	15.36
		1	13	23.36	23.27	23.25	15.48	15.39	15.37
		1	24	23.35	23.27	23.25	15.47	15.39	15.37
		12	0	22.80	22.86	22.85	14.92	14.98	14.97
		12	6	22.82	22.89	22.87	14.94	15.01	14.99
		12	13	22.81	22.75	22.82	14.93	14.87	14.94
		25	0	22.80	22.87	22.80	14.92	14.99	14.92
	16QAM	1	0	23.31	23.21	23.20	15.43	15.33	15.32
		1	13	23.29	23.22	23.03	15.41	15.34	15.15

		1	24	23.14	23.27	23.17	15.26	15.39	15.29
		12	0	21.92	21.91	21.92	14.04	14.03	14.04
		12	6	21.94	21.90	21.91	14.06	14.02	14.03
		12	13	21.89	21.87	21.85	14.01	13.99	13.97
		25	0	21.97	21.95	21.82	14.09	14.07	13.94
	64QAM	1	0	23.04	22.95	23.01	15.16	15.07	15.13
		1	13	22.90	22.96	23.20	15.02	15.08	15.32
		1	24	22.98	23.06	23.22	15.10	15.18	15.34
		12	0	21.89	21.95	22.06	14.01	14.07	14.18
		12	6	21.89	21.92	21.99	14.01	14.04	14.11
		12	13	21.89	21.82	21.91	14.01	13.94	14.03
		25	0	21.97	21.88	21.88	14.09	14.00	14.00
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			ERP (dBm)		
				Channel/Frequency(MHz)					
				23780/ 709	23790/ 710	23800/ 711	23780/ 709	23790/ 710	23800/ 711
10MHz	QPSK	1	0	23.20	23.21	23.22	15.32	15.33	15.34
		1	25	23.36	23.27	23.24	15.48	15.39	15.36
		1	49	23.32	23.25	23.21	15.44	15.37	15.33
		25	0	22.78	22.82	22.82	14.90	14.94	14.94
		25	13	22.80	22.85	22.84	14.92	14.97	14.96
		25	25	22.77	22.71	22.79	14.89	14.83	14.91
		50	0	22.79	22.80	22.75	14.91	14.92	14.87
	16QAM	1	0	23.02	23.18	23.15	15.14	15.30	15.27
		1	25	23.26	23.21	23.00	15.38	15.33	15.12
		1	49	23.12	23.22	23.15	15.24	15.34	15.27
		25	0	21.89	21.90	21.90	14.01	14.02	14.02
		25	13	21.90	21.87	21.87	14.02	13.99	13.99
		25	25	21.87	21.83	21.82	13.99	13.95	13.94
		50	0	21.95	21.91	21.79	14.07	14.03	13.91
	64QAM	1	0	22.99	22.88	22.96	15.11	15.00	15.08
		1	25	22.87	22.91	23.17	14.99	15.03	15.29
		1	49	22.92	23.01	23.20	15.04	15.13	15.32
		25	0	21.86	21.94	22.00	13.98	14.06	14.12
		25	13	21.85	21.89	21.95	13.97	14.01	14.07
		25	25	21.87	21.78	21.88	13.99	13.90	14.00
		50	0	21.95	21.84	21.85	14.07	13.96	13.97

LTE Band 66									
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				131979/	132322/	132665/	131979/	132322/	132665/

				1710.7	1745	1779.3	1710.7	1745	1779.3
1.4MHz	QPSK	1	0	22.86	22.95	22.92	21.66	22.35	22.42
		1	2	23.06	23.02	22.91	21.86	22.42	22.41
		1	5	22.91	22.87	22.85	21.71	22.27	22.35
		3	0	22.88	22.92	22.83	21.68	22.32	22.33
		3	2	22.84	22.88	22.71	21.64	22.28	22.21
		3	3	22.85	22.91	22.74	21.65	22.31	22.24
		6	0	21.89	21.96	21.90	20.69	21.36	21.40
	16QAM	1	0	22.45	22.46	22.20	21.25	21.86	21.70
		1	2	22.43	22.61	22.35	21.23	22.01	21.85
		1	5	22.24	22.53	22.19	21.04	21.93	21.69
		3	0	21.97	21.94	21.94	20.77	21.34	21.44
		3	2	21.90	21.91	22.01	20.70	21.31	21.51
		3	3	21.90	21.94	21.96	20.70	21.34	21.46
		6	0	20.99	21.03	21.01	19.79	20.43	20.51
	64QAM	1	0	22.12	22.32	22.19	20.92	21.72	21.69
		1	2	22.13	21.99	22.02	20.93	21.39	21.52
		1	5	22.09	22.17	22.24	20.89	21.57	21.74
		3	0	21.93	21.85	21.95	20.73	21.25	21.45
		3	2	21.98	21.79	21.95	20.78	21.19	21.45
		3	3	21.94	21.91	22.06	20.74	21.31	21.56
		6	0	21.01	20.94	21.01	19.81	20.34	20.51
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				131987/ 1711.5	132322/ 1745	132657/ 1778.5	131987/ 1711.5	132322/ 1745	132657/ 1778.5
3MHz	QPSK	1	0	22.88	22.99	22.95	21.68	22.39	22.45
		1	7	23.04	23.05	22.95	21.84	22.45	22.45
		1	14	22.94	22.92	22.89	21.74	22.32	22.39
		8	0	21.98	22.04	21.96	20.78	21.44	21.46
		8	4	21.96	21.98	21.83	20.76	21.38	21.33
		8	7	21.95	22.02	21.84	20.75	21.42	21.34
		15	0	21.89	22.00	21.93	20.69	21.40	21.43
	16QAM	1	0	22.48	22.48	22.23	21.28	21.88	21.73
		1	7	22.46	22.61	22.39	21.26	22.01	21.89
		1	14	22.26	22.57	22.22	21.06	21.97	21.72
		8	0	21.08	21.07	21.06	19.88	20.47	20.56
		8	4	21.01	21.04	21.13	19.81	20.44	20.63
		8	7	21.00	21.06	21.09	19.80	20.46	20.59
		15	0	21.02	21.07	21.04	19.82	20.47	20.54
	64QAM	1	0	22.15	22.34	22.22	20.95	21.74	21.72
		1	7	22.16	21.99	22.04	20.96	21.39	21.54
		1	14	22.11	22.16	22.27	20.91	21.56	21.77

		8	0	21.04	20.98	21.07	19.84	20.38	20.57
		8	4	21.09	20.92	21.07	19.89	20.32	20.57
		8	7	21.04	21.03	21.19	19.84	20.43	20.69
		15	0	21.04	20.98	21.04	19.84	20.38	20.54
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				131997/ 1712.5	132322/ 1745	132647/ 1777.5	131997/ 1712.5	132322/ 1745	132647/ 1777.5
5MHz	QPSK	1	0	22.85	22.97	22.91	21.65	22.37	22.41
		1	13	23.02	23.01	22.92	21.82	22.41	22.42
		1	24	22.91	22.87	22.85	21.71	22.27	22.35
		12	0	21.95	21.99	21.92	20.75	21.39	21.42
		12	6	21.94	21.94	21.78	20.74	21.34	21.28
		12	13	21.93	22.00	21.80	20.73	21.40	21.30
		25	0	21.89	21.99	21.91	20.69	21.39	21.41
	16QAM	1	0	22.45	22.44	22.20	21.25	21.84	21.70
		1	13	22.43	22.59	22.36	21.23	21.99	21.86
		1	24	22.23	22.55	22.18	21.03	21.95	21.68
		12	0	21.06	21.03	21.03	19.86	20.43	20.53
		12	6	20.98	20.99	21.09	19.78	20.39	20.59
		12	13	20.97	21.01	21.05	19.77	20.41	20.55
		25	0	21.00	21.03	20.99	19.80	20.43	20.49
	64QAM	1	0	22.12	22.34	22.19	20.92	21.74	21.69
		1	13	22.13	22.01	22.01	20.93	21.41	21.51
		1	24	22.12	22.14	22.23	20.92	21.54	21.73
		12	0	21.02	20.94	21.08	19.82	20.34	20.58
		12	6	21.06	20.87	21.03	19.86	20.27	20.53
		12	13	21.01	20.98	21.15	19.81	20.38	20.65
		25	0	21.02	20.94	20.99	19.82	20.34	20.49
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				132022/ 1715	132322/ 1745	132622/ 1775	132022/ 1715	132322/ 1745	132622/ 1775
10MHz	QPSK	1	0	22.87	22.98	22.94	21.67	22.38	22.44
		1	25	23.05	23.06	22.96	21.85	22.46	22.46
		1	49	22.93	22.91	22.88	21.73	22.31	22.38
		25	0	21.98	22.04	21.96	20.78	21.44	21.46
		25	13	21.97	21.99	21.82	20.77	21.39	21.32
		25	25	21.95	22.04	21.85	20.75	21.44	21.35
		50	0	21.93	22.01	21.95	20.73	21.41	21.45
	16QAM	1	0	22.47	22.47	22.22	21.27	21.87	21.72
		1	25	22.46	22.63	22.39	21.26	22.03	21.89
		1	49	22.26	22.57	22.21	21.06	21.97	21.71

		25	0	21.09	21.08	21.07	19.89	20.48	20.57
		25	13	21.00	21.03	21.12	19.80	20.43	20.62
		25	25	21.00	21.06	21.09	19.80	20.46	20.59
		50	0	21.03	21.08	21.03	19.83	20.48	20.53
	64QAM	1	0	22.14	22.33	22.21	20.94	21.73	21.71
		1	25	22.16	22.01	22.04	20.96	21.41	21.54
		1	49	22.11	22.16	22.26	20.91	21.56	21.76
		25	0	21.05	20.99	21.08	19.85	20.39	20.58
		25	13	21.08	20.91	21.06	19.88	20.31	20.56
		25	25	21.04	21.03	21.19	19.84	20.43	20.69
		50	0	21.05	20.99	21.03	19.85	20.39	20.53
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				132047/ 1717.5	132322/ 1745	132597/ 1772.5	132047/ 1717.5	132322/ 1745	132597/ 1772.5
15MHz	QPSK	1	0	22.86	22.94	22.92	21.66	22.34	22.42
		1	38	23.03	23.05	22.93	21.83	22.45	22.43
		1	74	22.90	22.86	22.84	21.70	22.26	22.34
		36	0	21.96	22.00	21.93	20.76	21.40	21.43
		36	18	21.94	21.94	21.78	20.74	21.34	21.28
		36	39	21.92	22.01	21.81	20.72	21.41	21.31
		75	0	21.91	21.97	21.90	20.71	21.37	21.40
	16QAM	1	0	22.42	22.45	22.20	21.22	21.85	21.70
		1	38	22.44	22.60	22.37	21.24	22.00	21.87
		1	74	22.23	22.53	22.18	21.03	21.93	21.68
		36	0	21.06	21.06	21.04	19.86	20.46	20.54
		36	18	20.97	20.98	21.08	19.77	20.38	20.58
		36	39	20.98	21.02	21.06	19.78	20.42	20.56
		75	0	21.00	21.03	20.99	19.80	20.43	20.49
	64QAM	1	0	22.09	22.31	22.19	20.89	21.71	21.69
		1	38	22.14	21.98	22.02	20.94	21.38	21.52
		1	74	22.12	22.15	22.27	20.92	21.55	21.77
		36	0	21.04	21.01	21.09	19.84	20.41	20.59
		36	18	21.06	20.88	21.05	19.86	20.28	20.55
		36	39	21.02	20.99	21.16	19.82	20.39	20.66
		75	0	21.02	20.94	20.99	19.82	20.34	20.49
Bandwidth	Modulation	RB allocation	offset	Conducted Power (dBm)			EIRP (dBm)		
				Channel/Frequency(MHz)					
				132072/ 1720	132322/ 1745	132572/ 1770	132072/ 1720	132322/ 1745	132572/ 1770
20MHz	QPSK	1	0	22.83	22.90	22.89	21.63	22.30	22.39
		1	50	23.02	23.01	22.91	21.82	22.41	22.41
		1	99	22.88	22.85	22.81	21.68	22.25	22.31

		50	0	21.93	21.95	21.89	20.73	21.35	21.39
		50	25	21.92	21.90	21.75	20.72	21.30	21.25
		50	50	21.89	21.96	21.77	20.69	21.36	21.27
		100	0	21.88	21.92	21.86	20.68	21.32	21.36
	16QAM	1	0	22.23	22.41	22.15	21.03	21.81	21.65
		1	50	22.40	22.58	22.33	21.20	21.98	21.83
		1	99	22.21	22.50	22.16	21.01	21.90	21.66
		50	0	21.03	21.02	21.01	19.83	20.42	20.51
		50	25	20.94	20.96	21.05	19.74	20.36	20.55
		50	50	20.95	20.97	21.02	19.75	20.37	20.52
		100	0	20.98	20.99	20.96	19.78	20.39	20.46
	64QAM	1	0	22.07	22.27	22.14	20.87	21.67	21.64
		1	50	22.10	21.96	21.98	20.90	21.36	21.48
		1	99	22.06	22.09	22.21	20.86	21.49	21.71
		50	0	20.99	20.93	21.02	19.79	20.33	20.52
		50	25	21.02	20.84	20.99	19.82	20.24	20.49
		50	50	20.99	20.94	21.12	19.79	20.34	20.62
		100	0	21.00	20.90	20.96	19.80	20.30	20.46

5.2 Occupied Bandwidth

Ambient condition

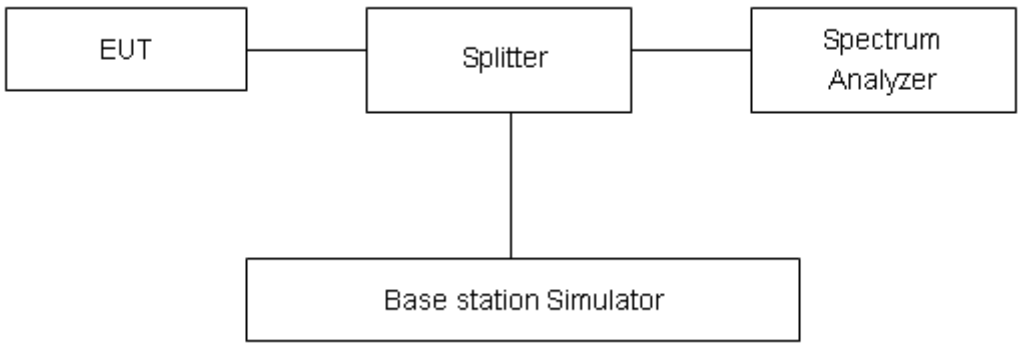
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 4/12/66 (1.4MHz).
RBW is set to 62 kHz, VBW is set to 180 kHz for LTE Band 4/12/66 (3MHz).
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7/12/13/17/66 (5MHz).
RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4/7/12/13/17/66 (10MHz).
RBW is set to 300 kHz, VBW is set to 910 kHz for LTE Band 4/7/66 (15MHz).
RBW is set to 430 kHz, VBW is set to 1.2 MHz for LTE Band 4/7/66 (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=624Hz.

Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
WCDMA Band IV (RMC)	1312	1712.4	4.1167	4.682
	1413	1732.6	4.1407	4.707
	1513	1752.6	4.1305	4.702

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	19957	1710.7	1.0987	1.236
			20175	1732.5	1.0877	1.237
			20393	1754.3	1.0973	1.240
		3	19965	1711.5	2.7122	2.993
			20175	1732.5	2.7029	3.000
			20385	1753.5	2.7142	3.025
		5	19975	1712.5	4.5242	4.946
			20175	1732.5	4.5083	4.949
			20375	1752.5	4.5116	4.945
		10	20000	1715	9.0184	9.732
			20175	1732.5	8.9593	9.746
			20350	1750	8.9717	9.720
		15	20025	1717.5	13.4410	14.760
			20175	1732.5	13.3840	14.570
			20325	1747.5	13.4220	14.570
		20	20050	1720	17.9450	19.480
			20175	1732.5	17.8630	19.240
			20300	1745	17.9070	19.270
	16QAM	1.4	19957	1710.7	1.0936	1.236
			20175	1732.5	1.0918	1.243
			20393	1754.3	1.0887	1.226
		3	19965	1711.5	2.7068	2.968
			20175	1732.5	2.6973	2.992
			20385	1753.5	2.7034	3.018
		5	19975	1712.5	4.5056	4.977
			20175	1732.5	4.5083	4.938
			20375	1752.5	4.5092	4.976
		10	20000	1715	9.0055	9.794
			20175	1732.5	8.9700	9.654

			20350	1750	8.9814	9.630
		15	20025	1717.5	13.4830	14.620
			20175	1732.5	13.4590	14.490
			20325	1747.5	13.4400	14.480
		20	20050	1720	17.9510	19.480
			20175	1732.5	17.8480	19.340
			20300	1745	17.9350	19.310
	64QAM	1.4	19957	1710.7	1.0937	1.241
			20175	1732.5	1.0890	1.240
			20393	1754.3	1.0886	1.224
		3	19965	1711.5	2.7135	3.025
			20175	1732.5	2.6986	3.015
			20385	1753.5	2.6996	3.016
		5	19975	1712.5	4.4980	4.928
			20175	1732.5	4.5015	4.897
			20375	1752.5	4.5281	4.942
		10	20000	1715	8.9907	9.748
			20175	1732.5	8.9848	9.801
			20350	1750	8.9770	9.733
		15	20025	1717.5	13.4480	14.690
			20175	1732.5	13.4490	14.380
			20325	1747.5	13.4910	14.500
		20	20050	1720	17.9510	19.210
			20175	1732.5	17.8930	19.260
			20300	1745	17.9260	19.230

LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	20775	2502.5	4.5043	4.910
			21100	2535	4.5255	4.918
			21425	2567.5	4.5254	4.893
		10	20800	2505	8.9931	9.895
			21100	2535	8.9695	9.796
			21400	2565	9.0012	9.784
		15	20825	2507.5	13.5000	14.690
			21100	2535	13.4460	14.560
			21375	2562.5	13.4340	14.650
		20	20850	2510	17.9940	19.490
			21100	2535	17.9160	19.290
			21350	2560	17.8320	19.170

	16QAM	5	20775	2502.5	4.5073	4.958
			21100	2535	4.5117	4.934
			21425	2567.5	4.5244	4.978
		10	20800	2505	8.9857	9.720
			21100	2535	8.9663	9.744
			21400	2565	8.9699	9.741
		15	20825	2507.5	13.4700	14.470
			21100	2535	13.4750	14.570
			21375	2562.5	13.4260	14.610
		20	20850	2510	17.9440	19.390
			21100	2535	17.9140	19.460
			21350	2560	17.8720	19.300
	64QAM	5	20775	2502.5	4.5148	4.992
			21100	2535	4.5148	4.968
			21425	2567.5	4.5062	4.939
		10	20800	2505	8.9939	9.759
			21100	2535	8.9731	9.726
			21400	2565	8.9879	9.752
		15	20825	2507.5	13.4410	14.620
			21100	2535	13.4540	14.550
			21375	2562.5	13.4620	14.510
		20	20850	2510	18.0470	19.340
			21100	2535	17.9240	19.510
			21350	2560	17.8990	19.320

LTE Band12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	23017	699.7	1.0999	1.236
			23095	707.5	1.0862	1.241
			23173	715.3	1.0907	1.231
		3	23025	700.5	2.7156	3.006
			23095	707.5	2.7138	2.989
			23165	714.5	2.7068	2.983
		5	23035	701.5	4.5210	4.943
			23095	707.5	4.5181	4.913
			23155	713.5	4.5156	4.908
		10	23060	704	9.0116	9.826
			23095	707.5	8.9760	9.724
			23130	711	8.9687	9.641

	16QAM	1.4	23017	699.7	1.0954	1.235
			23095	707.5	1.0906	1.244
			23173	715.3	1.0906	1.227
		3	23025	700.5	2.6979	2.970
			23095	707.5	2.6991	3.007
			23165	714.5	2.7076	2.986
		5	23035	701.5	4.5121	4.999
			23095	707.5	4.5222	4.890
			23155	713.5	4.5067	4.868
		10	23060	704	8.9855	9.785
			23095	707.5	8.9943	9.726
			23130	711	8.9232	9.646
	64QAM	1.4	23017	699.7	1.0945	1.225
			23095	707.5	1.0951	1.235
			23173	715.3	1.0859	1224.000
		3	23025	700.5	2.7043	2.990
			23095	707.5	2.7089	3.006
			23165	714.5	2.7040	3.000
		5	23035	701.5	4.4964	4.962
			23095	707.5	4.5242	4.982
			23155	713.5	4.5023	4.941
		10	23060	704	8.9951	9.750
			23095	707.5	8.9750	9.720
			23130	711	8.9437	9.652

LTE Band 13						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	23205	779.5	4.5038	4.948
			23230	782	4.5089	4.945
			23255	784.5	4.5109	4.931
		10	23230	782	8.9540	9.777
	16QAM	5	23205	779.5	4.5046	4.955
			23230	782	4.4976	4.895
			23255	784.5	4.5207	4.943
		10	23230	782	8.9742	9.737
	64QAM	5	23205	779.5	4.5107	4.982
			23230	782	4.5135	4.959
			23255	784.5	4.5055	4.939
		10	23230	782	8.9651	9.707

LTE Band 17						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	23755	706.5	4.5054	4.958
			23790	710	4.4995	4.945
			23825	713.5	4.5098	4.975
		10	23780	709	8.9636	9.664
			23790	710	8.9333	9.734
			23800	711	8.9158	9.760
	16QAM	5	23755	706.5	4.5330	5.001
			23790	710	4.4865	4.909
			23825	713.5	4.5262	4.927
		10	23780	709	8.9544	9.710
			23790	710	8.9428	9.724
			23800	711	8.9539	9.691
	64QAM	5	23755	706.5	4.5124	5.010
			23790	710	4.4995	4.895
			23825	713.5	4.5000	4.926
		10	23780	709	8.9800	9.738
			23790	710	8.9268	9.717
			23800	711	8.9254	9.694

LTE Band 66						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	131979	1710.7	1.0950	1.233
			132322	1745	1.0914	1.239
			132665	1779.3	1.0882	1.228
		3	131987	1711.5	2.7154	3.003
			132322	1745	2.7081	3.012
			132657	1778.5	2.7077	3.014
		5	131997	1712.5	4.5229	4.992
			132322	1745	4.5141	4.958
			132647	1777.5	4.5012	4.907
		10	132022	1715	8.9895	9.797
			132322	1745	8.9641	9.699
			132622	1775	8.9833	9.771

		15	132047	1717.5	13.4640	14.610
			132322	1745	13.4190	14.520
			132597	1772.5	13.4460	14.650
		20	132070	1720	17.9670	19.460
			132322	1745	17.8990	19.460
			132572	1770	17.9360	19.580
	16QAM	1.4	131979	1710.7	1.0951	1.242
			132322	1745	1.0933	1.241
			132665	1779.3	1.0869	1.227
		3	131987	1711.5	2.6997	2.988
			132322	1745	2.7016	3.015
			132657	1778.5	2.6995	2.999
		5	131997	1712.5	4.5210	4.961
			132322	1745	4.5063	4.973
			132647	1777.5	4.5093	4.997
		10	132022	1715	8.9888	9.709
			132322	1745	8.9912	9.678
			132622	1775	8.9582	9.816
		15	132047	1717.5	13.4620	14.470
			132322	1745	13.4500	14.530
			132597	1772.5	13.4800	14.490
		20	132070	1720	17.9490	19.460
			132322	1745	17.9110	19.270
			132572	1770	17.9810	19.360
	64QAM	1.4	131979	1710.7	1.0898	1.237
			132322	1745	1.0960	1.232
			132665	1779.3	1.0865	1.224
		3	131987	1711.5	2.6982	2.976
			132322	1745	2.6983	2.993
			132657	1778.5	2.7074	3.039
		5	131997	1712.5	4.4994	4.903
			132322	1745	4.4982	4.920
			132647	1777.5	4.5051	4.964
		10	132022	1715	8.9985	9.772
			132322	1745	8.9879	9.771
			132622	1775	8.9720	9.719
		15	132047	1717.5	13.4520	14.620
			132322	1745	13.4800	14.490
			132597	1772.5	13.4760	14.510
		20	132070	1720	17.9550	19.410
			132322	1745	17.8900	19.400
			132572	1770	17.9180	19.260

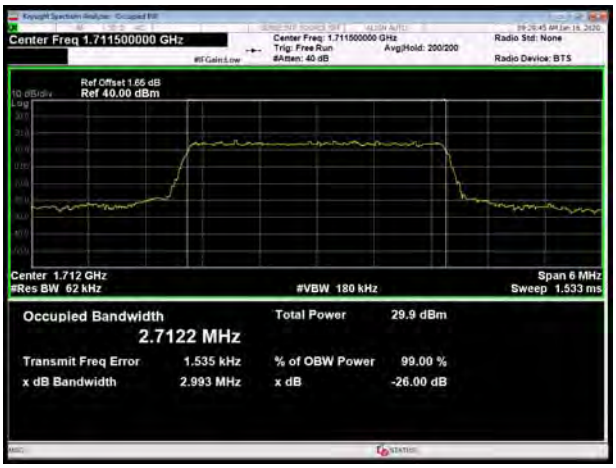
WCDMA Band IV CH-Low

WCDMA Band IV CH Middle

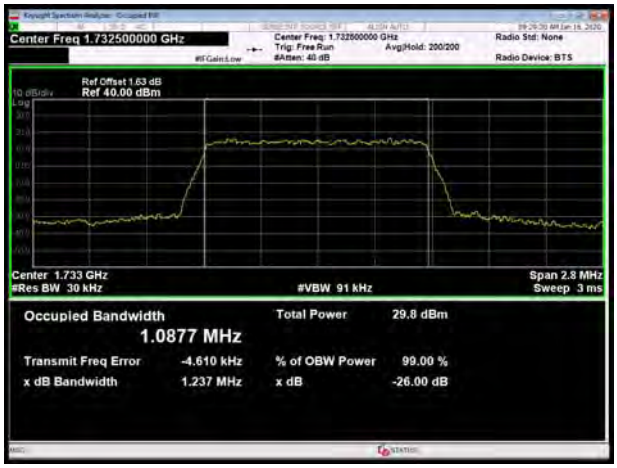
WCDMA Band IV CH High

LTE Band 4 QPSK 1.4MHz CH-Low

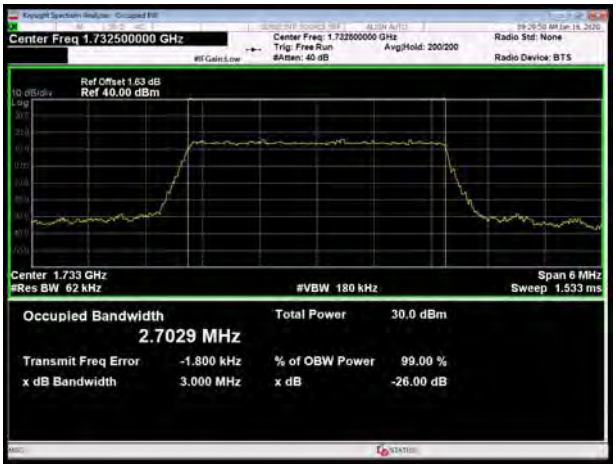
LTE Band 4 QPSK 3MHz CH-Low



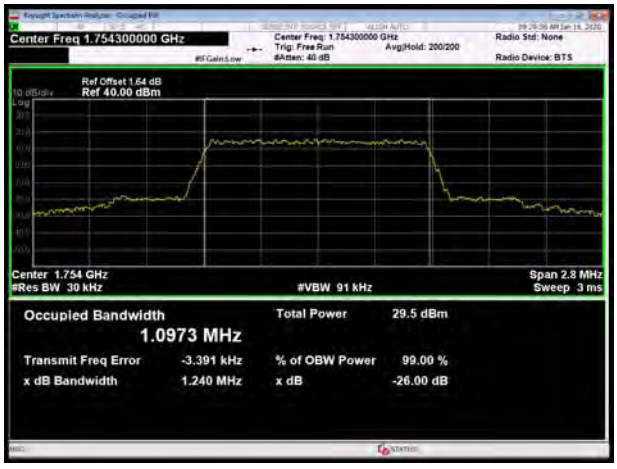
LTE Band 4 QPSK 1.4MHz CH-Middle



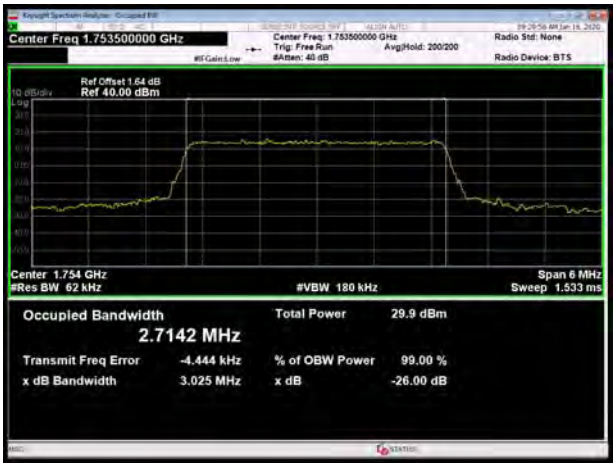
LTE Band 4 QPSK 3MHz CH-Middle



LTE Band 4 QPSK 1.4MHz CH-High

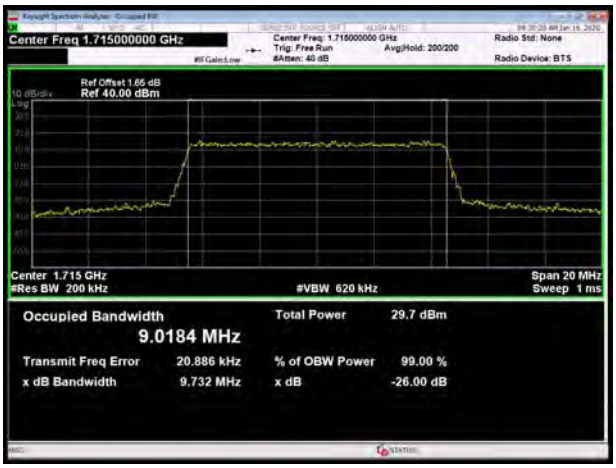


LTE Band 4 QPSK 3MHz CH-High



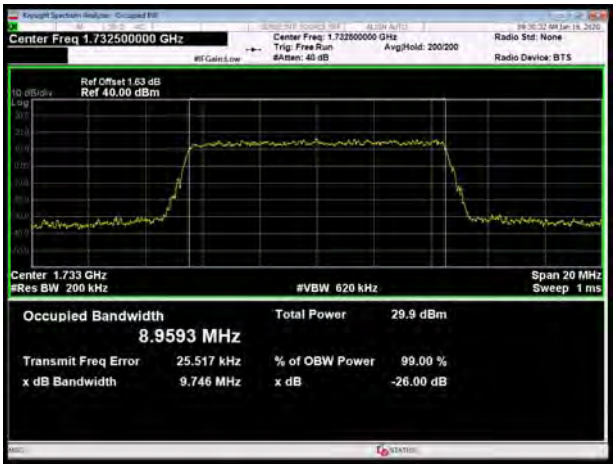
LTE Band 4 QPSK 5MHz CH-Low

LTE Band 4 QPSK 10MHz CH-Low

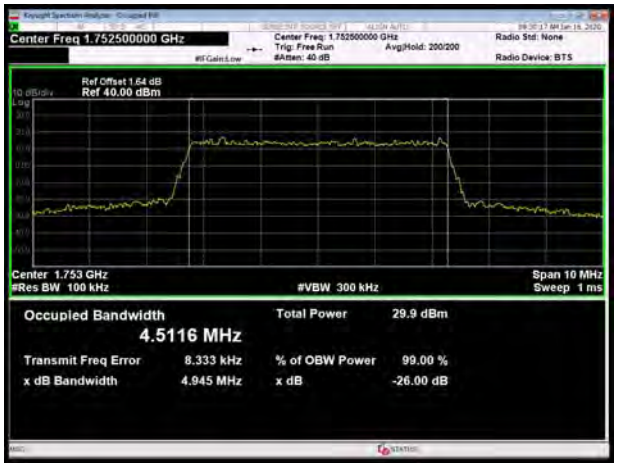


LTE Band 4 QPSK 5MHz CH-Middle

LTE Band 4 QPSK 10MHz CH-Middle



LTE Band 4 QPSK 5MHz CH-High

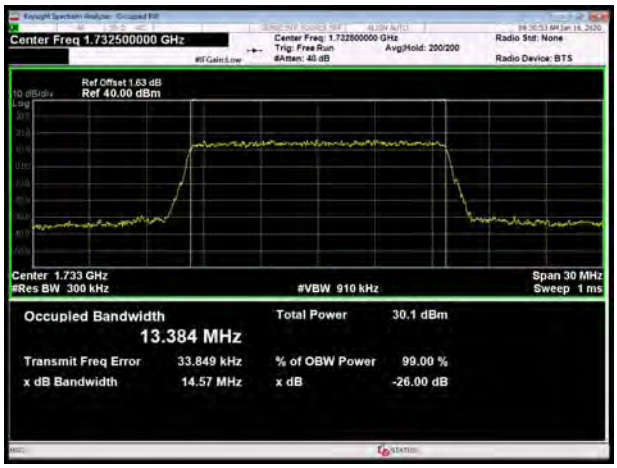


LTE Band 4 QPSK 10MHz CH-High

LTE Band 4 QPSK 15MHz CH-Low

LTE Band 4 QPSK 20MHz CH-Low

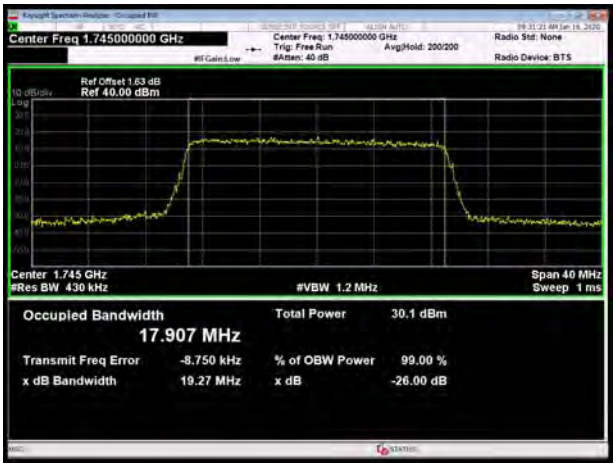
LTE Band 4 QPSK 15MHz CH-Middle



LTE Band 4 QPSK 20MHz CH-Middle

LTE Band 4 QPSK 15MHz CH-High

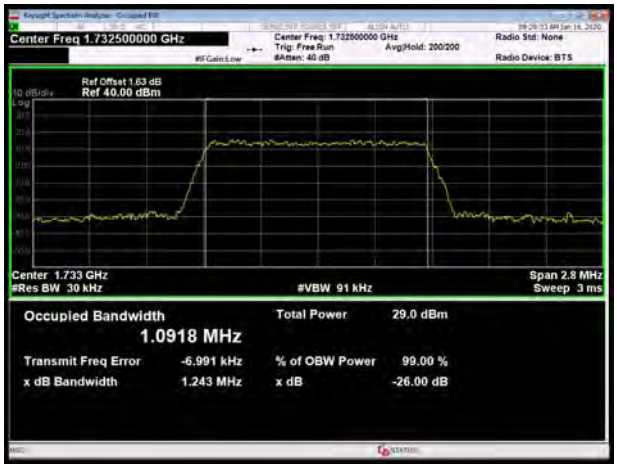
LTE Band 4 QPSK 20MHz CH-High



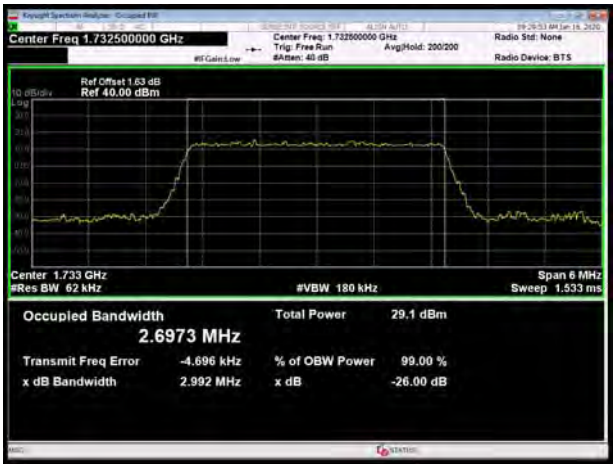
LTE Band 4 16QAM 1.4MHz CH-Low

LTE Band 4 16QAM 3MHz CH-Low

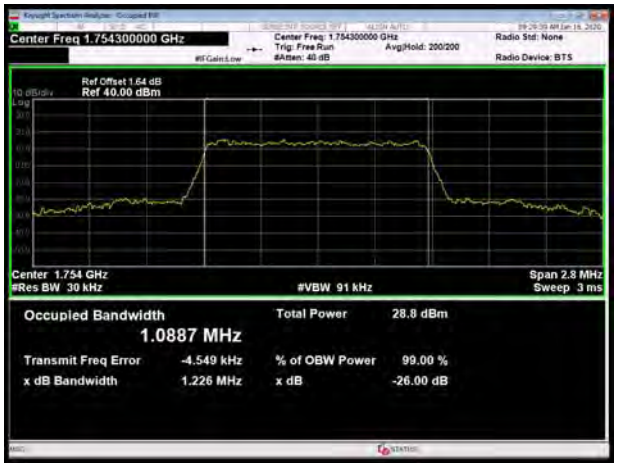
LTE Band 4 16QAM 1.4MHz CH-Middle



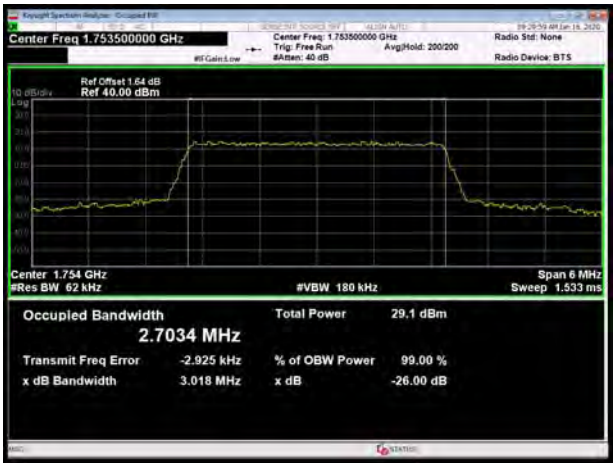
LTE Band 4 16QAM 3MHz CH-Middle



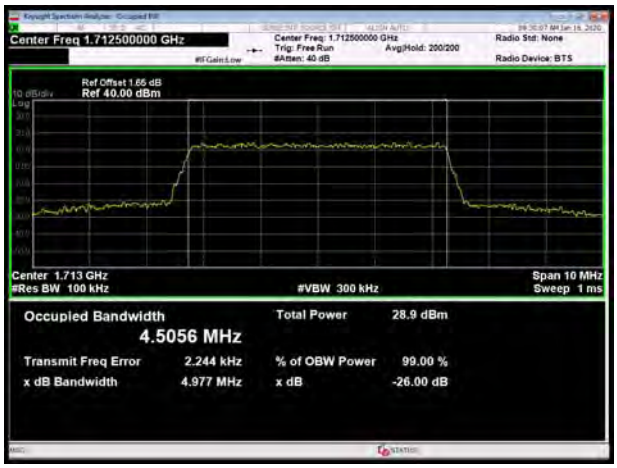
LTE Band 4 16QAM 1.4MHz CH-High



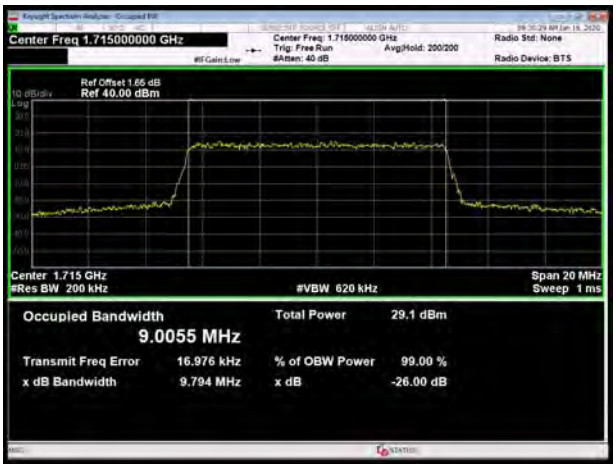
LTE Band 4 16QAM 3MHz CH-High



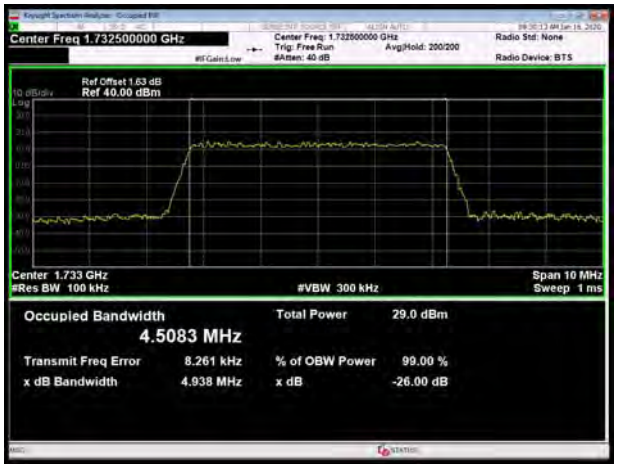
LTE Band 4 16QAM 5MHz CH-Low



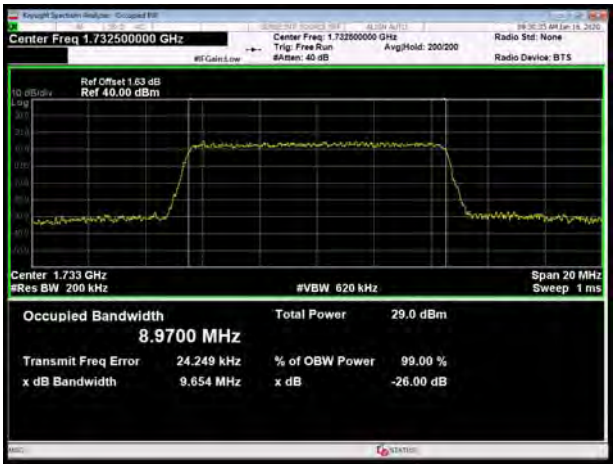
LTE Band 4 16QAM 10MHz CH-Low



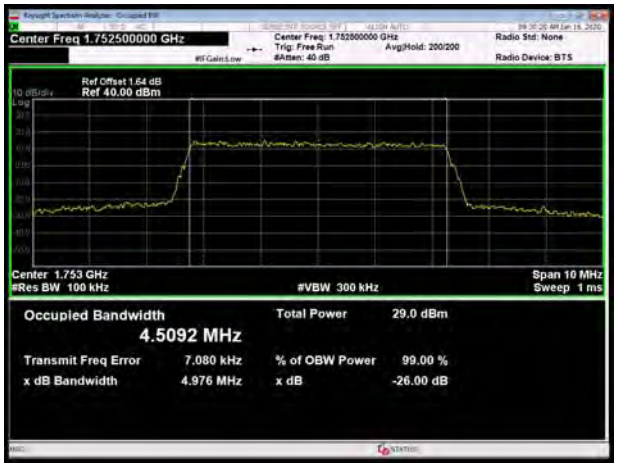
LTE Band 4 16QAM 5MHz CH-Middle



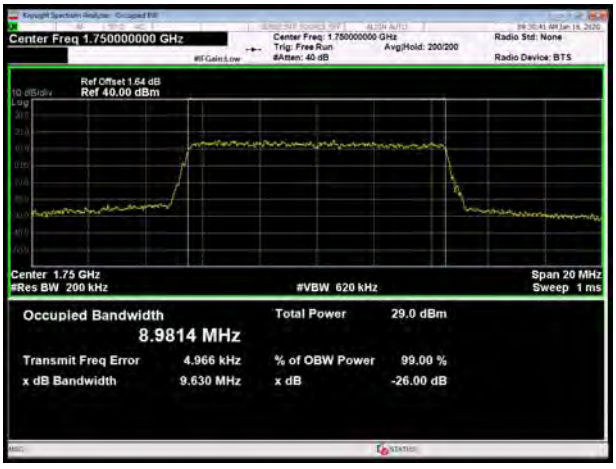
LTE Band 4 16QAM 10MHz CH-Middle



LTE Band 4 16QAM 5MHz CH-High



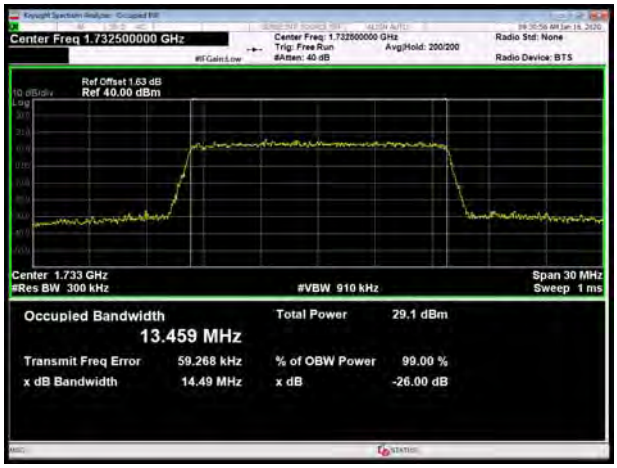
LTE Band 4 16QAM 10MHz CH-High



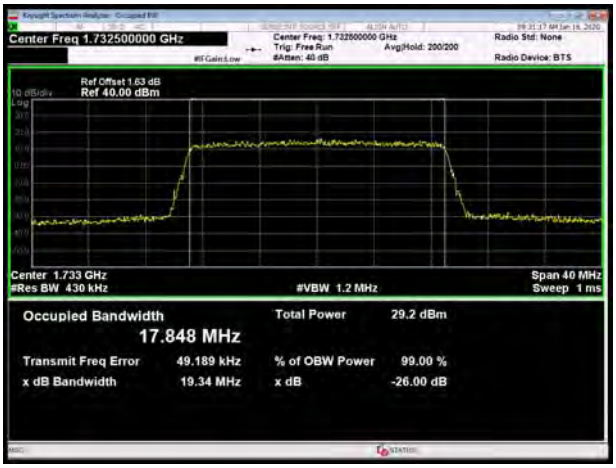
LTE Band 4 16QAM 15MHz CH-Low

LTE Band 4 16QAM 20MHz CH-Low

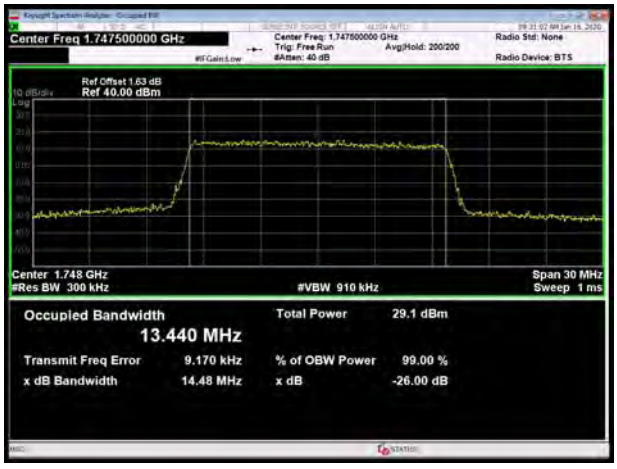
LTE Band 4 16QAM 15MHz CH-Middle



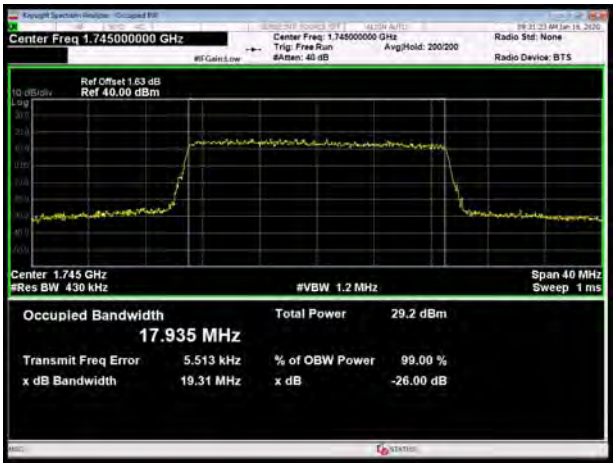
LTE Band 4 16QAM 20MHz CH-Middle



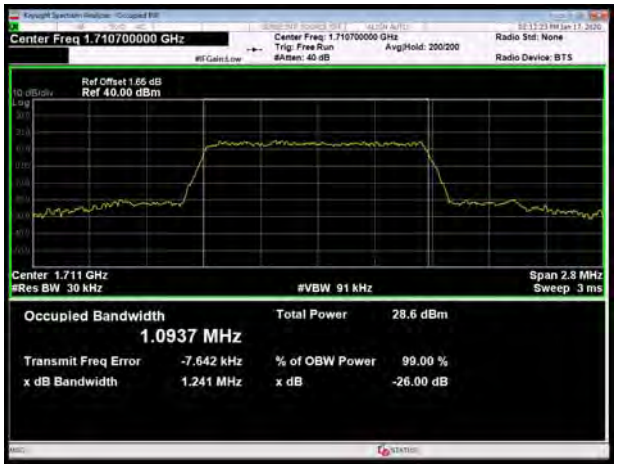
LTE Band 4 16QAM 15MHz CH-High



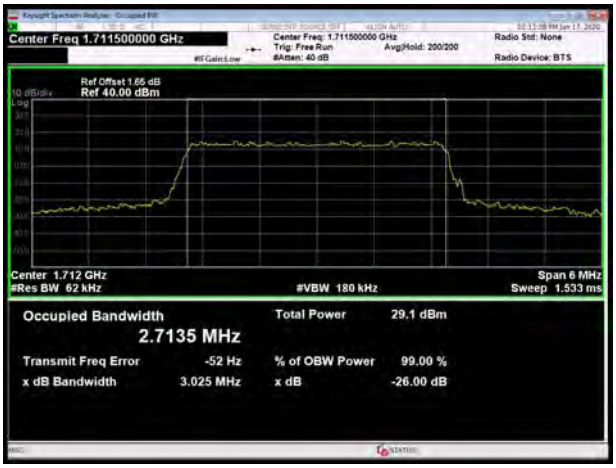
LTE Band 4 16QAM 20MHz CH-High



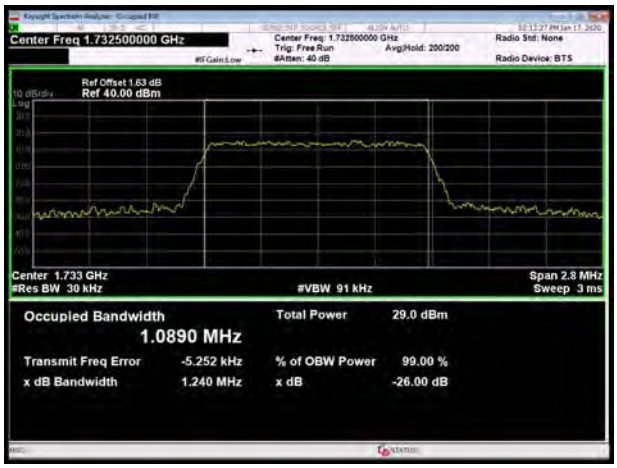
LTE Band 4 64QAM 1.4MHz CH-Low



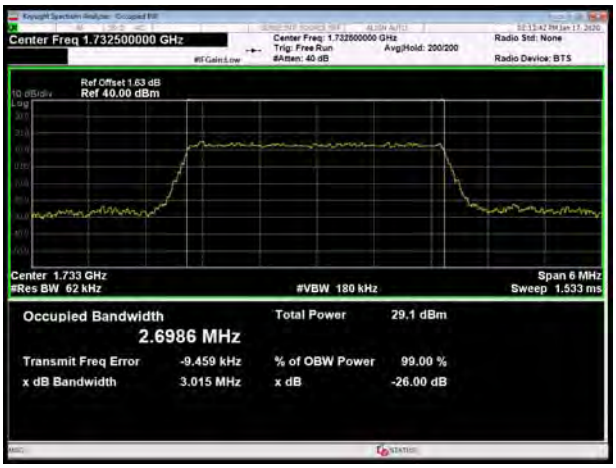
LTE Band 4 64QAM 3MHz CH-Low



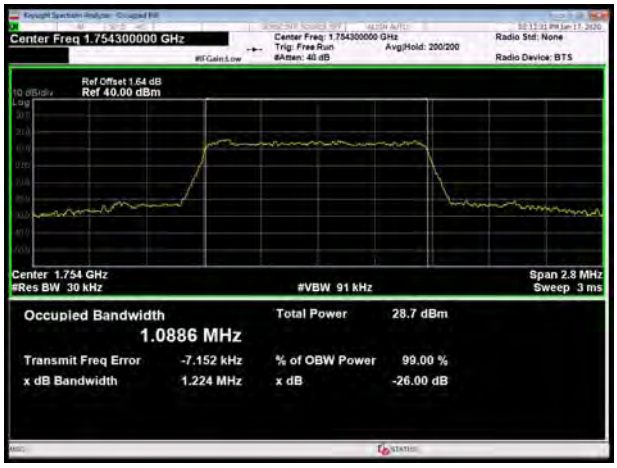
LTE Band 4 64QAM 1.4MHz CH-Middle



LTE Band 4 64QAM 3MHz CH-Middle

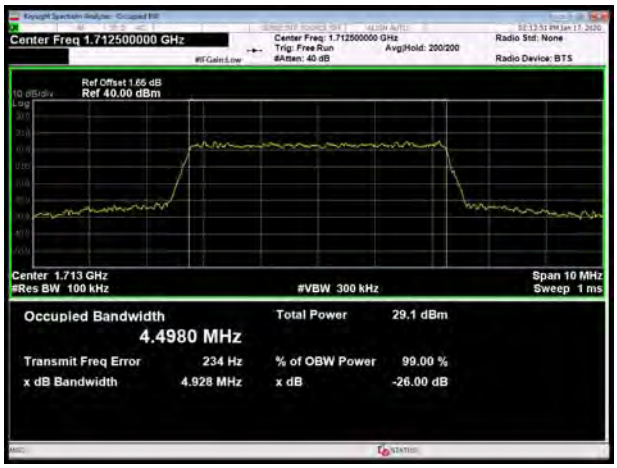


LTE Band 4 64QAM 1.4MHz CH-High

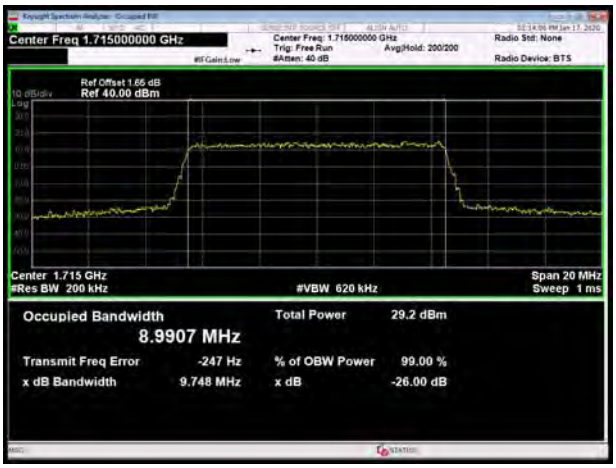


LTE Band 4 64QAM 3MHz CH-High

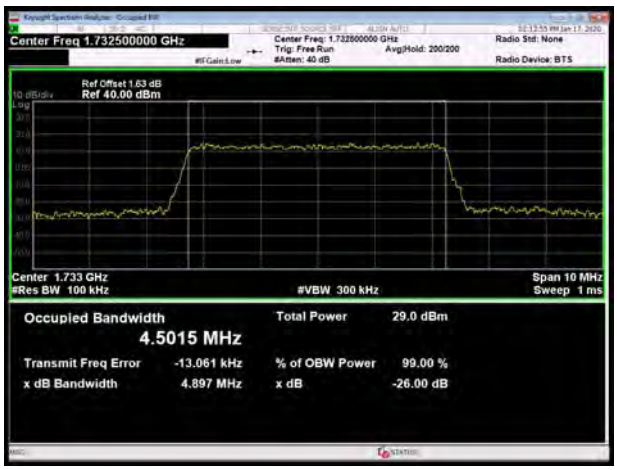
LTE Band 4 64QAM 5MHz CH-Low



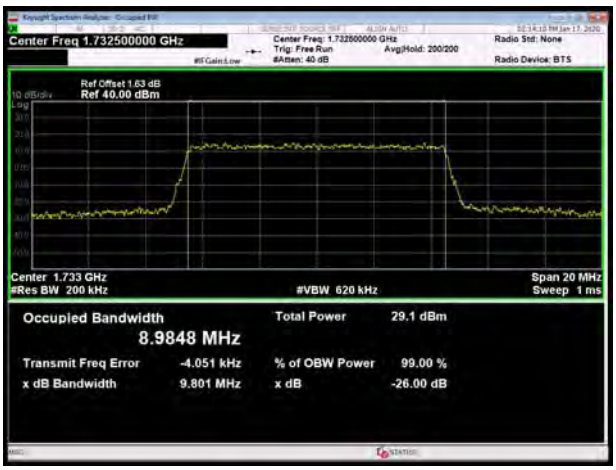
LTE Band 4 64QAM 10MHz CH-Low



LTE Band 4 64QAM 5MHz CH-Middle

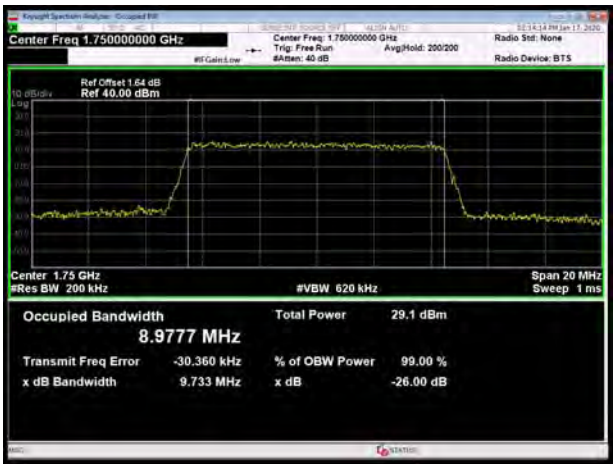


LTE Band 4 64QAM 10MHz CH-Middle



LTE Band 4 64QAM 5MHz CH-High

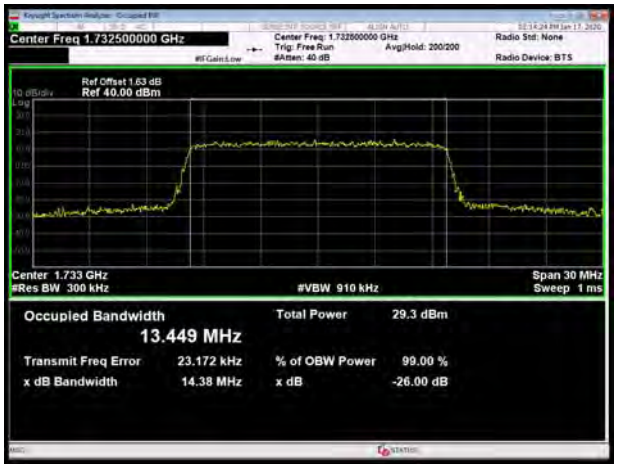
LTE Band 4 64QAM 10MHz CH-High



LTE Band 4 64QAM 15MHz CH-Low

LTE Band 4 64QAM 20MHz CH-Low

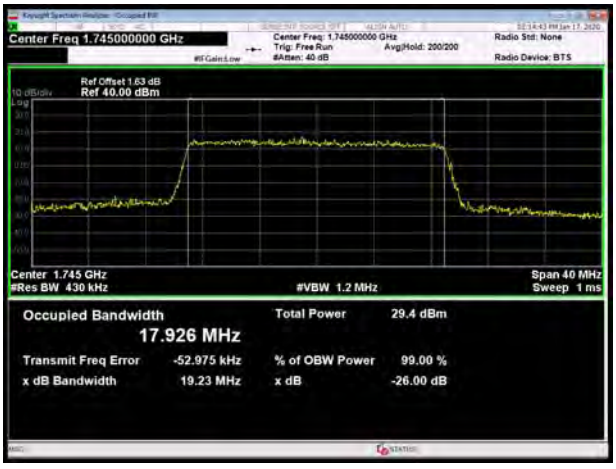
LTE Band 4 64QAM 15MHz CH-Middle



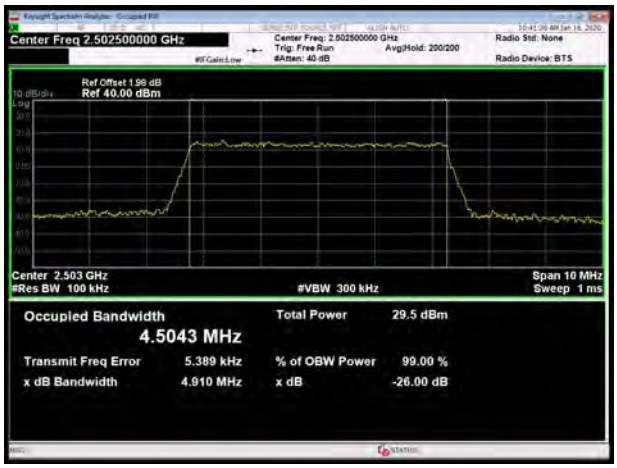
LTE Band 4 64QAM 20MHz CH-Middle

LTE Band 4 64QAM 15MHz CH-High

LTE Band 4 64QAM 20MHz CH-High

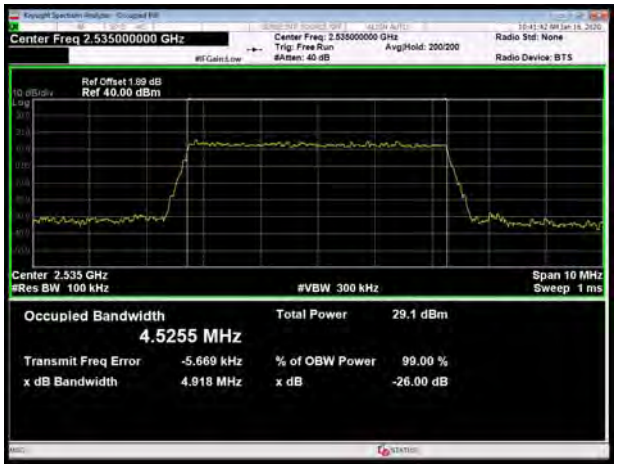


LTE Band 7 QPSK 5MHz CH-Low

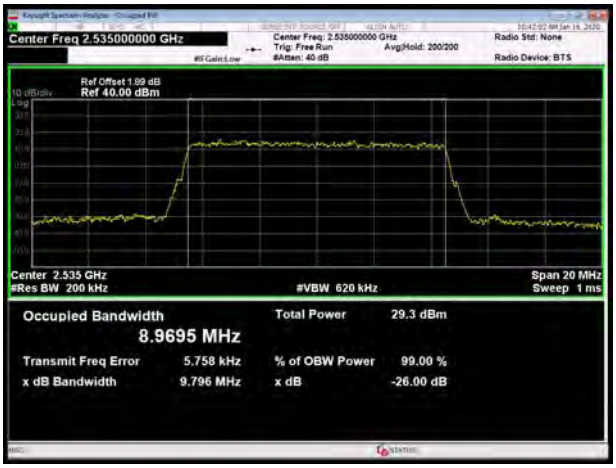


LTE Band 7 QPSK 10MHz CH-Low

LTE Band 7 QPSK 5MHz CH-Middle

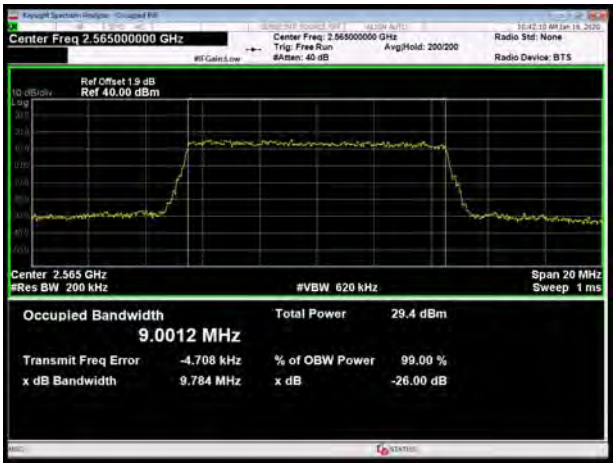


LTE Band 7 QPSK 10MHz CH-Middle

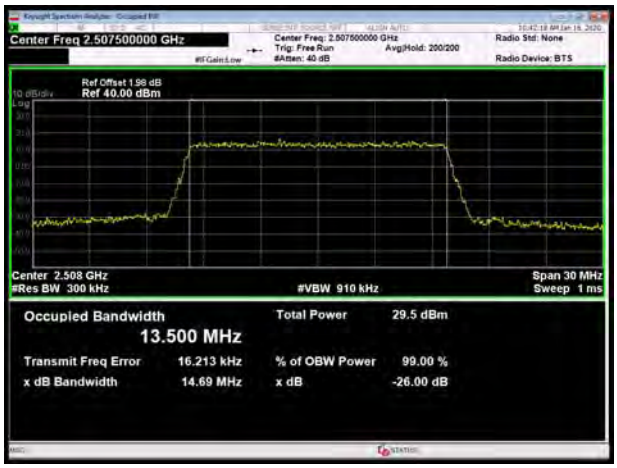


LTE Band 7 QPSK 5MHz CH-High

LTE Band 7 QPSK 10MHz CH-High

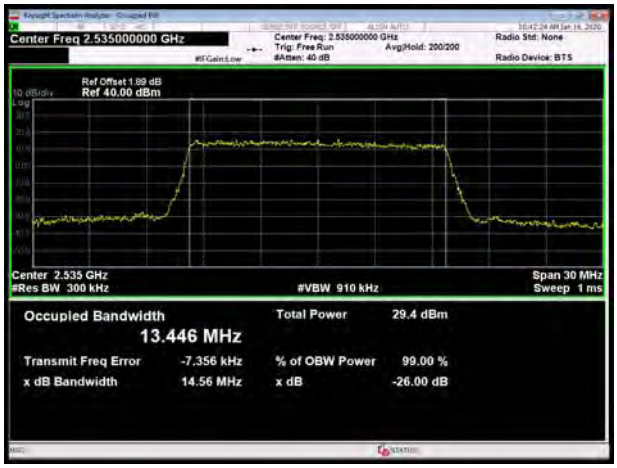


LTE Band 7 QPSK 15MHz CH-Low

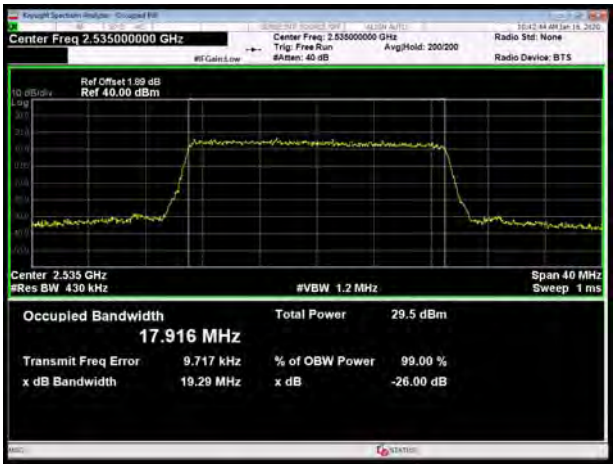


LTE Band 7 QPSK 20MHz CH-Low

LTE Band 7 QPSK 15MHz CH-Middle

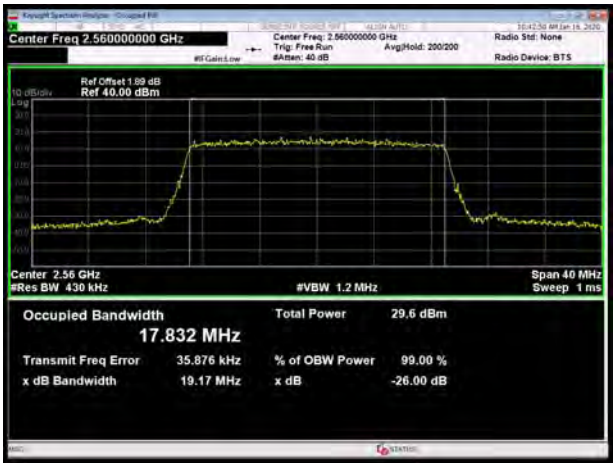


LTE Band 7 QPSK 20MHz CH-Middle

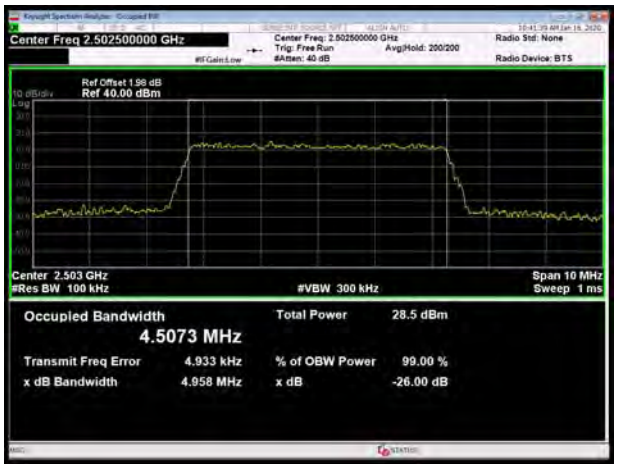


LTE Band 7 QPSK 15MHz CH-High

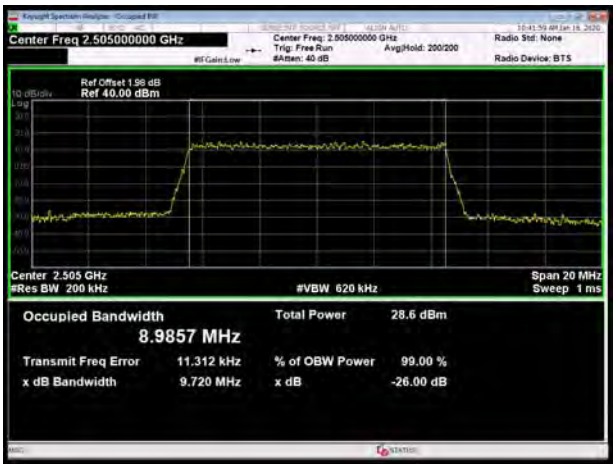
LTE Band 7 QPSK 20MHz CH-High



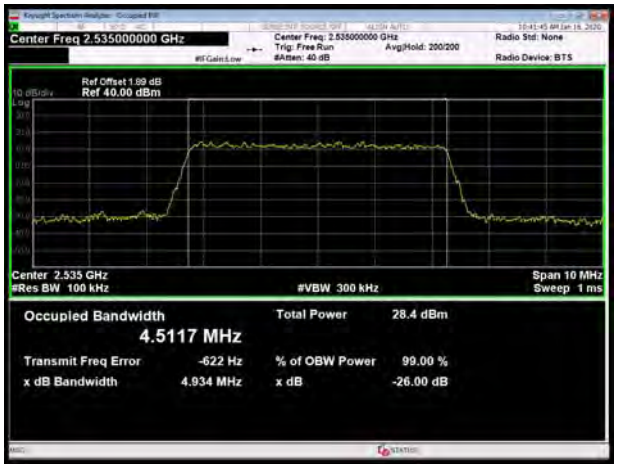
LTE Band 7 16QAM 5MHz CH-Low



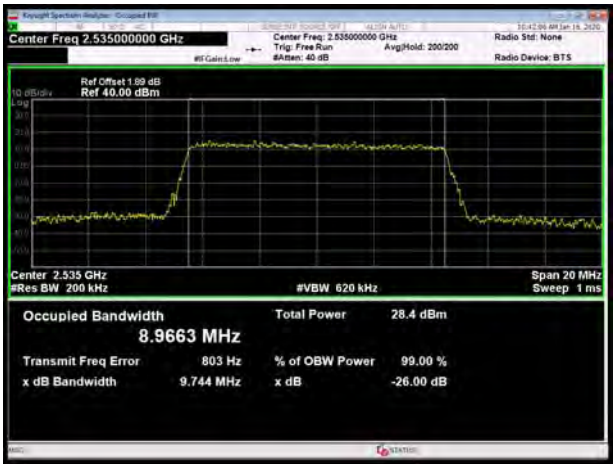
LTE Band 7 16QAM 10MHz CH-Low



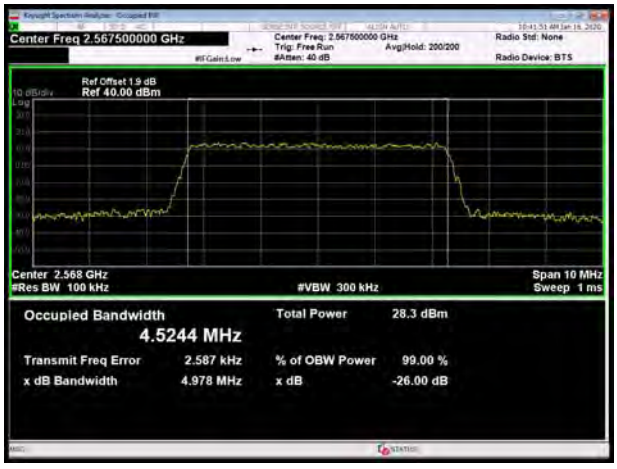
LTE Band 7 16QAM 5MHz CH-Middle



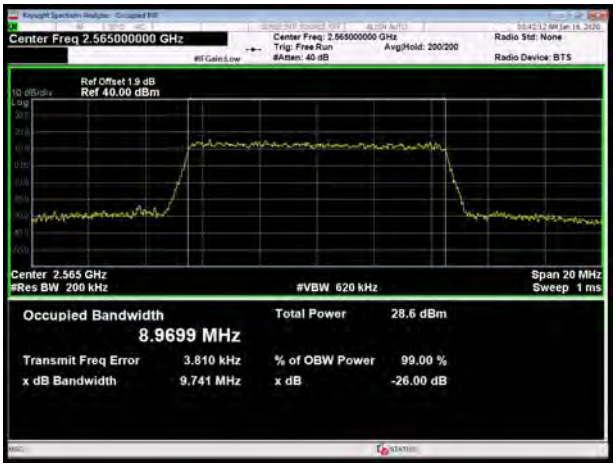
LTE Band 7 16QAM 10MHz CH-Middle



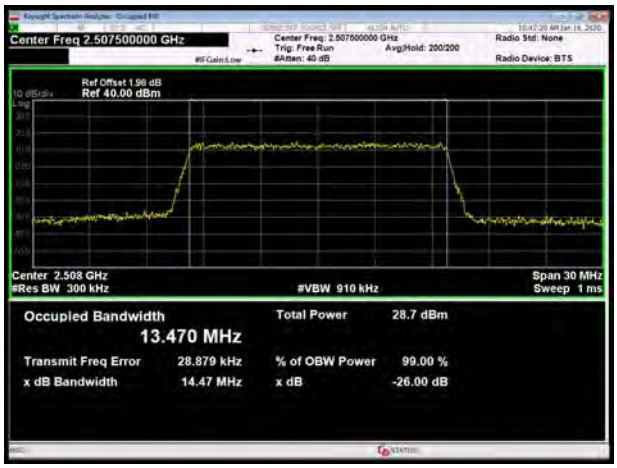
LTE Band 7 16QAM 5MHz CH-High



LTE Band 7 16QAM 10MHz CH-High

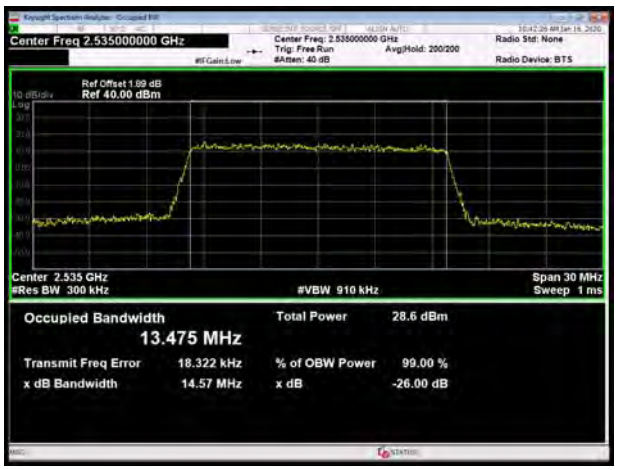


LTE Band 7 16QAM 15MHz CH-Low

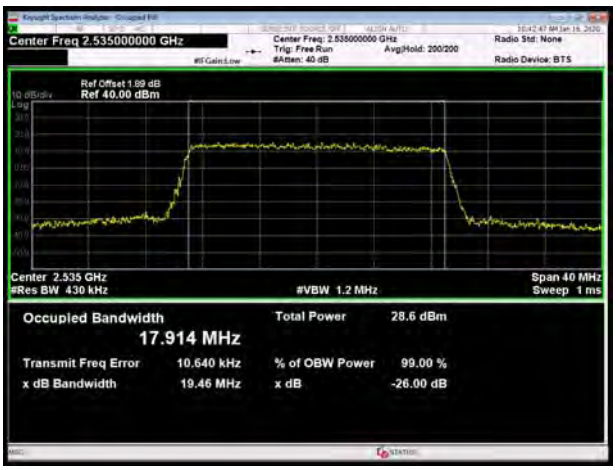


LTE Band 7 16QAM 20MHz CH-Low

LTE Band 7 16QAM 15MHz CH-Middle

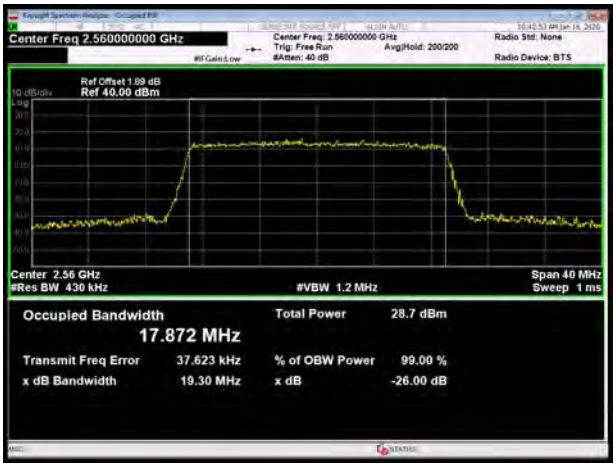


LTE Band 7 16QAM 20MHz CH-Middle

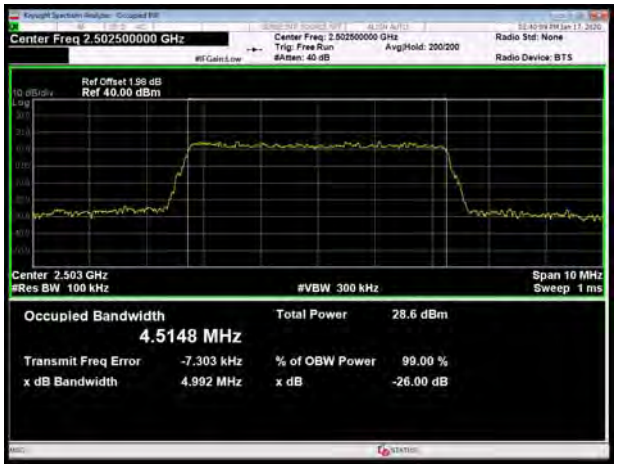


LTE Band 7 16QAM 15MHz CH-High

LTE Band 7 16QAM 20MHz CH-High

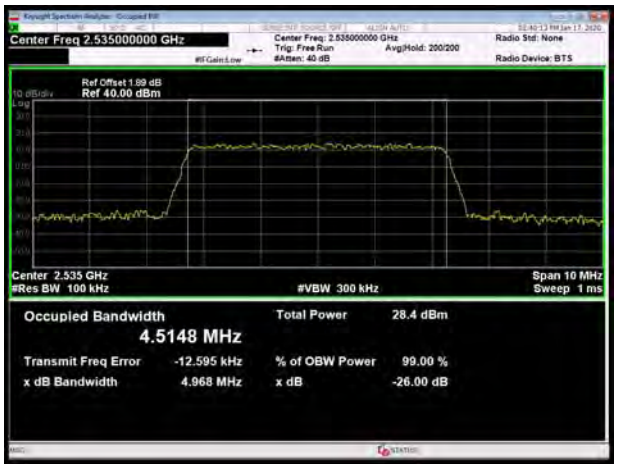


LTE Band 7 64QAM 5MHz CH-Low

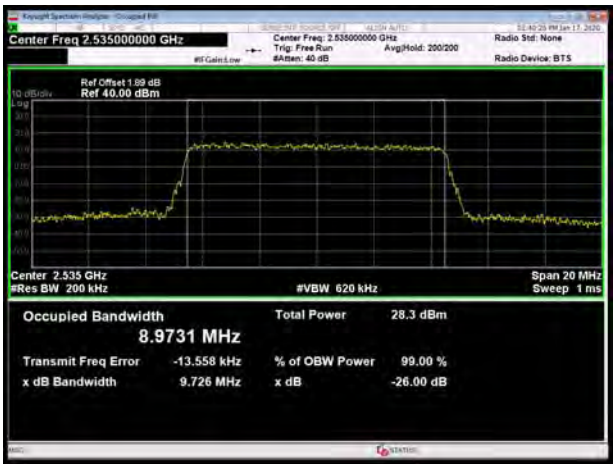


LTE Band 7 64QAM 10MHz CH-Low

LTE Band 7 64QAM 5MHz CH-Middle



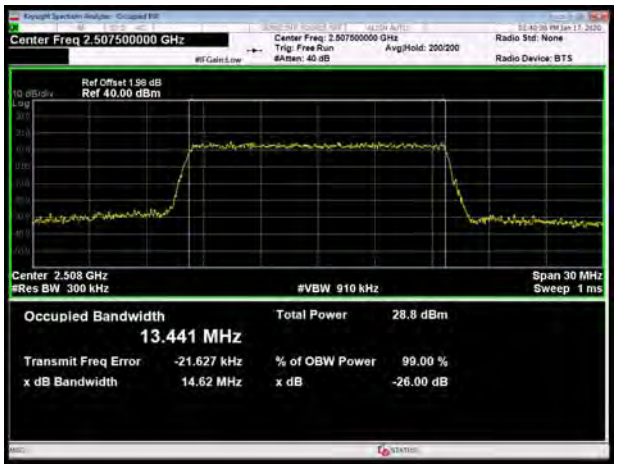
LTE Band 7 64QAM 10MHz CH-Middle



LTE Band 7 64QAM 5MHz CH-High

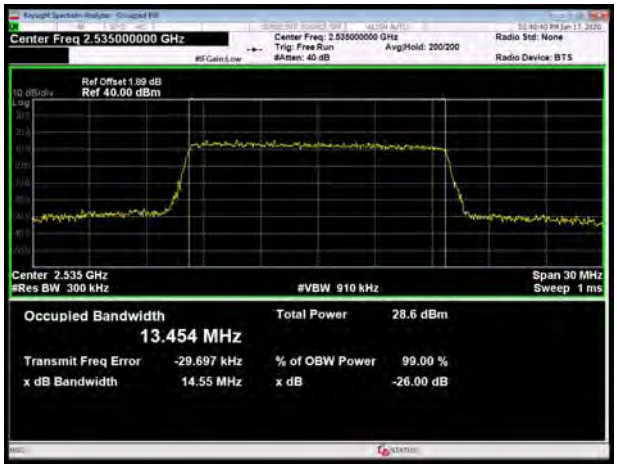
LTE Band 7 64QAM 10MHz CH-High

LTE Band 7 64QAM 15MHz CH-Low

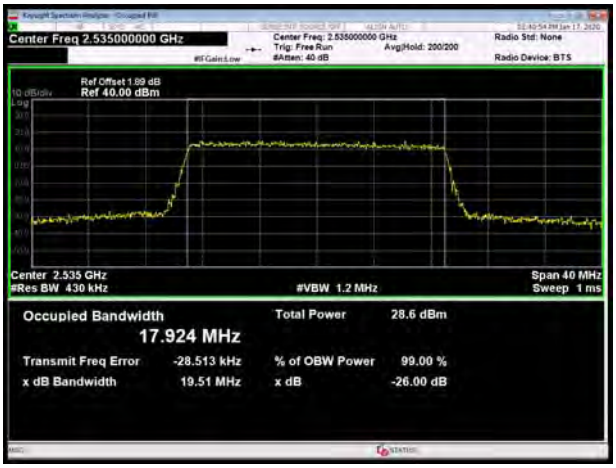


LTE Band 7 64QAM 20MHz CH-Low

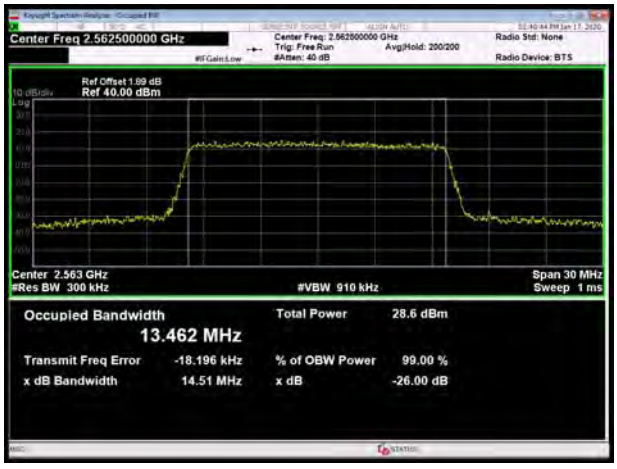
LTE Band 7 64QAM 15MHz CH-Middle



LTE Band 7 64QAM 20MHz CH-Middle



LTE Band 7 64QAM 15MHz CH-High



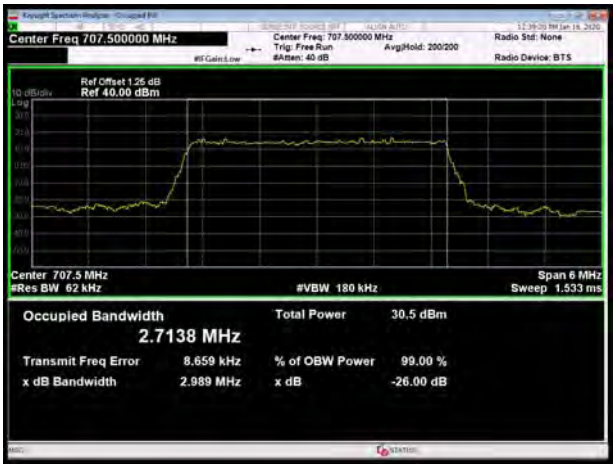
LTE Band 7 64QAM 20MHz CH-High

LTE Band 12 QPSK 1.4MHz CH-Low

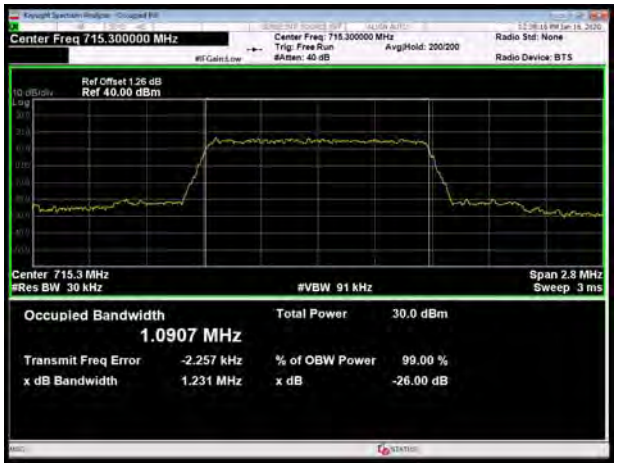
LTE Band 12 QPSK 3MHz CH-Low

LTE Band 12 QPSK 1.4MHz CH-Middle

LTE Band 12 QPSK 3MHz CH-Middle

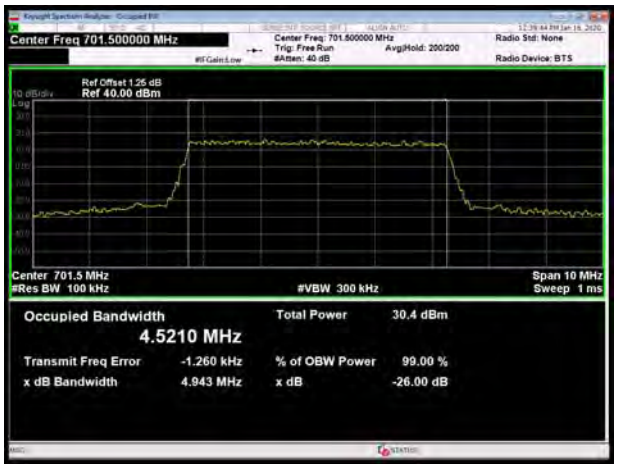


LTE Band 12 QPSK 1.4MHz CH-High

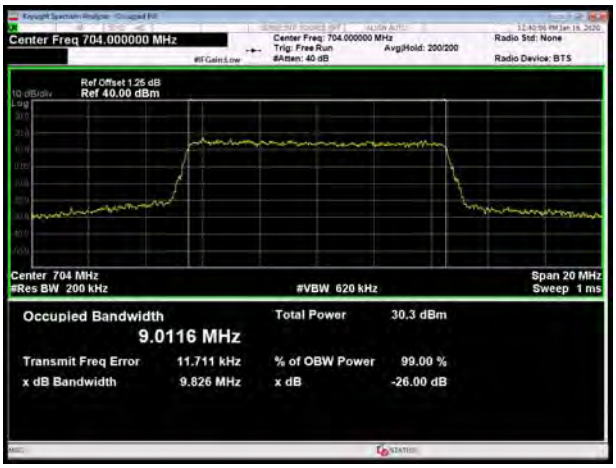


LTE Band 12 QPSK 3MHz CH-High

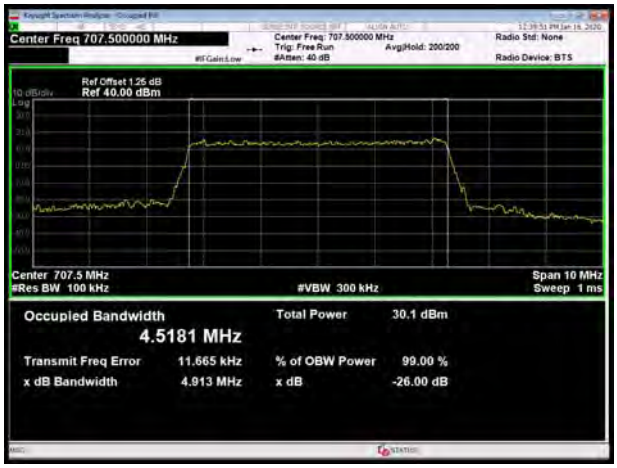
LTE Band 12 QPSK 5MHz CH-Low



LTE Band 12 QPSK 10MHz CH-Low



LTE Band 12 QPSK 5MHz CH-Middle



LTE Band 12 QPSK 10MHz CH-Middle

LTE Band 12 QPSK 5MHz CH-High

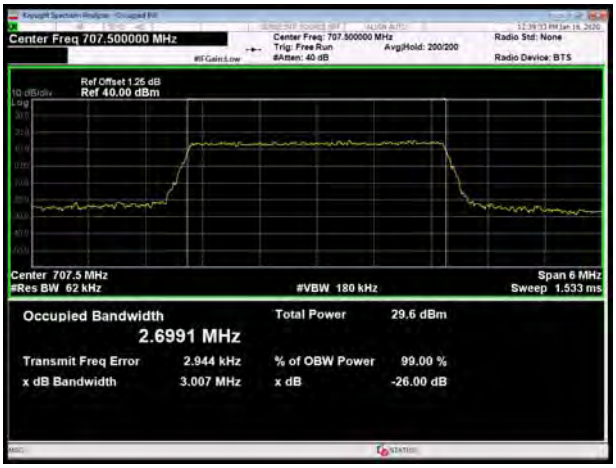
LTE Band 12 QPSK 10MHz CH-High

LTE Band 12 16QAM 1.4MHz CH-Low

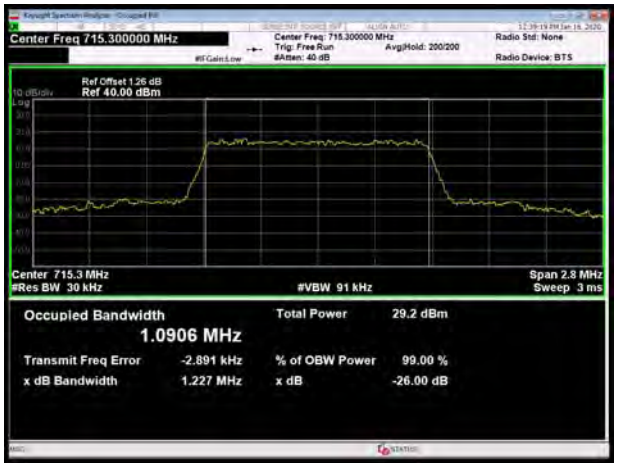
LTE Band 12 16QAM 3MHz CH-Low

LTE Band 12 16QAM 1.4MHz CH-Middle

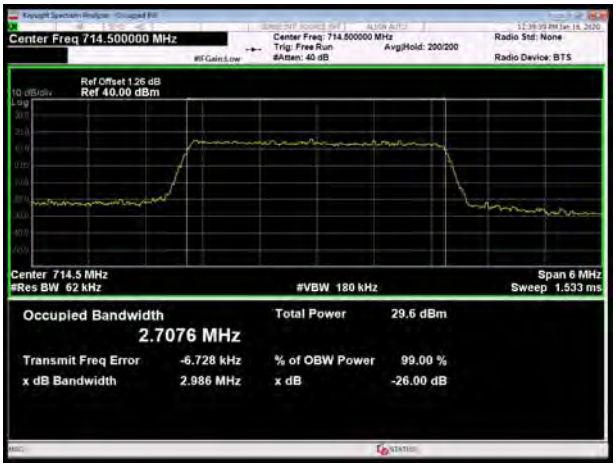
LTE Band 12 16QAM 3MHz CH-Middle



LTE Band 12 16QAM 1.4MHz CH-High



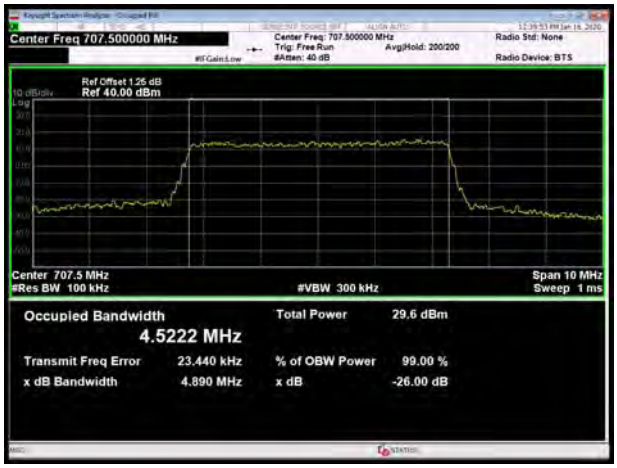
LTE Band 12 16QAM 3MHz CH-High



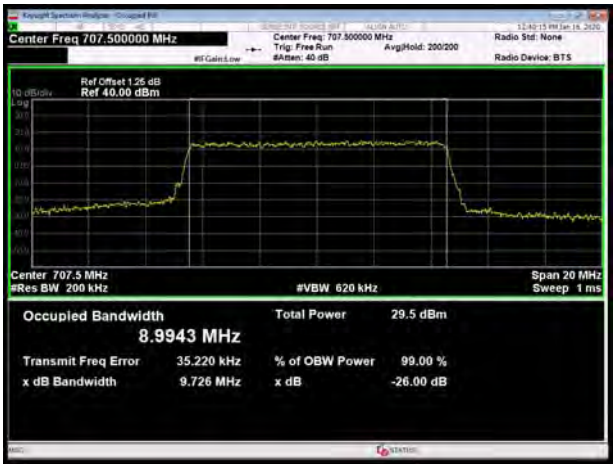
LTE Band 12 16QAM 5MHz CH-Low

LTE Band 12 16QAM 10MHz CH-Low

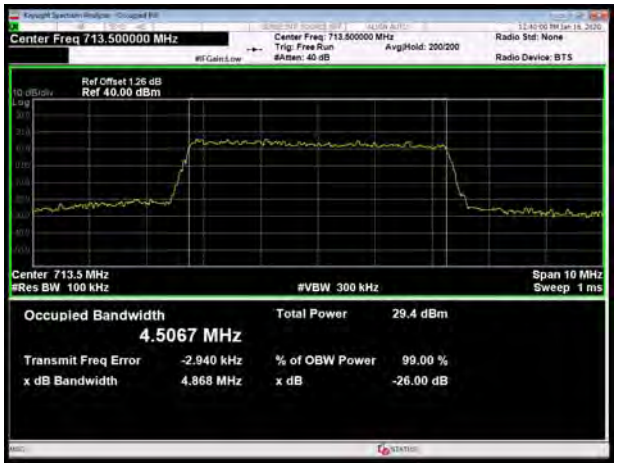
LTE Band 12 16QAM 5MHz CH-Middle



LTE Band 12 16QAM 10MHz CH-Middle



LTE Band 12 16QAM 5MHz CH-High

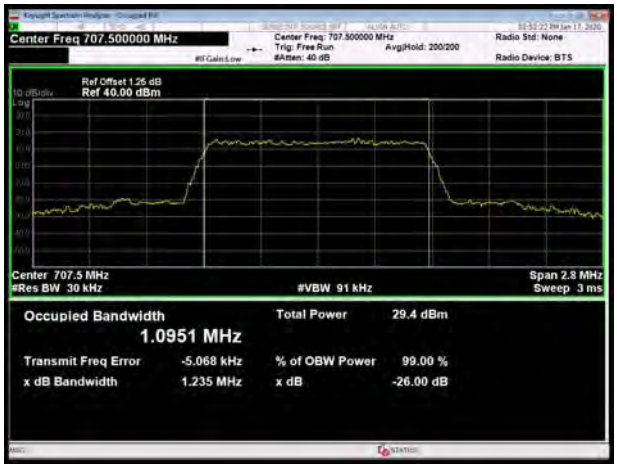


LTE Band 12 16QAM 10MHz CH-High

LTE Band 12 64QAM 1.4MHz CH-Low

LTE Band 12 64QAM 3MHz CH-Low

LTE Band 12 64QAM 1.4MHz CH-Middle



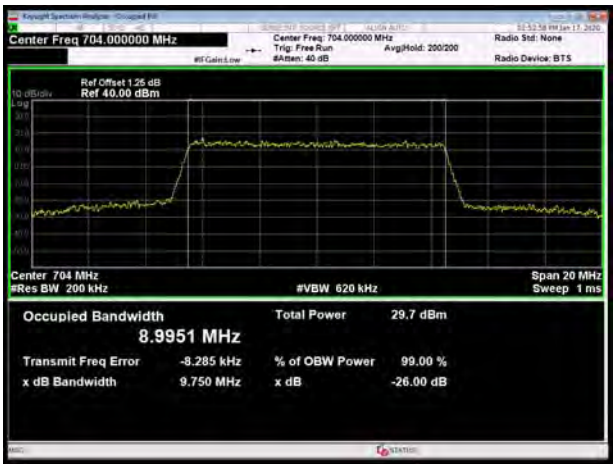
LTE Band 12 64QAM 3MHz CH-Middle

LTE Band 12 64QAM 1.4MHz CH-High

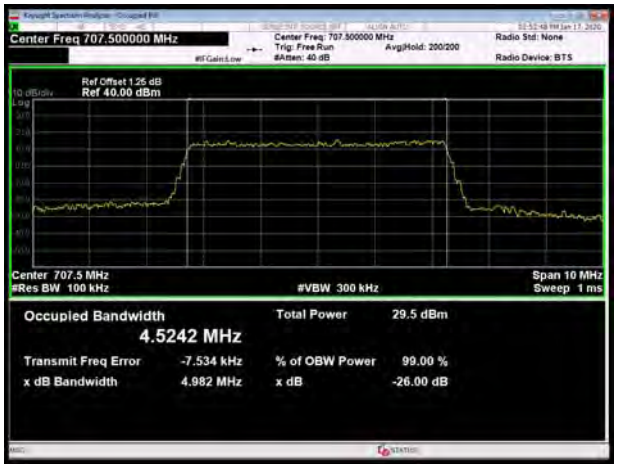
LTE Band 12 64QAM 3MHz CH-High

LTE Band 12 64QAM 5MHz CH-Low

LTE Band 12 64QAM 10MHz CH-Low

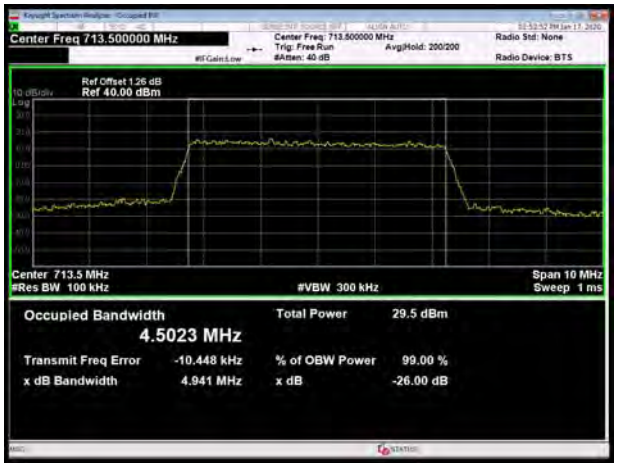


LTE Band 12 64QAM 5MHz CH-Middle



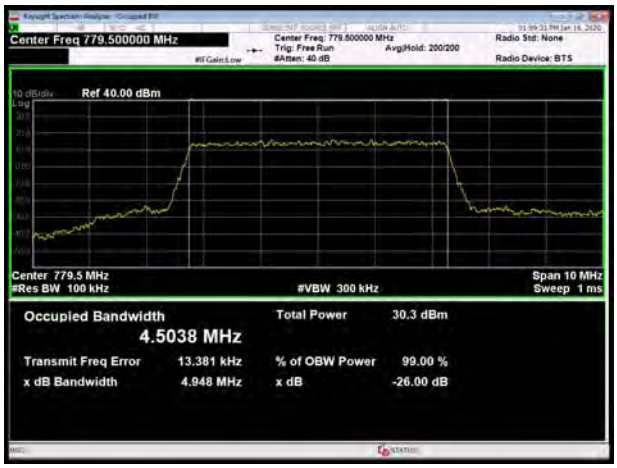
LTE Band 12 64QAM 10MHz CH-Middle

LTE Band 12 64QAM 5MHz CH-High

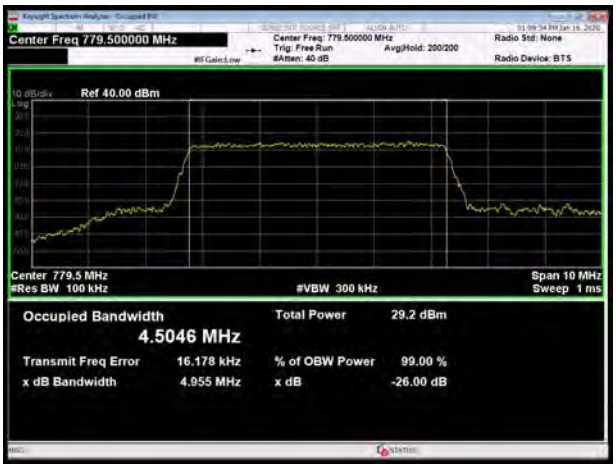


LTE Band 12 64QAM 10MHz CH-High

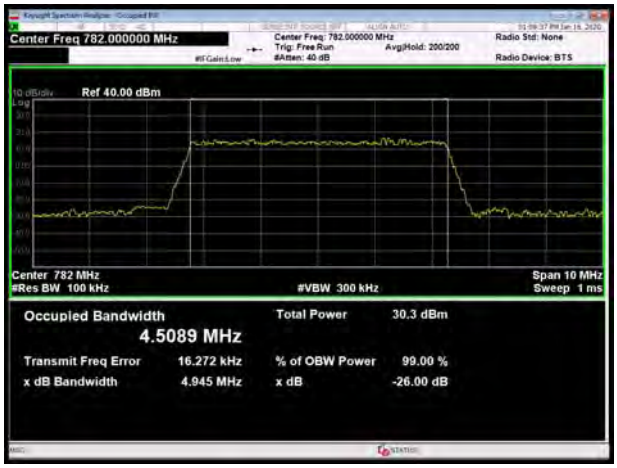
LTE Band 13 QPSK 5MHz CH-Low



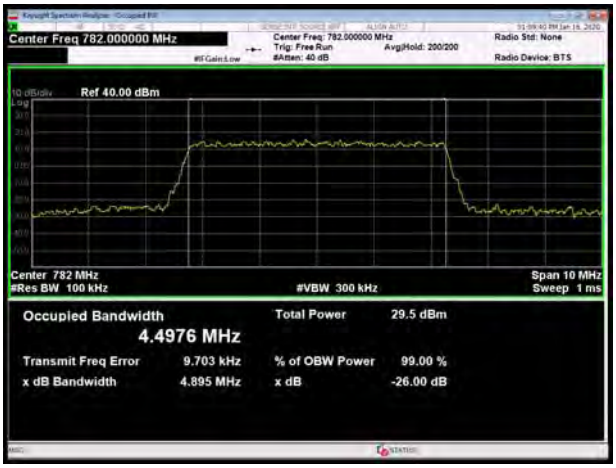
LTE Band 13 16QAM 5MHz CH-Low



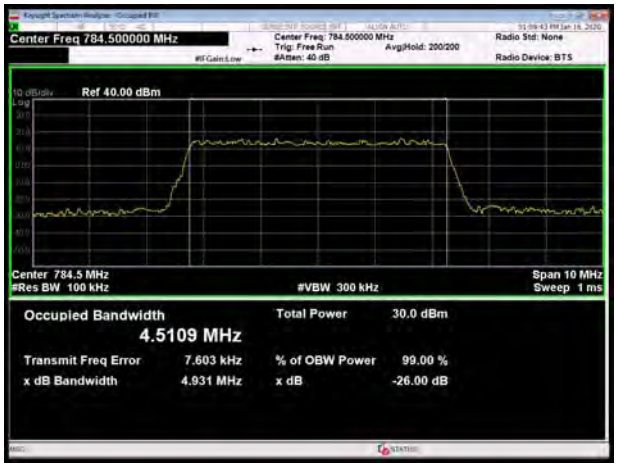
LTE Band 13 QPSK 5MHz CH-Middle



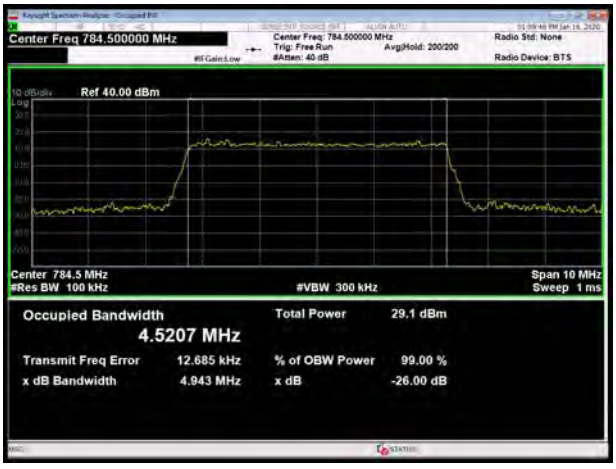
LTE Band 13 16QAM 5MHz CH-Middle



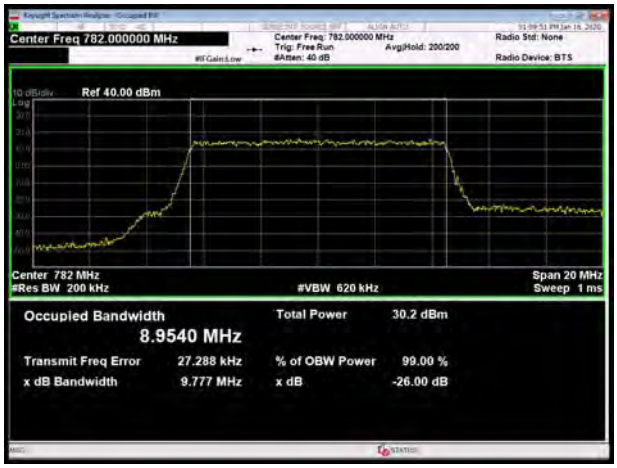
LTE Band 13 QPSK 5MHz CH-High



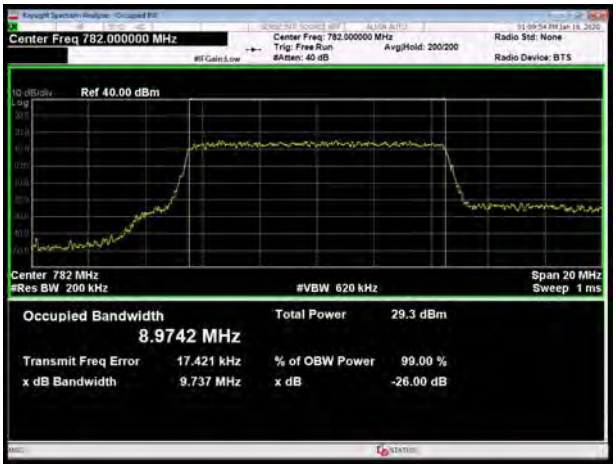
LTE Band 13 16QAM 5MHz CH-High



LTE Band 13 QPSK 10MHz CH-Middle



LTE Band 13 16QAM 10MHz CH-Middle

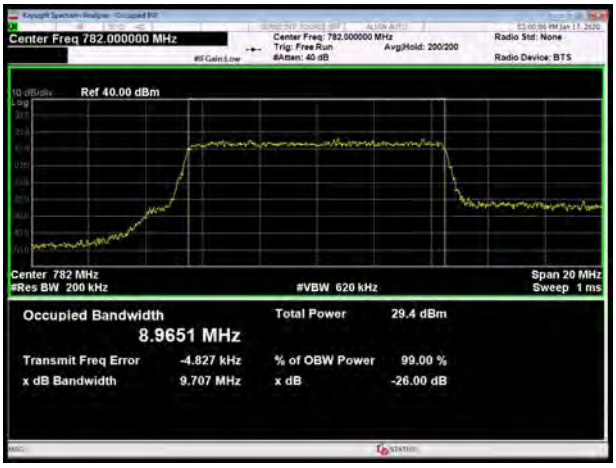


LTE Band 13 64QAM 5MHz CH-Low

LTE Band 13 64QAM 5MHz CH-Middle

LTE Band 13 64QAM 5MHz CH-High

LTE Band 13 64QAM 10MHz CH-Middle



LTE Band 17 QPSK 5MHz CH-Low

LTE Band 17 QPSK 10MHz CH-Low

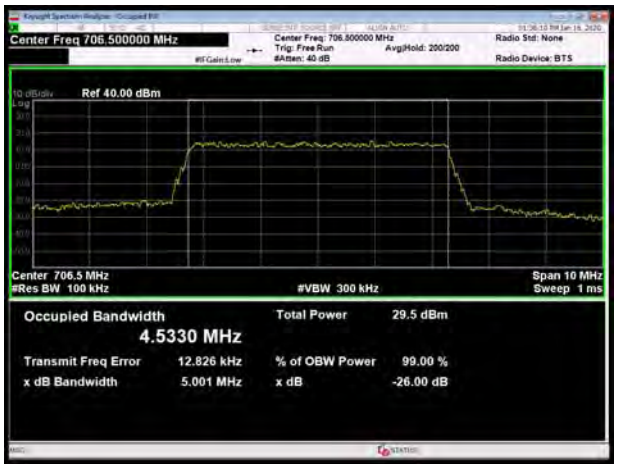
LTE Band 17 QPSK 5MHz CH-Middle

LTE Band 17 QPSK 10MHz CH-Middle

LTE Band 17 QPSK 5MHz CH-High

LTE Band 17 QPSK 10MHz CH-High

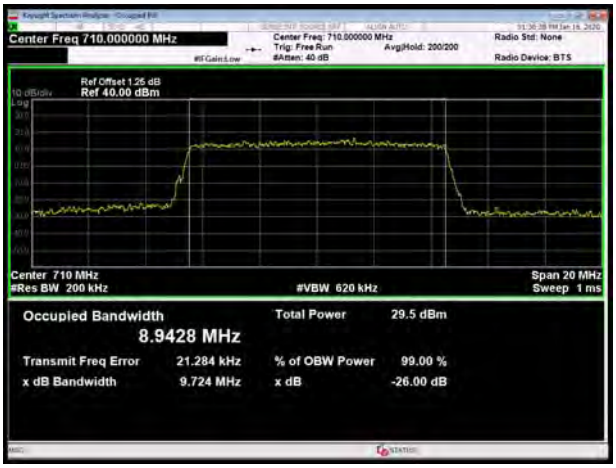
LTE Band 17 16QAM 5MHz CH-Low



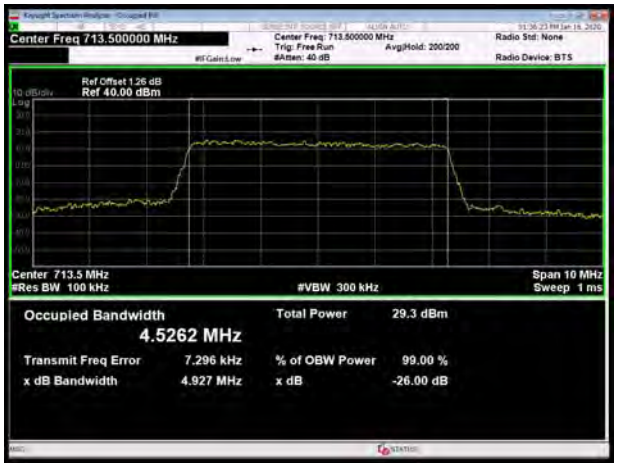
LTE Band 17 16QAM 10MHz CH-Low

LTE Band 17 16QAM 5MHz CH-Middle

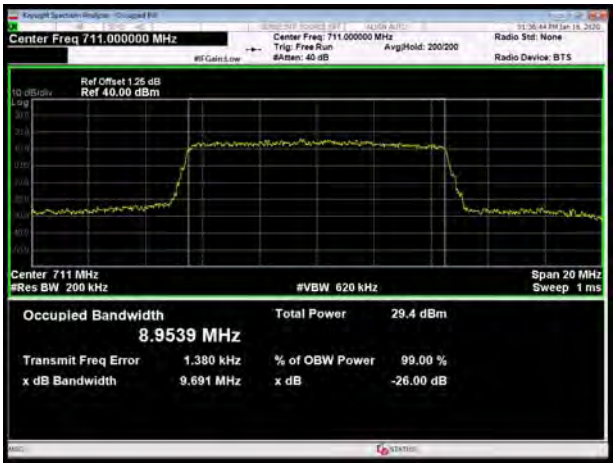
LTE Band 17 16QAM 10MHz CH-Middle



LTE Band 17 16QAM 5MHz CH-High



LTE Band 17 16QAM 10MHz CH-High



LTE Band 17 64QAM 5MHz CH-Low

LTE Band 17 64QAM 10MHz CH-Low

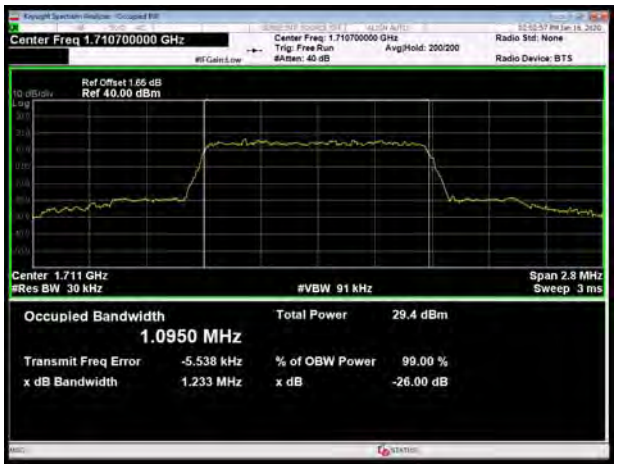
LTE Band 17 64QAM 5MHz CH-Middle

LTE Band 17 64QAM 10MHz CH-Middle

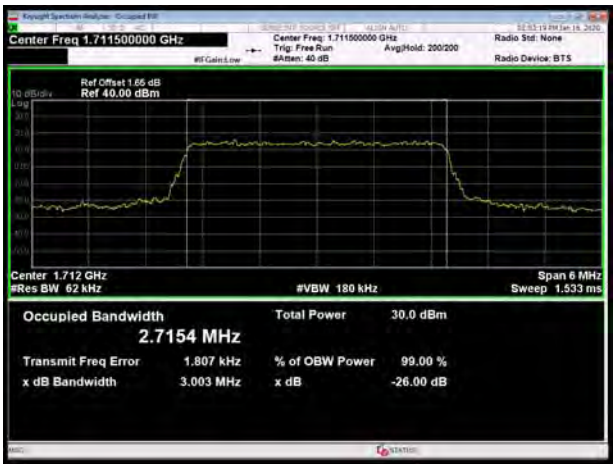
LTE Band 17 64QAM 5MHz CH-High

LTE Band 17 64QAM 10MHz CH-High

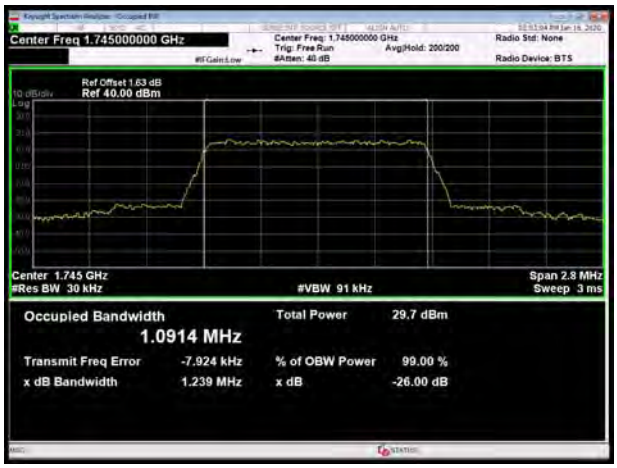
LTE Band 66 QPSK 1.4MHz CH-Low



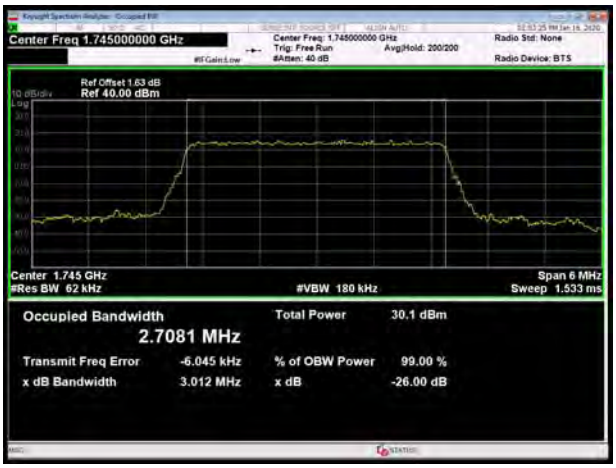
LTE Band 66 QPSK 3MHz CH-Low



LTE Band 66 QPSK 1.4MHz CH-Middle

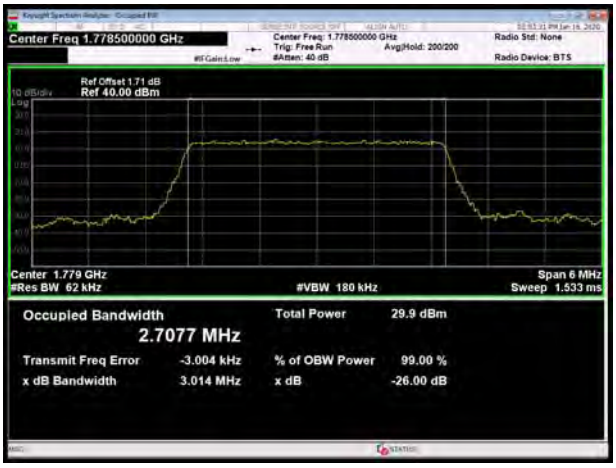


LTE Band 66 QPSK 3MHz CH-Middle

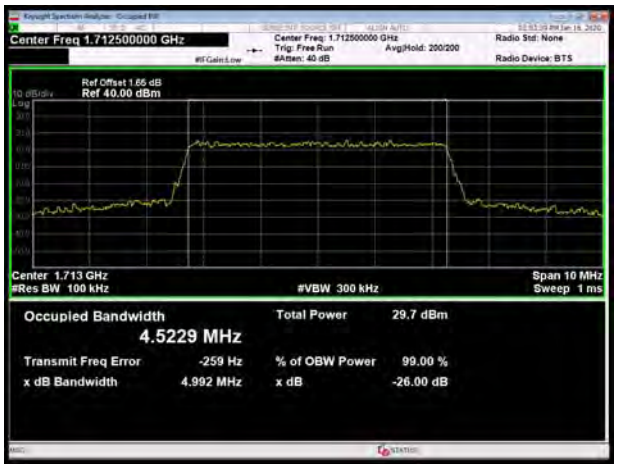


LTE Band 66 QPSK 1.4MHz CH-High

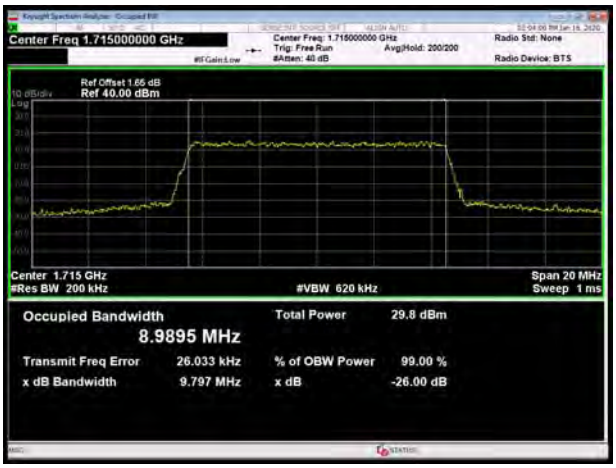
LTE Band 66 QPSK 3MHz CH-High



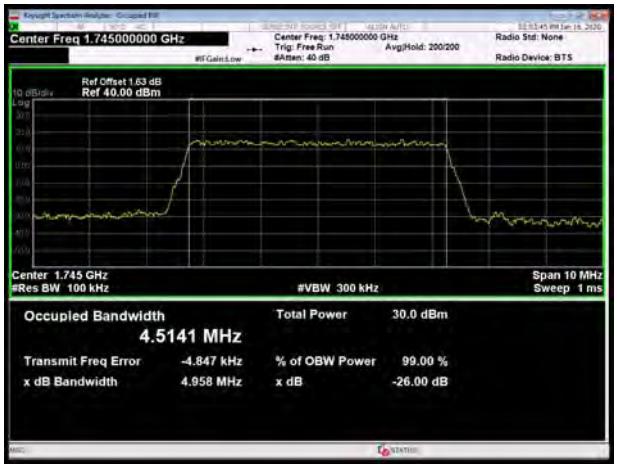
LTE Band 66 QPSK 5MHz CH-Low



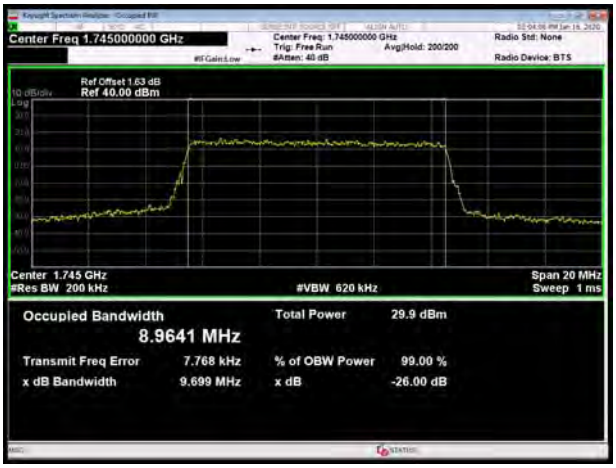
LTE Band 66 QPSK 10MHz CH-Low



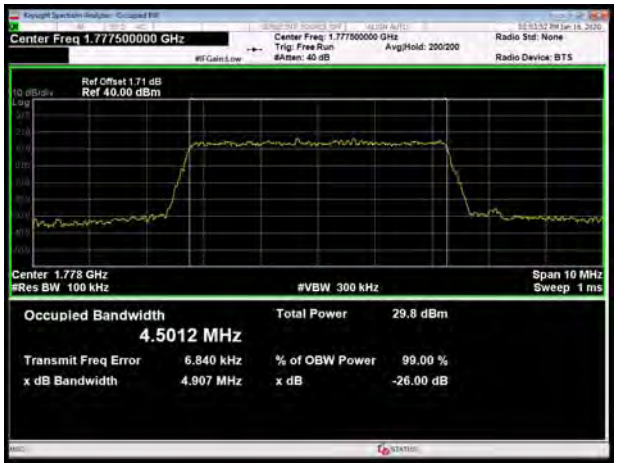
LTE Band 66 QPSK 5MHz CH-Middle



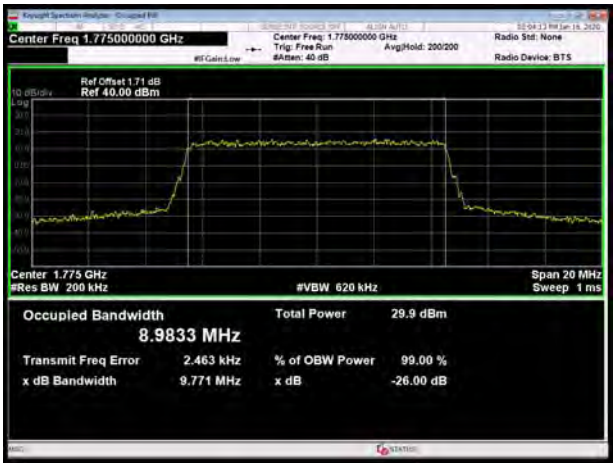
LTE Band 66 QPSK 10MHz CH-Middle



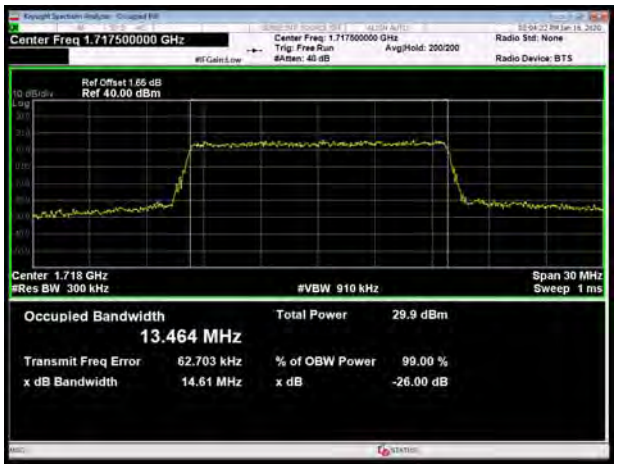
LTE Band 66 QPSK 5MHz CH-High



LTE Band 66 QPSK 10MHz CH-High

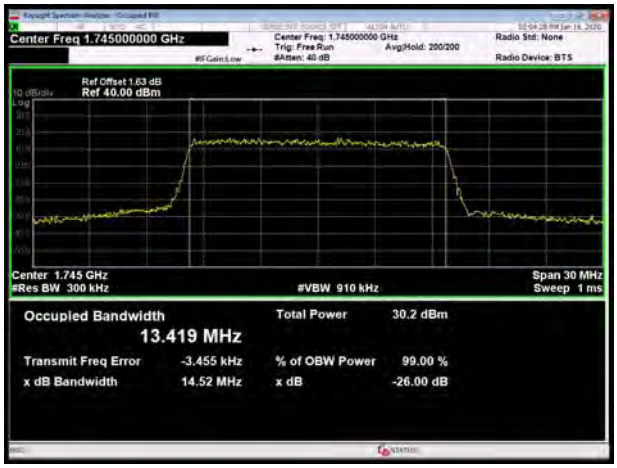


LTE Band 66 QPSK 15MHz CH-Low

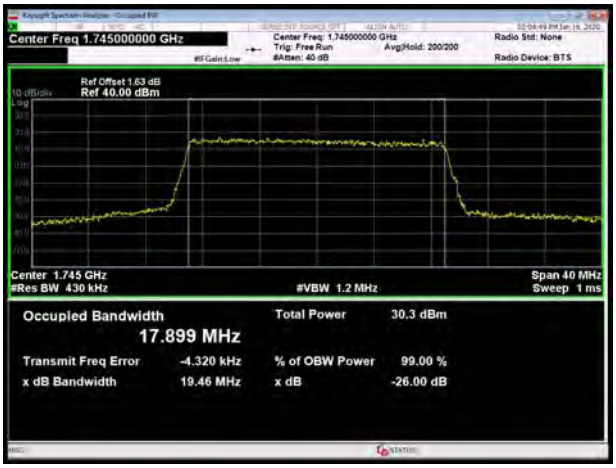


LTE Band 66 QPSK 20MHz CH-Low

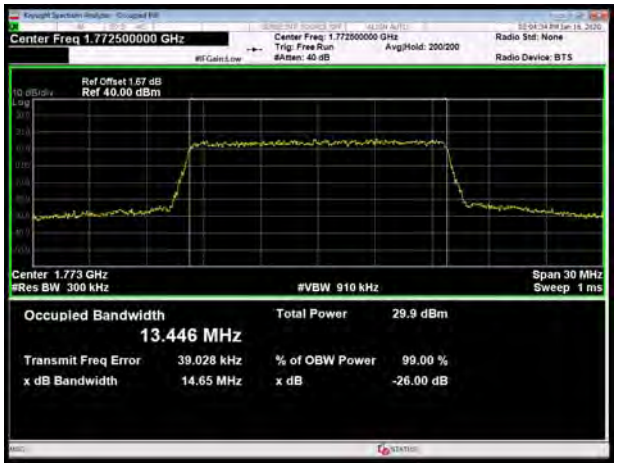
LTE Band 66 QPSK 15MHz CH-Middle



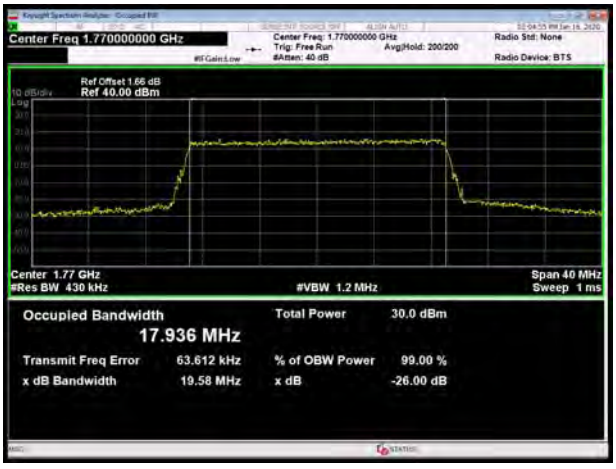
LTE Band 66 QPSK 20MHz CH-Middle



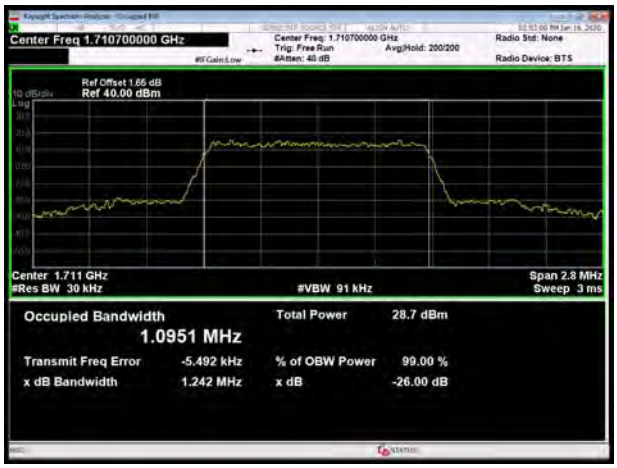
LTE Band 66 QPSK 15MHz CH-High



LTE Band 66 QPSK 20MHz CH-High

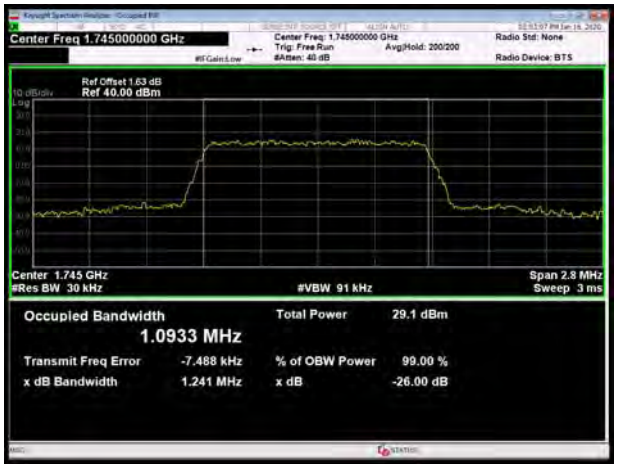


LTE Band 66 16QAM 1.4MHz CH-Low



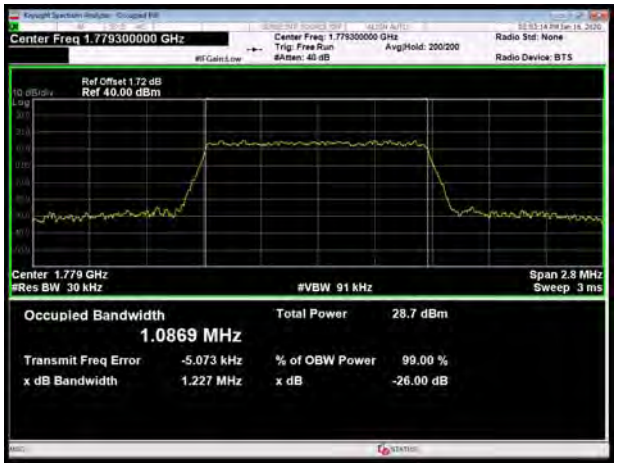
LTE Band 66 16QAM 3MHz CH-Low

LTE Band 66 16QAM 1.4MHz CH-Middle

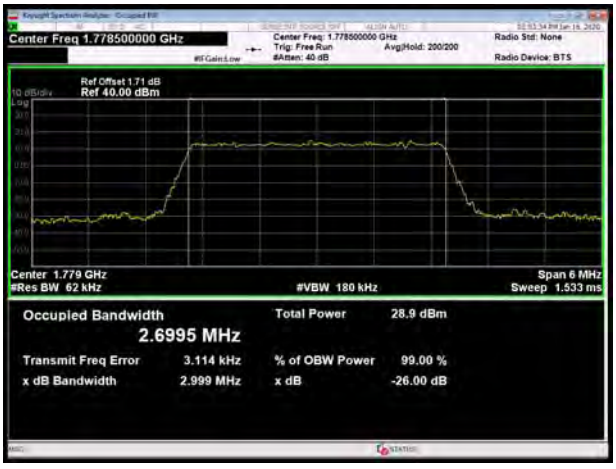


LTE Band 66 16QAM 3MHz CH-Middle

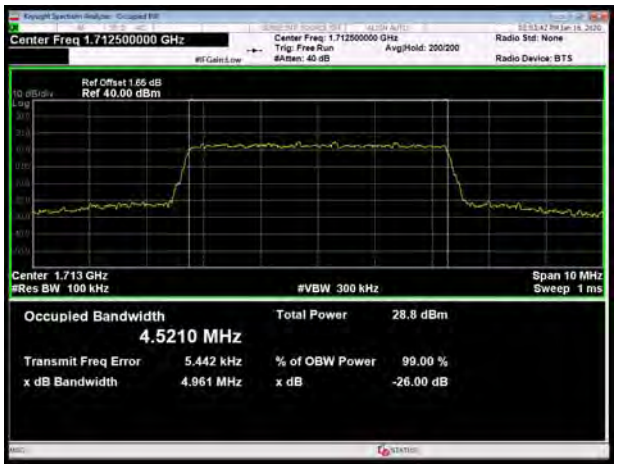
LTE Band 66 16QAM 1.4MHz CH-High



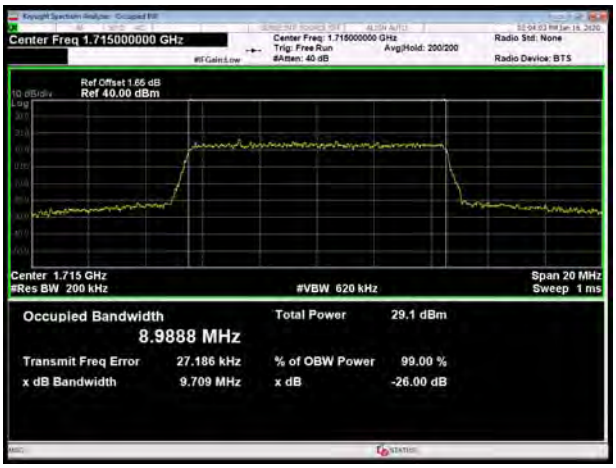
LTE Band 66 16QAM 3MHz CH-High



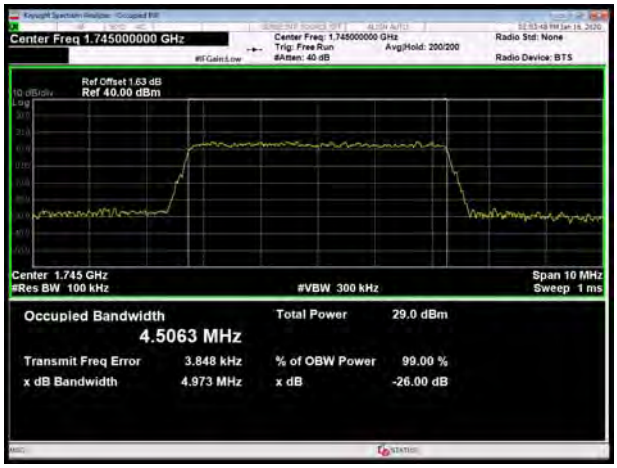
LTE Band 66 16QAM 5MHz CH-Low



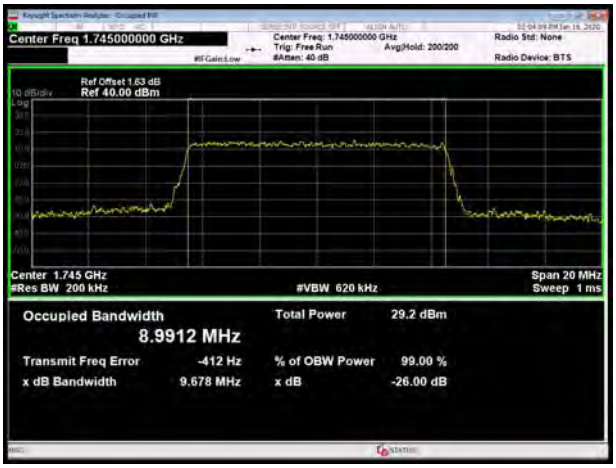
LTE Band 66 16QAM 10MHz CH-Low



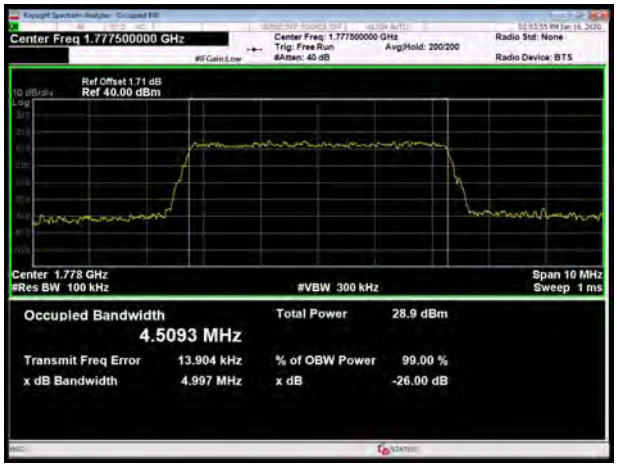
LTE Band 66 16QAM 5MHz CH-Middle



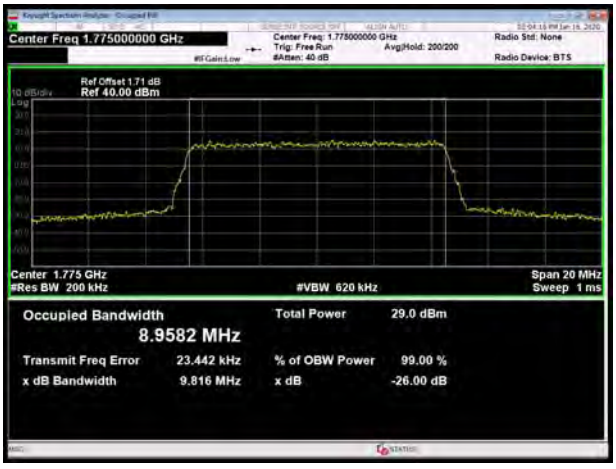
LTE Band 66 16QAM 10MHz CH-Middle



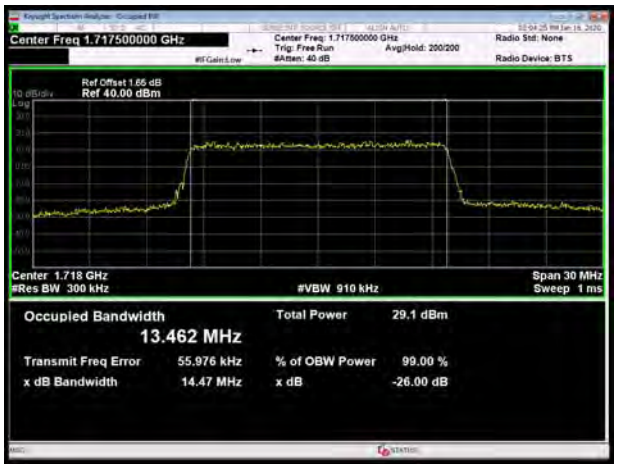
LTE Band 66 16QAM 5MHz CH-High



LTE Band 66 16QAM 10MHz CH-High

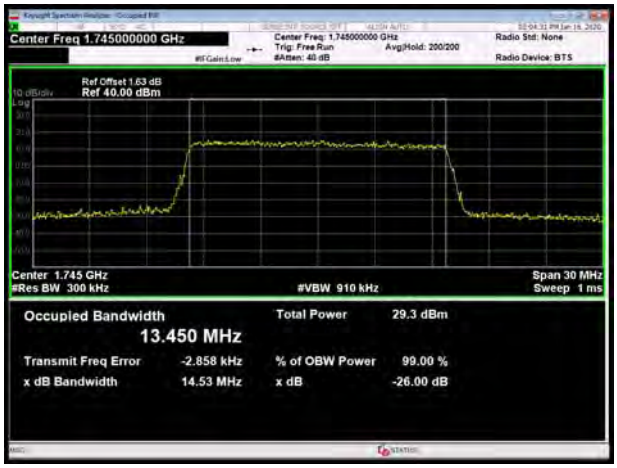


LTE Band 66 16QAM 15MHz CH-Low

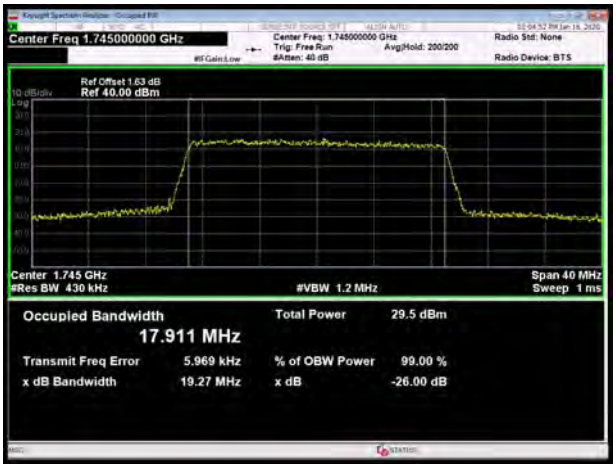


LTE Band 66 16QAM 20MHz CH-Low

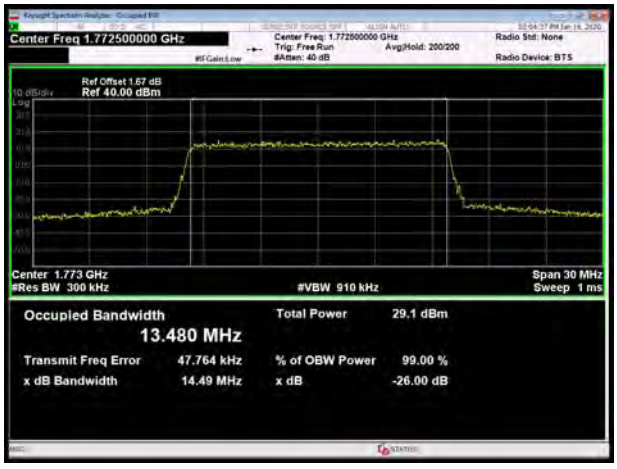
LTE Band 66 16QAM 15MHz CH-Middle



LTE Band 66 16QAM 20MHz CH-Middle



LTE Band 66 16QAM 15MHz CH-High

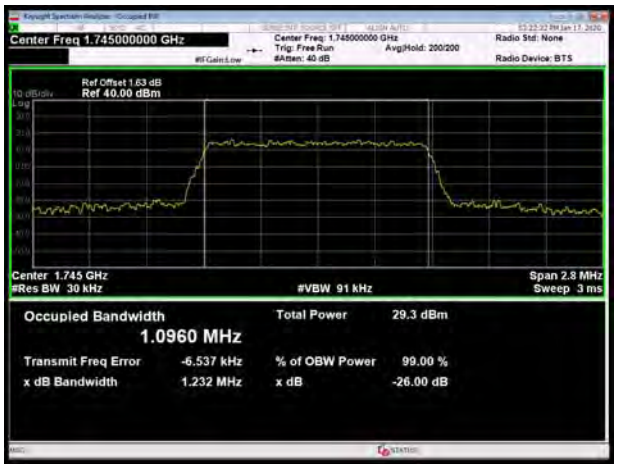


LTE Band 66 16QAM 20MHz CH-High

LTE Band 66 64QAM 1.4MHz CH-Low

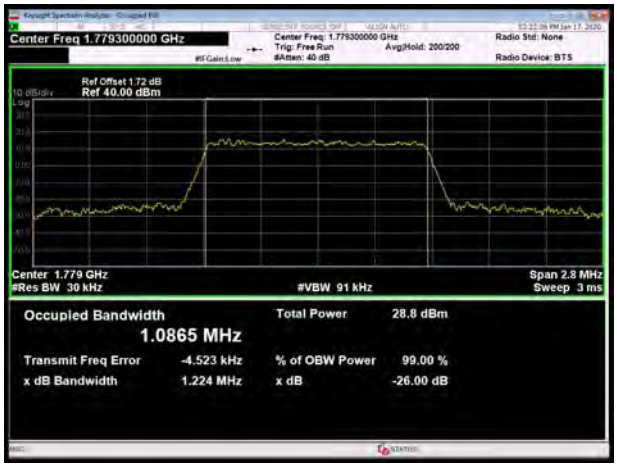
LTE Band 66 64QAM 3MHz CH-Low

LTE Band 66 64QAM 1.4MHz CH-Middle

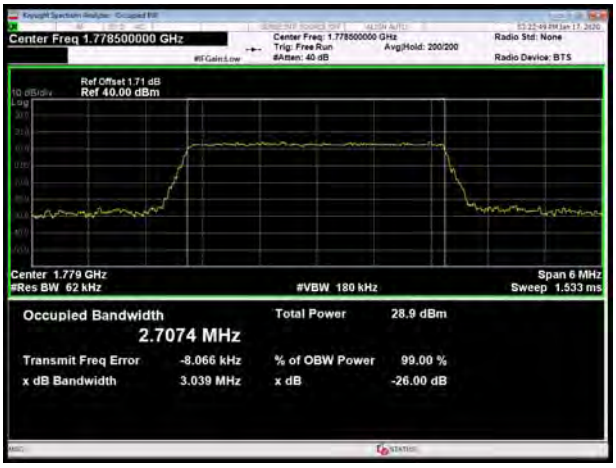


LTE Band 66 64QAM 3MHz CH-Middle

LTE Band 66 64QAM 1.4MHz CH-High

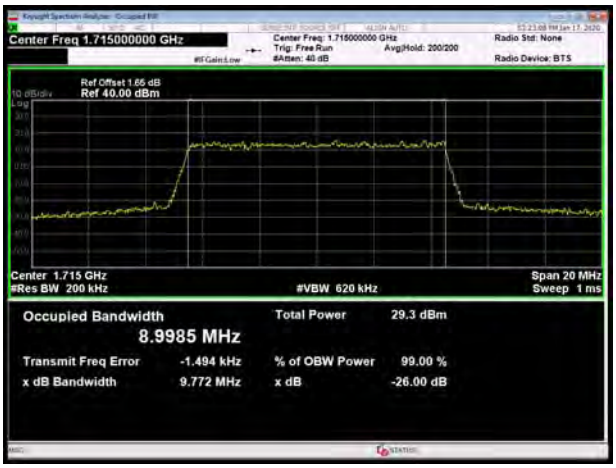


LTE Band 66 64QAM 3MHz CH-High



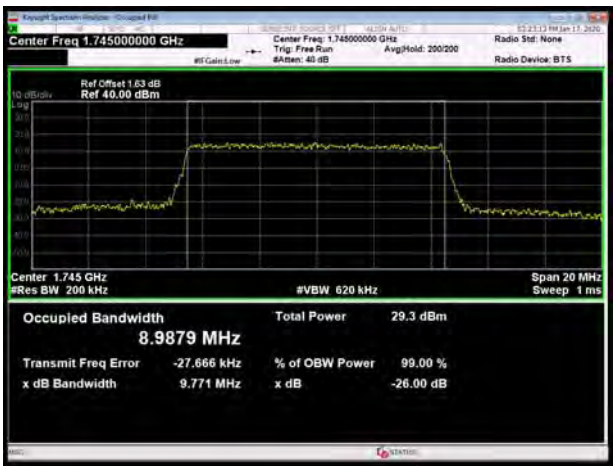
LTE Band 66 64QAM 5MHz CH-Low

LTE Band 66 64QAM 10MHz CH-Low

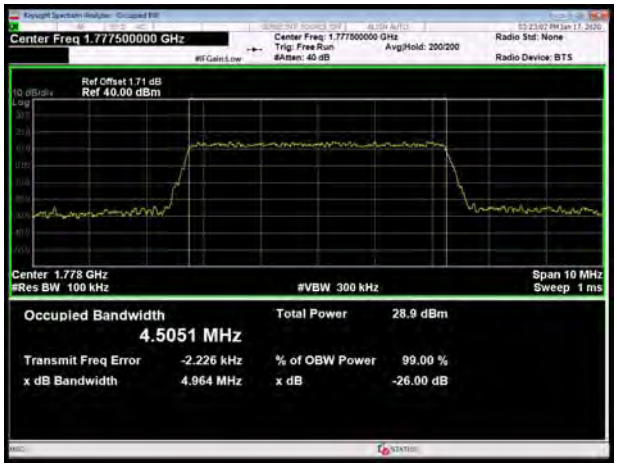


LTE Band 66 64QAM 5MHz CH-Middle

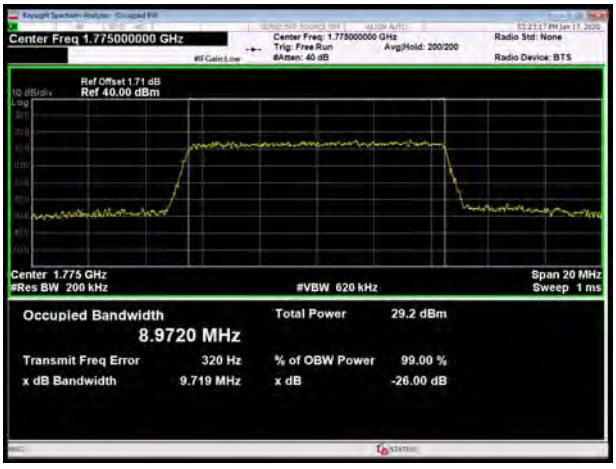
LTE Band 66 64QAM 10MHz CH-Middle



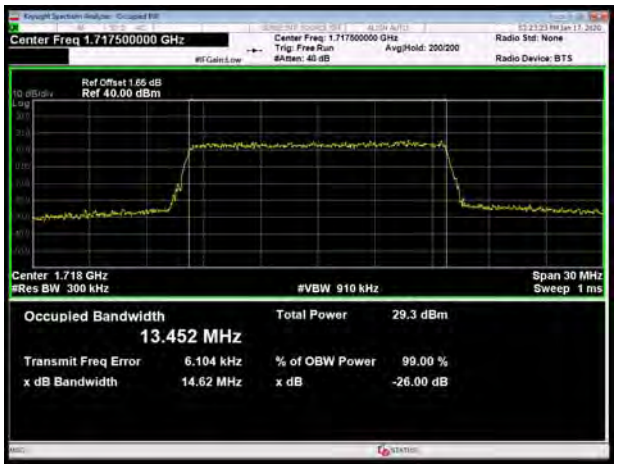
LTE Band 66 64QAM 5MHz CH-High



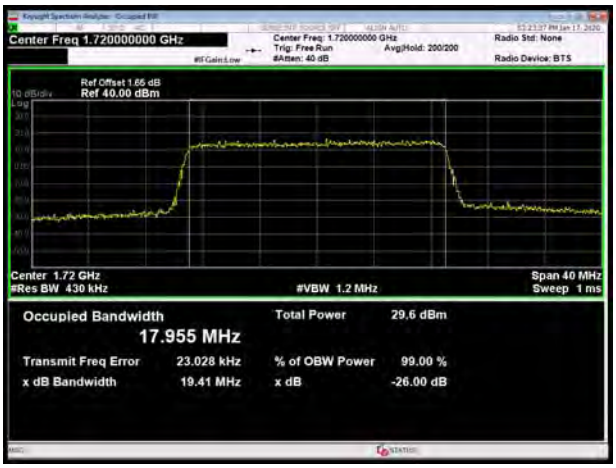
LTE Band 66 64QAM 10MHz CH-High



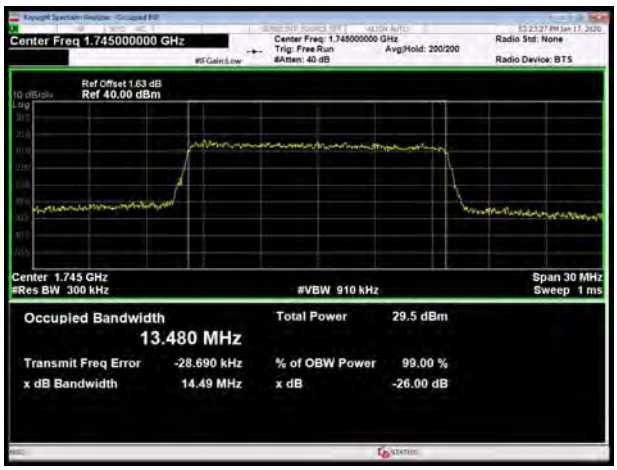
LTE Band 66 64QAM 15MHz CH-Low



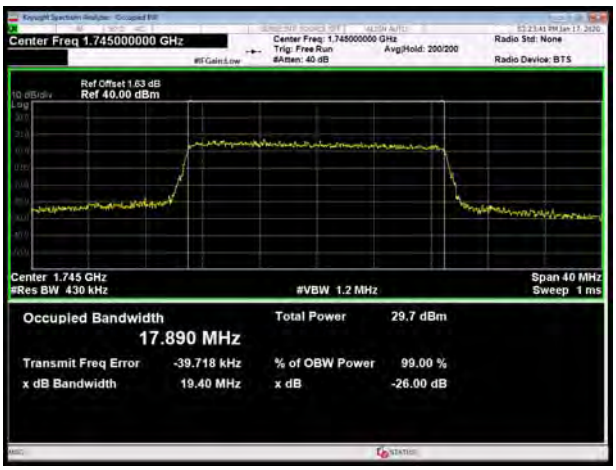
LTE Band 66 64QAM 20MHz CH-Low



LTE Band 66 64QAM 15MHz CH-Middle

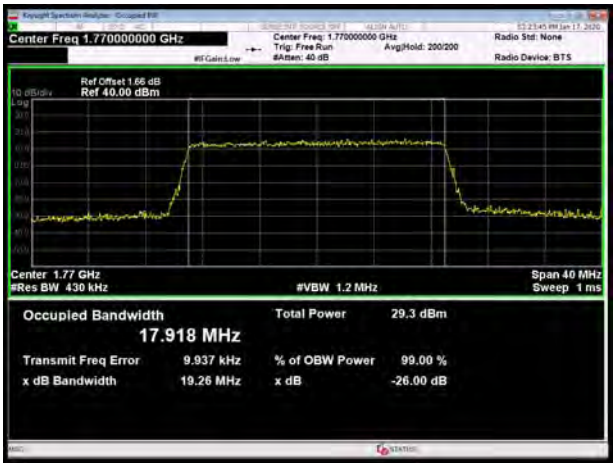


LTE Band 66 64QAM 20MHz CH-Middle



LTE Band 66 64QAM 15MHz CH-High

LTE Band 66 64QAM 20MHz CH-High



5.3 Band Edge Compliance

Ambient condition

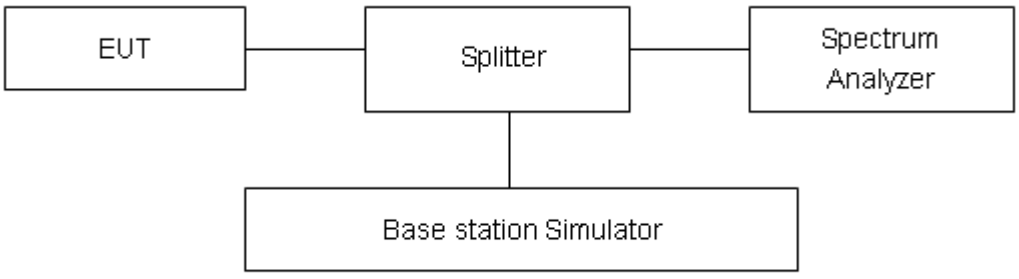
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.
The testing follows KDB 971168 D01 v03r01 Section 6.0
The EUT was connected to spectrum analyzer and system simulator via a power divider.
The band edges of low and high channels for the highest RF powers were measured.
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 4/17/66 (5MHz).
RBW is set to 50 kHz, VBW is set to 200 kHz for LTE Band 7 (5MHz).
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 4/7/17/66 (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)
RBW is set to 200 kHz, VBW is set to 1 MHz for LTE Band 7 (15MHz/20MHz).
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 12(1.4MHz/3MHz/5MHz/10MHz).
RBW is set to 6.8 kHz for LTE Band 13(763MHz~775 MHz, 793MHz~805 MHz)
RBW is set to 100 kHz for LTE Band 13(775MHz~776.9 MHz, 787.1MHz~793 MHz)
RBW is set to 30 kHz for LTE Band 13(776.9MHz~777 MHz, 787MHz~787.1 MHz)

on spectrum analyzer.
Set spectrum analyzer with RMS detector.
The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Checked that all the results comply with the emission limit line.

Test Setup



Limits

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

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

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

Rule Part 27.53(m) (4)/ specifies that "for BRS and EBS stations. For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.
Example:
The limit line is derived from 43 + 10log (P) dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log (P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

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

Rule Part 27.53 (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with

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

Measurement Uncertainty

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

Test Result

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

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

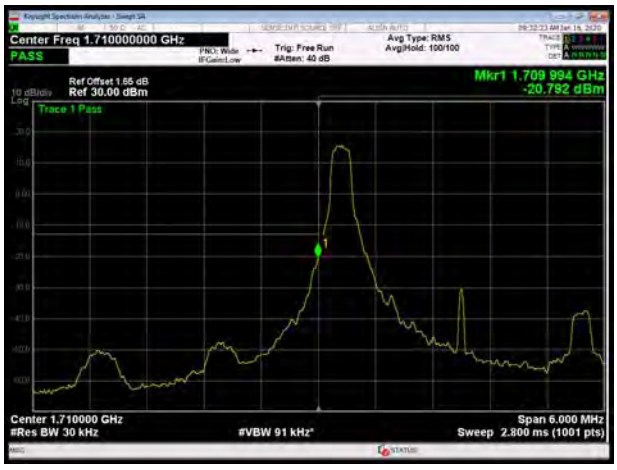
LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB

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

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

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

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



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

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

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

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

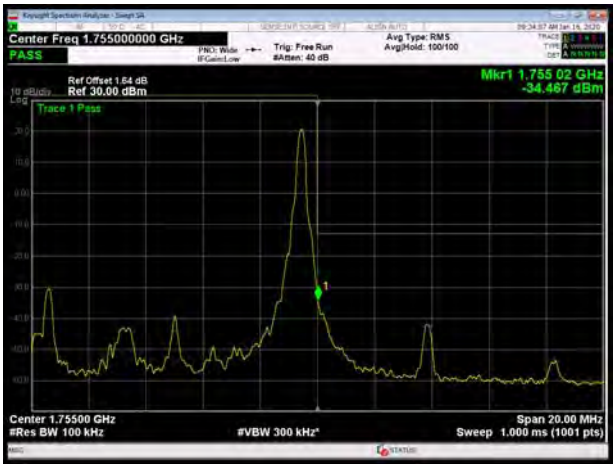
LTE Band 4 QPSK 5MHz CH-High, 1 RB

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

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

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

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

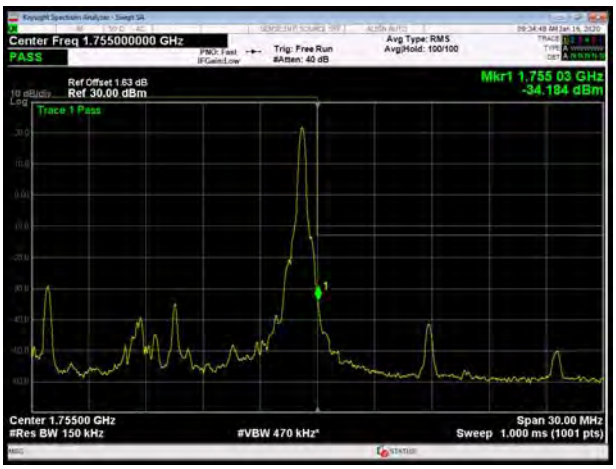


LTE Band 4 QPSK 10MHz CH-Low, 100%RB

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

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

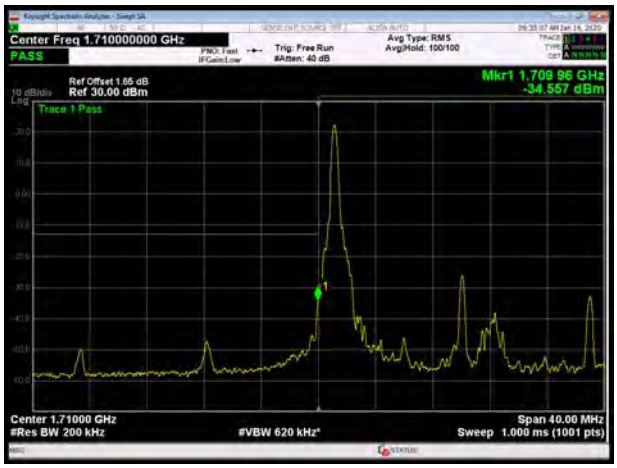
LTE Band 4 QPSK 15MHz CH-High, 1 RB



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

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

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



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

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

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

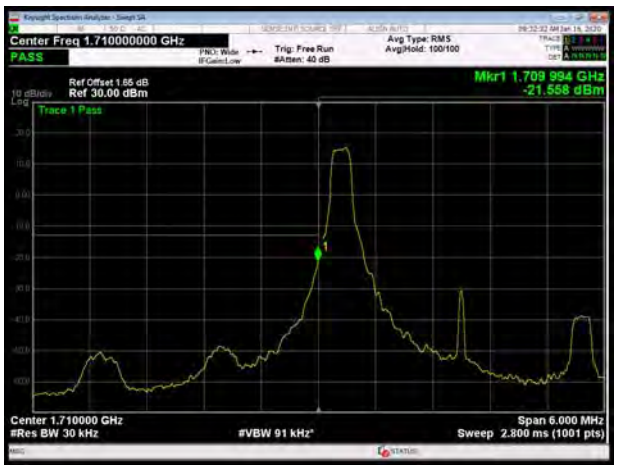
LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB

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

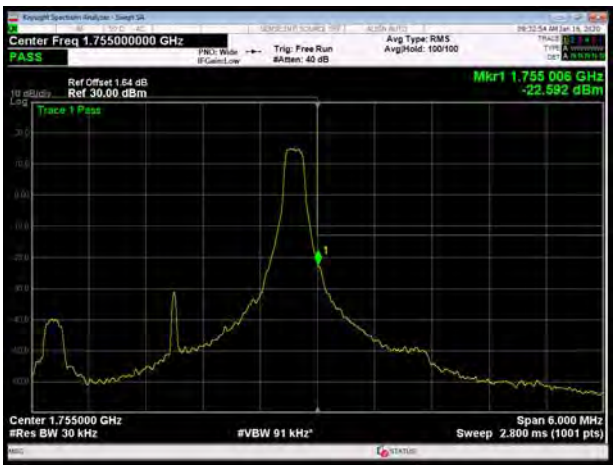
LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB

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

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



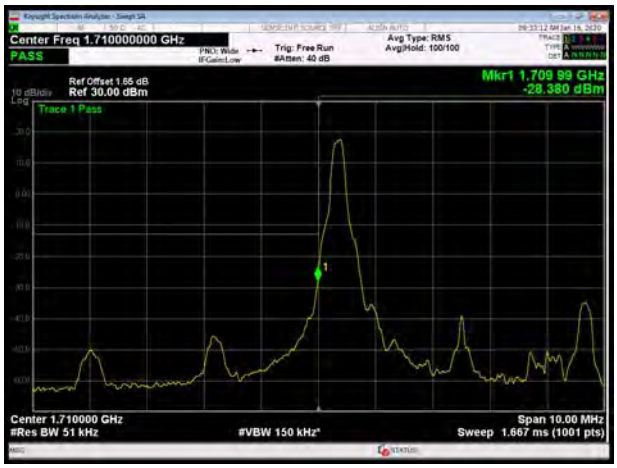
LTE Band 4 16QAM 3MHz CH-High, 1 RB



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

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

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

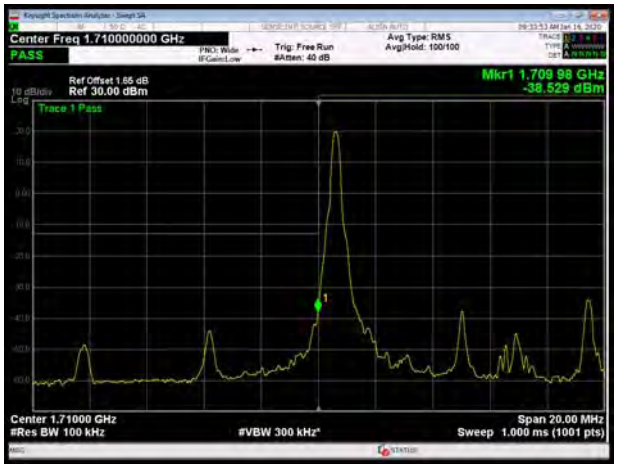


LTE Band 4 16QAM 5MHz CH-High, 1 RB

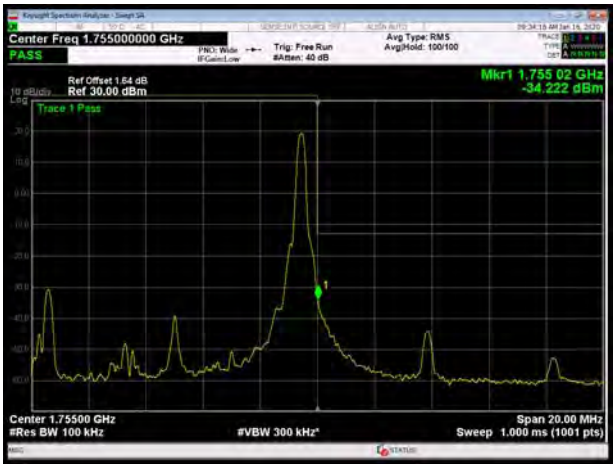
LTE Band 4 16QAM 5MHz CH-Low, 100%RB

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

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



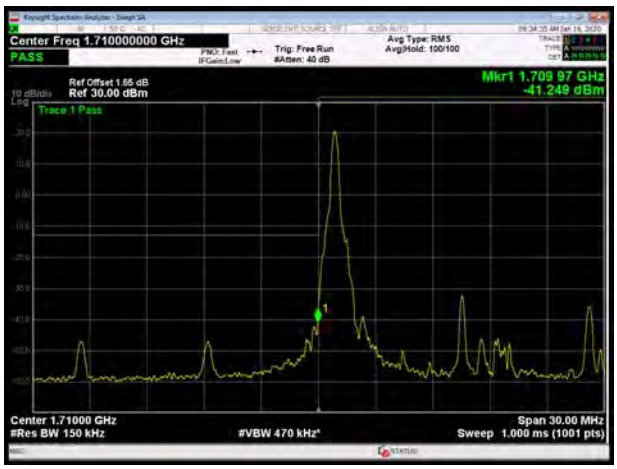
LTE Band 4 16QAM 10MHz CH-High, 1 RB



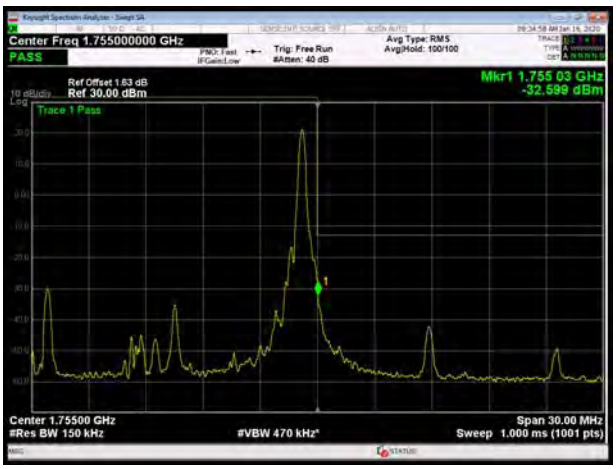
LTE Band 4 16QAM 10MHz CH-Low, 100%RB

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

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



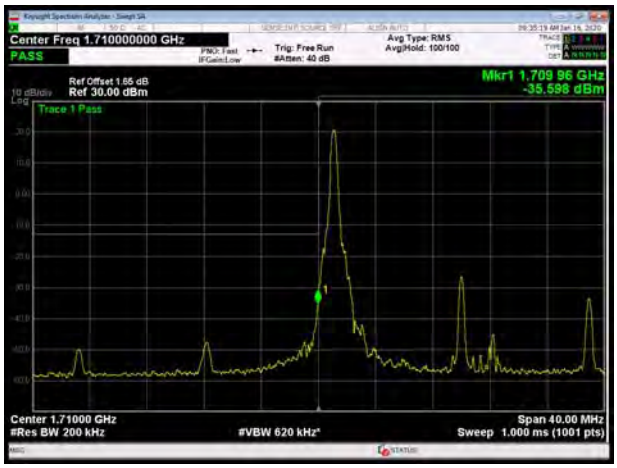
LTE Band 4 16QAM 15MHz CH-High, 1 RB



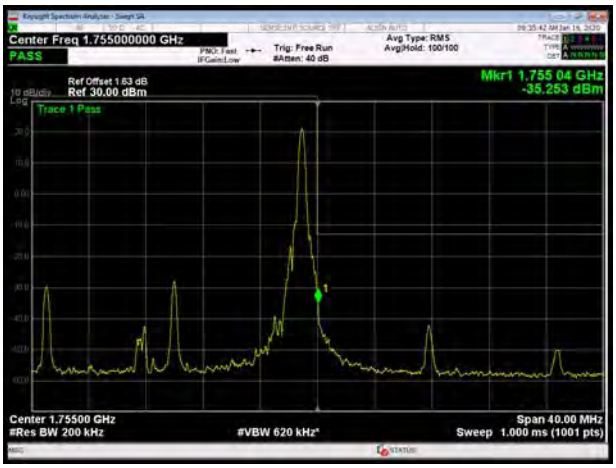
LTE Band 4 16QAM 15MHz CH-Low, 100%RB

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

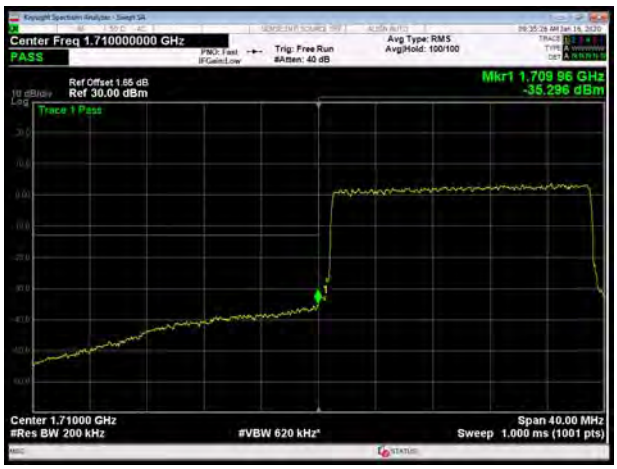
LTE Band 4 16QAM 20MHz CH-Low, 1 RB



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



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



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

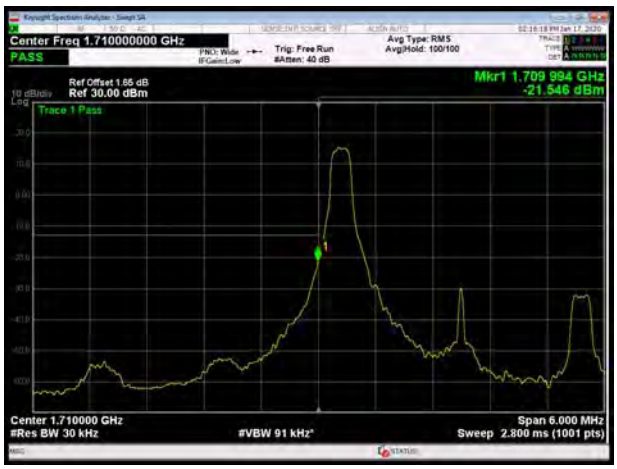
LTE Band 4 64QAM 1.4MHz CH-Low, 1 RB

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

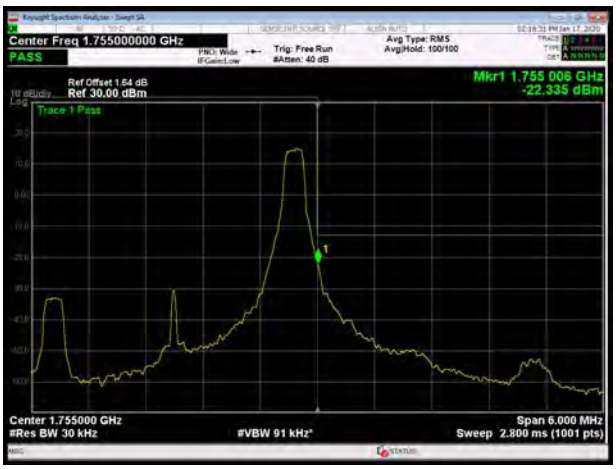
LTE Band 4 64QAM 1.4MHz CH-Low, 100%RB

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

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



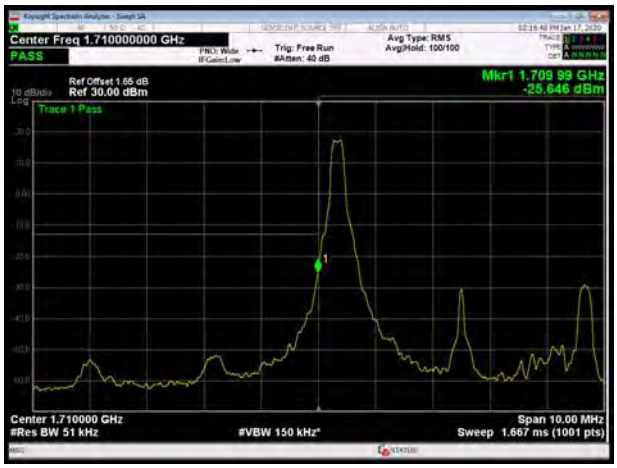
LTE Band 4 64QAM 3MHz CH-High, 1 RB



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

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

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

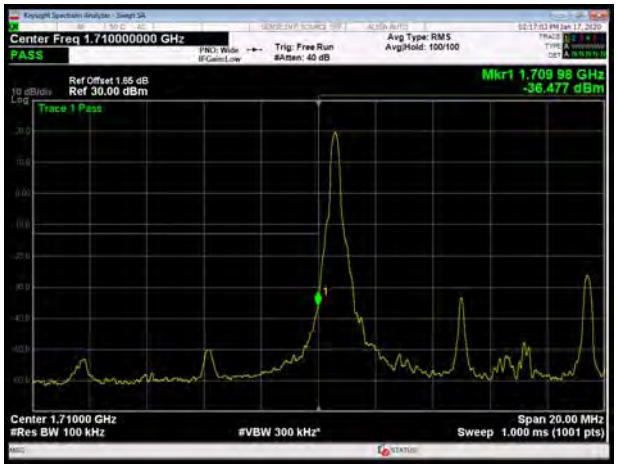


LTE Band 4 64QAM 5MHz CH-High, 1 RB

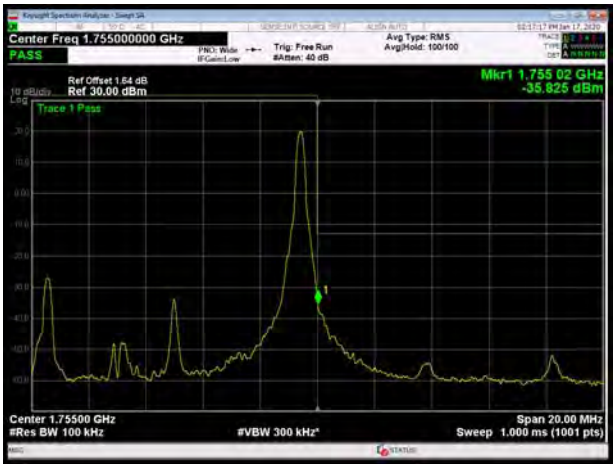
LTE Band 4 64QAM 5MHz CH-Low, 100%RB

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

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



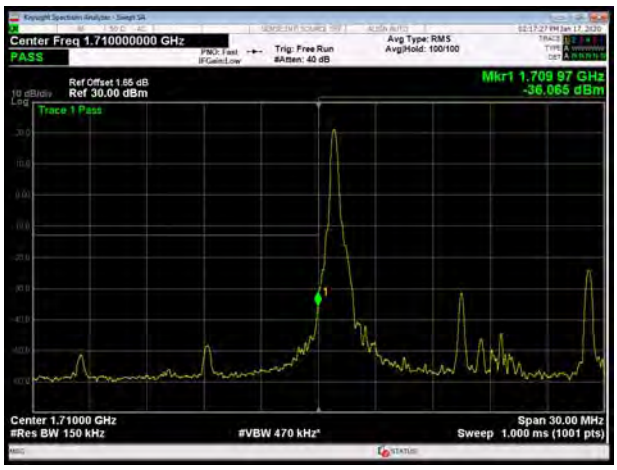
LTE Band 4 64QAM 10MHz CH-High, 1 RB



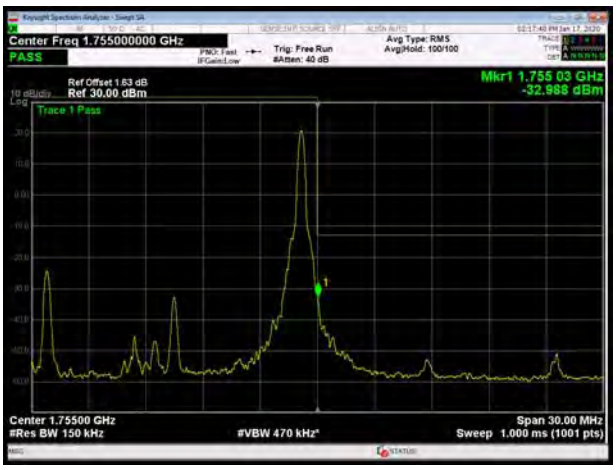
LTE Band 4 64QAM 10MHz CH-Low, 100%RB

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

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



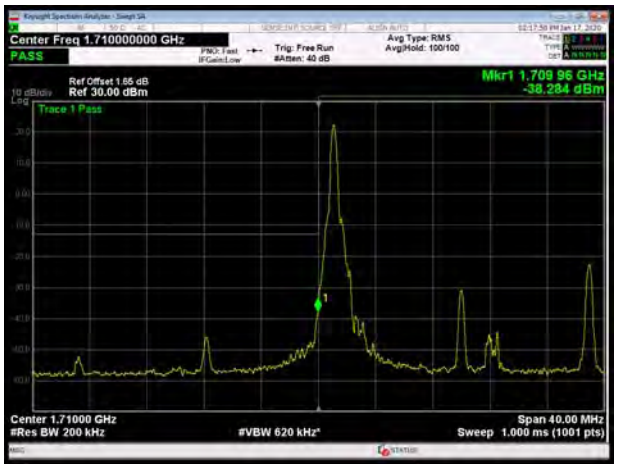
LTE Band 4 64QAM 15MHz CH-High, 1 RB



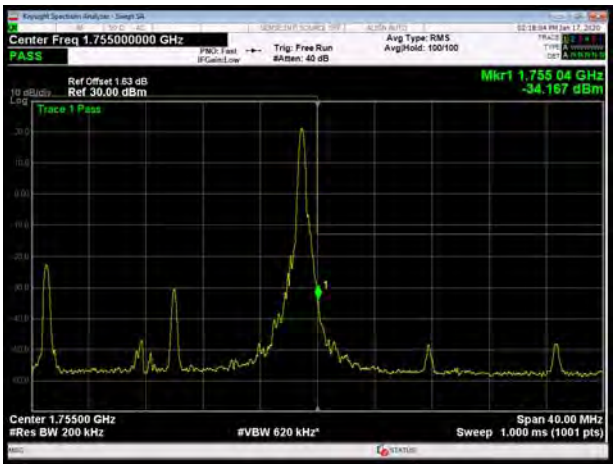
LTE Band 4 64QAM 15MHz CH-Low, 100%RB

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

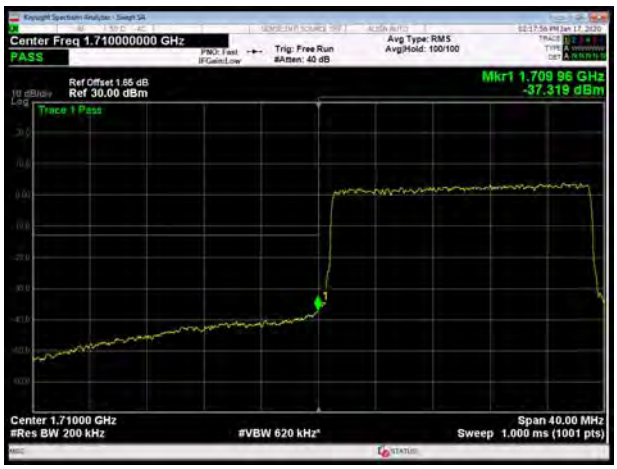
LTE Band 4 64QAM 20MHz CH-Low, 1 RB



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

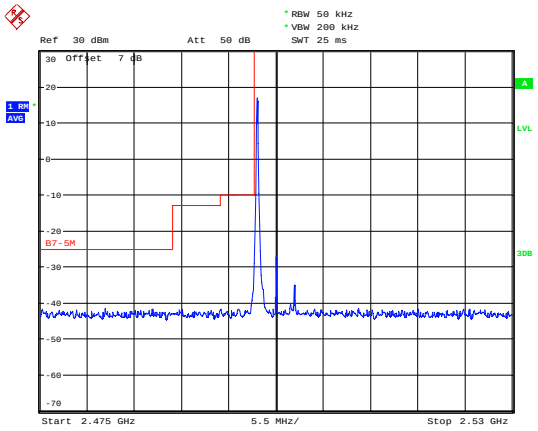


LTE Band 4 64QAM 20MHz CH-Low, 100%RB



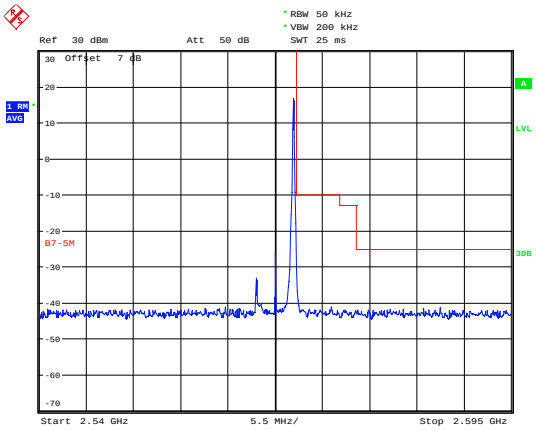
LTE Band 4 64QAM 20MHz CH-High, 100%RB

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



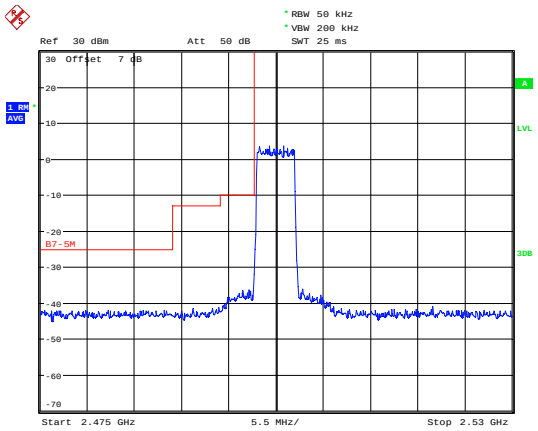
Date: 11.FEB.2020 11:40:06

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



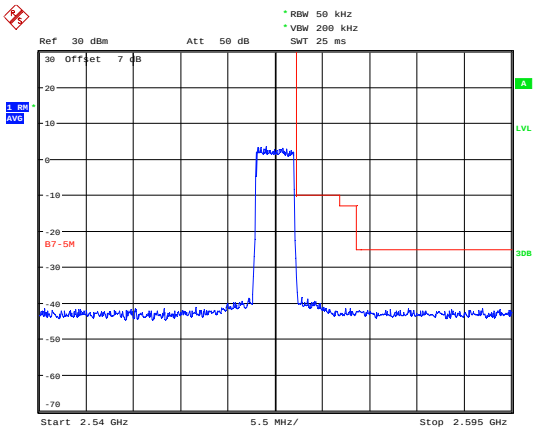
Date: 11.FEB.2020 11:43:35

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



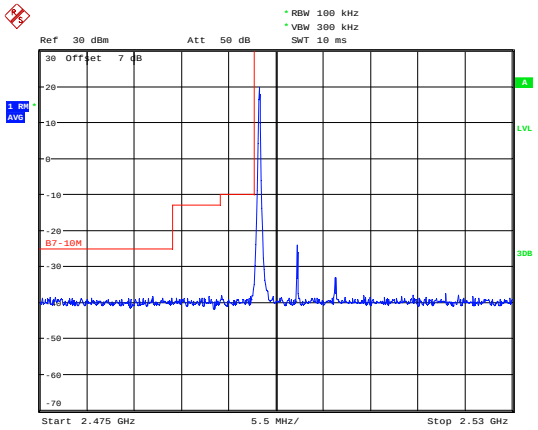
Date: 11.FEB.2020 11:40:22

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



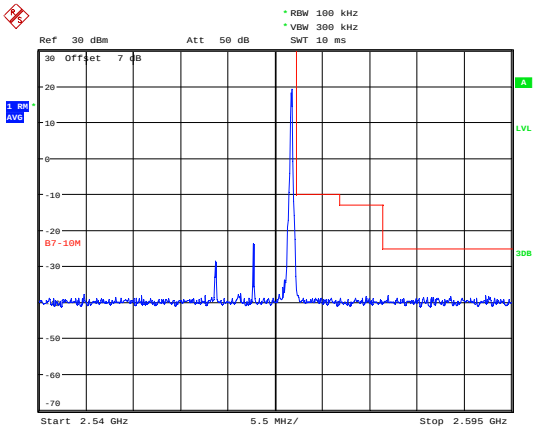
Date: 11.FEB.2020 11:44:31

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



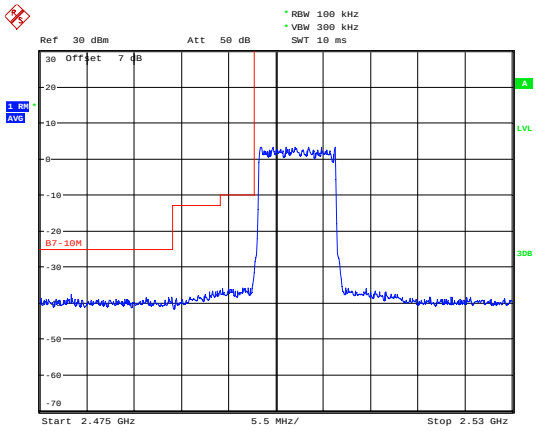
Date: 11.FEB.2020 11:46:41

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



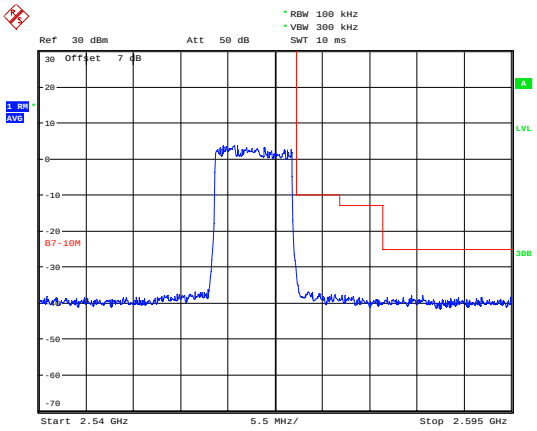
Date: 11.FEB.2020 11:48:29

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



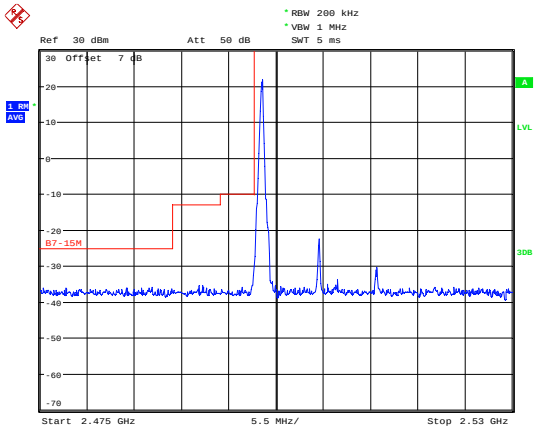
Date: 11.FEB.2020 11:46:55

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



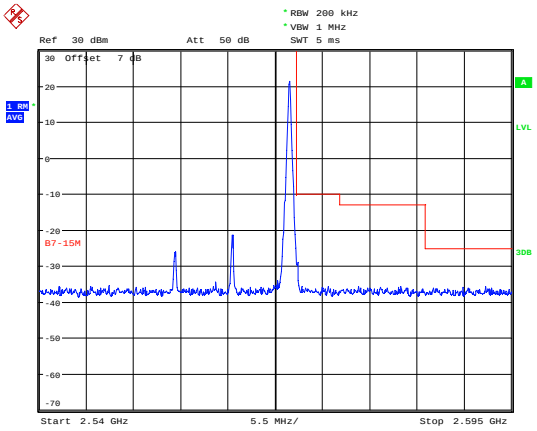
Date: 11.FEB.2020 11:48:41

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



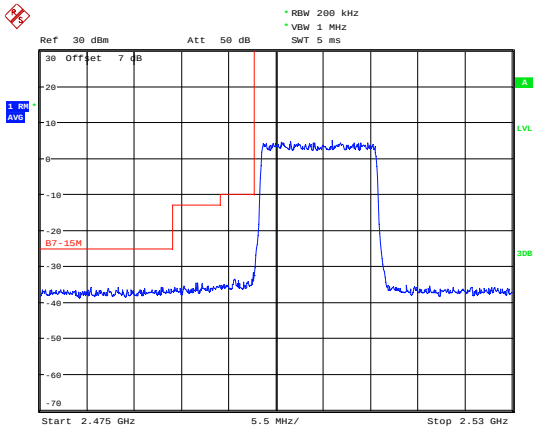
Date: 11.FEB.2020 11:50:23

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



Date: 11.FEB.2020 11:51:57

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



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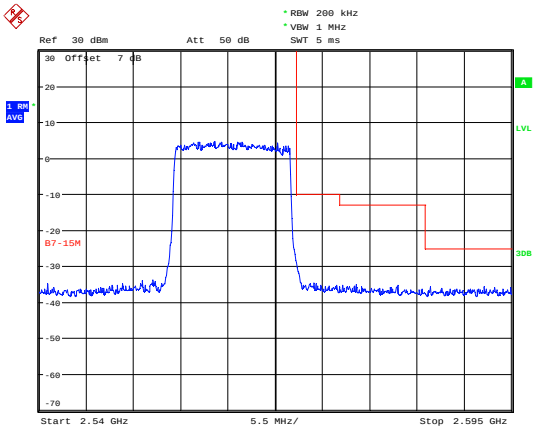
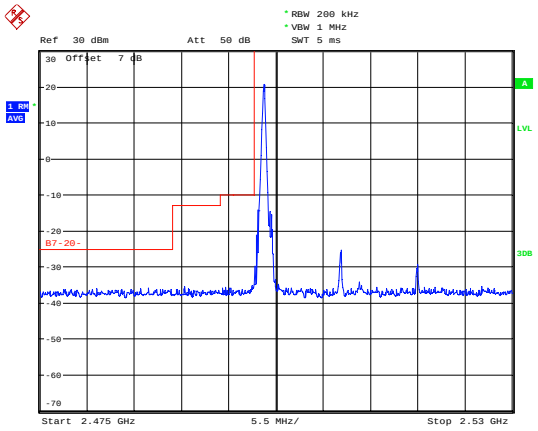
LTE Band 7 QPSK 15MHz CH-High, 100%RB



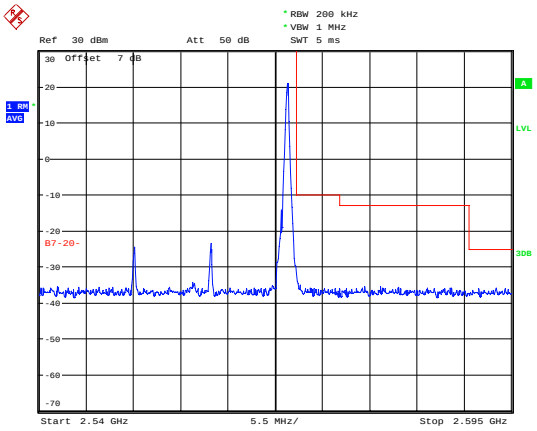
Date: 11.FEB.2020 11:52:09

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



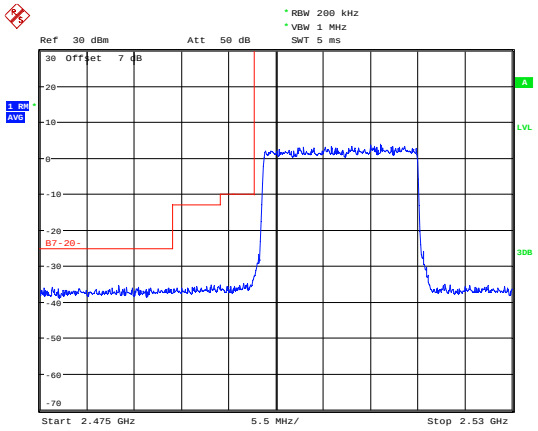
Date: 11.FEB.2020 12:23:08

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



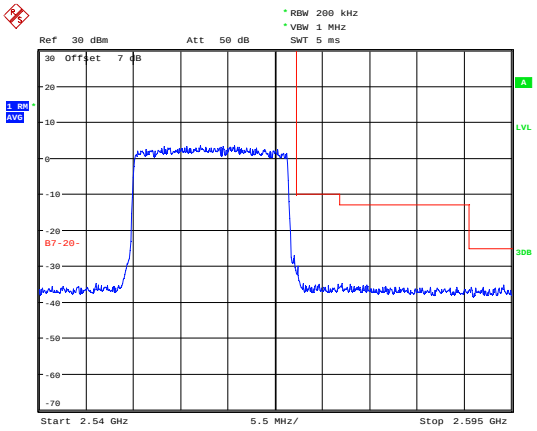
Date: 11.FEB.2020 12:25:30

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



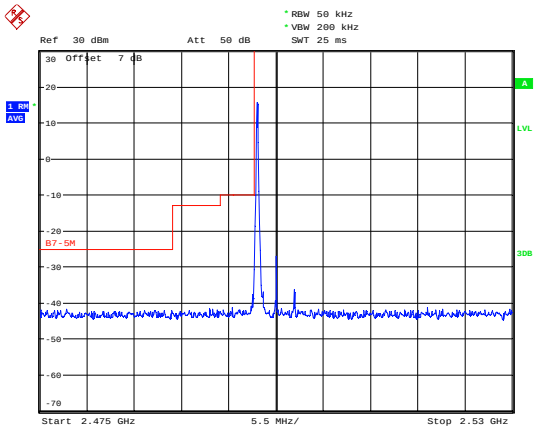
Date: 11.FEB.2020 12:23:22

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



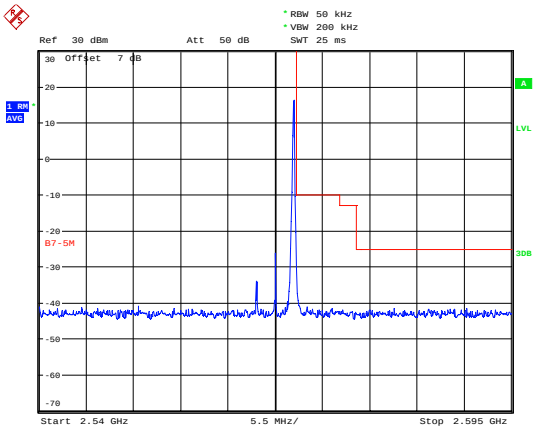
Date: 11.FEB.2020 12:25:43

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



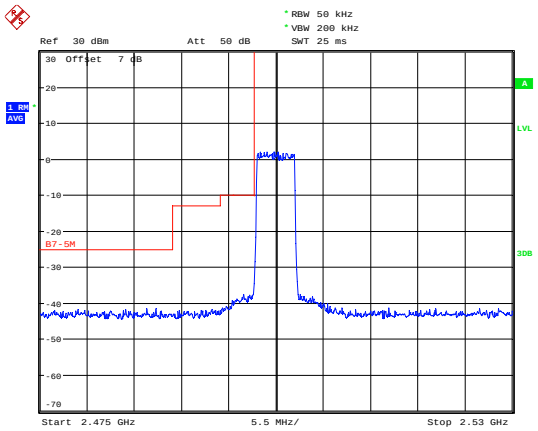
Date: 11.FEB.2020 11:40:43

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



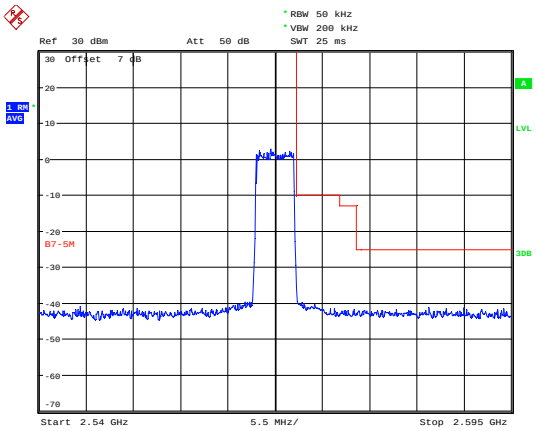
Date: 11.FEB.2020 11:44:46

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



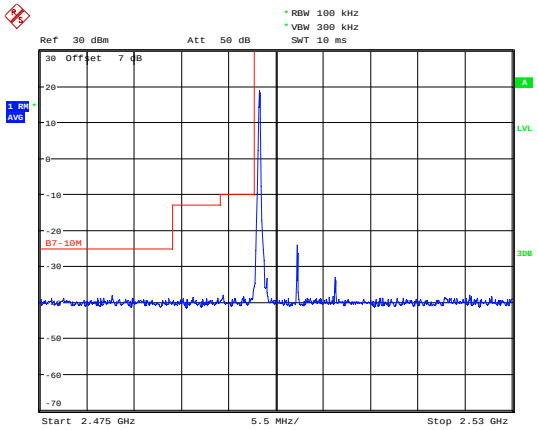
Date: 11.FEB.2020 11:40:57

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



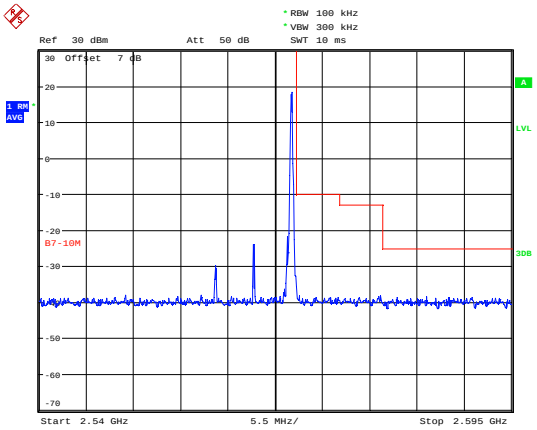
Date: 11.FEB.2020 11:44:58

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



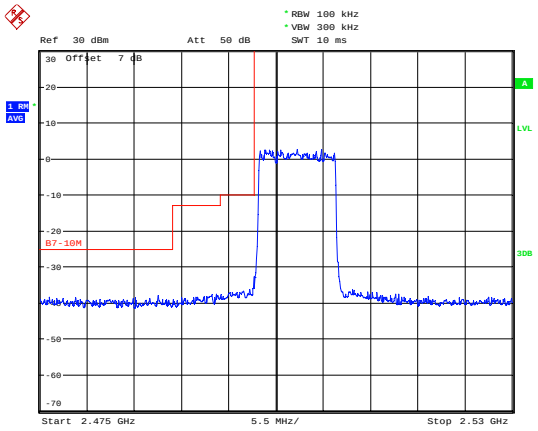
Date: 11.FEB.2020 11:47:09

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



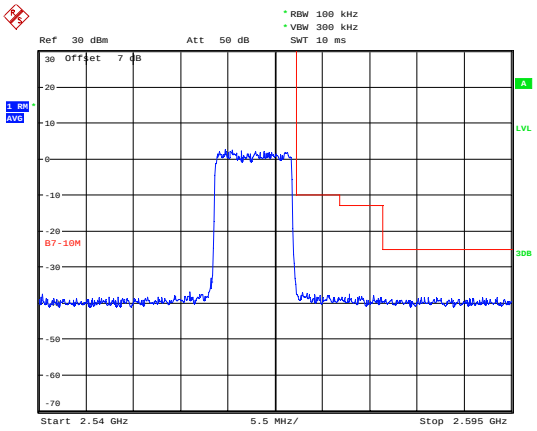
Date: 11.FEB.2020 11:48:54

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



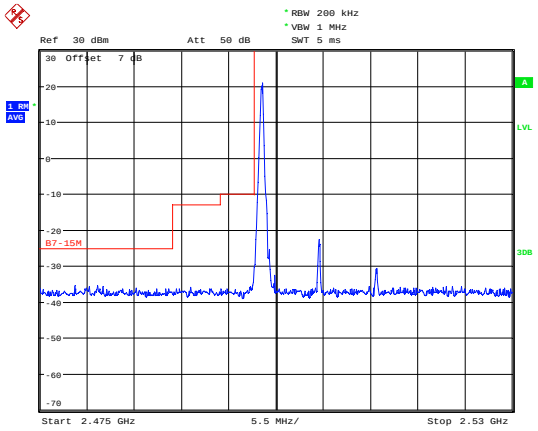
Date: 11.FEB.2020 11:47:22

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



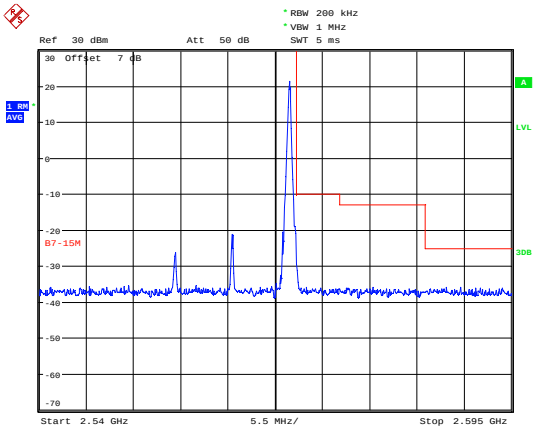
Date: 11.FEB.2020 11:49:07

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



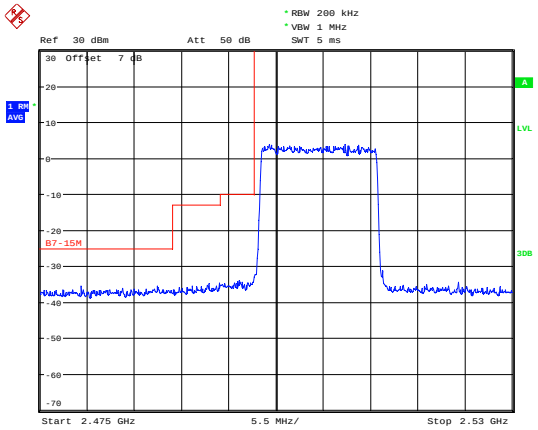
Date: 11.FEB.2020 11:50:49

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



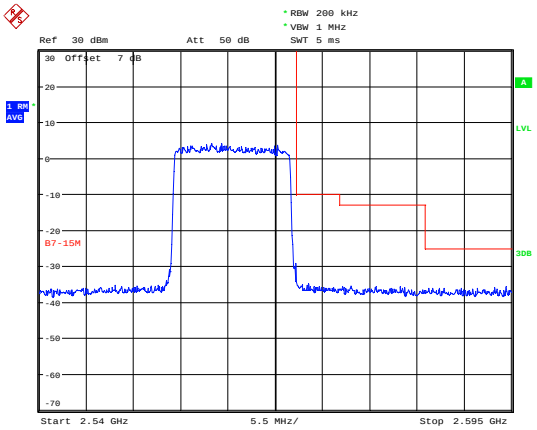
Date: 11.FEB.2020 11:52:24

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



Date: 11.FEB.2020 11:51:00

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



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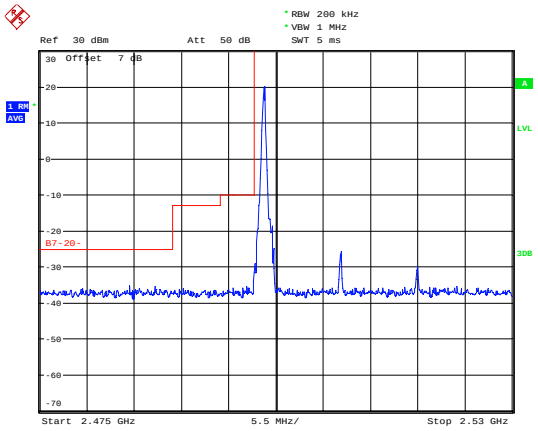
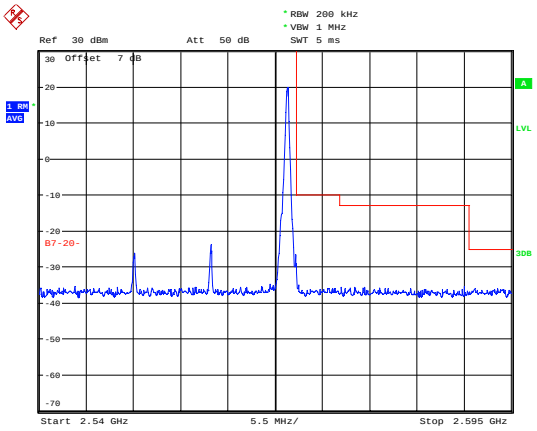
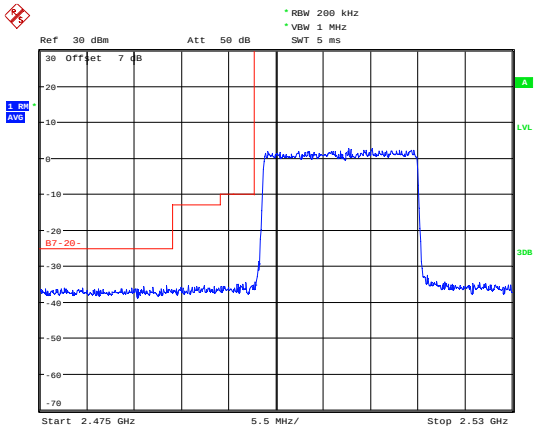
LTE Band 7 16QAM 20MHz CH-Low, 1 RB



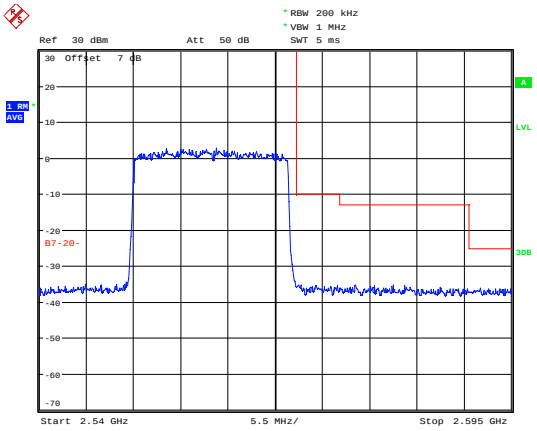
LTE Band 7 16QAM 20MHz CH-High, 1 RB



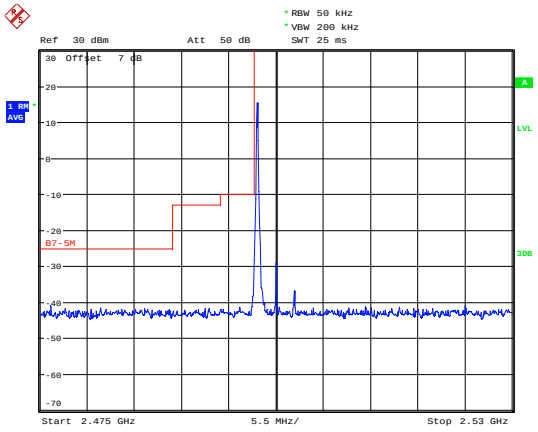
LTE Band 7 16QAM 20MHz CH-Low, 100%RB



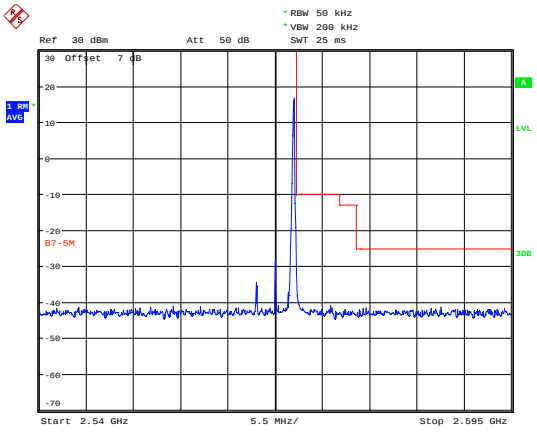
LTE Band 7 16QAM 20MHz CH-High, 100%RB



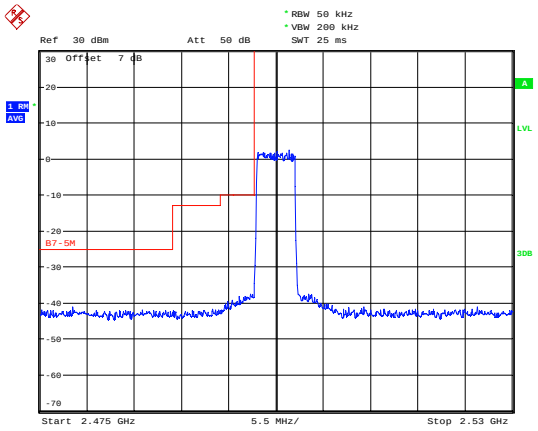
LTE Band 7 64QAM 5MHz CH-Low, 1 RB



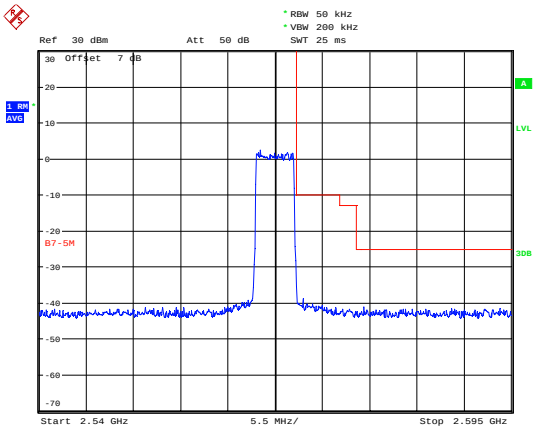
LTE Band 7 64QAM 5MHz CH-High, 1 RB



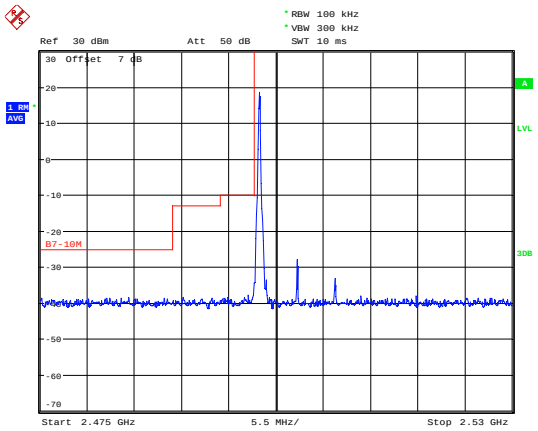
LTE Band 7 64QAM 5MHz CH-Low, 100%RB



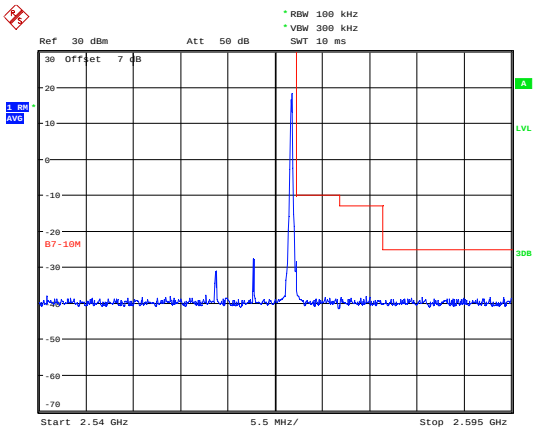
LTE Band 7 64QAM 5MHz CH-High, 100%RB



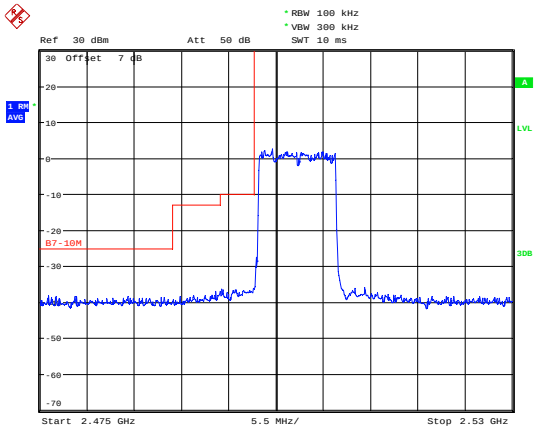
LTE Band 7 64QAM 10MHz CH-Low, 1 RB



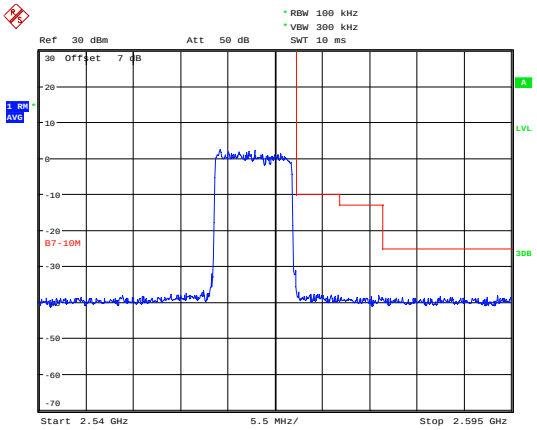
LTE Band 7 64QAM 10MHz CH-High, 1 RB



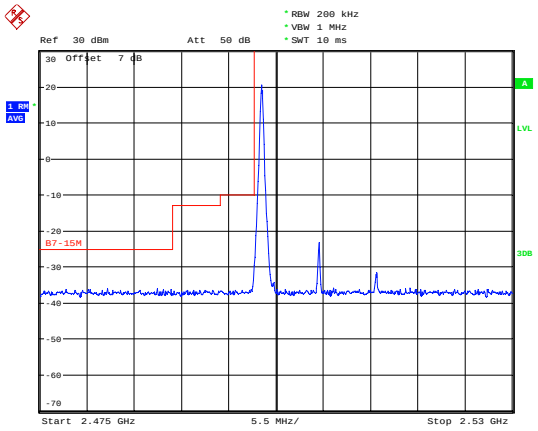
LTE Band 7 64QAM 10MHz CH-Low, 100%RB



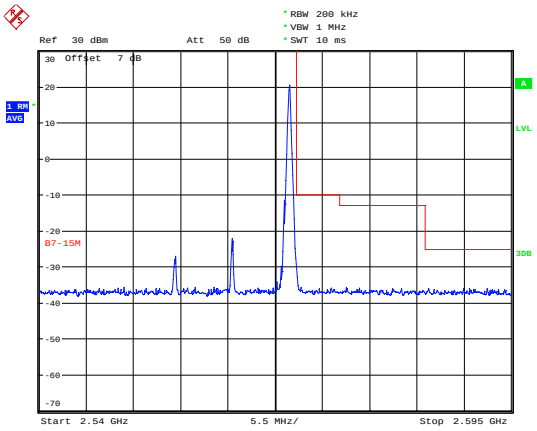
LTE Band 7 64QAM 10MHz CH-High, 100%RB



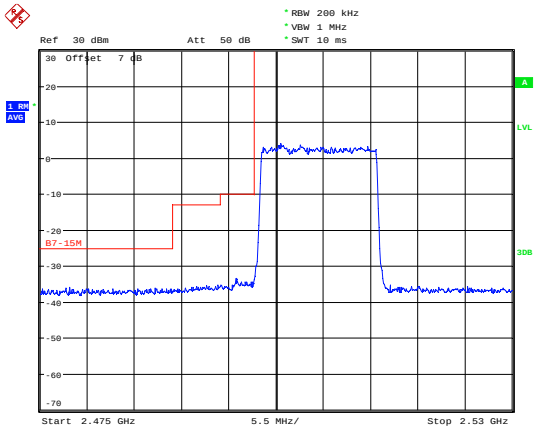
LTE Band 7 64QAM 15MHz CH-Low, 1 RB



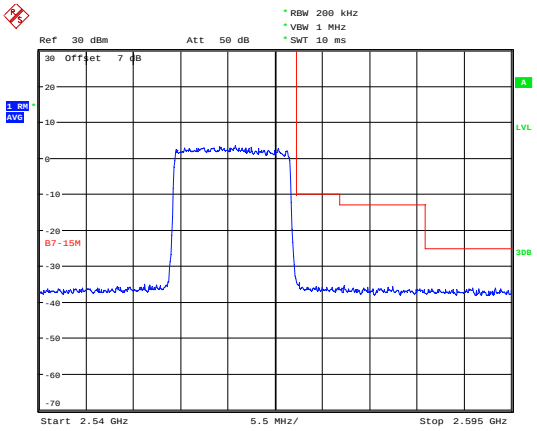
LTE Band 7 64QAM 15MHz CH-High, 1 RB



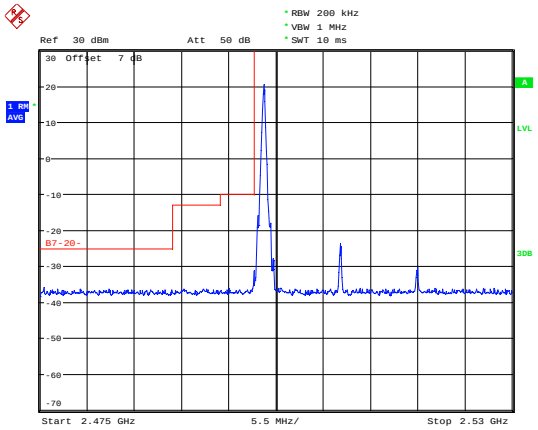
LTE Band 7 64QAM 15MHz CH-Low, 100%RB



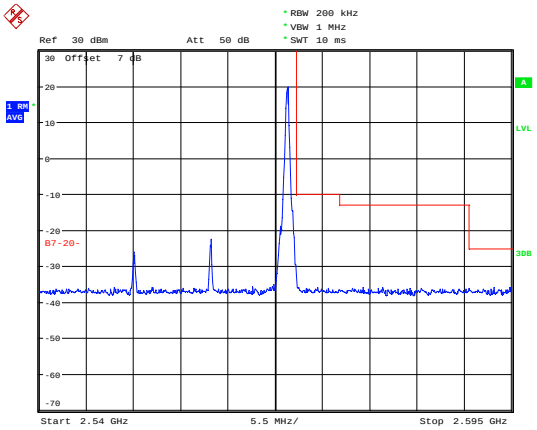
LTE Band 7 64QAM 15MHz CH-High, 100%RB



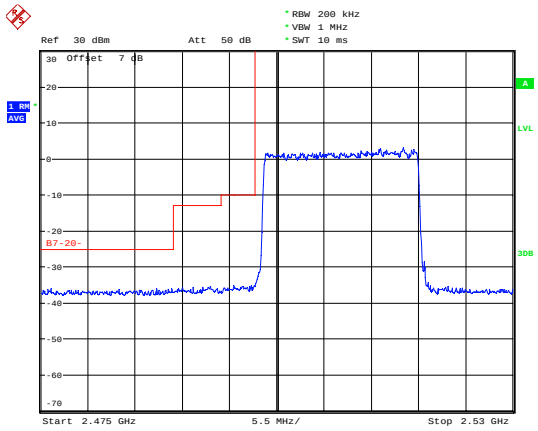
LTE Band 7 64QAM 20MHz CH-Low, 1 RB



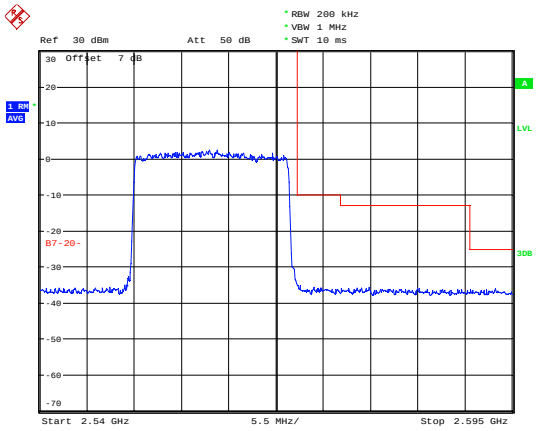
LTE Band 7 64QAM 20MHz CH-High, 1 RB



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



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



LTE Band 12 QPSK 1.4MHz CH-Low, 1 RB

LTE Band 12 QPSK 1.4MHz CH-High, 1 RB

LTE Band 12 QPSK 1.4MHz CH-Low, 100%RB

LTE Band 12 QPSK 1.4MHz CH-High, 100%RB

LTE Band 12 QPSK 3MHz CH-Low, 1 RB

LTE Band 12 QPSK 3MHz CH-High, 1 RB

LTE Band 12 QPSK 3MHz CH-Low, 100%RB

LTE Band 12 QPSK 3MHz CH-High, 100%RB

LTE Band 12 QPSK 5MHz CH-Low, 1 RB

LTE Band 12 QPSK 5MHz CH-High, 1 RB

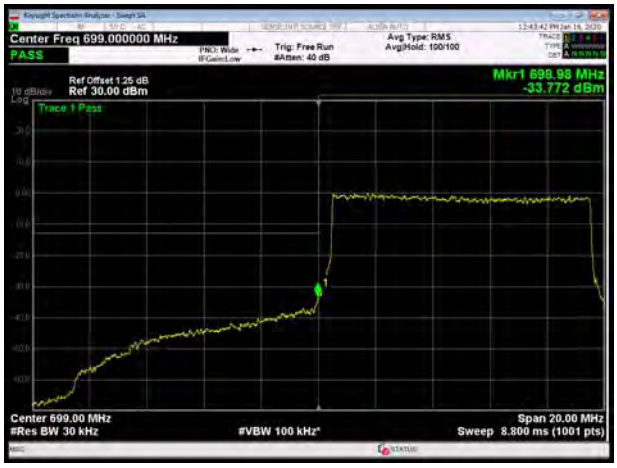
LTE Band 12 QPSK 5MHz CH-Low, 100%RB

LTE Band 12 QPSK 5MHz CH-High, 100%RB

LTE Band 12 QPSK 10MHz CH-Low, 1 RB

LTE Band 12 QPSK 10MHz CH-High, 1 RB

LTE Band 12 QPSK 10MHz CH-Low, 100%RB



LTE Band 12 QPSK 10MHz CH-High, 100%RB