



RF TEST REPORT

Applicant Shanghai Smawave Technology Co. ,Ltd
FCC ID 2AU8HMGL6201A
Product LTE Module
Brand Smawave
Model MGL6201A
Report No. R2001A0002-R3V1
Issue Date February 20, 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.

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF power output and Effective 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
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.			
Date of Testing: October 1, 2019~ November 7, 2019 and December 31, 2019			



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 Testing Location

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

2.1 Applicant and Manufacturer Information

Applicant	Shanghai Smawave Technology Co. ,Ltd
Applicant address	3/F, Building 8, 1001 North Qinzhou Road, Xuhui District, Shanghai, China
Manufacturer	Shanghai Smawave Technology Co. ,Ltd
Manufacturer address	3/F, Building 8, 1001 North Qinzhou Road, Xuhui District, Shanghai, China

2.2 General information

EUT Description			
Model	MGL6201A		
IMEI	860524031979550		
Hardware Version	V2.0		
Software Version	CAT12-A		
Power Supply	External Power Supply		
Antenna Type	External Antenna		
Antenna Gain	LTE Band 4:1.49dBi LTE Band 12:1.04dBi LTE Band 13:1.04dBi LTE Band 41:3.99dBi LTE Band 66:1.49dBi		
Test Mode(s)	LTE Band 4; LTE Band 12, LTE Band 13,LTE Band 41, LTE Band66;		
Test Modulation	(LTE)QPSK, 16QAM, 64QAM;		
LTE Category	12		
Maximum E.I.R.P./ E.R.P.	LTE Band 4:	24.97dBm	
	LTE Band 12:	22.71dBm	
	LTE Band 13:	22.72dBm	
	LTE Band 41:	27.59dBm	
	LTE Band 66:	25.29dBm	
Rated Power Supply Voltage:	3.3V		
Extreme Voltage	Minimum: 3V Maximum: 3.6V		
Extreme Temperature	Lowest: -40°C Highest: +70°C		
Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 12	699 ~ 716	729 ~ 746



	LTE Band 13	777 ~ 787	746 ~ 756
	LTE Band 41	2496 ~ 2690	2496 ~ 2690
	LTE Band 66	1710 ~ 1780	2110 ~ 2200
Note: 1. The information of the EUT is declared by the manufacturer.			



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

The main board of the product (product name: SGL4010) is the same as the module(module name:MGL6201A), including the PCB layout and the BOM list , without any change.

The conducted test results will reference to SGL4010 (report No.: R1909A0578-R3).

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

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

Subsequently, only the worst case emissions are reported.

The following testing in 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 LTE Band 4/12/13/41/66:

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	LTE 4	O	O	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 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Effective Isotropic Radiated power	LTE 4	O	O	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 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 66	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 4	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
	LTE 13	-	-	O	O	-	-	O	O	O	-	-	O	O	O	O
	LTE 41	-	-	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
Band Edge Compliance	LTE 4	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
	LTE 13	-	-	O	O	-	-	O	O	O	O	-	O	O	-	O
	LTE 41	-	-	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
Peak-to-Av	LTE 4	O	O	O	O	O	O	O	O	O	-	-	O	O	O	O



Average Power Ratio	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 41	-	-	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
Frequency Stability	LTE 4	O	O	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 41	-	-	O	O	O	O	O	O	O	-	-	O	-	O	-
	LTE 66	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 12	O	O	O	O	-	-	O	-	-	O	-	-	O	O	O
	LTE 13	-	-	O	O	-	-	O	-	-	O	-	-	O	O	O
	LTE 41	-	-	O	O	O	O	O	-	-	O	-	-	O	O	O
	LTE 66	O	O	O	O	O	O	O	-	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	-	O	-	-	-	O	-
	LTE 12	O	-	O	O	-	-	O	-	-	O	-	-	-	O	-
	LTE 13	-	-	O	O	-	-	O	-	-	O	-	-	-	O	-
	LTE 41	-	-	O	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 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. $LOSS = \text{Generator Output Power (dBm)} - \text{Analyzer reading (dBm)}$

e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation: $ERP \text{ (dBm)} = LVL \text{ (dBm)} + LOSS \text{ (dB)}$

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:

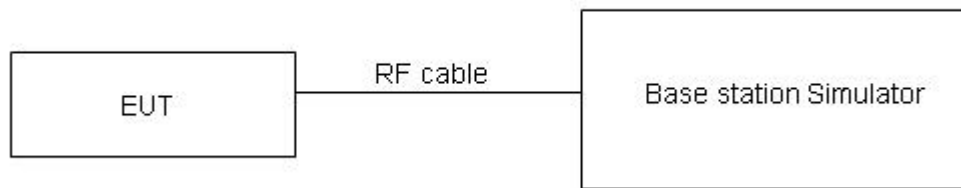
$$EIRP \text{ (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$$

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

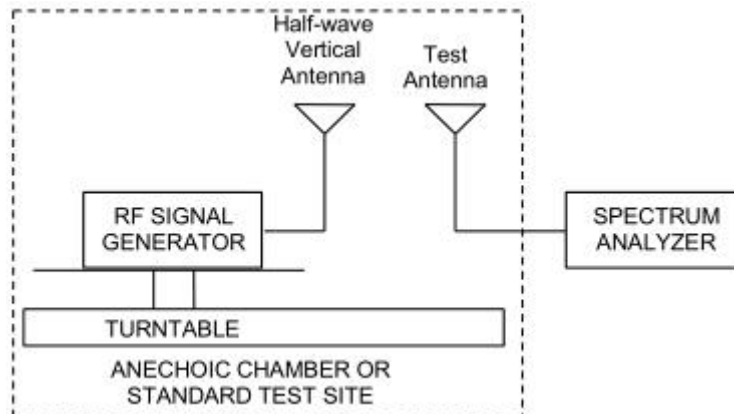
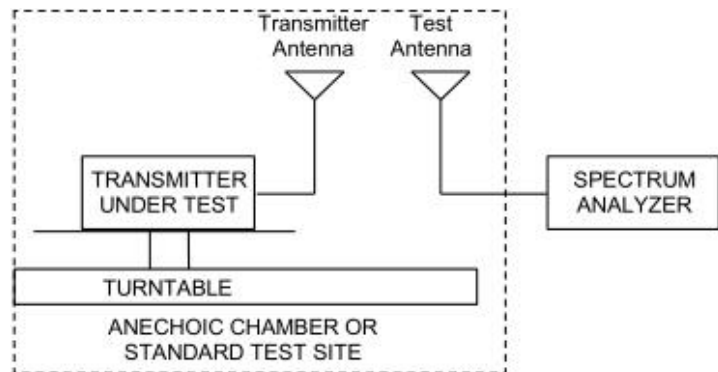
$$EIRP \text{ (dBm)} = ERP \text{ (dBm)} + 2.15 \text{ (dB.)}$$

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 -LTE 13	$\leq 3 \text{ W}$ (34.77 dBm)
Part 27.50(c)(10)Limit -LTE 12	$\leq 3 \text{ W}$ (34.77 dBm)
Part 27.50(d)(4)Limit -LTE 4/66	$\leq 1 \text{ W}$ (30 dBm)
Part 27.50(h)(2) Limit-LTE 41	$\leq 2 \text{ W}$ (33 dBm)

Measurement Uncertainty

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

**Test Results**

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP(dBm)
Band4	1.4M	QPSK	19957	1RB#0	20.85	22.34
Band4	1.4M	QPSK	19957	1RB#2	21.95	23.44
Band4	1.4M	QPSK	19957	1RB#5	23.39	24.88
Band4	1.4M	QPSK	19957	3RB#0	21.54	23.03
Band4	1.4M	QPSK	19957	3RB#2	21.44	22.93
Band4	1.4M	QPSK	19957	3RB#3	22.61	24.10
Band4	1.4M	QPSK	19957	6RB#0	22.02	23.51
Band4	1.4M	QPSK	20175	1RB#0	23.01	24.50
Band4	1.4M	QPSK	20175	1RB#2	22.67	24.16
Band4	1.4M	QPSK	20175	1RB#5	22.30	23.79
Band4	1.4M	QPSK	20175	3RB#0	22.76	24.25
Band4	1.4M	QPSK	20175	3RB#2	22.71	24.20
Band4	1.4M	QPSK	20175	3RB#3	22.22	23.71
Band4	1.4M	QPSK	20175	6RB#0	22.47	23.96
Band4	1.4M	QPSK	20393	1RB#0	22.86	24.35
Band4	1.4M	QPSK	20393	1RB#2	21.43	22.92
Band4	1.4M	QPSK	20393	1RB#5	20.64	22.13
Band4	1.4M	QPSK	20393	3RB#0	21.81	23.30
Band4	1.4M	QPSK	20393	3RB#2	21.78	23.27
Band4	1.4M	QPSK	20393	3RB#3	20.49	21.98
Band4	1.4M	QPSK	20393	6RB#0	21.29	22.78
Band4	1.4M	16QAM	19957	1RB#0	20.91	22.40
Band4	1.4M	16QAM	19957	1RB#2	22.03	23.52
Band4	1.4M	16QAM	19957	1RB#5	23.43	24.92
Band4	1.4M	16QAM	19957	3RB#0	21.36	22.85
Band4	1.4M	16QAM	19957	3RB#2	21.29	22.78
Band4	1.4M	16QAM	19957	3RB#3	22.47	23.96
Band4	1.4M	16QAM	19957	6RB#0	21.80	23.29
Band4	1.4M	16QAM	20175	1RB#0	23.10	24.59
Band4	1.4M	16QAM	20175	1RB#2	23.03	24.52
Band4	1.4M	16QAM	20175	1RB#5	22.56	24.05
Band4	1.4M	16QAM	20175	3RB#0	22.64	24.13
Band4	1.4M	16QAM	20175	3RB#2	22.64	24.13
Band4	1.4M	16QAM	20175	3RB#3	22.09	23.58
Band4	1.4M	16QAM	20175	6RB#0	22.55	24.04
Band4	1.4M	16QAM	20393	1RB#0	22.78	24.27
Band4	1.4M	16QAM	20393	1RB#2	21.17	22.66
Band4	1.4M	16QAM	20393	1RB#5	20.41	21.90
Band4	1.4M	16QAM	20393	3RB#0	21.76	23.25
Band4	1.4M	16QAM	20393	3RB#2	21.75	23.24



Band4	1.4M	16QAM	20393	3RB#3	20.21	21.70
Band4	1.4M	16QAM	20393	6RB#0	21.12	22.61
Band4	1.4M	64QAM	19957	1RB#0	22.74	24.23
Band4	1.4M	64QAM	19957	1RB#2	20.06	21.55
Band4	1.4M	64QAM	19957	1RB#5	19.97	21.46
Band4	1.4M	64QAM	19957	3RB#0	19.46	20.95
Band4	1.4M	64QAM	19957	3RB#2	19.46	20.95
Band4	1.4M	64QAM	19957	3RB#3	19.78	21.27
Band4	1.4M	64QAM	19957	6RB#0	19.56	21.05
Band4	1.4M	64QAM	20175	1RB#0	22.54	24.03
Band4	1.4M	64QAM	20175	1RB#2	22.64	24.13
Band4	1.4M	64QAM	20175	1RB#5	22.42	23.91
Band4	1.4M	64QAM	20175	3RB#0	22.59	24.08
Band4	1.4M	64QAM	20175	3RB#2	22.58	24.07
Band4	1.4M	64QAM	20175	3RB#3	22.48	23.97
Band4	1.4M	64QAM	20175	6RB#0	22.55	24.04
Band4	1.4M	64QAM	20393	1RB#0	19.93	21.42
Band4	1.4M	64QAM	20393	1RB#2	20.12	21.61
Band4	1.4M	64QAM	20393	1RB#5	19.87	21.36
Band4	1.4M	64QAM	20393	3RB#0	20.05	21.54
Band4	1.4M	64QAM	20393	3RB#2	20.06	21.55
Band4	1.4M	64QAM	20393	3RB#3	19.98	21.47
Band4	1.4M	64QAM	20393	6RB#0	19.95	21.44
Band4	3M	QPSK	19965	1RB#0	20.87	22.36
Band4	3M	QPSK	19965	1RB#7	21.98	23.47
Band4	3M	QPSK	19965	1RB#14	23.42	24.91
Band4	3M	QPSK	19965	8RB#0	21.62	23.11
Band4	3M	QPSK	19965	8RB#4	21.54	23.03
Band4	3M	QPSK	19965	8RB#7	22.69	24.18
Band4	3M	QPSK	19965	15RB#0	22.05	23.54
Band4	3M	QPSK	20175	1RB#0	23.05	24.54
Band4	3M	QPSK	20175	1RB#7	22.72	24.21
Band4	3M	QPSK	20175	1RB#14	22.35	23.84
Band4	3M	QPSK	20175	8RB#0	22.86	24.35
Band4	3M	QPSK	20175	8RB#4	22.79	24.28
Band4	3M	QPSK	20175	8RB#7	22.31	23.80
Band4	3M	QPSK	20175	15RB#0	22.51	24.00
Band4	3M	QPSK	20385	1RB#0	22.89	24.38
Band4	3M	QPSK	20385	1RB#7	21.47	22.96
Band4	3M	QPSK	20385	1RB#14	20.68	22.17
Band4	3M	QPSK	20385	8RB#0	21.92	23.41
Band4	3M	QPSK	20385	8RB#4	21.88	23.37
Band4	3M	QPSK	20385	8RB#7	20.57	22.06



Band4	3M	QPSK	20385	15RB#0	21.32	22.81
Band4	3M	16QAM	19965	1RB#0	20.94	22.43
Band4	3M	16QAM	19965	1RB#7	22.06	23.55
Band4	3M	16QAM	19965	1RB#14	23.45	24.94
Band4	3M	16QAM	19965	8RB#0	21.45	22.94
Band4	3M	16QAM	19965	8RB#4	21.38	22.87
Band4	3M	16QAM	19965	8RB#7	22.55	24.04
Band4	3M	16QAM	19965	15RB#0	21.83	23.32
Band4	3M	16QAM	20175	1RB#0	23.12	24.61
Band4	3M	16QAM	20175	1RB#7	23.08	24.57
Band4	3M	16QAM	20175	1RB#14	22.60	24.09
Band4	3M	16QAM	20175	8RB#0	22.75	24.24
Band4	3M	16QAM	20175	8RB#4	22.75	24.24
Band4	3M	16QAM	20175	8RB#7	22.19	23.68
Band4	3M	16QAM	20175	15RB#0	22.59	24.08
Band4	3M	16QAM	20385	1RB#0	22.81	24.30
Band4	3M	16QAM	20385	1RB#7	21.21	22.70
Band4	3M	16QAM	20385	1RB#14	20.44	21.93
Band4	3M	16QAM	20385	8RB#0	21.86	23.35
Band4	3M	16QAM	20385	8RB#4	21.85	23.34
Band4	3M	16QAM	20385	8RB#7	20.32	21.81
Band4	3M	16QAM	20385	15RB#0	21.15	22.64
Band4	3M	64QAM	19965	1RB#0	19.55	21.04
Band4	3M	64QAM	19965	1RB#7	20.20	21.69
Band4	3M	64QAM	19965	1RB#14	20.42	21.91
Band4	3M	64QAM	19965	8RB#0	19.95	21.44
Band4	3M	64QAM	19965	8RB#4	19.94	21.43
Band4	3M	64QAM	19965	8RB#7	20.09	21.58
Band4	3M	64QAM	19965	15RB#0	19.97	21.46
Band4	3M	64QAM	20175	1RB#0	22.81	24.30
Band4	3M	64QAM	20175	1RB#7	22.65	24.14
Band4	3M	64QAM	20175	1RB#14	22.56	24.05
Band4	3M	64QAM	20175	8RB#0	22.97	24.46
Band4	3M	64QAM	20175	8RB#4	22.96	24.45
Band4	3M	64QAM	20175	8RB#7	22.45	23.94
Band4	3M	64QAM	20175	15RB#0	22.47	23.96
Band4	3M	64QAM	20385	1RB#0	19.71	21.20
Band4	3M	64QAM	20385	1RB#7	19.67	21.16
Band4	3M	64QAM	20385	1RB#14	19.62	21.11
Band4	3M	64QAM	20385	8RB#0	20.23	21.72
Band4	3M	64QAM	20385	8RB#4	20.23	21.72
Band4	3M	64QAM	20385	8RB#7	19.84	21.33
Band4	3M	64QAM	20385	15RB#0	19.79	21.28



Band4	5M	QPSK	19975	1RB#0	20.91	22.40
Band4	5M	QPSK	19975	1RB#13	22.05	23.54
Band4	5M	QPSK	19975	1RB#24	23.48	24.97
Band4	5M	QPSK	19975	12RB#0	21.69	23.18
Band4	5M	QPSK	19975	12RB#6	21.59	23.08
Band4	5M	QPSK	19975	12RB#13	22.76	24.25
Band4	5M	QPSK	19975	25RB#0	22.13	23.62
Band4	5M	QPSK	20175	1RB#0	23.17	24.66
Band4	5M	QPSK	20175	1RB#13	22.77	24.26
Band4	5M	QPSK	20175	1RB#24	22.42	23.91
Band4	5M	QPSK	20175	12RB#0	22.90	24.39
Band4	5M	QPSK	20175	12RB#6	22.84	24.33
Band4	5M	QPSK	20175	12RB#13	22.41	23.90
Band4	5M	QPSK	20175	25RB#0	22.60	24.09
Band4	5M	QPSK	20375	1RB#0	22.94	24.43
Band4	5M	QPSK	20375	1RB#13	21.54	23.03
Band4	5M	QPSK	20375	1RB#24	20.77	22.26
Band4	5M	QPSK	20375	12RB#0	21.98	23.47
Band4	5M	QPSK	20375	12RB#6	21.92	23.41
Band4	5M	QPSK	20375	12RB#13	20.57	22.06
Band4	5M	QPSK	20375	25RB#0	21.33	22.82
Band4	5M	16QAM	19975	1RB#0	20.96	22.45
Band4	5M	16QAM	19975	1RB#13	22.08	23.57
Band4	5M	16QAM	19975	1RB#24	23.47	24.96
Band4	5M	16QAM	19975	12RB#0	21.49	22.98
Band4	5M	16QAM	19975	12RB#6	21.40	22.89
Band4	5M	16QAM	19975	12RB#13	22.60	24.09
Band4	5M	16QAM	19975	25RB#0	21.86	23.35
Band4	5M	16QAM	20175	1RB#0	23.14	24.63
Band4	5M	16QAM	20175	1RB#13	23.15	24.64
Band4	5M	16QAM	20175	1RB#24	22.67	24.16
Band4	5M	16QAM	20175	12RB#0	22.79	24.28
Band4	5M	16QAM	20175	12RB#6	22.79	24.28
Band4	5M	16QAM	20175	12RB#13	22.19	23.68
Band4	5M	16QAM	20175	25RB#0	22.60	24.09
Band4	5M	16QAM	20375	1RB#0	22.85	24.34
Band4	5M	16QAM	20375	1RB#13	21.25	22.74
Band4	5M	16QAM	20375	1RB#24	20.47	21.96
Band4	5M	16QAM	20375	12RB#0	21.91	23.40
Band4	5M	16QAM	20375	12RB#6	21.90	23.39
Band4	5M	16QAM	20375	12RB#13	20.35	21.84
Band4	5M	16QAM	20375	25RB#0	21.16	22.65
Band4	5M	64QAM	19975	1RB#0	19.36	20.85



Band4	5M	64QAM	19975	1RB#13	20.38	21.87
Band4	5M	64QAM	19975	1RB#24	20.34	21.83
Band4	5M	64QAM	19975	12RB#0	19.94	21.43
Band4	5M	64QAM	19975	12RB#6	19.95	21.44
Band4	5M	64QAM	19975	12RB#13	19.98	21.47
Band4	5M	64QAM	19975	25RB#0	19.77	21.26
Band4	5M	64QAM	20175	1RB#0	22.48	23.97
Band4	5M	64QAM	20175	1RB#13	22.59	24.08
Band4	5M	64QAM	20175	1RB#24	22.13	23.62
Band4	5M	64QAM	20175	12RB#0	22.66	24.15
Band4	5M	64QAM	20175	12RB#6	22.65	24.14
Band4	5M	64QAM	20175	12RB#13	22.05	23.54
Band4	5M	64QAM	20175	25RB#0	22.18	23.67
Band4	5M	64QAM	20375	1RB#0	19.90	21.39
Band4	5M	64QAM	20375	1RB#13	19.79	21.28
Band4	5M	64QAM	20375	1RB#24	19.55	21.04
Band4	5M	64QAM	20375	12RB#0	20.08	21.57
Band4	5M	64QAM	20375	12RB#6	20.08	21.57
Band4	5M	64QAM	20375	12RB#13	19.41	20.90
Band4	5M	64QAM	20375	25RB#0	19.43	20.92
Band4	10M	QPSK	20000	1RB#0	20.86	22.35
Band4	10M	QPSK	20000	1RB#25	21.99	23.48
Band4	10M	QPSK	20000	1RB#49	23.41	24.90
Band4	10M	QPSK	20000	25RB#0	21.62	23.11
Band4	10M	QPSK	20000	25RB#13	21.55	23.04
Band4	10M	QPSK	20000	25RB#25	22.69	24.18
Band4	10M	QPSK	20000	50RB#0	22.11	23.60
Band4	10M	QPSK	20175	1RB#0	23.04	24.53
Band4	10M	QPSK	20175	1RB#25	22.73	24.22
Band4	10M	QPSK	20175	1RB#49	22.34	23.83
Band4	10M	QPSK	20175	25RB#0	22.86	24.35
Band4	10M	QPSK	20175	25RB#13	22.80	24.29
Band4	10M	QPSK	20175	25RB#25	22.33	23.82
Band4	10M	QPSK	20175	50RB#0	22.52	24.01
Band4	10M	QPSK	20350	1RB#0	22.88	24.37
Band4	10M	QPSK	20350	1RB#25	21.48	22.97
Band4	10M	QPSK	20350	1RB#49	20.67	22.16
Band4	10M	QPSK	20350	25RB#0	21.92	23.41
Band4	10M	QPSK	20350	25RB#13	21.87	23.36
Band4	10M	QPSK	20350	25RB#25	20.58	22.07
Band4	10M	QPSK	20350	50RB#0	21.34	22.83
Band4	10M	16QAM	20000	1RB#0	20.93	22.42
Band4	10M	16QAM	20000	1RB#25	22.06	23.55



Band4	10M	16QAM	20000	1RB#49	23.45	24.94
Band4	10M	16QAM	20000	25RB#0	21.46	22.95
Band4	10M	16QAM	20000	25RB#13	21.37	22.86
Band4	10M	16QAM	20000	25RB#25	22.55	24.04
Band4	10M	16QAM	20000	50RB#0	21.84	23.33
Band4	10M	16QAM	20175	1RB#0	23.11	24.60
Band4	10M	16QAM	20175	1RB#25	23.10	24.59
Band4	10M	16QAM	20175	1RB#49	22.60	24.09
Band4	10M	16QAM	20175	25RB#0	22.76	24.25
Band4	10M	16QAM	20175	25RB#13	22.74	24.23
Band4	10M	16QAM	20175	25RB#25	22.19	23.68
Band4	10M	16QAM	20175	50RB#0	22.60	24.09
Band4	10M	16QAM	20350	1RB#0	22.80	24.29
Band4	10M	16QAM	20350	1RB#25	21.21	22.70
Band4	10M	16QAM	20350	1RB#49	20.43	21.92
Band4	10M	16QAM	20350	25RB#0	21.87	23.36
Band4	10M	16QAM	20350	25RB#13	21.84	23.33
Band4	10M	16QAM	20350	25RB#25	20.32	21.81
Band4	10M	16QAM	20350	50RB#0	21.14	22.63
Band4	10M	64QAM	20000	1RB#0	19.69	21.18
Band4	10M	64QAM	20000	1RB#25	20.47	21.96
Band4	10M	64QAM	20000	1RB#49	21.71	23.20
Band4	10M	64QAM	20000	25RB#0	20.02	21.51
Band4	10M	64QAM	20000	25RB#13	20.03	21.52
Band4	10M	64QAM	20000	25RB#25	21.08	22.57
Band4	10M	64QAM	20000	50RB#0	20.57	22.06
Band4	10M	64QAM	20175	1RB#0	22.64	24.13
Band4	10M	64QAM	20175	1RB#25	22.43	23.92
Band4	10M	64QAM	20175	1RB#49	22.46	23.95
Band4	10M	64QAM	20175	25RB#0	22.55	24.04
Band4	10M	64QAM	20175	25RB#13	22.55	24.04
Band4	10M	64QAM	20175	25RB#25	22.16	23.65
Band4	10M	64QAM	20175	50RB#0	22.41	23.90
Band4	10M	64QAM	20350	1RB#0	20.86	22.35
Band4	10M	64QAM	20350	1RB#25	19.62	21.11
Band4	10M	64QAM	20350	1RB#49	19.84	21.33
Band4	10M	64QAM	20350	25RB#0	20.38	21.87
Band4	10M	64QAM	20350	25RB#13	20.38	21.87
Band4	10M	64QAM	20350	25RB#25	19.81	21.30
Band4	10M	64QAM	20350	50RB#0	19.89	21.38
Band4	15M	QPSK	20025	1RB#0	20.85	22.34
Band4	15M	QPSK	20025	1RB#38	21.97	23.46
Band4	15M	QPSK	20025	1RB#74	23.38	24.87



Band4	15M	QPSK	20025	36RB#0	21.60	23.09
Band4	15M	QPSK	20025	36RB#18	21.52	23.01
Band4	15M	QPSK	20025	36RB#39	22.66	24.15
Band4	15M	QPSK	20025	75RB#0	22.09	23.58
Band4	15M	QPSK	20175	1RB#0	23.00	24.49
Band4	15M	QPSK	20175	1RB#38	22.72	24.21
Band4	15M	QPSK	20175	1RB#74	22.29	23.78
Band4	15M	QPSK	20175	36RB#0	22.82	24.31
Band4	15M	QPSK	20175	36RB#18	22.75	24.24
Band4	15M	QPSK	20175	36RB#39	22.30	23.79
Band4	15M	QPSK	20175	75RB#0	22.48	23.97
Band4	15M	QPSK	20325	1RB#0	22.86	24.35
Band4	15M	QPSK	20325	1RB#38	21.45	22.94
Band4	15M	QPSK	20325	1RB#74	20.63	22.12
Band4	15M	QPSK	20325	36RB#0	21.89	23.38
Band4	15M	QPSK	20325	36RB#18	21.83	23.32
Band4	15M	QPSK	20325	36RB#39	20.54	22.03
Band4	15M	QPSK	20325	75RB#0	21.29	22.78
Band4	15M	16QAM	20025	1RB#0	20.88	22.37
Band4	15M	16QAM	20025	1RB#38	22.04	23.53
Band4	15M	16QAM	20025	1RB#74	23.42	24.91
Band4	15M	16QAM	20025	36RB#0	21.43	22.92
Band4	15M	16QAM	20025	36RB#18	21.34	22.83
Band4	15M	16QAM	20025	36RB#39	22.53	24.02
Band4	15M	16QAM	20025	75RB#0	21.81	23.30
Band4	15M	16QAM	20175	1RB#0	23.09	24.58
Band4	15M	16QAM	20175	1RB#38	23.07	24.56
Band4	15M	16QAM	20175	1RB#74	22.56	24.05
Band4	15M	16QAM	20175	36RB#0	22.74	24.23
Band4	15M	16QAM	20175	36RB#18	22.69	24.18
Band4	15M	16QAM	20175	36RB#39	22.15	23.64
Band4	15M	16QAM	20175	75RB#0	22.55	24.04
Band4	15M	16QAM	20325	1RB#0	22.78	24.27
Band4	15M	16QAM	20325	1RB#38	21.19	22.68
Band4	15M	16QAM	20325	1RB#74	20.40	21.89
Band4	15M	16QAM	20325	36RB#0	21.84	23.33
Band4	15M	16QAM	20325	36RB#18	21.80	23.29
Band4	15M	16QAM	20325	36RB#39	20.29	21.78
Band4	15M	16QAM	20325	75RB#0	21.07	22.56
Band4	15M	64QAM	20025	1RB#0	20.17	21.66
Band4	15M	64QAM	20025	1RB#38	21.36	22.85
Band4	15M	64QAM	20025	1RB#74	22.55	24.04
Band4	15M	64QAM	20025	36RB#0	20.17	21.66



Band4	15M	64QAM	20025	36RB#18	20.17	21.66
Band4	15M	64QAM	20025	36RB#39	21.55	23.04
Band4	15M	64QAM	20025	75RB#0	21.32	22.81
Band4	15M	64QAM	20175	1RB#0	22.72	24.21
Band4	15M	64QAM	20175	1RB#38	22.66	24.15
Band4	15M	64QAM	20175	1RB#74	22.24	23.73
Band4	15M	64QAM	20175	36RB#0	22.44	23.93
Band4	15M	64QAM	20175	36RB#18	22.42	23.91
Band4	15M	64QAM	20175	36RB#39	21.94	23.43
Band4	15M	64QAM	20175	75RB#0	22.29	23.78
Band4	15M	64QAM	20325	1RB#0	21.93	23.42
Band4	15M	64QAM	20325	1RB#38	20.41	21.90
Band4	15M	64QAM	20325	1RB#74	19.94	21.43
Band4	15M	64QAM	20325	36RB#0	21.00	22.49
Band4	15M	64QAM	20325	36RB#18	21.00	22.49
Band4	15M	64QAM	20325	36RB#39	19.76	21.25
Band4	15M	64QAM	20325	75RB#0	20.58	22.07
Band4	20M	QPSK	20050	1RB#0	20.82	22.31
Band4	20M	QPSK	20050	1RB#50	21.96	23.45
Band4	20M	QPSK	20050	1RB#99	23.36	24.85
Band4	20M	QPSK	20050	50RB#0	21.57	23.06
Band4	20M	QPSK	20050	50RB#25	21.50	22.99
Band4	20M	QPSK	20050	50RB#50	22.63	24.12
Band4	20M	QPSK	20050	100RB#0	22.06	23.55
Band4	20M	QPSK	20175	1RB#0	22.96	24.45
Band4	20M	QPSK	20175	1RB#50	22.68	24.17
Band4	20M	QPSK	20175	1RB#99	22.28	23.77
Band4	20M	QPSK	20175	50RB#0	22.77	24.26
Band4	20M	QPSK	20175	50RB#25	22.71	24.20
Band4	20M	QPSK	20175	50RB#50	22.25	23.74
Band4	20M	QPSK	20175	100RB#0	22.43	23.92
Band4	20M	QPSK	20300	1RB#0	22.83	24.32
Band4	20M	QPSK	20300	1RB#50	21.43	22.92
Band4	20M	QPSK	20300	1RB#99	20.60	22.09
Band4	20M	QPSK	20300	50RB#0	21.85	23.34
Band4	20M	QPSK	20300	50RB#25	21.80	23.29
Band4	20M	QPSK	20300	50RB#50	20.50	21.99
Band4	20M	QPSK	20300	100RB#0	21.25	22.74
Band4	20M	16QAM	20050	1RB#0	20.86	22.35
Band4	20M	16QAM	20050	1RB#50	22.00	23.49
Band4	20M	16QAM	20050	1RB#99	23.40	24.89
Band4	20M	16QAM	20050	50RB#0	21.40	22.89
Band4	20M	16QAM	20050	50RB#25	21.31	22.80



Band4	20M	16QAM	20050	50RB#50	22.50	23.99
Band4	20M	16QAM	20050	100RB#0	21.79	23.28
Band4	20M	16QAM	20175	1RB#0	23.05	24.54
Band4	20M	16QAM	20175	1RB#50	23.05	24.54
Band4	20M	16QAM	20175	1RB#99	22.53	24.02
Band4	20M	16QAM	20175	50RB#0	22.70	24.19
Band4	20M	16QAM	20175	50RB#25	22.67	24.16
Band4	20M	16QAM	20175	50RB#50	22.10	23.59
Band4	20M	16QAM	20175	100RB#0	22.51	24.00
Band4	20M	16QAM	20300	1RB#0	22.73	24.22
Band4	20M	16QAM	20300	1RB#50	21.15	22.64
Band4	20M	16QAM	20300	1RB#99	20.38	21.87
Band4	20M	16QAM	20300	50RB#0	21.81	23.30
Band4	20M	16QAM	20300	50RB#25	21.77	23.26
Band4	20M	16QAM	20300	50RB#50	20.25	21.74
Band4	20M	16QAM	20300	100RB#0	21.07	22.56
Band4	20M	64QAM	20050	1RB#0	20.44	21.93
Band4	20M	64QAM	20050	1RB#50	21.68	23.17
Band4	20M	64QAM	20050	1RB#99	23.29	24.78
Band4	20M	64QAM	20050	50RB#0	21.21	22.70
Band4	20M	64QAM	20050	50RB#25	21.22	22.71
Band4	20M	64QAM	20050	50RB#50	22.28	23.77
Band4	20M	64QAM	20050	100RB#0	21.81	23.30
Band4	20M	64QAM	20175	1RB#0	22.33	23.82
Band4	20M	64QAM	20175	1RB#50	22.45	23.94
Band4	20M	64QAM	20175	1RB#99	21.89	23.38
Band4	20M	64QAM	20175	50RB#0	22.51	24.00
Band4	20M	64QAM	20175	50RB#25	22.50	23.99
Band4	20M	64QAM	20175	50RB#50	22.09	23.58
Band4	20M	64QAM	20175	100RB#0	22.33	23.82
Band4	20M	64QAM	20300	1RB#0	22.39	23.88
Band4	20M	64QAM	20300	1RB#50	20.80	22.29
Band4	20M	64QAM	20300	1RB#99	19.98	21.47
Band4	20M	64QAM	20300	50RB#0	21.69	23.18
Band4	20M	64QAM	20300	50RB#25	21.67	23.16
Band4	20M	64QAM	20300	50RB#50	20.20	21.69
Band4	20M	64QAM	20300	100RB#0	20.92	22.41

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)
Band12	1.4M	QPSK	23017	1RB#0	20.86	19.75
Band12	1.4M	QPSK	23017	1RB#2	18.87	17.76
Band12	1.4M	QPSK	23017	1RB#5	23.25	22.14



Band12	1.4M	QPSK	23017	3RB#0	18.96	17.85
Band12	1.4M	QPSK	23017	3RB#2	18.87	17.76
Band12	1.4M	QPSK	23017	3RB#3	21.42	20.31
Band12	1.4M	QPSK	23017	6RB#0	20.34	19.23
Band12	1.4M	QPSK	23095	1RB#0	18.70	17.59
Band12	1.4M	QPSK	23095	1RB#2	22.40	21.29
Band12	1.4M	QPSK	23095	1RB#5	19.55	18.44
Band12	1.4M	QPSK	23095	3RB#0	20.53	19.42
Band12	1.4M	QPSK	23095	3RB#2	20.50	19.39
Band12	1.4M	QPSK	23095	3RB#3	21.54	20.43
Band12	1.4M	QPSK	23095	6RB#0	21.52	20.41
Band12	1.4M	QPSK	23173	1RB#0	22.07	20.96
Band12	1.4M	QPSK	23173	1RB#2	20.15	19.04
Band12	1.4M	QPSK	23173	1RB#5	19.40	18.29
Band12	1.4M	QPSK	23173	3RB#0	22.37	21.26
Band12	1.4M	QPSK	23173	3RB#2	22.37	21.26
Band12	1.4M	QPSK	23173	3RB#3	18.91	17.80
Band12	1.4M	QPSK	23173	6RB#0	20.70	19.59
Band12	1.4M	16QAM	23017	1RB#0	21.21	20.10
Band12	1.4M	16QAM	23017	1RB#2	19.84	18.73
Band12	1.4M	16QAM	23017	1RB#5	23.78	22.67
Band12	1.4M	16QAM	23017	3RB#0	19.01	17.90
Band12	1.4M	16QAM	23017	3RB#2	18.99	17.88
Band12	1.4M	16QAM	23017	3RB#3	21.61	20.50
Band12	1.4M	16QAM	23017	6RB#0	20.57	19.46
Band12	1.4M	16QAM	23095	1RB#0	19.08	17.97
Band12	1.4M	16QAM	23095	1RB#2	22.78	21.67
Band12	1.4M	16QAM	23095	1RB#5	19.59	18.48
Band12	1.4M	16QAM	23095	3RB#0	20.78	19.67
Band12	1.4M	16QAM	23095	3RB#2	20.76	19.65
Band12	1.4M	16QAM	23095	3RB#3	21.63	20.52
Band12	1.4M	16QAM	23095	6RB#0	21.50	20.39
Band12	1.4M	16QAM	23173	1RB#0	22.14	21.03
Band12	1.4M	16QAM	23173	1RB#2	20.14	19.03
Band12	1.4M	16QAM	23173	1RB#5	19.44	18.33
Band12	1.4M	16QAM	23173	3RB#0	22.39	21.28
Band12	1.4M	16QAM	23173	3RB#2	22.31	21.20
Band12	1.4M	16QAM	23173	3RB#3	19.01	17.90
Band12	1.4M	16QAM	23173	6RB#0	20.79	19.68
Band12	1.4M	64QAM	23017	1RB#0	19.91	18.80
Band12	1.4M	64QAM	23017	1RB#2	19.92	18.81
Band12	1.4M	64QAM	23017	1RB#5	19.18	18.07
Band12	1.4M	64QAM	23017	3RB#0	20.34	19.23



Band12	1.4M	64QAM	23017	3RB#2	20.32	19.21
Band12	1.4M	64QAM	23017	3RB#3	19.63	18.52
Band12	1.4M	64QAM	23017	6RB#0	19.93	18.82
Band12	1.4M	64QAM	23095	1RB#0	21.16	20.05
Band12	1.4M	64QAM	23095	1RB#2	21.61	20.50
Band12	1.4M	64QAM	23095	1RB#5	21.81	20.70
Band12	1.4M	64QAM	23095	3RB#0	21.03	19.92
Band12	1.4M	64QAM	23095	3RB#2	21.02	19.91
Band12	1.4M	64QAM	23095	3RB#3	21.54	20.43
Band12	1.4M	64QAM	23095	6RB#0	21.23	20.12
Band12	1.4M	64QAM	23173	1RB#0	17.60	16.49
Band12	1.4M	64QAM	23173	1RB#2	17.95	16.84
Band12	1.4M	64QAM	23173	1RB#5	18.21	17.10
Band12	1.4M	64QAM	23173	3RB#0	17.76	16.65
Band12	1.4M	64QAM	23173	3RB#2	17.75	16.64
Band12	1.4M	64QAM	23173	3RB#3	18.06	16.95
Band12	1.4M	64QAM	23173	6RB#0	17.86	16.75
Band12	3M	QPSK	23025	1RB#0	20.88	19.77
Band12	3M	QPSK	23025	1RB#7	18.90	17.79
Band12	3M	QPSK	23025	1RB#14	23.28	22.17
Band12	3M	QPSK	23025	8RB#0	19.04	17.93
Band12	3M	QPSK	23025	8RB#4	18.97	17.86
Band12	3M	QPSK	23025	8RB#7	21.50	20.39
Band12	3M	QPSK	23025	15RB#0	20.37	19.26
Band12	3M	QPSK	23095	1RB#0	18.74	17.63
Band12	3M	QPSK	23095	1RB#7	22.45	21.34
Band12	3M	QPSK	23095	1RB#14	19.60	18.49
Band12	3M	QPSK	23095	8RB#0	20.63	19.52
Band12	3M	QPSK	23095	8RB#4	20.58	19.47
Band12	3M	QPSK	23095	8RB#7	21.63	20.52
Band12	3M	QPSK	23095	15RB#0	21.56	20.45
Band12	3M	QPSK	23165	1RB#0	22.10	20.99
Band12	3M	QPSK	23165	1RB#7	20.19	19.08
Band12	3M	QPSK	23165	1RB#14	19.44	18.33
Band12	3M	QPSK	23165	8RB#0	22.48	21.37
Band12	3M	QPSK	23165	8RB#4	22.47	21.36
Band12	3M	QPSK	23165	8RB#7	18.99	17.88
Band12	3M	QPSK	23165	15RB#0	20.73	19.62
Band12	3M	16QAM	23025	1RB#0	21.24	20.13
Band12	3M	16QAM	23025	1RB#7	19.87	18.76
Band12	3M	16QAM	23025	1RB#14	23.80	22.69
Band12	3M	16QAM	23025	8RB#0	19.10	17.99
Band12	3M	16QAM	23025	8RB#4	19.08	17.97



Band12	3M	16QAM	23025	8RB#7	21.69	20.58
Band12	3M	16QAM	23025	15RB#0	20.60	19.49
Band12	3M	16QAM	23095	1RB#0	19.10	17.99
Band12	3M	16QAM	23095	1RB#7	22.83	21.72
Band12	3M	16QAM	23095	1RB#14	19.63	18.52
Band12	3M	16QAM	23095	8RB#0	20.89	19.78
Band12	3M	16QAM	23095	8RB#4	20.87	19.76
Band12	3M	16QAM	23095	8RB#7	21.73	20.62
Band12	3M	16QAM	23095	15RB#0	21.54	20.43
Band12	3M	16QAM	23165	1RB#0	22.17	21.06
Band12	3M	16QAM	23165	1RB#7	20.18	19.07
Band12	3M	16QAM	23165	1RB#14	19.47	18.36
Band12	3M	16QAM	23165	8RB#0	22.49	21.38
Band12	3M	16QAM	23165	8RB#4	22.41	21.30
Band12	3M	16QAM	23165	8RB#7	19.12	18.01
Band12	3M	16QAM	23165	15RB#0	20.82	19.71
Band12	3M	64QAM	23025	1RB#0	20.64	19.53
Band12	3M	64QAM	23025	1RB#7	18.68	17.57
Band12	3M	64QAM	23025	1RB#14	17.83	16.72
Band12	3M	64QAM	23025	8RB#0	19.88	18.77
Band12	3M	64QAM	23025	8RB#4	19.99	18.88
Band12	3M	64QAM	23025	8RB#7	17.95	16.84
Band12	3M	64QAM	23025	15RB#0	18.90	17.79
Band12	3M	64QAM	23095	1RB#0	20.22	19.11
Band12	3M	64QAM	23095	1RB#7	21.62	20.51
Band12	3M	64QAM	23095	1RB#14	21.91	20.80
Band12	3M	64QAM	23095	8RB#0	21.18	20.07
Band12	3M	64QAM	23095	8RB#4	21.17	20.06
Band12	3M	64QAM	23095	8RB#7	21.75	20.64
Band12	3M	64QAM	23095	15RB#0	21.24	20.13
Band12	3M	64QAM	23165	1RB#0	17.39	16.28
Band12	3M	64QAM	23165	1RB#7	17.58	16.47
Band12	3M	64QAM	23165	1RB#14	18.22	17.11
Band12	3M	64QAM	23165	8RB#0	17.61	16.50
Band12	3M	64QAM	23165	8RB#4	17.56	16.45
Band12	3M	64QAM	23165	8RB#7	17.66	16.55
Band12	3M	64QAM	23165	15RB#0	17.63	16.52
Band12	5M	QPSK	23035	1RB#0	20.92	19.81
Band12	5M	QPSK	23035	1RB#13	18.97	17.86
Band12	5M	QPSK	23035	1RB#24	23.34	22.23
Band12	5M	QPSK	23035	12RB#0	19.11	18.00
Band12	5M	QPSK	23035	12RB#6	19.02	17.91
Band12	5M	QPSK	23035	12RB#13	21.57	20.46



Band12	5M	QPSK	23035	25RB#0	20.45	19.34
Band12	5M	QPSK	23095	1RB#0	18.86	17.75
Band12	5M	QPSK	23095	1RB#13	22.50	21.39
Band12	5M	QPSK	23095	1RB#24	19.67	18.56
Band12	5M	QPSK	23095	12RB#0	20.67	19.56
Band12	5M	QPSK	23095	12RB#6	20.63	19.52
Band12	5M	QPSK	23095	12RB#13	21.73	20.62
Band12	5M	QPSK	23095	25RB#0	21.65	20.54
Band12	5M	QPSK	23155	1RB#0	22.15	21.04
Band12	5M	QPSK	23155	1RB#13	20.26	19.15
Band12	5M	QPSK	23155	1RB#24	19.53	18.42
Band12	5M	QPSK	23155	12RB#0	22.54	21.43
Band12	5M	QPSK	23155	12RB#6	22.51	21.40
Band12	5M	QPSK	23155	12RB#13	18.99	17.88
Band12	5M	QPSK	23155	25RB#0	20.74	19.63
Band12	5M	16QAM	23035	1RB#0	21.26	20.15
Band12	5M	16QAM	23035	1RB#13	19.89	18.78
Band12	5M	16QAM	23035	1RB#24	23.82	22.71
Band12	5M	16QAM	23035	12RB#0	19.14	18.03
Band12	5M	16QAM	23035	12RB#6	19.10	17.99
Band12	5M	16QAM	23035	12RB#13	21.74	20.63
Band12	5M	16QAM	23035	25RB#0	20.63	19.52
Band12	5M	16QAM	23095	1RB#0	19.12	18.01
Band12	5M	16QAM	23095	1RB#13	22.90	21.79
Band12	5M	16QAM	23095	1RB#24	19.70	18.59
Band12	5M	16QAM	23095	12RB#0	20.93	19.82
Band12	5M	16QAM	23095	12RB#6	20.91	19.80
Band12	5M	16QAM	23095	12RB#13	21.73	20.62
Band12	5M	16QAM	23095	25RB#0	21.55	20.44
Band12	5M	16QAM	23155	1RB#0	22.21	21.10
Band12	5M	16QAM	23155	1RB#13	20.22	19.11
Band12	5M	16QAM	23155	1RB#24	19.50	18.39
Band12	5M	16QAM	23155	12RB#0	22.54	21.43
Band12	5M	16QAM	23155	12RB#6	22.46	21.35
Band12	5M	16QAM	23155	12RB#13	19.15	18.04
Band12	5M	16QAM	23155	25RB#0	20.83	19.72
Band12	5M	64QAM	23035	1RB#0	20.12	19.01
Band12	5M	64QAM	23035	1RB#13	17.74	16.63
Band12	5M	64QAM	23035	1RB#24	17.55	16.44
Band12	5M	64QAM	23035	12RB#0	18.96	17.85
Band12	5M	64QAM	23035	12RB#6	18.95	17.84
Band12	5M	64QAM	23035	12RB#13	17.04	15.93
Band12	5M	64QAM	23035	25RB#0	18.02	16.91



Band12	5M	64QAM	23095	1RB#0	18.96	17.85
Band12	5M	64QAM	23095	1RB#13	21.46	20.35
Band12	5M	64QAM	23095	1RB#24	21.39	20.28
Band12	5M	64QAM	23095	12RB#0	20.41	19.30
Band12	5M	64QAM	23095	12RB#6	20.40	19.29
Band12	5M	64QAM	23095	12RB#13	21.35	20.24
Band12	5M	64QAM	23095	25RB#0	20.90	19.79
Band12	5M	64QAM	23155	1RB#0	19.15	18.04
Band12	5M	64QAM	23155	1RB#13	17.35	16.24
Band12	5M	64QAM	23155	1RB#24	18.19	17.08
Band12	5M	64QAM	23155	12RB#0	18.41	17.30
Band12	5M	64QAM	23155	12RB#6	18.42	17.31
Band12	5M	64QAM	23155	12RB#13	17.20	16.09
Band12	5M	64QAM	23155	25RB#0	17.67	16.56
Band12	10M	QPSK	23060	1RB#0	20.83	19.72
Band12	10M	QPSK	23060	1RB#25	18.88	17.77
Band12	10M	QPSK	23060	1RB#49	23.22	22.11
Band12	10M	QPSK	23060	25RB#0	18.99	17.88
Band12	10M	QPSK	23060	25RB#13	18.93	17.82
Band12	10M	QPSK	23060	25RB#25	21.44	20.33
Band12	10M	QPSK	23060	50RB#0	20.38	19.27
Band12	10M	QPSK	23095	1RB#0	18.65	17.54
Band12	10M	QPSK	23095	1RB#25	22.41	21.30
Band12	10M	QPSK	23095	1RB#49	19.53	18.42
Band12	10M	QPSK	23095	25RB#0	20.54	19.43
Band12	10M	QPSK	23095	25RB#13	20.50	19.39
Band12	10M	QPSK	23095	25RB#25	21.57	20.46
Band12	10M	QPSK	23095	50RB#0	21.48	20.37
Band12	10M	QPSK	23130	1RB#0	22.04	20.93
Band12	10M	QPSK	23130	1RB#25	20.15	19.04
Band12	10M	QPSK	23130	1RB#49	19.36	18.25
Band12	10M	QPSK	23130	25RB#0	22.41	21.30
Band12	10M	QPSK	23130	25RB#13	22.39	21.28
Band12	10M	QPSK	23130	25RB#25	18.92	17.81
Band12	10M	QPSK	23130	50RB#0	20.66	19.55
Band12	10M	16QAM	23060	1RB#0	21.16	20.05
Band12	10M	16QAM	23060	1RB#25	19.81	18.70
Band12	10M	16QAM	23060	1RB#49	23.75	22.64
Band12	10M	16QAM	23060	25RB#0	19.05	17.94
Band12	10M	16QAM	23060	25RB#13	19.01	17.90
Band12	10M	16QAM	23060	25RB#25	21.64	20.53
Band12	10M	16QAM	23060	50RB#0	20.56	19.45
Band12	10M	16QAM	23095	1RB#0	19.03	17.92



Band12	10M	16QAM	23095	1RB#25	22.80	21.69
Band12	10M	16QAM	23095	1RB#49	19.56	18.45
Band12	10M	16QAM	23095	25RB#0	20.84	19.73
Band12	10M	16QAM	23095	25RB#13	20.79	19.68
Band12	10M	16QAM	23095	25RB#25	21.64	20.53
Band12	10M	16QAM	23095	50RB#0	21.46	20.35
Band12	10M	16QAM	23130	1RB#0	22.09	20.98
Band12	10M	16QAM	23130	1RB#25	20.12	19.01
Band12	10M	16QAM	23130	1RB#49	19.41	18.30
Band12	10M	16QAM	23130	25RB#0	22.44	21.33
Band12	10M	16QAM	23130	25RB#13	22.33	21.22
Band12	10M	16QAM	23130	25RB#25	19.05	17.94
Band12	10M	16QAM	23130	50RB#0	20.74	19.63
Band12	10M	64QAM	23060	1RB#0	20.14	19.03
Band12	10M	64QAM	23060	1RB#25	17.92	16.81
Band12	10M	64QAM	23060	1RB#49	22.04	20.93
Band12	10M	64QAM	23060	25RB#0	18.02	16.91
Band12	10M	64QAM	23060	25RB#13	18.02	16.91
Band12	10M	64QAM	23060	25RB#25	20.09	18.98
Band12	10M	64QAM	23060	50RB#0	19.07	17.96
Band12	10M	64QAM	23095	1RB#0	17.63	16.52
Band12	10M	64QAM	23095	1RB#25	21.18	20.07
Band12	10M	64QAM	23095	1RB#49	18.96	17.85
Band12	10M	64QAM	23095	25RB#0	19.26	18.15
Band12	10M	64QAM	23095	25RB#13	19.26	18.15
Band12	10M	64QAM	23095	25RB#25	20.67	19.56
Band12	10M	64QAM	23095	50RB#0	20.47	19.36
Band12	10M	64QAM	23130	1RB#0	20.51	19.40
Band12	10M	64QAM	23130	1RB#25	19.36	18.25
Band12	10M	64QAM	23130	1RB#49	17.80	16.69
Band12	10M	64QAM	23130	25RB#0	21.26	20.15
Band12	10M	64QAM	23130	25RB#13	21.26	20.15
Band12	10M	64QAM	23130	25RB#25	18.15	17.04
Band12	10M	64QAM	23130	50RB#0	19.80	18.69

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)
Band13	5M	QPSK	23205	1RB#0	22.54	21.43
Band13	5M	QPSK	23205	1RB#13	19.11	18.00
Band13	5M	QPSK	23205	1RB#24	18.89	17.78
Band13	5M	QPSK	23205	12RB#0	22.34	21.23
Band13	5M	QPSK	23205	12RB#6	22.29	21.18
Band13	5M	QPSK	23205	12RB#13	18.34	17.23



Band13	5M	QPSK	23205	25RB#0	19.98	18.87
Band13	5M	QPSK	23230	1RB#0	18.65	17.54
Band13	5M	QPSK	23230	1RB#13	20.22	19.11
Band13	5M	QPSK	23230	1RB#24	21.87	20.76
Band13	5M	QPSK	23230	12RB#0	19.02	17.91
Band13	5M	QPSK	23230	12RB#6	18.99	17.88
Band13	5M	QPSK	23230	12RB#13	21.38	20.27
Band13	5M	QPSK	23230	25RB#0	20.06	18.95
Band13	5M	QPSK	23255	1RB#0	20.25	19.14
Band13	5M	QPSK	23255	1RB#13	21.60	20.49
Band13	5M	QPSK	23255	1RB#24	18.64	17.53
Band13	5M	QPSK	23255	12RB#0	22.14	21.03
Band13	5M	QPSK	23255	12RB#6	22.06	20.95
Band13	5M	QPSK	23255	12RB#13	19.99	18.88
Band13	5M	QPSK	23255	25RB#0	20.88	19.77
Band13	5M	16QAM	23205	1RB#0	22.41	21.30
Band13	5M	16QAM	23205	1RB#13	19.05	17.94
Band13	5M	16QAM	23205	1RB#24	18.96	17.85
Band13	5M	16QAM	23205	12RB#0	22.16	21.05
Band13	5M	16QAM	23205	12RB#6	22.11	21.00
Band13	5M	16QAM	23205	12RB#13	18.31	17.20
Band13	5M	16QAM	23205	25RB#0	19.99	18.88
Band13	5M	16QAM	23230	1RB#0	18.95	17.84
Band13	5M	16QAM	23230	1RB#13	20.48	19.37
Band13	5M	16QAM	23230	1RB#24	22.21	21.10
Band13	5M	16QAM	23230	12RB#0	19.04	17.93
Band13	5M	16QAM	23230	12RB#6	19.00	17.89
Band13	5M	16QAM	23230	12RB#13	21.38	20.27
Band13	5M	16QAM	23230	25RB#0	20.19	19.08
Band13	5M	16QAM	23255	1RB#0	20.39	19.28
Band13	5M	16QAM	23255	1RB#13	21.59	20.48
Band13	5M	16QAM	23255	1RB#24	18.78	17.67
Band13	5M	16QAM	23255	12RB#0	22.05	20.94
Band13	5M	16QAM	23255	12RB#6	22.01	20.90
Band13	5M	16QAM	23255	12RB#13	19.96	18.85
Band13	5M	16QAM	23255	25RB#0	20.89	19.78
Band13	5M	64QAM	23205	1RB#0	18.38	17.27
Band13	5M	64QAM	23205	1RB#13	19.80	18.69
Band13	5M	64QAM	23205	1RB#24	21.38	20.27
Band13	5M	64QAM	23205	12RB#0	18.68	17.57
Band13	5M	64QAM	23205	12RB#6	18.67	17.56
Band13	5M	64QAM	23205	12RB#13	20.80	19.69
Band13	5M	64QAM	23205	25RB#0	19.58	18.47



Band13	5M	64QAM	23230	1RB#0	18.43	17.32
Band13	5M	64QAM	23230	1RB#13	19.86	18.75
Band13	5M	64QAM	23230	1RB#24	21.32	20.21
Band13	5M	64QAM	23230	12RB#0	18.62	17.51
Band13	5M	64QAM	23230	12RB#6	18.62	17.51
Band13	5M	64QAM	23230	12RB#13	20.76	19.65
Band13	5M	64QAM	23230	25RB#0	19.53	18.42
Band13	5M	64QAM	23255	1RB#0	18.39	17.28
Band13	5M	64QAM	23255	1RB#13	19.82	18.71
Band13	5M	64QAM	23255	1RB#24	21.39	20.28
Band13	5M	64QAM	23255	12RB#0	18.62	17.51
Band13	5M	64QAM	23255	12RB#6	18.71	17.60
Band13	5M	64QAM	23255	12RB#13	20.86	19.75
Band13	5M	64QAM	23255	25RB#0	19.62	18.51
Band13	10M	QPSK	23230	1RB#0	23.83	22.72
Band13	10M	QPSK	23230	1RB#25	20.85	19.74
Band13	10M	QPSK	23230	1RB#49	20.35	19.24
Band13	10M	QPSK	23230	25RB#0	20.94	19.83
Band13	10M	QPSK	23230	25RB#13	20.89	19.78
Band13	10M	QPSK	23230	25RB#25	22.05	20.94
Band13	10M	QPSK	23230	50RB#0	21.70	20.59
Band13	10M	16QAM	23230	1RB#0	23.82	22.71
Band13	10M	16QAM	23230	1RB#25	20.78	19.67
Band13	10M	16QAM	23230	1RB#49	20.44	19.33
Band13	10M	16QAM	23230	25RB#0	20.95	19.84
Band13	10M	16QAM	23230	25RB#13	20.89	19.78
Band13	10M	16QAM	23230	25RB#25	22.12	21.01
Band13	10M	16QAM	23230	50RB#0	21.67	20.56
Band13	10M	64QAM	23230	1RB#0	22.64	21.53
Band13	10M	64QAM	23230	1RB#25	19.44	18.33
Band13	10M	64QAM	23230	1RB#49	19.24	18.13
Band13	10M	64QAM	23230	25RB#0	19.74	18.63
Band13	10M	64QAM	23230	25RB#13	19.74	18.63
Band13	10M	64QAM	23230	25RB#25	20.58	19.47
Band13	10M	64QAM	23230	50RB#0	20.17	19.06

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP(dBm)
Band41	5M	QPSK	39675	1RB#0	19.64	23.86
Band41	5M	QPSK	39675	1RB#13	19.66	23.88
Band41	5M	QPSK	39675	1RB#24	20.78	25.00
Band41	5M	QPSK	39675	12RB#0	19.71	23.93
Band41	5M	QPSK	39675	12RB#6	19.60	23.82



Band41	5M	QPSK	39675	12RB#13	19.87	24.09
Band41	5M	QPSK	39675	25RB#0	19.77	23.99
Band41	5M	QPSK	40620	1RB#0	23.08	27.30
Band41	5M	QPSK	40620	1RB#13	22.18	26.40
Band41	5M	QPSK	40620	1RB#24	22.53	26.75
Band41	5M	QPSK	40620	12RB#0	22.31	26.53
Band41	5M	QPSK	40620	12RB#6	22.25	26.47
Band41	5M	QPSK	40620	12RB#13	22.15	26.37
Band41	5M	QPSK	40620	25RB#0	22.32	26.54
Band41	5M	QPSK	41565	1RB#0	23.27	27.49
Band41	5M	QPSK	41565	1RB#13	22.88	27.10
Band41	5M	QPSK	41565	1RB#24	23.08	27.30
Band41	5M	QPSK	41565	12RB#0	22.93	27.15
Band41	5M	QPSK	41565	12RB#6	22.90	27.12
Band41	5M	QPSK	41565	12RB#13	22.80	27.02
Band41	5M	QPSK	41565	25RB#0	22.88	27.10
Band41	5M	16QAM	39675	1RB#0	19.67	23.89
Band41	5M	16QAM	39675	1RB#13	19.64	23.86
Band41	5M	16QAM	39675	1RB#24	20.68	24.90
Band41	5M	16QAM	39675	12RB#0	19.55	23.77
Band41	5M	16QAM	39675	12RB#6	19.39	23.61
Band41	5M	16QAM	39675	12RB#13	19.77	23.99
Band41	5M	16QAM	39675	25RB#0	19.67	23.89
Band41	5M	16QAM	40620	1RB#0	22.66	26.88
Band41	5M	16QAM	40620	1RB#13	21.86	26.08
Band41	5M	16QAM	40620	1RB#24	22.16	26.38
Band41	5M	16QAM	40620	12RB#0	22.30	26.52
Band41	5M	16QAM	40620	12RB#6	22.22	26.44
Band41	5M	16QAM	40620	12RB#13	22.13	26.35
Band41	5M	16QAM	40620	25RB#0	22.22	26.44
Band41	5M	16QAM	41565	1RB#0	23.37	27.59
Band41	5M	16QAM	41565	1RB#13	23.11	27.33
Band41	5M	16QAM	41565	1RB#24	23.22	27.44
Band41	5M	16QAM	41565	12RB#0	22.96	27.18
Band41	5M	16QAM	41565	12RB#6	22.91	27.13
Band41	5M	16QAM	41565	12RB#13	22.87	27.09
Band41	5M	16QAM	41565	25RB#0	22.84	27.06
Band41	5M	64QAM	39675	1RB#0	19.10	23.09
Band41	5M	64QAM	39675	1RB#13	19.45	23.44
Band41	5M	64QAM	39675	1RB#24	19.30	23.29
Band41	5M	64QAM	39675	12RB#0	19.41	23.40
Band41	5M	64QAM	39675	12RB#6	19.41	23.40
Band41	5M	64QAM	39675	12RB#13	19.02	23.01



Band41	5M	64QAM	39675	25RB#0	19.02	23.01
Band41	5M	64QAM	40620	1RB#0	21.88	25.87
Band41	5M	64QAM	40620	1RB#13	21.99	25.98
Band41	5M	64QAM	40620	1RB#24	21.69	25.68
Band41	5M	64QAM	40620	12RB#0	22.27	26.26
Band41	5M	64QAM	40620	12RB#6	22.32	26.31
Band41	5M	64QAM	40620	12RB#13	21.51	25.50
Band41	5M	64QAM	40620	25RB#0	21.52	25.51
Band41	5M	64QAM	41565	1RB#0	21.85	25.84
Band41	5M	64QAM	41565	1RB#13	22.25	26.24
Band41	5M	64QAM	41565	1RB#24	22.28	26.27
Band41	5M	64QAM	41565	12RB#0	22.15	26.14
Band41	5M	64QAM	41565	12RB#6	22.24	26.23
Band41	5M	64QAM	41565	12RB#13	21.70	25.69
Band41	5M	64QAM	41565	25RB#0	21.80	25.79
Band41	10M	QPSK	39700	1RB#0	19.59	23.81
Band41	10M	QPSK	39700	1RB#25	19.60	23.82
Band41	10M	QPSK	39700	1RB#49	20.71	24.93
Band41	10M	QPSK	39700	25RB#0	19.64	23.86
Band41	10M	QPSK	39700	25RB#13	19.56	23.78
Band41	10M	QPSK	39700	25RB#25	19.80	24.02
Band41	10M	QPSK	39700	50RB#0	19.75	23.97
Band41	10M	QPSK	40620	1RB#0	22.95	27.17
Band41	10M	QPSK	40620	1RB#25	22.14	26.36
Band41	10M	QPSK	40620	1RB#49	22.45	26.67
Band41	10M	QPSK	40620	25RB#0	22.27	26.49
Band41	10M	QPSK	40620	25RB#13	22.21	26.43
Band41	10M	QPSK	40620	25RB#25	22.07	26.29
Band41	10M	QPSK	40620	50RB#0	22.24	26.46
Band41	10M	QPSK	41540	1RB#0	23.21	27.43
Band41	10M	QPSK	41540	1RB#25	22.82	27.04
Band41	10M	QPSK	41540	1RB#49	22.98	27.20
Band41	10M	QPSK	41540	25RB#0	22.87	27.09
Band41	10M	QPSK	41540	25RB#13	22.85	27.07
Band41	10M	QPSK	41540	25RB#25	22.81	27.03
Band41	10M	QPSK	41540	50RB#0	22.89	27.11
Band41	10M	16QAM	39700	1RB#0	19.64	23.86
Band41	10M	16QAM	39700	1RB#25	19.62	23.84
Band41	10M	16QAM	39700	1RB#49	20.66	24.88
Band41	10M	16QAM	39700	25RB#0	19.52	23.74
Band41	10M	16QAM	39700	25RB#13	19.36	23.58
Band41	10M	16QAM	39700	25RB#25	19.72	23.94
Band41	10M	16QAM	39700	50RB#0	19.65	23.87



Band41	10M	16QAM	40620	1RB#0	22.63	26.85
Band41	10M	16QAM	40620	1RB#25	21.81	26.03
Band41	10M	16QAM	40620	1RB#49	22.09	26.31
Band41	10M	16QAM	40620	25RB#0	22.27	26.49
Band41	10M	16QAM	40620	25RB#13	22.17	26.39
Band41	10M	16QAM	40620	25RB#25	22.13	26.35
Band41	10M	16QAM	40620	50RB#0	22.22	26.44
Band41	10M	16QAM	41540	1RB#0	23.32	27.54
Band41	10M	16QAM	41540	1RB#25	23.07	27.29
Band41	10M	16QAM	41540	1RB#49	23.18	27.40
Band41	10M	16QAM	41540	25RB#0	22.92	27.14
Band41	10M	16QAM	41540	25RB#13	22.85	27.07
Band41	10M	16QAM	41540	25RB#25	22.84	27.06
Band41	10M	16QAM	41540	50RB#0	22.82	27.04
Band41	10M	64QAM	39700	1RB#0	19.70	23.69
Band41	10M	64QAM	39700	1RB#25	19.77	23.76
Band41	10M	64QAM	39700	1RB#49	20.20	24.19
Band41	10M	64QAM	39700	25RB#0	19.44	23.43
Band41	10M	64QAM	39700	25RB#13	19.45	23.44
Band41	10M	64QAM	39700	25RB#25	19.66	23.65
Band41	10M	64QAM	39700	50RB#0	19.50	23.49
Band41	10M	64QAM	40620	1RB#0	22.20	26.19
Band41	10M	64QAM	40620	1RB#25	21.76	25.75
Band41	10M	64QAM	40620	1RB#49	22.27	26.26
Band41	10M	64QAM	40620	25RB#0	21.90	25.89
Band41	10M	64QAM	40620	25RB#13	21.89	25.88
Band41	10M	64QAM	40620	25RB#25	21.85	25.84
Band41	10M	64QAM	40620	50RB#0	21.89	25.88
Band41	10M	64QAM	41540	1RB#0	22.07	26.06
Band41	10M	64QAM	41540	1RB#25	21.65	25.64
Band41	10M	64QAM	41540	1RB#49	22.18	26.17
Band41	10M	64QAM	41540	25RB#0	21.80	25.79
Band41	10M	64QAM	41540	25RB#13	21.80	25.79
Band41	10M	64QAM	41540	25RB#25	21.92	25.91
Band41	10M	64QAM	41540	50RB#0	21.99	25.98
Band41	15M	QPSK	39725	1RB#0	19.58	23.80
Band41	15M	QPSK	39725	1RB#38	19.58	23.80
Band41	15M	QPSK	39725	1RB#74	20.68	24.90
Band41	15M	QPSK	39725	36RB#0	19.62	23.84
Band41	15M	QPSK	39725	36RB#18	19.53	23.75
Band41	15M	QPSK	39725	36RB#39	19.77	23.99
Band41	15M	QPSK	39725	75RB#0	19.73	23.95
Band41	15M	QPSK	40620	1RB#0	22.91	27.13



Band41	15M	QPSK	40620	1RB#38	22.13	26.35
Band41	15M	QPSK	40620	1RB#74	22.40	26.62
Band41	15M	QPSK	40620	36RB#0	22.23	26.45
Band41	15M	QPSK	40620	36RB#18	22.16	26.38
Band41	15M	QPSK	40620	36RB#39	22.04	26.26
Band41	15M	QPSK	40620	75RB#0	22.20	26.42
Band41	15M	QPSK	41515	1RB#0	23.19	27.41
Band41	15M	QPSK	41515	1RB#38	22.79	27.01
Band41	15M	QPSK	41515	1RB#74	22.94	27.16
Band41	15M	QPSK	41515	36RB#0	22.84	27.06
Band41	15M	QPSK	41515	36RB#18	22.81	27.03
Band41	15M	QPSK	41515	36RB#39	22.77	26.99
Band41	15M	QPSK	41515	75RB#0	22.84	27.06
Band41	15M	16QAM	39725	1RB#0	19.59	23.81
Band41	15M	16QAM	39725	1RB#38	19.60	23.82
Band41	15M	16QAM	39725	1RB#74	20.63	24.85
Band41	15M	16QAM	39725	36RB#0	19.49	23.71
Band41	15M	16QAM	39725	36RB#18	19.33	23.55
Band41	15M	16QAM	39725	36RB#39	19.70	23.92
Band41	15M	16QAM	39725	75RB#0	19.62	23.84
Band41	15M	16QAM	40620	1RB#0	22.61	26.83
Band41	15M	16QAM	40620	1RB#38	21.78	26.00
Band41	15M	16QAM	40620	1RB#74	22.05	26.27
Band41	15M	16QAM	40620	36RB#0	22.25	26.47
Band41	15M	16QAM	40620	36RB#18	22.12	26.34
Band41	15M	16QAM	40620	36RB#39	22.09	26.31
Band41	15M	16QAM	40620	75RB#0	22.17	26.39
Band41	15M	16QAM	41515	1RB#0	23.30	27.52
Band41	15M	16QAM	41515	1RB#38	23.05	27.27
Band41	15M	16QAM	41515	1RB#74	23.15	27.37
Band41	15M	16QAM	41515	36RB#0	22.89	27.11
Band41	15M	16QAM	41515	36RB#18	22.81	27.03
Band41	15M	16QAM	41515	36RB#39	22.81	27.03
Band41	15M	16QAM	41515	75RB#0	22.75	26.97
Band41	15M	64QAM	39725	1RB#0	19.85	23.84
Band41	15M	64QAM	39725	1RB#38	19.92	23.91
Band41	15M	64QAM	39725	1RB#74	20.42	24.41
Band41	15M	64QAM	39725	36RB#0	19.36	23.35
Band41	15M	64QAM	39725	36RB#18	19.36	23.35
Band41	15M	64QAM	39725	36RB#39	19.65	23.64
Band41	15M	64QAM	39725	75RB#0	19.50	23.49
Band41	15M	64QAM	40620	1RB#0	22.30	26.29
Band41	15M	64QAM	40620	1RB#38	21.92	25.91



Band41	15M	64QAM	40620	1RB#74	22.22	26.21
Band41	15M	64QAM	40620	36RB#0	21.89	25.88
Band41	15M	64QAM	40620	36RB#18	21.88	25.87
Band41	15M	64QAM	40620	36RB#39	21.91	25.90
Band41	15M	64QAM	40620	75RB#0	21.89	25.88
Band41	15M	64QAM	41515	1RB#0	22.20	26.19
Band41	15M	64QAM	41515	1RB#38	21.97	25.96
Band41	15M	64QAM	41515	1RB#74	22.40	26.39
Band41	15M	64QAM	41515	36RB#0	21.90	25.89
Band41	15M	64QAM	41515	36RB#18	21.91	25.90
Band41	15M	64QAM	41515	36RB#39	21.94	25.93
Band41	15M	64QAM	41515	75RB#0	22.15	26.14
Band41	20M	QPSK	39750	1RB#0	19.55	23.77
Band41	20M	QPSK	39750	1RB#50	19.57	23.79
Band41	20M	QPSK	39750	1RB#99	20.66	24.88
Band41	20M	QPSK	39750	50RB#0	19.59	23.81
Band41	20M	QPSK	39750	50RB#25	19.51	23.73
Band41	20M	QPSK	39750	50RB#50	19.74	23.96
Band41	20M	QPSK	39750	100RB#0	19.70	23.92
Band41	20M	QPSK	40620	1RB#0	22.87	27.09
Band41	20M	QPSK	40620	1RB#50	22.09	26.31
Band41	20M	QPSK	40620	1RB#99	22.39	26.61
Band41	20M	QPSK	40620	50RB#0	22.18	26.40
Band41	20M	QPSK	40620	50RB#25	22.12	26.34
Band41	20M	QPSK	40620	50RB#50	21.99	26.21
Band41	20M	QPSK	40620	100RB#0	22.15	26.37
Band41	20M	QPSK	41490	1RB#0	23.16	27.38
Band41	20M	QPSK	41490	1RB#50	22.77	26.99
Band41	20M	QPSK	41490	1RB#99	22.91	27.13
Band41	20M	QPSK	41490	50RB#0	22.80	27.02
Band41	20M	QPSK	41490	50RB#25	22.78	27.00
Band41	20M	QPSK	41490	50RB#50	22.73	26.95
Band41	20M	QPSK	41490	100RB#0	22.80	27.02
Band41	20M	16QAM	39750	1RB#0	19.57	23.79
Band41	20M	16QAM	39750	1RB#50	19.56	23.78
Band41	20M	16QAM	39750	1RB#99	20.61	24.83
Band41	20M	16QAM	39750	50RB#0	19.46	23.68
Band41	20M	16QAM	39750	50RB#25	19.30	23.52
Band41	20M	16QAM	39750	50RB#50	19.67	23.89
Band41	20M	16QAM	39750	100RB#0	19.60	23.82
Band41	20M	16QAM	40620	1RB#0	22.57	26.79
Band41	20M	16QAM	40620	1RB#50	21.76	25.98
Band41	20M	16QAM	40620	1RB#99	22.02	26.24



Band41	20M	16QAM	40620	50RB#0	22.21	26.43
Band41	20M	16QAM	40620	50RB#25	22.10	26.32
Band41	20M	16QAM	40620	50RB#50	22.04	26.26
Band41	20M	16QAM	40620	100RB#0	22.13	26.35
Band41	20M	16QAM	41490	1RB#0	23.25	27.47
Band41	20M	16QAM	41490	1RB#50	23.01	27.23
Band41	20M	16QAM	41490	1RB#99	23.13	27.35
Band41	20M	16QAM	41490	50RB#0	22.86	27.08
Band41	20M	16QAM	41490	50RB#25	22.78	27.00
Band41	20M	16QAM	41490	50RB#50	22.77	26.99
Band41	20M	16QAM	41490	100RB#0	22.75	26.97
Band41	20M	64QAM	39750	1RB#0	19.93	23.92
Band41	20M	64QAM	39750	1RB#50	19.99	23.98
Band41	20M	64QAM	39750	1RB#99	20.88	24.87
Band41	20M	64QAM	39750	50RB#0	19.75	23.74
Band41	20M	64QAM	39750	50RB#25	19.76	23.75
Band41	20M	64QAM	39750	50RB#50	19.92	23.91
Band41	20M	64QAM	39750	100RB#0	19.80	23.79
Band41	20M	64QAM	40620	1RB#0	22.53	26.52
Band41	20M	64QAM	40620	1RB#50	21.95	25.94
Band41	20M	64QAM	40620	1RB#99	22.36	26.35
Band41	20M	64QAM	40620	50RB#0	22.05	26.04
Band41	20M	64QAM	40620	50RB#25	22.05	26.04
Band41	20M	64QAM	40620	50RB#50	22.01	26.00
Band41	20M	64QAM	40620	100RB#0	22.07	26.06
Band41	20M	64QAM	41490	1RB#0	21.91	25.90
Band41	20M	64QAM	41490	1RB#50	21.91	25.90
Band41	20M	64QAM	41490	1RB#99	22.34	26.33
Band41	20M	64QAM	41490	50RB#0	22.06	26.05
Band41	20M	64QAM	41490	50RB#25	22.07	26.06
Band41	20M	64QAM	41490	50RB#50	22.27	26.26
Band41	20M	64QAM	41490	100RB#0	22.10	26.09

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP(dBm)
Band66	1.4M	QPSK	131979	1RB#0	20.91	22.40
Band66	1.4M	QPSK	131979	1RB#2	21.98	23.47
Band66	1.4M	QPSK	131979	1RB#5	23.57	25.06
Band66	1.4M	QPSK	131979	3RB#0	21.66	23.15
Band66	1.4M	QPSK	131979	3RB#2	21.55	23.04
Band66	1.4M	QPSK	131979	3RB#3	22.72	24.21
Band66	1.4M	QPSK	131979	6RB#0	22.10	23.59
Band66	1.4M	QPSK	132322	1RB#0	22.92	24.41



Band66	1.4M	QPSK	132322	1RB#2	21.32	22.81
Band66	1.4M	QPSK	132322	1RB#5	20.63	22.12
Band66	1.4M	QPSK	132322	3RB#0	21.91	23.40
Band66	1.4M	QPSK	132322	3RB#2	21.88	23.37
Band66	1.4M	QPSK	132322	3RB#3	20.63	22.12
Band66	1.4M	QPSK	132322	6RB#0	21.18	22.67
Band66	1.4M	QPSK	132665	1RB#0	20.63	22.12
Band66	1.4M	QPSK	132665	1RB#2	21.32	22.81
Band66	1.4M	QPSK	132665	1RB#5	22.58	24.07
Band66	1.4M	QPSK	132665	3RB#0	20.72	22.21
Band66	1.4M	QPSK	132665	3RB#2	20.69	22.18
Band66	1.4M	QPSK	132665	3RB#3	21.91	23.40
Band66	1.4M	QPSK	132665	6RB#0	21.47	22.96
Band66	1.4M	16QAM	131979	1RB#0	21.27	22.76
Band66	1.4M	16QAM	131979	1RB#2	22.26	23.75
Band66	1.4M	16QAM	131979	1RB#5	23.76	25.25
Band66	1.4M	16QAM	131979	3RB#0	21.59	23.08
Band66	1.4M	16QAM	131979	3RB#2	21.48	22.97
Band66	1.4M	16QAM	131979	3RB#3	22.68	24.17
Band66	1.4M	16QAM	131979	6RB#0	22.24	23.73
Band66	1.4M	16QAM	132322	1RB#0	23.24	24.73
Band66	1.4M	16QAM	132322	1RB#2	21.52	23.01
Band66	1.4M	16QAM	132322	1RB#5	20.75	22.24
Band66	1.4M	16QAM	132322	3RB#0	21.87	23.36
Band66	1.4M	16QAM	132322	3RB#2	21.86	23.35
Band66	1.4M	16QAM	132322	3RB#3	20.49	21.98
Band66	1.4M	16QAM	132322	6RB#0	21.24	22.73
Band66	1.4M	16QAM	132665	1RB#0	21.26	22.75
Band66	1.4M	16QAM	132665	1RB#2	21.92	23.41
Band66	1.4M	16QAM	132665	1RB#5	23.09	24.58
Band66	1.4M	16QAM	132665	3RB#0	20.78	22.27
Band66	1.4M	16QAM	132665	3RB#2	20.75	22.24
Band66	1.4M	16QAM	132665	3RB#3	21.79	23.28
Band66	1.4M	16QAM	132665	6RB#0	21.30	22.79
Band66	1.4M	64QAM	131979	1RB#0	19.32	20.81
Band66	1.4M	64QAM	131979	1RB#2	19.90	21.39
Band66	1.4M	64QAM	131979	1RB#5	19.91	21.40
Band66	1.4M	64QAM	131979	3RB#0	19.65	21.14
Band66	1.4M	64QAM	131979	3RB#2	19.65	21.14
Band66	1.4M	64QAM	131979	3RB#3	19.85	21.34
Band66	1.4M	64QAM	131979	6RB#0	19.54	21.03
Band66	1.4M	64QAM	132322	1RB#0	21.39	22.88
Band66	1.4M	64QAM	132322	1RB#2	21.39	22.88



Band66	1.4M	64QAM	132322	1RB#5	21.24	22.73
Band66	1.4M	64QAM	132322	3RB#0	21.05	22.54
Band66	1.4M	64QAM	132322	3RB#2	21.04	22.53
Band66	1.4M	64QAM	132322	3RB#3	21.06	22.55
Band66	1.4M	64QAM	132322	6RB#0	21.01	22.50
Band66	1.4M	64QAM	132665	1RB#0	21.63	23.12
Band66	1.4M	64QAM	132665	1RB#2	21.75	23.24
Band66	1.4M	64QAM	132665	1RB#5	21.65	23.14
Band66	1.4M	64QAM	132665	3RB#0	21.59	23.08
Band66	1.4M	64QAM	132665	3RB#2	21.58	23.07
Band66	1.4M	64QAM	132665	3RB#3	21.57	23.06
Band66	1.4M	64QAM	132665	6RB#0	21.67	23.16
Band66	3M	QPSK	131987	1RB#0	20.93	22.42
Band66	3M	QPSK	131987	1RB#7	22.01	23.50
Band66	3M	QPSK	131987	1RB#14	23.60	25.09
Band66	3M	QPSK	131987	8RB#0	21.74	23.23
Band66	3M	QPSK	131987	8RB#4	21.65	23.14
Band66	3M	QPSK	131987	8RB#7	22.80	24.29
Band66	3M	QPSK	131987	15RB#0	22.13	23.62
Band66	3M	QPSK	132322	1RB#0	22.96	24.45
Band66	3M	QPSK	132322	1RB#7	21.37	22.86
Band66	3M	QPSK	132322	1RB#14	20.68	22.17
Band66	3M	QPSK	132322	8RB#0	22.01	23.50
Band66	3M	QPSK	132322	8RB#4	21.96	23.45
Band66	3M	QPSK	132322	8RB#7	20.72	22.21
Band66	3M	QPSK	132322	15RB#0	21.22	22.71
Band66	3M	QPSK	132657	1RB#0	20.66	22.15
Band66	3M	QPSK	132657	1RB#7	21.36	22.85
Band66	3M	QPSK	132657	1RB#14	22.62	24.11
Band66	3M	QPSK	132657	8RB#0	20.83	22.32
Band66	3M	QPSK	132657	8RB#4	20.79	22.28
Band66	3M	QPSK	132657	8RB#7	21.99	23.48
Band66	3M	QPSK	132657	15RB#0	21.50	22.99
Band66	3M	16QAM	131987	1RB#0	21.30	22.79
Band66	3M	16QAM	131987	1RB#7	22.29	23.78
Band66	3M	16QAM	131987	1RB#14	23.78	25.27
Band66	3M	16QAM	131987	8RB#0	21.68	23.17
Band66	3M	16QAM	131987	8RB#4	21.57	23.06
Band66	3M	16QAM	131987	8RB#7	22.76	24.25
Band66	3M	16QAM	131987	15RB#0	22.27	23.76
Band66	3M	16QAM	132322	1RB#0	23.26	24.75
Band66	3M	16QAM	132322	1RB#7	21.57	23.06
Band66	3M	16QAM	132322	1RB#14	20.79	22.28



Band66	3M	16QAM	132322	8RB#0	21.98	23.47
Band66	3M	16QAM	132322	8RB#4	21.97	23.46
Band66	3M	16QAM	132322	8RB#7	20.59	22.08
Band66	3M	16QAM	132322	15RB#0	21.28	22.77
Band66	3M	16QAM	132657	1RB#0	21.29	22.78
Band66	3M	16QAM	132657	1RB#7	21.96	23.45
Band66	3M	16QAM	132657	1RB#14	23.12	24.61
Band66	3M	16QAM	132657	8RB#0	20.88	22.37
Band66	3M	16QAM	132657	8RB#4	20.85	22.34
Band66	3M	16QAM	132657	8RB#7	21.90	23.39
Band66	3M	16QAM	132657	15RB#0	21.33	22.82
Band66	3M	64QAM	131987	1RB#0	19.66	21.15
Band66	3M	64QAM	131987	1RB#7	20.23	21.72
Band66	3M	64QAM	131987	1RB#14	20.45	21.94
Band66	3M	64QAM	131987	8RB#0	19.99	21.48
Band66	3M	64QAM	131987	8RB#4	19.99	21.48
Band66	3M	64QAM	131987	8RB#7	20.27	21.76
Band66	3M	64QAM	131987	15RB#0	20.01	21.50
Band66	3M	64QAM	132322	1RB#0	21.41	22.90
Band66	3M	64QAM	132322	1RB#7	21.16	22.65
Band66	3M	64QAM	132322	1RB#14	20.89	22.38
Band66	3M	64QAM	132322	8RB#0	21.49	22.98
Band66	3M	64QAM	132322	8RB#4	21.49	22.98
Band66	3M	64QAM	132322	8RB#7	20.84	22.33
Band66	3M	64QAM	132322	15RB#0	20.88	22.37
Band66	3M	64QAM	132657	1RB#0	21.57	23.06
Band66	3M	64QAM	132657	1RB#7	21.58	23.07
Band66	3M	64QAM	132657	1RB#14	21.68	23.17
Band66	3M	64QAM	132657	8RB#0	21.96	23.45
Band66	3M	64QAM	132657	8RB#4	21.95	23.44
Band66	3M	64QAM	132657	8RB#7	21.65	23.14
Band66	3M	64QAM	132657	15RB#0	21.64	23.13
Band66	5M	QPSK	131997	1RB#0	20.97	22.46
Band66	5M	QPSK	131997	1RB#13	22.08	23.57
Band66	5M	QPSK	131997	1RB#24	23.66	25.15
Band66	5M	QPSK	131997	12RB#0	21.81	23.30
Band66	5M	QPSK	131997	12RB#6	21.70	23.19
Band66	5M	QPSK	131997	12RB#13	22.87	24.36
Band66	5M	QPSK	131997	25RB#0	22.21	23.70
Band66	5M	QPSK	132322	1RB#0	23.08	24.57
Band66	5M	QPSK	132322	1RB#13	21.42	22.91
Band66	5M	QPSK	132322	1RB#24	20.75	22.24
Band66	5M	QPSK	132322	12RB#0	22.05	23.54



Band66	5M	QPSK	132322	12RB#6	22.01	23.50
Band66	5M	QPSK	132322	12RB#13	20.82	22.31
Band66	5M	QPSK	132322	25RB#0	21.31	22.80
Band66	5M	QPSK	132647	1RB#0	20.71	22.20
Band66	5M	QPSK	132647	1RB#13	21.43	22.92
Band66	5M	QPSK	132647	1RB#24	22.71	24.20
Band66	5M	QPSK	132647	12RB#0	20.89	22.38
Band66	5M	QPSK	132647	12RB#6	20.83	22.32
Band66	5M	QPSK	132647	12RB#13	21.99	23.48
Band66	5M	QPSK	132647	25RB#0	21.51	23.00
Band66	5M	16QAM	131997	1RB#0	21.32	22.81
Band66	5M	16QAM	131997	1RB#13	22.31	23.80
Band66	5M	16QAM	131997	1RB#24	23.80	25.29
Band66	5M	16QAM	131997	12RB#0	21.72	23.21
Band66	5M	16QAM	131997	12RB#6	21.59	23.08
Band66	5M	16QAM	131997	12RB#13	22.81	24.30
Band66	5M	16QAM	131997	25RB#0	22.30	23.79
Band66	5M	16QAM	132322	1RB#0	23.28	24.77
Band66	5M	16QAM	132322	1RB#13	21.64	23.13
Band66	5M	16QAM	132322	1RB#24	20.86	22.35
Band66	5M	16QAM	132322	12RB#0	22.02	23.51
Band66	5M	16QAM	132322	12RB#6	22.01	23.50
Band66	5M	16QAM	132322	12RB#13	20.59	22.08
Band66	5M	16QAM	132322	25RB#0	21.29	22.78
Band66	5M	16QAM	132647	1RB#0	21.33	22.82
Band66	5M	16QAM	132647	1RB#13	22.00	23.49
Band66	5M	16QAM	132647	1RB#24	23.15	24.64
Band66	5M	16QAM	132647	12RB#0	20.93	22.42
Band66	5M	16QAM	132647	12RB#6	20.90	22.39
Band66	5M	16QAM	132647	12RB#13	21.93	23.42
Band66	5M	16QAM	132647	25RB#0	21.34	22.83
Band66	5M	64QAM	131997	1RB#0	19.32	20.81
Band66	5M	64QAM	131997	1RB#13	20.31	21.80
Band66	5M	64QAM	131997	1RB#24	20.40	21.89
Band66	5M	64QAM	131997	12RB#0	20.01	21.50
Band66	5M	64QAM	131997	12RB#6	20.01	21.50
Band66	5M	64QAM	131997	12RB#13	19.91	21.40
Band66	5M	64QAM	131997	25RB#0	19.83	21.32
Band66	5M	64QAM	132322	1RB#0	20.95	22.44
Band66	5M	64QAM	132322	1RB#13	20.97	22.46
Band66	5M	64QAM	132322	1RB#24	20.32	21.81
Band66	5M	64QAM	132322	12RB#0	21.16	22.65
Band66	5M	64QAM	132322	12RB#6	21.16	22.65



Band66	5M	64QAM	132322	12RB#13	20.29	21.78
Band66	5M	64QAM	132322	25RB#0	20.56	22.05
Band66	5M	64QAM	132647	1RB#0	21.43	22.92
Band66	5M	64QAM	132647	1RB#13	21.70	23.19
Band66	5M	64QAM	132647	1RB#24	21.64	23.13
Band66	5M	64QAM	132647	12RB#0	21.61	23.10
Band66	5M	64QAM	132647	12RB#6	21.60	23.09
Band66	5M	64QAM	132647	12RB#13	21.26	22.75
Band66	5M	64QAM	132647	25RB#0	21.30	22.79
Band66	10M	QPSK	132022	1RB#0	20.92	22.41
Band66	10M	QPSK	132022	1RB#25	22.02	23.51
Band66	10M	QPSK	132022	1RB#49	23.59	25.08
Band66	10M	QPSK	132022	25RB#0	21.74	23.23
Band66	10M	QPSK	132022	25RB#13	21.66	23.15
Band66	10M	QPSK	132022	25RB#25	22.80	24.29
Band66	10M	QPSK	132022	50RB#0	22.19	23.68
Band66	10M	QPSK	132322	1RB#0	22.95	24.44
Band66	10M	QPSK	132322	1RB#25	21.38	22.87
Band66	10M	QPSK	132322	1RB#49	20.67	22.16
Band66	10M	QPSK	132322	25RB#0	22.01	23.50
Band66	10M	QPSK	132322	25RB#13	21.97	23.46
Band66	10M	QPSK	132322	25RB#25	20.74	22.23
Band66	10M	QPSK	132322	50RB#0	21.23	22.72
Band66	10M	QPSK	132622	1RB#0	20.65	22.14
Band66	10M	QPSK	132622	1RB#25	21.37	22.86
Band66	10M	QPSK	132622	1RB#49	22.61	24.10
Band66	10M	QPSK	132622	25RB#0	20.83	22.32
Band66	10M	QPSK	132622	25RB#13	20.78	22.27
Band66	10M	QPSK	132622	25RB#25	22.00	23.49
Band66	10M	QPSK	132622	50RB#0	21.52	23.01
Band66	10M	16QAM	132022	1RB#0	21.29	22.78
Band66	10M	16QAM	132022	1RB#25	22.29	23.78
Band66	10M	16QAM	132022	1RB#49	23.78	25.27
Band66	10M	16QAM	132022	25RB#0	21.69	23.18
Band66	10M	16QAM	132022	25RB#13	21.56	23.05
Band66	10M	16QAM	132022	25RB#25	22.76	24.25
Band66	10M	16QAM	132022	50RB#0	22.28	23.77
Band66	10M	16QAM	132322	1RB#0	23.25	24.74
Band66	10M	16QAM	132322	1RB#25	21.59	23.08
Band66	10M	16QAM	132322	1RB#49	20.79	22.28
Band66	10M	16QAM	132322	25RB#0	21.99	23.48
Band66	10M	16QAM	132322	25RB#13	21.96	23.45
Band66	10M	16QAM	132322	25RB#25	20.59	22.08



Band66	10M	16QAM	132322	50RB#0	21.29	22.78
Band66	10M	16QAM	132622	1RB#0	21.28	22.77
Band66	10M	16QAM	132622	1RB#25	21.96	23.45
Band66	10M	16QAM	132622	1RB#49	23.11	24.60
Band66	10M	16QAM	132622	25RB#0	20.89	22.38
Band66	10M	16QAM	132622	25RB#13	20.84	22.33
Band66	10M	16QAM	132622	25RB#25	21.90	23.39
Band66	10M	16QAM	132622	50RB#0	21.32	22.81
Band66	10M	64QAM	132022	1RB#0	19.84	21.33
Band66	10M	64QAM	132022	1RB#25	20.61	22.10
Band66	10M	64QAM	132022	1RB#49	21.76	23.25
Band66	10M	64QAM	132022	25RB#0	20.10	21.59
Band66	10M	64QAM	132022	25RB#13	20.05	21.54
Band66	10M	64QAM	132022	25RB#25	20.98	22.47
Band66	10M	64QAM	132022	50RB#0	20.72	22.21
Band66	10M	64QAM	132322	1RB#0	21.89	23.38
Band66	10M	64QAM	132322	1RB#25	20.76	22.25
Band66	10M	64QAM	132322	1RB#49	20.31	21.80
Band66	10M	64QAM	132322	25RB#0	21.26	22.75
Band66	10M	64QAM	132322	25RB#13	21.25	22.74
Band66	10M	64QAM	132322	25RB#25	20.28	21.77
Band66	10M	64QAM	132322	50RB#0	20.62	22.11
Band66	10M	64QAM	132622	1RB#0	21.11	22.60
Band66	10M	64QAM	132622	1RB#25	21.04	22.53
Band66	10M	64QAM	132622	1RB#49	21.67	23.16
Band66	10M	64QAM	132622	25RB#0	21.18	22.67
Band66	10M	64QAM	132622	25RB#13	21.18	22.67
Band66	10M	64QAM	132622	25RB#25	21.54	23.03
Band66	10M	64QAM	132622	50RB#0	21.40	22.89
Band66	15M	QPSK	132047	1RB#0	20.91	22.40
Band66	15M	QPSK	132047	1RB#38	22.00	23.49
Band66	15M	QPSK	132047	1RB#74	23.56	25.05
Band66	15M	QPSK	132047	36RB#0	21.72	23.21
Band66	15M	QPSK	132047	36RB#18	21.63	23.12
Band66	15M	QPSK	132047	36RB#39	22.77	24.26
Band66	15M	QPSK	132047	75RB#0	22.17	23.66
Band66	15M	QPSK	132322	1RB#0	22.91	24.40
Band66	15M	QPSK	132322	1RB#38	21.37	22.86
Band66	15M	QPSK	132322	1RB#74	20.62	22.11
Band66	15M	QPSK	132322	36RB#0	21.97	23.46
Band66	15M	QPSK	132322	36RB#18	21.92	23.41
Band66	15M	QPSK	132322	36RB#39	20.71	22.20
Band66	15M	QPSK	132322	75RB#0	21.19	22.68



Band66	15M	QPSK	132597	1RB#0	20.63	22.12
Band66	15M	QPSK	132597	1RB#38	21.34	22.83
Band66	15M	QPSK	132597	1RB#74	22.57	24.06
Band66	15M	QPSK	132597	36RB#0	20.80	22.29
Band66	15M	QPSK	132597	36RB#18	20.74	22.23
Band66	15M	QPSK	132597	36RB#39	21.96	23.45
Band66	15M	QPSK	132597	75RB#0	21.47	22.96
Band66	15M	16QAM	132047	1RB#0	21.24	22.73
Band66	15M	16QAM	132047	1RB#38	22.27	23.76
Band66	15M	16QAM	132047	1RB#74	23.75	25.24
Band66	15M	16QAM	132047	36RB#0	21.66	23.15
Band66	15M	16QAM	132047	36RB#18	21.53	23.02
Band66	15M	16QAM	132047	36RB#39	22.74	24.23
Band66	15M	16QAM	132047	75RB#0	22.25	23.74
Band66	15M	16QAM	132322	1RB#0	23.23	24.72
Band66	15M	16QAM	132322	1RB#38	21.56	23.05
Band66	15M	16QAM	132322	1RB#74	20.75	22.24
Band66	15M	16QAM	132322	36RB#0	21.97	23.46
Band66	15M	16QAM	132322	36RB#18	21.91	23.40
Band66	15M	16QAM	132322	36RB#39	20.55	22.04
Band66	15M	16QAM	132322	75RB#0	21.24	22.73
Band66	15M	16QAM	132597	1RB#0	21.26	22.75
Band66	15M	16QAM	132597	1RB#38	21.94	23.43
Band66	15M	16QAM	132597	1RB#74	23.08	24.57
Band66	15M	16QAM	132597	36RB#0	20.86	22.35
Band66	15M	16QAM	132597	36RB#18	20.80	22.29
Band66	15M	16QAM	132597	36RB#39	21.87	23.36
Band66	15M	16QAM	132597	75RB#0	21.25	22.74
Band66	15M	64QAM	132047	1RB#0	20.13	21.62
Band66	15M	64QAM	132047	1RB#38	21.29	22.78
Band66	15M	64QAM	132047	1RB#74	22.59	24.08
Band66	15M	64QAM	132047	36RB#0	20.28	21.77
Band66	15M	64QAM	132047	36RB#18	20.29	21.78
Band66	15M	64QAM	132047	36RB#39	21.50	22.99
Band66	15M	64QAM	132047	75RB#0	21.28	22.77
Band66	15M	64QAM	132322	1RB#0	22.28	23.77
Band66	15M	64QAM	132322	1RB#38	20.99	22.48
Band66	15M	64QAM	132322	1RB#74	20.13	21.62
Band66	15M	64QAM	132322	36RB#0	21.33	22.82
Band66	15M	64QAM	132322	36RB#18	21.32	22.81
Band66	15M	64QAM	132322	36RB#39	20.24	21.73
Band66	15M	64QAM	132322	75RB#0	20.73	22.22
Band66	15M	64QAM	132597	1RB#0	21.04	22.53



Band66	15M	64QAM	132597	1RB#38	21.31	22.80
Band66	15M	64QAM	132597	1RB#74	21.78	23.27
Band66	15M	64QAM	132597	36RB#0	20.88	22.37
Band66	15M	64QAM	132597	36RB#18	20.83	22.32
Band66	15M	64QAM	132597	36RB#39	21.29	22.78
Band66	15M	64QAM	132597	75RB#0	21.22	22.71
Band66	20M	QPSK	132072	1RB#0	20.88	22.37
Band66	20M	QPSK	132072	1RB#50	21.99	23.48
Band66	20M	QPSK	132072	1RB#99	23.54	25.03
Band66	20M	QPSK	132072	50RB#0	21.69	23.18
Band66	20M	QPSK	132072	50RB#25	21.61	23.10
Band66	20M	QPSK	132072	50RB#50	22.74	24.23
Band66	20M	QPSK	132072	100RB#0	22.14	23.63
Band66	20M	QPSK	132322	1RB#0	22.87	24.36
Band66	20M	QPSK	132322	1RB#50	21.33	22.82
Band66	20M	QPSK	132322	1RB#99	20.61	22.10
Band66	20M	QPSK	132322	50RB#0	21.92	23.41
Band66	20M	QPSK	132322	50RB#25	21.88	23.37
Band66	20M	QPSK	132322	50RB#50	20.66	22.15
Band66	20M	QPSK	132322	100RB#0	21.14	22.63
Band66	20M	QPSK	132572	1RB#0	20.60	22.09
Band66	20M	QPSK	132572	1RB#50	21.32	22.81
Band66	20M	QPSK	132572	1RB#99	22.54	24.03
Band66	20M	QPSK	132572	50RB#0	20.76	22.25
Band66	20M	QPSK	132572	50RB#25	20.71	22.20
Band66	20M	QPSK	132572	50RB#50	21.92	23.41
Band66	20M	QPSK	132572	100RB#0	21.43	22.92
Band66	20M	16QAM	132072	1RB#0	21.22	22.71
Band66	20M	16QAM	132072	1RB#50	22.23	23.72
Band66	20M	16QAM	132072	1RB#99	23.73	25.22
Band66	20M	16QAM	132072	50RB#0	21.63	23.12
Band66	20M	16QAM	132072	50RB#25	21.50	22.99
Band66	20M	16QAM	132072	50RB#50	22.71	24.20
Band66	20M	16QAM	132072	100RB#0	22.23	23.72
Band66	20M	16QAM	132322	1RB#0	23.19	24.68
Band66	20M	16QAM	132322	1RB#50	21.54	23.03
Band66	20M	16QAM	132322	1RB#99	20.72	22.21
Band66	20M	16QAM	132322	50RB#0	21.93	23.42
Band66	20M	16QAM	132322	50RB#25	21.89	23.38
Band66	20M	16QAM	132322	50RB#50	20.50	21.99
Band66	20M	16QAM	132322	100RB#0	21.20	22.69
Band66	20M	16QAM	132572	1RB#0	21.21	22.70
Band66	20M	16QAM	132572	1RB#50	21.90	23.39



Band66	20M	16QAM	132572	1RB#99	23.06	24.55
Band66	20M	16QAM	132572	50RB#0	20.83	22.32
Band66	20M	16QAM	132572	50RB#25	20.77	22.26
Band66	20M	16QAM	132572	50RB#50	21.83	23.32
Band66	20M	16QAM	132572	100RB#0	21.25	22.74
Band66	20M	64QAM	132072	1RB#0	20.41	21.90
Band66	20M	64QAM	132072	1RB#50	21.62	23.11
Band66	20M	64QAM	132072	1RB#99	23.33	24.82
Band66	20M	64QAM	132072	50RB#0	21.19	22.68
Band66	20M	64QAM	132072	50RB#25	21.20	22.69
Band66	20M	64QAM	132072	50RB#50	22.41	23.90
Band66	20M	64QAM	132072	100RB#0	21.78	23.27
Band66	20M	64QAM	132322	1RB#0	22.42	23.91
Band66	20M	64QAM	132322	1RB#50	20.87	22.36
Band66	20M	64QAM	132322	1RB#99	20.08	21.57
Band66	20M	64QAM	132322	50RB#0	21.58	23.07
Band66	20M	64QAM	132322	50RB#25	21.57	23.06
Band66	20M	64QAM	132322	50RB#50	20.13	21.62
Band66	20M	64QAM	132322	100RB#0	20.80	22.29
Band66	20M	64QAM	132572	1RB#0	20.35	21.84
Band66	20M	64QAM	132572	1RB#50	20.93	22.42
Band66	20M	64QAM	132572	1RB#99	21.88	23.37
Band66	20M	64QAM	132572	50RB#0	20.84	22.33
Band66	20M	64QAM	132572	50RB#25	20.75	22.24
Band66	20M	64QAM	132572	50RB#50	21.42	22.91
Band66	20M	64QAM	132572	100RB#0	21.18	22.67

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 LTE Band 4/12/66 (1.4MHz).

RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/12/66 (3MHz).

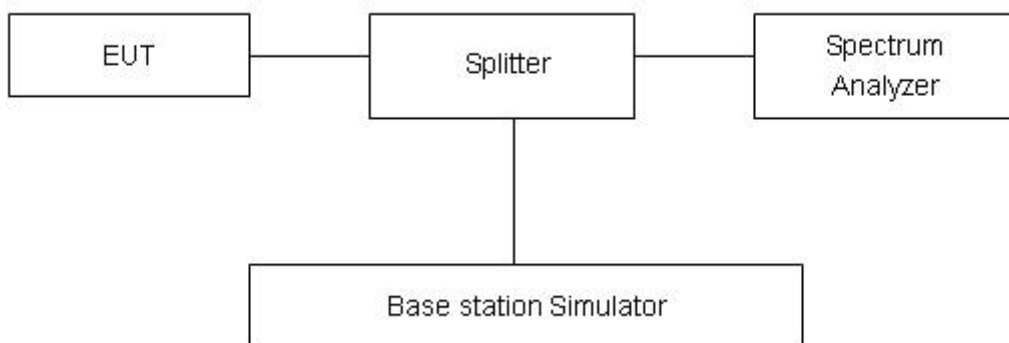
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/12/13/41/66 (5MHz).

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/12/13/41/66 (10MHz).

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/41/66 (15MHz/20MHz).

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

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

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



Test Result

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	19957	1710.7	1.1709	1.600
			20175	1732.5	1.1574	1.546
			20393	1754.3	1.1570	1.558
		3	19965	1711.5	2.7962	3.518
			20175	1732.5	2.7844	3.499
			20385	1753.5	2.7894	3.463
		5	19975	1712.5	4.5380	5.346
			20175	1732.5	4.5375	5.292
			20375	1752.5	4.5565	5.364
		10	20000	1715	9.0589	10.330
			20175	1732.5	9.0825	10.280
			20350	1750	9.0675	10.230
		15	20025	1717.5	13.4620	14.670
			20175	1732.5	13.5190	14.750
			20325	1747.5	13.5380	14.830
		20	20050	1720	17.8660	19.140
			20175	1732.5	17.9690	19.240
			20300	1745	17.9180	19.200
	16QAM	1.4	19957	1710.7	1.1541	1.588
			20175	1732.5	1.1672	1.609
			20393	1754.3	1.1733	1.562
		3	19965	1711.5	2.8100	3.617
			20175	1732.5	2.8111	3.558
			20385	1753.5	2.8289	3.563
		5	19975	1712.5	4.5766	5.565
			20175	1732.5	4.5921	5.471
			20375	1752.5	4.5432	5.324
		10	20000	1715	9.0950	10.610
			20175	1732.5	9.0944	10.300
			20350	1750	9.0457	10.150
		15	20025	1717.5	13.4940	15.490
			20175	1732.5	13.5620	14.790
			20325	1747.5	13.4960	14.780
		20	20050	1720	17.8860	20.170
			20175	1732.5	17.9480	19.180
			20300	1745	17.9370	19.240



	64QAM	1.4	19957	1710.7	1.1253	1.444
			20175	1732.5	1.1038	1.468
			20393	1754.3	1.1177	1.483
		3	19965	1711.5	2.7331	3.322
			20175	1732.5	2.7147	3.458
			20385	1753.5	2.7157	3.355
		5	19975	1712.5	4.5207	5.279
			20175	1732.5	4.5538	5.271
			20375	1752.5	4.5484	5.392
		10	20000	1715	8.9681	9.960
			20175	1732.5	8.9917	9.897
			20350	1750	8.9745	9.975
		15	20025	1717.5	13.4550	14.630
			20175	1732.5	13.4950	14.470
			20325	1747.5	13.4730	14.610
		20	20050	1720	17.8460	19.210
			20175	1732.5	17.9070	19.230
			20300	1745	18.0020	19.390

LTE Band 12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	23017	699.7	1.1587	1.564
			23095	707.5	1.1761	1.564
			23173	715.3	1.1545	1.589
		3	23025	700.5	2.8047	3.500
			23095	707.5	2.7813	3.365
			23165	714.5	2.7957	3.466
		5	23035	701.5	4.5864	5.438
			23095	707.5	4.5061	5.135
			23155	713.5	4.5556	5.451
		10	23060	704	9.1925	10.380
			23095	707.5	8.9426	10.020
			23130	711	8.9703	10.070
	16QAM	1.4	23017	699.7	1.1818	1.551
			23095	707.5	1.1333	1.606
			23173	715.3	1.1414	1.533
		3	23025	700.5	2.8029	3.638
			23095	707.5	2.7836	3.406
			23165	714.5	2.7989	3.497



		5	23035	701.5	4.5583	5.268
			23095	707.5	4.5257	5.216
			23155	713.5	4.5769	5.383
		10	23060	704	9.1623	10.290
			23095	707.5	8.9647	9.957
			23130	711	8.9369	10.000
	64QAM	1.4	23017	699.7	1.1176	1.447
			23095	707.5	1.1117	1.469
			23173	715.3	1.1187	1.475
		3	23025	700.5	2.7211	3.478
			23095	707.5	2.7136	3.275
			23165	714.5	2.7390	3.379
		5	23035	701.5	4.5390	5.127
			23095	707.5	4.5176	5.151
			23155	713.5	4.5695	5.243
		10	23060	704	9.0886	10.030
			23095	707.5	8.9171	9.590
			23130	711	8.8848	9.792

LTE Band 13						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	23205	779.5	4.5467	5.339
			23230	782	4.5575	5.284
			23255	784.5	4.5142	5.193
		10	23230	782	9.0225	10.070
	16QAM	5	23205	779.5	4.5467	5.339
			23230	782	4.5575	5.284
			23255	784.5	4.5142	5.193
		10	23230	782	9.0225	10.070
	64 QAM	5	23205	779.5	4.5318	5.255
			23230	782	4.5443	5.190
			23255	784.5	4.5211	5.300
		10	23230	782	8.9633	9.771

LTE Band 41						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	39675	2498.5	4.5504	5.277
			40620	2593	4.5261	5.228
			41565	2687.5	4.5283	5.594



		10	39700	2501	9.0491	10.260
			40620	2593	9.0621	10.540
			41540	2685	9.0735	10.420
		15	39725	2503.5	13.4700	14.580
			40620	2593	13.4580	14.810
			41515	2682.5	13.5120	15.170
		20	39750	2506	17.8930	19.130
			40620	2593	17.8960	19.190
			41490	2680	17.9010	19.040
	16QAM	5	39675	2498.5	4.5340	5.286
			40620	2593	4.5213	5.222
			41565	2687.5	4.5490	5.338
		10	39700	2501	9.0257	10.220
			40620	2593	9.0794	10.390
			41540	2685	9.0823	10.870
		15	39725	2503.5	13.5120	14.630
			40620	2593	13.5180	14.910
			41515	2682.5	13.5140	14.960
		20	39750	2506	17.8960	19.160
			40620	2593	17.8800	19.130
			41490	2680	17.8400	19.030
	64QAM	5	39675	2498.5	4.5050	5.317
			40620	2593	4.5081	5.089
			41565	2687.5	4.5336	5.113
		10	39700	2501	9.0172	9.767
			40620	2593	8.9772	9.763
			41540	2685	8.9643	10.080
		15	39725	2503.5	13.4430	14.610
			40620	2593	13.4210	14.780
			41515	2682.5	13.4570	14.690
		20	39750	2506	17.9040	19.010
			40620	2593	17.9510	19.030
			41490	2680	17.8850	19.120

LTE Band 66						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	131979	1710.7	1.1569	1.540
			132322	1745	1.1588	1.593
			132665	1779.3	1.1380	1.560



		3	131987	1711.5	2.7778	3.465
			132322	1745	2.7813	3.505
			132657	1778.5	2.7890	3.476
		5	131997	1712.5	4.5428	5.370
			132322	1745	4.5284	5.284
			132647	1777.5	4.5401	5.214
		10	132022	1715	9.0783	10.220
			132322	1745	9.0260	10.160
			132622	1775	9.0740	10.190
		15	132047	1717.5	13.4800	14.650
			132322	1745	13.4690	14.670
			132597	1772.5	13.4570	14.570
		20	132072	1720	17.8250	18.970
			132322	1745	17.9360	19.250
			132572	1770	17.8690	19.230
	16QAM	1.4	131979	1710.7	1.1696	1.575
			132322	1745	1.1403	1.555
			132665	1779.3	1.1558	1.537
		3	131987	1711.5	2.8143	3.467
			132322	1745	2.7870	3.495
			132657	1778.5	2.7994	3.551
		5	131997	1712.5	4.5404	5.340
			132322	1745	4.5514	5.245
			132647	1777.5	4.5756	5.388
		10	132022	1715	9.0678	10.130
			132322	1745	9.0681	10.190
			132622	1775	9.0512	10.140
		15	132047	1717.5	13.4450	14.450
			132322	1745	13.4900	14.690
			132597	1772.5	13.4750	14.690
		20	132072	1720	17.8910	19.170
			132322	1745	17.9560	19.350
			132572	1770	17.8480	19.180
	64QAM	1.4	131979	1710.7	1.1213	1.470
			132322	1745	1.1134	1.448
			132665	1779.3	1.1136	1.471
		3	131987	1711.5	2.7227	3.381
			132322	1745	2.7178	3.353
			132657	1778.5	2.7210	3.412
		5	131997	1712.5	4.5239	5.096



			132322	1745	4.5337	5.242
			132647	1777.5	4.5569	5.301
		10	132022	1715	9.0061	9.901
			132322	1745	8.9989	9.861
			132622	1775	8.9983	9.815
		15	132047	1717.5	13.4620	14.510
			132322	1745	13.5050	14.540
			132597	1772.5	13.4530	14.730
		20	132072	1720	17.8810	19.190
			132322	1745	17.9630	19.340
			132572	1770	17.8940	19.190



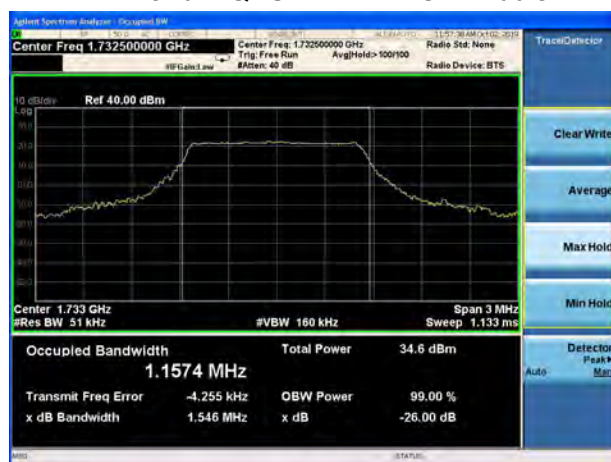
LTE Band 4 QPSK 1.4MHz CH-Low



LTE Band 4 QPSK 3MHz CH-Low



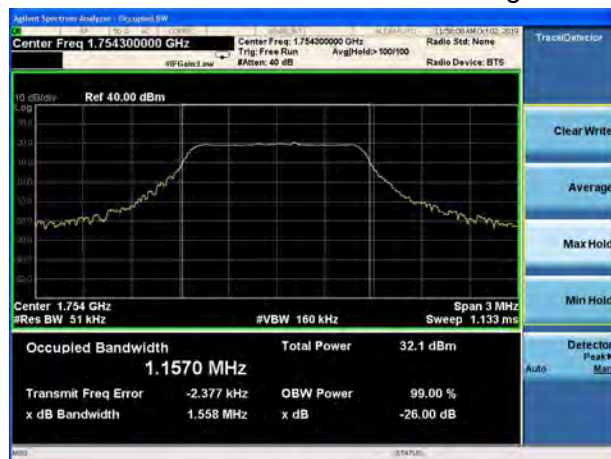
LTE Band 4 QPSK 1.4MHz CH-Middle



LTE Band 4 QPSK 3MHz CH-Middle



LTE Band 4 QPSK 1.4MHz CH-High



LTE Band 4 QPSK 3MHz CH-High





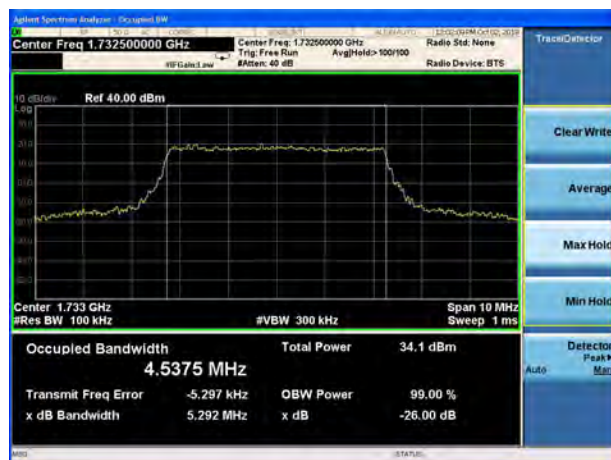
LTE Band 4 QPSK 5MHz CH-Low



LTE Band 4 QPSK 10MHz CH-Low



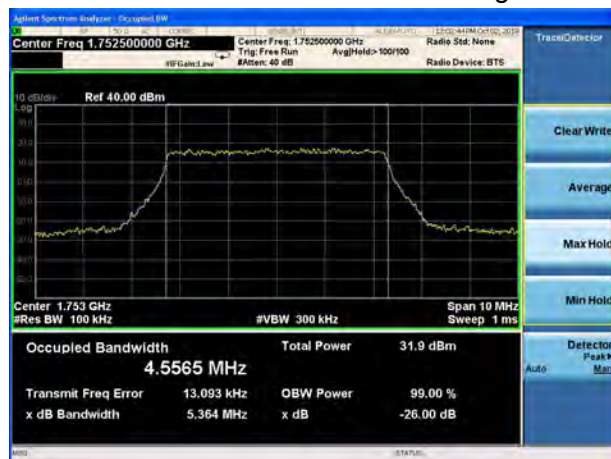
LTE Band 4 QPSK 5MHz CH-Middle



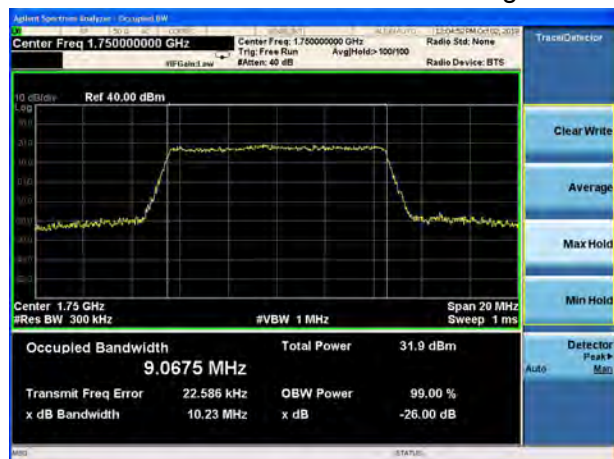
LTE Band 4 QPSK 10MHz CH-Middle



LTE Band 4 QPSK 5MHz CH-High



LTE Band 4 QPSK 10MHz CH-High





LTE Band 4 QPSK 15MHz CH-Low



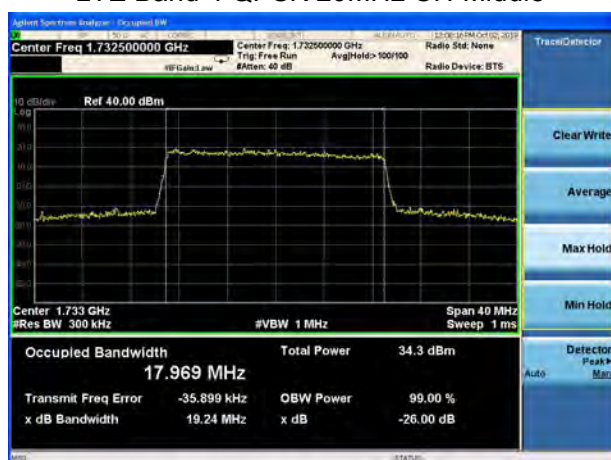
LTE Band 4 QPSK 20MHz CH-Low



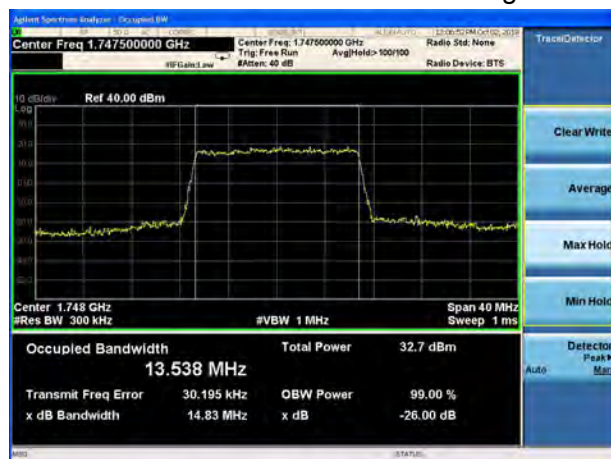
LTE Band 4 QPSK 15MHz CH-Middle



LTE Band 4 QPSK 20MHz CH-Middle



LTE Band 4 QPSK 15MHz CH-High



LTE Band 4 QPSK 20MHz CH-High

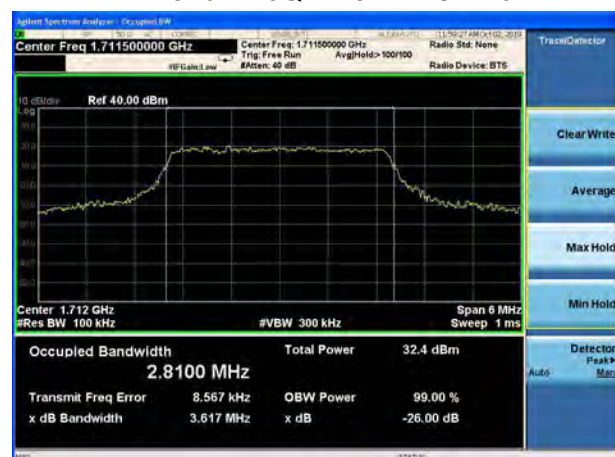




LTE Band 4 16QAM 1.4MHz CH-Low



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



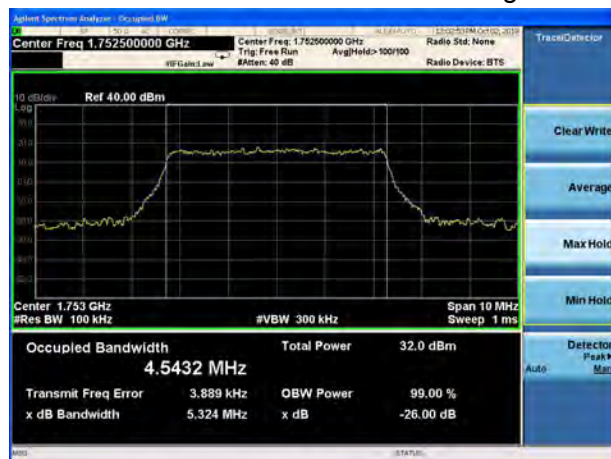
LTE Band 4 16QAM 5MHz CH-Middle



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



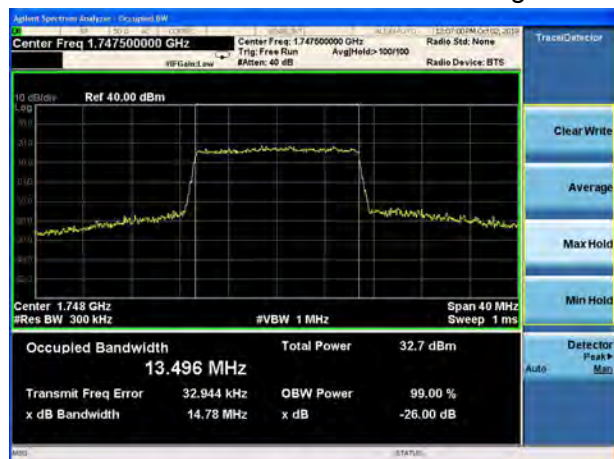
LTE Band 4 16QAM 15MHz CH-Middle



LTE Band 4 16QAM 20MHz CH-Middle



LTE Band 4 16QAM 15MHz CH-High



LTE Band 4 16QAM 20MHz CH-High





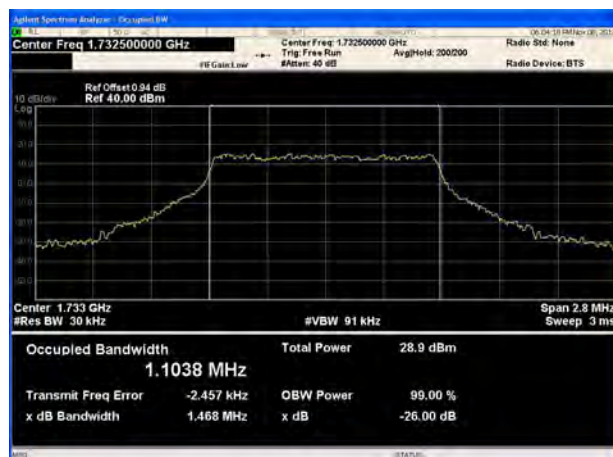
LTE Band 4 64QAM 1.4MHz CH-Low



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



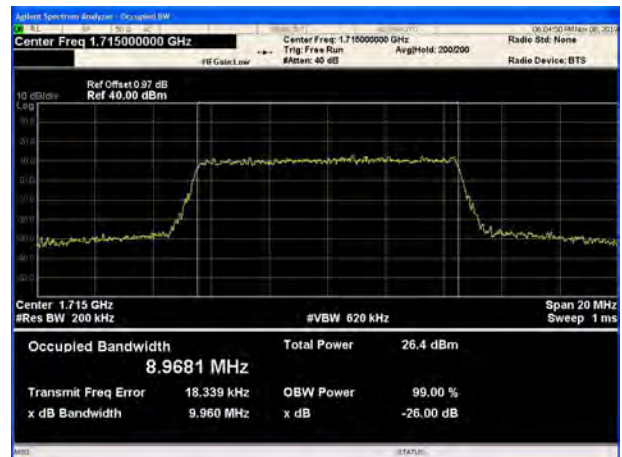
LTE Band 4 64QAM 3MHz CH-High



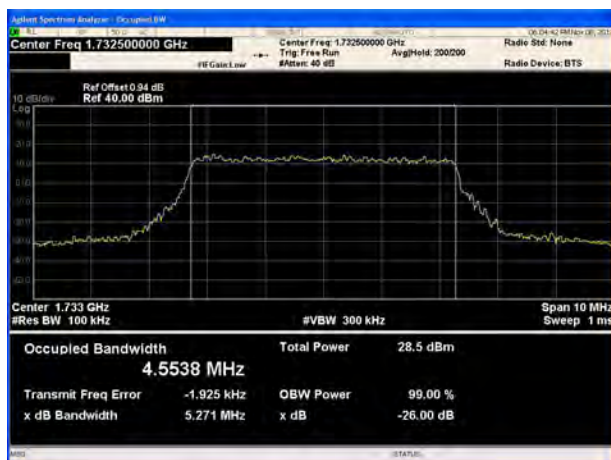
LTE Band 4 64QAM 5MHz CH-Low



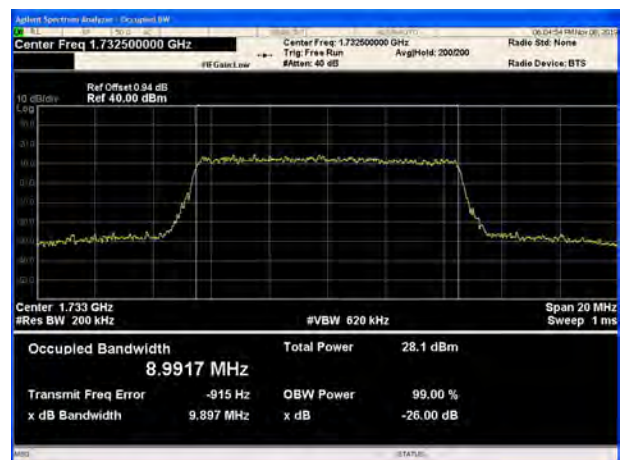
LTE Band 4 64QAM 10MHz CH-Low



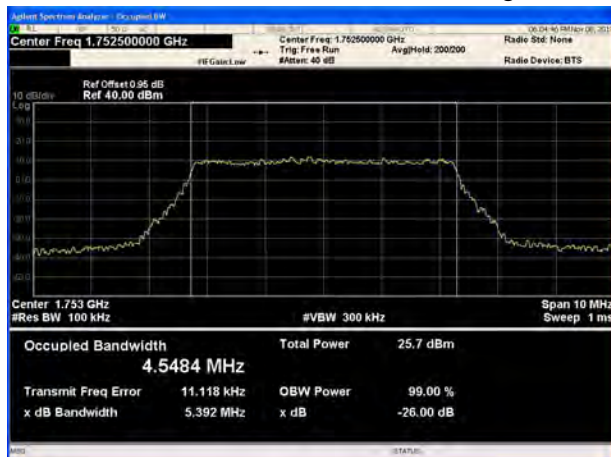
LTE Band 4 64QAM 5MHz CH-Middle



LTE Band 4 64QAM 10MHz CH-Middle



LTE Band 4 64QAM 5MHz CH-High

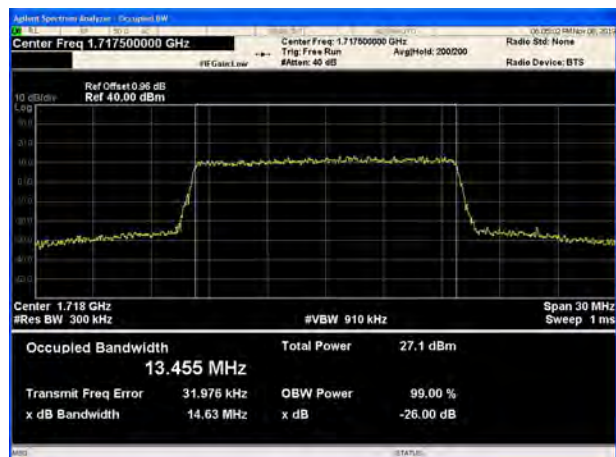


LTE Band 4 64QAM 10MHz CH-High





LTE Band 4 64QAM 15MHz CH-Low



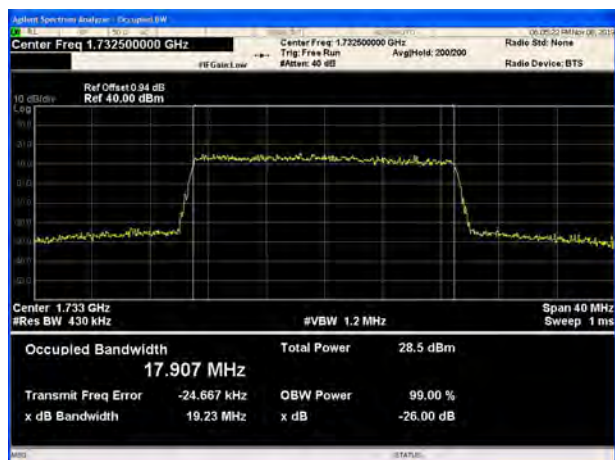
LTE Band 4 64QAM 20MHz CH-Low



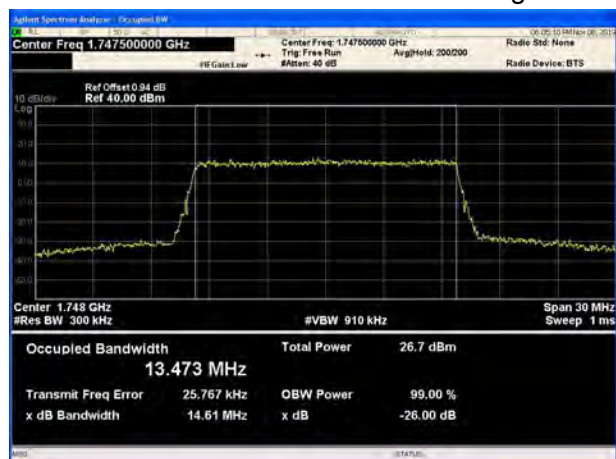
LTE Band 4 64QAM 15MHz CH-Middle



LTE Band 4 64QAM 20MHz CH-Middle



LTE Band 4 64QAM 15MHz CH-High



LTE Band 4 64QAM 20MHz CH-High



LTE Band 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



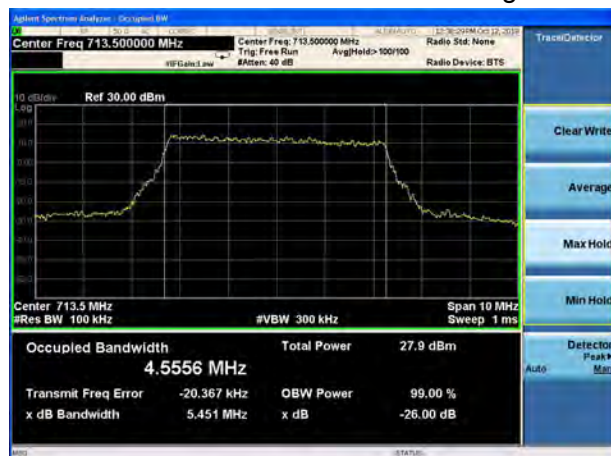
LTE Band 12 QPSK 5MHz CH-Middle



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



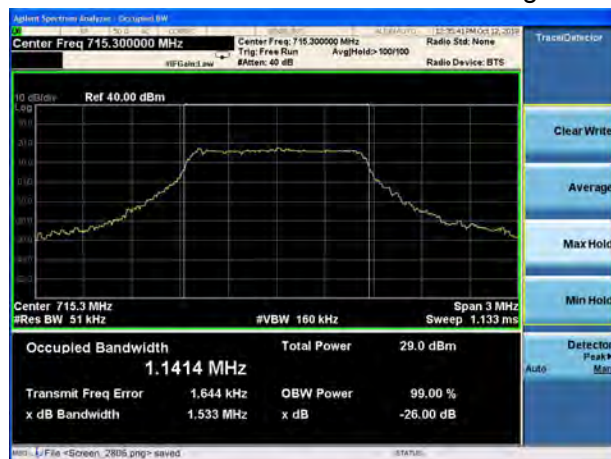
LTE Band 12 16QAM 1.4MHz CH-Middle



LTE Band 12 16QAM 3MHz CH-Middle



LTE Band 12 16QAM 1.4MHz CH-High



LTE Band 12 16QAM 3MHz CH-High



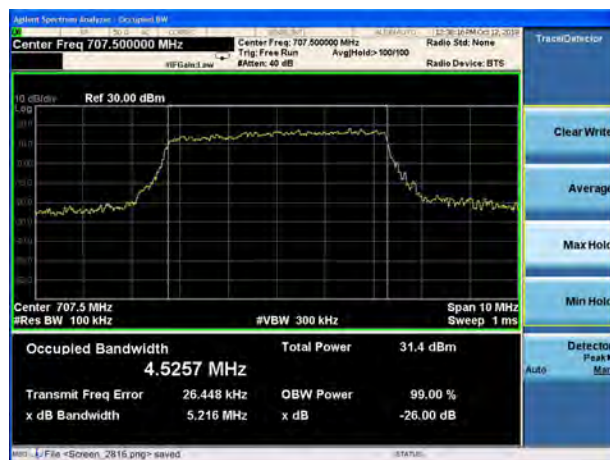
LTE Band 12 16QAM 5MHz CH-Low



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



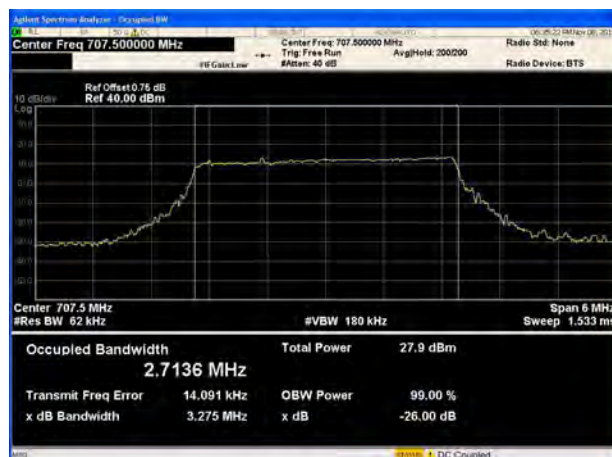
LTE Band 12 64QAM 3MHz CH-Low



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





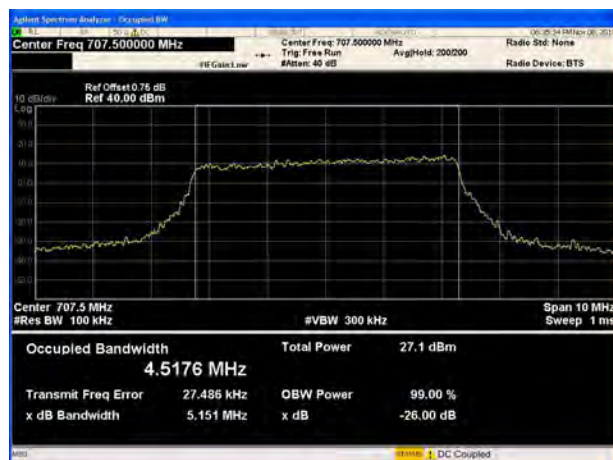
LTE Band 12 64QAM 5MHz CH-Low



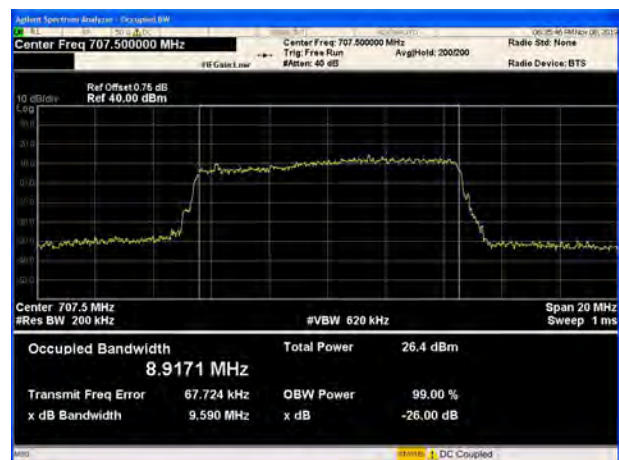
LTE Band 12 64QAM 10MHz CH-Low



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 QPSK 5MHz CH-Middle



LTE Band 13 QPSK 5MHz CH-High



LTE Band 13 QPSK 10MHz CH-Middle





LTE Band 13 16QAM 5MHz CH-Low



LTE Band 13 16QAM 5MHz CH-Middle



LTE Band 13 16QAM 5MHz CH-High

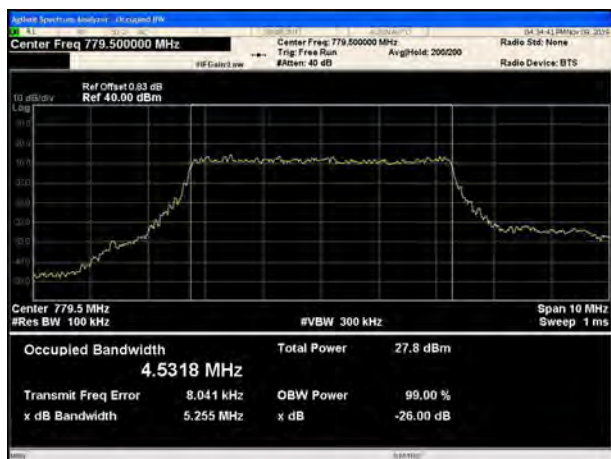


LTE Band 13 16QAM 10MHz CH-Middle

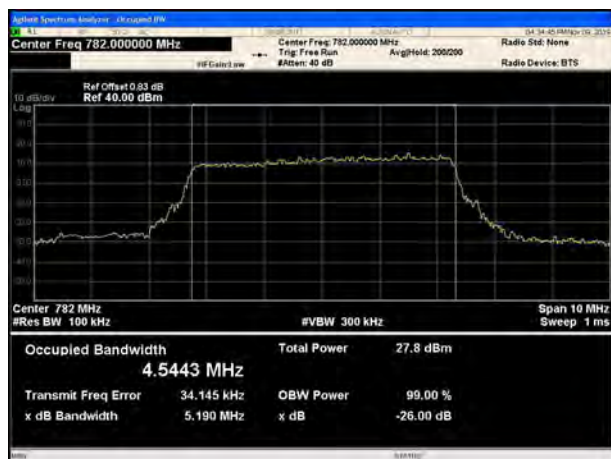




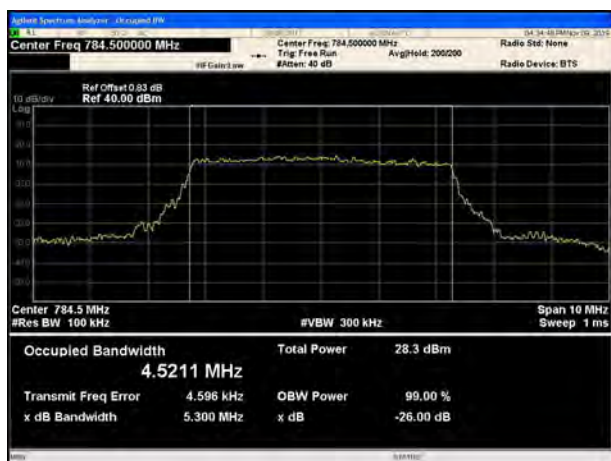
LTE Band 13 64QAM 5MHz CH-Low



LTE Band 13 64QAM 5MHz CH-Middle



LTE Band 13 64QAM 5MHz CH-High



LTE Band 13 64QAM 10MHz CH-Middle





LTE Band 41 QPSK 5MHz CH-Low



LTE Band 41 QPSK 10MHz CH-Low



LTE Band 41 QPSK 5MHz CH-Middle



LTE Band 41 QPSK 10MHz CH-Middle



LTE Band 41 QPSK 5MHz CH-High

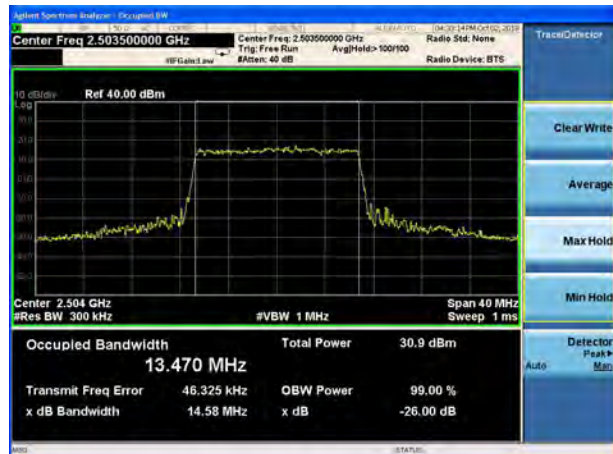


LTE Band 41 QPSK 10MHz CH-High





LTE Band 41 QPSK 15MHz CH-Low



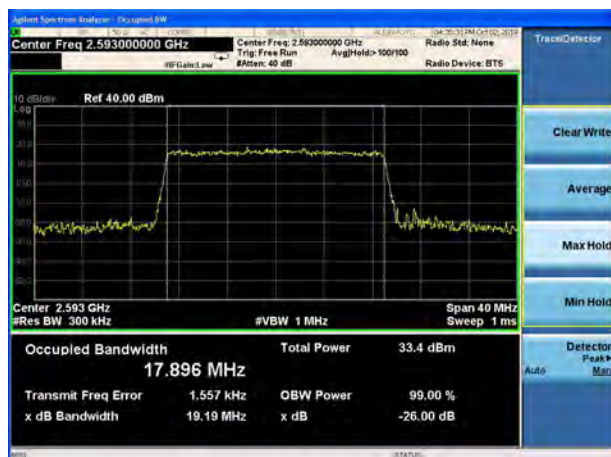
LTE Band 41 QPSK 20MHz CH-Low



LTE Band 41 QPSK 15MHz CH-Middle



LTE Band 41 QPSK 20MHz CH-Middle



LTE Band 41 QPSK 15MHz CH-High



LTE Band 41 QPSK 20MHz CH-High



LTE Band 41 16QAM 5MHz CH-Low



LTE Band 41 16QAM 10MHz CH-Low



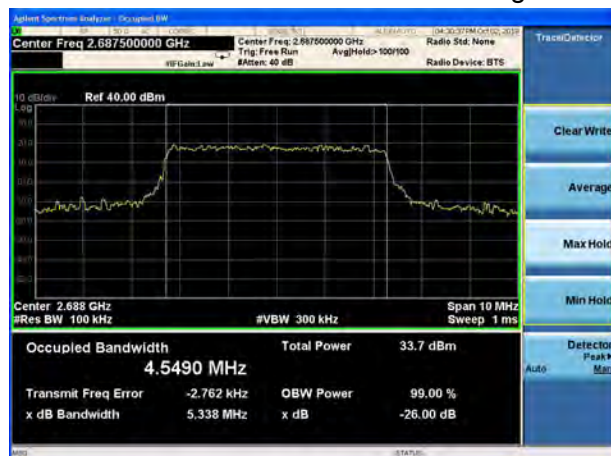
LTE Band 41 16QAM 5MHz CH-Middle



LTE Band 41 16QAM 10MHz CH-Middle



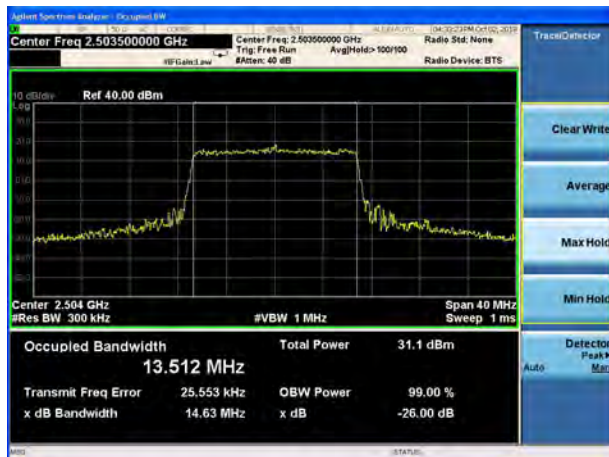
LTE Band 41 16QAM 5MHz CH-High



LTE Band 41 16QAM 10MHz CH-High



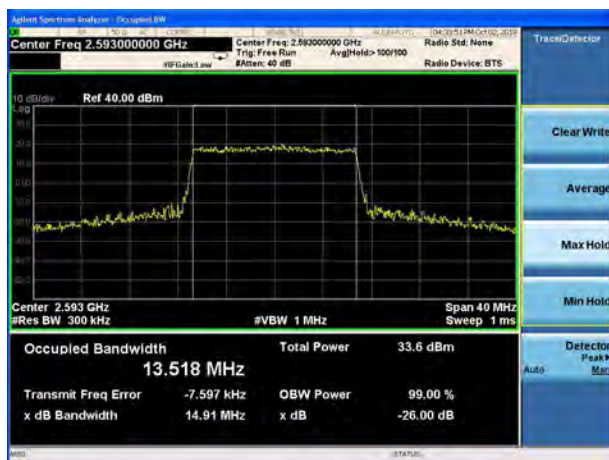
LTE Band 41 16QAM 15MHz CH-Low



LTE Band 41 16QAM 20MHz CH-Low



LTE Band 41 16QAM 15MHz CH-Middle



LTE Band 41 16QAM 20MHz CH-Middle



LTE Band 41 16QAM 15MHz CH-High

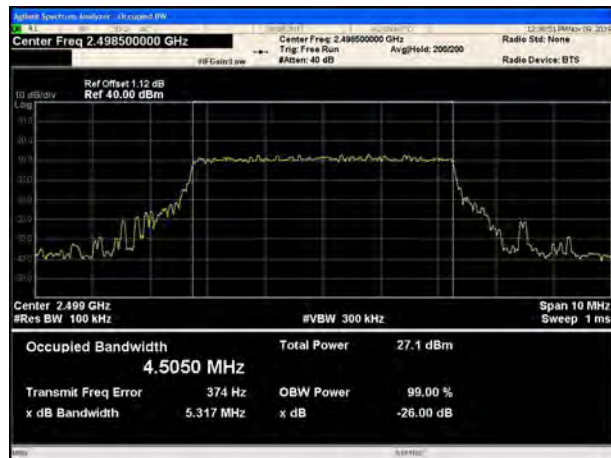


LTE Band 41 16QAM 20MHz CH-High





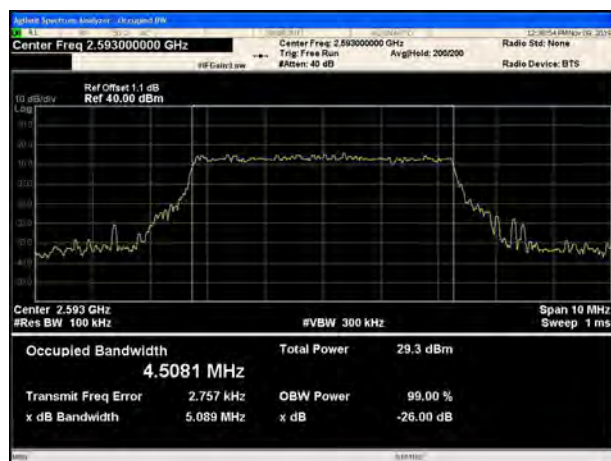
LTE Band 41 64QAM 5MHz CH-Low



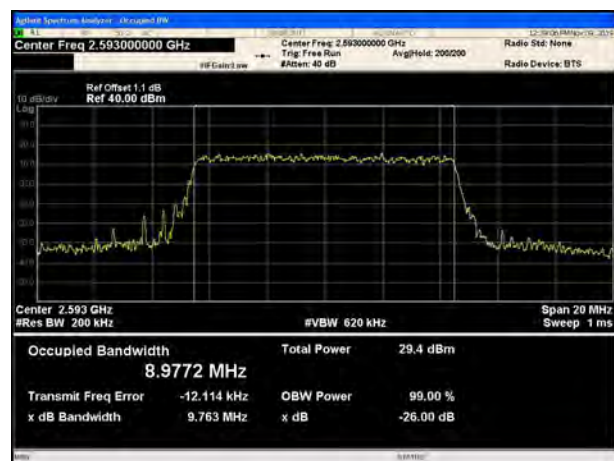
LTE Band 41 64QAM 10MHz CH-Low



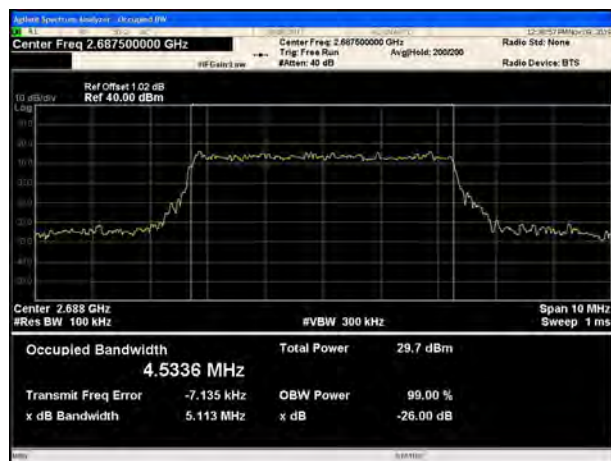
LTE Band 41 64QAM 5MHz CH-Middle



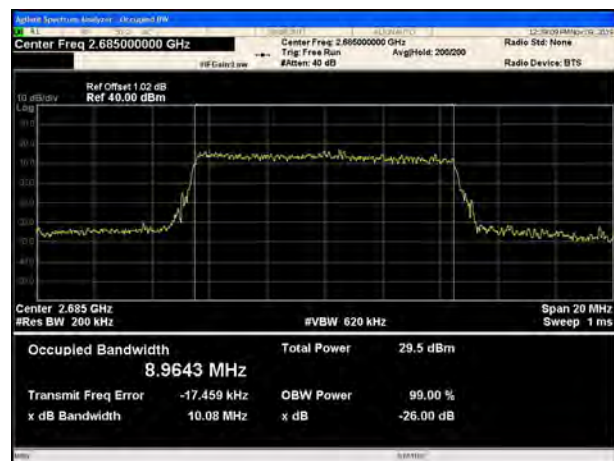
LTE Band 41 64QAM 10MHz CH-Middle



LTE Band 41 64QAM 5MHz CH-High

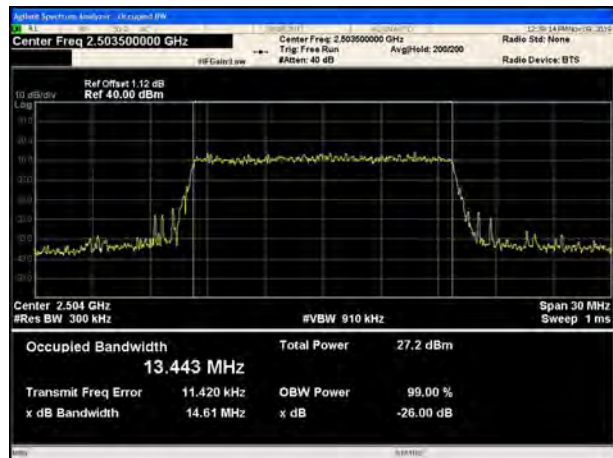


LTE Band 41 64QAM 10MHz CH-High

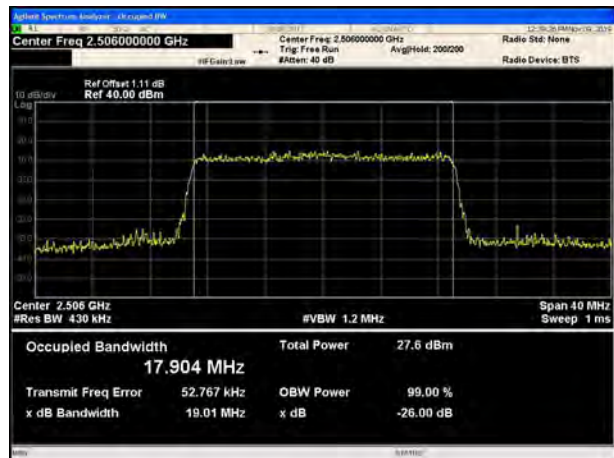




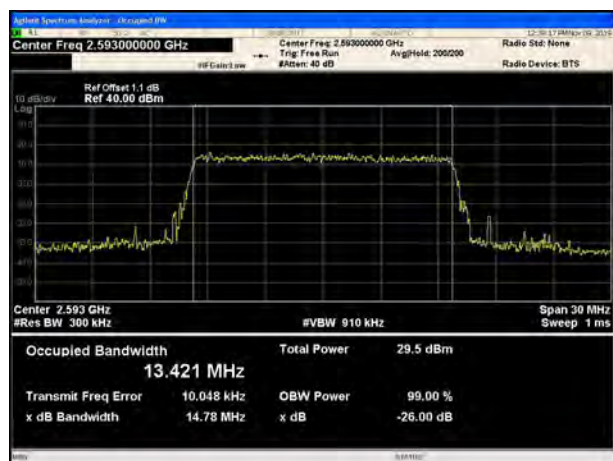
LTE Band 41 64QAM 15MHz CH-Low



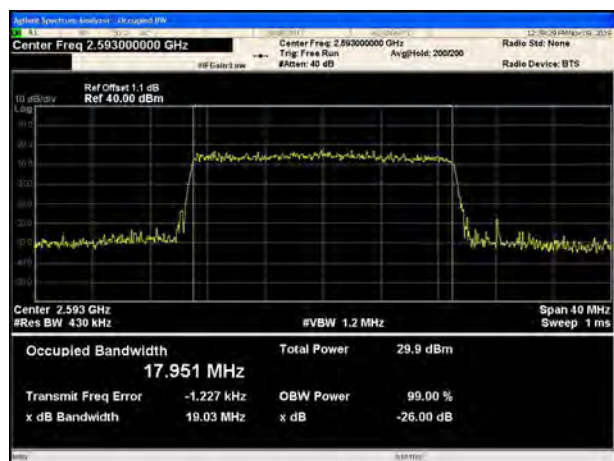
LTE Band 41 64QAM 20MHz CH-Low



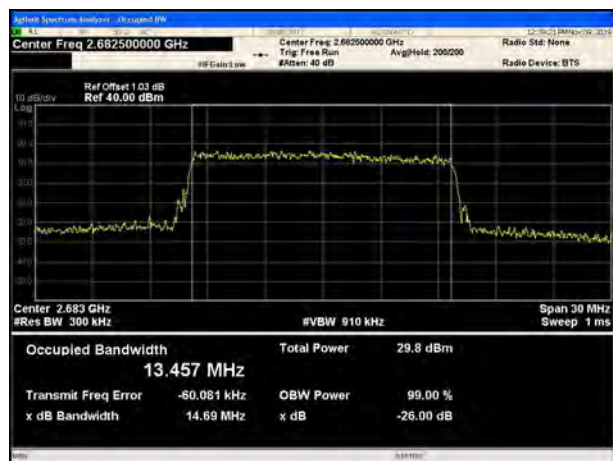
LTE Band 41 64QAM 15MHz CH-Middle



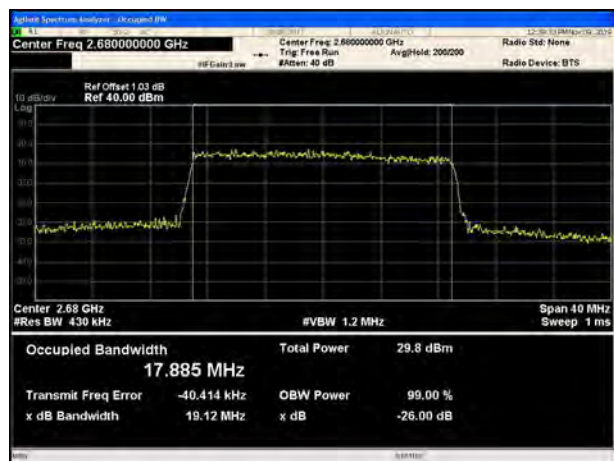
LTE Band 41 64QAM 20MHz CH-Middle



LTE Band 41 64QAM 15MHz CH-High



LTE Band 41 64QAM 20MHz CH-High





LTE Band 66 QPSK 1.4MHz CH-Low



LTE Band 66 QPSK 3MHz CH-Low



LTE Band 66 QPSK 1.4MHz CH-Middle



LTE Band 66 QPSK 3MHz CH-Middle



LTE Band 66 QPSK 1.4MHz CH-High

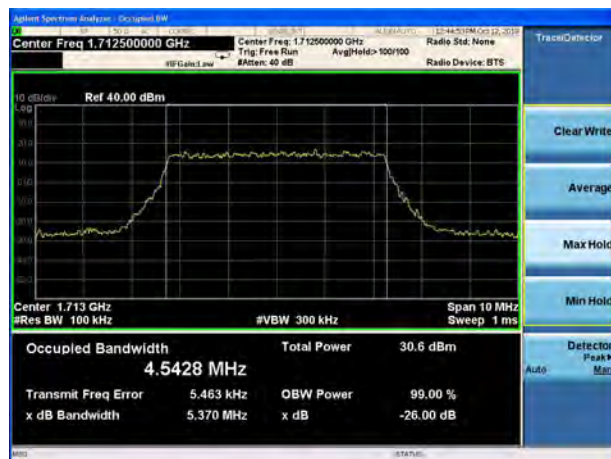


LTE Band 66 QPSK 3MHz CH-High





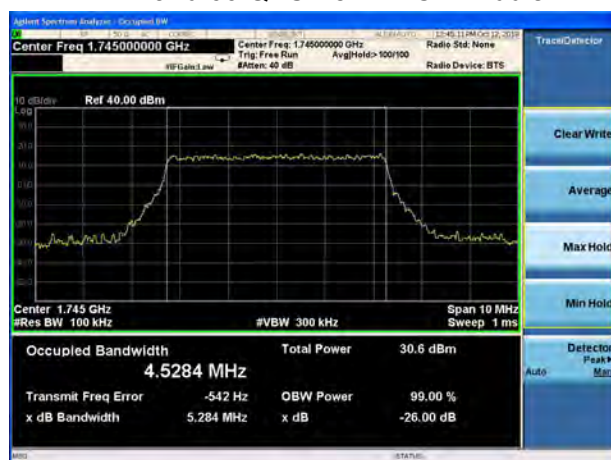
LTE Band 66 QPSK 5MHz CH-Low



LTE Band 66 QPSK 10MHz CH-Low



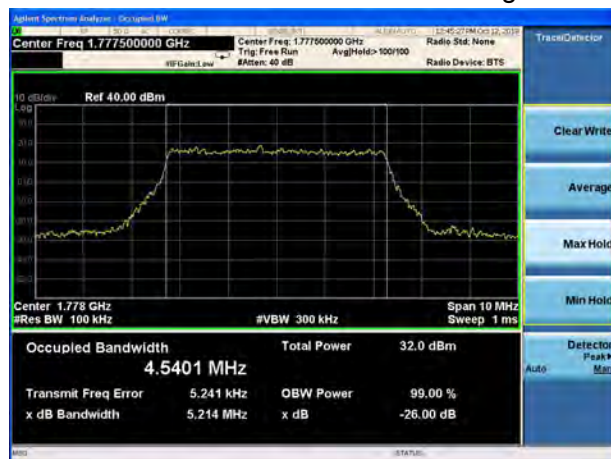
LTE Band 66 QPSK 5MHz CH-Middle



LTE Band 66 QPSK 10MHz CH-Middle



LTE Band 66 QPSK 5MHz CH-High



LTE Band 66 QPSK 10MHz CH-High





LTE Band 66 QPSK 15MHz CH-Low



LTE Band 66 QPSK 20MHz CH-Low



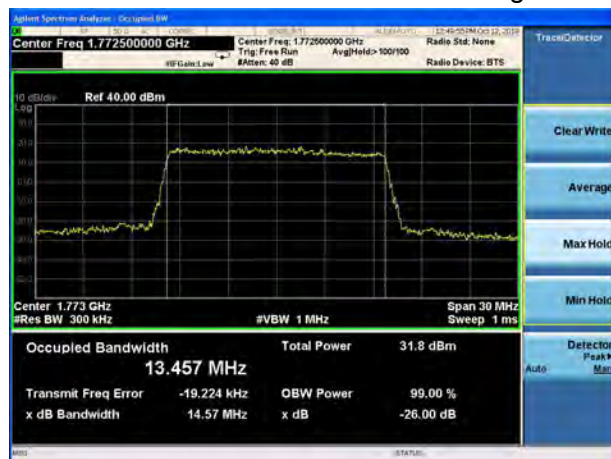
LTE Band 66 QPSK 15MHz CH-Middle



LTE Band 66 QPSK 20MHz CH-Middle



LTE Band 66 QPSK 15MHz CH-High



LTE Band 66 QPSK 20MHz CH-High





LTE Band 66 16QAM 1.4MHz CH-Low



LTE Band 66 16QAM 3MHz CH-Low



LTE Band 66 16QAM 1.4MHz CH-Middle



LTE Band 66 16QAM 3MHz CH-Middle



LTE Band 66 16QAM 1.4MHz CH-High



LTE Band 66 16QAM 3MHz CH-High





LTE Band 66 16QAM 5MHz CH-Low



LTE Band 66 16QAM 10MHz CH-Low



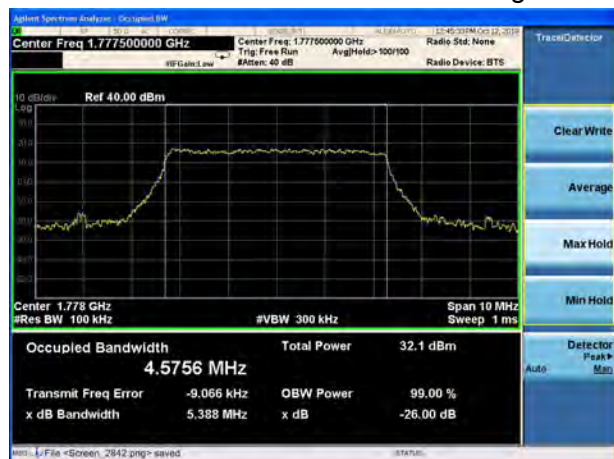
LTE Band 66 16QAM 5MHz CH-Middle



LTE Band 66 16QAM 10MHz CH-Middle



LTE Band 66 16QAM 5MHz CH-High



LTE Band 66 16QAM 10MHz CH-High





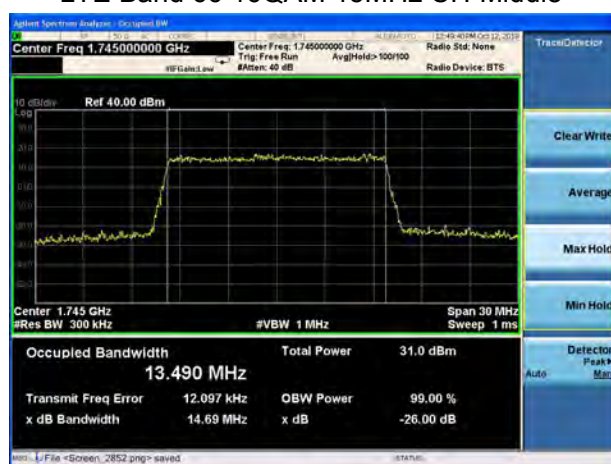
LTE Band 66 16QAM 15MHz CH-Low



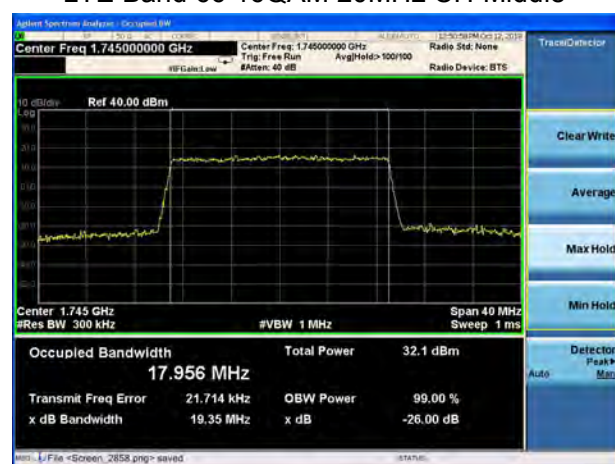
LTE Band 66 16QAM 20MHz CH-Low



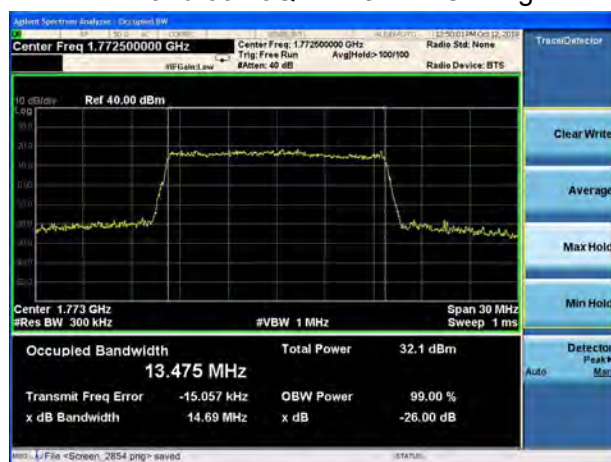
LTE Band 66 16QAM 15MHz CH-Middle



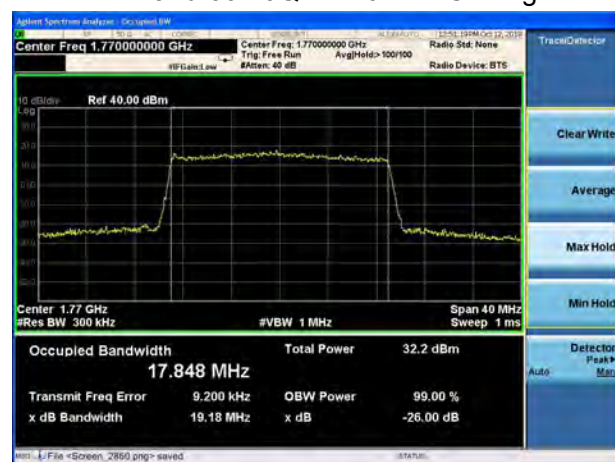
LTE Band 66 16QAM 20MHz CH-Middle



LTE Band 66 16QAM 15MHz CH-High

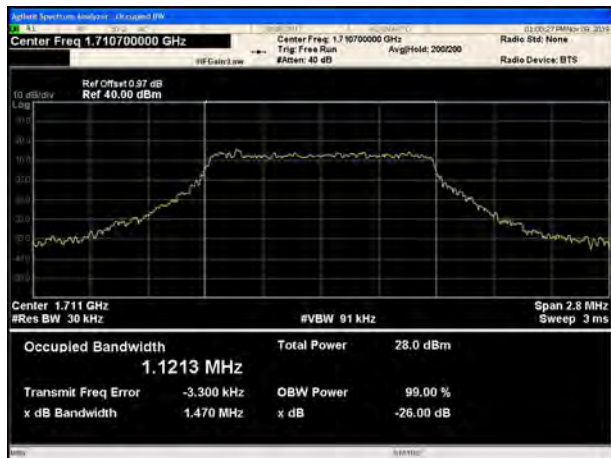


LTE Band 66 16QAM 20MHz CH-High

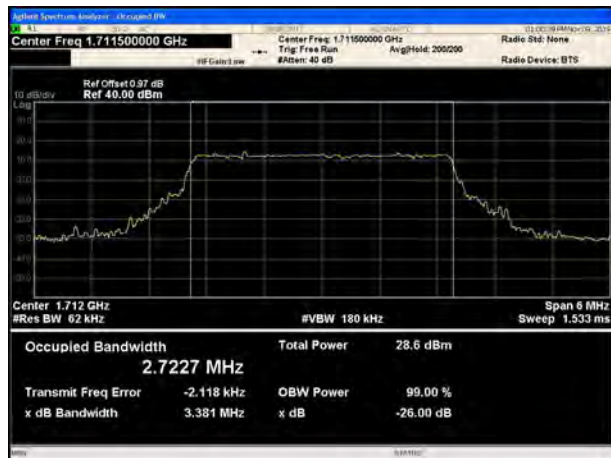




LTE Band 66 64QAM 1.4MHz CH-Low



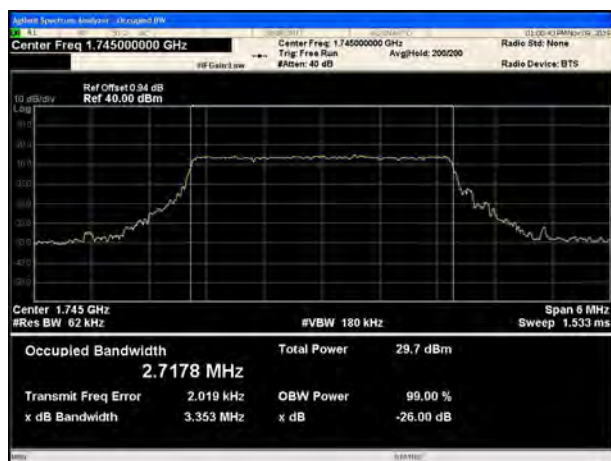
LTE Band 66 64QAM 3MHz CH-Low



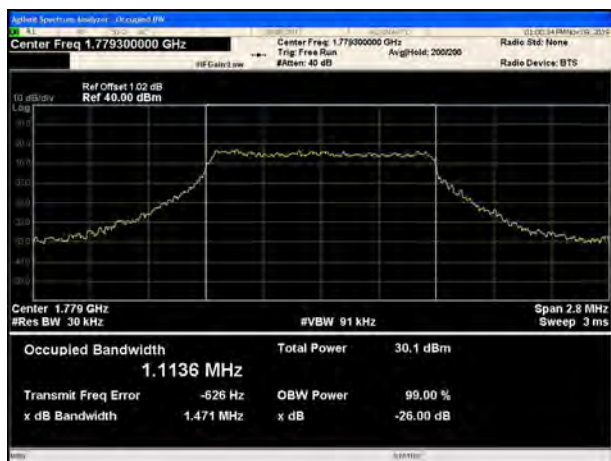
LTE Band 66 64QAM 1.4MHz CH-Middle



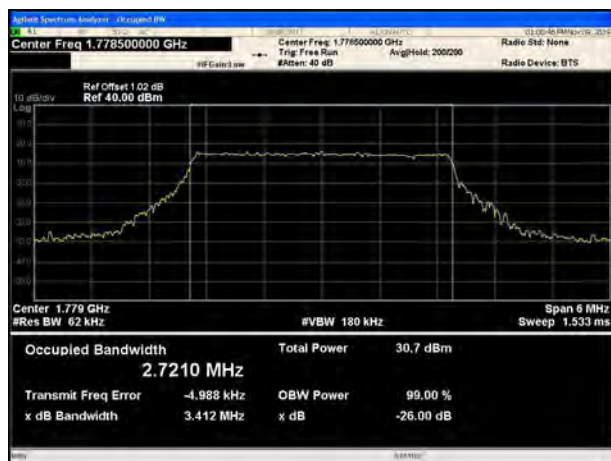
LTE Band 66 64QAM 3MHz CH-Middle



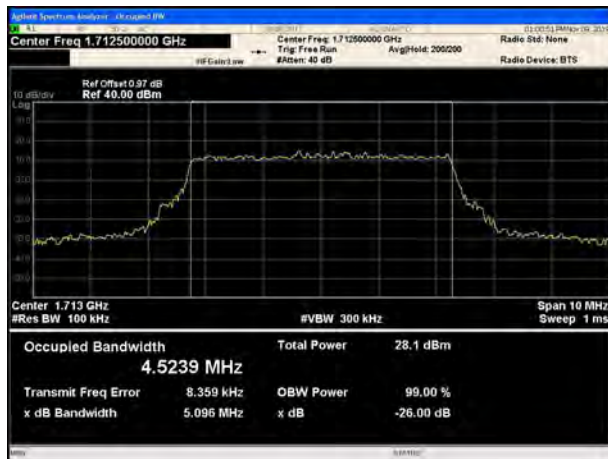
LTE Band 66 64QAM 1.4MHz CH-High



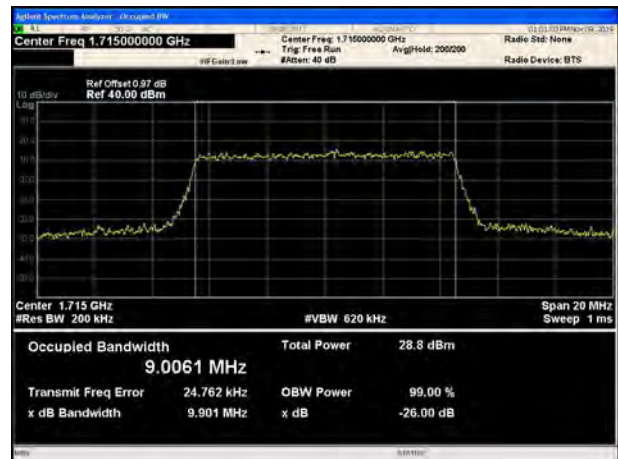
LTE Band 66 64QAM 3MHz CH-High



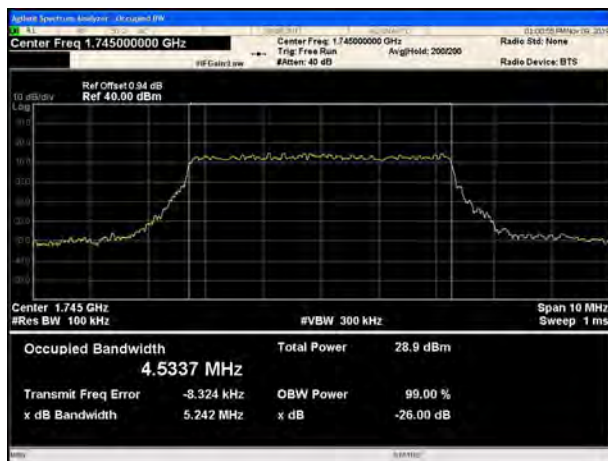
LTE Band 66 64QAM 5MHz CH-Low



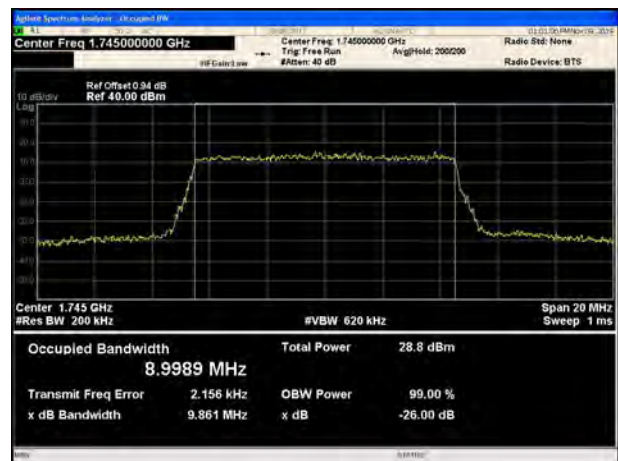
LTE Band 66 64QAM 10MHz CH-Low



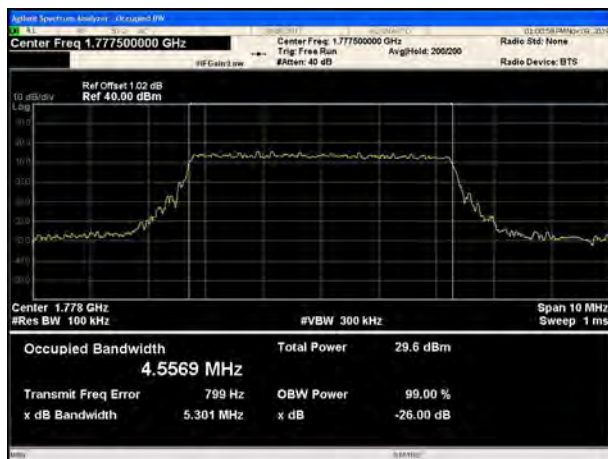
LTE Band 66 64QAM 5MHz CH-Middle



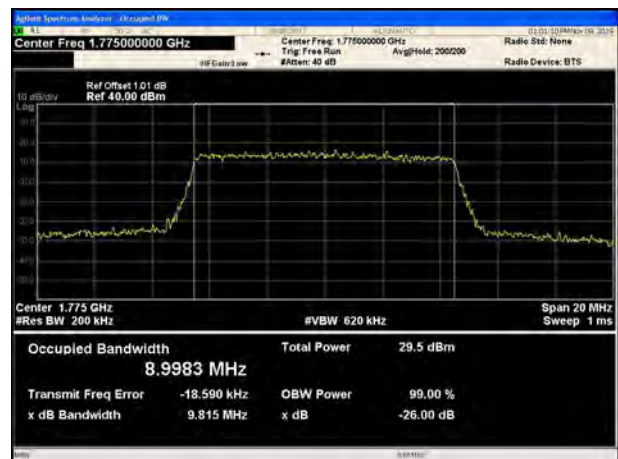
LTE Band 66 64QAM 10MHz CH-Middle



LTE Band 66 64QAM 5MHz CH-High

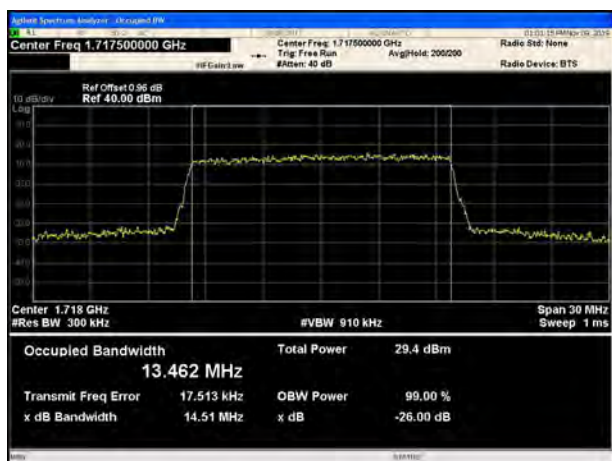


LTE Band 66 64QAM 10MHz CH-High





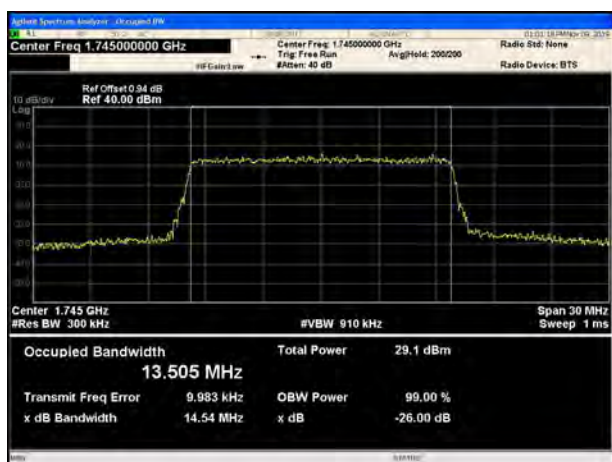
LTE Band 66 64QAM 15MHz CH-Low



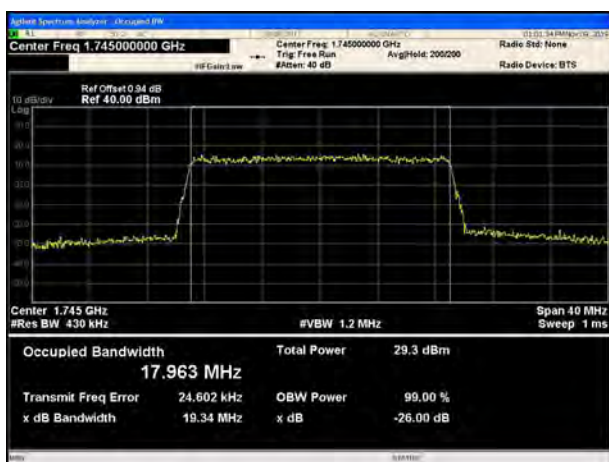
LTE Band 66 64QAM 20MHz CH-Low



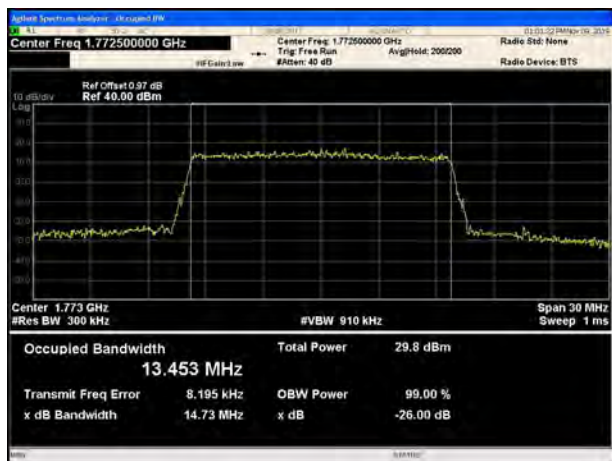
LTE Band 66 64QAM 15MHz CH-Middle



LTE Band 66 64QAM 20MHz CH-Middle



LTE Band 66 64QAM 15MHz CH-High



LTE Band 66 64QAM 20MHz CH-High



5.3 Band Edge Compliance

Ambient condition

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

Method of Measurement

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

The testing follows KDB 971168 D01 v03r01 Section 6.0

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

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

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

RBW is set to 15 kHz, VBW is set to 51 kHz for LTE Band 4/12/66 (1.4MHz).

RBW is set to 30 kHz, VBW is set to 100 kHz for LTE Band 4/12/66 (3MHz).

RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 4/12/66 (5MHz).

RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 4/12/66 (10MHz).

RBW is set to 150 kHz, VBW is set to 510 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 6.25kHz for LTE Band 13 (763MHz~775MHz).

RBW is set to 100 kHz for LTE Band 13 (775MHz~777MHz).

RBW is set to 200 kHz for LTE Band 13 (776MHz~788MHz).

RBW is set to 100 kHz for LTE Band 13(788MHz~ 793MHz).

RBW is set to 6.25kHz for LTE Band 13 (793MHz~805MHz).

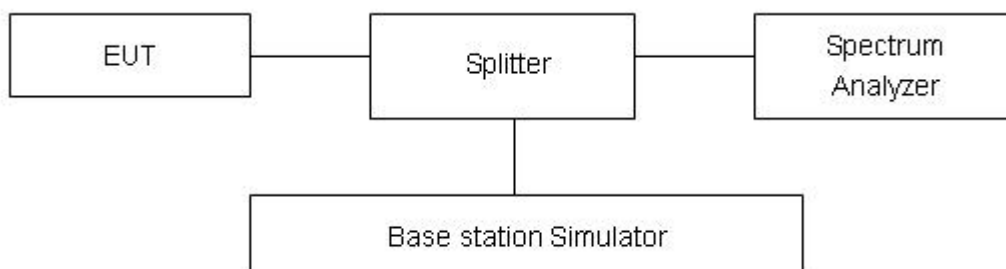
on spectrum analyzer.

Set spectrum analyzer with RMS detector.

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

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

Test Setup



Limits

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

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

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

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

Example:

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

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

= $[30 + 10 \log (P)]$ (dBm) - $[43 + 10 \log(P)]$ (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;

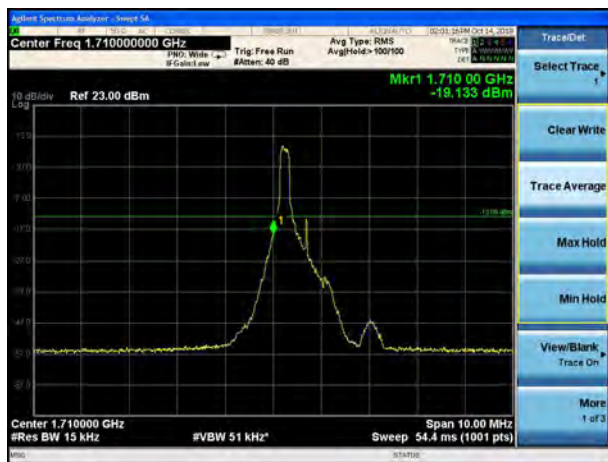
Measurement Uncertainty

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

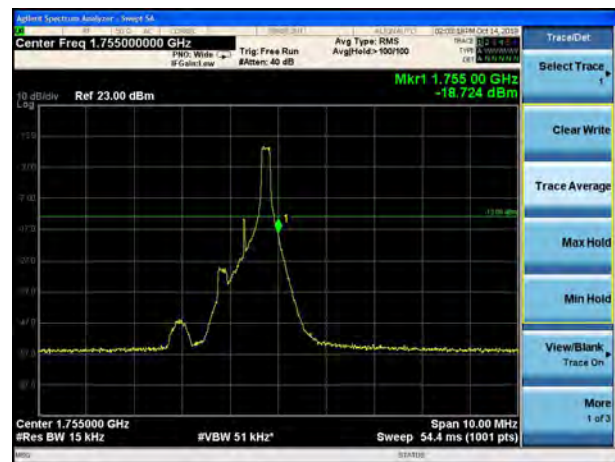
Test Result

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

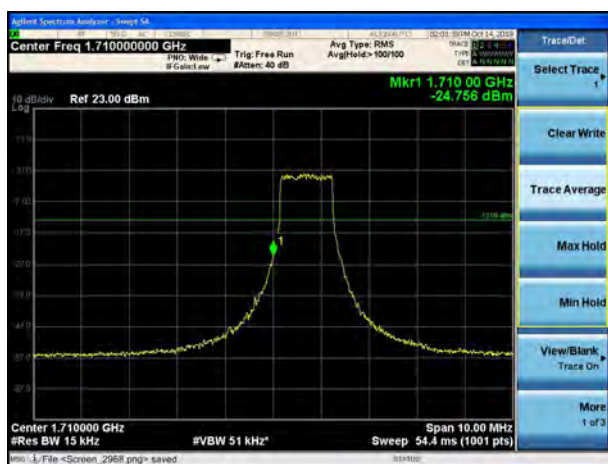
LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB



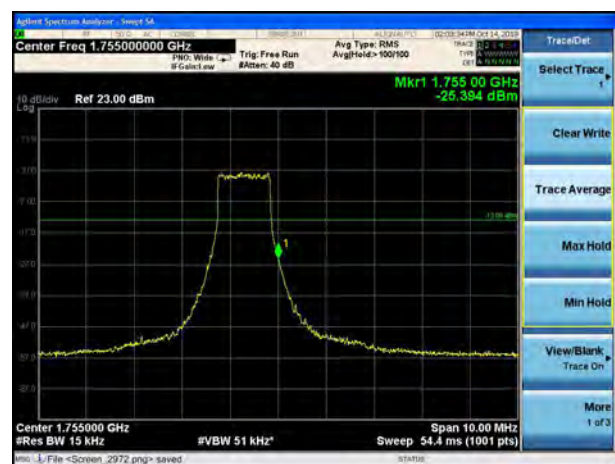
LTE Band 4 QPSK 1.4MHz CH-High, 1 RB



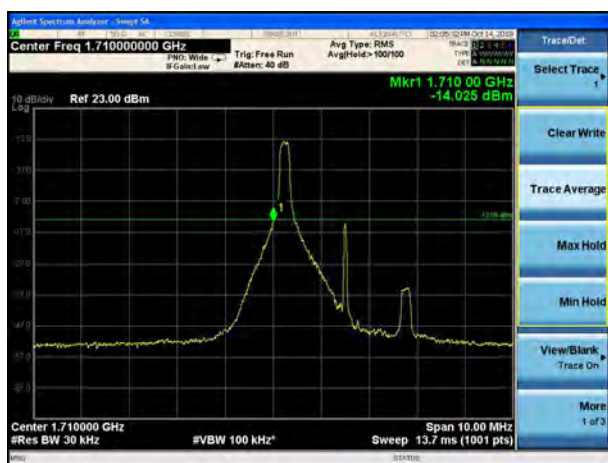
LTE Band 4 QPSK 1.4MHz CH-Low, 100%RB



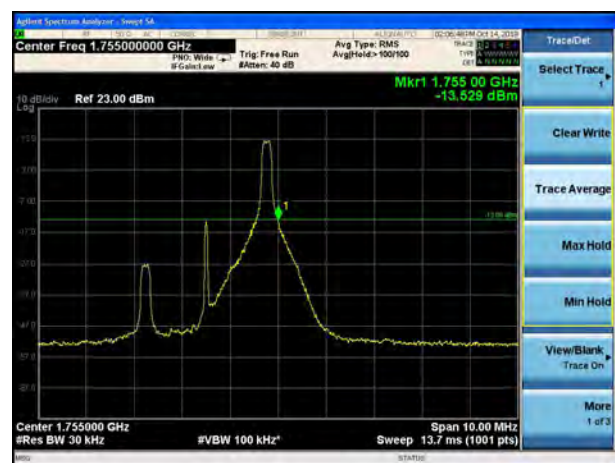
LTE Band 4 QPSK 1.4MHz CH-High, 100%RB



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

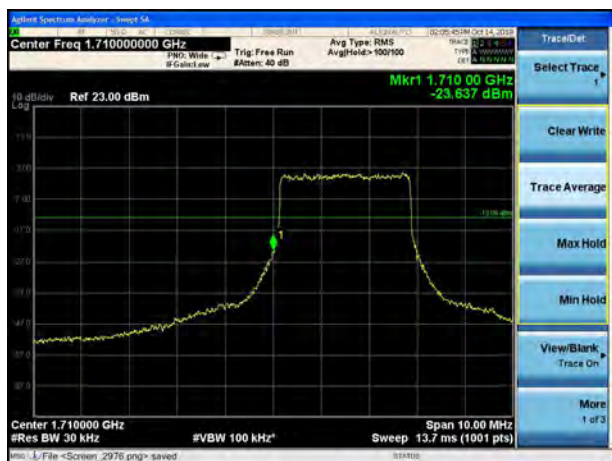


LTE Band 4 QPSK 3MHz CH-High, 1 RB

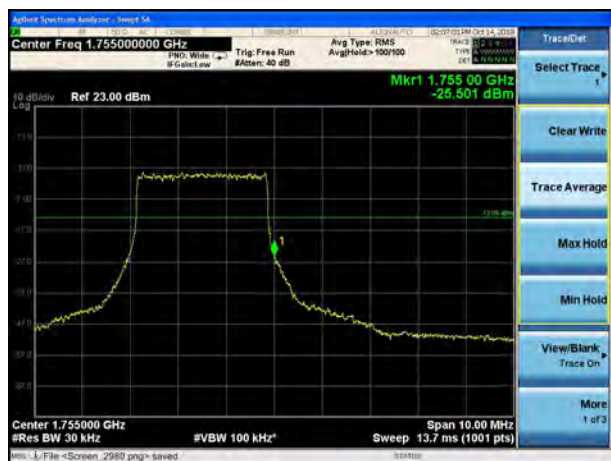




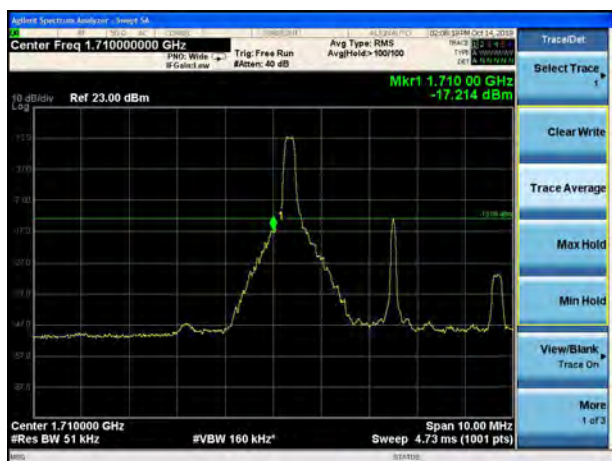
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



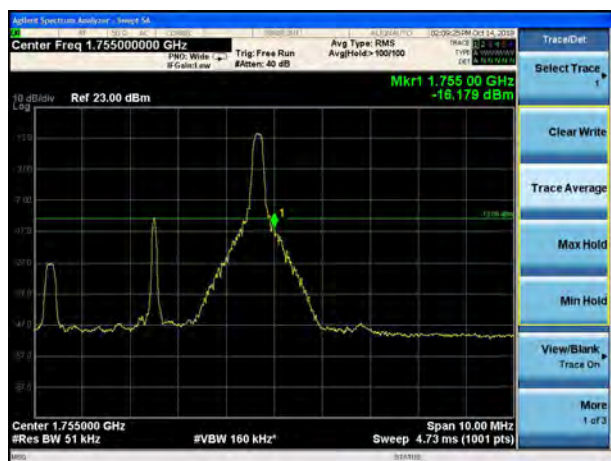
LTE Band 4 QPSK 3MHz CH-High, 100%RB



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



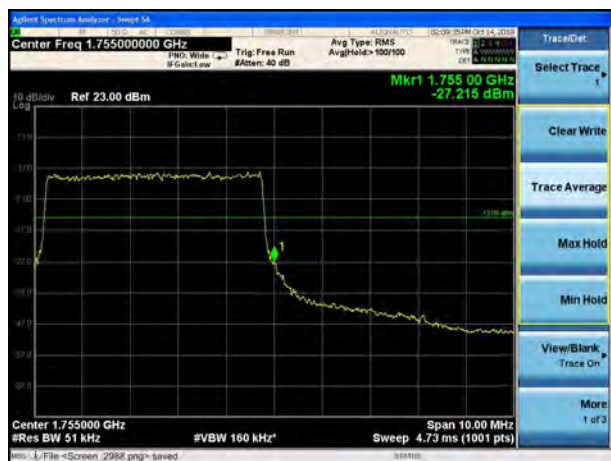
LTE Band 4 QPSK 5MHz CH-High, 1 RB



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

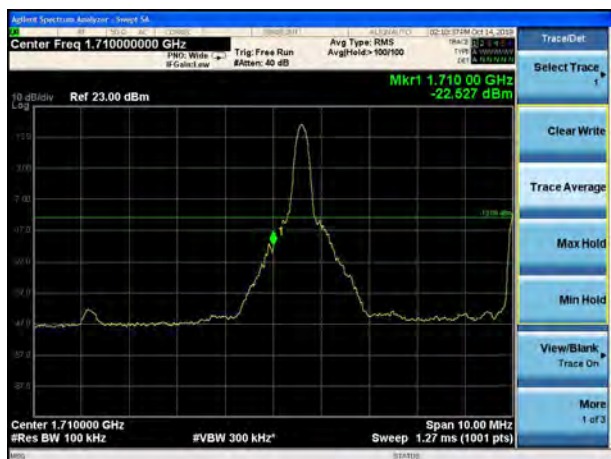


LTE Band 4 QPSK 5MHz CH-High, 100%RB





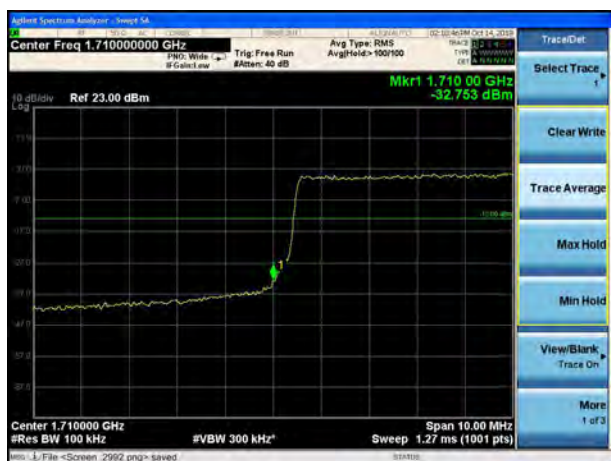
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



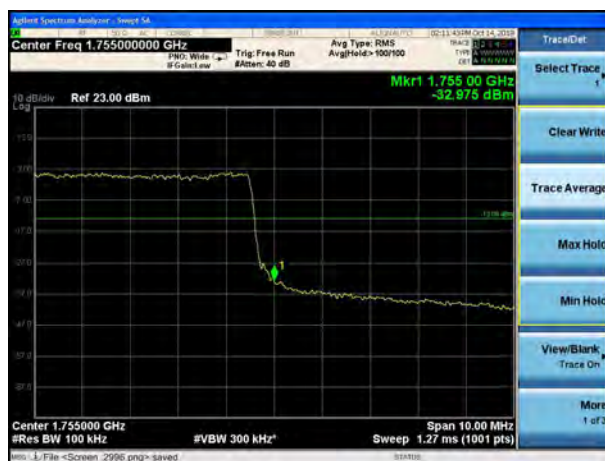
LTE Band 4 QPSK 10MHz CH-High, 1 RB



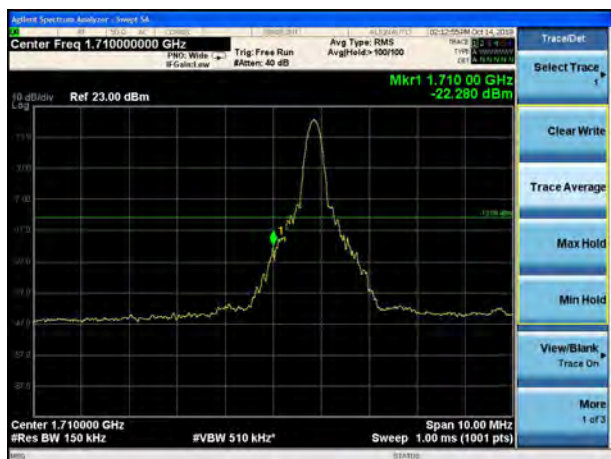
LTE Band 4 QPSK 10MHz CH-Low, 100%RB



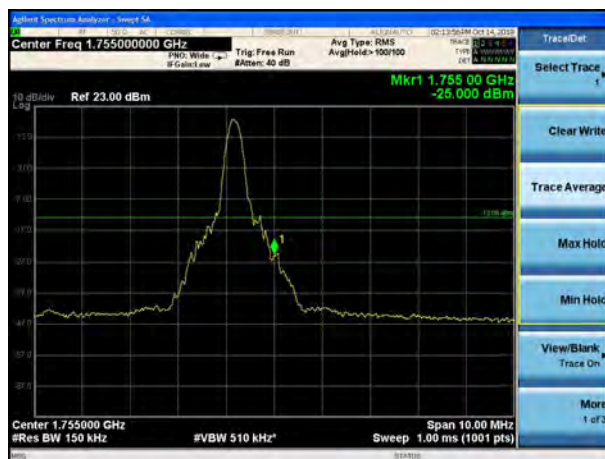
LTE Band 4 QPSK 10MHz CH-High, 100%RB



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

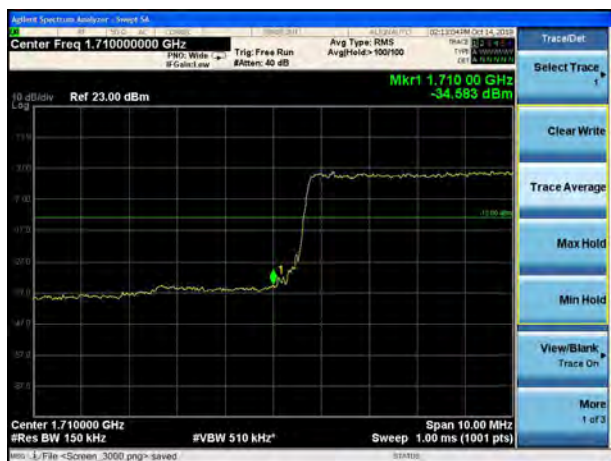


LTE Band 4 QPSK 15MHz CH-High, 1 RB

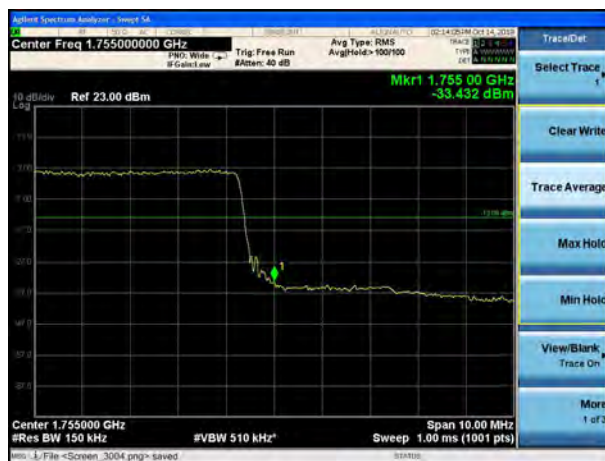




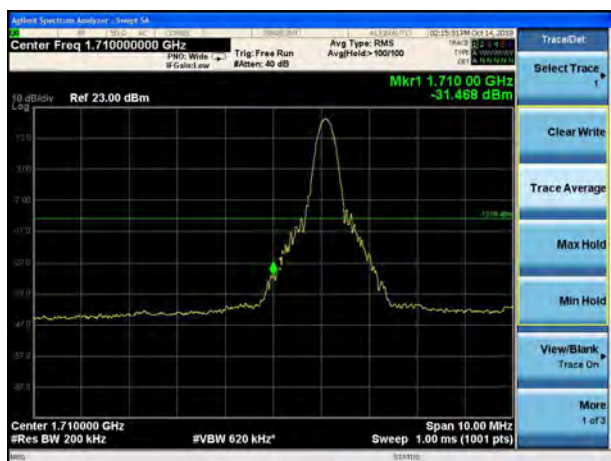
LTE Band 4 QPSK 15MHz CH-Low, 100%RB



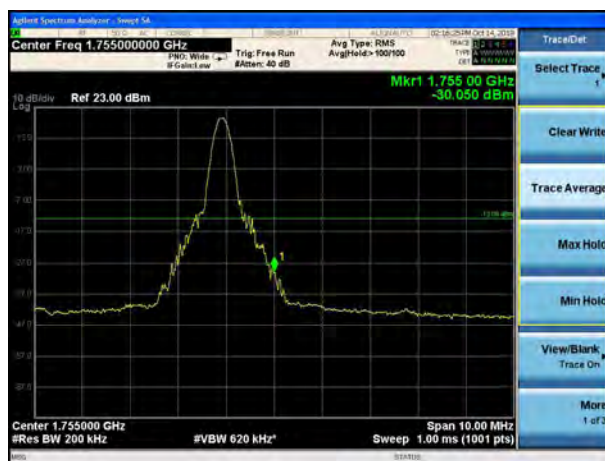
LTE Band 4 QPSK 15MHz CH-High, 100%RB



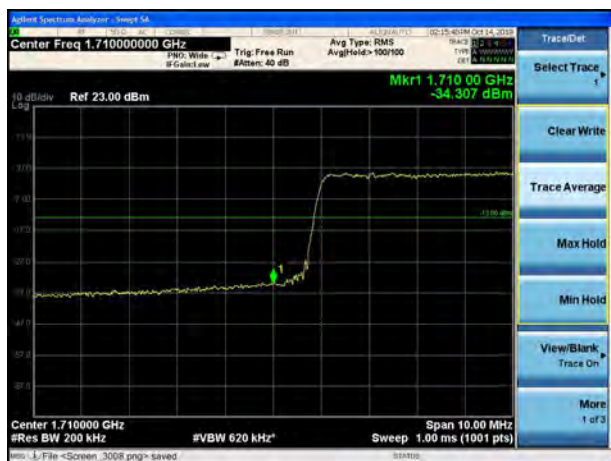
LTE Band 4 QPSK 20MHz CH-Low, 1 RB



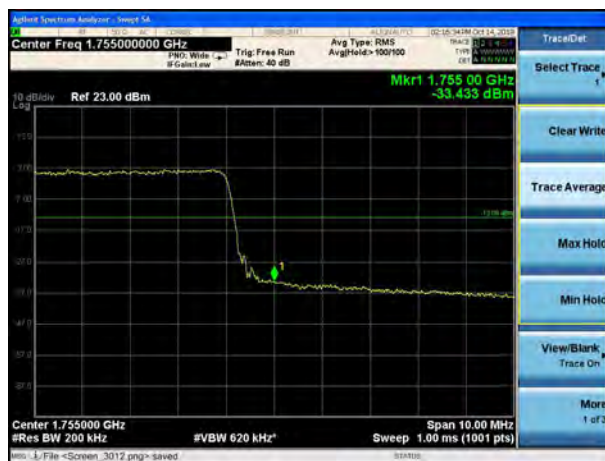
LTE Band 4 QPSK 20MHz CH-High, 1 RB



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

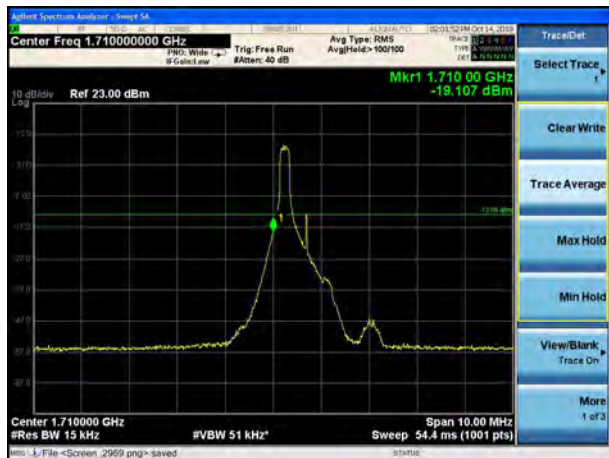


LTE Band 4 QPSK 20MHz CH-High, 100%RB

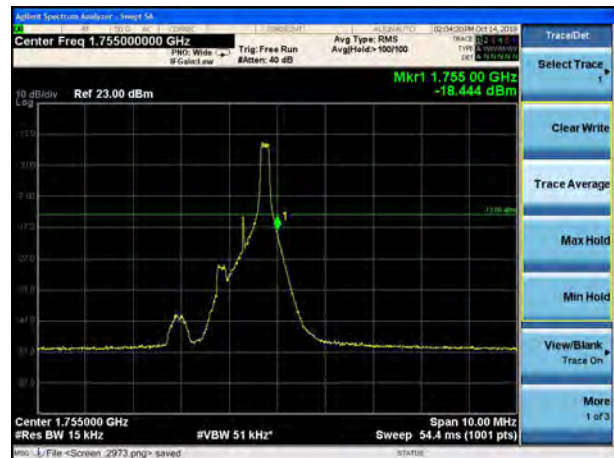




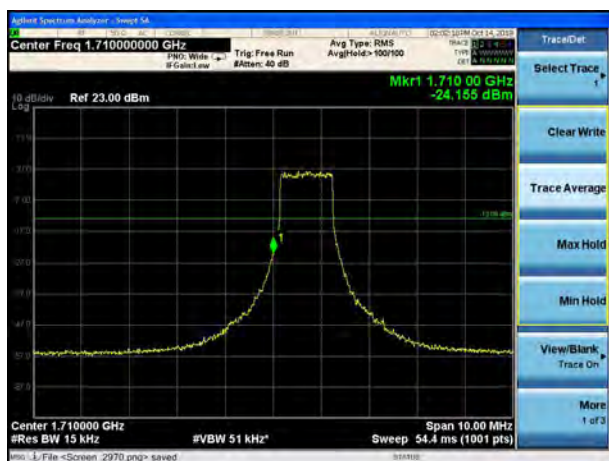
LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB



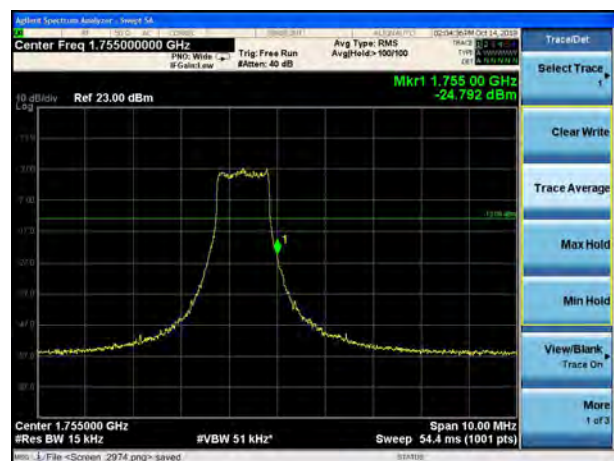
LTE Band 4 16QAM 1.4MHz CH-High, 1 RB



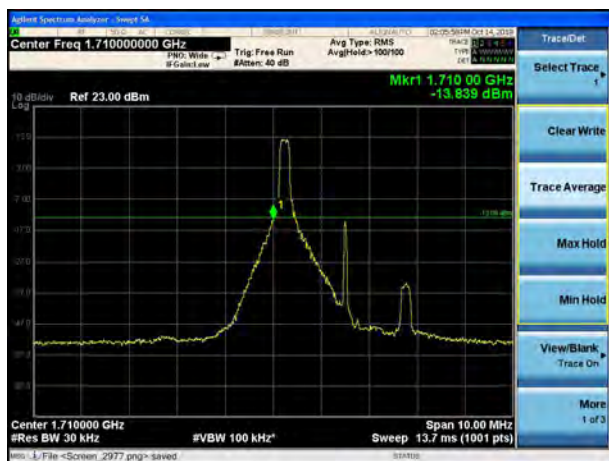
LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB



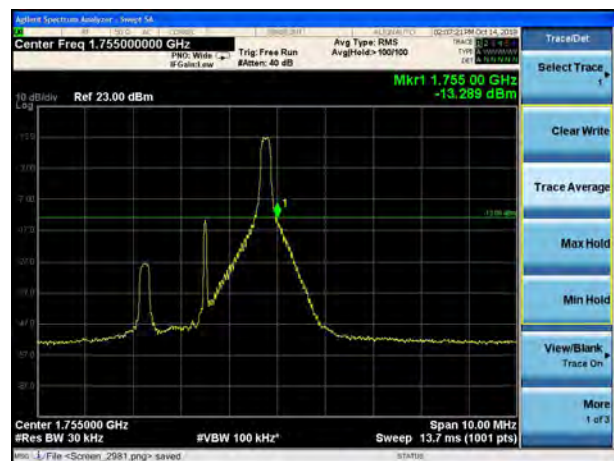
LTE Band 4 16QAM 1.4MHz CH-High, 100%RB



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

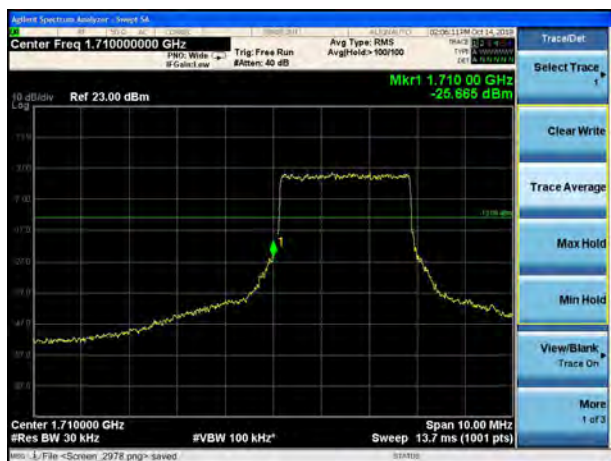


LTE Band 4 16QAM 3MHz CH-High, 1 RB

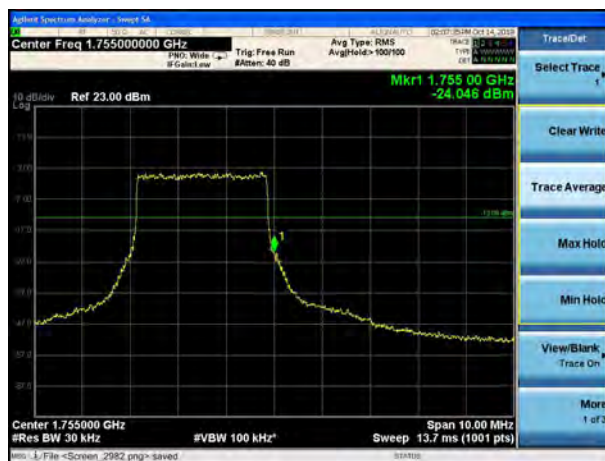




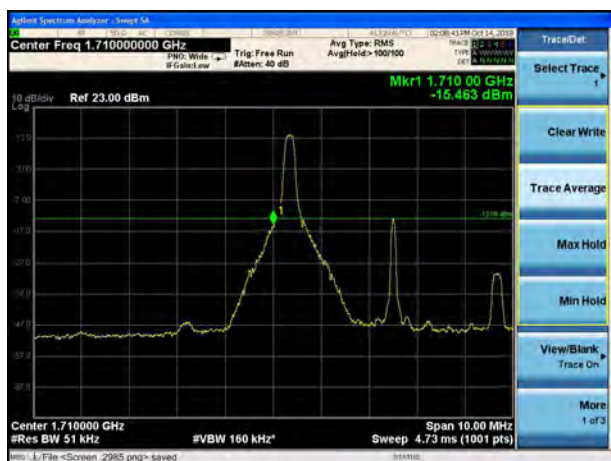
LTE Band 4 16QAM 3MHz CH-Low, 100%RB



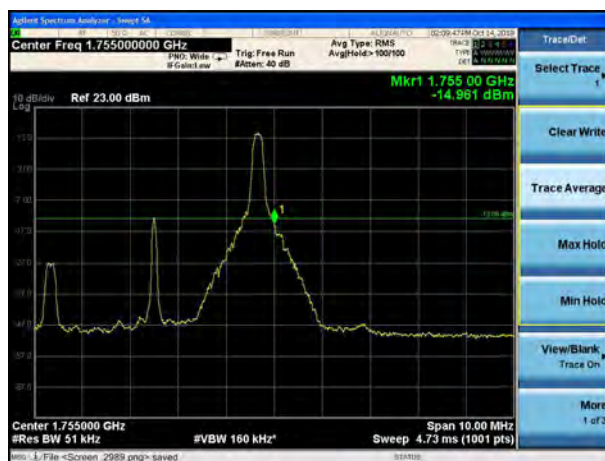
LTE Band 4 16QAM 3MHz CH-High, 100%RB



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



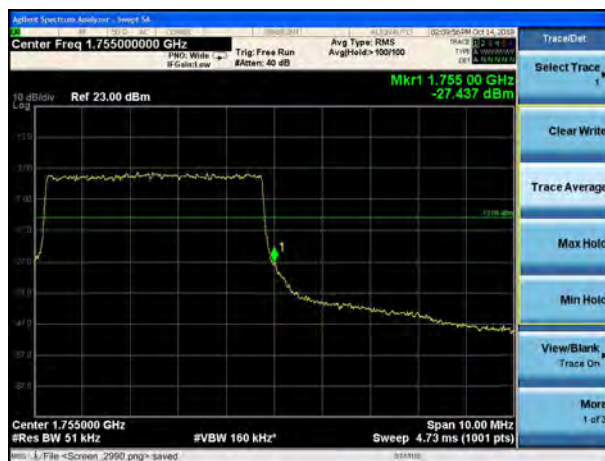
LTE Band 4 16QAM 5MHz CH-High, 1 RB



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

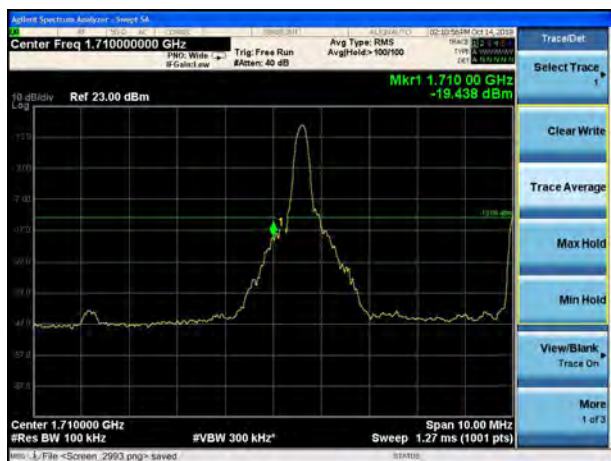


LTE Band 4 16QAM 5MHz CH-High, 100%RB

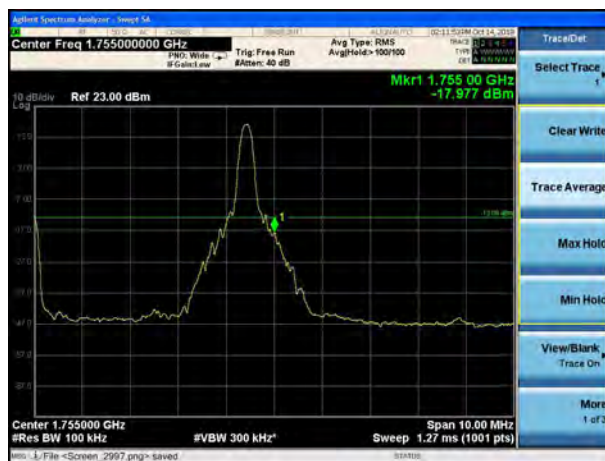




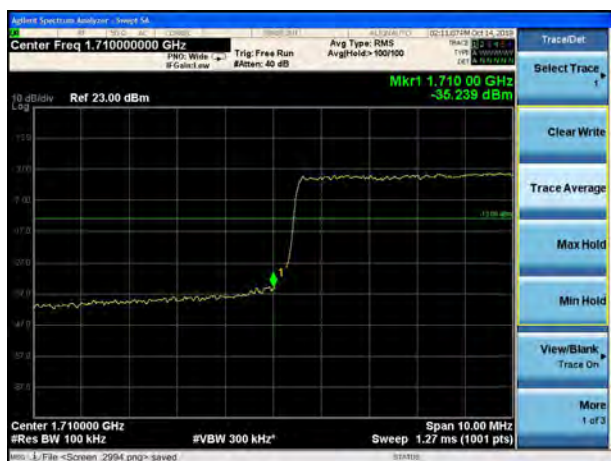
LTE Band 4 16QAM 10MHz CH-Low, 1 RB



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



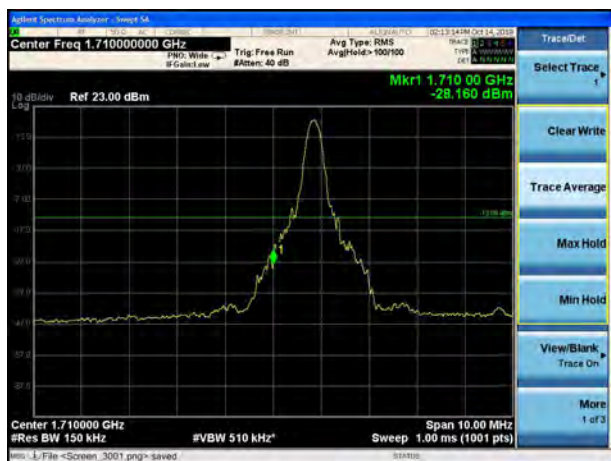
LTE Band 4 16QAM 10MHz CH-Low, 100%RB



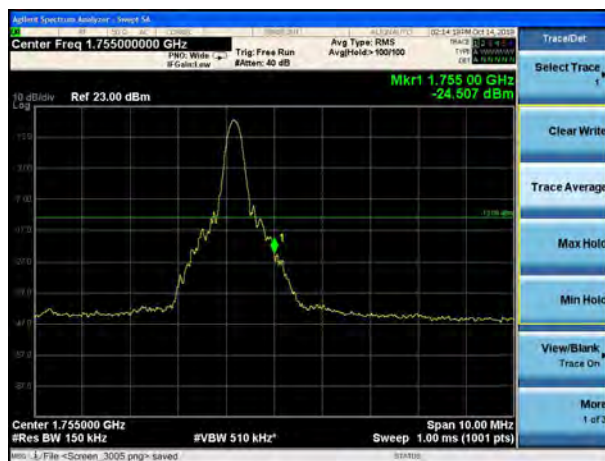
LTE Band 4 16QAM 10MHz CH-High, 100%RB



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

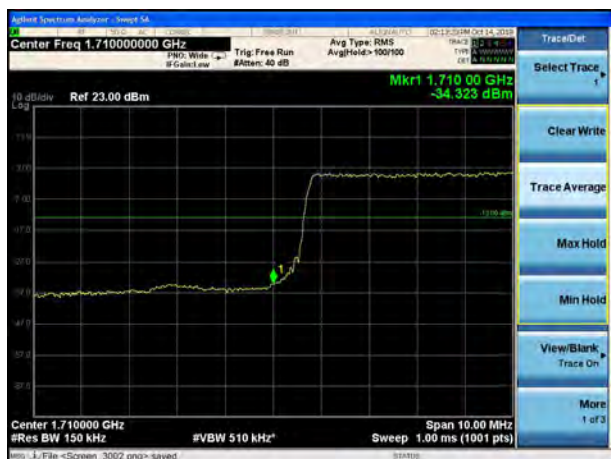


LTE Band 4 16QAM 15MHz CH-High, 1 RB

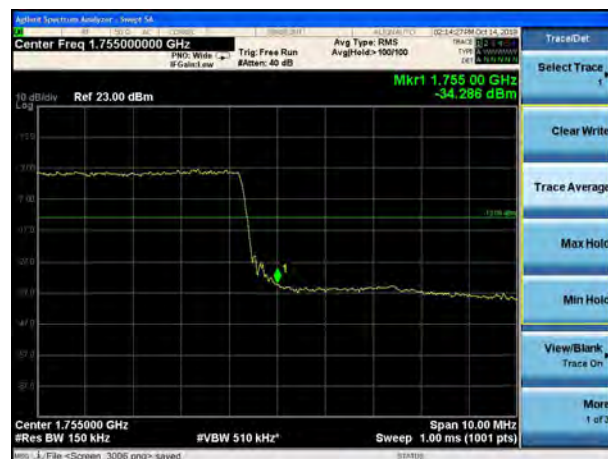




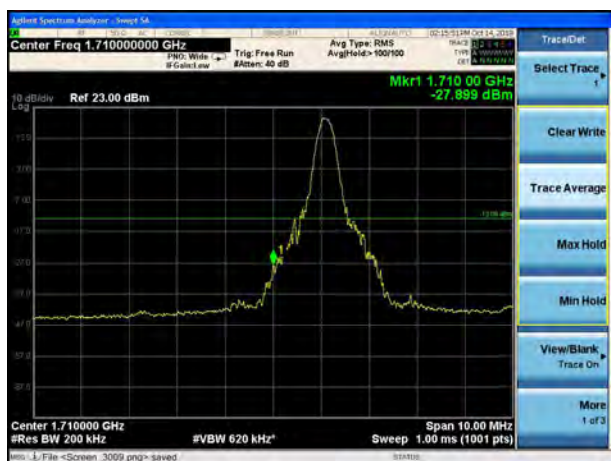
LTE Band 4 16QAM 15MHz CH-Low, 100%RB



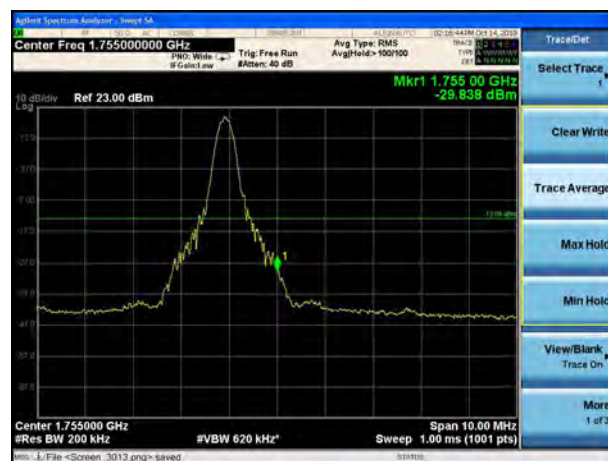
LTE Band 4 16QAM 15MHz CH-High, 100%RB



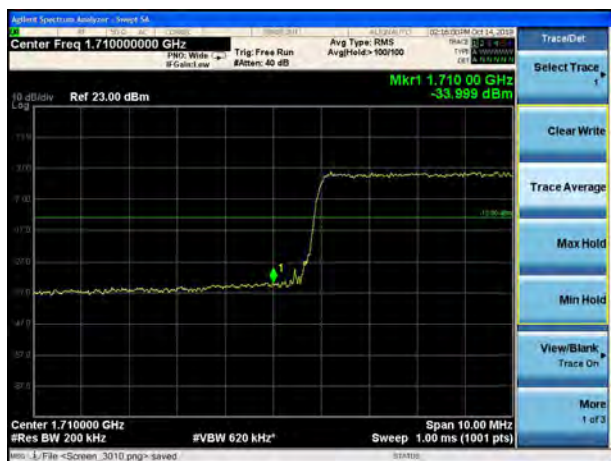
LTE Band 4 16QAM 20MHz CH-Low, 1 RB



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



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

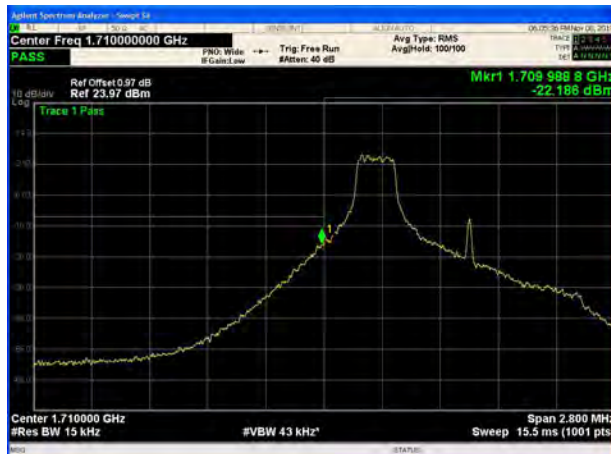


LTE Band 4 16QAM 20MHz CH-High, 100%RB





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



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



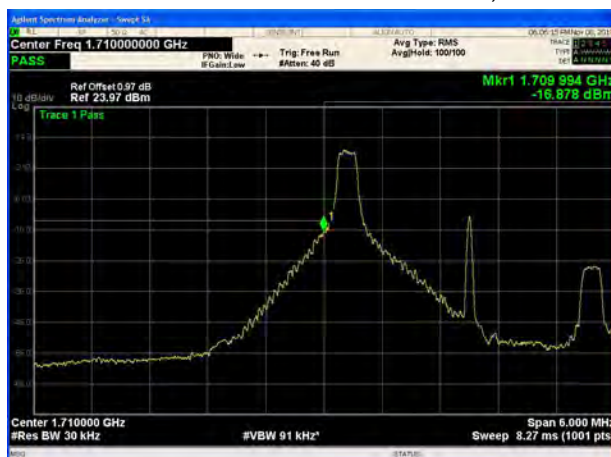
LTE Band 4 64QAM 1.4MHz CH-Low, 100%RB



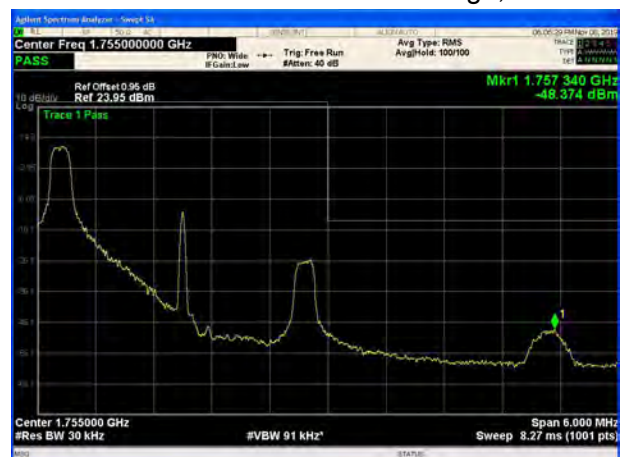
LTE Band 4 64QAM 1.4MHz CH-High, 100%RB



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



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





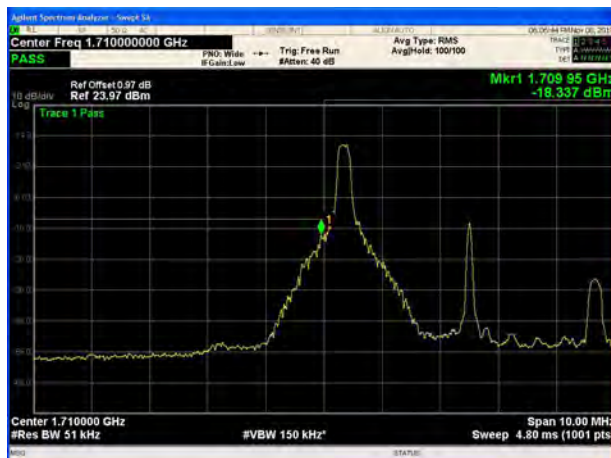
LTE Band 4 64QAM 3MHz CH-Low, 100%RB



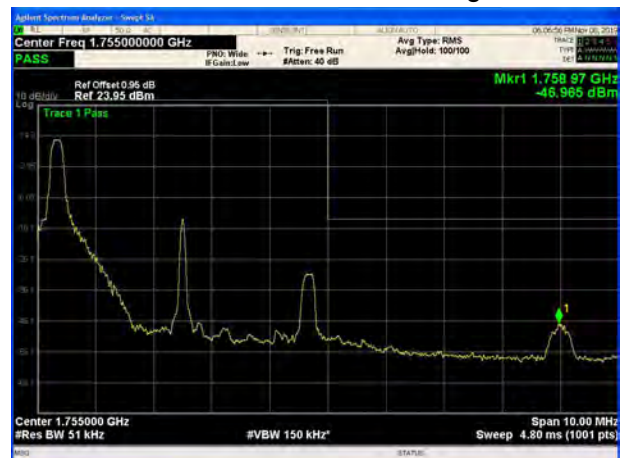
LTE Band 4 64QAM 3MHz CH-High, 100%RB



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

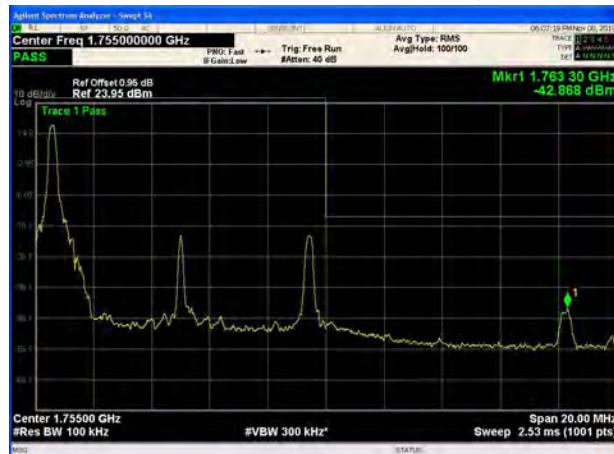




LTE Band 4 64QAM 10MHz CH-Low, 1 RB



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



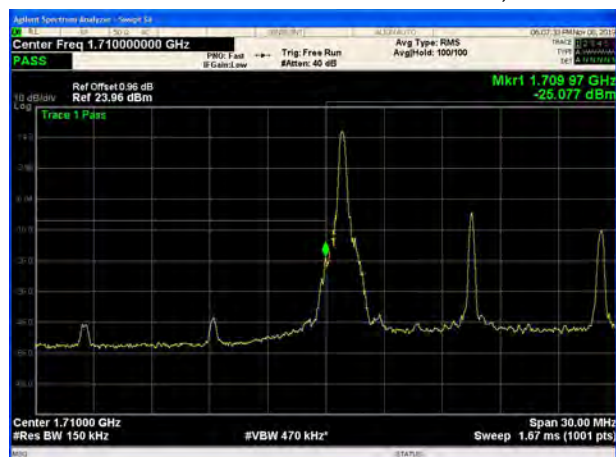
LTE Band 4 64QAM 10MHz CH-Low, 100%RB



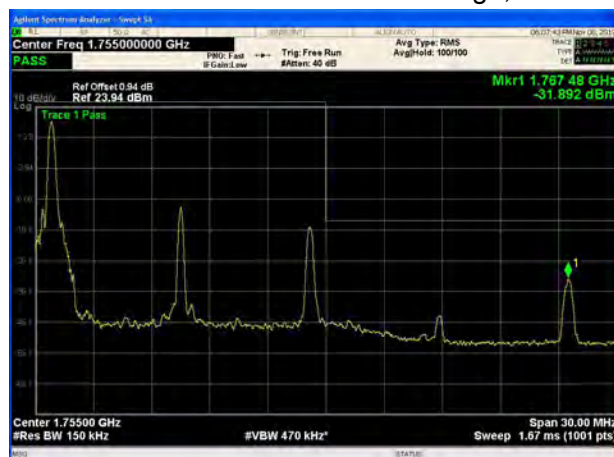
LTE Band 4 64QAM 10MHz CH-High, 100%RB



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



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





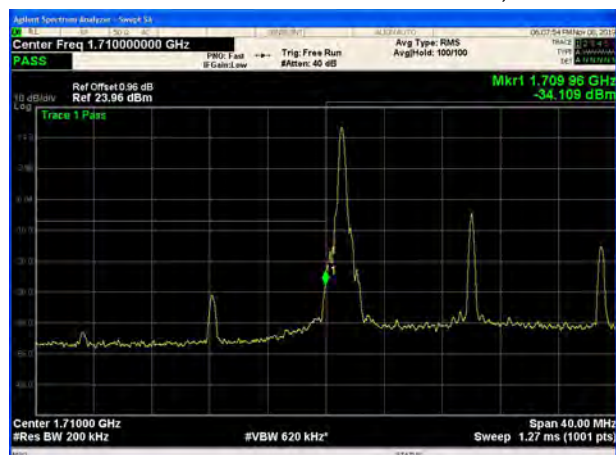
LTE Band 4 64QAM 15MHz CH-Low, 100%RB



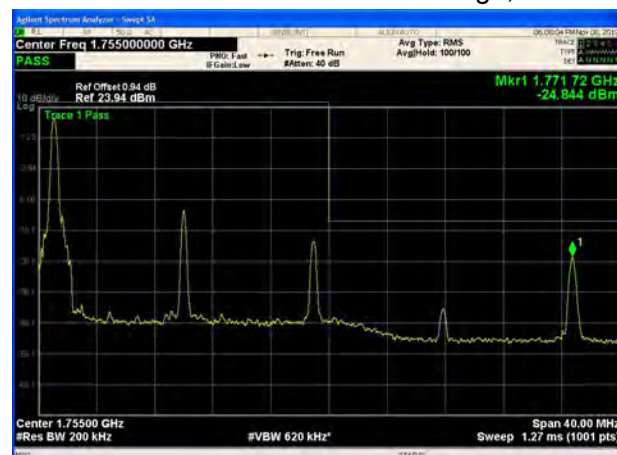
LTE Band 4 64QAM 15MHz CH-High, 100%RB



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

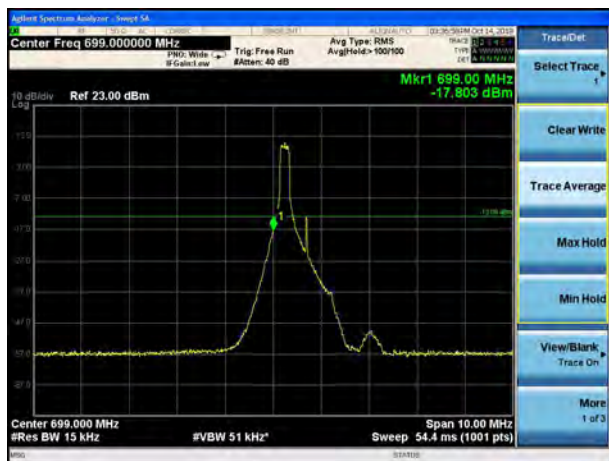


LTE Band 4 64QAM 20MHz CH-High, 100%RB

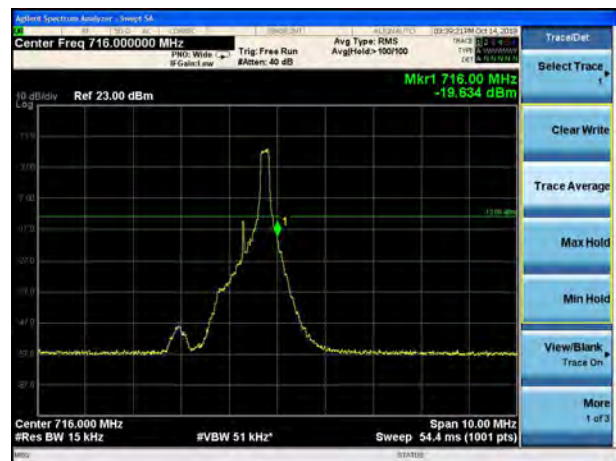




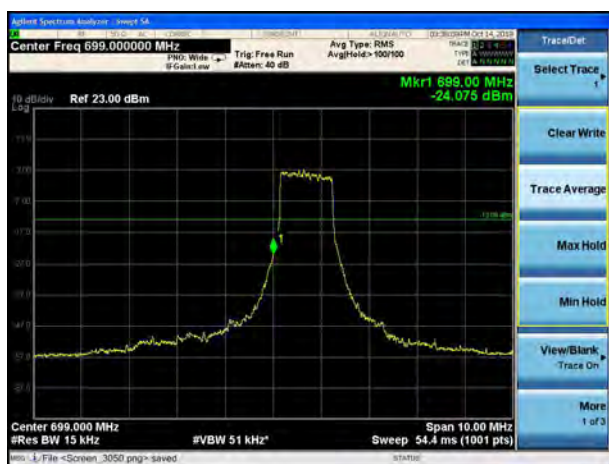
LTE Band 12 QPSK 1.4MHz CH-Low, 1 RB



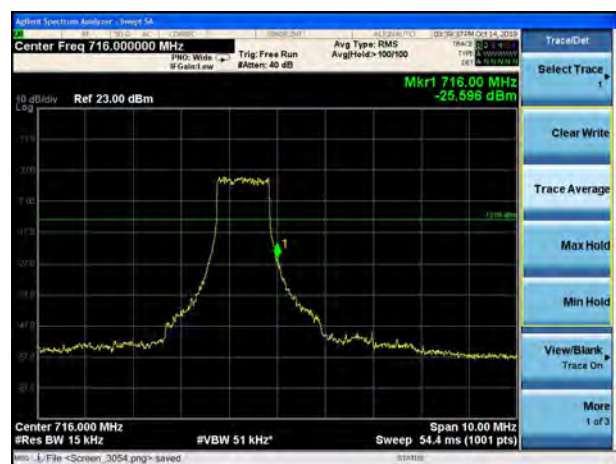
LTE Band 12 QPSK 1.4MHz CH-High, 1 RB



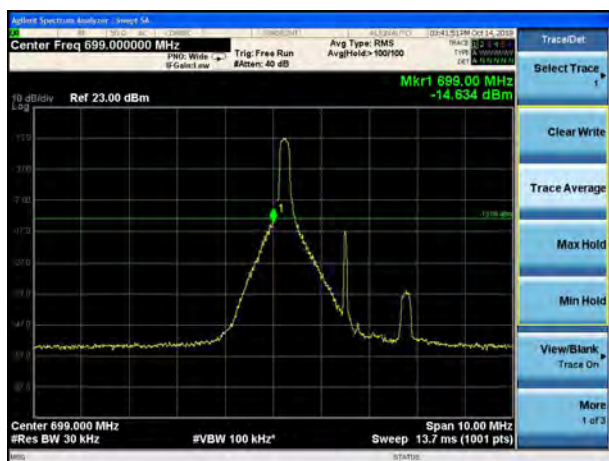
LTE Band 12 QPSK 1.4MHz CH-Low, 100%RB



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

