



TEST REPORT

APPLICANT : BLU Products, Inc.

PRODUCT NAME : Smart Phone

MODEL NAME : G91S

BRAND NAME : BLU

FCC ID : YHLBLUG91S

STANDARD(S) : 47 CFR Part 22, Subpart H
47 CFR Part 24, Subpart E
47 CFR Part 27, Subpart F&H&L&M

RECEIPT DATE : 2021-08-05

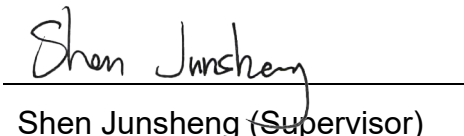
TEST DATE : 2021-08-06 to 2021-09-23

ISSUE DATE : 2021-09-28

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Change History		
Version	Date	Reason for change
1.0	2021-09-28	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	BLU Products, Inc.
Applicant Address:	10814 NW 33rd St # 100 Doral, FL 33172,USA
Manufacturer:	BLU Products, Inc.
Manufacturer Address:	10814 NW 33rd St # 100 Doral, FL 33172,USA

1.2. Equipment Under Test (EUT) Description

Product Name:	Smart Phone	
Sample No.:	1#	
Hardware Version:	KK9Q_01	
Software Version:	BLU_G0550WW_V11.0.03.00_GENERIC_20210903_2205	
Modulation Type:	QPSK, 16QAM	
Carrier Aggregation:	Not Support	
Operation Band:	Band 2 / 4 / 5 / 7 / 12 / 13 / 17 / 38	
Frequency Range:	LTE Band 2	Tx: 1850MHz–1910MHz
		Rx: 1930MHz–1990MHz
	LTE Band 4	Tx: 1710MHz–1755MHz
		Rx: 2110MHz–2155MHz
	LTE Band 5	Tx: 824MHz–849MHz
		Rx: 869MHz–894MHz
	LTE Band 7	Tx: 2500MHz–2570MHz
		Rx: 2620MHz–2690MHz
	LTE Band 12	Tx: 699MHz - 716MHz
		Rx: 729MHz – 746MHz
	LTE Band 13	Tx: 777MHz–787MHz
		Rx: 746MHz–756MHz
	LTE Band 17	Tx: 704MHz - 716MHz
		Rx: 734MHz – 746MHz
LTE Band 38	Tx: 2570MHz–2620MHz	
	Rx: 2570MHz–2620MHz	



Channel Bandwidth:	LTE Band 2	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	LTE Band 4	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	LTE Band 5	1.4MHz, 3MHz, 5MHz, 10MHz
	LTE Band 7	5 MHz, 10MHz, 15MHz, 20MHz
	LTE Band 12	1.4MHz, 3 MHz, 5 MHz, 10MHz
	LTE Band 13	5 MHz, 10MHz
	LTE Band 17	5 MHz, 10MHz
	LTE Band 38	5 MHz, 10MHz, 15MHz, 20MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	LTE Band 2	0.30dBi
	LTE Band 4	0.45dBi
	LTE Band 5	-3.70dBi
	LTE Band 7	0.60dBi
	LTE Band 12	-3.90dBi
	LTE Band 13	-4.10dBi
	LTE Band 17	-3.40dBi
	LTE Band 38	-0.70dBi
Accessory Information:	Battery	
	Brand Name:	BLU
	Model No.:	C996749600P
	Serial No.:	N/A
	Capacity:	5900mAh
	Rated Voltage:	3.85V
	Charge Limit:	4.4V
	Manufacturer:	Zhongshan Tianmao Battery Co., Ltd.
	AC Adapter	
	Brand Name:	BLU
	Model No.:	US-WT-2000
	Serial No.:	N/A
	Rated Output:	5V=2000mA
	Rated Input:	100-240V~50/60Hz, 0.3A
	Manufacturer:	Shenzhen Tianyin Electronics Co.,Ltd

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



1.3. Maximum E.R.P./E.I.R.P. and Emission Designator

LTE Band 2		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM	
20	0.231	0.194	18M0G7D	18M0W7D	
15	0.228	0.194	13M5G7D	13M5W7D	
10	0.229	0.206	9M02G7D	8M98W7D	
5	0.228	0.206	4M50G7D	4M51W7D	
3	0.229	0.209	2M69G7D	2M69W7D	
1.4	0.227	0.185	1M10G7D	1M10W7D	
LTE Band 4		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM	
20	0.241	0.207	18M0G7D	18M0W7D	
15	0.238	0.197	13M5G7D	13M5W7D	
10	0.236	0.200	9M00G7D	8M98W7D	
5	0.234	0.200	4M50G7D	4M51W7D	
3	0.239	0.204	2M69G7D	2M69W7D	
1.4	0.233	0.204	1M10G7D	1M10W7D	
LTE Band 5		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM	
10	0.054	0.047	9M00G7D	8M98W7D	
5	0.053	0.048	4M50G7D	4M50W7D	
3	0.053	0.047	2M69G7D	2M70W7D	
1.4	0.053	0.048	1M10G7D	1M10W7D	
LTE Band 7		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM	
20	0.268	0.201	18M0G7D	18M0W7D	
15	0.264	0.217	13M5G7D	13M5W7D	
10	0.258	0.215	9M00G7D	8M97W7D	
5	0.259	0.200	4M50G7D	4M51W7D	
LTE Band 12		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM	
10	0.053	0.042	9M02G7D	8M99W7D	
5	0.052	0.042	4M52G7D	4M52W7D	
3	0.052	0.044	2M69G7D	2M69W7D	
1.4	0.051	0.041	1M10G7D	1M10W7D	



LTE Band 13		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
10		0.049	0.041	9M01G7D	8M96W7D
5		0.048	0.044	4M52G7D	4M52W7D
LTE Band 17		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
10		0.058	0.049	8M97G7D	8M96W7D
5		0.056	0.053	4M53G7D	4M52W7D
LTE Band 38		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
20		0.185	0.157	18M0G7D	18M0W7D
15		0.182	0.155	13M5G7D	13M5W7D
10		0.182	0.149	9M01G7D	8M99W7D
5		0.179	0.158	4M51G7D	4M51W7D



1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 22, Part 24, Part 27 for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22	Public Mobile Services
3	47 CFR Part 24	Personal Communications Services
4	47 CFR Part 27	Miscellaneous Wireless Communications Services

Test detailed items/section required by FCC rules and results are as below:

Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
2.1046 22.913(a)(2) 24.232(c) 27.50(b)(10) 27.50(c)(10) 27.50(d)(4) 27.50(h)(2)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Sep 23, 2021	Liang Yumei Huang Zhiye	PASS	No deviation
2.1049	Occupied Bandwidth	Aug 11, 2021	Li Huaijie	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Aug 11, 2021	Li Huaijie	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Radio	Aug 11, 2021	Li Huaijie	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(c)(2) 27.53(g) 27.53(h) 27.53(m)(4)	Conducted Spurious Emissions	Aug 06&09&11, 2021	Li Huaijie	PASS	No deviation
2.1051 22.917(a)	Band Edge	Aug 06&09, 2021	Li Huaijie	PASS	No deviation



24.238(a) 27.53(g) 27.53(h) 27.53(m)(4)					
2.1051 22.917(a) 24.238(a) 27.53(g) 27.53(h) 27.53(m)(4)	Radiated Spurious Emissions	Aug 20, 2021	Huang Zhiye	PASS	No deviation
<p>Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.</p> <p>Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 24.5dB contains two parts that cable loss 14.5dB and Attenuator 10dB.</p> <p>Note 3: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.</p> <p>Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.</p>					

1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106



2.47 CFR Part 2, Part 22H, Part 24E, Part 27F & H&L&M Requirements

2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P.

2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

According to FCC section 24.232 (c) for LTE Band 2, Mobile and portable stations are limited to 2 watts E.I.R.P. and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to FCC section 27.50 (d)(4) for LTE Band 4, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

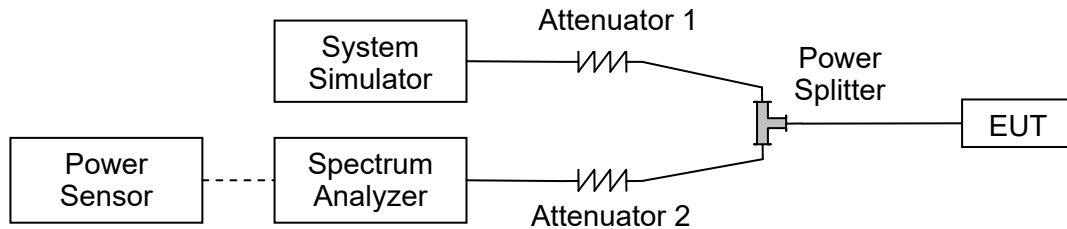
According to FCC section 22.913 (a)(2) for LTE Band 5, the E.R.P. of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 27.50 (h)(2) for LTE Band 7/38, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

According to FCC section 27.50 (c)(10) for LTE Band 12/17, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

According to FCC section 27.50 (b)(10) for LTE Band 13, Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts E.R.P.

2.1.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.1.3. Test Procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

$E.I.R.P. (dBm) = \text{Conducted Output Power (dBm)} + \text{Antenna Gain (dBi)}$

$E.R.P. (dBm) = E.I.R.P. (dBm) - 2.15$

**2.1.4. Result****Conducted Output Power:**

LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	23.31	23.34	23.28
20	QPSK	1	49	23.29	23.23	23.16
20	QPSK	1	99	23.23	23.19	23.17
20	QPSK	50	0	22.39	22.48	22.41
20	QPSK	50	24	22.40	22.45	22.45
20	QPSK	50	50	22.45	22.41	22.47
20	QPSK	100	0	22.38	22.47	22.43
20	16QAM	1	0	22.44	22.44	22.46
20	16QAM	1	49	22.28	22.58	22.54
20	16QAM	1	99	22.53	22.38	22.78
20	16QAM	50	0	22.46	22.43	22.41
20	16QAM	50	24	22.42	22.47	22.48
20	16QAM	50	50	22.50	22.47	22.54
20	16QAM	100	0	22.53	22.54	22.41



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	23.12	23.15	23.06
15	QPSK	1	37	22.91	23.27	23.15
15	QPSK	1	74	23.28	23.20	23.28
15	QPSK	36	0	22.25	22.34	22.33
15	QPSK	36	20	22.24	22.43	22.40
15	QPSK	36	39	22.36	22.37	22.34
15	QPSK	75	0	22.28	22.34	22.30
15	16QAM	1	0	22.37	22.45	22.39
15	16QAM	1	37	22.50	22.53	22.39
15	16QAM	1	74	22.45	22.57	22.57
15	16QAM	36	0	22.24	22.29	22.32
15	16QAM	36	20	22.33	22.26	22.39
15	16QAM	36	39	22.38	22.47	22.44
15	16QAM	75	0	22.25	22.27	22.36



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	23.09	23.08	23.18
10	QPSK	1	25	23.20	23.30	23.18
10	QPSK	1	49	23.09	23.17	23.09
10	QPSK	25	0	22.36	22.37	22.33
10	QPSK	25	12	22.32	22.44	22.37
10	QPSK	25	25	22.23	22.36	22.32
10	QPSK	50	0	22.29	22.38	22.36
10	16QAM	1	0	22.77	22.70	22.69
10	16QAM	1	25	22.46	22.42	22.49
10	16QAM	1	49	22.41	22.49	22.28
10	16QAM	25	0	22.31	22.30	22.27
10	16QAM	25	12	22.47	22.27	22.27
10	16QAM	25	25	22.27	22.47	22.57
10	16QAM	50	0	22.84	22.77	22.81



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	23.23	23.28	23.22
5	QPSK	1	12	23.22	23.17	23.20
5	QPSK	1	24	23.18	23.26	23.27
5	QPSK	12	0	22.35	22.26	22.33
5	QPSK	12	7	22.36	22.41	22.33
5	QPSK	12	13	22.35	22.34	22.37
5	QPSK	25	0	22.34	22.32	22.34
5	16QAM	1	0	22.47	22.37	22.75
5	16QAM	1	12	22.45	22.38	22.75
5	16QAM	1	24	22.48	22.35	22.74
5	16QAM	12	0	22.57	22.71	22.57
5	16QAM	12	7	22.47	22.47	22.27
5	16QAM	12	13	22.27	22.60	22.37
5	16QAM	25	0	22.37	22.83	22.81



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	23.17	23.24	23.16
3	QPSK	1	8	23.27	23.30	23.13
3	QPSK	1	14	23.28	23.15	23.15
3	QPSK	8	0	22.23	22.18	22.20
3	QPSK	8	4	22.29	22.23	22.24
3	QPSK	8	7	22.29	22.23	22.19
3	QPSK	15	0	22.21	22.29	22.22
3	16QAM	1	0	22.37	22.28	22.22
3	16QAM	1	8	22.41	22.35	22.31
3	16QAM	1	14	22.34	22.31	22.19
3	16QAM	8	0	22.77	22.90	22.82
3	16QAM	8	4	22.84	22.81	22.87
3	16QAM	8	7	22.74	22.79	22.82
3	16QAM	15	0	22.77	22.81	22.76



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	23.23	23.26	23.21
1.4	QPSK	1	3	23.13	23.11	23.10
1.4	QPSK	1	5	23.10	23.08	23.06
1.4	QPSK	3	0	23.10	23.10	23.06
1.4	QPSK	3	1	23.14	23.11	23.09
1.4	QPSK	3	3	23.16	23.20	23.09
1.4	QPSK	6	0	22.19	22.17	22.16
1.4	16QAM	1	0	22.22	22.22	22.16
1.4	16QAM	1	3	22.18	22.38	22.36
1.4	16QAM	1	5	22.06	22.26	21.94
1.4	16QAM	3	0	22.08	22.13	22.10
1.4	16QAM	3	1	22.26	22.08	22.13
1.4	16QAM	3	3	22.28	22.25	21.99
1.4	16QAM	6	0	22.29	22.22	22.17



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	23.29	23.37	23.36
20	QPSK	1	49	23.15	23.23	23.22
20	QPSK	1	99	23.07	23.20	23.32
20	QPSK	50	0	22.36	22.49	22.46
20	QPSK	50	24	22.36	22.44	22.44
20	QPSK	50	50	22.25	22.36	22.37
20	QPSK	100	0	22.35	22.39	22.46
20	16QAM	1	0	22.22	22.52	22.39
20	16QAM	1	49	22.37	22.14	22.28
20	16QAM	1	99	22.16	22.38	22.22
20	16QAM	50	0	22.35	22.28	22.42
20	16QAM	50	24	22.61	22.72	22.61
20	16QAM	50	50	22.57	22.58	22.58
20	16QAM	100	0	22.59	22.67	22.68



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	23.16	23.20	23.30
15	QPSK	1	37	23.20	23.29	23.21
15	QPSK	1	74	23.07	23.29	23.32
15	QPSK	36	0	22.30	22.37	22.40
15	QPSK	36	20	22.34	22.47	22.43
15	QPSK	36	39	22.39	22.38	22.47
15	QPSK	75	0	22.34	22.36	22.37
15	16QAM	1	0	22.28	22.50	22.22
15	16QAM	1	37	22.36	22.36	22.20
15	16QAM	1	74	22.22	22.52	22.31
15	16QAM	36	0	22.23	22.25	22.44
15	16QAM	36	20	22.18	22.25	22.31
15	16QAM	36	39	22.14	22.23	22.29
15	16QAM	75	0	22.25	22.26	22.35



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	23.08	23.27	23.10
10	QPSK	1	25	23.06	23.19	23.20
10	QPSK	1	49	23.14	22.97	23.20
10	QPSK	25	0	22.13	22.35	22.37
10	QPSK	25	12	22.25	22.31	22.35
10	QPSK	25	25	22.14	22.25	22.32
10	QPSK	50	0	22.20	22.30	22.22
10	16QAM	1	0	22.19	22.34	22.10
10	16QAM	1	25	22.46	22.20	22.52
10	16QAM	1	49	22.53	22.43	22.42
10	16QAM	25	0	22.19	22.18	22.17
10	16QAM	25	12	22.11	22.21	22.18
10	16QAM	25	25	22.45	22.36	22.45
10	16QAM	50	0	22.39	22.43	22.55



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	22.98	23.20	23.25
5	QPSK	1	12	23.04	23.19	23.16
5	QPSK	1	24	22.99	23.11	23.10
5	QPSK	12	0	22.21	22.21	22.25
5	QPSK	12	7	22.21	22.32	22.29
5	QPSK	12	13	22.16	22.33	22.25
5	QPSK	25	0	22.19	22.23	22.29
5	16QAM	1	0	22.09	22.50	22.18
5	16QAM	1	12	22.20	22.55	22.14
5	16QAM	1	24	22.14	22.49	22.09
5	16QAM	12	0	22.13	22.07	22.10
5	16QAM	12	7	22.16	22.20	22.18
5	16QAM	12	13	22.43	22.50	22.54
5	16QAM	25	0	22.44	22.55	22.48



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	23.10	23.11	23.23
3	QPSK	1	8	23.19	23.33	23.27
3	QPSK	1	14	22.99	23.18	23.18
3	QPSK	8	0	22.19	22.25	22.26
3	QPSK	8	4	22.25	22.33	22.35
3	QPSK	8	7	22.21	22.31	22.31
3	QPSK	15	0	22.21	22.27	22.21
3	16QAM	1	0	22.29	22.38	22.42
3	16QAM	1	8	22.51	22.51	22.25
3	16QAM	1	14	22.42	22.20	22.28
3	16QAM	8	0	22.21	22.22	22.31
3	16QAM	8	4	22.31	22.31	22.32
3	16QAM	8	7	22.53	22.61	22.65
3	16QAM	15	0	22.53	22.51	22.58



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.85	23.06	23.07
1.4	QPSK	1	3	23.19	23.19	23.23
1.4	QPSK	1	5	23.05	23.14	23.16
1.4	QPSK	3	0	23.13	23.10	23.09
1.4	QPSK	3	1	23.09	23.19	23.24
1.4	QPSK	3	3	23.08	23.15	23.14
1.4	QPSK	6	0	22.24	22.26	22.22
1.4	16QAM	1	0	22.18	22.65	22.31
1.4	16QAM	1	3	22.31	22.39	22.43
1.4	16QAM	1	5	22.37	22.53	22.33
1.4	16QAM	3	0	22.40	22.44	22.35
1.4	16QAM	3	1	22.41	22.44	22.46
1.4	16QAM	3	3	22.40	22.52	22.41
1.4	16QAM	6	0	22.31	22.32	22.23



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	23.13	23.14	23.06
10	QPSK	1	25	22.99	23.02	22.82
10	QPSK	1	49	22.91	23.03	22.71
10	QPSK	25	0	22.44	22.46	22.27
10	QPSK	25	12	22.20	22.22	22.27
10	QPSK	25	25	22.20	22.31	22.36
10	QPSK	50	0	22.26	22.14	22.28
10	16QAM	1	0	22.30	22.49	22.20
10	16QAM	1	25	22.53	22.56	22.24
10	16QAM	1	49	22.36	22.42	22.49
10	16QAM	25	0	22.45	22.46	22.28
10	16QAM	25	12	22.39	22.47	22.25
10	16QAM	25	25	22.42	22.35	22.38
10	16QAM	50	0	22.43	22.34	22.24



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	23.08	23.04	23.02
5	QPSK	1	12	22.98	23.09	22.93
5	QPSK	1	24	22.98	22.93	22.93
5	QPSK	12	0	22.35	22.40	22.26
5	QPSK	12	7	22.42	22.43	22.35
5	QPSK	12	13	22.47	22.31	22.26
5	QPSK	25	0	22.38	22.34	22.26
5	16QAM	1	0	22.67	22.60	22.36
5	16QAM	1	12	22.37	22.59	22.35
5	16QAM	1	24	22.24	22.59	22.42
5	16QAM	12	0	22.33	22.42	22.41
5	16QAM	12	7	22.40	22.43	22.25
5	16QAM	12	13	22.40	22.31	22.36
5	16QAM	25	0	22.41	22.46	22.41



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.77	23.08	22.93
3	QPSK	1	8	23.03	23.04	22.95
3	QPSK	1	14	23.04	23.02	22.76
3	QPSK	8	0	22.28	22.41	22.39
3	QPSK	8	4	22.42	22.48	22.45
3	QPSK	8	7	22.37	22.39	22.26
3	QPSK	15	0	22.35	22.41	22.40
3	16QAM	1	0	22.37	22.48	22.55
3	16QAM	1	8	22.30	22.56	22.40
3	16QAM	1	14	22.35	22.61	22.36
3	16QAM	8	0	22.31	22.40	22.14
3	16QAM	8	4	22.47	22.58	22.15
3	16QAM	8	7	22.39	22.45	22.19
3	16QAM	15	0	22.33	22.35	21.90



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.98	23.05	23.09
1.4	QPSK	1	3	23.11	23.04	23.11
1.4	QPSK	1	5	23.00	22.94	22.95
1.4	QPSK	3	0	23.01	23.07	23.03
1.4	QPSK	3	1	23.07	22.94	23.04
1.4	QPSK	3	3	23.08	23.00	23.00
1.4	QPSK	6	0	22.33	22.32	22.31
1.4	16QAM	1	0	22.46	22.27	22.44
1.4	16QAM	1	3	22.26	22.50	22.39
1.4	16QAM	1	5	22.65	22.33	22.39
1.4	16QAM	3	0	22.18	22.16	22.30
1.4	16QAM	3	1	22.21	22.48	22.34
1.4	16QAM	3	3	22.29	22.40	22.28
1.4	16QAM	6	0	22.48	22.35	22.39



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	23.67	23.68	23.60
20	QPSK	1	49	23.62	23.66	23.55
20	QPSK	1	99	23.57	23.52	23.57
20	QPSK	50	0	22.53	22.60	22.57
20	QPSK	50	24	22.29	22.26	22.16
20	QPSK	50	50	22.39	22.42	22.39
20	QPSK	100	0	22.34	22.36	22.33
20	16QAM	1	0	22.15	22.25	22.43
20	16QAM	1	49	22.30	22.16	22.44
20	16QAM	1	99	22.24	22.55	22.20
20	16QAM	50	0	22.09	22.19	22.12
20	16QAM	50	24	22.14	22.06	22.17
20	16QAM	50	50	22.22	22.27	22.10
20	16QAM	100	0	22.10	22.22	22.20



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	23.50	23.59	23.59
15	QPSK	1	37	23.60	23.57	23.61
15	QPSK	1	74	23.54	23.61	23.61
15	QPSK	36	0	22.32	22.41	22.43
15	QPSK	36	20	22.40	22.47	22.42
15	QPSK	36	39	22.43	22.46	22.50
15	QPSK	75	0	22.49	22.42	22.44
15	16QAM	1	0	22.65	22.76	22.83
15	16QAM	1	37	22.47	22.58	22.56
15	16QAM	1	74	22.51	22.51	22.73
15	16QAM	36	0	22.10	22.21	22.23
15	16QAM	36	20	22.17	22.20	22.19
15	16QAM	36	39	22.23	22.21	22.10
15	16QAM	75	0	22.18	22.26	22.18



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	23.49	23.36	23.39
10	QPSK	1	25	23.52	23.42	23.44
10	QPSK	1	49	23.45	23.42	23.44
10	QPSK	25	0	22.24	22.24	22.23
10	QPSK	25	12	22.20	22.32	22.37
10	QPSK	25	25	22.13	22.31	22.31
10	QPSK	50	0	22.22	22.34	22.33
10	16QAM	1	0	22.27	22.45	22.30
10	16QAM	1	25	22.26	22.28	22.33
10	16QAM	1	49	22.73	22.63	22.54
10	16QAM	25	0	22.16	22.04	22.12
10	16QAM	25	12	21.98	22.15	22.08
10	16QAM	25	25	22.03	22.06	21.98
10	16QAM	50	0	22.06	22.15	22.00



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	23.53	23.44	23.34
5	QPSK	1	12	23.40	23.33	23.41
5	QPSK	1	24	23.34	23.40	23.44
5	QPSK	12	0	22.04	22.12	22.04
5	QPSK	12	7	22.11	22.26	22.18
5	QPSK	12	13	22.13	22.29	22.14
5	QPSK	25	0	22.14	22.15	22.10
5	16QAM	1	0	22.12	22.10	22.16
5	16QAM	1	12	22.17	22.39	22.29
5	16QAM	1	24	22.23	22.42	22.24
5	16QAM	12	0	22.14	22.20	22.11
5	16QAM	12	7	22.03	22.05	22.01
5	16QAM	12	13	22.03	22.09	22.22
5	16QAM	25	0	22.00	22.05	22.07



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	23.10	23.26	23.15
10	QPSK	1	25	22.96	23.09	23.12
10	QPSK	1	49	23.06	23.07	23.06
10	QPSK	25	0	22.35	22.45	22.36
10	QPSK	25	12	22.32	22.26	22.05
10	QPSK	25	25	22.37	22.43	22.36
10	QPSK	50	0	22.38	22.40	22.31
10	16QAM	1	0	22.31	21.86	21.99
10	16QAM	1	25	22.06	22.01	22.15
10	16QAM	1	49	22.15	22.20	22.09
10	16QAM	25	0	22.04	22.06	22.00
10	16QAM	25	12	22.08	22.12	22.01
10	16QAM	25	25	22.13	22.14	22.08
10	16QAM	50	0	22.03	22.11	22.16



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.85	23.18	22.96
5	QPSK	1	12	23.01	23.17	23.01
5	QPSK	1	24	22.97	23.16	23.02
5	QPSK	12	0	22.08	22.15	22.14
5	QPSK	12	7	22.19	22.21	22.18
5	QPSK	12	13	22.14	22.17	22.14
5	QPSK	25	0	22.10	22.22	22.18
5	16QAM	1	0	22.11	22.13	22.15
5	16QAM	1	12	22.28	22.23	22.24
5	16QAM	1	24	22.24	22.22	22.18
5	16QAM	12	0	21.98	21.95	21.98
5	16QAM	12	7	22.12	22.17	22.01
5	16QAM	12	13	22.07	22.04	22.09
5	16QAM	25	0	22.08	22.04	22.06



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.93	23.20	22.87
3	QPSK	1	8	23.11	23.10	23.00
3	QPSK	1	14	23.05	23.16	23.11
3	QPSK	8	0	22.16	22.14	22.14
3	QPSK	8	4	22.19	22.22	22.23
3	QPSK	8	7	22.14	22.22	22.16
3	QPSK	15	0	22.13	22.21	22.07
3	16QAM	1	0	22.14	22.50	22.09
3	16QAM	1	8	22.34	22.32	22.27
3	16QAM	1	14	22.17	22.22	22.08
3	16QAM	8	0	22.14	22.03	22.06
3	16QAM	8	4	22.19	22.16	22.27
3	16QAM	8	7	22.03	22.06	22.12
3	16QAM	15	0	22.01	21.94	21.93



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.96	23.13	22.93
1.4	QPSK	1	3	23.07	23.06	23.08
1.4	QPSK	1	5	22.96	23.01	22.97
1.4	QPSK	3	0	22.91	23.04	23.02
1.4	QPSK	3	1	23.12	23.12	22.79
1.4	QPSK	3	3	23.07	23.09	23.05
1.4	QPSK	6	0	22.13	22.10	22.08
1.4	16QAM	1	0	22.17	22.11	21.96
1.4	16QAM	1	3	21.98	22.41	22.08
1.4	16QAM	1	5	22.10	22.11	22.10
1.4	16QAM	3	0	21.94	21.97	21.98
1.4	16QAM	3	1	22.10	22.18	22.02
1.4	16QAM	3	3	21.93	22.07	22.07
1.4	16QAM	6	0	21.86	22.06	21.96



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	23230	/
Frequency (MHz)				/	782	/
10	QPSK	1	0	/	23.15	/
10	QPSK	1	25	/	23.07	/
10	QPSK	1	49	/	23.12	/
10	QPSK	25	0	/	22.24	/
10	QPSK	25	12	/	22.05	/
10	QPSK	25	25	/	21.99	/
10	QPSK	50	0	/	22.02	/
10	16QAM	1	0	/	22.14	/
10	16QAM	1	25	/	22.06	/
10	16QAM	1	49	/	22.36	/
10	16QAM	25	0	/	22.17	/
10	16QAM	25	12	/	22.12	/
10	16QAM	25	25	/	22.25	/
10	16QAM	50	0	/	22.02	/



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	23.04	23.07	23.05
5	QPSK	1	12	23.04	23.06	23.02
5	QPSK	1	24	23.03	23.01	22.94
5	QPSK	12	0	21.95	22.03	22.12
5	QPSK	12	7	22.02	22.01	22.10
5	QPSK	12	13	21.94	22.10	22.08
5	QPSK	25	0	22.01	21.98	22.08
5	16QAM	1	0	22.08	22.44	22.23
5	16QAM	1	12	22.14	22.29	22.17
5	16QAM	1	24	22.24	22.06	22.07
5	16QAM	12	0	22.67	22.64	22.57
5	16QAM	12	7	22.68	22.57	22.69
5	16QAM	12	13	22.65	22.64	22.68
5	16QAM	25	0	22.02	22.06	22.08



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	23.15	23.18	23.15
10	QPSK	1	25	23.03	22.99	23.05
10	QPSK	1	49	22.96	22.99	22.94
10	QPSK	25	0	22.26	22.32	22.24
10	QPSK	25	12	22.11	22.05	22.19
10	QPSK	25	25	22.09	22.09	22.18
10	QPSK	50	0	22.22	22.09	22.10
10	16QAM	1	0	21.95	22.14	22.28
10	16QAM	1	25	22.16	22.45	22.29
10	16QAM	1	49	22.12	22.37	22.42
10	16QAM	25	0	22.06	22.30	22.29
10	16QAM	25	12	22.12	22.27	22.25
10	16QAM	25	25	21.95	22.21	22.26
10	16QAM	50	0	21.99	22.28	22.25



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	23.06	23.02	22.98
5	QPSK	1	12	23.05	23.01	23.00
5	QPSK	1	24	22.97	23.03	23.02
5	QPSK	12	0	22.13	22.31	22.47
5	QPSK	12	7	22.25	22.34	22.42
5	QPSK	12	13	22.08	22.36	22.42
5	QPSK	25	0	22.11	22.28	22.41
5	16QAM	1	0	22.59	22.64	22.36
5	16QAM	1	12	22.76	22.32	22.69
5	16QAM	1	24	22.60	22.65	22.81
5	16QAM	12	0	22.04	22.07	22.28
5	16QAM	12	7	22.04	22.11	22.23
5	16QAM	12	13	21.95	22.20	22.23
5	16QAM	25	0	22.05	22.17	22.21



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37850	38000	38150
Frequency (MHz)				2580	2595	2610
20	QPSK	1	0	23.35	23.37	23.30
20	QPSK	1	49	23.30	23.30	23.31
20	QPSK	1	99	23.31	23.26	23.36
20	QPSK	50	0	22.46	22.47	22.45
20	QPSK	50	24	22.31	22.24	22.21
20	QPSK	50	50	22.45	22.25	22.24
20	QPSK	100	0	22.24	22.31	22.25
20	16QAM	1	0	22.41	22.24	22.31
20	16QAM	1	49	22.29	22.24	22.19
20	16QAM	1	99	22.21	22.31	22.29
20	16QAM	50	0	22.31	22.24	22.54
20	16QAM	50	24	22.52	22.21	22.31
20	16QAM	50	50	22.58	22.67	22.28
20	16QAM	100	0	22.51	22.66	22.35



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	23.07	23.27	23.14
15	QPSK	1	37	23.25	23.31	23.14
15	QPSK	1	74	23.23	23.24	23.07
15	QPSK	36	0	22.41	22.26	22.46
15	QPSK	36	20	22.46	22.22	22.42
15	QPSK	36	39	22.49	22.21	22.45
15	QPSK	75	0	22.51	22.24	22.48
15	16QAM	1	0	22.32	22.61	22.26
15	16QAM	1	37	22.49	22.18	22.32
15	16QAM	1	74	22.41	21.75	22.16
15	16QAM	36	0	22.48	22.15	22.35
15	16QAM	36	20	22.42	22.11	22.31
15	16QAM	36	39	22.55	22.65	22.35
15	16QAM	75	0	22.56	22.13	22.35



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	23.16	23.24	23.12
10	QPSK	1	25	23.21	23.11	23.07
10	QPSK	1	49	23.08	23.31	23.31
10	QPSK	25	0	22.46	22.34	22.30
10	QPSK	25	12	22.45	22.23	22.30
10	QPSK	25	25	22.54	22.18	22.34
10	QPSK	50	0	22.58	22.26	22.32
10	16QAM	1	0	21.93	22.08	22.33
10	16QAM	1	25	22.02	22.23	22.16
10	16QAM	1	49	21.98	22.15	22.29
10	16QAM	25	0	22.01	22.29	22.47
10	16QAM	25	12	21.98	22.15	22.41
10	16QAM	25	25	22.05	22.27	22.54
10	16QAM	50	0	22.01	22.25	22.43



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	23.01	23.24	23.21
5	QPSK	1	12	23.16	23.11	23.24
5	QPSK	1	24	23.07	23.21	22.94
5	QPSK	12	0	22.39	22.43	22.52
5	QPSK	12	7	22.52	22.28	22.58
5	QPSK	12	13	22.52	22.50	22.64
5	QPSK	25	0	22.53	22.51	22.66
5	16QAM	1	0	22.36	22.52	22.21
5	16QAM	1	12	22.53	22.69	22.37
5	16QAM	1	24	22.39	22.50	22.22
5	16QAM	12	0	21.94	22.16	22.34
5	16QAM	12	7	21.89	22.26	22.45
5	16QAM	12	13	22.02	22.16	22.38
5	16QAM	25	0	21.90	22.24	22.45



Effective Radiated Power and Effective Isotropic Radiated Power

LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18700		18900		19100	
Frequency (MHz)				1860		1880		1900	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	23.61	0.230	23.64	0.231	23.58	0.228
20	QPSK	1	49	23.59	0.229	23.53	0.225	23.46	0.222
20	QPSK	1	99	23.53	0.225	23.49	0.223	23.47	0.222
20	QPSK	50	0	22.69	0.186	22.78	0.190	22.71	0.187
20	QPSK	50	24	22.70	0.186	22.75	0.188	22.75	0.188
20	QPSK	50	50	22.75	0.188	22.71	0.187	22.77	0.189
20	QPSK	100	0	22.68	0.185	22.77	0.189	22.73	0.187
20	16QAM	1	0	22.74	0.188	22.74	0.188	22.76	0.189
20	16QAM	1	49	22.58	0.181	22.88	0.194	22.84	0.192
20	16QAM	1	99	22.83	0.192	22.68	0.185	23.08	0.203
20	16QAM	50	0	22.76	0.189	22.73	0.187	22.71	0.187
20	16QAM	50	24	22.72	0.187	22.77	0.189	22.78	0.190
20	16QAM	50	50	22.80	0.191	22.77	0.189	22.84	0.192
20	16QAM	100	0	22.83	0.192	22.84	0.192	22.71	0.187



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18675		18900		19125	
Frequency (MHz)				1857.5		1880		1902.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	23.42	0.220	23.45	0.221	23.36	0.217
15	QPSK	1	37	23.21	0.209	23.57	0.228	23.45	0.221
15	QPSK	1	74	23.58	0.228	23.50	0.224	23.58	0.228
15	QPSK	36	0	22.55	0.180	22.64	0.184	22.63	0.183
15	QPSK	36	20	22.54	0.179	22.73	0.187	22.70	0.186
15	QPSK	36	39	22.66	0.185	22.67	0.185	22.64	0.184
15	QPSK	75	0	22.58	0.181	22.64	0.184	22.60	0.182
15	16QAM	1	0	22.67	0.185	22.75	0.188	22.69	0.186
15	16QAM	1	37	22.80	0.191	22.83	0.192	22.69	0.186
15	16QAM	1	74	22.75	0.188	22.87	0.194	22.87	0.194
15	16QAM	36	0	22.54	0.179	22.59	0.182	22.62	0.183
15	16QAM	36	20	22.63	0.183	22.56	0.180	22.69	0.186
15	16QAM	36	39	22.68	0.185	22.77	0.189	22.74	0.188
15	16QAM	75	0	22.55	0.180	22.57	0.181	22.66	0.185



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18650		18900		19150	
Frequency (MHz)				1855		1880		1905	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	23.39	0.218	23.38	0.218	23.48	0.223
10	QPSK	1	25	23.50	0.224	23.60	0.229	23.48	0.223
10	QPSK	1	49	23.39	0.218	23.47	0.222	23.39	0.218
10	QPSK	25	0	22.66	0.185	22.67	0.185	22.63	0.183
10	QPSK	25	12	22.62	0.183	22.74	0.188	22.67	0.185
10	QPSK	25	25	22.53	0.179	22.66	0.185	22.62	0.183
10	QPSK	50	0	22.59	0.182	22.68	0.185	22.66	0.185
10	16QAM	1	0	23.07	0.203	23.00	0.200	22.99	0.199
10	16QAM	1	25	22.76	0.189	22.72	0.187	22.79	0.190
10	16QAM	1	49	22.71	0.187	22.79	0.190	22.58	0.181
10	16QAM	25	0	22.61	0.182	22.60	0.182	22.57	0.181
10	16QAM	25	12	22.77	0.189	22.57	0.181	22.57	0.181
10	16QAM	25	25	22.57	0.181	22.77	0.189	22.87	0.194
10	16QAM	50	0	23.14	0.206	23.07	0.203	23.11	0.205



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18625		18900		19175	
Frequency (MHz)				1852.5		1880		1907.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	23.53	0.225	23.58	0.228	23.52	0.225
5	QPSK	1	12	23.52	0.225	23.47	0.222	23.50	0.224
5	QPSK	1	24	23.48	0.223	23.56	0.227	23.57	0.228
5	QPSK	12	0	22.65	0.184	22.56	0.180	22.63	0.183
5	QPSK	12	7	22.66	0.185	22.71	0.187	22.63	0.183
5	QPSK	12	13	22.65	0.184	22.64	0.184	22.67	0.185
5	QPSK	25	0	22.64	0.184	22.62	0.183	22.64	0.184
5	16QAM	1	0	22.77	0.189	22.67	0.185	23.05	0.202
5	16QAM	1	12	22.75	0.188	22.68	0.185	23.05	0.202
5	16QAM	1	24	22.78	0.190	22.65	0.184	23.04	0.201
5	16QAM	12	0	22.87	0.194	23.01	0.200	22.87	0.194
5	16QAM	12	7	22.77	0.189	22.77	0.189	22.57	0.181
5	16QAM	12	13	22.57	0.181	22.90	0.195	22.67	0.185
5	16QAM	25	0	22.67	0.185	23.13	0.206	23.11	0.205



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18615		18900		19185	
Frequency (MHz)				1851.5		1880		1908.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	23.47	0.222	23.54	0.226	23.46	0.222
3	QPSK	1	8	23.57	0.228	23.60	0.229	23.43	0.220
3	QPSK	1	14	23.58	0.228	23.45	0.221	23.45	0.221
3	QPSK	8	0	22.53	0.179	22.48	0.177	22.50	0.178
3	QPSK	8	4	22.59	0.182	22.53	0.179	22.54	0.179
3	QPSK	8	7	22.59	0.182	22.53	0.179	22.49	0.177
3	QPSK	15	0	22.51	0.178	22.59	0.182	22.52	0.179
3	16QAM	1	0	22.67	0.185	22.58	0.181	22.52	0.179
3	16QAM	1	8	22.71	0.187	22.65	0.184	22.61	0.182
3	16QAM	1	14	22.64	0.184	22.61	0.182	22.49	0.177
3	16QAM	8	0	23.07	0.203	23.20	0.209	23.12	0.205
3	16QAM	8	4	23.14	0.206	23.11	0.205	23.17	0.207
3	16QAM	8	7	23.04	0.201	23.09	0.204	23.12	0.205
3	16QAM	15	0	23.07	0.203	23.11	0.205	23.06	0.202



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18607		18900		19193	
Frequency (MHz)				1850.7		1880		1909.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	23.53	0.225	23.56	0.227	23.51	0.224
1.4	QPSK	1	3	23.43	0.220	23.41	0.219	23.40	0.219
1.4	QPSK	1	5	23.40	0.219	23.38	0.218	23.36	0.217
1.4	QPSK	3	0	23.40	0.219	23.40	0.219	23.36	0.217
1.4	QPSK	3	1	23.44	0.221	23.41	0.219	23.39	0.218
1.4	QPSK	3	3	23.46	0.222	23.50	0.224	23.39	0.218
1.4	QPSK	6	0	22.49	0.177	22.47	0.177	22.46	0.176
1.4	16QAM	1	0	22.52	0.179	22.52	0.179	22.46	0.176
1.4	16QAM	1	3	22.48	0.177	22.68	0.185	22.66	0.185
1.4	16QAM	1	5	22.36	0.172	22.56	0.180	22.24	0.167
1.4	16QAM	3	0	22.38	0.173	22.43	0.175	22.40	0.174
1.4	16QAM	3	1	22.56	0.180	22.38	0.173	22.43	0.175
1.4	16QAM	3	3	22.58	0.181	22.55	0.180	22.29	0.169
1.4	16QAM	6	0	22.59	0.182	22.52	0.179	22.47	0.177



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20050		20175		20300	
Frequency (MHz)				1720		1732.5		1745	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	23.74	0.237	23.82	0.241	23.81	0.240
20	QPSK	1	49	23.60	0.229	23.68	0.233	23.67	0.233
20	QPSK	1	99	23.52	0.225	23.65	0.232	23.77	0.238
20	QPSK	50	0	22.81	0.191	22.94	0.197	22.91	0.195
20	QPSK	50	24	22.81	0.191	22.89	0.195	22.89	0.195
20	QPSK	50	50	22.70	0.186	22.81	0.191	22.82	0.191
20	QPSK	100	0	22.80	0.191	22.84	0.192	22.91	0.195
20	16QAM	1	0	22.67	0.185	22.97	0.198	22.84	0.192
20	16QAM	1	49	22.82	0.191	22.59	0.182	22.73	0.187
20	16QAM	1	99	22.61	0.182	22.83	0.192	22.67	0.185
20	16QAM	50	0	22.80	0.191	22.73	0.187	22.87	0.194
20	16QAM	50	24	23.06	0.202	23.17	0.207	23.06	0.202
20	16QAM	50	50	23.02	0.200	23.03	0.201	23.03	0.201
20	16QAM	100	0	23.04	0.201	23.12	0.205	23.13	0.206



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20025		20175		20325	
Frequency (MHz)				1717.5		1732.5		1747.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	23.61	0.230	23.65	0.232	23.75	0.237
15	QPSK	1	37	23.65	0.232	23.74	0.237	23.66	0.232
15	QPSK	1	74	23.52	0.225	23.74	0.237	23.77	0.238
15	QPSK	36	0	22.75	0.188	22.82	0.191	22.85	0.193
15	QPSK	36	20	22.79	0.190	22.92	0.196	22.88	0.194
15	QPSK	36	39	22.84	0.192	22.83	0.192	22.92	0.196
15	QPSK	75	0	22.79	0.190	22.81	0.191	22.82	0.191
15	16QAM	1	0	22.73	0.187	22.95	0.197	22.67	0.185
15	16QAM	1	37	22.81	0.191	22.81	0.191	22.65	0.184
15	16QAM	1	74	22.67	0.185	22.97	0.198	22.76	0.189
15	16QAM	36	0	22.68	0.185	22.70	0.186	22.89	0.195
15	16QAM	36	20	22.63	0.183	22.70	0.186	22.76	0.189
15	16QAM	36	39	22.59	0.182	22.68	0.185	22.74	0.188
15	16QAM	75	0	22.70	0.186	22.71	0.187	22.80	0.191



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20000		20175		20350	
Frequency (MHz)				1715		1732.5		1750	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	23.53	0.225	23.72	0.236	23.55	0.226
10	QPSK	1	25	23.51	0.224	23.64	0.231	23.65	0.232
10	QPSK	1	49	23.59	0.229	23.42	0.220	23.65	0.232
10	QPSK	25	0	22.58	0.181	22.80	0.191	22.82	0.191
10	QPSK	25	12	22.70	0.186	22.76	0.189	22.80	0.191
10	QPSK	25	25	22.59	0.182	22.70	0.186	22.77	0.189
10	QPSK	50	0	22.65	0.184	22.75	0.188	22.67	0.185
10	16QAM	1	0	22.64	0.184	22.79	0.190	22.55	0.180
10	16QAM	1	25	22.91	0.195	22.65	0.184	22.97	0.198
10	16QAM	1	49	22.98	0.199	22.88	0.194	22.87	0.194
10	16QAM	25	0	22.64	0.184	22.63	0.183	22.62	0.183
10	16QAM	25	12	22.56	0.180	22.66	0.185	22.63	0.183
10	16QAM	25	25	22.90	0.195	22.81	0.191	22.90	0.195
10	16QAM	50	0	22.84	0.192	22.88	0.194	23.00	0.200



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19975		20175		20375	
Frequency (MHz)				1712.5		1732.5		1752.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	23.43	0.220	23.65	0.232	23.70	0.234
5	QPSK	1	12	23.49	0.223	23.64	0.231	23.61	0.230
5	QPSK	1	24	23.44	0.221	23.56	0.227	23.55	0.226
5	QPSK	12	0	22.66	0.185	22.66	0.185	22.70	0.186
5	QPSK	12	7	22.66	0.185	22.77	0.189	22.74	0.188
5	QPSK	12	13	22.61	0.182	22.78	0.190	22.70	0.186
5	QPSK	25	0	22.64	0.184	22.68	0.185	22.74	0.188
5	16QAM	1	0	22.54	0.179	22.95	0.197	22.63	0.183
5	16QAM	1	12	22.65	0.184	23.00	0.200	22.59	0.182
5	16QAM	1	24	22.59	0.182	22.94	0.197	22.54	0.179
5	16QAM	12	0	22.58	0.181	22.52	0.179	22.55	0.180
5	16QAM	12	7	22.61	0.182	22.65	0.184	22.63	0.183
5	16QAM	12	13	22.88	0.194	22.95	0.197	22.99	0.199
5	16QAM	25	0	22.89	0.195	23.00	0.200	22.93	0.196



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19965		20175		20385	
Frequency (MHz)				1711.5		1732.5		1753.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	23.55	0.226	23.56	0.227	23.68	0.233
3	QPSK	1	8	23.64	0.231	23.78	0.239	23.72	0.236
3	QPSK	1	14	23.44	0.221	23.63	0.231	23.63	0.231
3	QPSK	8	0	22.64	0.184	22.70	0.186	22.71	0.187
3	QPSK	8	4	22.70	0.186	22.78	0.190	22.80	0.191
3	QPSK	8	7	22.66	0.185	22.76	0.189	22.76	0.189
3	QPSK	15	0	22.66	0.185	22.72	0.187	22.66	0.185
3	16QAM	1	0	22.74	0.188	22.83	0.192	22.87	0.194
3	16QAM	1	8	22.96	0.198	22.96	0.198	22.70	0.186
3	16QAM	1	14	22.87	0.194	22.65	0.184	22.73	0.187
3	16QAM	8	0	22.66	0.185	22.67	0.185	22.76	0.189
3	16QAM	8	4	22.76	0.189	22.76	0.189	22.77	0.189
3	16QAM	8	7	22.98	0.199	23.06	0.202	23.10	0.204
3	16QAM	15	0	22.98	0.199	22.96	0.198	23.03	0.201



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19957		20175		20393	
Frequency (MHz)				1710.7		1732.5		1754.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	23.30	0.214	23.51	0.224	23.52	0.225
1.4	QPSK	1	3	23.64	0.231	23.64	0.231	23.68	0.233
1.4	QPSK	1	5	23.50	0.224	23.59	0.229	23.61	0.230
1.4	QPSK	3	0	23.58	0.228	23.55	0.226	23.54	0.226
1.4	QPSK	3	1	23.54	0.226	23.64	0.231	23.69	0.234
1.4	QPSK	3	3	23.53	0.225	23.60	0.229	23.59	0.229
1.4	QPSK	6	0	22.69	0.186	22.71	0.187	22.67	0.185
1.4	16QAM	1	0	22.63	0.183	23.10	0.204	22.76	0.189
1.4	16QAM	1	3	22.76	0.189	22.84	0.192	22.88	0.194
1.4	16QAM	1	5	22.82	0.191	22.98	0.199	22.78	0.190
1.4	16QAM	3	0	22.85	0.193	22.89	0.195	22.80	0.191
1.4	16QAM	3	1	22.86	0.193	22.89	0.195	22.91	0.195
1.4	16QAM	3	3	22.85	0.193	22.97	0.198	22.86	0.193
1.4	16QAM	6	0	22.76	0.189	22.77	0.189	22.68	0.185



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20450		20525		20600	
Frequency (MHz)				829		836.5		844	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	17.28	0.053	17.29	0.054	17.21	0.053
10	QPSK	1	25	17.14	0.052	17.17	0.052	16.97	0.050
10	QPSK	1	49	17.06	0.051	17.18	0.052	16.86	0.049
10	QPSK	25	0	16.59	0.046	16.61	0.046	16.42	0.044
10	QPSK	25	12	16.35	0.043	16.37	0.043	16.42	0.044
10	QPSK	25	25	16.35	0.043	16.46	0.044	16.51	0.045
10	QPSK	50	0	16.41	0.044	16.29	0.043	16.43	0.044
10	16QAM	1	0	16.45	0.044	16.64	0.046	16.35	0.043
10	16QAM	1	25	16.68	0.047	16.71	0.047	16.39	0.044
10	16QAM	1	49	16.51	0.045	16.57	0.045	16.64	0.046
10	16QAM	25	0	16.60	0.046	16.61	0.046	16.43	0.044
10	16QAM	25	12	16.54	0.045	16.62	0.046	16.40	0.044
10	16QAM	25	25	16.57	0.045	16.50	0.045	16.53	0.045
10	16QAM	50	0	16.58	0.045	16.49	0.045	16.39	0.044



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20425		20525		20625	
Frequency (MHz)				826.5		836.5		846.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	17.23	0.053	17.19	0.052	17.17	0.052
5	QPSK	1	12	17.13	0.052	17.24	0.053	17.08	0.051
5	QPSK	1	24	17.13	0.052	17.08	0.051	17.08	0.051
5	QPSK	12	0	16.50	0.045	16.55	0.045	16.41	0.044
5	QPSK	12	7	16.57	0.045	16.58	0.045	16.50	0.045
5	QPSK	12	13	16.62	0.046	16.46	0.044	16.41	0.044
5	QPSK	25	0	16.53	0.045	16.49	0.045	16.41	0.044
5	16QAM	1	0	16.82	0.048	16.75	0.047	16.51	0.045
5	16QAM	1	12	16.52	0.045	16.74	0.047	16.50	0.045
5	16QAM	1	24	16.39	0.044	16.74	0.047	16.57	0.045
5	16QAM	12	0	16.48	0.044	16.57	0.045	16.56	0.045
5	16QAM	12	7	16.55	0.045	16.58	0.045	16.40	0.044
5	16QAM	12	13	16.55	0.045	16.46	0.044	16.51	0.045
5	16QAM	25	0	16.56	0.045	16.61	0.046	16.56	0.045



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20415		20525		20635	
Frequency (MHz)				825.5		836.5		847.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	16.92	0.049	17.23	0.053	17.08	0.051
3	QPSK	1	8	17.18	0.052	17.19	0.052	17.10	0.051
3	QPSK	1	14	17.19	0.052	17.17	0.052	16.91	0.049
3	QPSK	8	0	16.43	0.044	16.56	0.045	16.54	0.045
3	QPSK	8	4	16.57	0.045	16.63	0.046	16.60	0.046
3	QPSK	8	7	16.52	0.045	16.54	0.045	16.41	0.044
3	QPSK	15	0	16.50	0.045	16.56	0.045	16.55	0.045
3	16QAM	1	0	16.52	0.045	16.63	0.046	16.70	0.047
3	16QAM	1	8	16.45	0.044	16.71	0.047	16.55	0.045
3	16QAM	1	14	16.50	0.045	16.76	0.047	16.51	0.045
3	16QAM	8	0	16.46	0.044	16.55	0.045	16.29	0.043
3	16QAM	8	4	16.62	0.046	16.73	0.047	16.30	0.043
3	16QAM	8	7	16.54	0.045	16.60	0.046	16.34	0.043
3	16QAM	15	0	16.48	0.044	16.50	0.045	16.05	0.040



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20407		20525		20643	
Frequency (MHz)				824.7		836.5		848.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	17.13	0.052	17.20	0.052	17.24	0.053
1.4	QPSK	1	3	17.26	0.053	17.19	0.052	17.26	0.053
1.4	QPSK	1	5	17.15	0.052	17.09	0.051	17.10	0.051
1.4	QPSK	3	0	17.16	0.052	17.22	0.053	17.18	0.052
1.4	QPSK	3	1	17.22	0.053	17.09	0.051	17.19	0.052
1.4	QPSK	3	3	17.23	0.053	17.15	0.052	17.15	0.052
1.4	QPSK	6	0	16.48	0.044	16.47	0.044	16.46	0.044
1.4	16QAM	1	0	16.61	0.046	16.42	0.044	16.59	0.046
1.4	16QAM	1	3	16.41	0.044	16.65	0.046	16.54	0.045
1.4	16QAM	1	5	16.80	0.048	16.48	0.044	16.54	0.045
1.4	16QAM	3	0	16.33	0.043	16.31	0.043	16.45	0.044
1.4	16QAM	3	1	16.36	0.043	16.63	0.046	16.49	0.045
1.4	16QAM	3	3	16.44	0.044	16.55	0.045	16.43	0.044
1.4	16QAM	6	0	16.63	0.046	16.50	0.045	16.54	0.045



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20850		21100		21350	
Frequency (MHz)				2510		2535		2560	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	24.27	0.267	24.28	0.268	24.20	0.263
20	QPSK	1	49	24.22	0.264	24.26	0.267	24.15	0.260
20	QPSK	1	99	24.17	0.261	24.12	0.258	24.17	0.261
20	QPSK	50	0	23.13	0.206	23.20	0.209	23.17	0.207
20	QPSK	50	24	22.89	0.195	22.86	0.193	22.76	0.189
20	QPSK	50	50	22.99	0.199	23.02	0.200	22.99	0.199
20	QPSK	100	0	22.94	0.197	22.96	0.198	22.93	0.196
20	16QAM	1	0	22.75	0.188	22.85	0.193	23.03	0.201
20	16QAM	1	49	22.90	0.195	22.76	0.189	23.04	0.201
20	16QAM	1	99	22.84	0.192	23.15	0.207	22.80	0.191
20	16QAM	50	0	22.69	0.186	22.79	0.190	22.72	0.187
20	16QAM	50	24	22.74	0.188	22.66	0.185	22.77	0.189
20	16QAM	50	50	22.82	0.191	22.87	0.194	22.70	0.186
20	16QAM	100	0	22.70	0.186	22.82	0.191	22.80	0.191



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20825		21100		21375	
Frequency (MHz)				2507.5		2535		2562.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	24.10	0.257	24.19	0.262	24.19	0.262
15	QPSK	1	37	24.20	0.263	24.17	0.261	24.21	0.264
15	QPSK	1	74	24.14	0.259	24.21	0.264	24.21	0.264
15	QPSK	36	0	22.92	0.196	23.01	0.200	23.03	0.201
15	QPSK	36	20	23.00	0.200	23.07	0.203	23.02	0.200
15	QPSK	36	39	23.03	0.201	23.06	0.202	23.10	0.204
15	QPSK	75	0	23.09	0.204	23.02	0.200	23.04	0.201
15	16QAM	1	0	23.25	0.211	23.36	0.217	23.43	0.220
15	16QAM	1	37	23.07	0.203	23.18	0.208	23.16	0.207
15	16QAM	1	74	23.11	0.205	23.11	0.205	23.33	0.215
15	16QAM	36	0	22.70	0.186	22.81	0.191	22.83	0.192
15	16QAM	36	20	22.77	0.189	22.80	0.191	22.79	0.190
15	16QAM	36	39	22.83	0.192	22.81	0.191	22.70	0.186
15	16QAM	75	0	22.78	0.190	22.86	0.193	22.78	0.190



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20800		21100		21400	
Frequency (MHz)				2505		2535		2565	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	24.09	0.256	23.96	0.249	23.99	0.251
10	QPSK	1	25	24.12	0.258	24.02	0.252	24.04	0.254
10	QPSK	1	49	24.05	0.254	24.02	0.252	24.04	0.254
10	QPSK	25	0	22.84	0.192	22.84	0.192	22.83	0.192
10	QPSK	25	12	22.80	0.191	22.92	0.196	22.97	0.198
10	QPSK	25	25	22.73	0.187	22.91	0.195	22.91	0.195
10	QPSK	50	0	22.82	0.191	22.94	0.197	22.93	0.196
10	16QAM	1	0	22.87	0.194	23.05	0.202	22.90	0.195
10	16QAM	1	25	22.86	0.193	22.88	0.194	22.93	0.196
10	16QAM	1	49	23.33	0.215	23.23	0.210	23.14	0.206
10	16QAM	25	0	22.76	0.189	22.64	0.184	22.72	0.187
10	16QAM	25	12	22.58	0.181	22.75	0.188	22.68	0.185
10	16QAM	25	25	22.63	0.183	22.66	0.185	22.58	0.181
10	16QAM	50	0	22.66	0.185	22.75	0.188	22.60	0.182



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20775		21100		21425	
Frequency (MHz)				2502.5		2535		2567.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	24.13	0.259	24.04	0.254	23.94	0.248
5	QPSK	1	12	24.00	0.251	23.93	0.247	24.01	0.252
5	QPSK	1	24	23.94	0.248	24.00	0.251	24.04	0.254
5	QPSK	12	0	22.64	0.184	22.72	0.187	22.64	0.184
5	QPSK	12	7	22.71	0.187	22.86	0.193	22.78	0.190
5	QPSK	12	13	22.73	0.187	22.89	0.195	22.74	0.188
5	QPSK	25	0	22.74	0.188	22.75	0.188	22.70	0.186
5	16QAM	1	0	22.72	0.187	22.70	0.186	22.76	0.189
5	16QAM	1	12	22.77	0.189	22.99	0.199	22.89	0.195
5	16QAM	1	24	22.83	0.192	23.02	0.200	22.84	0.192
5	16QAM	12	0	22.74	0.188	22.80	0.191	22.71	0.187
5	16QAM	12	7	22.63	0.183	22.65	0.184	22.61	0.182
5	16QAM	12	13	22.63	0.183	22.69	0.186	22.82	0.191
5	16QAM	25	0	22.60	0.182	22.65	0.184	22.67	0.185



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23060		23095		23130	
Frequency (MHz)				704		707.5		711	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	17.05	0.051	17.21	0.053	17.10	0.051
10	QPSK	1	25	16.91	0.049	17.04	0.051	17.07	0.051
10	QPSK	1	49	17.01	0.050	17.02	0.050	17.01	0.050
10	QPSK	25	0	16.30	0.043	16.40	0.044	16.31	0.043
10	QPSK	25	12	16.27	0.042	16.21	0.042	16.00	0.040
10	QPSK	25	25	16.32	0.043	16.38	0.043	16.31	0.043
10	QPSK	50	0	16.33	0.043	16.35	0.043	16.26	0.042
10	16QAM	1	0	16.26	0.042	15.81	0.038	15.94	0.039
10	16QAM	1	25	16.01	0.040	15.96	0.039	16.10	0.041
10	16QAM	1	49	16.10	0.041	16.15	0.041	16.04	0.040
10	16QAM	25	0	15.99	0.040	16.01	0.040	15.95	0.039
10	16QAM	25	12	16.03	0.040	16.07	0.040	15.96	0.039
10	16QAM	25	25	16.08	0.041	16.09	0.041	16.03	0.040
10	16QAM	50	0	15.98	0.040	16.06	0.040	16.11	0.041



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23035		23095		23155	
Frequency (MHz)				701.5		707.5		713.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	16.80	0.048	17.13	0.052	16.91	0.049
5	QPSK	1	12	16.96	0.050	17.12	0.052	16.96	0.050
5	QPSK	1	24	16.92	0.049	17.11	0.051	16.97	0.050
5	QPSK	12	0	16.03	0.040	16.10	0.041	16.09	0.041
5	QPSK	12	7	16.14	0.041	16.16	0.041	16.13	0.041
5	QPSK	12	13	16.09	0.041	16.12	0.041	16.09	0.041
5	QPSK	25	0	16.05	0.040	16.17	0.041	16.13	0.041
5	16QAM	1	0	16.06	0.040	16.08	0.041	16.10	0.041
5	16QAM	1	12	16.23	0.042	16.18	0.041	16.19	0.042
5	16QAM	1	24	16.19	0.042	16.17	0.041	16.13	0.041
5	16QAM	12	0	15.93	0.039	15.90	0.039	15.93	0.039
5	16QAM	12	7	16.07	0.040	16.12	0.041	15.96	0.039
5	16QAM	12	13	16.02	0.040	15.99	0.040	16.04	0.040
5	16QAM	25	0	16.03	0.040	15.99	0.040	16.01	0.040



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23025		23095		23165	
Frequency (MHz)				700.5		707.5		714.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	16.88	0.049	17.15	0.052	16.82	0.048
3	QPSK	1	8	17.06	0.051	17.05	0.051	16.95	0.050
3	QPSK	1	14	17.00	0.050	17.11	0.051	17.06	0.051
3	QPSK	8	0	16.11	0.041	16.09	0.041	16.09	0.041
3	QPSK	8	4	16.14	0.041	16.17	0.041	16.18	0.041
3	QPSK	8	7	16.09	0.041	16.17	0.041	16.11	0.041
3	QPSK	15	0	16.08	0.041	16.16	0.041	16.02	0.040
3	16QAM	1	0	16.09	0.041	16.45	0.044	16.04	0.040
3	16QAM	1	8	16.29	0.043	16.27	0.042	16.22	0.042
3	16QAM	1	14	16.12	0.041	16.17	0.041	16.03	0.040
3	16QAM	8	0	16.09	0.041	15.98	0.040	16.01	0.040
3	16QAM	8	4	16.14	0.041	16.11	0.041	16.22	0.042
3	16QAM	8	7	15.98	0.040	16.01	0.040	16.07	0.040
3	16QAM	15	0	15.96	0.039	15.89	0.039	15.88	0.039



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23017		23095		23173	
Frequency (MHz)				699.7		707.5		715.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	16.91	0.049	17.08	0.051	16.88	0.049
1.4	QPSK	1	3	17.02	0.050	17.01	0.050	17.03	0.050
1.4	QPSK	1	5	16.91	0.049	16.96	0.050	16.92	0.049
1.4	QPSK	3	0	16.86	0.049	16.99	0.050	16.97	0.050
1.4	QPSK	3	1	17.07	0.051	17.07	0.051	16.74	0.047
1.4	QPSK	3	3	17.02	0.050	17.04	0.051	17.00	0.050
1.4	QPSK	6	0	16.08	0.041	16.05	0.040	16.03	0.040
1.4	16QAM	1	0	16.12	0.041	16.06	0.040	15.91	0.039
1.4	16QAM	1	3	15.93	0.039	16.36	0.043	16.03	0.040
1.4	16QAM	1	5	16.05	0.040	16.06	0.040	16.05	0.040
1.4	16QAM	3	0	15.89	0.039	15.92	0.039	15.93	0.039
1.4	16QAM	3	1	16.05	0.040	16.13	0.041	15.97	0.040
1.4	16QAM	3	3	15.88	0.039	16.02	0.040	16.02	0.040
1.4	16QAM	6	0	15.81	0.038	16.01	0.040	15.91	0.039



LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				/		23230		/	
Frequency (MHz)				/		782		/	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	/	/	16.90	0.049	/	/
10	QPSK	1	25	/	/	16.82	0.048	/	/
10	QPSK	1	49	/	/	16.87	0.049	/	/
10	QPSK	25	0	/	/	15.99	0.040	/	/
10	QPSK	25	12	/	/	15.80	0.038	/	/
10	QPSK	25	25	/	/	15.74	0.037	/	/
10	QPSK	50	0	/	/	15.77	0.038	/	/
10	16QAM	1	0	/	/	15.89	0.039	/	/
10	16QAM	1	25	/	/	15.81	0.038	/	/
10	16QAM	1	49	/	/	16.11	0.041	/	/
10	16QAM	25	0	/	/	15.92	0.039	/	/
10	16QAM	25	12	/	/	15.87	0.039	/	/
10	16QAM	25	25	/	/	16.00	0.040	/	/
10	16QAM	50	0	/	/	15.77	0.038	/	/



LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23205		23230		23255	
Frequency (MHz)				779.5		782		784.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	16.79	0.048	16.82	0.048	16.80	0.048
5	QPSK	1	12	16.79	0.048	16.81	0.048	16.77	0.048
5	QPSK	1	24	16.78	0.048	16.76	0.047	16.69	0.047
5	QPSK	12	0	15.70	0.037	15.78	0.038	15.87	0.039
5	QPSK	12	7	15.77	0.038	15.76	0.038	15.85	0.038
5	QPSK	12	13	15.69	0.037	15.85	0.038	15.83	0.038
5	QPSK	25	0	15.76	0.038	15.73	0.037	15.83	0.038
5	16QAM	1	0	15.83	0.038	16.19	0.042	15.98	0.040
5	16QAM	1	12	15.89	0.039	16.04	0.040	15.92	0.039
5	16QAM	1	24	15.99	0.040	15.81	0.038	15.82	0.038
5	16QAM	12	0	16.42	0.044	16.39	0.044	16.32	0.043
5	16QAM	12	7	16.43	0.044	16.32	0.043	16.44	0.044
5	16QAM	12	13	16.40	0.044	16.39	0.044	16.43	0.044
5	16QAM	25	0	15.77	0.038	15.81	0.038	15.83	0.038



LTE Band 17				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23780		23790		23800	
Frequency (MHz)				709		710		711	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	17.60	0.058	17.63	0.058	17.60	0.058
10	QPSK	1	25	17.48	0.056	17.44	0.055	17.50	0.056
10	QPSK	1	49	17.41	0.055	17.44	0.055	17.39	0.055
10	QPSK	25	0	16.71	0.047	16.77	0.048	16.69	0.047
10	QPSK	25	12	16.56	0.045	16.50	0.045	16.64	0.046
10	QPSK	25	25	16.54	0.045	16.54	0.045	16.63	0.046
10	QPSK	50	0	16.67	0.046	16.54	0.045	16.55	0.045
10	16QAM	1	0	16.40	0.044	16.59	0.046	16.73	0.047
10	16QAM	1	25	16.61	0.046	16.90	0.049	16.74	0.047
10	16QAM	1	49	16.57	0.045	16.82	0.048	16.87	0.049
10	16QAM	25	0	16.51	0.045	16.75	0.047	16.74	0.047
10	16QAM	25	12	16.57	0.045	16.72	0.047	16.70	0.047
10	16QAM	25	25	16.40	0.044	16.66	0.046	16.71	0.047
10	16QAM	50	0	16.44	0.044	16.73	0.047	16.70	0.047



LTE Band 17				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23755		23790		23825	
Frequency (MHz)				706.5		710		713.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	17.51	0.056	17.47	0.056	17.43	0.055
5	QPSK	1	12	17.50	0.056	17.46	0.056	17.45	0.056
5	QPSK	1	24	17.42	0.055	17.48	0.056	17.47	0.056
5	QPSK	12	0	16.58	0.045	16.76	0.047	16.92	0.049
5	QPSK	12	7	16.70	0.047	16.79	0.048	16.87	0.049
5	QPSK	12	13	16.53	0.045	16.81	0.048	16.87	0.049
5	QPSK	25	0	16.56	0.045	16.73	0.047	16.86	0.049
5	16QAM	1	0	17.04	0.051	17.09	0.051	16.81	0.048
5	16QAM	1	12	17.21	0.053	16.77	0.048	17.14	0.052
5	16QAM	1	24	17.05	0.051	17.10	0.051	17.26	0.053
5	16QAM	12	0	16.49	0.045	16.52	0.045	16.73	0.047
5	16QAM	12	7	16.49	0.045	16.56	0.045	16.68	0.047
5	16QAM	12	13	16.40	0.044	16.65	0.046	16.68	0.047
5	16QAM	25	0	16.50	0.045	16.62	0.046	16.66	0.046



LTE Band 38				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				37850		38000		38150	
Frequency (MHz)				2580		2595		2610	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	22.65	0.184	22.67	0.185	22.60	0.182
20	QPSK	1	49	22.60	0.182	22.60	0.182	22.61	0.182
20	QPSK	1	99	22.61	0.182	22.56	0.180	22.66	0.185
20	QPSK	50	0	21.76	0.150	21.77	0.150	21.75	0.150
20	QPSK	50	24	21.61	0.145	21.54	0.143	21.51	0.142
20	QPSK	50	50	21.75	0.150	21.55	0.143	21.54	0.143
20	QPSK	100	0	21.54	0.143	21.61	0.145	21.55	0.143
20	16QAM	1	0	21.71	0.148	21.54	0.143	21.61	0.145
20	16QAM	1	49	21.59	0.144	21.54	0.143	21.49	0.141
20	16QAM	1	99	21.51	0.142	21.61	0.145	21.59	0.144
20	16QAM	50	0	21.61	0.145	21.54	0.143	21.84	0.153
20	16QAM	50	24	21.82	0.152	21.51	0.142	21.61	0.145
20	16QAM	50	50	21.88	0.154	21.97	0.157	21.58	0.144
20	16QAM	100	0	21.81	0.152	21.96	0.157	21.65	0.146



LTE Band 38				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				37825		38000		38175	
Frequency (MHz)				2577.5		2595		2612.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	22.37	0.173	22.57	0.181	22.44	0.175
15	QPSK	1	37	22.55	0.180	22.61	0.182	22.44	0.175
15	QPSK	1	74	22.53	0.179	22.54	0.179	22.37	0.173
15	QPSK	36	0	21.71	0.148	21.56	0.143	21.76	0.150
15	QPSK	36	20	21.76	0.150	21.52	0.142	21.72	0.149
15	QPSK	36	39	21.79	0.151	21.51	0.142	21.75	0.150
15	QPSK	75	0	21.81	0.152	21.54	0.143	21.78	0.151
15	16QAM	1	0	21.62	0.145	21.91	0.155	21.56	0.143
15	16QAM	1	37	21.79	0.151	21.48	0.141	21.62	0.145
15	16QAM	1	74	21.71	0.148	21.05	0.127	21.46	0.140
15	16QAM	36	0	21.78	0.151	21.45	0.140	21.65	0.146
15	16QAM	36	20	21.72	0.149	21.41	0.138	21.61	0.145
15	16QAM	36	39	21.85	0.153	21.95	0.157	21.65	0.146
15	16QAM	75	0	21.86	0.153	21.43	0.139	21.65	0.146



LTE Band 38				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				37800		38000		38200	
Frequency (MHz)				2575		2595		2615	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	22.46	0.176	22.54	0.179	22.42	0.175
10	QPSK	1	25	22.51	0.178	22.41	0.174	22.37	0.173
10	QPSK	1	49	22.38	0.173	22.61	0.182	22.61	0.182
10	QPSK	25	0	21.76	0.150	21.64	0.146	21.60	0.145
10	QPSK	25	12	21.75	0.150	21.53	0.142	21.60	0.145
10	QPSK	25	25	21.84	0.153	21.48	0.141	21.64	0.146
10	QPSK	50	0	21.88	0.154	21.56	0.143	21.62	0.145
10	16QAM	1	0	21.23	0.133	21.38	0.137	21.63	0.146
10	16QAM	1	25	21.32	0.136	21.53	0.142	21.46	0.140
10	16QAM	1	49	21.28	0.134	21.45	0.140	21.59	0.144
10	16QAM	25	0	21.31	0.135	21.59	0.144	21.77	0.150
10	16QAM	25	12	21.28	0.134	21.45	0.140	21.71	0.148
10	16QAM	25	25	21.35	0.136	21.57	0.144	21.84	0.153
10	16QAM	50	0	21.31	0.135	21.55	0.143	21.73	0.149



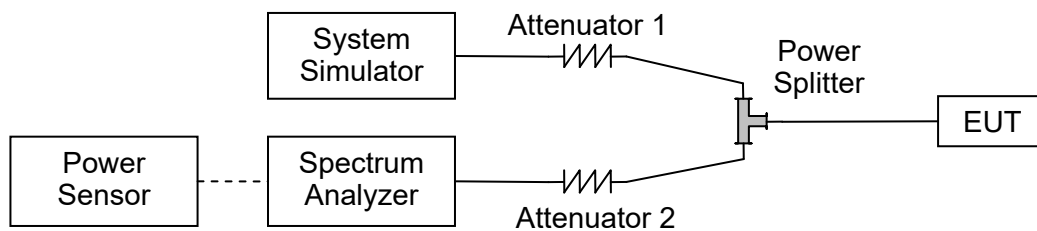
LTE Band 38				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				37775		38000		38225	
Frequency (MHz)				2572.5		2595		2617.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	22.31	0.170	22.54	0.179	22.51	0.178
5	QPSK	1	12	22.46	0.176	22.41	0.174	22.54	0.179
5	QPSK	1	24	22.37	0.173	22.51	0.178	22.24	0.167
5	QPSK	12	0	21.69	0.148	21.73	0.149	21.82	0.152
5	QPSK	12	7	21.82	0.152	21.58	0.144	21.88	0.154
5	QPSK	12	13	21.82	0.152	21.80	0.151	21.94	0.156
5	QPSK	25	0	21.83	0.152	21.81	0.152	21.96	0.157
5	16QAM	1	0	21.66	0.147	21.82	0.152	21.51	0.142
5	16QAM	1	12	21.83	0.152	21.99	0.158	21.67	0.147
5	16QAM	1	24	21.69	0.148	21.80	0.151	21.52	0.142
5	16QAM	12	0	21.24	0.133	21.46	0.140	21.64	0.146
5	16QAM	12	7	21.19	0.132	21.56	0.143	21.75	0.150
5	16QAM	12	13	21.32	0.136	21.46	0.140	21.68	0.147
5	16QAM	25	0	21.20	0.132	21.54	0.143	21.75	0.150

2.2. Occupied Bandwidth

2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

2.2.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.2.3. Test Procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

2.2.4. Test Result



LTE Band 2				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.29
	Low	16QAM	1.09	1.30
	Mid	QPSK	1.09	1.26
	Mid	16QAM	1.10	1.29
	High	QPSK	1.10	1.28
	High	16QAM	1.10	1.28
3	Low	QPSK	2.69	2.91
	Low	16QAM	2.69	2.93
	Mid	QPSK	2.69	2.91
	Mid	16QAM	2.69	2.93
	High	QPSK	2.69	2.93
	High	16QAM	2.69	2.93
5	Low	QPSK	4.49	4.94
	Low	16QAM	4.50	4.94
	Mid	QPSK	4.50	4.94
	Mid	16QAM	4.51	4.93
	High	QPSK	4.50	4.93
	High	16QAM	4.51	4.93
10	Low	QPSK	9.02	9.69
	Low	16QAM	8.98	9.74
	Mid	QPSK	8.99	9.77
	Mid	16QAM	8.98	9.70
	High	QPSK	9.00	9.77
	High	16QAM	8.97	9.70
15	Low	QPSK	13.49	14.68
	Low	16QAM	13.48	14.74
	Mid	QPSK	13.50	14.60
	Mid	16QAM	13.46	14.59
	High	QPSK	13.46	14.57
	High	16QAM	13.48	14.64
20	Low	QPSK	17.97	19.37
	Low	16QAM	17.98	19.36
	Mid	QPSK	17.95	19.40
	Mid	16QAM	17.99	19.38
	High	QPSK	17.95	19.29
	High	16QAM	17.96	19.31



LTE Band 4				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.28
	Low	16QAM	1.10	1.29
	Mid	QPSK	1.10	1.28
	Mid	16QAM	1.09	1.29
	High	QPSK	1.10	1.27
	High	16QAM	1.10	1.31
3	Low	QPSK	2.69	2.92
	Low	16QAM	2.69	2.93
	Mid	QPSK	2.69	2.92
	Mid	16QAM	2.69	2.93
	High	QPSK	2.69	2.92
	High	16QAM	2.69	2.93
5	Low	QPSK	4.50	4.94
	Low	16QAM	4.50	4.92
	Mid	QPSK	4.50	4.90
	Mid	16QAM	4.51	4.90
	High	QPSK	4.50	4.93
	High	16QAM	4.49	4.93
10	Low	QPSK	8.98	9.72
	Low	16QAM	8.95	9.68
	Mid	QPSK	9.00	9.77
	Mid	16QAM	8.98	10.32
	High	QPSK	9.00	9.75
	High	16QAM	8.98	9.73
15	Low	QPSK	13.42	14.48
	Low	16QAM	13.43	14.41
	Mid	QPSK	13.52	14.62
	Mid	16QAM	13.49	14.54
	High	QPSK	13.50	14.52
	High	16QAM	13.48	14.48
20	Low	QPSK	17.89	19.22
	Low	16QAM	17.92	19.29
	Mid	QPSK	17.97	19.82
	Mid	16QAM	18.02	19.37
	High	QPSK	17.94	19.34
	High	16QAM	17.95	19.32



LTE Band 5				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.27
	Low	16QAM	1.10	1.30
	Mid	QPSK	1.09	1.27
	Mid	16QAM	1.10	1.29
	High	QPSK	1.10	1.27
	High	16QAM	1.10	1.31
3	Low	QPSK	2.69	2.92
	Low	16QAM	2.69	2.91
	Mid	QPSK	2.69	2.92
	Mid	16QAM	2.69	2.93
	High	QPSK	2.69	2.87
	High	16QAM	2.70	2.94
5	Low	QPSK	4.50	4.92
	Low	16QAM	4.49	4.93
	Mid	QPSK	4.49	4.94
	Mid	16QAM	4.50	4.93
	High	QPSK	4.49	4.80
	High	16QAM	4.47	4.75
10	Low	QPSK	9.00	9.75
	Low	16QAM	8.98	9.72
	Mid	QPSK	9.00	9.72
	Mid	16QAM	8.96	9.69
	High	QPSK	8.97	9.70
	High	16QAM	8.89	9.34



LTE Band 7				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.50	4.91
	Low	16QAM	4.51	4.96
	Mid	QPSK	4.50	4.92
	Mid	16QAM	4.50	4.89
	High	QPSK	4.50	4.93
	High	16QAM	4.51	4.90
10	Low	QPSK	9.00	9.75
	Low	16QAM	8.96	9.68
	Mid	QPSK	9.00	9.78
	Mid	16QAM	8.97	9.67
	High	QPSK	8.98	9.70
	High	16QAM	8.96	9.74
15	Low	QPSK	13.44	14.54
	Low	16QAM	13.44	14.49
	Mid	QPSK	13.51	14.56
	Mid	16QAM	13.49	14.61
	High	QPSK	13.50	14.57
	High	16QAM	13.45	14.49
20	Low	QPSK	17.91	19.35
	Low	16QAM	17.90	19.26
	Mid	QPSK	17.97	19.32
	Mid	16QAM	17.96	19.40
	High	QPSK	17.90	19.24
	High	16QAM	17.95	19.35



LTE Band 12				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.28
	Low	16QAM	1.09	1.30
	Mid	QPSK	1.09	1.27
	Mid	16QAM	1.10	1.30
	High	QPSK	1.10	1.27
	High	16QAM	1.10	1.30
3	Low	QPSK	2.69	2.92
	Low	16QAM	2.69	2.92
	Mid	QPSK	2.69	2.93
	Mid	16QAM	2.69	2.93
	High	QPSK	2.69	2.91
	High	16QAM	2.69	2.92
5	Low	QPSK	4.52	5.21
	Low	16QAM	4.51	5.17
	Mid	QPSK	4.51	5.19
	Mid	16QAM	4.52	5.20
	High	QPSK	4.52	5.16
	High	16QAM	4.52	5.12
10	Low	QPSK	9.02	10.17
	Low	16QAM	8.99	10.04
	Mid	QPSK	9.02	10.09
	Mid	16QAM	8.96	9.93
	High	QPSK	8.97	10.00
	High	16QAM	8.94	9.93



LTE Band 13				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.50	5.16
	Low	16QAM	4.51	5.10
	Mid	QPSK	4.51	5.19
	Mid	16QAM	4.51	5.15
	High	QPSK	4.52	5.17
	High	16QAM	4.52	5.13
10	Low	QPSK	/	/
	Low	16QAM	/	/
	Mid	QPSK	9.01	9.94
	Mid	16QAM	8.96	10.01
	High	QPSK	/	/
	High	16QAM	/	/



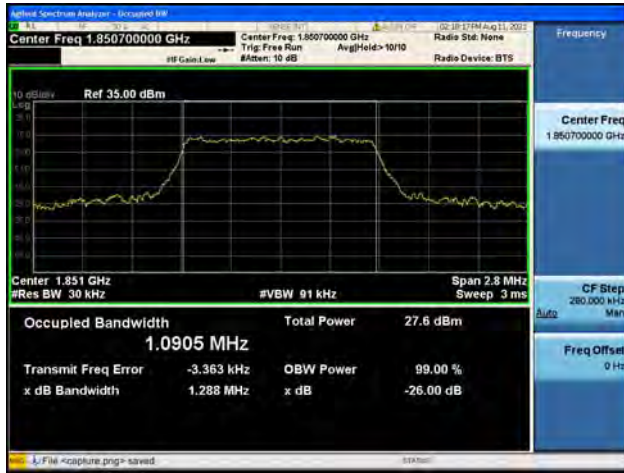
LTE Band 17				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.53	5.19
	Low	16QAM	4.51	5.20
	Mid	QPSK	4.50	5.15
	Mid	16QAM	4.50	5.07
	High	QPSK	4.52	5.16
	High	16QAM	4.52	5.14
10	Low	QPSK	8.97	9.94
	Low	16QAM	8.96	10.07
	Mid	QPSK	8.96	9.97
	Mid	16QAM	8.95	9.80
	High	QPSK	8.95	9.96
	High	16QAM	8.93	9.89



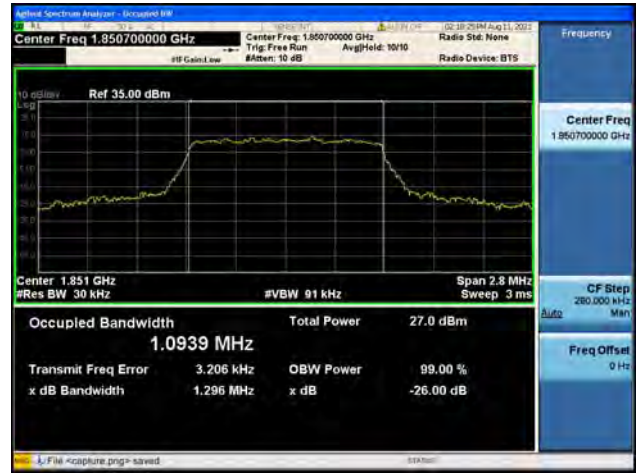
LTE Band 38				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.50	4.98
	Low	16QAM	4.51	5.20
	Mid	QPSK	4.50	5.15
	Mid	16QAM	4.51	5.09
	High	QPSK	4.51	4.95
	High	16QAM	4.51	5.22
10	Low	QPSK	9.01	10.10
	Low	16QAM	8.97	10.10
	Mid	QPSK	8.98	9.92
	Mid	16QAM	8.99	10.29
	High	QPSK	9.01	9.71
	High	16QAM	8.98	11.42
15	Low	QPSK	13.48	14.63
	Low	16QAM	13.48	14.55
	Mid	QPSK	13.50	15.20
	Mid	16QAM	13.50	15.36
	High	QPSK	13.48	14.67
	High	16QAM	13.48	15.21
20	Low	QPSK	17.98	19.78
	Low	16QAM	17.97	19.70
	Mid	QPSK	18.00	20.12
	Mid	16QAM	17.97	20.72
	High	QPSK	17.98	19.65
	High	16QAM	17.91	19.78



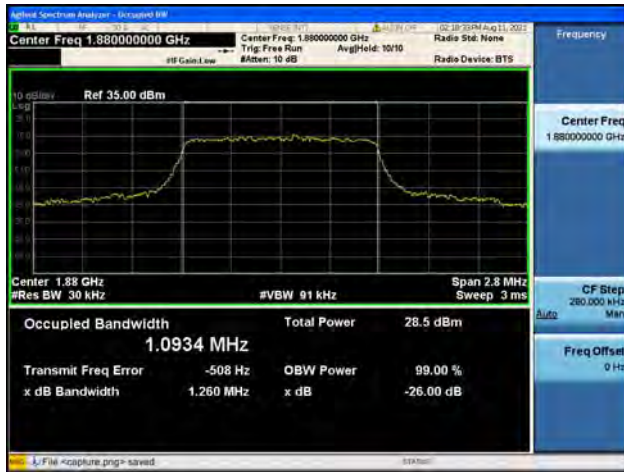
Band2 / 1.4MHz / Low CH / QPSK



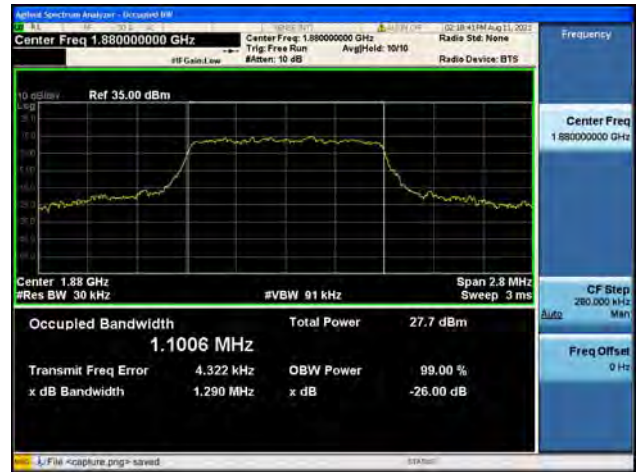
Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Mid CH / QPSK



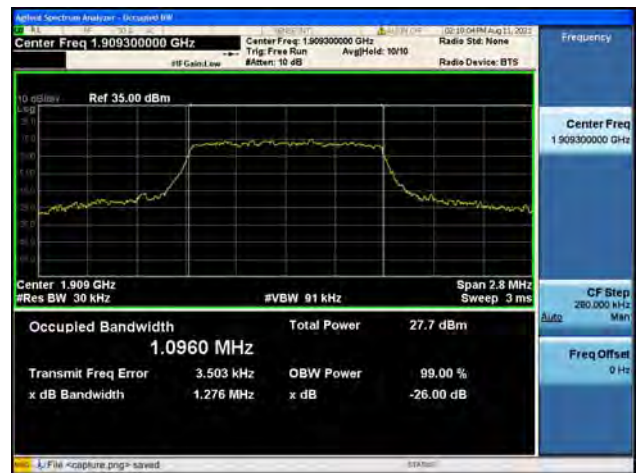
Band2 / 1.4MHz / Mid CH / 16QAM



Band2 / 1.4MHz / High CH / QPSK

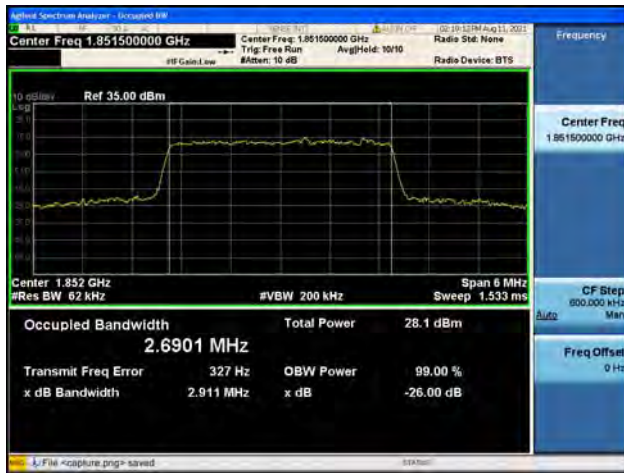


Band2 / 1.4MHz / High CH / 16QAM

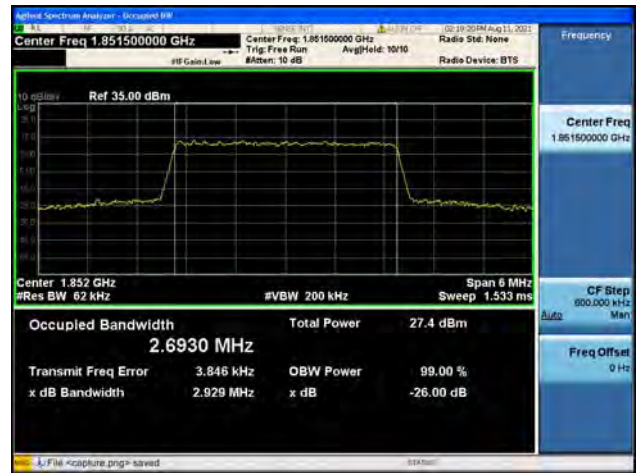




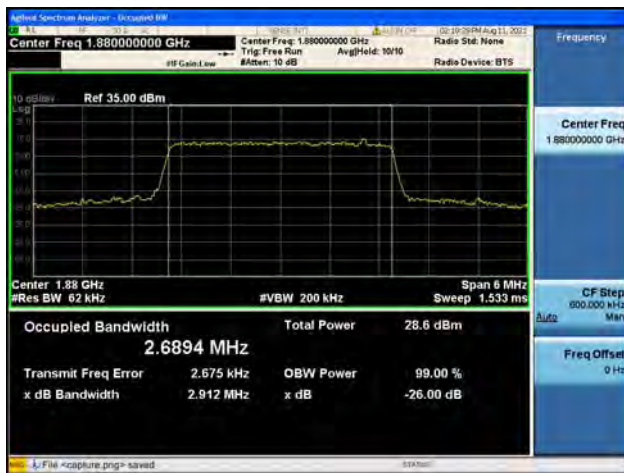
Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Mid CH / QPSK



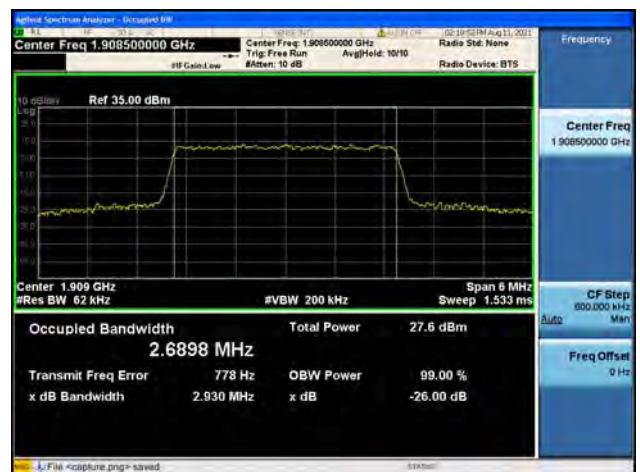
Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK



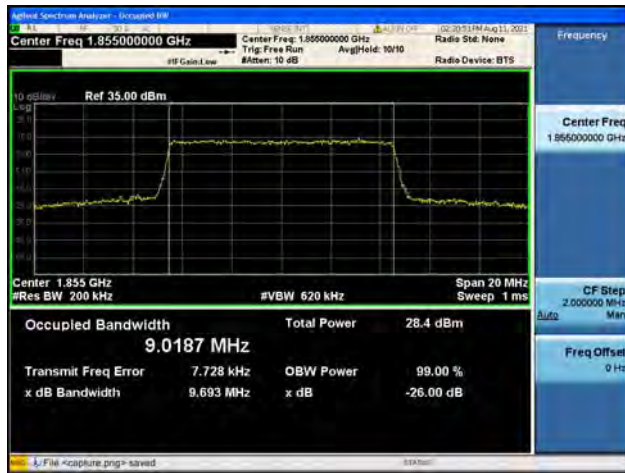
Band2 / 3MHz / High CH / 16QAM



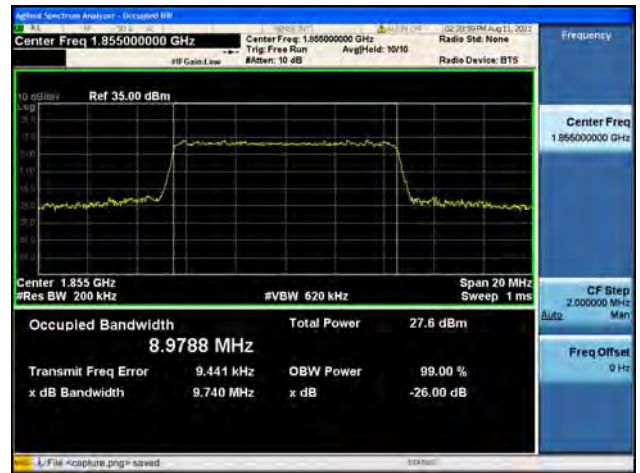




Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM



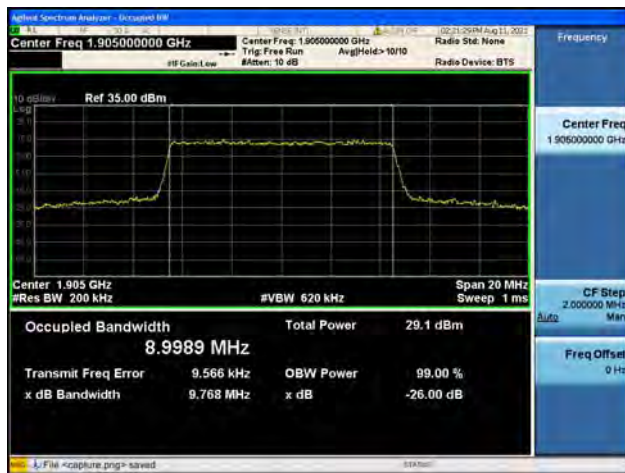
Band2 / 10MHz / Mid CH / QPSK



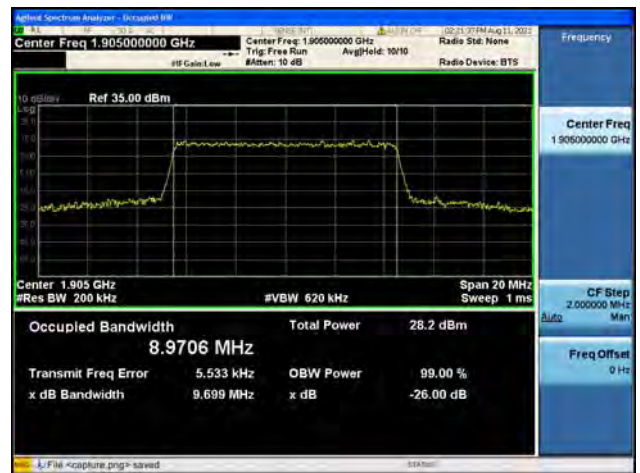
Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK

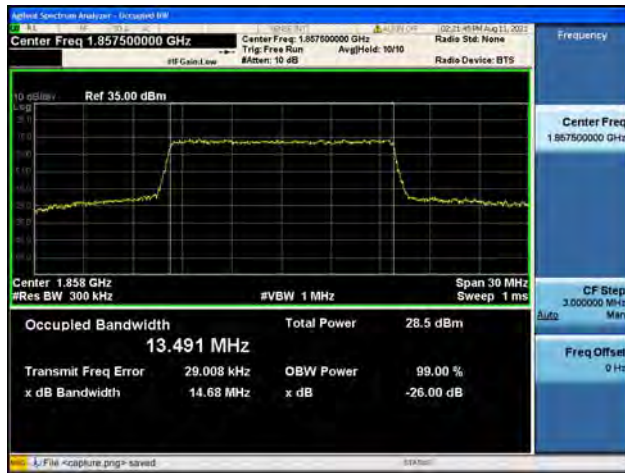


Band2 / 10MHz / High CH / 16QAM





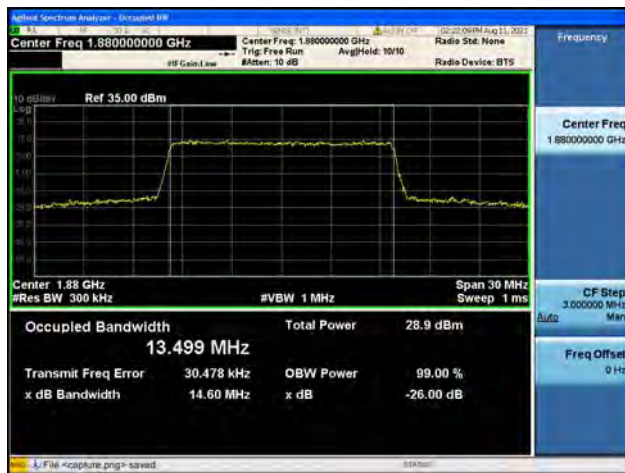
Band2 / 15MHz / Low CH / QPSK



Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Mid CH / QPSK



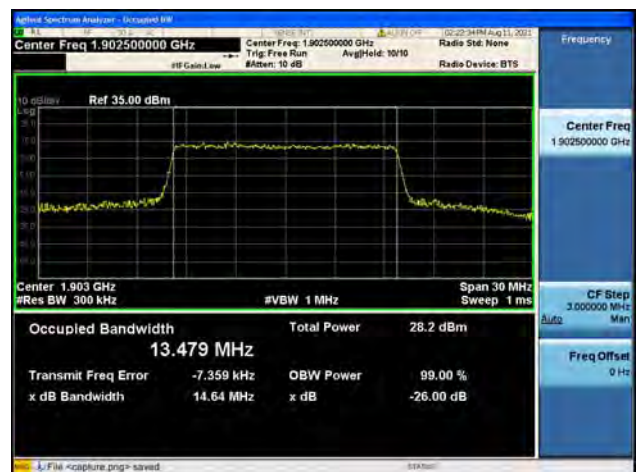
Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK



Band2 / 15MHz / High CH / 16QAM

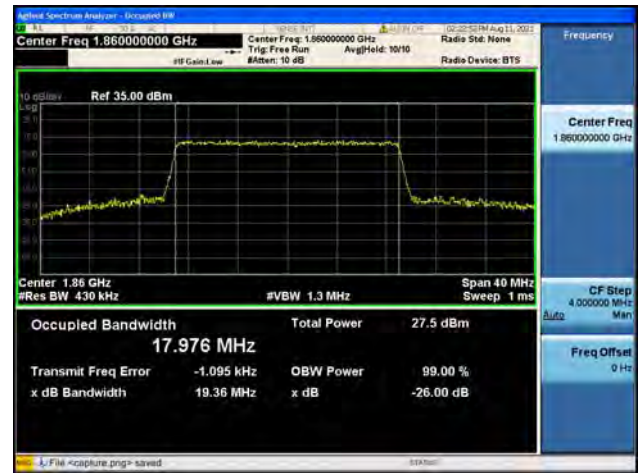




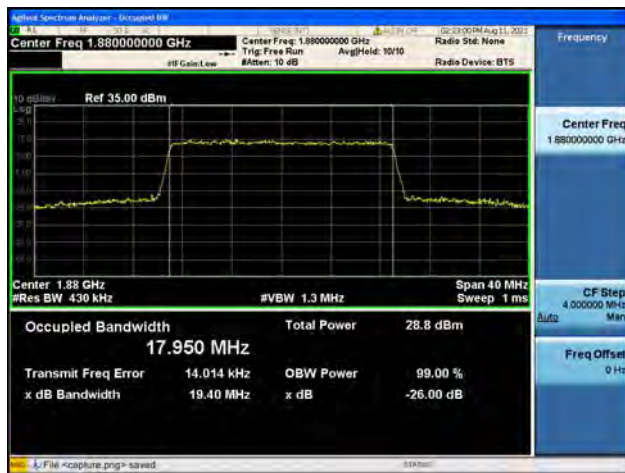
Band2 / 20MHz / Low CH / QPSK



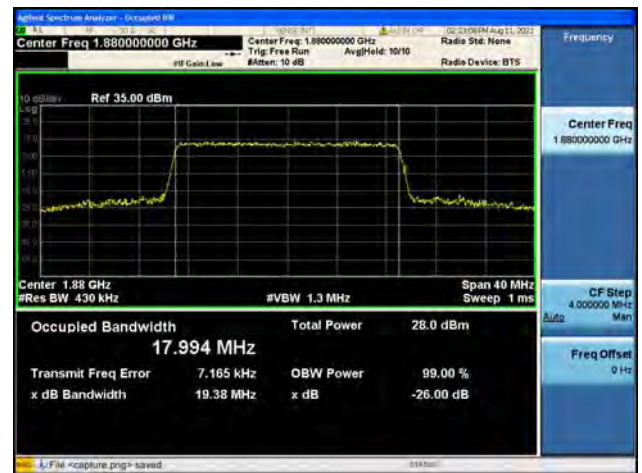
Band2 / 20MHz / Low CH / 16QAM



Band2 / 20MHz / Mid CH / QPSK



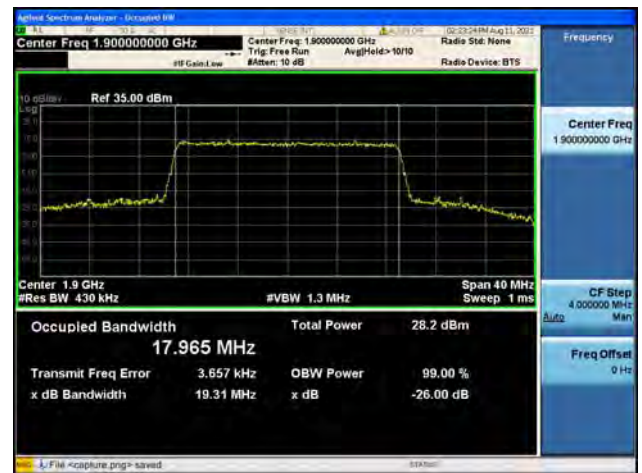
Band2 / 20MHz / Mid CH / 16QAM

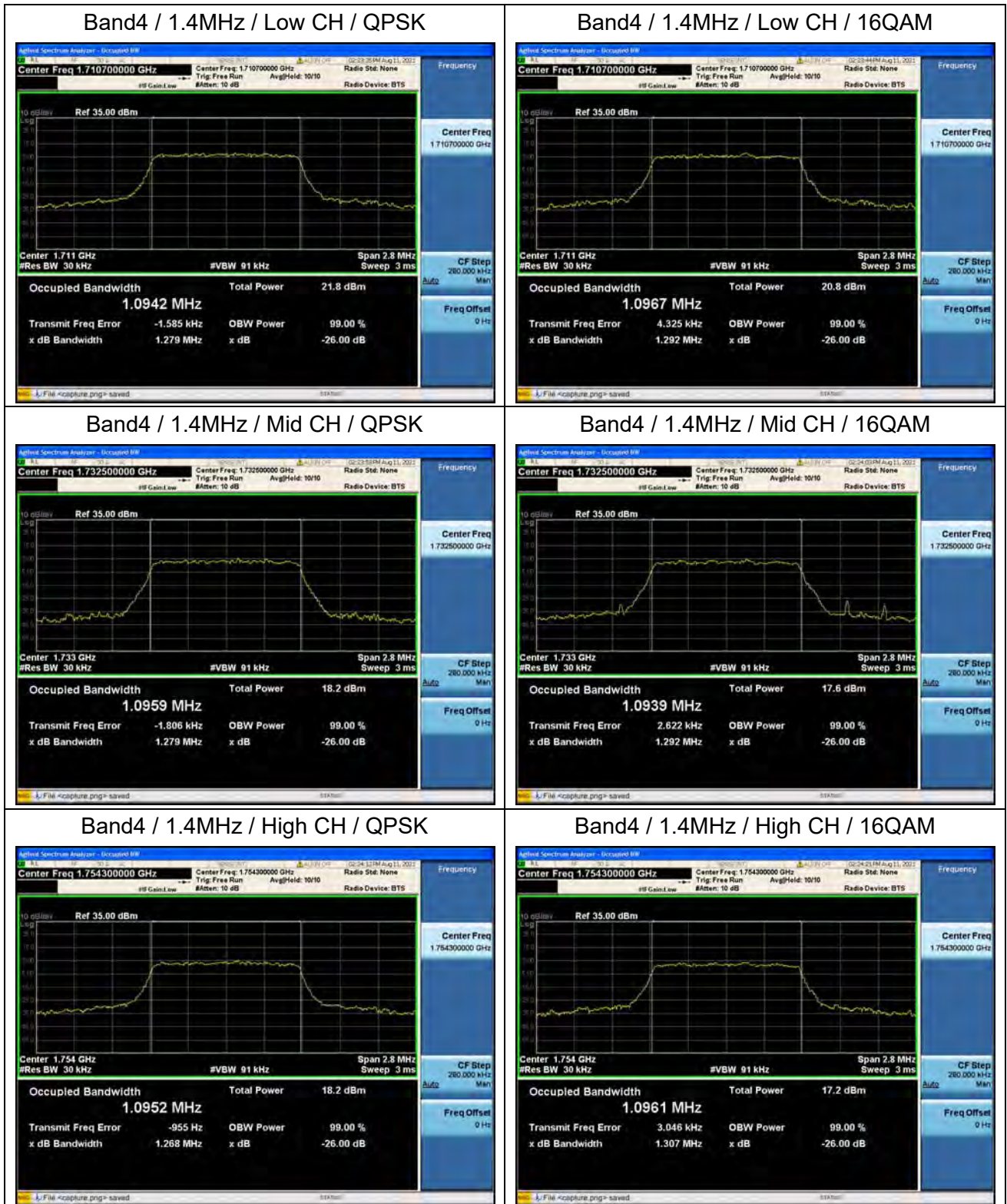


Band2 / 20MHz / High CH / QPSK



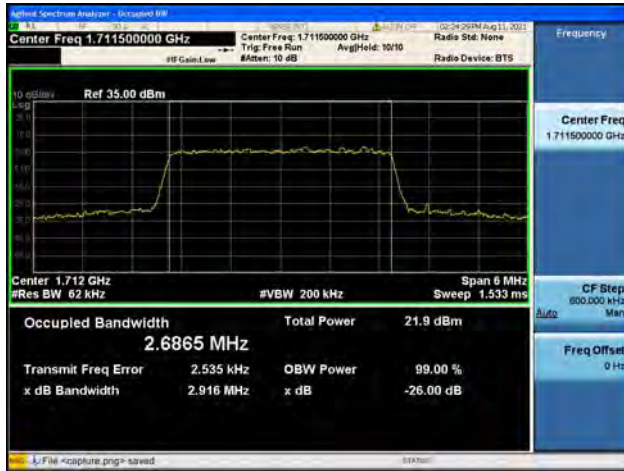
Band2 / 20MHz / High CH / 16QAM



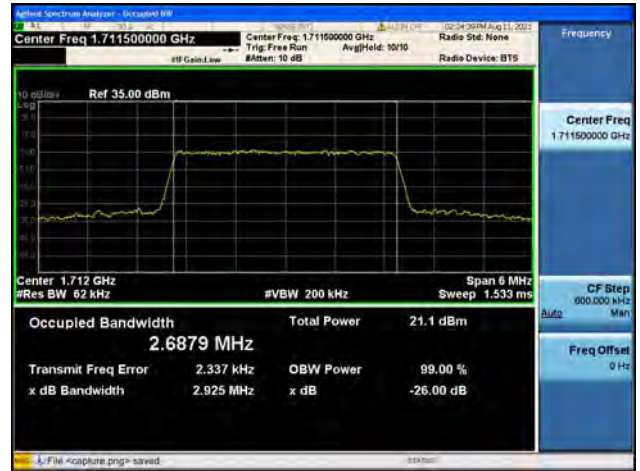




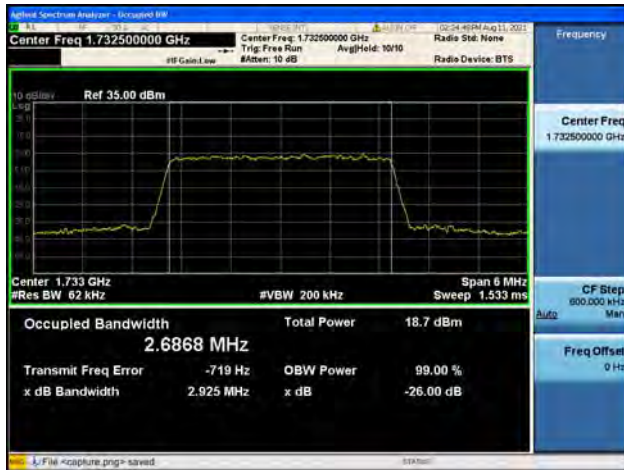
Band4 / 3MHz / Low CH / QPSK



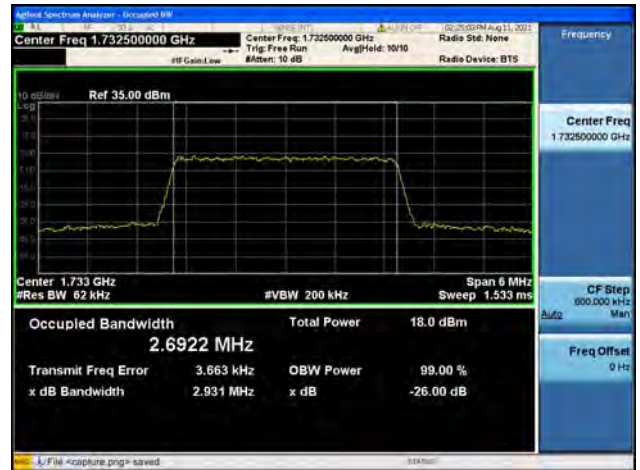
Band4 / 3MHz / Low CH / 16QAM



Band4 / 3MHz / Mid CH / QPSK



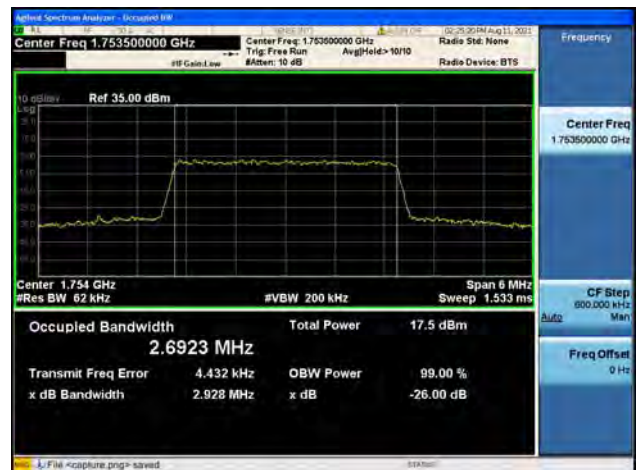
Band4 / 3MHz / Mid CH / 16QAM

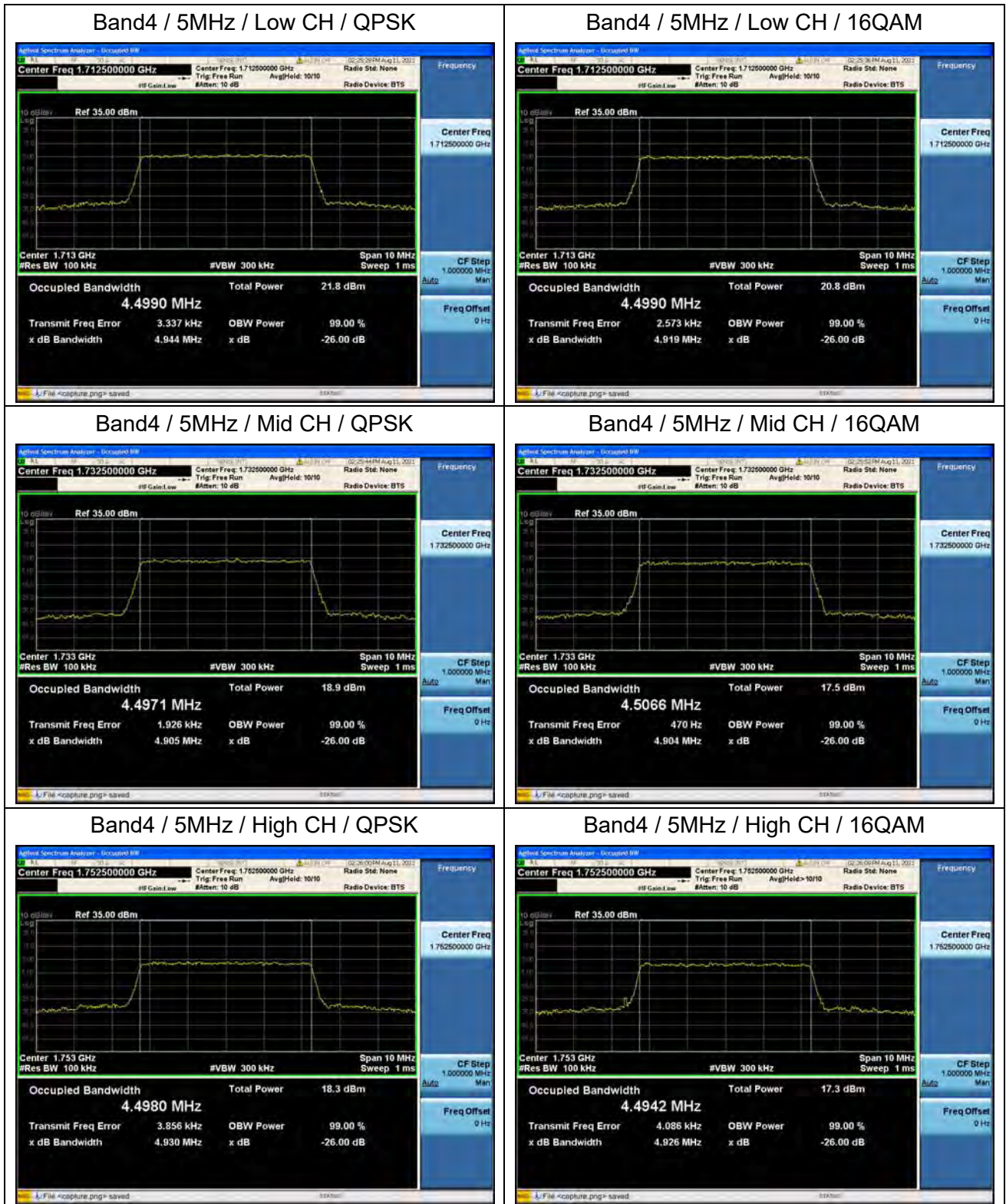


Band4 / 3MHz / High CH / QPSK



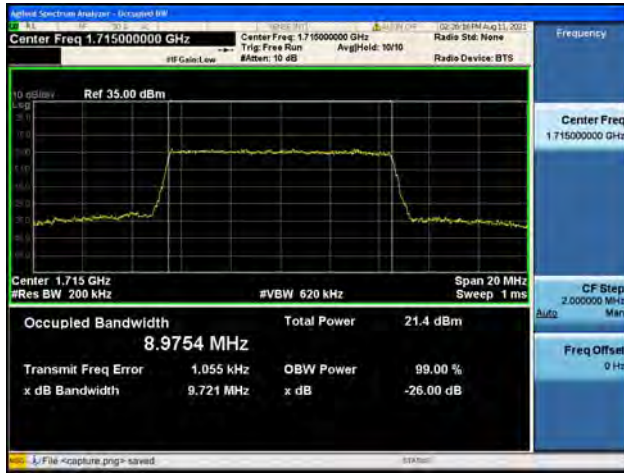
Band4 / 3MHz / High CH / 16QAM



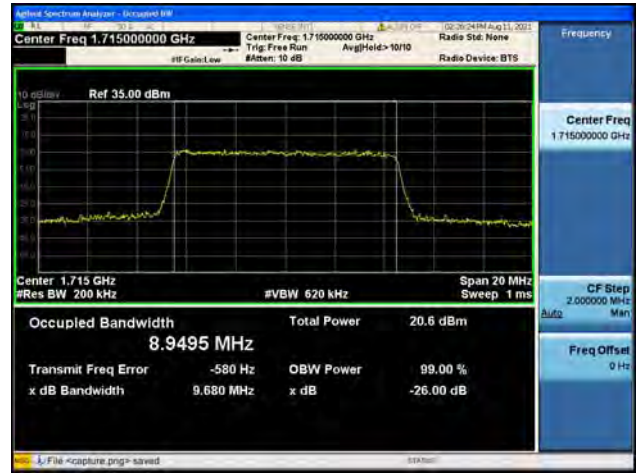




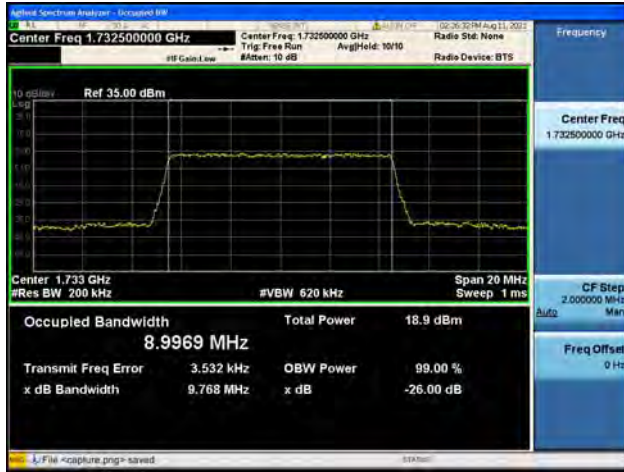
Band4 / 10MHz / Low CH / QPSK



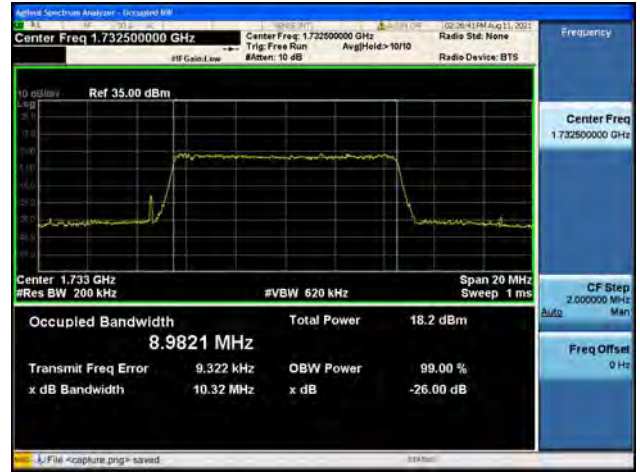
Band4 / 10MHz / Low CH / 16QAM



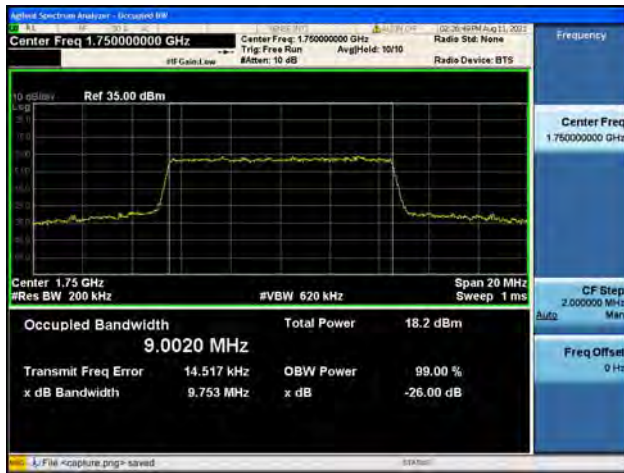
Band4 / 10MHz / Mid CH / QPSK



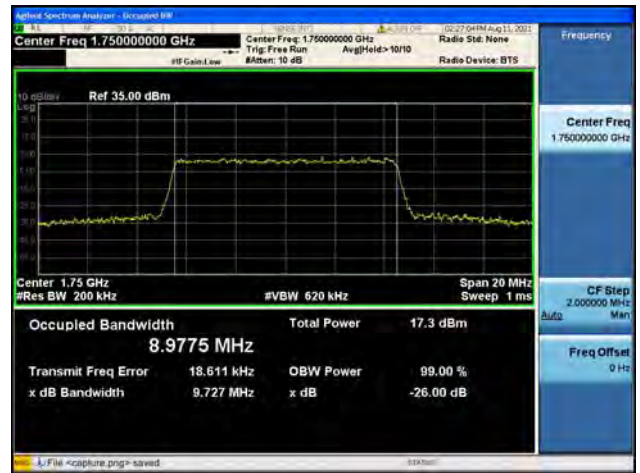
Band4 / 10MHz / Mid CH / 16QAM



Band4 / 10MHz / High CH / QPSK

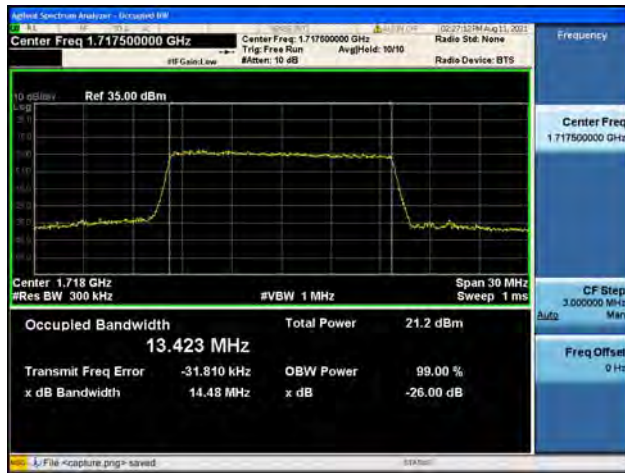


Band4 / 10MHz / High CH / 16QAM

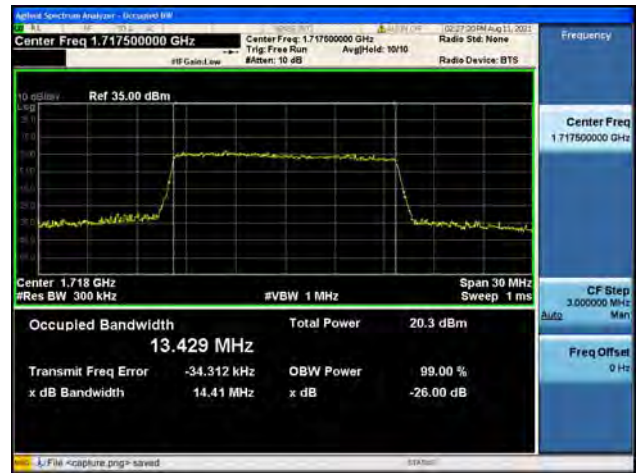




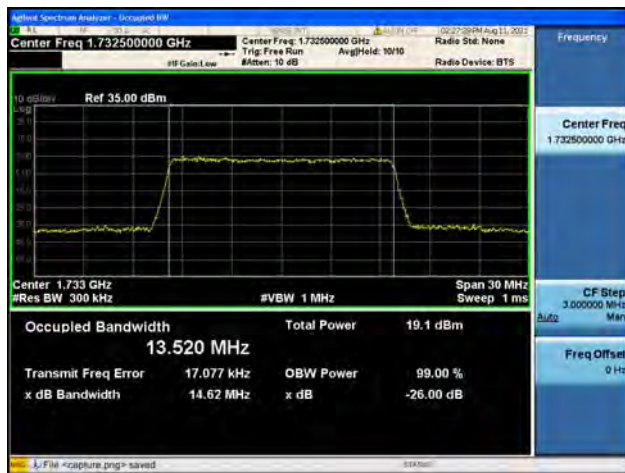
Band4 / 15MHz / Low CH / QPSK



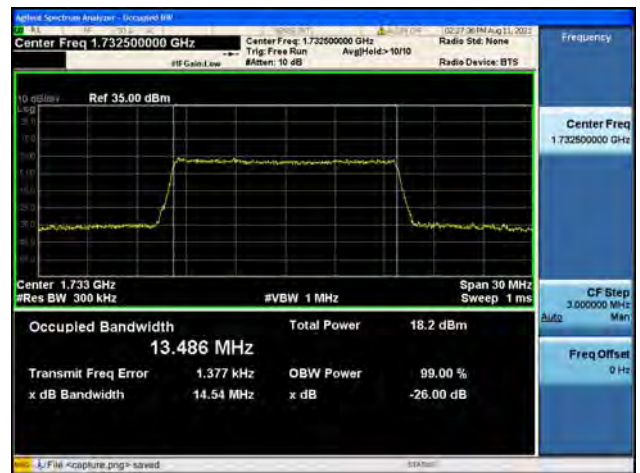
Band4 / 15MHz / Low CH / 16QAM



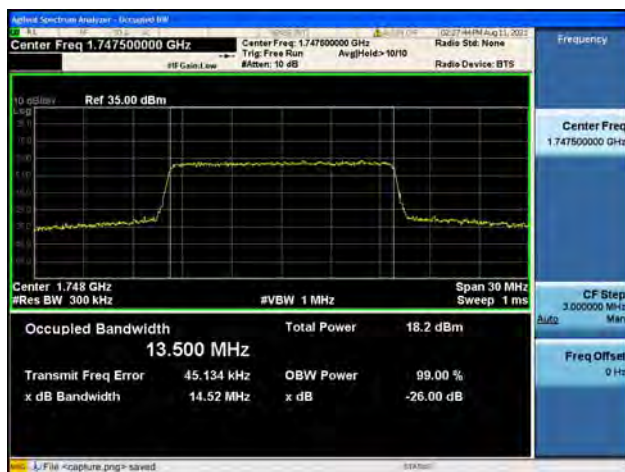
Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM



Band4 / 15MHz / High CH / QPSK

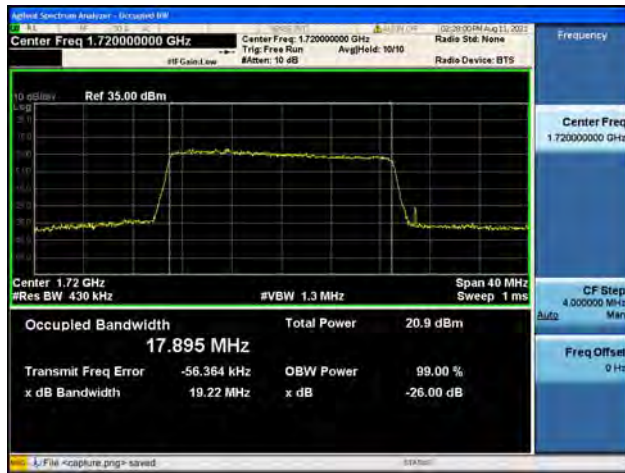


Band4 / 15MHz / High CH / 16QAM





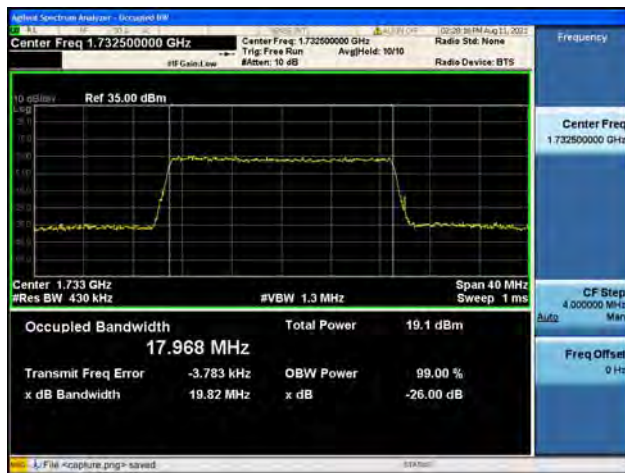
Band4 / 20MHz / Low CH / QPSK



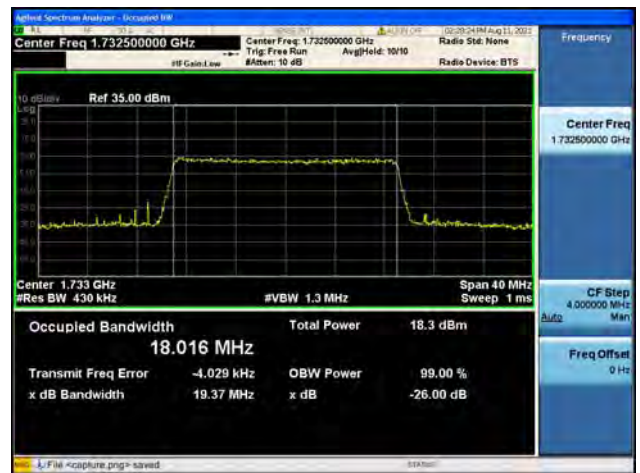
Band4 / 20MHz / Low CH / 16QAM



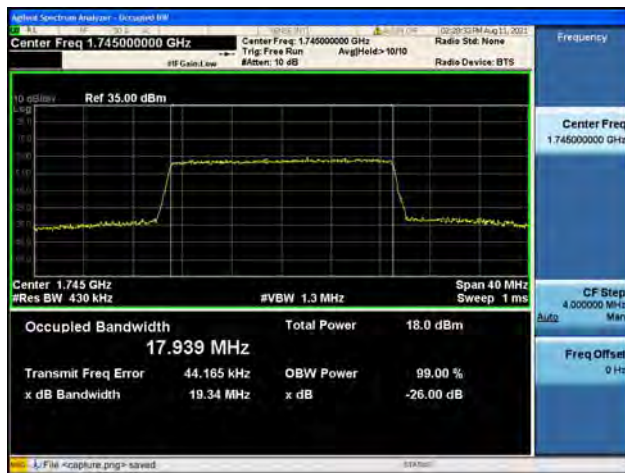
Band4 / 20MHz / Mid CH / QPSK



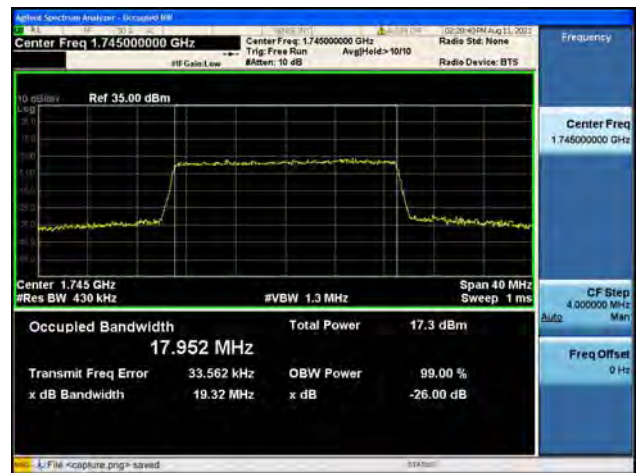
Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / High CH / QPSK



Band4 / 20MHz / High CH / 16QAM

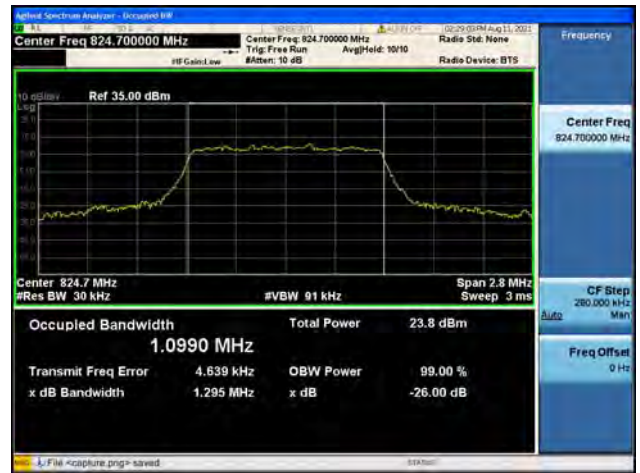




Band5 / 1.4MHz / Low CH / QPSK



Band5 / 1.4MHz / Low CH / 16QAM



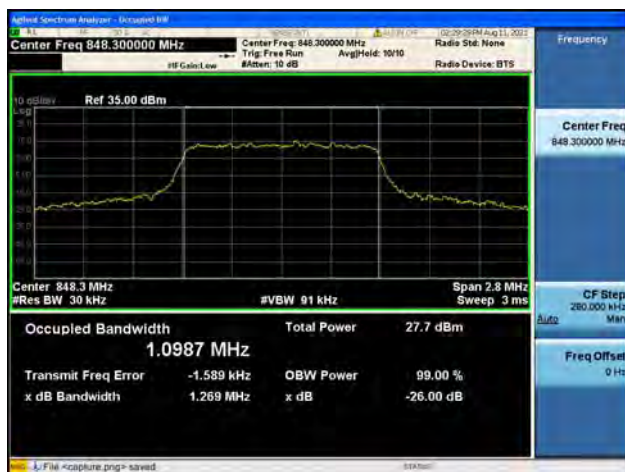
Band5 / 1.4MHz / Mid CH / QPSK



Band5 / 1.4MHz / Mid CH / 16QAM



Band5 / 1.4MHz / High CH / QPSK

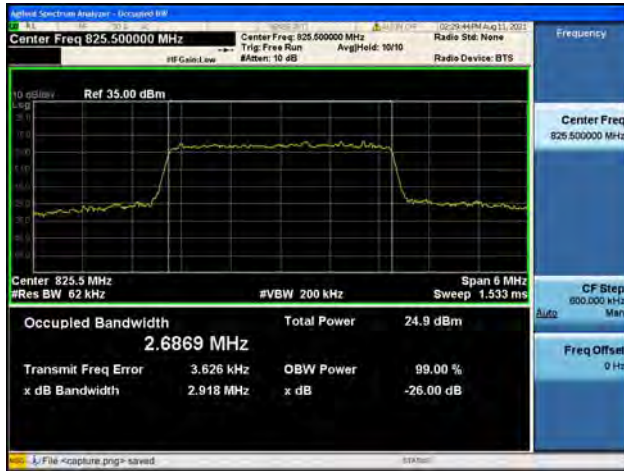


Band5 / 1.4MHz / High CH / 16QAM

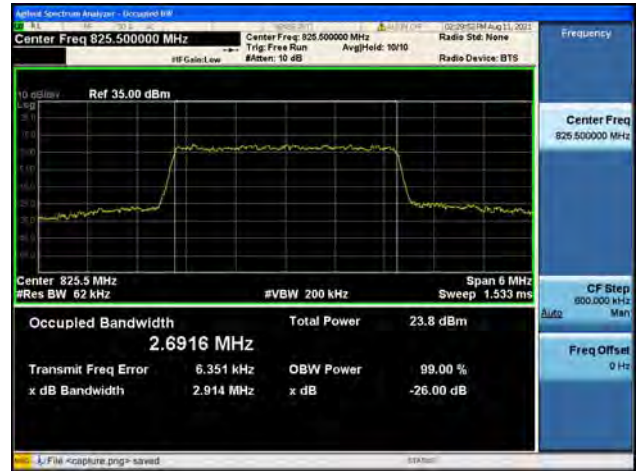




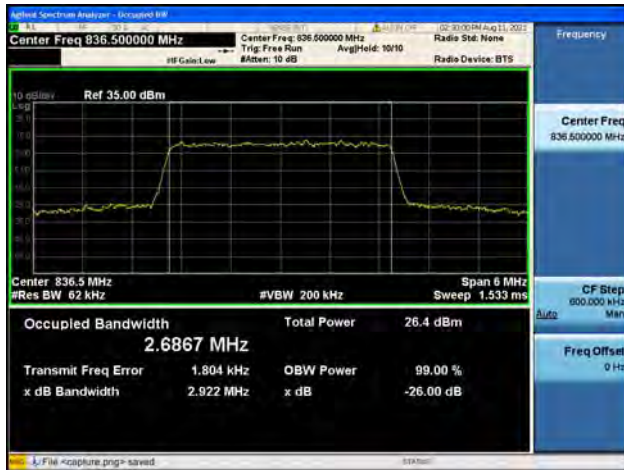
Band5 / 3MHz / Low CH / QPSK



Band5 / 3MHz / Low CH / 16QAM



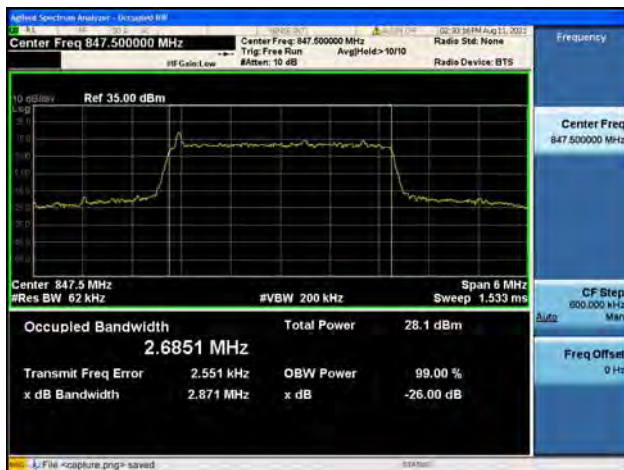
Band5 / 3MHz / Mid CH / QPSK



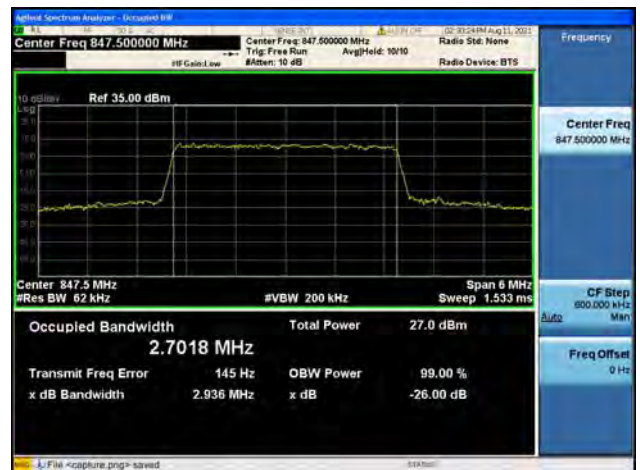
Band5 / 3MHz / Mid CH / 16QAM



Band5 / 3MHz / High CH / QPSK



Band5 / 3MHz / High CH / 16QAM

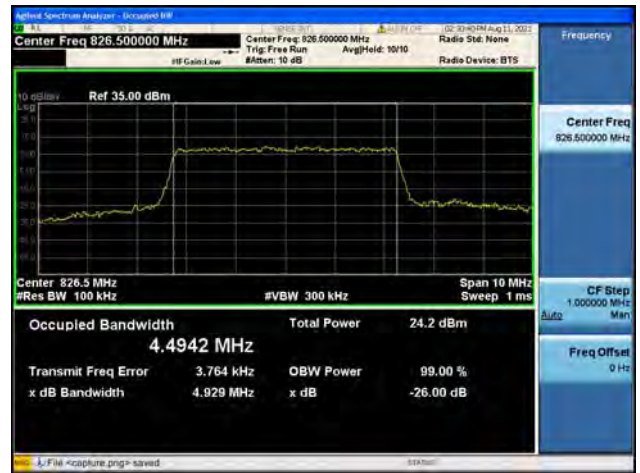




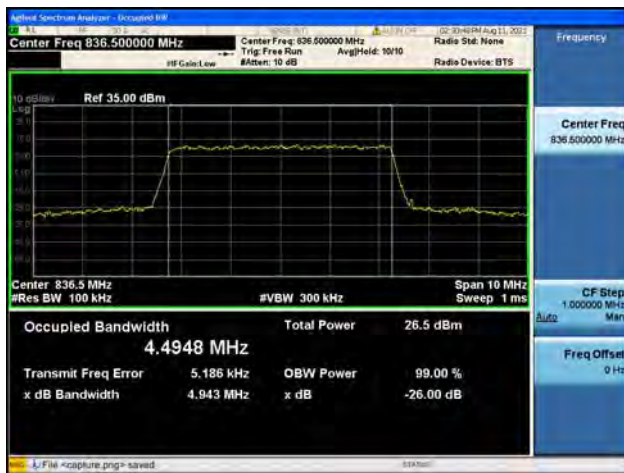
Band5 / 5MHz / Low CH / QPSK



Band5 / 5MHz / Low CH / 16QAM



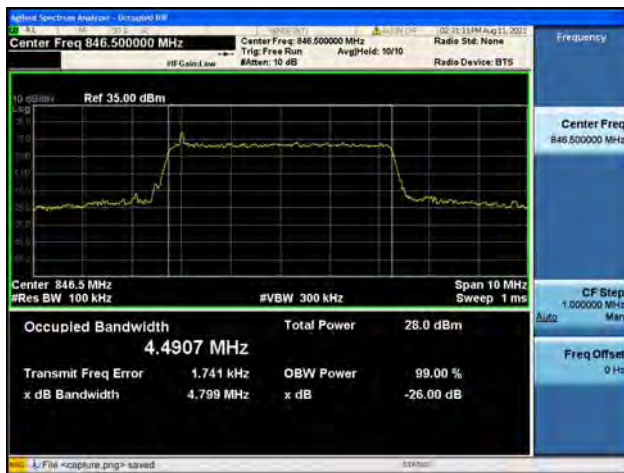
Band5 / 5MHz / Mid CH / QPSK



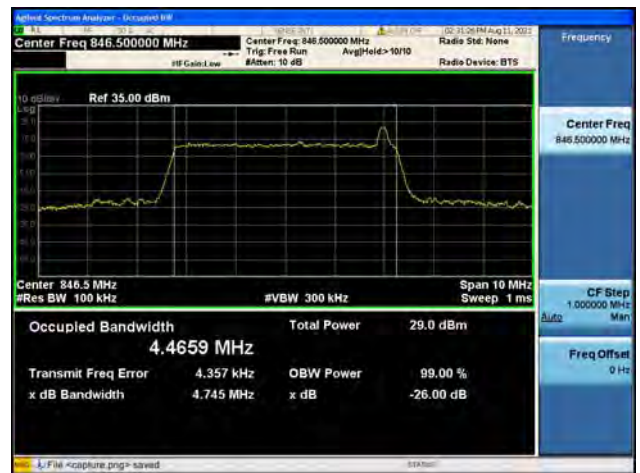
Band5 / 5MHz / Mid CH / 16QAM



Band5 / 5MHz / High CH / QPSK

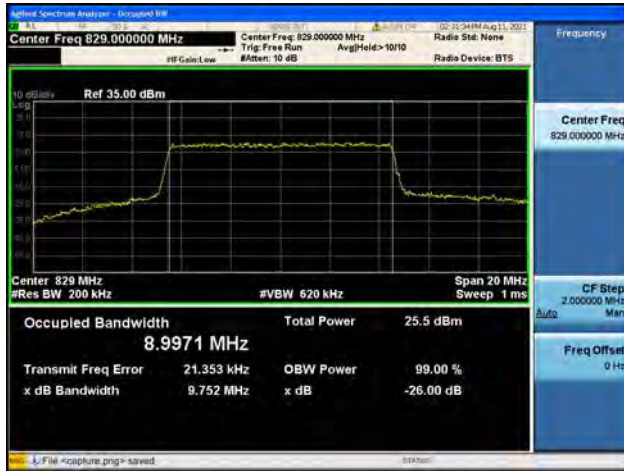


Band5 / 5MHz / High CH / 16QAM





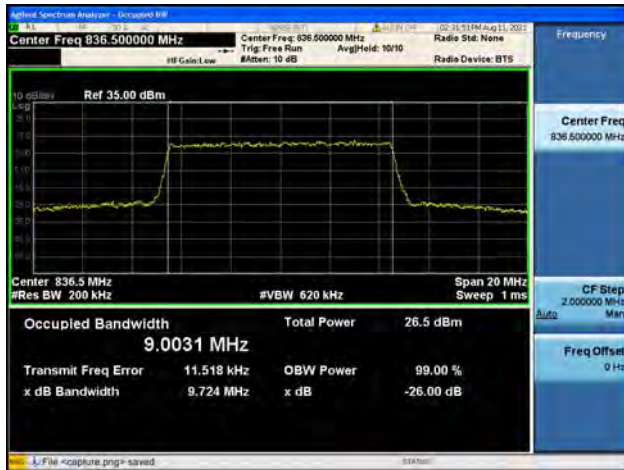
Band5 / 10MHz / Low CH / QPSK



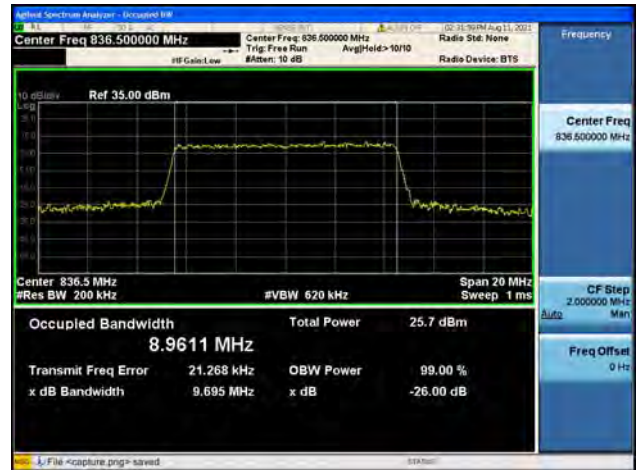
Band5 / 10MHz / Low CH / 16QAM



Band5 / 10MHz / Mid CH / QPSK



Band5 / 10MHz / Mid CH / 16QAM



Band5 / 10MHz / High CH / QPSK

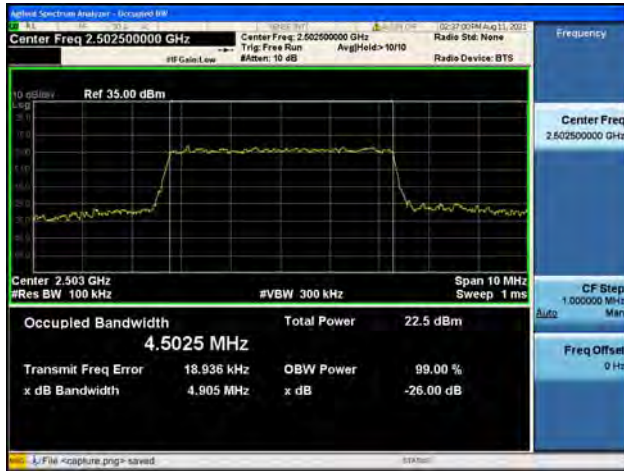


Band5 / 10MHz / High CH / 16QAM

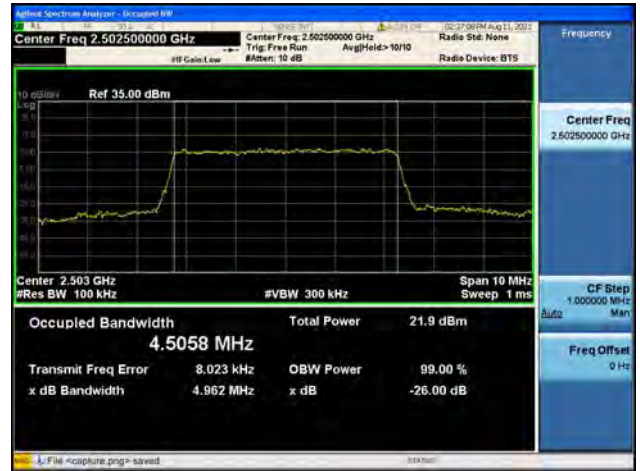




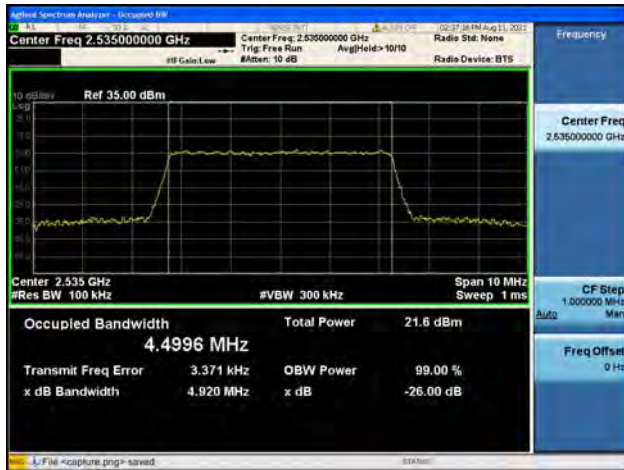
Band7 / 5MHz / Low CH / QPSK



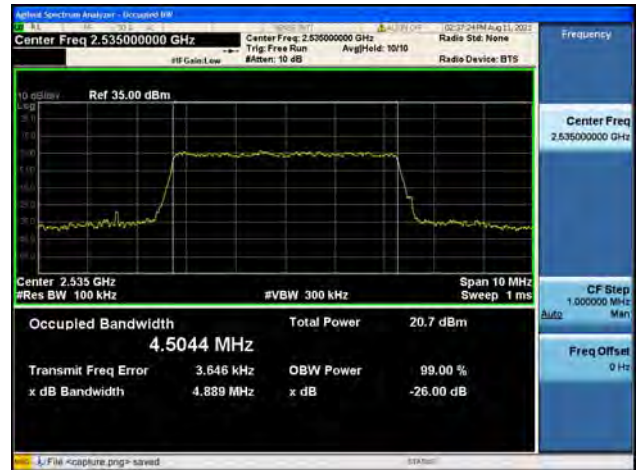
Band7 / 5MHz / Low CH / 16QAM



Band7 / 5MHz / Mid CH / QPSK



Band7 / 5MHz / Mid CH / 16QAM



Band7 / 5MHz / High CH / QPSK

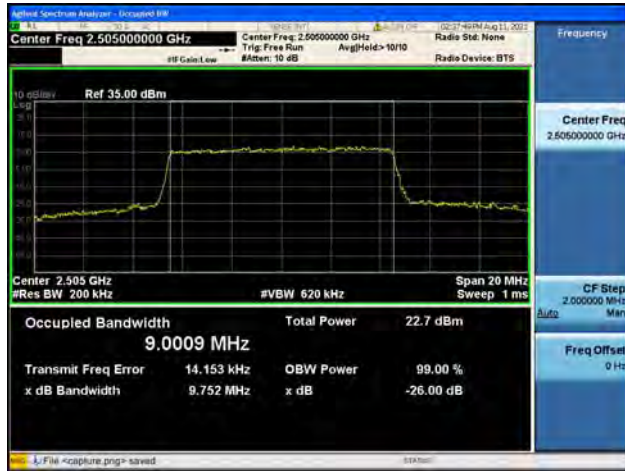


Band7 / 5MHz / High CH / 16QAM

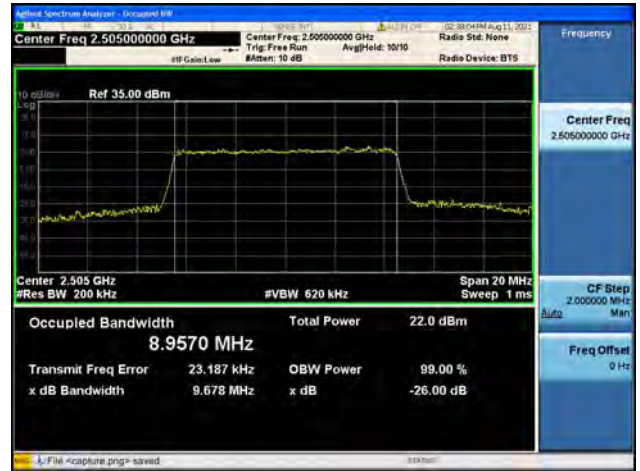




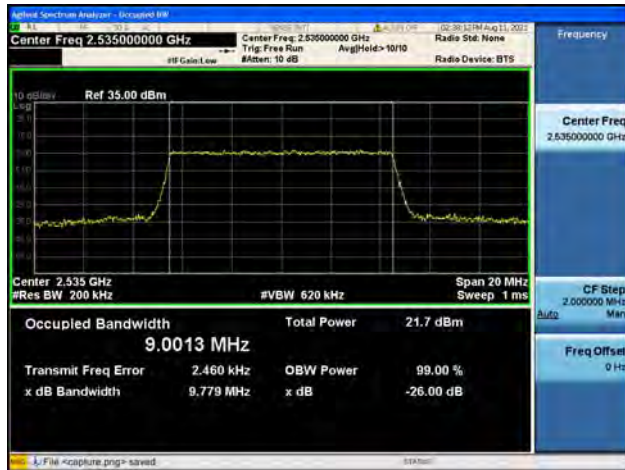
Band7 / 10MHz / Low CH / QPSK



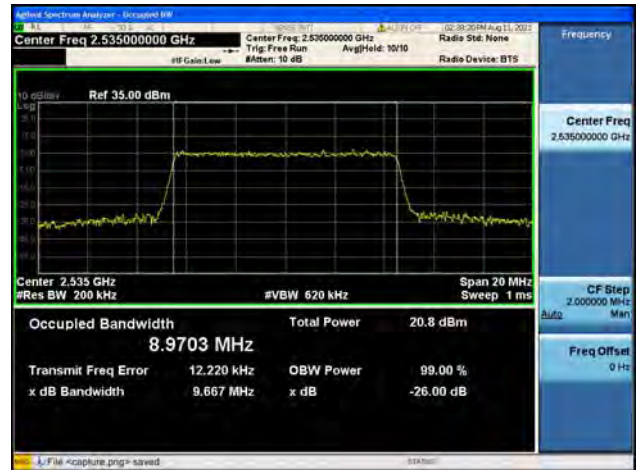
Band7 / 10MHz / Low CH / 16QAM



Band7 / 10MHz / Mid CH / QPSK



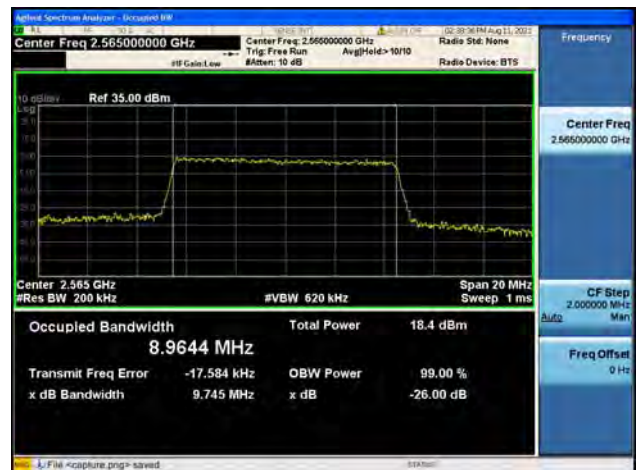
Band7 / 10MHz / Mid CH / 16QAM



Band7 / 10MHz / High CH / QPSK

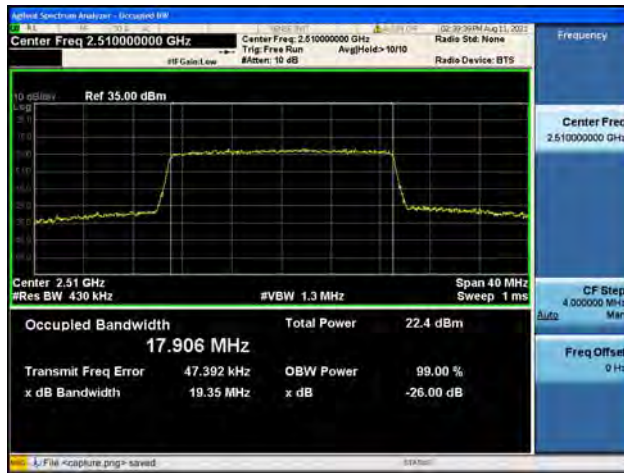


Band7 / 10MHz / High CH / 16QAM

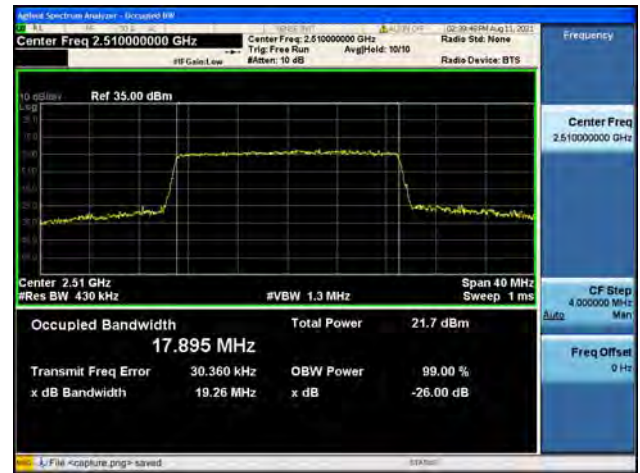




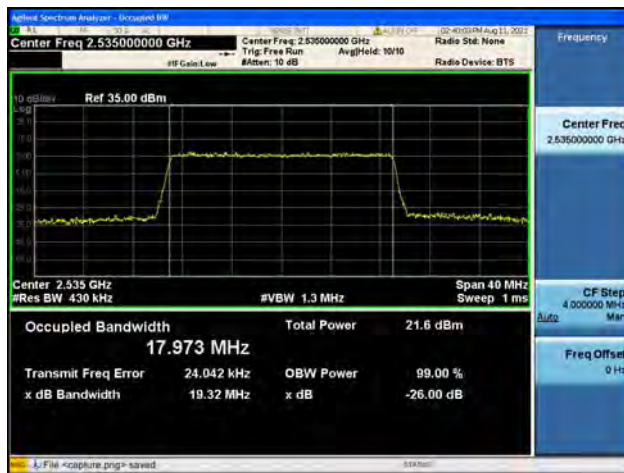
Band7 / 20MHz / Low CH / QPSK



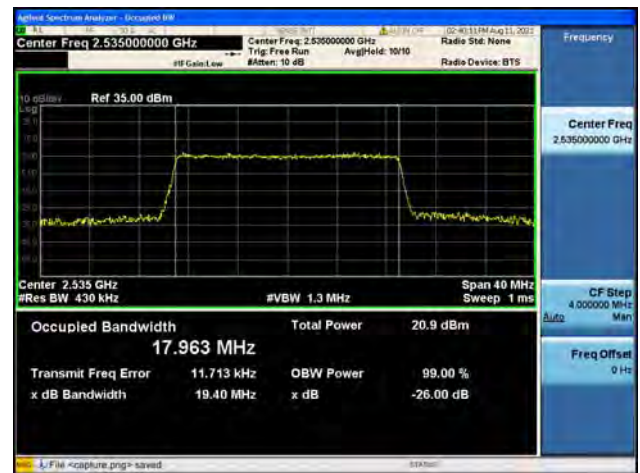
Band7 / 20MHz / Low CH / 16QAM



Band7 / 20MHz / Mid CH / QPSK



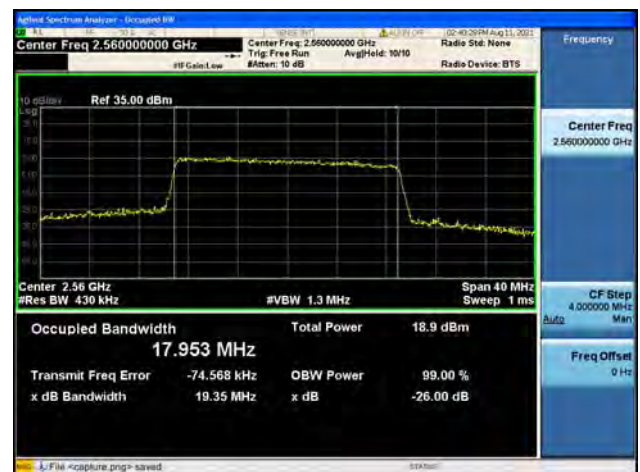
Band7 / 20MHz / Mid CH / 16QAM



Band7 / 20MHz / High CH / QPSK



Band7 / 20MHz / High CH / 16QAM

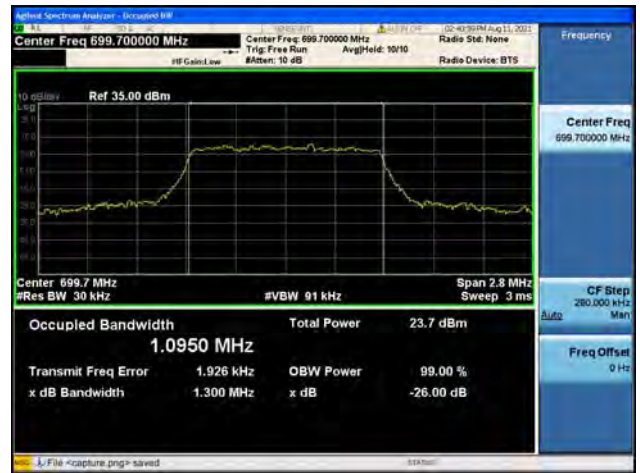




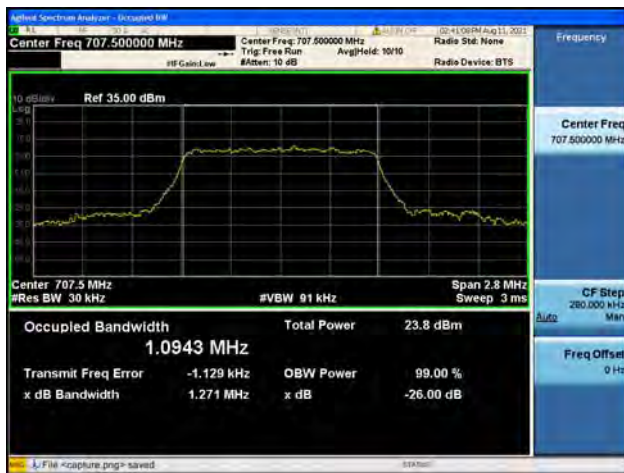
Band12 / 1.4MHz / Low CH / QPSK



Band12 / 1.4MHz / Low CH / 16QAM



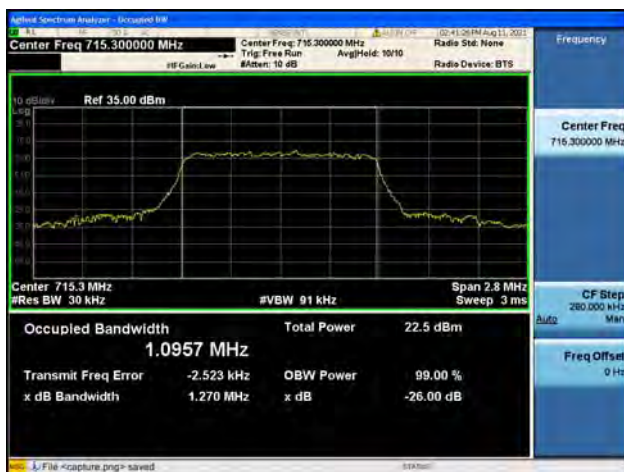
Band12 / 1.4MHz / Mid CH / QPSK



Band12 / 1.4MHz / Mid CH / 16QAM



Band12 / 1.4MHz / High CH / QPSK

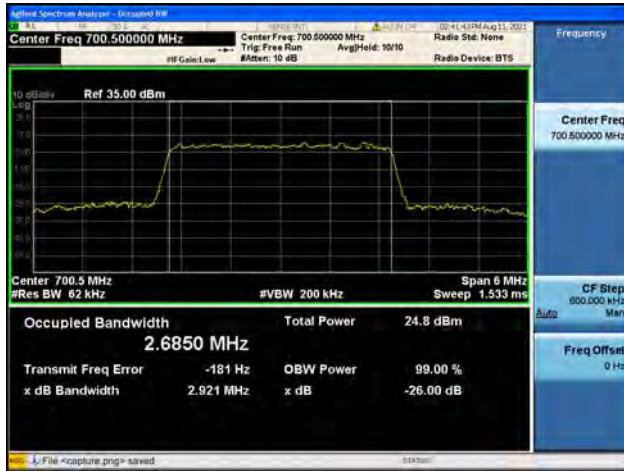


Band12 / 1.4MHz / High CH / 16QAM

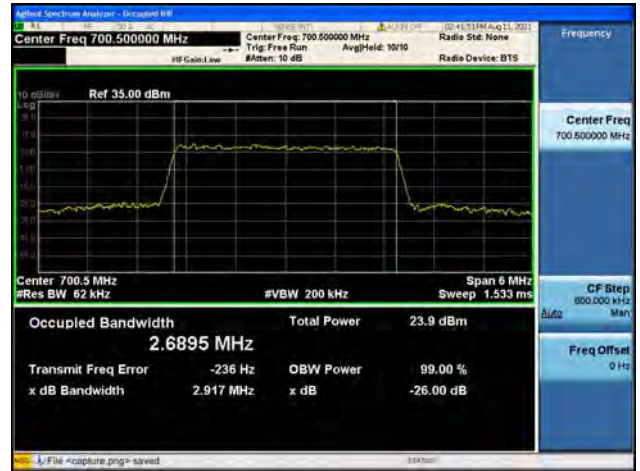




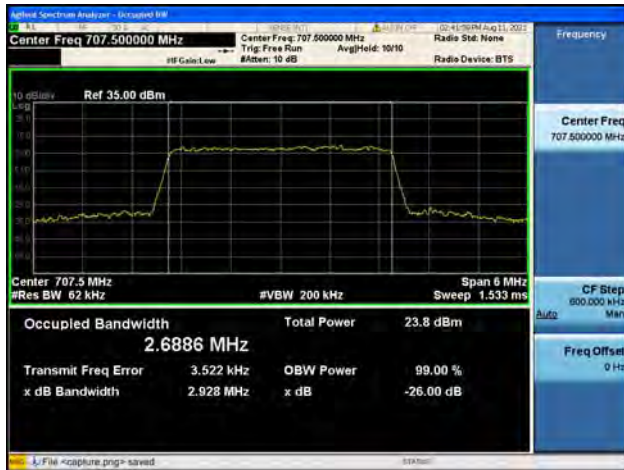
Band12 / 3MHz / Low CH / QPSK



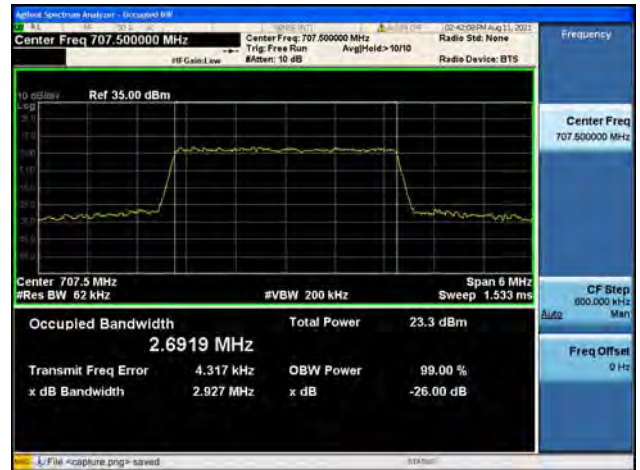
Band12 / 3MHz / Low CH / 16QAM



Band12 / 3MHz / Mid CH / QPSK



Band12 / 3MHz / Mid CH / 16QAM



Band12 / 3MHz / High CH / QPSK



Band12 / 3MHz / High CH / 16QAM





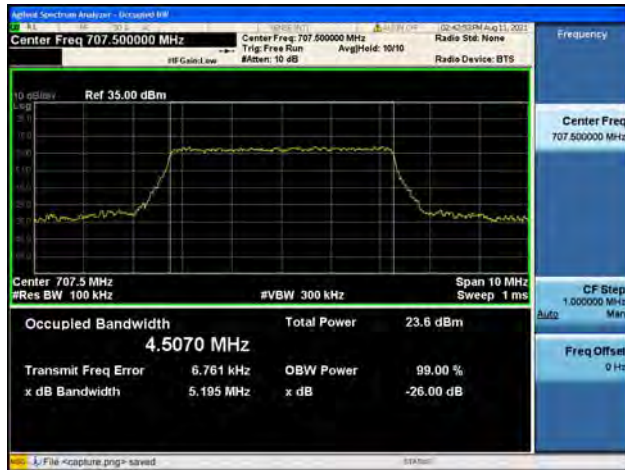
Band12 / 5MHz / Low CH / QPSK



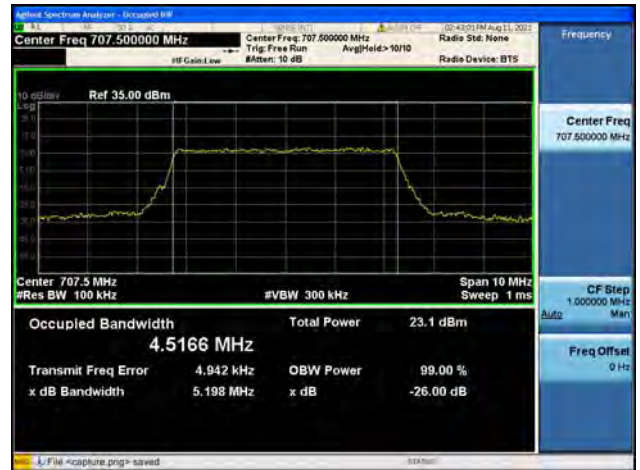
Band12 / 5MHz / Low CH / 16QAM



Band12 / 5MHz / Mid CH / QPSK



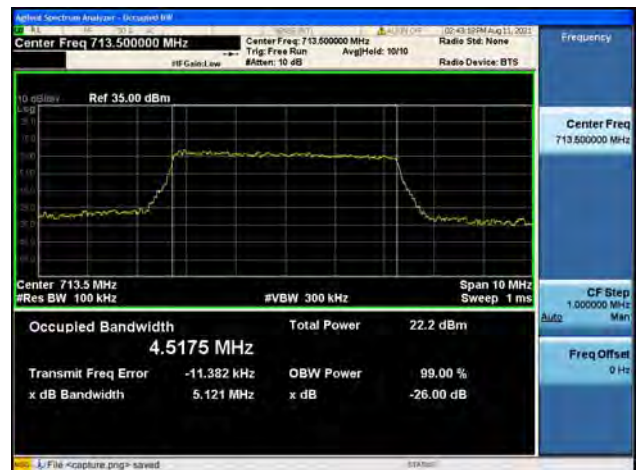
Band12 / 5MHz / Mid CH / 16QAM



Band12 / 5MHz / High CH / QPSK



Band12 / 5MHz / High CH / 16QAM

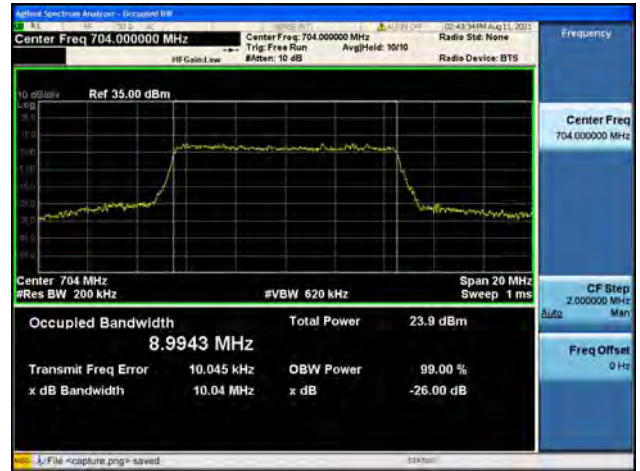




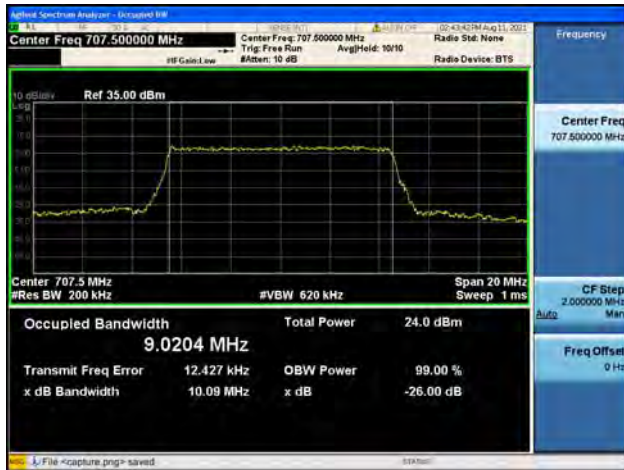
Band12 / 10MHz / Low CH / QPSK



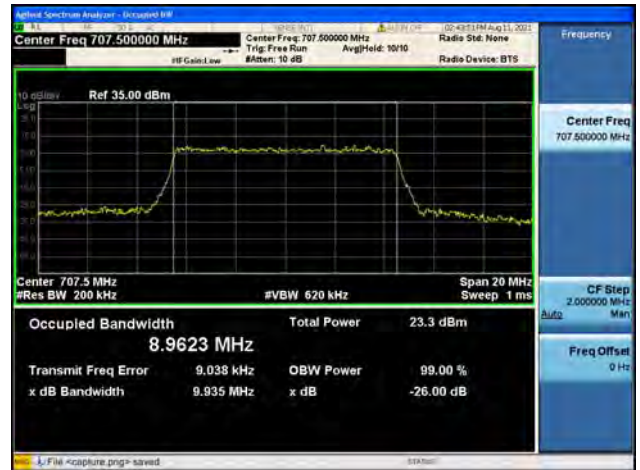
Band12 / 10MHz / Low CH / 16QAM



Band12 / 10MHz / Mid CH / QPSK



Band12 / 10MHz / Mid CH / 16QAM



Band12 / 10MHz / High CH / QPSK

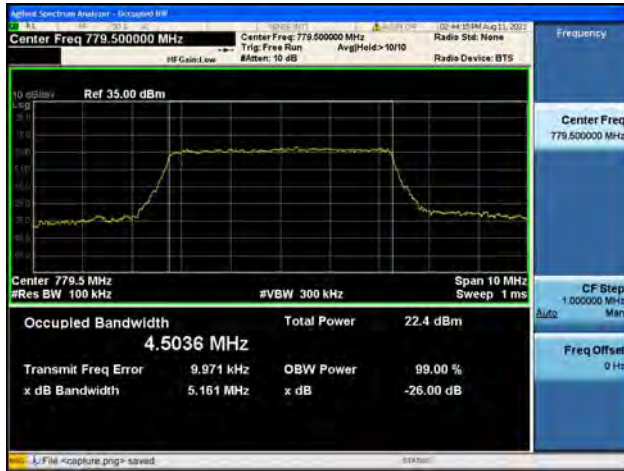


Band12 / 10MHz / High CH / 16QAM

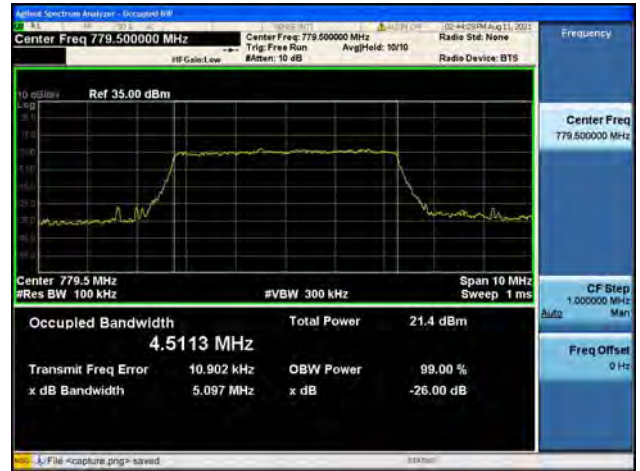




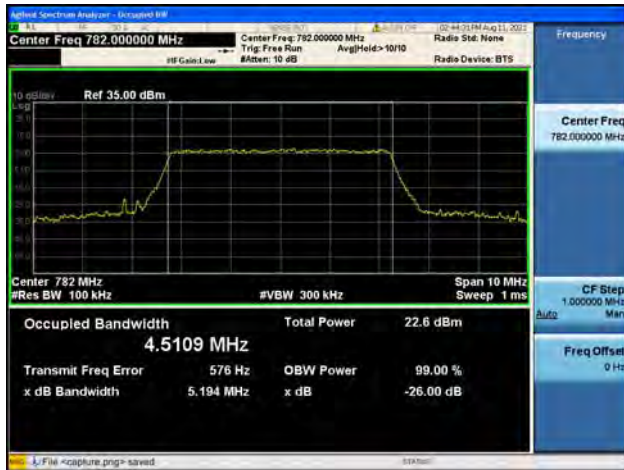
Band13 / 5MHz / Low CH / QPSK



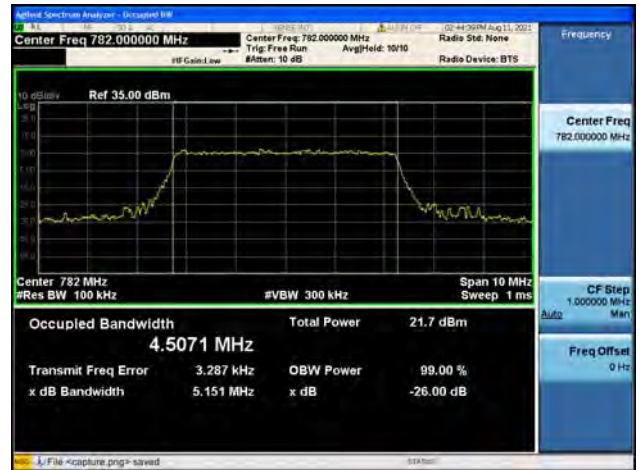
Band13 / 5MHz / Low CH / 16QAM



Band13 / 5MHz / Mid CH / QPSK



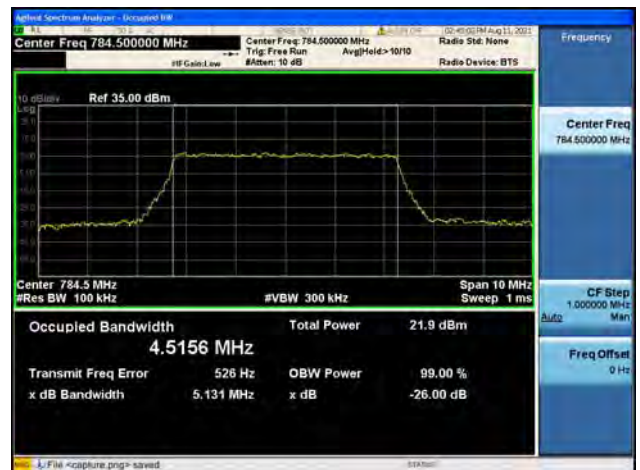
Band13 / 5MHz / Mid CH / 16QAM



Band13 / 5MHz / High CH / QPSK

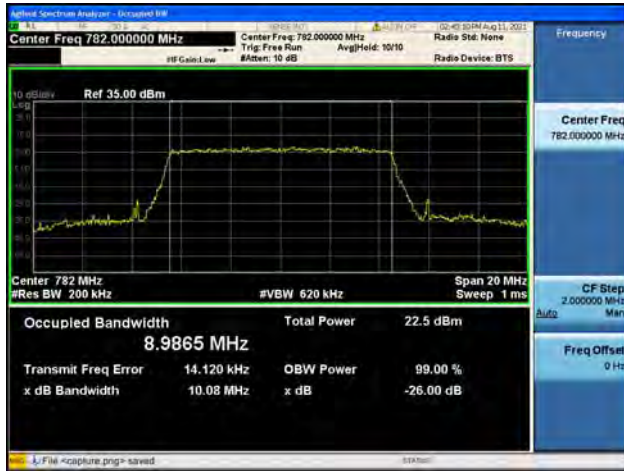


Band13 / 5MHz / High CH / 16QAM

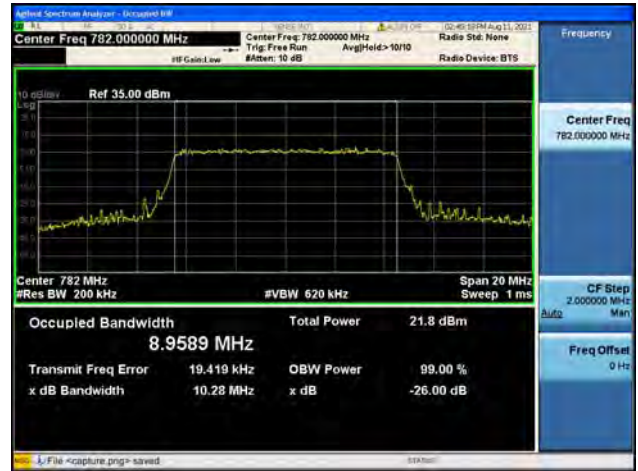




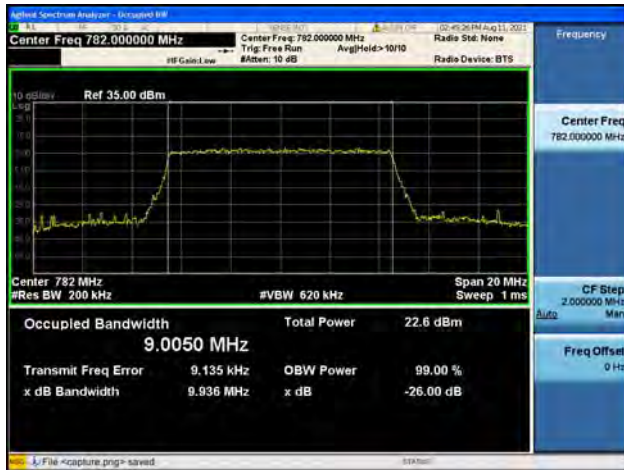
Band13 / 10MHz / Low CH / QPSK



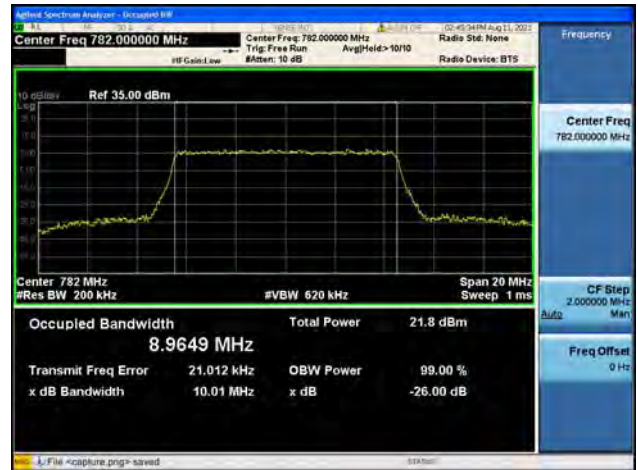
Band13 / 10MHz / Low CH / 16QAM



Band13 / 10MHz / Mid CH / QPSK



Band13 / 10MHz / Mid CH / 16QAM



Band13 / 10MHz / High CH / QPSK

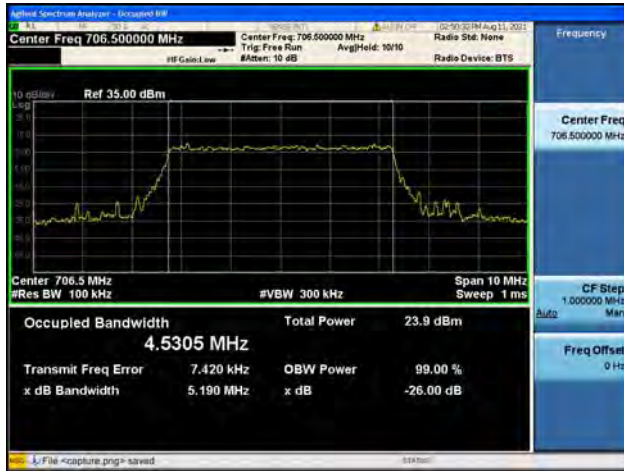


Band13 / 10MHz / High CH / 16QAM

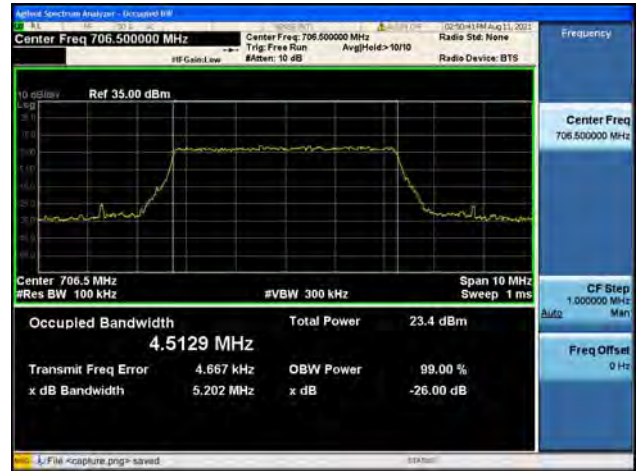




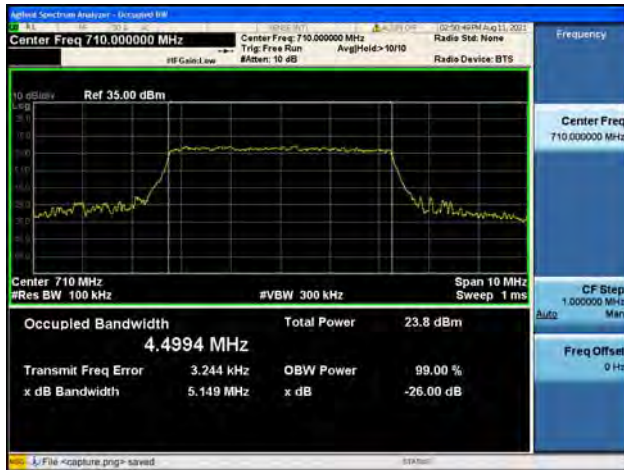
Band17 / 5MHz / Low CH / QPSK



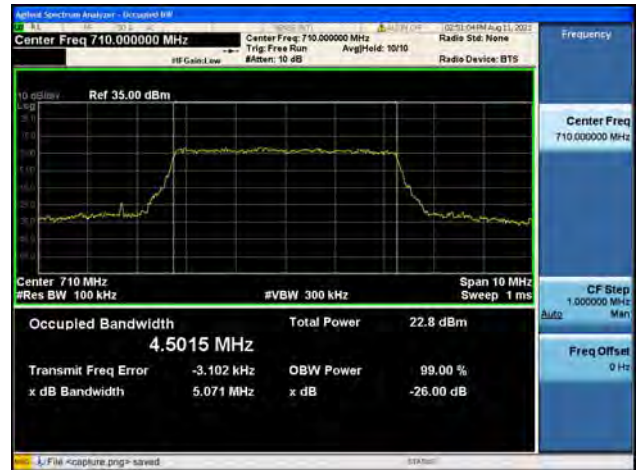
Band17 / 5MHz / Low CH / 16QAM



Band17 / 5MHz / Mid CH / QPSK



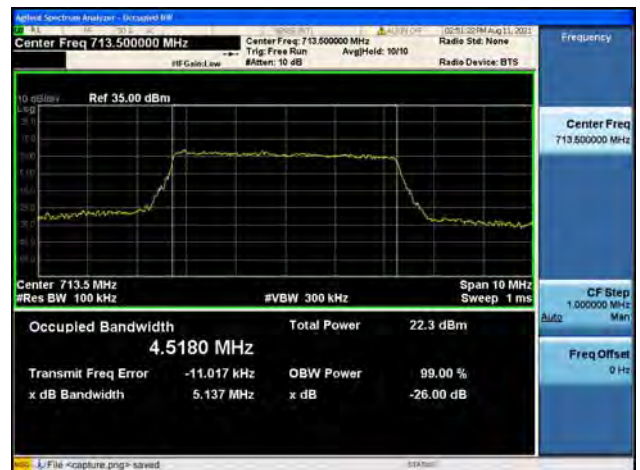
Band17 / 5MHz / Mid CH / 16QAM



Band17 / 5MHz / High CH / QPSK



Band17 / 5MHz / High CH / 16QAM

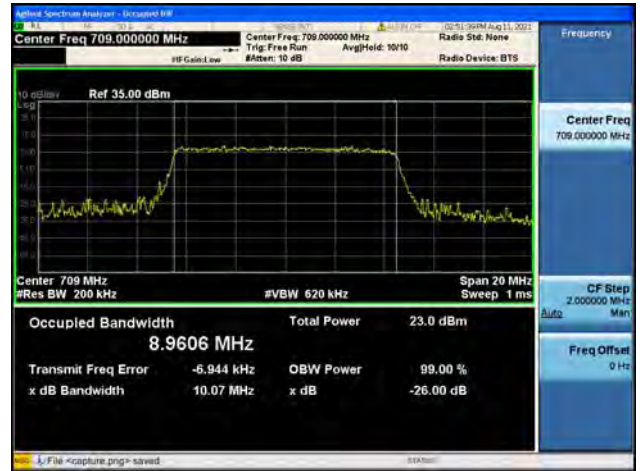




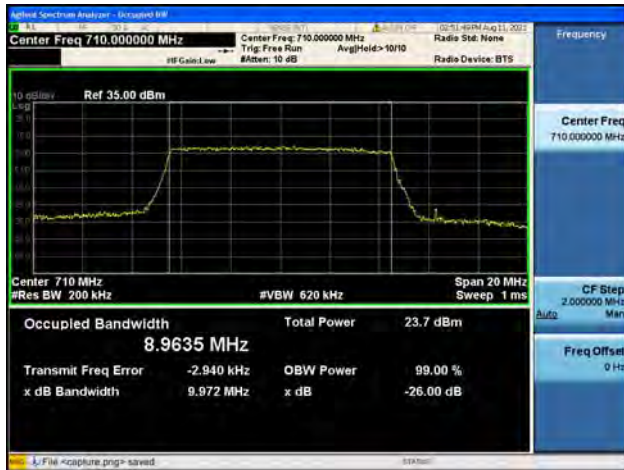
Band17 / 10MHz / Low CH / QPSK



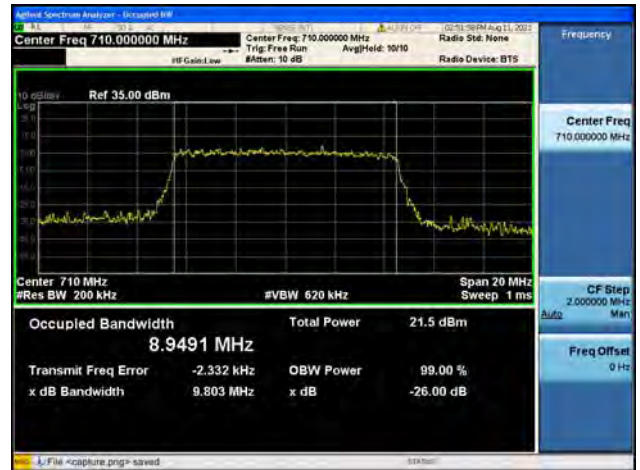
Band17 / 10MHz / Low CH / 16QAM



Band17 / 10MHz / Mid CH / QPSK



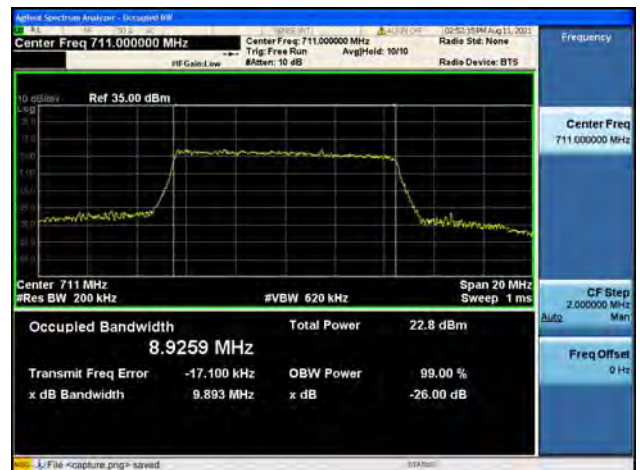
Band17 / 10MHz / Mid CH / 16QAM



Band17 / 10MHz / High CH / QPSK

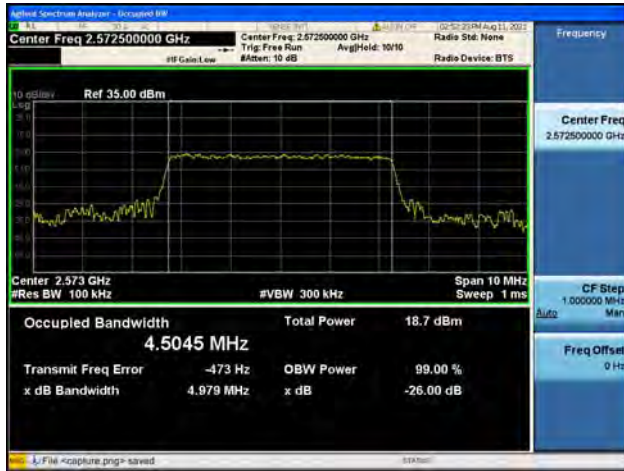


Band17 / 10MHz / High CH / 16QAM

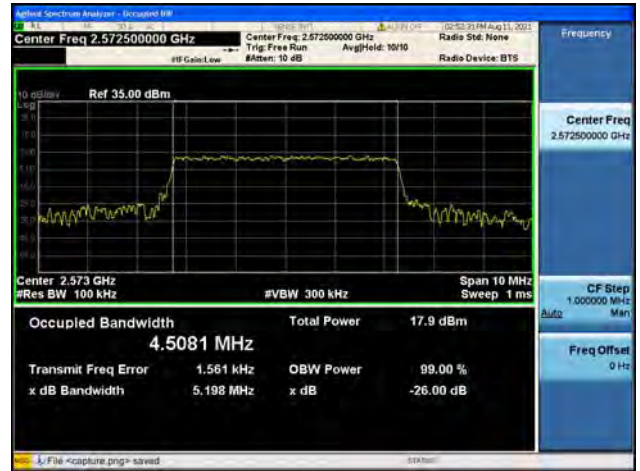




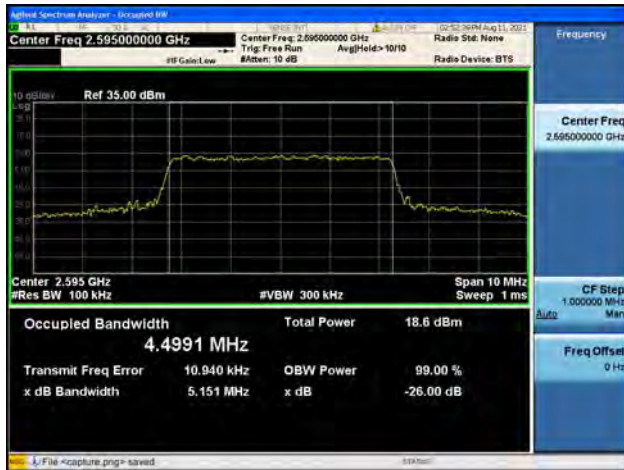
Band38 / 5MHz / Low CH / QPSK



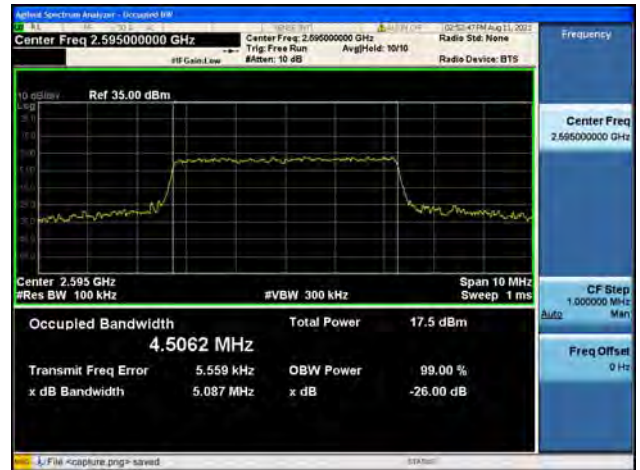
Band38 / 5MHz / Low CH / 16QAM



Band38 / 5MHz / Mid CH / QPSK



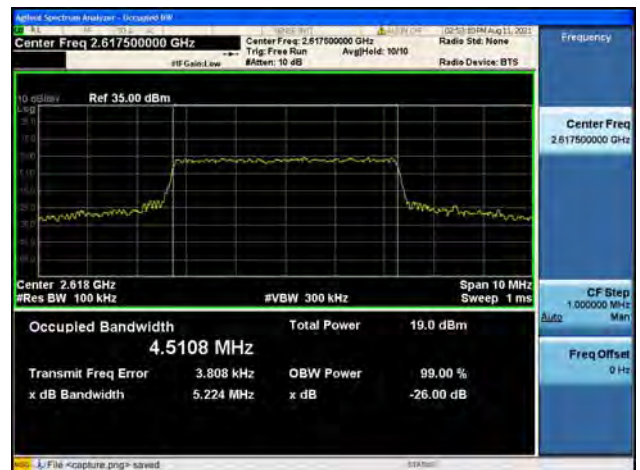
Band38 / 5MHz / Mid CH / 16QAM



Band38 / 5MHz / High CH / QPSK

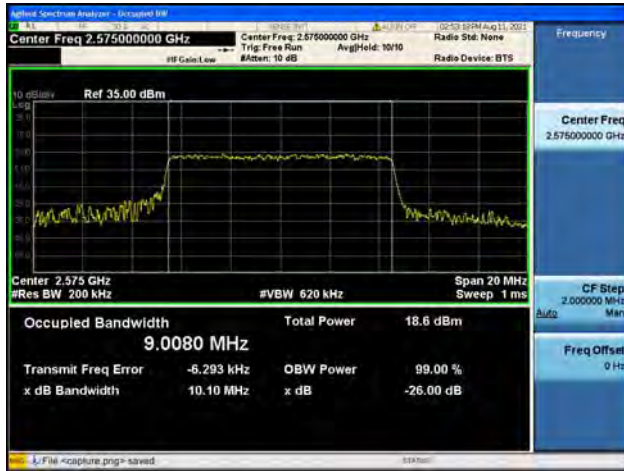


Band38 / 5MHz / High CH / 16QAM

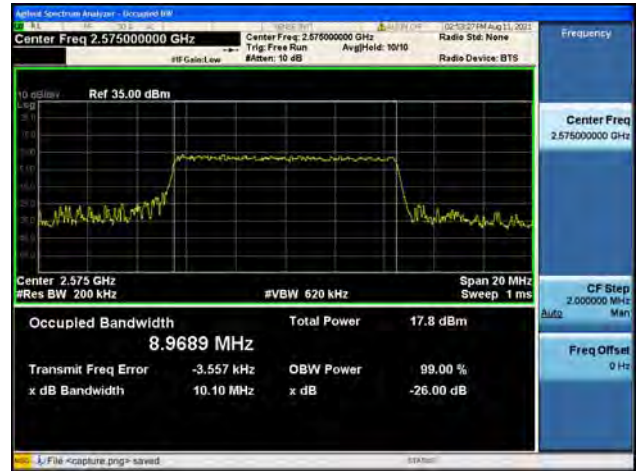




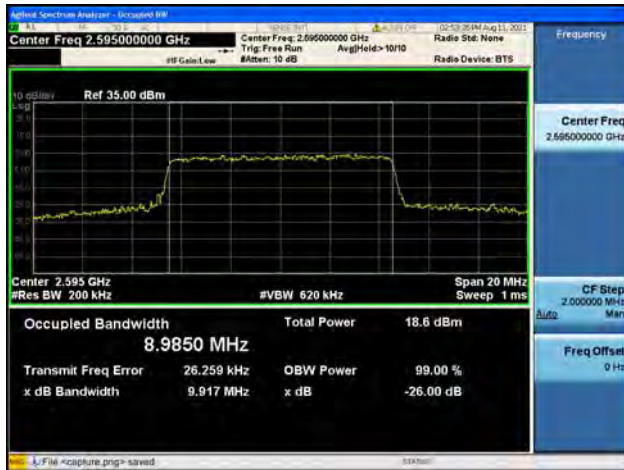
Band38 / 10MHz / Low CH / QPSK



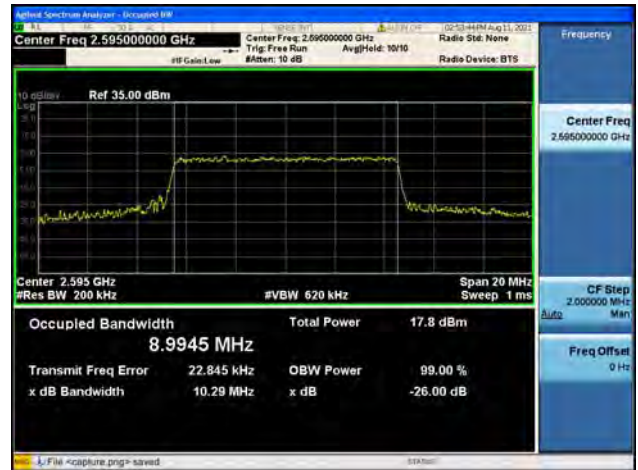
Band38 / 10MHz / Low CH / 16QAM



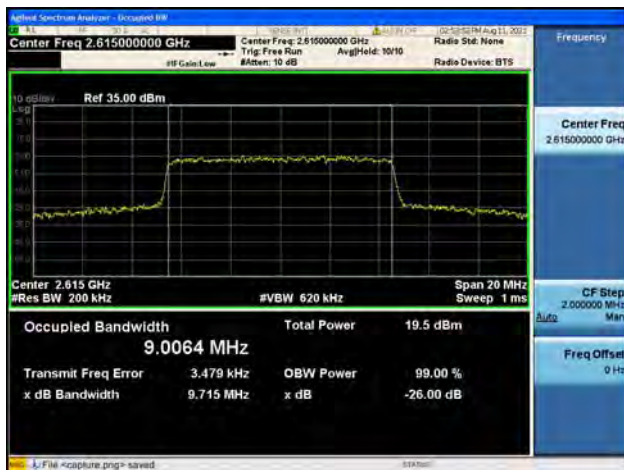
Band38 / 10MHz / Mid CH / QPSK



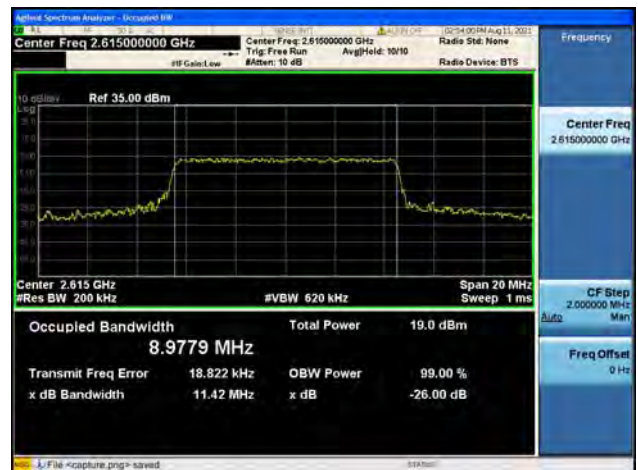
Band38 / 10MHz / Mid CH / 16QAM



Band38 / 10MHz / High CH / QPSK

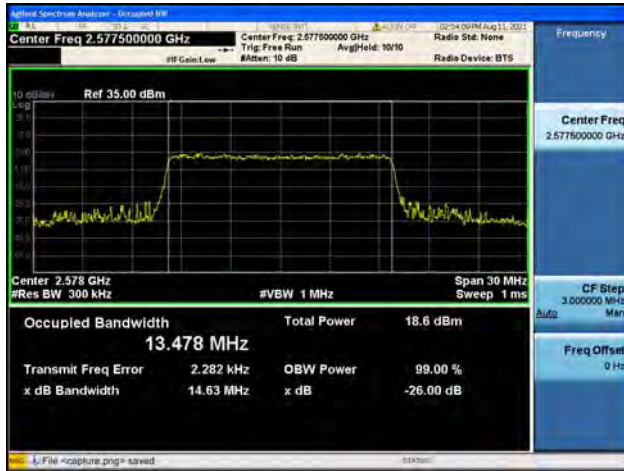


Band38 / 10MHz / High CH / 16QAM

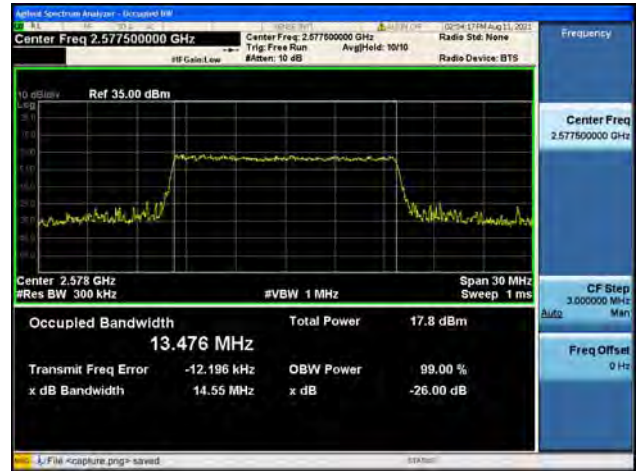




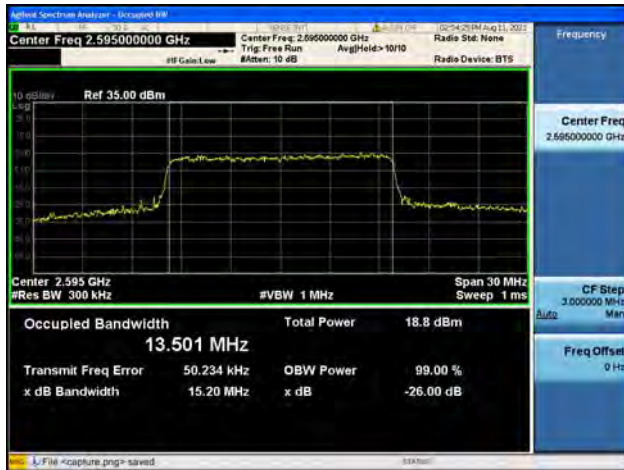
Band38 / 15MHz / Low CH / QPSK



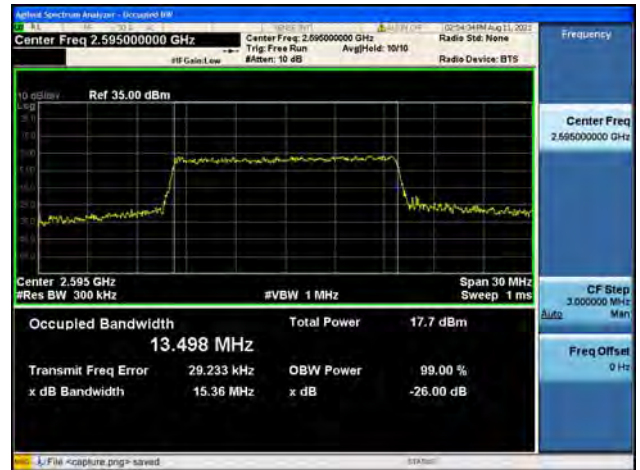
Band38 / 15MHz / Low CH / 16QAM



Band38 / 15MHz / Mid CH / QPSK



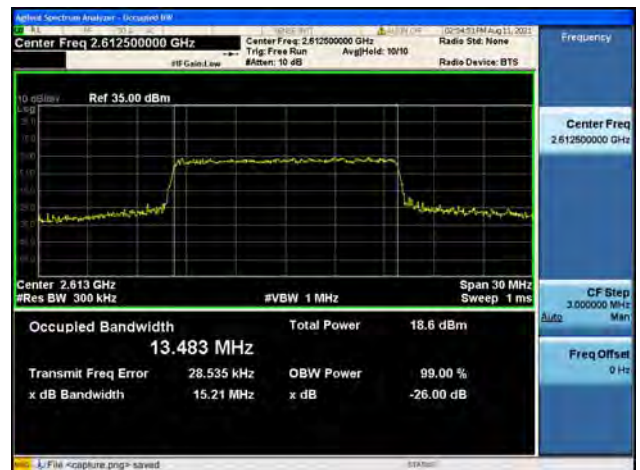
Band38 / 15MHz / Mid CH / 16QAM



Band38 / 15MHz / High CH / QPSK

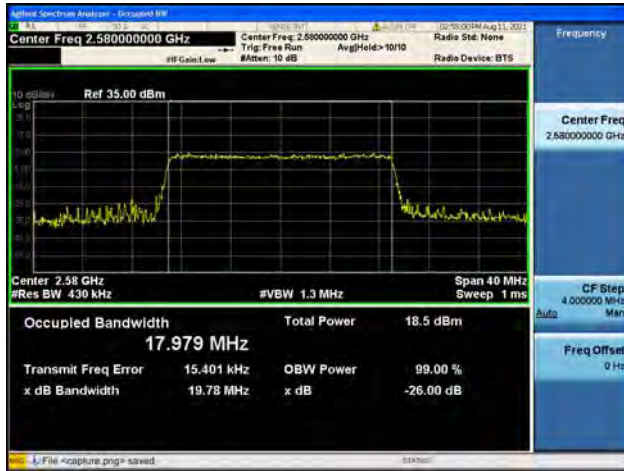


Band38 / 15MHz / High CH / 16QAM

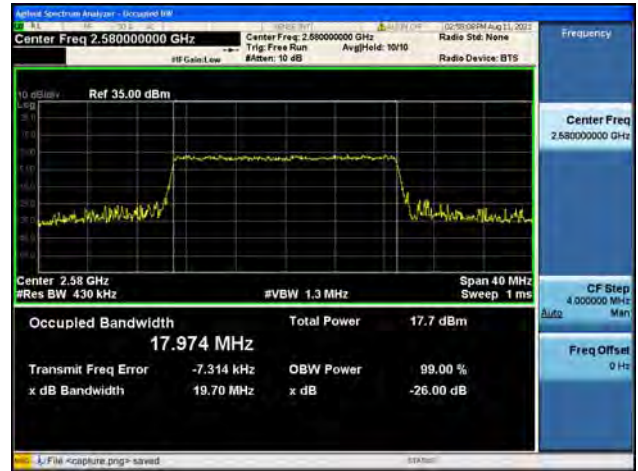




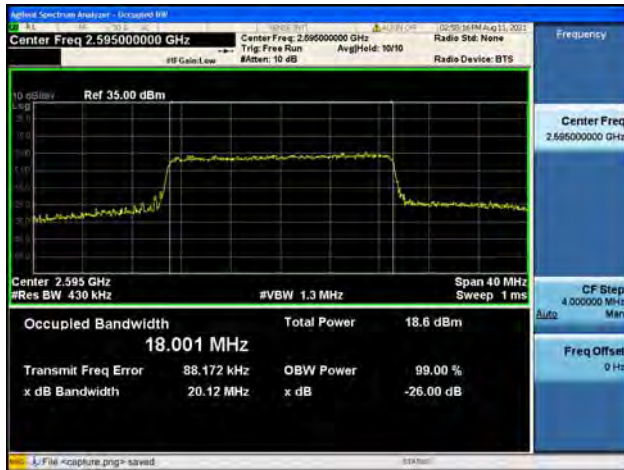
Band38 / 20MHz / Low CH / QPSK



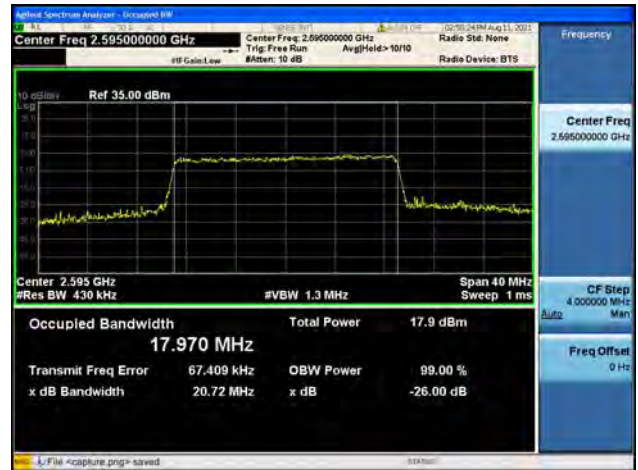
Band38 / 20MHz / Low CH / 16QAM



Band38 / 20MHz / Mid CH / QPSK



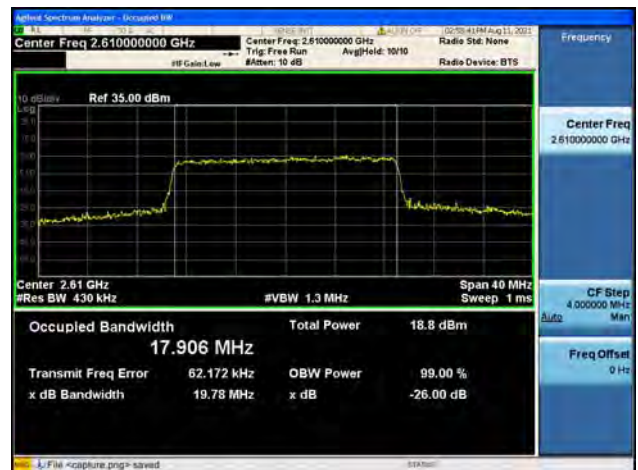
Band38 / 20MHz / Mid CH / 16QAM



Band38 / 20MHz / High CH / QPSK



Band38 / 20MHz / High CH / 16QAM



2.3. Frequency Stability

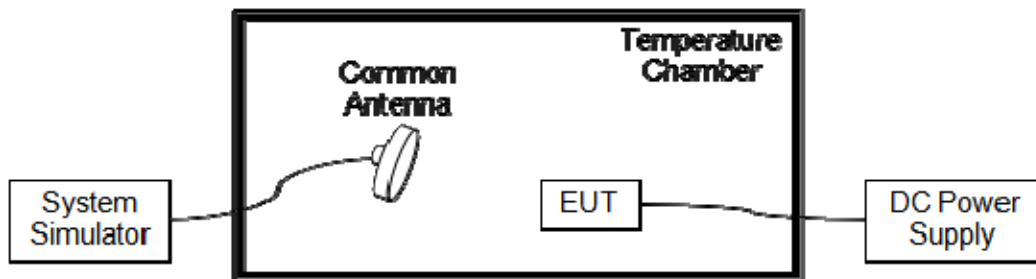
2.3.1. Requirement

According to FCC section 2.1055, 24.235, 27.54, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from -30°C to $+50^{\circ}\text{C}$ at intervals of not more than 10°C .
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

Note: The operating temperature of EUT is from -10°C to 55°C , which are specified by the applicant.

2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

2.3.3. Test Procedure

KDB 971168 D01v03 Section 9.0 and ANSI/TIA-603-E-2016.



2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.85V, 4.40V and 3.45V, which are specified by the applicant; the normal temperature here used is 20°C.

LTE Band 2, QPSK, Channel 18900, Frequency 1880.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	36	0.019	PASS
100		-10	30	0.016	
100		0	13	0.007	
100		+10	-36	-0.019	
100		+20	-18	-0.010	
100		+30	-17	-0.009	
100		+40	-49	-0.026	
100		+50	-36	-0.019	
100		+55	17	0.009	
115	4.40	+20	35	0.019	
85	3.45	+20	18	0.010	

LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	-52	-0.030	PASS
100		-10	-14	-0.008	
100		0	39	0.023	
100		+10	-52	-0.030	
100		+20	-15	-0.009	
100		+30	-55	-0.032	
100		+40	-45	-0.026	
100		+50	52	0.030	
100		+55	-34	-0.020	
115	4.40	+20	-29	-0.017	
85	3.45	+20	25	0.014	



LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	-22	-0.026	PASS
100		-10	-17	-0.020	
100		0	47	0.056	
100		+10	-35	-0.042	
100		+20	40	0.048	
100		+30	-34	-0.041	
100		+40	-40	-0.048	
100		+50	41	0.049	
100		+55	23	0.027	
115		4.40	+20	22	
85	3.45	+20	-17	-0.020	

LTE Band 7, QPSK, Channel 21100, Frequency 2535MHz Limit= Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	-16	-0.006	PASS
100		-10	-50	-0.020	
100		0	40	0.016	
100		+10	-56	-0.022	
100		+20	27	0.011	
100		+30	-54	-0.021	
100		+40	-30	-0.012	
100		+50	21	0.008	
100		+55	-17	-0.007	
115		4.40	+20	46	
85	3.45	+20	-16	-0.006	



LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	30	0.042	PASS
100		-10	-27	-0.038	
100		0	-54	-0.076	
100		+10	-41	-0.058	
100		+20	-21	-0.030	
100		+30	45	0.064	
100		+40	13	0.018	
100		+50	-25	-0.035	
100		+55	-28	-0.040	
115	4.40	+20	42	0.059	
85	3.45	+20	41	0.058	

LTE Band 13, QPSK, Channel 23230, Frequency 782.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	50	0.064	PASS
100		-10	41	0.052	
100		0	39	0.050	
100		+10	-30	-0.038	
100		+20	25	0.032	
100		+30	43	0.055	
100		+40	30	0.038	
100		+50	-25	-0.032	
100		+55	-45	-0.058	
115	4.40	+20	55	0.070	
85	3.45	+20	-46	-0.059	



LTE Band 17, QPSK, Channel 23790, Frequency 710MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	41	0.058	PASS
100		-10	-50	-0.070	
100		0	-38	-0.054	
100		+10	-25	-0.035	
100		+20	-35	-0.049	
100		+30	50	0.070	
100		+40	13	0.018	
100		+50	-51	-0.072	
100		+55	53	0.075	
115	4.40	+20	33	0.046	
85	3.45	+20	22	0.031	

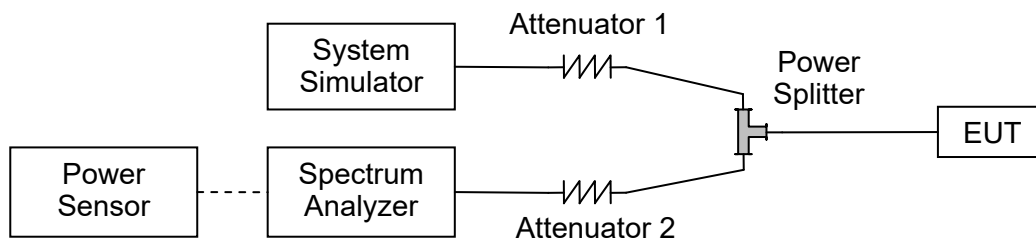
LTE Band 38, QPSK, Channel 38000, Frequency 2595.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.85	+20(Ref)	13	0.005	PASS
100		-10	46	0.018	
100		0	50	0.019	
100		+10	44	0.017	
100		+20	53	0.020	
100		+30	19	0.007	
100		+40	57	0.022	
100		+50	25	0.010	
100		+55	-51	-0.020	
115	4.40	+20	51	0.020	
85	3.45	+20	52	0.020	

2.4. Peak to Average Ratio

2.4.1. Requirement

According to FCC section 24.232(d) and 27.50(d), the peak to average ratio (PAR) of the transmission may not exceed 13dB.

2.4.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.4.3. Test Procedure

KDB 971168 D01v03 Section 5.7 and ANSI/TIA-603-E-2016.

2.4.4. Test Result

Record the maximum PAPR level associated with a probability of 0.1%.



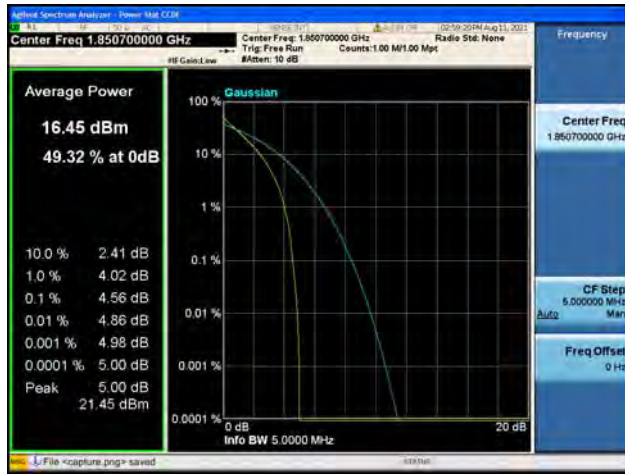
LTE Band 2					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.56	<=13	PASS
	Low	16QAM	5.50	<=13	PASS
	Mid	QPSK	4.52	<=13	PASS
	Mid	16QAM	5.37	<=13	PASS
	High	QPSK	4.68	<=13	PASS
	High	16QAM	5.51	<=13	PASS
3	Low	QPSK	4.73	<=13	PASS
	Low	16QAM	5.62	<=13	PASS
	Mid	QPSK	4.64	<=13	PASS
	Mid	16QAM	5.50	<=13	PASS
	High	QPSK	4.81	<=13	PASS
	High	16QAM	5.68	<=13	PASS
5	Low	QPSK	5.12	<=13	PASS
	Low	16QAM	5.79	<=13	PASS
	Mid	QPSK	5.00	<=13	PASS
	Mid	16QAM	5.70	<=13	PASS
	High	QPSK	5.14	<=13	PASS
	High	16QAM	5.85	<=13	PASS
10	Low	QPSK	5.20	<=13	PASS
	Low	16QAM	5.92	<=13	PASS
	Mid	QPSK	5.07	<=13	PASS
	Mid	16QAM	5.79	<=13	PASS
	High	QPSK	5.19	<=13	PASS
	High	16QAM	5.86	<=13	PASS
15	Low	QPSK	4.99	<=13	PASS
	Low	16QAM	5.77	<=13	PASS
	Mid	QPSK	4.82	<=13	PASS
	Mid	16QAM	5.61	<=13	PASS
	High	QPSK	4.92	<=13	PASS
	High	16QAM	5.68	<=13	PASS
20	Low	QPSK	5.15	<=13	PASS
	Low	16QAM	5.92	<=13	PASS
	Mid	QPSK	5.00	<=13	PASS
	Mid	16QAM	5.79	<=13	PASS
	High	QPSK	5.03	<=13	PASS
	High	16QAM	5.82	<=13	PASS



LTE Band 4					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.91	<=13	PASS
	Low	16QAM	5.74	<=13	PASS
	Mid	QPSK	5.75	<=13	PASS
	Mid	16QAM	6.50	<=13	PASS
	High	QPSK	4.53	<=13	PASS
	High	16QAM	5.43	<=13	PASS
3	Low	QPSK	5.01	<=13	PASS
	Low	16QAM	5.89	<=13	PASS
	Mid	QPSK	5.74	<=13	PASS
	Mid	16QAM	6.57	<=13	PASS
	High	QPSK	4.60	<=13	PASS
	High	16QAM	5.51	<=13	PASS
5	Low	QPSK	5.30	<=13	PASS
	Low	16QAM	6.01	<=13	PASS
	Mid	QPSK	5.89	<=13	PASS
	Mid	16QAM	6.56	<=13	PASS
	High	QPSK	4.95	<=13	PASS
	High	16QAM	5.66	<=13	PASS
10	Low	QPSK	5.49	<=13	PASS
	Low	16QAM	6.17	<=13	PASS
	Mid	QPSK	5.89	<=13	PASS
	Mid	16QAM	6.53	<=13	PASS
	High	QPSK	5.03	<=13	PASS
	High	16QAM	5.75	<=13	PASS
15	Low	QPSK	5.53	<=13	PASS
	Low	16QAM	6.23	<=13	PASS
	Mid	QPSK	5.84	<=13	PASS
	Mid	16QAM	6.53	<=13	PASS
	High	QPSK	4.95	<=13	PASS
	High	16QAM	5.72	<=13	PASS
20	Low	QPSK	5.60	<=13	PASS
	Low	16QAM	6.39	<=13	PASS
	Mid	QPSK	5.79	<=13	PASS
	Mid	16QAM	6.54	<=13	PASS
	High	QPSK	5.23	<=13	PASS
	High	16QAM	6.01	<=13	PASS



Band2 / 1.4MHz / Low CH / QPSK



Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM



Band2 / 1.4MHz / High CH / QPSK



Band2 / 1.4MHz / High CH / 16QAM

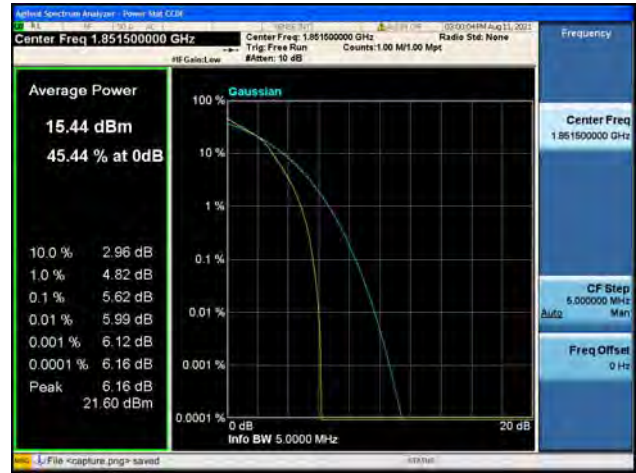




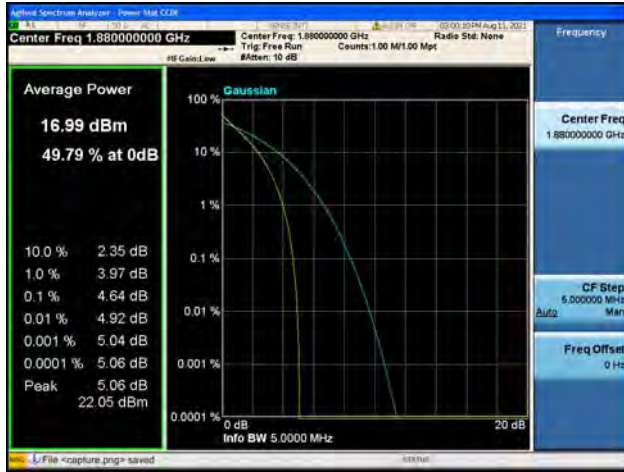
Band2 / 3MHz / Low CH / QPSK



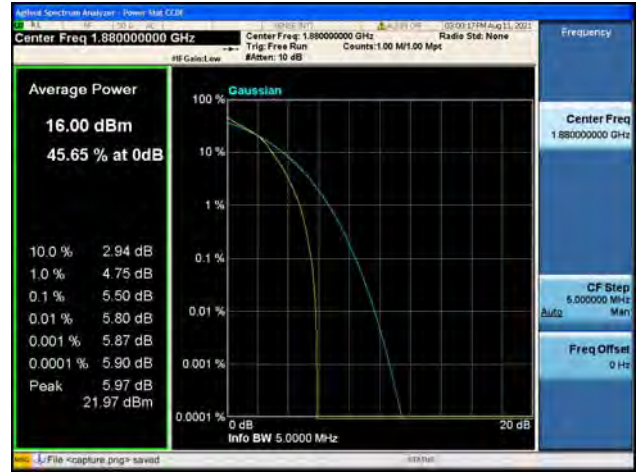
Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK



Band2 / 3MHz / High CH / 16QAM

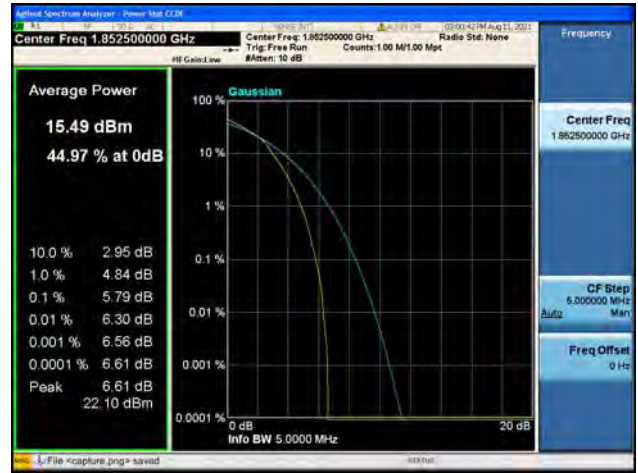




Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK



Band2 / 5MHz / High CH / 16QAM





Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM





Band2 / 15MHz / Low CH / QPSK



Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK



Band2 / 15MHz / High CH / 16QAM





Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM



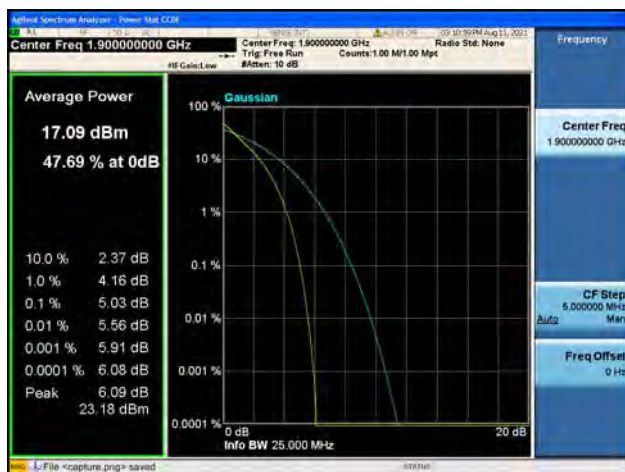
Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM





Band4 / 1.4MHz / Low CH / QPSK



Band4 / 1.4MHz / Low CH / 16QAM



Band4 / 1.4MHz / Mid CH / QPSK



Band4 / 1.4MHz / Mid CH / 16QAM



Band4 / 1.4MHz / High CH / QPSK



Band4 / 1.4MHz / High CH / 16QAM

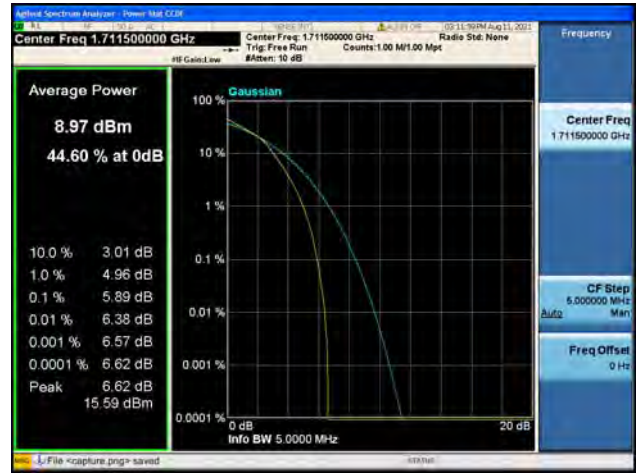




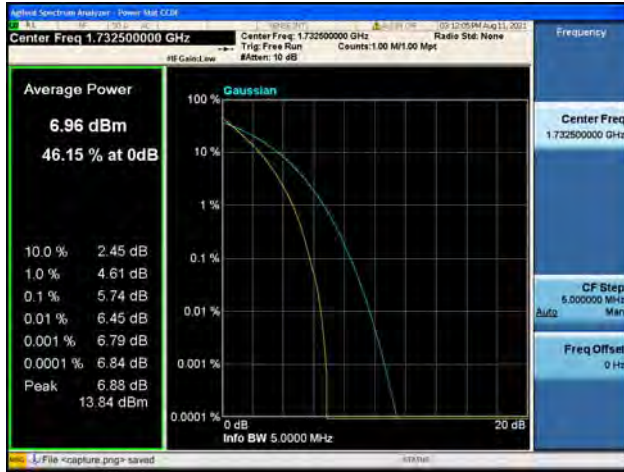
Band4 / 3MHz / Low CH / QPSK



Band4 / 3MHz / Low CH / 16QAM



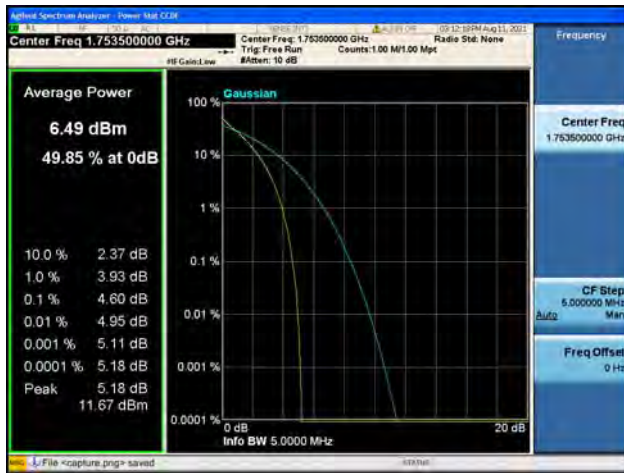
Band4 / 3MHz / Mid CH / QPSK



Band4 / 3MHz / Mid CH / 16QAM



Band4 / 3MHz / High CH / QPSK

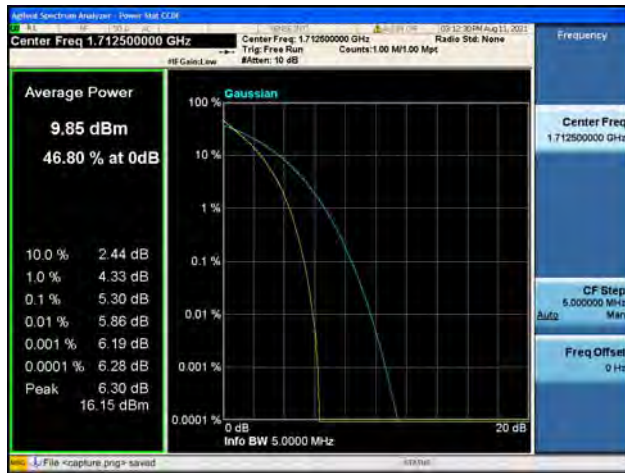


Band4 / 3MHz / High CH / 16QAM





Band4 / 5MHz / Low CH / QPSK



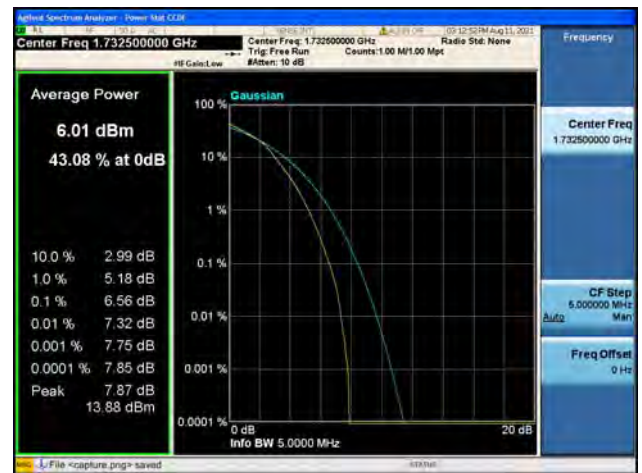
Band4 / 5MHz / Low CH / 16QAM



Band4 / 5MHz / Mid CH / QPSK



Band4 / 5MHz / Mid CH / 16QAM



Band4 / 5MHz / High CH / QPSK



Band4 / 5MHz / High CH / 16QAM

