



REPORT No.: SZ22040332W06

TEST REPORT

APPLICANT : BLU Products, Inc.

PRODUCT NAME : Smart Phone

MODEL NAME : S91 PRO

BRAND NAME : BLU

FCC ID : YHLBLUS91PRO

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 : 2022-04-24

TEST DATE : 2022-04-27 to 2022-05-30

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Edited by:

Zeng Xiaoying
Zeng Xiaoying (Rapporteur)

Approved by:

Shen Junsheng
Shen Junsheng (Supervisor)

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MORLAB

Shenzhen Morlab Communications Technology Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555

Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn





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Change History		
Version	Date	Reason for change
1.0	2022-06-07	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.:	5#	
Hardware Version:	KS7S_02	
Software Version:	BLU_S0730WW_V12.0.01.00_GENERIC 13-05-2022 20:47	
Modulation Type:	QPSK, 16QAM, 64QAM	
Carrier Aggregation:	Not Support	
Operation Band:	Band 2 / 4 / 5 / 7 / 12 / 13 / 17	
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



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
Antenna Type:	Fixed Internal Antenna	
Antenna Gain:	LTE Band 2	-2.1dBi
	LTE Band 4	-2.3dBi
	LTE Band 5	-2.7dBi
	LTE Band 7	-2.1dBi
	LTE Band 12	-3.2dBi
	LTE Band 13	-2.9dBi
	LTE Band 17	-3.1dBi
Accessory Information:	Battery	
	Brand Name:	BLU
	Model No.:	C906450500P
	Serial No.:	N/A
	Capacity:	5000mAh
	Rated Voltage:	3.87V
	Charge Limit:	4.45V
	Manufacturer:	Shenzhen shi jiuliyuan electronic technology 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	64QAM	QPSK	16QAM	64QAM
20	0.131	0.113	0.090	18M0G7D	18M0W7D	18M0W7D
15	0.128	0.109	0.088	13M5G7D	13M5W7D	13M5W7D
10	0.127	0.111	0.089	9M01G7D	8M97W7D	8M99W7D
5	0.127	0.109	0.090	4M50G7D	4M51W7D	4M50W7D
3	0.127	0.109	0.090	2M69G7D	2M69W7D	2M70W7D
1.4	0.128	0.109	0.089	1M09G7D	1M10W7D	1M10W7D
LTE Band 4	Maximum E.R.P./E.I.R.P. (W)			Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20	0.122	0.102	0.088	18M0G7D	18M0W7D	18M0W7D
15	0.121	0.101	0.086	13M5G7D	13M5W7D	13M5W7D
10	0.120	0.101	0.087	9M02G7D	8M98W7D	8M99W7D
5	0.119	0.100	0.085	4M50G7D	4M51W7D	4M51W7D
3	0.120	0.099	0.085	2M69G7D	2M69W7D	2M70W7D
1.4	0.120	0.100	0.085	1M10G7D	1M10W7D	1M10W7D
LTE Band 5	Maximum E.R.P./E.I.R.P. (W)			Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.076	0.060	0.048	9M00G7D	9M00W7D	8M98W7D
5	0.075	0.059	0.048	4M50G7D	4M51W7D	4M50W7D
3	0.076	0.060	0.047	2M69G7D	2M69W7D	2M70W7D
1.4	0.076	0.059	0.048	1M10G7D	1M10W7D	1M10W7D
LTE Band 7	Maximum E.R.P./E.I.R.P. (W)			Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20	0.129	0.109	0.094	18M0G7D	18M0W7D	18M0W7D
15	0.126	0.108	0.089	13M5G7D	13M5W7D	13M5W7D
10	0.127	0.108	0.089	9M01G7D	8M99W7D	9M00W7D
5	0.127	0.108	0.089	4M50G7D	4M51W7D	4M50W7D
LTE Band 12	Maximum E.R.P./E.I.R.P. (W)			Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.067	0.055	0.044	9M04G7D	8M99W7D	9M03W7D
5	0.066	0.054	0.044	4M53G7D	4M53W7D	4M52W7D
3	0.066	0.053	0.043	2M69G7D	2M69W7D	2M71W7D
1.4	0.066	0.054	0.044	1M10G7D	1M10W7D	1M10W7D



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LTE Band 13	Maximum E.R.P./E.I.R.P. (W)			Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.073	0.057	0.047	9M04G7D	8M99W7D	9M01W7D
5	0.072	0.062	0.047	4M51G7D	4M52W7D	4M53W7D
LTE Band 17	Maximum E.R.P./E.I.R.P. (W)			Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.071	0.059	0.044	9M03G7D	8M99W7D	9M01W7D
5	0.070	0.059	0.044	4M52G7D	4M52W7D	4M52W7D



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(c)(10) 27.50(d)(4) 27.50(h)(2)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	May 19&31, 2022	Chen Hao Lin Jiayong	PASS	No deviation
2.1049	Occupied Bandwidth	May 06, 2022	Li Huaijie	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	May 09, 2022	Li Huaijie	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Ratio	May 06, 2022	Li Huaijie	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(g) 27.53(h) 27.53(m)(4)	Conducted Spurious Emissions	May 06, 2022	Li Huaijie	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(g)	Band Edge	Apr. 26, 2022 May 06, 2022	Li Huaijie	PASS	No deviation



27.53(h) 27.53(m)(4)					
2.1053 22.917(a) 24.238(a) 27.53(g) 27.53(h) 27.53(m)(4)	Radiated Spurious Emissions	May 14, 2022	Lin Jiayong	PASS	No deviation

Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.

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.

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.

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.

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 27 F&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.

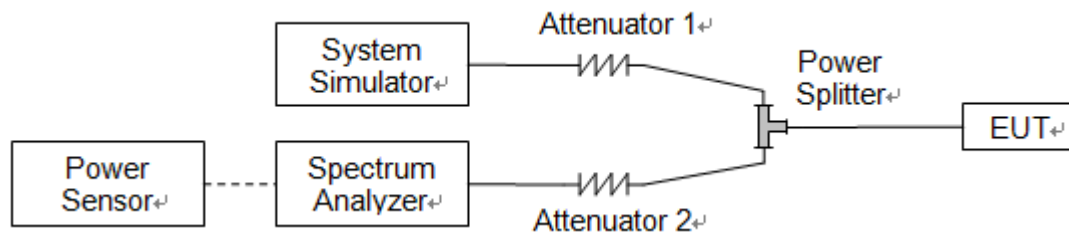
According to FCC section 22.913 (a)(2) for LTE Band 5, the E.R.P. of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 27.50 (h)(2) for LTE Band 7, 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) = Conducted Output Power (dBm) + 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 (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	23.22	23.26	23.16
20	QPSK	1	49	23.14	23.16	23.21
20	QPSK	1	99	22.94	22.95	22.95
20	QPSK	50	0	22.38	22.46	22.42
20	QPSK	50	24	22.35	22.36	22.35
20	QPSK	50	50	22.34	22.28	22.37
20	QPSK	100	0	22.35	22.41	22.37
20	16QAM	1	0	22.52	22.23	22.19
20	16QAM	1	49	22.49	22.64	22.59
20	16QAM	1	99	22.16	22.23	22.28
20	16QAM	50	0	21.30	21.25	21.29
20	16QAM	50	24	21.30	21.24	21.31
20	16QAM	50	50	21.34	21.16	21.32
20	16QAM	100	0	21.29	21.30	21.33
20	64QAM	1	0	21.39	21.30	21.40
20	64QAM	1	49	21.63	21.30	21.42
20	64QAM	1	99	21.35	21.41	21.41
20	64QAM	50	0	21.17	21.21	21.21
20	64QAM	50	24	21.19	21.17	21.20
20	64QAM	50	50	21.26	21.06	21.19
20	64QAM	100	0	21.17	21.13	21.18



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.85	23.12	22.93
15	QPSK	1	37	23.01	23.07	23.16
15	QPSK	1	74	22.87	22.82	22.81
15	QPSK	36	0	22.23	22.20	22.39
15	QPSK	36	20	22.25	22.27	22.33
15	QPSK	36	39	22.30	22.25	22.32
15	QPSK	75	0	22.24	22.16	22.30
15	16QAM	1	0	22.44	22.20	22.16
15	16QAM	1	37	22.40	22.48	22.45
15	16QAM	1	74	22.06	22.20	22.17
15	16QAM	36	0	21.27	21.11	21.26
15	16QAM	36	20	21.15	21.12	21.19
15	16QAM	36	39	21.22	21.06	21.24
15	16QAM	75	0	21.27	21.24	21.32
15	64QAM	1	0	21.30	21.20	21.34
15	64QAM	1	37	21.56	21.54	21.36
15	64QAM	1	74	21.30	21.28	21.30
15	64QAM	36	0	21.13	21.13	21.08
15	64QAM	36	20	21.05	21.11	21.15
15	64QAM	36	39	21.16	20.97	21.13
15	64QAM	75	0	21.09	21.02	21.07



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.90	23.15	23.04
10	QPSK	1	25	23.01	23.02	23.07
10	QPSK	1	49	22.86	22.89	22.82
10	QPSK	25	0	22.33	22.19	22.41
10	QPSK	25	12	22.31	22.35	22.32
10	QPSK	25	25	22.28	22.20	22.23
10	QPSK	50	0	22.31	22.19	22.24
10	16QAM	1	0	22.40	22.16	22.10
10	16QAM	1	25	22.40	22.54	22.50
10	16QAM	1	49	22.06	22.20	22.27
10	16QAM	25	0	21.17	21.22	21.23
10	16QAM	25	12	21.19	21.16	21.22
10	16QAM	25	25	21.23	21.09	21.28
10	16QAM	50	0	21.19	21.24	21.18
10	64QAM	1	0	21.25	21.18	21.38
10	64QAM	1	25	21.49	21.60	21.27
10	64QAM	1	49	21.22	21.34	21.38
10	64QAM	25	0	21.02	21.06	21.10
10	64QAM	25	12	21.18	21.06	21.13
10	64QAM	25	25	21.14	21.02	21.12
10	64QAM	50	0	21.15	21.02	21.09



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.89	23.11	23.05
5	QPSK	1	12	23.08	23.15	23.10
5	QPSK	1	24	22.81	22.94	22.90
5	QPSK	12	0	22.24	22.21	22.32
5	QPSK	12	7	22.28	22.24	22.32
5	QPSK	12	13	22.23	22.20	22.36
5	QPSK	25	0	22.26	22.24	22.22
5	16QAM	1	0	22.46	22.18	22.15
5	16QAM	1	12	22.35	22.47	22.48
5	16QAM	1	24	22.09	22.18	22.19
5	16QAM	12	0	21.27	21.24	21.27
5	16QAM	12	7	21.22	21.18	21.24
5	16QAM	12	13	21.24	21.09	21.22
5	16QAM	25	0	21.15	21.16	21.20
5	64QAM	1	0	21.25	21.27	21.37
5	64QAM	1	12	21.62	21.61	21.38
5	64QAM	1	24	21.34	21.37	21.39
5	64QAM	12	0	21.09	21.12	21.08
5	64QAM	12	7	21.13	21.09	21.18
5	64QAM	12	13	21.12	21.04	21.05
5	64QAM	25	0	21.11	21.03	21.16



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.88	23.13	23.04
3	QPSK	1	8	23.01	23.14	23.12
3	QPSK	1	14	22.92	22.90	22.85
3	QPSK	8	0	22.34	22.25	22.31
3	QPSK	8	4	22.24	22.34	22.30
3	QPSK	8	7	22.27	22.27	22.33
3	QPSK	15	0	22.28	22.23	22.31
3	16QAM	1	0	22.46	22.20	22.06
3	16QAM	1	8	22.38	22.49	22.47
3	16QAM	1	14	22.05	22.12	22.20
3	16QAM	8	0	21.20	21.22	21.24
3	16QAM	8	4	21.15	21.17	21.24
3	16QAM	8	7	21.20	21.01	21.31
3	16QAM	15	0	21.20	21.22	21.26
3	64QAM	1	0	21.28	21.26	21.38
3	64QAM	1	8	21.50	21.64	21.29
3	64QAM	1	14	21.24	21.29	21.37
3	64QAM	8	0	21.10	21.16	21.14
3	64QAM	8	4	21.16	21.05	21.06
3	64QAM	8	7	21.23	21.02	21.13
3	64QAM	15	0	21.03	21.09	21.09



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.84	23.18	22.92
1.4	QPSK	1	3	23.13	23.08	23.10
1.4	QPSK	1	5	22.88	22.94	22.88
1.4	QPSK	3	0	22.83	23.03	22.87
1.4	QPSK	3	1	23.08	22.95	23.03
1.4	QPSK	3	3	22.85	22.91	22.80
1.4	QPSK	6	0	22.23	22.15	22.30
1.4	16QAM	1	0	22.40	22.09	22.07
1.4	16QAM	1	3	22.38	22.48	22.44
1.4	16QAM	1	5	22.15	22.11	22.23
1.4	16QAM	3	0	22.28	22.20	22.19
1.4	16QAM	3	1	22.24	22.16	22.18
1.4	16QAM	3	3	22.22	22.09	22.21
1.4	16QAM	6	0	21.26	21.19	21.27
1.4	64QAM	1	0	21.30	21.19	21.34
1.4	64QAM	1	3	21.55	21.57	21.32
1.4	64QAM	1	5	21.22	21.38	21.37
1.4	64QAM	3	0	21.11	21.08	21.07
1.4	64QAM	3	1	21.15	21.13	21.06
1.4	64QAM	3	3	21.12	21.04	21.17
1.4	64QAM	6	0	21.08	21.08	21.13



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	23.04	23.15	23.00
20	QPSK	1	49	23.08	23.05	23.06
20	QPSK	1	99	22.68	22.65	22.72
20	QPSK	50	0	22.13	22.35	22.17
20	QPSK	50	24	22.23	22.13	22.30
20	QPSK	50	50	22.20	22.21	22.05
20	QPSK	100	0	22.09	22.28	22.08
20	16QAM	1	0	22.10	21.96	22.31
20	16QAM	1	49	22.08	22.38	22.12
20	16QAM	1	99	22.34	21.99	21.95
20	16QAM	50	0	21.18	21.25	21.21
20	16QAM	50	24	21.18	21.11	21.16
20	16QAM	50	50	21.10	21.14	21.00
20	16QAM	100	0	21.21	21.08	21.03
20	64QAM	1	0	21.75	21.54	21.43
20	64QAM	1	49	21.48	21.73	21.72
20	64QAM	1	99	21.36	21.70	21.34
20	64QAM	50	0	21.11	21.21	21.15
20	64QAM	50	24	21.06	21.24	21.06
20	64QAM	50	50	21.08	21.16	21.05
20	64QAM	100	0	21.25	21.18	21.14



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	23.07	23.11	22.93
15	QPSK	1	37	23.05	23.09	23.00
15	QPSK	1	74	22.74	22.88	22.85
15	QPSK	36	0	22.05	22.06	22.08
15	QPSK	36	20	22.04	21.93	22.12
15	QPSK	36	39	22.01	22.04	21.88
15	QPSK	75	0	21.98	22.10	21.88
15	16QAM	1	0	21.92	21.96	22.31
15	16QAM	1	37	22.02	22.33	22.04
15	16QAM	1	74	22.16	21.94	21.98
15	16QAM	36	0	21.02	21.05	21.10
15	16QAM	36	20	21.10	21.02	20.98
15	16QAM	36	39	20.95	21.06	20.88
15	16QAM	75	0	21.15	20.88	20.89
15	64QAM	1	0	21.67	21.58	21.54
15	64QAM	1	37	21.31	21.61	21.50
15	64QAM	1	74	21.37	21.55	21.40
15	64QAM	36	0	20.94	21.13	21.01
15	64QAM	36	20	20.94	21.10	20.97
15	64QAM	36	39	21.00	20.97	20.87
15	64QAM	75	0	21.10	21.02	21.05



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	22.89	23.09	22.91
10	QPSK	1	25	23.08	22.90	23.01
10	QPSK	1	49	22.77	22.73	22.72
10	QPSK	25	0	21.99	22.06	22.13
10	QPSK	25	12	22.20	22.02	22.17
10	QPSK	25	25	22.19	22.13	22.00
10	QPSK	50	0	22.00	22.08	22.07
10	16QAM	1	0	22.06	22.08	22.23
10	16QAM	1	25	22.03	22.35	22.05
10	16QAM	1	49	22.20	21.92	21.97
10	16QAM	25	0	21.16	21.23	21.15
10	16QAM	25	12	21.12	21.01	21.07
10	16QAM	25	25	21.06	20.99	20.93
10	16QAM	50	0	21.10	21.06	20.97
10	64QAM	1	0	21.68	21.55	21.41
10	64QAM	1	25	21.42	21.71	21.62
10	64QAM	1	49	21.29	21.57	21.39
10	64QAM	25	0	20.96	21.13	21.12
10	64QAM	25	12	20.91	21.17	20.95
10	64QAM	25	25	20.97	21.10	21.01
10	64QAM	50	0	21.19	21.12	21.10



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	23.03	23.04	22.91
5	QPSK	1	12	23.00	22.91	22.85
5	QPSK	1	24	22.76	22.84	22.69
5	QPSK	12	0	22.00	21.92	22.05
5	QPSK	12	7	22.13	21.93	22.11
5	QPSK	12	13	22.00	22.09	21.93
5	QPSK	25	0	21.98	22.08	21.92
5	16QAM	1	0	21.96	22.08	22.18
5	16QAM	1	12	21.93	22.28	21.93
5	16QAM	1	24	22.13	21.95	21.83
5	16QAM	12	0	21.08	21.16	21.00
5	16QAM	12	7	20.97	20.95	20.95
5	16QAM	12	13	20.93	20.98	20.82
5	16QAM	25	0	21.12	20.98	20.87
5	64QAM	1	0	21.59	21.50	21.33
5	64QAM	1	12	21.35	21.51	21.59
5	64QAM	1	24	21.25	21.48	21.30
5	64QAM	12	0	20.89	21.04	21.05
5	64QAM	12	7	20.87	21.08	20.93
5	64QAM	12	13	20.91	20.99	20.87
5	64QAM	25	0	21.06	20.97	21.03



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	22.91	22.95	22.86
3	QPSK	1	8	23.09	23.06	22.94
3	QPSK	1	14	22.88	22.83	22.82
3	QPSK	8	0	21.96	22.01	21.99
3	QPSK	8	4	22.13	21.92	22.10
3	QPSK	8	7	22.02	22.00	21.81
3	QPSK	15	0	21.89	21.99	21.84
3	16QAM	1	0	21.96	22.04	22.24
3	16QAM	1	8	21.86	22.26	21.94
3	16QAM	1	14	22.18	21.79	21.85
3	16QAM	8	0	20.99	21.15	21.02
3	16QAM	8	4	20.95	20.91	21.01
3	16QAM	8	7	20.96	21.02	20.86
3	16QAM	15	0	21.05	20.97	20.79
3	64QAM	1	0	21.57	21.44	21.38
3	64QAM	1	8	21.32	21.54	21.59
3	64QAM	1	14	21.30	21.47	21.38
3	64QAM	8	0	20.89	21.04	20.95
3	64QAM	8	4	20.87	21.01	20.82
3	64QAM	8	7	20.96	20.95	20.81
3	64QAM	15	0	21.13	20.98	20.98



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	22.73	23.08	22.71
1.4	QPSK	1	3	22.99	23.03	22.86
1.4	QPSK	1	5	22.87	22.83	22.62
1.4	QPSK	3	0	22.63	22.65	22.60
1.4	QPSK	3	1	22.79	22.89	22.90
1.4	QPSK	3	3	22.51	22.46	22.53
1.4	QPSK	6	0	21.89	22.00	22.00
1.4	16QAM	1	0	21.98	21.87	22.17
1.4	16QAM	1	3	21.99	22.29	22.01
1.4	16QAM	1	5	22.16	21.89	21.85
1.4	16QAM	3	0	21.96	22.04	22.02
1.4	16QAM	3	1	22.01	21.95	22.00
1.4	16QAM	3	3	22.00	21.96	21.79
1.4	16QAM	6	0	21.11	20.87	20.81
1.4	64QAM	1	0	21.57	21.51	21.25
1.4	64QAM	1	3	21.31	21.52	21.57
1.4	64QAM	1	5	21.34	21.44	21.33
1.4	64QAM	3	0	21.03	21.03	21.05
1.4	64QAM	3	1	20.99	21.15	20.87
1.4	64QAM	3	3	20.86	21.07	20.96
1.4	64QAM	6	0	21.07	21.00	21.05



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	23.46	23.65	23.45
10	QPSK	1	25	23.59	23.62	23.57
10	QPSK	1	49	23.51	23.56	23.50
10	QPSK	25	0	22.62	22.72	22.63
10	QPSK	25	12	22.64	22.63	22.59
10	QPSK	25	25	22.59	22.60	22.54
10	QPSK	50	0	22.51	22.69	22.63
10	16QAM	1	0	22.58	22.38	22.23
10	16QAM	1	25	22.35	22.66	22.23
10	16QAM	1	49	22.61	22.57	22.42
10	16QAM	25	0	21.65	21.65	21.51
10	16QAM	25	12	21.73	21.65	21.51
10	16QAM	25	25	21.72	21.62	21.42
10	16QAM	50	0	21.52	21.63	21.59
10	64QAM	1	0	21.56	21.42	21.15
10	64QAM	1	25	21.35	21.59	21.31
10	64QAM	1	49	21.60	21.30	21.60
10	64QAM	25	0	21.62	21.57	21.62
10	64QAM	25	12	21.64	21.60	21.70
10	64QAM	25	25	21.61	21.63	21.57
10	64QAM	50	0	21.61	21.63	21.60



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	23.32	23.60	23.43
5	QPSK	1	12	23.54	23.60	23.56
5	QPSK	1	24	23.49	23.48	23.47
5	QPSK	12	0	22.55	22.66	22.50
5	QPSK	12	7	22.56	22.51	22.46
5	QPSK	12	13	22.51	22.56	22.45
5	QPSK	25	0	22.69	22.65	22.51
5	16QAM	1	0	22.53	22.32	22.16
5	16QAM	1	12	22.29	22.56	22.19
5	16QAM	1	24	22.54	22.49	22.36
5	16QAM	12	0	21.58	21.62	21.50
5	16QAM	12	7	21.65	21.51	21.42
5	16QAM	12	13	21.70	21.60	21.29
5	16QAM	25	0	21.44	21.59	21.50
5	64QAM	1	0	21.51	21.48	21.45
5	64QAM	1	12	21.21	21.48	21.24
5	64QAM	1	24	21.58	21.16	21.49
5	64QAM	12	0	21.52	21.51	21.61
5	64QAM	12	7	21.54	21.49	21.62
5	64QAM	12	13	21.49	21.50	21.43
5	64QAM	25	0	21.52	21.62	21.56



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	23.35	23.53	23.39
3	QPSK	1	8	23.56	23.63	23.44
3	QPSK	1	14	23.41	23.48	23.38
3	QPSK	8	0	22.47	22.63	22.55
3	QPSK	8	4	22.62	22.52	22.48
3	QPSK	8	7	22.52	22.49	22.50
3	QPSK	15	0	22.68	22.55	22.48
3	16QAM	1	0	22.45	22.34	22.39
3	16QAM	1	8	22.32	22.60	22.20
3	16QAM	1	14	22.52	22.52	22.38
3	16QAM	8	0	21.60	21.50	21.36
3	16QAM	8	4	21.60	21.56	21.40
3	16QAM	8	7	21.71	21.54	21.37
3	16QAM	15	0	21.50	21.60	21.50
3	64QAM	1	0	21.42	21.31	21.33
3	64QAM	1	8	21.34	21.54	21.22
3	64QAM	1	14	21.57	21.21	21.55
3	64QAM	8	0	21.59	21.56	21.58
3	64QAM	8	4	21.49	21.48	21.60
3	64QAM	8	7	21.47	21.49	21.47
3	64QAM	15	0	21.58	21.57	21.53



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	23.32	23.55	23.37
1.4	QPSK	1	3	23.47	23.57	23.42
1.4	QPSK	1	5	23.44	23.51	23.36
1.4	QPSK	3	0	23.41	23.60	23.37
1.4	QPSK	3	1	23.52	23.63	23.46
1.4	QPSK	3	3	23.48	23.52	23.47
1.4	QPSK	6	0	22.69	22.62	22.56
1.4	16QAM	1	0	22.46	22.34	22.22
1.4	16QAM	1	3	22.32	22.54	22.08
1.4	16QAM	1	5	22.52	22.51	22.30
1.4	16QAM	3	0	22.24	22.17	22.12
1.4	16QAM	3	1	22.22	22.14	22.15
1.4	16QAM	3	3	22.25	22.24	22.14
1.4	16QAM	6	0	21.38	21.60	21.55
1.4	64QAM	1	0	21.42	21.41	21.27
1.4	64QAM	1	3	21.25	21.55	21.20
1.4	64QAM	1	5	21.54	21.28	21.57
1.4	64QAM	3	0	21.54	21.68	21.58
1.4	64QAM	3	1	21.61	21.50	21.69
1.4	64QAM	3	3	21.55	21.58	21.55
1.4	64QAM	6	0	21.48	21.54	21.51



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	22.93	23.20	22.96
20	QPSK	1	49	23.19	23.12	23.15
20	QPSK	1	99	22.88	22.85	22.91
20	QPSK	50	0	22.39	22.45	22.37
20	QPSK	50	24	22.24	22.32	22.22
20	QPSK	50	50	22.28	22.21	22.14
20	QPSK	100	0	22.27	22.43	22.26
20	16QAM	1	0	22.27	22.30	22.25
20	16QAM	1	49	22.46	22.45	22.44
20	16QAM	1	99	22.09	22.44	22.36
20	16QAM	50	0	21.14	21.28	21.21
20	16QAM	50	24	21.29	21.21	21.26
20	16QAM	50	50	21.27	21.33	21.08
20	16QAM	100	0	21.14	21.24	21.22
20	64QAM	1	0	21.75	21.72	21.56
20	64QAM	1	49	21.79	21.82	21.73
20	64QAM	1	99	21.49	21.48	21.48
20	64QAM	50	0	21.12	21.16	21.26
20	64QAM	50	24	21.24	21.28	21.29
20	64QAM	50	50	21.24	21.38	21.09
20	64QAM	100	0	21.15	21.32	21.28



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.91	23.11	23.05
15	QPSK	1	37	23.05	23.02	23.11
15	QPSK	1	74	22.77	22.80	22.78
15	QPSK	36	0	22.02	22.14	22.28
15	QPSK	36	20	22.09	22.19	22.14
15	QPSK	36	39	22.21	22.10	22.13
15	QPSK	75	0	22.12	22.20	22.20
15	16QAM	1	0	22.17	22.22	22.19
15	16QAM	1	37	22.38	22.45	22.40
15	16QAM	1	74	22.07	22.35	22.33
15	16QAM	36	0	21.11	21.17	21.18
15	16QAM	36	20	21.28	21.15	21.25
15	16QAM	36	39	21.21	21.28	20.95
15	16QAM	75	0	21.13	21.09	21.09
15	64QAM	1	0	21.49	21.44	21.36
15	64QAM	1	37	21.53	21.59	21.49
15	64QAM	1	74	21.24	21.22	21.26
15	64QAM	36	0	21.09	21.06	21.23
15	64QAM	36	20	21.12	21.23	21.22
15	64QAM	36	39	21.16	21.33	21.07
15	64QAM	75	0	21.14	21.28	21.22



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.92	23.15	22.99
10	QPSK	1	25	23.04	23.07	23.07
10	QPSK	1	49	22.76	22.81	22.73
10	QPSK	25	0	21.96	22.11	22.24
10	QPSK	25	12	22.17	22.21	22.18
10	QPSK	25	25	22.20	22.11	22.04
10	QPSK	50	0	22.02	22.16	22.11
10	16QAM	1	0	22.24	22.21	22.19
10	16QAM	1	25	22.34	22.37	22.44
10	16QAM	1	49	22.04	22.29	22.23
10	16QAM	25	0	21.00	21.26	21.12
10	16QAM	25	12	21.24	21.09	21.14
10	16QAM	25	25	21.14	21.27	20.93
10	16QAM	50	0	21.04	21.13	21.07
10	64QAM	1	0	21.43	21.50	21.31
10	64QAM	1	25	21.59	21.59	21.45
10	64QAM	1	49	21.18	21.28	21.19
10	64QAM	25	0	21.04	21.03	21.25
10	64QAM	25	12	21.23	21.26	21.16
10	64QAM	25	25	21.22	21.31	20.97
10	64QAM	50	0	21.07	21.18	21.21



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.96	23.10	22.90
5	QPSK	1	12	23.08	23.03	23.13
5	QPSK	1	24	22.88	22.97	22.84
5	QPSK	12	0	22.04	22.11	22.36
5	QPSK	12	7	22.19	22.22	22.11
5	QPSK	12	13	22.24	22.20	22.06
5	QPSK	25	0	22.03	22.11	22.17
5	16QAM	1	0	22.22	22.23	22.14
5	16QAM	1	12	22.40	22.41	22.42
5	16QAM	1	24	22.07	22.40	22.33
5	16QAM	12	0	21.06	21.22	21.08
5	16QAM	12	7	21.24	21.18	21.16
5	16QAM	12	13	21.17	21.28	20.98
5	16QAM	25	0	21.06	21.10	21.17
5	64QAM	1	0	21.49	21.48	21.29
5	64QAM	1	12	21.57	21.53	21.53
5	64QAM	1	24	21.15	21.17	21.18
5	64QAM	12	0	20.97	21.14	21.24
5	64QAM	12	7	21.14	21.13	21.16
5	64QAM	12	13	21.23	21.33	20.94
5	64QAM	25	0	21.02	21.30	21.16



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	23.44	23.61	23.40
10	QPSK	1	25	23.56	23.55	23.52
10	QPSK	1	49	23.54	23.50	23.51
10	QPSK	25	0	22.41	22.58	22.57
10	QPSK	25	12	22.53	22.50	22.50
10	QPSK	25	25	22.50	22.47	22.47
10	QPSK	50	0	22.56	22.69	22.47
10	16QAM	1	0	22.56	22.57	22.64
10	16QAM	1	25	22.41	22.75	22.74
10	16QAM	1	49	22.74	22.36	22.39
10	16QAM	25	0	21.73	21.54	21.58
10	16QAM	25	12	21.66	21.62	21.49
10	16QAM	25	25	21.68	21.59	21.70
10	16QAM	50	0	21.63	21.51	21.53
10	64QAM	1	0	21.41	21.46	21.68
10	64QAM	1	25	21.64	21.70	21.66
10	64QAM	1	49	21.61	21.59	21.41
10	64QAM	25	0	21.60	21.49	21.61
10	64QAM	25	12	21.76	21.63	21.62
10	64QAM	25	25	21.64	21.68	21.58
10	64QAM	50	0	21.66	21.58	21.54



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	23.41	23.46	23.33
5	QPSK	1	12	23.43	23.56	23.38
5	QPSK	1	24	23.42	23.39	23.40
5	QPSK	12	0	22.60	22.35	22.55
5	QPSK	12	7	22.61	22.59	22.54
5	QPSK	12	13	22.54	22.49	22.52
5	QPSK	25	0	22.63	22.46	22.56
5	16QAM	1	0	22.45	22.49	22.54
5	16QAM	1	12	22.34	22.54	22.56
5	16QAM	1	24	22.67	22.33	22.35
5	16QAM	12	0	21.59	21.44	21.43
5	16QAM	12	7	21.57	21.56	21.36
5	16QAM	12	13	21.66	21.51	21.56
5	16QAM	25	0	21.58	21.48	21.52
5	64QAM	1	0	21.29	21.36	21.67
5	64QAM	1	12	21.56	21.63	21.52
5	64QAM	1	24	21.60	21.56	21.39
5	64QAM	12	0	21.57	21.40	21.54
5	64QAM	12	7	21.74	21.57	21.47
5	64QAM	12	13	21.52	21.64	21.43
5	64QAM	25	0	21.64	21.47	21.48



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	23.34	23.37	23.31
3	QPSK	1	8	23.42	23.56	23.42
3	QPSK	1	14	23.43	23.41	23.45
3	QPSK	8	0	22.65	22.46	22.43
3	QPSK	8	4	22.56	22.58	22.51
3	QPSK	8	7	22.63	22.46	22.51
3	QPSK	15	0	22.57	22.52	22.59
3	16QAM	1	0	22.16	22.34	22.55
3	16QAM	1	8	22.28	22.48	22.54
3	16QAM	1	14	22.60	22.22	22.29
3	16QAM	8	0	21.66	21.47	21.52
3	16QAM	8	4	21.58	21.54	21.39
3	16QAM	8	7	21.56	21.57	21.66
3	16QAM	15	0	21.60	21.41	21.50
3	64QAM	1	0	21.30	21.42	21.56
3	64QAM	1	8	21.60	21.69	21.55
3	64QAM	1	14	21.60	21.45	21.37
3	64QAM	8	0	21.50	21.38	21.48
3	64QAM	8	4	21.70	21.58	21.56
3	64QAM	8	7	21.57	21.65	21.56
3	64QAM	15	0	21.65	21.52	21.47



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	23.35	23.40	23.28
1.4	QPSK	1	3	23.52	23.54	23.37
1.4	QPSK	1	5	23.49	23.49	23.39
1.4	QPSK	3	0	23.37	23.34	23.38
1.4	QPSK	3	1	23.44	23.55	23.49
1.4	QPSK	3	3	23.43	23.38	23.50
1.4	QPSK	6	0	22.66	22.41	22.49
1.4	16QAM	1	0	22.38	22.51	22.55
1.4	16QAM	1	3	22.37	22.54	22.52
1.4	16QAM	1	5	22.68	22.36	22.34
1.4	16QAM	3	0	22.28	22.39	22.49
1.4	16QAM	3	1	22.40	22.66	22.59
1.4	16QAM	3	3	22.59	22.34	22.34
1.4	16QAM	6	0	21.50	21.44	21.40
1.4	64QAM	1	0	21.02	21.14	21.29
1.4	64QAM	1	3	21.32	21.43	21.40
1.4	64QAM	1	5	21.35	21.27	21.03
1.4	64QAM	3	0	21.52	21.40	21.56
1.4	64QAM	3	1	21.75	21.51	21.60
1.4	64QAM	3	3	21.50	21.54	21.54
1.4	64QAM	6	0	21.60	21.65	21.48



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				/	23230	/
Frequency (MHz)				/	782	/
10	QPSK	1	0	/	23.66	/
10	QPSK	1	25	/	23.59	/
10	QPSK	1	49	/	23.50	/
10	QPSK	25	0	/	22.56	/
10	QPSK	25	12	/	22.51	/
10	QPSK	25	25	/	22.34	/
10	QPSK	50	0	/	22.32	/
10	16QAM	1	0	/	22.58	/
10	16QAM	1	25	/	22.38	/
10	16QAM	1	49	/	22.58	/
10	16QAM	25	0	/	21.51	/
10	16QAM	25	12	/	21.59	/
10	16QAM	25	25	/	21.60	/
10	16QAM	50	0	/	21.65	/
10	64QAM	1	0	/	21.64	/
10	64QAM	1	25	/	21.79	/
10	64QAM	1	49	/	21.74	/
10	64QAM	25	0	/	21.73	/
10	64QAM	25	12	/	21.59	/
10	64QAM	25	25	/	21.56	/
10	64QAM	50	0	/	21.61	/



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	23.54	23.53	23.60
5	QPSK	1	12	23.52	23.51	23.46
5	QPSK	1	24	23.39	23.43	23.41
5	QPSK	12	0	22.49	22.50	22.45
5	QPSK	12	7	22.57	22.48	22.51
5	QPSK	12	13	22.60	22.60	22.62
5	QPSK	25	0	22.52	22.63	22.65
5	16QAM	1	0	22.89	22.94	22.90
5	16QAM	1	12	22.63	22.69	22.67
5	16QAM	1	24	22.57	22.56	22.73
5	16QAM	12	0	21.46	21.36	21.36
5	16QAM	12	7	21.58	21.58	21.50
5	16QAM	12	13	21.52	21.58	21.51
5	16QAM	25	0	21.50	21.54	21.64
5	64QAM	1	0	21.63	21.63	21.59
5	64QAM	1	12	21.77	21.66	21.65
5	64QAM	1	24	21.61	21.61	21.72
5	64QAM	12	0	21.64	21.62	21.61
5	64QAM	12	7	21.54	21.49	21.48
5	64QAM	12	13	21.41	21.49	21.46
5	64QAM	25	0	21.58	21.55	21.47



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	23.50	23.78	23.56
10	QPSK	1	25	23.73	23.63	23.70
10	QPSK	1	49	23.52	23.53	23.59
10	QPSK	25	0	22.58	22.69	22.58
10	QPSK	25	12	22.64	22.61	22.62
10	QPSK	25	25	22.55	22.61	22.60
10	QPSK	50	0	22.58	22.68	22.64
10	16QAM	1	0	22.91	22.94	22.92
10	16QAM	1	25	22.82	22.97	22.74
10	16QAM	1	49	22.66	22.77	22.72
10	16QAM	25	0	21.56	21.68	21.51
10	16QAM	25	12	21.63	21.59	21.59
10	16QAM	25	25	21.67	21.68	21.67
10	16QAM	50	0	21.60	21.58	21.71
10	64QAM	1	0	21.60	21.65	21.61
10	64QAM	1	25	21.59	21.63	21.60
10	64QAM	1	49	21.66	21.64	21.55
10	64QAM	25	0	21.48	21.55	21.58
10	64QAM	25	12	21.67	21.61	21.71
10	64QAM	25	25	21.61	21.60	21.65
10	64QAM	50	0	21.64	21.59	21.56



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power (dBm) Low Ch. / Freq.	Average Power (dBm) Middle Ch. / Freq.	Average Power (dBm) High Ch. / Freq.
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	23.42	23.64	23.50
5	QPSK	1	12	23.62	23.36	23.67
5	QPSK	1	24	23.45	23.50	23.55
5	QPSK	12	0	22.50	22.62	22.52
5	QPSK	12	7	22.53	22.56	22.55
5	QPSK	12	13	22.44	22.50	22.68
5	QPSK	25	0	22.54	22.57	22.55
5	16QAM	1	0	22.90	22.80	22.91
5	16QAM	1	12	22.85	22.95	22.65
5	16QAM	1	24	22.54	22.68	22.69
5	16QAM	12	0	21.52	21.55	21.49
5	16QAM	12	7	21.59	21.54	21.51
5	16QAM	12	13	21.66	21.58	21.62
5	16QAM	25	0	21.46	21.44	21.56
5	64QAM	1	0	21.47	21.52	21.60
5	64QAM	1	12	21.50	21.57	21.52
5	64QAM	1	24	21.65	21.60	21.46
5	64QAM	12	0	21.45	21.49	21.53
5	64QAM	12	7	21.63	21.50	21.69
5	64QAM	12	13	21.54	21.45	21.50
5	64QAM	25	0	21.51	21.57	21.47

**Effective Radiated Power and Effective Isotropic Radiated Power**

LTE Band 2				Measured E.I.R.P. (dBm)					
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	21.12	0.129	21.16	0.131	21.06	0.128
20	QPSK	1	49	21.04	0.127	21.06	0.128	21.11	0.129
20	QPSK	1	99	20.84	0.121	20.85	0.122	20.85	0.122
20	QPSK	50	0	20.28	0.107	20.36	0.109	20.32	0.108
20	QPSK	50	24	20.25	0.106	20.26	0.106	20.25	0.106
20	QPSK	50	50	20.24	0.106	20.18	0.104	20.27	0.106
20	QPSK	100	0	20.25	0.106	20.31	0.107	20.27	0.106
20	16QAM	1	0	20.42	0.110	20.13	0.103	20.09	0.102
20	16QAM	1	49	20.39	0.109	20.54	0.113	20.49	0.112
20	16QAM	1	99	20.06	0.101	20.13	0.103	20.18	0.104
20	16QAM	50	0	19.20	0.083	19.15	0.082	19.19	0.083
20	16QAM	50	24	19.20	0.083	19.14	0.082	19.21	0.083
20	16QAM	50	50	19.24	0.084	19.06	0.081	19.22	0.084
20	16QAM	100	0	19.19	0.083	19.20	0.083	19.23	0.084
20	64QAM	1	0	19.29	0.085	19.20	0.083	19.30	0.085
20	64QAM	1	49	19.53	0.090	19.20	0.083	19.32	0.086
20	64QAM	1	99	19.25	0.084	19.31	0.085	19.31	0.085
20	64QAM	50	0	19.07	0.081	19.11	0.081	19.11	0.081
20	64QAM	50	24	19.09	0.081	19.07	0.081	19.10	0.081
20	64QAM	50	50	19.16	0.082	18.96	0.079	19.09	0.081
20	64QAM	100	0	19.07	0.081	19.03	0.080	19.08	0.081



LTE Band 2				Measured E.I.R.P. (dBm)					
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	20.75	0.119	21.02	0.126	20.83	0.121
15	QPSK	1	37	20.91	0.123	20.97	0.125	21.06	0.128
15	QPSK	1	74	20.77	0.119	20.72	0.118	20.71	0.118
15	QPSK	36	0	20.13	0.103	20.10	0.102	20.29	0.107
15	QPSK	36	20	20.15	0.104	20.17	0.104	20.23	0.105
15	QPSK	36	39	20.20	0.105	20.15	0.104	20.22	0.105
15	QPSK	75	0	20.14	0.103	20.06	0.101	20.20	0.105
15	16QAM	1	0	20.34	0.108	20.10	0.102	20.06	0.101
15	16QAM	1	37	20.30	0.107	20.38	0.109	20.35	0.108
15	16QAM	1	74	19.96	0.099	20.10	0.102	20.07	0.102
15	16QAM	36	0	19.17	0.083	19.01	0.080	19.16	0.082
15	16QAM	36	20	19.05	0.080	19.02	0.080	19.09	0.081
15	16QAM	36	39	19.12	0.082	18.96	0.079	19.14	0.082
15	16QAM	75	0	19.17	0.083	19.14	0.082	19.22	0.084
15	64QAM	1	0	19.20	0.083	19.10	0.081	19.24	0.084
15	64QAM	1	37	19.46	0.088	19.44	0.088	19.26	0.084
15	64QAM	1	74	19.20	0.083	19.18	0.083	19.20	0.083
15	64QAM	36	0	19.03	0.080	19.03	0.080	18.98	0.079
15	64QAM	36	20	18.95	0.079	19.01	0.080	19.05	0.080
15	64QAM	36	39	19.06	0.081	18.87	0.077	19.03	0.080
15	64QAM	75	0	18.99	0.079	18.92	0.078	18.97	0.079



LTE Band 2				Measured E.I.R.P. (dBm)					
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	20.80	0.120	21.05	0.127	20.94	0.124
10	QPSK	1	25	20.91	0.123	20.92	0.124	20.97	0.125
10	QPSK	1	49	20.76	0.119	20.79	0.120	20.72	0.118
10	QPSK	25	0	20.23	0.105	20.09	0.102	20.31	0.107
10	QPSK	25	12	20.21	0.105	20.25	0.106	20.22	0.105
10	QPSK	25	25	20.18	0.104	20.10	0.102	20.13	0.103
10	QPSK	50	0	20.21	0.105	20.09	0.102	20.14	0.103
10	16QAM	1	0	20.30	0.107	20.06	0.101	20.00	0.100
10	16QAM	1	25	20.30	0.107	20.44	0.111	20.40	0.110
10	16QAM	1	49	19.96	0.099	20.10	0.102	20.17	0.104
10	16QAM	25	0	19.07	0.081	19.12	0.082	19.13	0.082
10	16QAM	25	12	19.09	0.081	19.06	0.081	19.12	0.082
10	16QAM	25	25	19.13	0.082	18.99	0.079	19.18	0.083
10	16QAM	50	0	19.09	0.081	19.14	0.082	19.08	0.081
10	64QAM	1	0	19.15	0.082	19.08	0.081	19.28	0.085
10	64QAM	1	25	19.39	0.087	19.50	0.089	19.17	0.083
10	64QAM	1	49	19.12	0.082	19.24	0.084	19.28	0.085
10	64QAM	25	0	18.92	0.078	18.96	0.079	19.00	0.079
10	64QAM	25	12	19.08	0.081	18.96	0.079	19.03	0.080
10	64QAM	25	25	19.04	0.080	18.92	0.078	19.02	0.080
10	64QAM	50	0	19.05	0.080	18.92	0.078	18.99	0.079



LTE Band 2				Measured E.I.R.P. (dBm)					
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	20.79	0.120	21.01	0.126	20.95	0.124
5	QPSK	1	12	20.98	0.125	21.05	0.127	21.00	0.126
5	QPSK	1	24	20.71	0.118	20.84	0.121	20.80	0.120
5	QPSK	12	0	20.14	0.103	20.11	0.103	20.22	0.105
5	QPSK	12	7	20.18	0.104	20.14	0.103	20.22	0.105
5	QPSK	12	13	20.13	0.103	20.10	0.102	20.26	0.106
5	QPSK	25	0	20.16	0.104	20.14	0.103	20.12	0.103
5	16QAM	1	0	20.36	0.109	20.08	0.102	20.05	0.101
5	16QAM	1	12	20.25	0.106	20.37	0.109	20.38	0.109
5	16QAM	1	24	19.99	0.100	20.08	0.102	20.09	0.102
5	16QAM	12	0	19.17	0.083	19.14	0.082	19.17	0.083
5	16QAM	12	7	19.12	0.082	19.08	0.081	19.14	0.082
5	16QAM	12	13	19.14	0.082	18.99	0.079	19.12	0.082
5	16QAM	25	0	19.05	0.080	19.06	0.081	19.10	0.081
5	64QAM	1	0	19.15	0.082	19.17	0.083	19.27	0.085
5	64QAM	1	12	19.52	0.090	19.51	0.089	19.28	0.085
5	64QAM	1	24	19.24	0.084	19.27	0.085	19.29	0.085
5	64QAM	12	0	18.99	0.079	19.02	0.080	18.98	0.079
5	64QAM	12	7	19.03	0.080	18.99	0.079	19.08	0.081
5	64QAM	12	13	19.02	0.080	18.94	0.078	18.95	0.079
5	64QAM	25	0	19.01	0.080	18.93	0.078	19.06	0.081



LTE Band 2				Measured E.I.R.P. (dBm)					
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	20.78	0.120	21.03	0.127	20.94	0.124
3	QPSK	1	8	20.91	0.123	21.04	0.127	21.02	0.126
3	QPSK	1	14	20.82	0.121	20.80	0.120	20.75	0.119
3	QPSK	8	0	20.24	0.106	20.15	0.104	20.21	0.105
3	QPSK	8	4	20.14	0.103	20.24	0.106	20.20	0.105
3	QPSK	8	7	20.17	0.104	20.17	0.104	20.23	0.105
3	QPSK	15	0	20.18	0.104	20.13	0.103	20.21	0.105
3	16QAM	1	0	20.36	0.109	20.10	0.102	19.96	0.099
3	16QAM	1	8	20.28	0.107	20.39	0.109	20.37	0.109
3	16QAM	1	14	19.95	0.099	20.02	0.100	20.10	0.102
3	16QAM	8	0	19.10	0.081	19.12	0.082	19.14	0.082
3	16QAM	8	4	19.05	0.080	19.07	0.081	19.14	0.082
3	16QAM	8	7	19.10	0.081	18.91	0.078	19.21	0.083
3	16QAM	15	0	19.10	0.081	19.12	0.082	19.16	0.082
3	64QAM	1	0	19.18	0.083	19.16	0.082	19.28	0.085
3	64QAM	1	8	19.40	0.087	19.54	0.090	19.19	0.083
3	64QAM	1	14	19.14	0.082	19.19	0.083	19.27	0.085
3	64QAM	8	0	19.00	0.079	19.06	0.081	19.04	0.080
3	64QAM	8	4	19.06	0.081	18.95	0.079	18.96	0.079
3	64QAM	8	7	19.13	0.082	18.92	0.078	19.03	0.080
3	64QAM	15	0	18.93	0.078	18.99	0.079	18.99	0.079



LTE Band 2				Measured E.I.R.P. (dBm)					
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	20.74	0.119	21.08	0.128	20.82	0.121
1.4	QPSK	1	3	21.03	0.127	20.98	0.125	21.00	0.126
1.4	QPSK	1	5	20.78	0.120	20.84	0.121	20.78	0.120
1.4	QPSK	3	0	20.73	0.118	20.93	0.124	20.77	0.119
1.4	QPSK	3	1	20.98	0.125	20.85	0.122	20.93	0.124
1.4	QPSK	3	3	20.75	0.119	20.81	0.121	20.70	0.117
1.4	QPSK	6	0	20.13	0.103	20.05	0.101	20.20	0.105
1.4	16QAM	1	0	20.30	0.107	19.99	0.100	19.97	0.099
1.4	16QAM	1	3	20.28	0.107	20.38	0.109	20.34	0.108
1.4	16QAM	1	5	20.05	0.101	20.01	0.100	20.13	0.103
1.4	16QAM	3	0	20.18	0.104	20.10	0.102	20.09	0.102
1.4	16QAM	3	1	20.14	0.103	20.06	0.101	20.08	0.102
1.4	16QAM	3	3	20.12	0.103	19.99	0.100	20.11	0.103
1.4	16QAM	6	0	19.16	0.082	19.09	0.081	19.17	0.083
1.4	64QAM	1	0	19.20	0.083	19.09	0.081	19.24	0.084
1.4	64QAM	1	3	19.45	0.088	19.47	0.089	19.22	0.084
1.4	64QAM	1	5	19.12	0.082	19.28	0.085	19.27	0.085
1.4	64QAM	3	0	19.01	0.080	18.98	0.079	18.97	0.079
1.4	64QAM	3	1	19.05	0.080	19.03	0.080	18.96	0.079
1.4	64QAM	3	3	19.02	0.080	18.94	0.078	19.07	0.081
1.4	64QAM	6	0	18.98	0.079	18.98	0.079	19.03	0.080



LTE Band 4				Measured E.I.R.P. (dBm)					
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	20.74	0.119	20.85	0.122	20.70	0.117
20	QPSK	1	49	20.78	0.120	20.75	0.119	20.76	0.119
20	QPSK	1	99	20.38	0.109	20.35	0.108	20.42	0.110
20	QPSK	50	0	19.83	0.096	20.05	0.101	19.87	0.097
20	QPSK	50	24	19.93	0.098	19.83	0.096	20.00	0.100
20	QPSK	50	50	19.90	0.098	19.91	0.098	19.75	0.094
20	QPSK	100	0	19.79	0.095	19.98	0.100	19.78	0.095
20	16QAM	1	0	19.80	0.095	19.66	0.092	20.01	0.100
20	16QAM	1	49	19.78	0.095	20.08	0.102	19.82	0.096
20	16QAM	1	99	20.04	0.101	19.69	0.093	19.65	0.092
20	16QAM	50	0	18.88	0.077	18.95	0.079	18.91	0.078
20	16QAM	50	24	18.88	0.077	18.81	0.076	18.86	0.077
20	16QAM	50	50	18.80	0.076	18.84	0.077	18.70	0.074
20	16QAM	100	0	18.91	0.078	18.78	0.076	18.73	0.075
20	64QAM	1	0	19.45	0.088	19.24	0.084	19.13	0.082
20	64QAM	1	49	19.18	0.083	19.43	0.088	19.42	0.087
20	64QAM	1	99	19.06	0.081	19.40	0.087	19.04	0.080
20	64QAM	50	0	18.81	0.076	18.91	0.078	18.85	0.077
20	64QAM	50	24	18.76	0.075	18.94	0.078	18.76	0.075
20	64QAM	50	50	18.78	0.076	18.86	0.077	18.75	0.075
20	64QAM	100	0	18.95	0.079	18.88	0.077	18.84	0.077



LTE Band 4				Measured E.I.R.P. (dBm)					
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	20.77	0.119	20.81	0.121	20.63	0.116
15	QPSK	1	37	20.75	0.119	20.79	0.120	20.70	0.117
15	QPSK	1	74	20.44	0.111	20.58	0.114	20.55	0.114
15	QPSK	36	0	19.75	0.094	19.76	0.095	19.78	0.095
15	QPSK	36	20	19.74	0.094	19.63	0.092	19.82	0.096
15	QPSK	36	39	19.71	0.094	19.74	0.094	19.58	0.091
15	QPSK	75	0	19.68	0.093	19.80	0.095	19.58	0.091
15	16QAM	1	0	19.62	0.092	19.66	0.092	20.01	0.100
15	16QAM	1	37	19.72	0.094	20.03	0.101	19.74	0.094
15	16QAM	1	74	19.86	0.097	19.64	0.092	19.68	0.093
15	16QAM	36	0	18.72	0.074	18.75	0.075	18.80	0.076
15	16QAM	36	20	18.80	0.076	18.72	0.074	18.68	0.074
15	16QAM	36	39	18.65	0.073	18.76	0.075	18.58	0.072
15	16QAM	75	0	18.85	0.077	18.58	0.072	18.59	0.072
15	64QAM	1	0	19.37	0.086	19.28	0.085	19.24	0.084
15	64QAM	1	37	19.01	0.080	19.31	0.085	19.20	0.083
15	64QAM	1	74	19.07	0.081	19.25	0.084	19.10	0.081
15	64QAM	36	0	18.64	0.073	18.83	0.076	18.71	0.074
15	64QAM	36	20	18.64	0.073	18.80	0.076	18.67	0.074
15	64QAM	36	39	18.70	0.074	18.67	0.074	18.57	0.072
15	64QAM	75	0	18.80	0.076	18.72	0.074	18.75	0.075



LTE Band 4				Measured E.I.R.P. (dBm)					
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	20.59	0.115	20.79	0.120	20.61	0.115
10	QPSK	1	25	20.78	0.120	20.60	0.115	20.71	0.118
10	QPSK	1	49	20.47	0.111	20.43	0.110	20.42	0.110
10	QPSK	25	0	19.69	0.093	19.76	0.095	19.83	0.096
10	QPSK	25	12	19.90	0.098	19.72	0.094	19.87	0.097
10	QPSK	25	25	19.89	0.097	19.83	0.096	19.70	0.093
10	QPSK	50	0	19.70	0.093	19.78	0.095	19.77	0.095
10	16QAM	1	0	19.76	0.095	19.78	0.095	19.93	0.098
10	16QAM	1	25	19.73	0.094	20.05	0.101	19.75	0.094
10	16QAM	1	49	19.90	0.098	19.62	0.092	19.67	0.093
10	16QAM	25	0	18.86	0.077	18.93	0.078	18.85	0.077
10	16QAM	25	12	18.82	0.076	18.71	0.074	18.77	0.075
10	16QAM	25	25	18.76	0.075	18.69	0.074	18.63	0.073
10	16QAM	50	0	18.80	0.076	18.76	0.075	18.67	0.074
10	64QAM	1	0	19.38	0.087	19.25	0.084	19.11	0.081
10	64QAM	1	25	19.12	0.082	19.41	0.087	19.32	0.086
10	64QAM	1	49	18.99	0.079	19.27	0.085	19.09	0.081
10	64QAM	25	0	18.66	0.073	18.83	0.076	18.82	0.076
10	64QAM	25	12	18.61	0.073	18.87	0.077	18.65	0.073
10	64QAM	25	25	18.67	0.074	18.80	0.076	18.71	0.074
10	64QAM	50	0	18.89	0.077	18.82	0.076	18.80	0.076



LTE Band 4				Measured E.I.R.P. (dBm)					
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	20.73	0.118	20.74	0.119	20.61	0.115
5	QPSK	1	12	20.70	0.117	20.61	0.115	20.55	0.114
5	QPSK	1	24	20.46	0.111	20.54	0.113	20.39	0.109
5	QPSK	12	0	19.70	0.093	19.62	0.092	19.75	0.094
5	QPSK	12	7	19.83	0.096	19.63	0.092	19.81	0.096
5	QPSK	12	13	19.70	0.093	19.79	0.095	19.63	0.092
5	QPSK	25	0	19.68	0.093	19.78	0.095	19.62	0.092
5	16QAM	1	0	19.66	0.092	19.78	0.095	19.88	0.097
5	16QAM	1	12	19.63	0.092	19.98	0.100	19.63	0.092
5	16QAM	1	24	19.83	0.096	19.65	0.092	19.53	0.090
5	16QAM	12	0	18.78	0.076	18.86	0.077	18.70	0.074
5	16QAM	12	7	18.67	0.074	18.65	0.073	18.65	0.073
5	16QAM	12	13	18.63	0.073	18.68	0.074	18.52	0.071
5	16QAM	25	0	18.82	0.076	18.68	0.074	18.57	0.072
5	64QAM	1	0	19.29	0.085	19.20	0.083	19.03	0.080
5	64QAM	1	12	19.05	0.080	19.21	0.083	19.29	0.085
5	64QAM	1	24	18.95	0.079	19.18	0.083	19.00	0.079
5	64QAM	12	0	18.59	0.072	18.74	0.075	18.75	0.075
5	64QAM	12	7	18.57	0.072	18.78	0.076	18.63	0.073
5	64QAM	12	13	18.61	0.073	18.69	0.074	18.57	0.072
5	64QAM	25	0	18.76	0.075	18.67	0.074	18.73	0.075



LTE Band 4				Measured E.I.R.P. (dBm)					
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	20.61	0.115	20.65	0.116	20.56	0.114
3	QPSK	1	8	20.79	0.120	20.76	0.119	20.64	0.116
3	QPSK	1	14	20.58	0.114	20.53	0.113	20.52	0.113
3	QPSK	8	0	19.66	0.092	19.71	0.094	19.69	0.093
3	QPSK	8	4	19.83	0.096	19.62	0.092	19.80	0.095
3	QPSK	8	7	19.72	0.094	19.70	0.093	19.51	0.089
3	QPSK	15	0	19.59	0.091	19.69	0.093	19.54	0.090
3	16QAM	1	0	19.66	0.092	19.74	0.094	19.94	0.099
3	16QAM	1	8	19.56	0.090	19.96	0.099	19.64	0.092
3	16QAM	1	14	19.88	0.097	19.49	0.089	19.55	0.090
3	16QAM	8	0	18.69	0.074	18.85	0.077	18.72	0.074
3	16QAM	8	4	18.65	0.073	18.61	0.073	18.71	0.074
3	16QAM	8	7	18.66	0.073	18.72	0.074	18.56	0.072
3	16QAM	15	0	18.75	0.075	18.67	0.074	18.49	0.071
3	64QAM	1	0	19.27	0.085	19.14	0.082	19.08	0.081
3	64QAM	1	8	19.02	0.080	19.24	0.084	19.29	0.085
3	64QAM	1	14	19.00	0.079	19.17	0.083	19.08	0.081
3	64QAM	8	0	18.59	0.072	18.74	0.075	18.65	0.073
3	64QAM	8	4	18.57	0.072	18.71	0.074	18.52	0.071
3	64QAM	8	7	18.66	0.073	18.65	0.073	18.51	0.071
3	64QAM	15	0	18.83	0.076	18.68	0.074	18.68	0.074



LTE Band 4				Measured E.I.R.P. (dBm)					
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	20.43	0.110	20.78	0.120	20.41	0.110
1.4	QPSK	1	3	20.69	0.117	20.73	0.118	20.56	0.114
1.4	QPSK	1	5	20.57	0.114	20.53	0.113	20.32	0.108
1.4	QPSK	3	0	20.33	0.108	20.35	0.108	20.30	0.107
1.4	QPSK	3	1	20.49	0.112	20.59	0.115	20.60	0.115
1.4	QPSK	3	3	20.21	0.105	20.16	0.104	20.23	0.105
1.4	QPSK	6	0	19.59	0.091	19.70	0.093	19.70	0.093
1.4	16QAM	1	0	19.68	0.093	19.57	0.091	19.87	0.097
1.4	16QAM	1	3	19.69	0.093	19.99	0.100	19.71	0.094
1.4	16QAM	1	5	19.86	0.097	19.59	0.091	19.55	0.090
1.4	16QAM	3	0	19.66	0.092	19.74	0.094	19.72	0.094
1.4	16QAM	3	1	19.71	0.094	19.65	0.092	19.70	0.093
1.4	16QAM	3	3	19.70	0.093	19.66	0.092	19.49	0.089
1.4	16QAM	6	0	18.81	0.076	18.57	0.072	18.51	0.071
1.4	64QAM	1	0	19.27	0.085	19.21	0.083	18.95	0.079
1.4	64QAM	1	3	19.01	0.080	19.22	0.084	19.27	0.085
1.4	64QAM	1	5	19.04	0.080	19.14	0.082	19.03	0.080
1.4	64QAM	3	0	18.73	0.075	18.73	0.075	18.75	0.075
1.4	64QAM	3	1	18.69	0.074	18.85	0.077	18.57	0.072
1.4	64QAM	3	3	18.56	0.072	18.77	0.075	18.66	0.073
1.4	64QAM	6	0	18.77	0.075	18.70	0.074	18.75	0.075



LTE Band 5				Measured E.R.P. (dBm)					
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	18.61	0.073	18.80	0.076	18.60	0.072
10	QPSK	1	25	18.74	0.075	18.77	0.075	18.72	0.074
10	QPSK	1	49	18.66	0.073	18.71	0.074	18.65	0.073
10	QPSK	25	0	17.77	0.060	17.87	0.061	17.78	0.060
10	QPSK	25	12	17.79	0.060	17.78	0.060	17.74	0.059
10	QPSK	25	25	17.74	0.059	17.75	0.060	17.69	0.059
10	QPSK	50	0	17.66	0.058	17.84	0.061	17.78	0.060
10	16QAM	1	0	17.73	0.059	17.53	0.057	17.38	0.055
10	16QAM	1	25	17.50	0.056	17.81	0.060	17.38	0.055
10	16QAM	1	49	17.76	0.060	17.72	0.059	17.57	0.057
10	16QAM	25	0	16.80	0.048	16.80	0.048	16.66	0.046
10	16QAM	25	12	16.88	0.049	16.80	0.048	16.66	0.046
10	16QAM	25	25	16.87	0.049	16.77	0.048	16.57	0.045
10	16QAM	50	0	16.67	0.046	16.78	0.048	16.74	0.047
10	64QAM	1	0	16.71	0.047	16.57	0.045	16.30	0.043
10	64QAM	1	25	16.50	0.045	16.74	0.047	16.46	0.044
10	64QAM	1	49	16.75	0.047	16.45	0.044	16.75	0.047
10	64QAM	25	0	16.77	0.048	16.72	0.047	16.77	0.048
10	64QAM	25	12	16.79	0.048	16.75	0.047	16.85	0.048
10	64QAM	25	25	16.76	0.047	16.78	0.048	16.72	0.047
10	64QAM	50	0	16.76	0.047	16.78	0.048	16.75	0.047



LTE Band 5				Measured E.R.P. (dBm)					
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	18.47	0.070	18.75	0.075	18.58	0.072
5	QPSK	1	12	18.69	0.074	18.75	0.075	18.71	0.074
5	QPSK	1	24	18.64	0.073	18.63	0.073	18.62	0.073
5	QPSK	12	0	17.70	0.059	17.81	0.060	17.65	0.058
5	QPSK	12	7	17.71	0.059	17.66	0.058	17.61	0.058
5	QPSK	12	13	17.66	0.058	17.71	0.059	17.60	0.058
5	QPSK	25	0	17.84	0.061	17.80	0.060	17.66	0.058
5	16QAM	1	0	17.68	0.059	17.47	0.056	17.31	0.054
5	16QAM	1	12	17.44	0.055	17.71	0.059	17.34	0.054
5	16QAM	1	24	17.69	0.059	17.64	0.058	17.51	0.056
5	16QAM	12	0	16.73	0.047	16.77	0.048	16.65	0.046
5	16QAM	12	7	16.80	0.048	16.66	0.046	16.57	0.045
5	16QAM	12	13	16.85	0.048	16.75	0.047	16.44	0.044
5	16QAM	25	0	16.59	0.046	16.74	0.047	16.65	0.046
5	64QAM	1	0	16.66	0.046	16.63	0.046	16.60	0.046
5	64QAM	1	12	16.36	0.043	16.63	0.046	16.39	0.044
5	64QAM	1	24	16.73	0.047	16.31	0.043	16.64	0.046
5	64QAM	12	0	16.67	0.046	16.66	0.046	16.76	0.047
5	64QAM	12	7	16.69	0.047	16.64	0.046	16.77	0.048
5	64QAM	12	13	16.64	0.046	16.65	0.046	16.58	0.045
5	64QAM	25	0	16.67	0.046	16.77	0.048	16.71	0.047



LTE Band 5				Measured E.R.P. (dBm)					
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	18.50	0.071	18.68	0.074	18.54	0.071
3	QPSK	1	8	18.71	0.074	18.78	0.076	18.59	0.072
3	QPSK	1	14	18.56	0.072	18.63	0.073	18.53	0.071
3	QPSK	8	0	17.62	0.058	17.78	0.060	17.70	0.059
3	QPSK	8	4	17.77	0.060	17.67	0.058	17.63	0.058
3	QPSK	8	7	17.67	0.058	17.64	0.058	17.65	0.058
3	QPSK	15	0	17.83	0.061	17.70	0.059	17.63	0.058
3	16QAM	1	0	17.60	0.058	17.49	0.056	17.54	0.057
3	16QAM	1	8	17.47	0.056	17.75	0.060	17.35	0.054
3	16QAM	1	14	17.67	0.058	17.67	0.058	17.53	0.057
3	16QAM	8	0	16.75	0.047	16.65	0.046	16.51	0.045
3	16QAM	8	4	16.75	0.047	16.71	0.047	16.55	0.045
3	16QAM	8	7	16.86	0.049	16.69	0.047	16.52	0.045
3	16QAM	15	0	16.65	0.046	16.75	0.047	16.65	0.046
3	64QAM	1	0	16.57	0.045	16.46	0.044	16.48	0.044
3	64QAM	1	8	16.49	0.045	16.69	0.047	16.37	0.043
3	64QAM	1	14	16.72	0.047	16.36	0.043	16.70	0.047
3	64QAM	8	0	16.74	0.047	16.71	0.047	16.73	0.047
3	64QAM	8	4	16.64	0.046	16.63	0.046	16.75	0.047
3	64QAM	8	7	16.62	0.046	16.64	0.046	16.62	0.046
3	64QAM	15	0	16.73	0.047	16.72	0.047	16.68	0.047



LTE Band 5				Measured E.R.P. (dBm)					
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	18.47	0.070	18.70	0.074	18.52	0.071
1.4	QPSK	1	3	18.62	0.073	18.72	0.074	18.57	0.072
1.4	QPSK	1	5	18.59	0.072	18.66	0.073	18.51	0.071
1.4	QPSK	3	0	18.56	0.072	18.75	0.075	18.52	0.071
1.4	QPSK	3	1	18.67	0.074	18.78	0.076	18.61	0.073
1.4	QPSK	3	3	18.63	0.073	18.67	0.074	18.62	0.073
1.4	QPSK	6	0	17.84	0.061	17.77	0.060	17.71	0.059
1.4	16QAM	1	0	17.61	0.058	17.49	0.056	17.37	0.055
1.4	16QAM	1	3	17.47	0.056	17.69	0.059	17.23	0.053
1.4	16QAM	1	5	17.67	0.058	17.66	0.058	17.45	0.056
1.4	16QAM	3	0	17.39	0.055	17.32	0.054	17.27	0.053
1.4	16QAM	3	1	17.37	0.055	17.29	0.054	17.30	0.054
1.4	16QAM	3	3	17.40	0.055	17.39	0.055	17.29	0.054
1.4	16QAM	6	0	16.53	0.045	16.75	0.047	16.70	0.047
1.4	64QAM	1	0	16.57	0.045	16.56	0.045	16.42	0.044
1.4	64QAM	1	3	16.40	0.044	16.70	0.047	16.35	0.043
1.4	64QAM	1	5	16.69	0.047	16.43	0.044	16.72	0.047
1.4	64QAM	3	0	16.69	0.047	16.83	0.048	16.73	0.047
1.4	64QAM	3	1	16.76	0.047	16.65	0.046	16.84	0.048
1.4	64QAM	3	3	16.70	0.047	16.73	0.047	16.70	0.047
1.4	64QAM	6	0	16.63	0.046	16.69	0.047	16.66	0.046



LTE Band 7				Measured E.I.R.P. (dBm)					
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	20.83	0.121	21.10	0.129	20.86	0.122
20	QPSK	1	49	21.09	0.129	21.02	0.126	21.05	0.127
20	QPSK	1	99	20.78	0.120	20.75	0.119	20.81	0.121
20	QPSK	50	0	20.29	0.107	20.35	0.108	20.27	0.106
20	QPSK	50	24	20.14	0.103	20.22	0.105	20.12	0.103
20	QPSK	50	50	20.18	0.104	20.11	0.103	20.04	0.101
20	QPSK	100	0	20.17	0.104	20.33	0.108	20.16	0.104
20	16QAM	1	0	20.17	0.104	20.20	0.105	20.15	0.104
20	16QAM	1	49	20.36	0.109	20.35	0.108	20.34	0.108
20	16QAM	1	99	19.99	0.100	20.34	0.108	20.26	0.106
20	16QAM	50	0	19.04	0.080	19.18	0.083	19.11	0.081
20	16QAM	50	24	19.19	0.083	19.11	0.081	19.16	0.082
20	16QAM	50	50	19.17	0.083	19.23	0.084	18.98	0.079
20	16QAM	100	0	19.04	0.080	19.14	0.082	19.12	0.082
20	64QAM	1	0	19.65	0.092	19.62	0.092	19.46	0.088
20	64QAM	1	49	19.69	0.093	19.72	0.094	19.63	0.092
20	64QAM	1	99	19.39	0.087	19.38	0.087	19.38	0.087
20	64QAM	50	0	19.02	0.080	19.06	0.081	19.16	0.082
20	64QAM	50	24	19.14	0.082	19.18	0.083	19.19	0.083
20	64QAM	50	50	19.14	0.082	19.28	0.085	18.99	0.079
20	64QAM	100	0	19.05	0.080	19.22	0.084	19.18	0.083



LTE Band 7				Measured E.I.R.P. (dBm)					
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	20.81	0.121	21.01	0.126	20.95	0.124
15	QPSK	1	37	20.95	0.124	20.92	0.124	21.01	0.126
15	QPSK	1	74	20.67	0.117	20.70	0.117	20.68	0.117
15	QPSK	36	0	19.92	0.098	20.04	0.101	20.18	0.104
15	QPSK	36	20	19.99	0.100	20.09	0.102	20.04	0.101
15	QPSK	36	39	20.11	0.103	20.00	0.100	20.03	0.101
15	QPSK	75	0	20.02	0.100	20.10	0.102	20.10	0.102
15	16QAM	1	0	20.07	0.102	20.12	0.103	20.09	0.102
15	16QAM	1	37	20.28	0.107	20.35	0.108	20.30	0.107
15	16QAM	1	74	19.97	0.099	20.25	0.106	20.23	0.105
15	16QAM	36	0	19.01	0.080	19.07	0.081	19.08	0.081
15	16QAM	36	20	19.18	0.083	19.05	0.080	19.15	0.082
15	16QAM	36	39	19.11	0.081	19.18	0.083	18.85	0.077
15	16QAM	75	0	19.03	0.080	18.99	0.079	18.99	0.079
15	64QAM	1	0	19.39	0.087	19.34	0.086	19.26	0.084
15	64QAM	1	37	19.43	0.088	19.49	0.089	19.39	0.087
15	64QAM	1	74	19.14	0.082	19.12	0.082	19.16	0.082
15	64QAM	36	0	18.99	0.079	18.96	0.079	19.13	0.082
15	64QAM	36	20	19.02	0.080	19.13	0.082	19.12	0.082
15	64QAM	36	39	19.06	0.081	19.23	0.084	18.97	0.079
15	64QAM	75	0	19.04	0.080	19.18	0.083	19.12	0.082



LTE Band 7				Measured E.I.R.P. (dBm)					
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	20.82	0.121	21.05	0.127	20.89	0.123
10	QPSK	1	25	20.94	0.124	20.97	0.125	20.97	0.125
10	QPSK	1	49	20.66	0.116	20.71	0.118	20.63	0.116
10	QPSK	25	0	19.86	0.097	20.01	0.100	20.14	0.103
10	QPSK	25	12	20.07	0.102	20.11	0.103	20.08	0.102
10	QPSK	25	25	20.10	0.102	20.01	0.100	19.94	0.099
10	QPSK	50	0	19.92	0.098	20.06	0.101	20.01	0.100
10	16QAM	1	0	20.14	0.103	20.11	0.103	20.09	0.102
10	16QAM	1	25	20.24	0.106	20.27	0.106	20.34	0.108
10	16QAM	1	49	19.94	0.099	20.19	0.104	20.13	0.103
10	16QAM	25	0	18.90	0.078	19.16	0.082	19.02	0.080
10	16QAM	25	12	19.14	0.082	18.99	0.079	19.04	0.080
10	16QAM	25	25	19.04	0.080	19.17	0.083	18.83	0.076
10	16QAM	50	0	18.94	0.078	19.03	0.080	18.97	0.079
10	64QAM	1	0	19.33	0.086	19.40	0.087	19.21	0.083
10	64QAM	1	25	19.49	0.089	19.49	0.089	19.35	0.086
10	64QAM	1	49	19.08	0.081	19.18	0.083	19.09	0.081
10	64QAM	25	0	18.94	0.078	18.93	0.078	19.15	0.082
10	64QAM	25	12	19.13	0.082	19.16	0.082	19.06	0.081
10	64QAM	25	25	19.12	0.082	19.21	0.083	18.87	0.077
10	64QAM	50	0	18.97	0.079	19.08	0.081	19.11	0.081



LTE Band 7				Measured E.I.R.P. (dBm)					
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	20.86	0.122	21.00	0.126	20.80	0.120
5	QPSK	1	12	20.98	0.125	20.93	0.124	21.03	0.127
5	QPSK	1	24	20.78	0.120	20.87	0.122	20.74	0.119
5	QPSK	12	0	19.94	0.099	20.01	0.100	20.26	0.106
5	QPSK	12	7	20.09	0.102	20.12	0.103	20.01	0.100
5	QPSK	12	13	20.14	0.103	20.10	0.102	19.96	0.099
5	QPSK	25	0	19.93	0.098	20.01	0.100	20.07	0.102
5	16QAM	1	0	20.12	0.103	20.13	0.103	20.04	0.101
5	16QAM	1	12	20.30	0.107	20.31	0.107	20.32	0.108
5	16QAM	1	24	19.97	0.099	20.30	0.107	20.23	0.105
5	16QAM	12	0	18.96	0.079	19.12	0.082	18.98	0.079
5	16QAM	12	7	19.14	0.082	19.08	0.081	19.06	0.081
5	16QAM	12	13	19.07	0.081	19.18	0.083	18.88	0.077
5	16QAM	25	0	18.96	0.079	19.00	0.079	19.07	0.081
5	64QAM	1	0	19.39	0.087	19.38	0.087	19.19	0.083
5	64QAM	1	12	19.47	0.089	19.43	0.088	19.43	0.088
5	64QAM	1	24	19.05	0.080	19.07	0.081	19.08	0.081
5	64QAM	12	0	18.87	0.077	19.04	0.080	19.14	0.082
5	64QAM	12	7	19.04	0.080	19.03	0.080	19.06	0.081
5	64QAM	12	13	19.13	0.082	19.23	0.084	18.84	0.077
5	64QAM	25	0	18.92	0.078	19.20	0.083	19.06	0.081



LTE Band 12				Measured E.R.P. (dBm)					
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	18.09	0.064	18.26	0.067	18.05	0.064
10	QPSK	1	25	18.21	0.066	18.20	0.066	18.17	0.066
10	QPSK	1	49	18.19	0.066	18.15	0.065	18.16	0.065
10	QPSK	25	0	17.06	0.051	17.23	0.053	17.22	0.053
10	QPSK	25	12	17.18	0.052	17.15	0.052	17.15	0.052
10	QPSK	25	25	17.15	0.052	17.12	0.052	17.12	0.052
10	QPSK	50	0	17.21	0.053	17.34	0.054	17.12	0.052
10	16QAM	1	0	17.21	0.053	17.22	0.053	17.29	0.054
10	16QAM	1	25	17.06	0.051	17.40	0.055	17.39	0.055
10	16QAM	1	49	17.39	0.055	17.01	0.050	17.04	0.051
10	16QAM	25	0	16.38	0.043	16.19	0.042	16.23	0.042
10	16QAM	25	12	16.31	0.043	16.27	0.042	16.14	0.041
10	16QAM	25	25	16.33	0.043	16.24	0.042	16.35	0.043
10	16QAM	50	0	16.28	0.042	16.16	0.041	16.18	0.041
10	64QAM	1	0	16.06	0.040	16.11	0.041	16.33	0.043
10	64QAM	1	25	16.29	0.043	16.35	0.043	16.31	0.043
10	64QAM	1	49	16.26	0.042	16.24	0.042	16.06	0.040
10	64QAM	25	0	16.25	0.042	16.14	0.041	16.26	0.042
10	64QAM	25	12	16.41	0.044	16.28	0.042	16.27	0.042
10	64QAM	25	25	16.29	0.043	16.33	0.043	16.23	0.042
10	64QAM	50	0	16.31	0.043	16.23	0.042	16.19	0.042



LTE Band 12				Measured E.R.P. (dBm)					
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	18.06	0.064	18.11	0.065	17.98	0.063
5	QPSK	1	12	18.08	0.064	18.21	0.066	18.03	0.064
5	QPSK	1	24	18.07	0.064	18.04	0.064	18.05	0.064
5	QPSK	12	0	17.25	0.053	17.00	0.050	17.20	0.052
5	QPSK	12	7	17.26	0.053	17.24	0.053	17.19	0.052
5	QPSK	12	13	17.19	0.052	17.14	0.052	17.17	0.052
5	QPSK	25	0	17.28	0.053	17.11	0.051	17.21	0.053
5	16QAM	1	0	17.10	0.051	17.14	0.052	17.19	0.052
5	16QAM	1	12	16.99	0.050	17.19	0.052	17.21	0.053
5	16QAM	1	24	17.32	0.054	16.98	0.050	17.00	0.050
5	16QAM	12	0	16.24	0.042	16.09	0.041	16.08	0.041
5	16QAM	12	7	16.22	0.042	16.21	0.042	16.01	0.040
5	16QAM	12	13	16.31	0.043	16.16	0.041	16.21	0.042
5	16QAM	25	0	16.23	0.042	16.13	0.041	16.17	0.041
5	64QAM	1	0	15.94	0.039	16.01	0.040	16.32	0.043
5	64QAM	1	12	16.21	0.042	16.28	0.042	16.17	0.041
5	64QAM	1	24	16.25	0.042	16.21	0.042	16.04	0.040
5	64QAM	12	0	16.22	0.042	16.05	0.040	16.19	0.042
5	64QAM	12	7	16.39	0.044	16.22	0.042	16.12	0.041
5	64QAM	12	13	16.17	0.041	16.29	0.043	16.08	0.041
5	64QAM	25	0	16.29	0.043	16.12	0.041	16.13	0.041



LTE Band 12				Measured E.R.P. (dBm)					
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	17.99	0.063	18.02	0.063	17.96	0.063
3	QPSK	1	8	18.07	0.064	18.21	0.066	18.07	0.064
3	QPSK	1	14	18.08	0.064	18.06	0.064	18.10	0.065
3	QPSK	8	0	17.30	0.054	17.11	0.051	17.08	0.051
3	QPSK	8	4	17.21	0.053	17.23	0.053	17.16	0.052
3	QPSK	8	7	17.28	0.053	17.11	0.051	17.16	0.052
3	QPSK	15	0	17.22	0.053	17.17	0.052	17.24	0.053
3	16QAM	1	0	16.81	0.048	16.99	0.050	17.20	0.052
3	16QAM	1	8	16.93	0.049	17.13	0.052	17.19	0.052
3	16QAM	1	14	17.25	0.053	16.87	0.049	16.94	0.049
3	16QAM	8	0	16.31	0.043	16.12	0.041	16.17	0.041
3	16QAM	8	4	16.23	0.042	16.19	0.042	16.04	0.040
3	16QAM	8	7	16.21	0.042	16.22	0.042	16.31	0.043
3	16QAM	15	0	16.25	0.042	16.06	0.040	16.15	0.041
3	64QAM	1	0	15.95	0.039	16.07	0.040	16.21	0.042
3	64QAM	1	8	16.25	0.042	16.34	0.043	16.20	0.042
3	64QAM	1	14	16.25	0.042	16.10	0.041	16.02	0.040
3	64QAM	8	0	16.15	0.041	16.03	0.040	16.13	0.041
3	64QAM	8	4	16.35	0.043	16.23	0.042	16.21	0.042
3	64QAM	8	7	16.22	0.042	16.30	0.043	16.21	0.042
3	64QAM	15	0	16.30	0.043	16.17	0.041	16.12	0.041



LTE Band 12				Measured E.R.P. (dBm)					
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	18.00	0.063	18.05	0.064	17.93	0.062
1.4	QPSK	1	3	18.17	0.066	18.19	0.066	18.02	0.063
1.4	QPSK	1	5	18.14	0.065	18.14	0.065	18.04	0.064
1.4	QPSK	3	0	18.02	0.063	17.99	0.063	18.03	0.064
1.4	QPSK	3	1	18.09	0.064	18.20	0.066	18.14	0.065
1.4	QPSK	3	3	18.08	0.064	18.03	0.064	18.15	0.065
1.4	QPSK	6	0	17.31	0.054	17.06	0.051	17.14	0.052
1.4	16QAM	1	0	17.03	0.050	17.16	0.052	17.20	0.052
1.4	16QAM	1	3	17.02	0.050	17.19	0.052	17.17	0.052
1.4	16QAM	1	5	17.33	0.054	17.01	0.050	16.99	0.050
1.4	16QAM	3	0	16.93	0.049	17.04	0.051	17.14	0.052
1.4	16QAM	3	1	17.05	0.051	17.31	0.054	17.24	0.053
1.4	16QAM	3	3	17.24	0.053	16.99	0.050	16.99	0.050
1.4	16QAM	6	0	16.15	0.041	16.09	0.041	16.05	0.040
1.4	64QAM	1	0	15.67	0.037	15.79	0.038	15.94	0.039
1.4	64QAM	1	3	15.97	0.040	16.08	0.041	16.05	0.040
1.4	64QAM	1	5	16.00	0.040	15.92	0.039	15.68	0.037
1.4	64QAM	3	0	16.17	0.041	16.05	0.040	16.21	0.042
1.4	64QAM	3	1	16.40	0.044	16.16	0.041	16.25	0.042
1.4	64QAM	3	3	16.15	0.041	16.19	0.042	16.19	0.042
1.4	64QAM	6	0	16.25	0.042	16.30	0.043	16.13	0.041



LTE Band 13				Measured E.R.P. (dBm)					
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	/	/	18.61	0.073	/	/
10	QPSK	1	25	/	/	18.54	0.071	/	/
10	QPSK	1	49	/	/	18.45	0.070	/	/
10	QPSK	25	0	/	/	17.51	0.056	/	/
10	QPSK	25	12	/	/	17.46	0.056	/	/
10	QPSK	25	25	/	/	17.29	0.054	/	/
10	QPSK	50	0	/	/	17.27	0.053	/	/
10	16QAM	1	0	/	/	17.53	0.057	/	/
10	16QAM	1	25	/	/	17.33	0.054	/	/
10	16QAM	1	49	/	/	17.53	0.057	/	/
10	16QAM	25	0	/	/	16.46	0.044	/	/
10	16QAM	25	12	/	/	16.54	0.045	/	/
10	16QAM	25	25	/	/	16.55	0.045	/	/
10	16QAM	50	0	/	/	16.60	0.046	/	/
10	64QAM	1	0	/	/	16.59	0.046	/	/
10	64QAM	1	25	/	/	16.74	0.047	/	/
10	64QAM	1	49	/	/	16.69	0.047	/	/
10	64QAM	25	0	/	/	16.68	0.047	/	/
10	64QAM	25	12	/	/	16.54	0.045	/	/
10	64QAM	25	25	/	/	16.51	0.045	/	/
10	64QAM	50	0	/	/	16.56	0.045	/	/



LTE Band 13				Measured E.R.P. (dBm)					
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	18.49	0.071	18.48	0.070	18.55	0.072
5	QPSK	1	12	18.47	0.070	18.46	0.070	18.41	0.069
5	QPSK	1	24	18.34	0.068	18.38	0.069	18.36	0.069
5	QPSK	12	0	17.44	0.055	17.45	0.056	17.40	0.055
5	QPSK	12	7	17.52	0.056	17.43	0.055	17.46	0.056
5	QPSK	12	13	17.55	0.057	17.55	0.057	17.57	0.057
5	QPSK	25	0	17.47	0.056	17.58	0.057	17.60	0.058
5	16QAM	1	0	17.84	0.061	17.89	0.062	17.85	0.061
5	16QAM	1	12	17.58	0.057	17.64	0.058	17.62	0.058
5	16QAM	1	24	17.52	0.056	17.51	0.056	17.68	0.059
5	16QAM	12	0	16.41	0.044	16.31	0.043	16.31	0.043
5	16QAM	12	7	16.53	0.045	16.53	0.045	16.45	0.044
5	16QAM	12	13	16.47	0.044	16.53	0.045	16.46	0.044
5	16QAM	25	0	16.45	0.044	16.49	0.045	16.59	0.046
5	64QAM	1	0	16.58	0.045	16.58	0.045	16.54	0.045
5	64QAM	1	12	16.72	0.047	16.61	0.046	16.60	0.046
5	64QAM	1	24	16.56	0.045	16.56	0.045	16.67	0.046
5	64QAM	12	0	16.59	0.046	16.57	0.045	16.56	0.045
5	64QAM	12	7	16.49	0.045	16.44	0.044	16.43	0.044
5	64QAM	12	13	16.36	0.043	16.44	0.044	16.41	0.044
5	64QAM	25	0	16.53	0.045	16.50	0.045	16.42	0.044



LTE Band 17				Measured E.R.P. (dBm)					
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	18.25	0.067	18.53	0.071	18.31	0.068
10	QPSK	1	25	18.48	0.070	18.38	0.069	18.45	0.070
10	QPSK	1	49	18.27	0.067	18.28	0.067	18.34	0.068
10	QPSK	25	0	17.33	0.054	17.44	0.055	17.33	0.054
10	QPSK	25	12	17.39	0.055	17.36	0.054	17.37	0.055
10	QPSK	25	25	17.30	0.054	17.36	0.054	17.35	0.054
10	QPSK	50	0	17.33	0.054	17.43	0.055	17.39	0.055
10	16QAM	1	0	17.66	0.058	17.69	0.059	17.67	0.058
10	16QAM	1	25	17.57	0.057	17.72	0.059	17.49	0.056
10	16QAM	1	49	17.41	0.055	17.52	0.056	17.47	0.056
10	16QAM	25	0	16.31	0.043	16.43	0.044	16.26	0.042
10	16QAM	25	12	16.38	0.043	16.34	0.043	16.34	0.043
10	16QAM	25	25	16.42	0.044	16.43	0.044	16.42	0.044
10	16QAM	50	0	16.35	0.043	16.33	0.043	16.46	0.044
10	64QAM	1	0	16.35	0.043	16.40	0.044	16.36	0.043
10	64QAM	1	25	16.34	0.043	16.38	0.043	16.35	0.043
10	64QAM	1	49	16.41	0.044	16.39	0.044	16.30	0.043
10	64QAM	25	0	16.23	0.042	16.30	0.043	16.33	0.043
10	64QAM	25	12	16.42	0.044	16.36	0.043	16.46	0.044
10	64QAM	25	25	16.36	0.043	16.35	0.043	16.40	0.044
10	64QAM	50	0	16.39	0.044	16.34	0.043	16.31	0.043



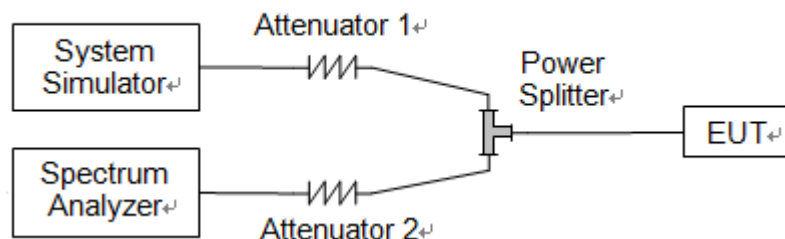
LTE Band 17				Measured E.R.P. (dBm)					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23755		23790		23825	
Frequency (MHz)				706.5		710		713.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	18.17	0.066	18.39	0.069	18.25	0.067
5	QPSK	1	12	18.37	0.069	18.11	0.065	18.42	0.070
5	QPSK	1	24	18.20	0.066	18.25	0.067	18.30	0.068
5	QPSK	12	0	17.25	0.053	17.37	0.055	17.27	0.053
5	QPSK	12	7	17.28	0.053	17.31	0.054	17.30	0.054
5	QPSK	12	13	17.19	0.052	17.25	0.053	17.43	0.055
5	QPSK	25	0	17.29	0.054	17.32	0.054	17.30	0.054
5	16QAM	1	0	17.65	0.058	17.55	0.057	17.66	0.058
5	16QAM	1	12	17.60	0.058	17.70	0.059	17.40	0.055
5	16QAM	1	24	17.29	0.054	17.43	0.055	17.44	0.055
5	16QAM	12	0	16.27	0.042	16.30	0.043	16.24	0.042
5	16QAM	12	7	16.34	0.043	16.29	0.043	16.26	0.042
5	16QAM	12	13	16.41	0.044	16.33	0.043	16.37	0.043
5	16QAM	25	0	16.21	0.042	16.19	0.042	16.31	0.043
5	64QAM	1	0	16.22	0.042	16.27	0.042	16.35	0.043
5	64QAM	1	12	16.25	0.042	16.32	0.043	16.27	0.042
5	64QAM	1	24	16.40	0.044	16.35	0.043	16.21	0.042
5	64QAM	12	0	16.20	0.042	16.24	0.042	16.28	0.042
5	64QAM	12	7	16.38	0.043	16.25	0.042	16.44	0.044
5	64QAM	12	13	16.29	0.043	16.20	0.042	16.25	0.042
5	64QAM	25	0	16.26	0.042	16.32	0.043	16.22	0.042

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	1.27
	Low	16QAM	1.10	1.29
	Low	64QAM	1.10	1.28
	Mid	QPSK	1.09	1.27
	Mid	16QAM	1.10	1.31
	Mid	64QAM	1.10	1.27
	High	QPSK	1.09	1.28
	High	16QAM	1.10	1.29
	High	64QAM	1.10	1.29
3	Low	QPSK	2.69	2.91
	Low	16QAM	2.69	2.93
	Low	64QAM	2.70	2.92
	Mid	QPSK	2.69	2.92
	Mid	16QAM	2.69	2.93
	Mid	64QAM	2.70	2.92
	High	QPSK	2.69	2.92
	High	16QAM	2.69	2.93
	High	64QAM	2.69	2.92
5	Low	QPSK	4.50	4.92
	Low	16QAM	4.50	4.91
	Low	64QAM	4.50	4.91
	Mid	QPSK	4.49	4.93
	Mid	16QAM	4.50	4.89
	Mid	64QAM	4.50	4.93
	High	QPSK	4.49	4.94
	High	16QAM	4.51	5.19
	High	64QAM	4.50	4.92
10	Low	QPSK	9.01	9.77
	Low	16QAM	8.98	9.78
	Low	64QAM	8.99	9.77
	Mid	QPSK	8.98	9.68
	Mid	16QAM	8.97	9.72
	Mid	64QAM	8.98	9.77
	High	QPSK	8.99	9.75
	High	16QAM	8.97	9.76
	High	64QAM	8.98	9.73



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15	Low	QPSK	13.49	15.23
	Low	16QAM	13.48	15.78
	Low	64QAM	13.44	14.50
	Mid	QPSK	13.50	14.56
	Mid	16QAM	13.46	14.58
	Mid	64QAM	13.44	14.65
	High	QPSK	13.50	14.98
	High	16QAM	13.48	14.67
	High	64QAM	13.44	14.67
20	Low	QPSK	17.98	19.76
	Low	16QAM	18.02	19.48
	Low	64QAM	17.96	19.48
	Mid	QPSK	17.96	19.34
	Mid	16QAM	17.95	19.52
	Mid	64QAM	17.95	19.40
	High	QPSK	17.97	19.40
	High	16QAM	18.00	19.81
	High	64QAM	17.96	19.43



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
	Low	64QAM	1.10	1.31
	Mid	QPSK	1.10	1.29
	Mid	16QAM	1.10	1.30
	Mid	64QAM	1.10	1.29
	High	QPSK	1.09	1.27
	High	16QAM	1.10	1.30
	High	64QAM	1.10	1.30
3	Low	QPSK	2.69	2.91
	Low	16QAM	2.69	2.93
	Low	64QAM	2.70	2.92
	Mid	QPSK	2.69	2.91
	Mid	16QAM	2.69	3.28
	Mid	64QAM	2.70	3.41
	High	QPSK	2.69	2.91
	High	16QAM	2.69	2.94
	High	64QAM	2.69	2.92
5	Low	QPSK	4.48	4.91
	Low	16QAM	4.50	4.90
	Low	64QAM	4.50	4.92
	Mid	QPSK	4.50	4.95
	Mid	16QAM	4.50	4.93
	Mid	64QAM	4.51	5.09
	High	QPSK	4.50	5.01
	High	16QAM	4.51	4.96
	High	64QAM	4.50	4.94
10	Low	QPSK	8.98	9.82
	Low	16QAM	8.97	9.67
	Low	64QAM	8.98	9.73
	Mid	QPSK	9.02	9.74
	Mid	16QAM	8.96	9.72
	Mid	64QAM	8.99	9.78
	High	QPSK	8.99	10.06
	High	16QAM	8.98	10.03
	High	64QAM	8.97	9.76



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15	Low	QPSK	13.46	14.56
	Low	16QAM	13.47	14.61
	Low	64QAM	13.47	14.69
	Mid	QPSK	13.48	14.51
	Mid	16QAM	13.49	14.70
	Mid	64QAM	13.47	14.63
	High	QPSK	13.52	15.02
	High	16QAM	13.47	14.62
	High	64QAM	13.46	14.67
20	Low	QPSK	17.99	19.41
	Low	16QAM	17.99	19.55
	Low	64QAM	18.00	19.47
	Mid	QPSK	17.98	19.37
	Mid	16QAM	18.03	19.39
	Mid	64QAM	18.01	19.52
	High	QPSK	17.96	19.31
	High	16QAM	17.98	19.41
	High	64QAM	17.94	19.84



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	1.26
	Low	64QAM	1.10	1.30
	Mid	QPSK	1.09	1.27
	Mid	16QAM	1.10	1.30
	Mid	64QAM	1.10	1.29
	High	QPSK	1.10	1.29
	High	16QAM	1.10	1.30
	High	64QAM	1.10	1.29
3	Low	QPSK	2.69	2.93
	Low	16QAM	2.69	2.94
	Low	64QAM	2.69	2.93
	Mid	QPSK	2.69	2.93
	Mid	16QAM	2.69	2.93
	Mid	64QAM	2.69	2.92
	High	QPSK	2.69	2.92
	High	16QAM	2.69	2.93
	High	64QAM	2.70	2.91
5	Low	QPSK	4.50	5.19
	Low	16QAM	4.50	4.88
	Low	64QAM	4.50	4.96
	Mid	QPSK	4.49	4.91
	Mid	16QAM	4.51	5.47
	Mid	64QAM	4.50	4.92
	High	QPSK	4.49	4.91
	High	16QAM	4.50	4.93
	High	64QAM	4.50	4.95
10	Low	QPSK	9.00	9.71
	Low	16QAM	9.00	10.34
	Low	64QAM	8.98	9.75
	Mid	QPSK	8.99	9.76
	Mid	16QAM	8.97	9.69
	Mid	64QAM	8.98	9.79
	High	QPSK	8.99	9.67
	High	16QAM	8.97	9.70
	High	64QAM	8.98	9.80



LTE Band 7				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.50	4.90
	Low	16QAM	4.50	4.91
	Low	64QAM	4.51	4.93
	Mid	QPSK	4.50	4.92
	Mid	16QAM	4.51	4.91
	Mid	64QAM	4.50	4.89
	High	QPSK	4.50	4.96
	High	16QAM	4.51	4.94
	High	64QAM	4.50	4.91
10	Low	QPSK	9.01	9.68
	Low	16QAM	8.97	9.67
	Low	64QAM	8.99	9.81
	Mid	QPSK	9.00	9.73
	Mid	16QAM	8.97	9.72
	Mid	64QAM	8.99	9.76
	High	QPSK	9.00	9.73
	High	16QAM	8.97	9.72
	High	64QAM	9.00	9.77
15	Low	QPSK	13.47	14.58
	Low	16QAM	13.46	14.58
	Low	64QAM	13.45	14.68
	Mid	QPSK	13.51	14.68
	Mid	16QAM	13.49	14.74
	Mid	64QAM	13.46	14.69
	High	QPSK	13.50	14.74
	High	16QAM	13.50	14.65
	High	64QAM	13.48	14.64
20	Low	QPSK	17.91	19.47
	Low	16QAM	17.96	19.40
	Low	64QAM	17.94	19.36
	Mid	QPSK	18.00	19.50
	Mid	16QAM	18.00	19.39
	Mid	64QAM	17.99	19.42
	High	QPSK	18.00	19.41
	High	16QAM	18.03	19.34
	High	64QAM	18.00	19.41



LTE Band 12				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.26
	Low	16QAM	1.10	1.29
	Low	64QAM	1.10	1.29
	Mid	QPSK	1.10	1.27
	Mid	16QAM	1.10	1.30
	Mid	64QAM	1.10	1.30
	High	QPSK	1.10	1.27
	High	16QAM	1.10	1.30
	High	64QAM	1.10	1.30
3	Low	QPSK	2.69	2.92
	Low	16QAM	2.69	2.92
	Low	64QAM	2.70	2.93
	Mid	QPSK	2.69	2.93
	Mid	16QAM	2.69	2.93
	Mid	64QAM	2.71	2.87
	High	QPSK	2.69	2.92
	High	16QAM	2.69	2.93
	High	64QAM	2.70	3.20
5	Low	QPSK	4.53	5.81
	Low	16QAM	4.53	5.41
	Low	64QAM	4.52	5.19
	Mid	QPSK	4.52	5.22
	Mid	16QAM	4.52	5.20
	Mid	64QAM	4.52	5.20
	High	QPSK	4.52	5.17
	High	16QAM	4.52	5.16
	High	64QAM	4.52	5.21
10	Low	QPSK	9.03	10.13
	Low	16QAM	8.92	9.69
	Low	64QAM	9.03	10.16
	Mid	QPSK	9.04	10.10
	Mid	16QAM	8.98	9.92
	Mid	64QAM	9.00	10.06
	High	QPSK	9.02	10.09
	High	16QAM	8.99	9.99
	High	64QAM	9.00	10.07



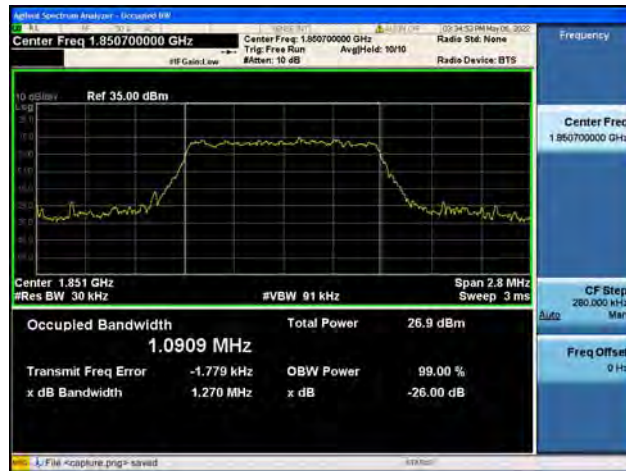
LTE Band 13				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.51	5.18
	Low	16QAM	4.51	5.16
	Low	64QAM	4.52	5.19
	Mid	QPSK	4.51	5.18
	Mid	16QAM	4.52	5.17
	Mid	64QAM	4.53	5.19
	High	QPSK	4.51	5.16
	High	16QAM	4.51	5.08
	High	64QAM	4.52	5.16
10	Mid	QPSK	9.04	10.14
	Mid	16QAM	8.99	9.99
	Mid	64QAM	9.01	10.09



LTE Band 17				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.51	5.16
	Low	16QAM	4.51	5.15
	Low	64QAM	4.52	5.16
	Mid	QPSK	4.52	5.21
	Mid	16QAM	4.52	5.07
	Mid	64QAM	4.52	5.10
	High	QPSK	4.52	5.18
	High	16QAM	4.52	5.16
	High	64QAM	4.52	5.20
10	Low	QPSK	9.03	10.06
	Low	16QAM	8.98	9.93
	Low	64QAM	9.01	10.06
	Mid	QPSK	9.02	10.09
	Mid	16QAM	8.99	10.00
	Mid	64QAM	9.01	10.10
	High	QPSK	9.02	10.13
	High	16QAM	8.99	10.01
	High	64QAM	9.00	10.04



Band2 / 1.4MHz / Low CH / QPSK



Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Low CH / 64QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM

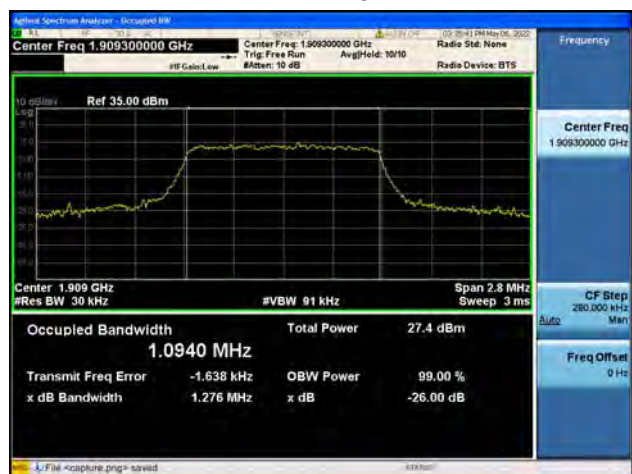


Band2 / 1.4MHz / Mid CH / 64QAM





Band2 / 1.4MHz / High CH / QPSK



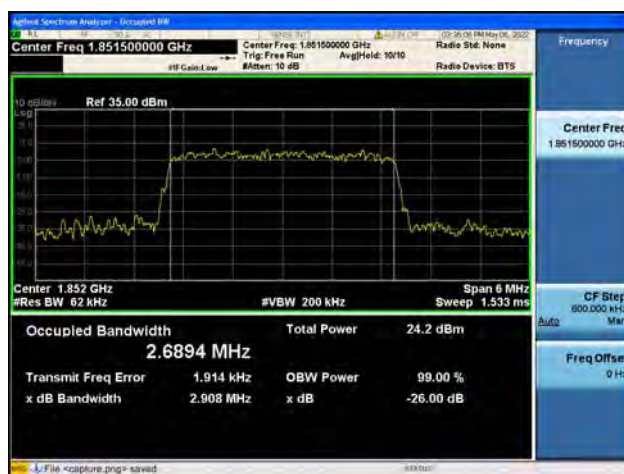
Band2 / 1.4MHz / High CH / 16QAM



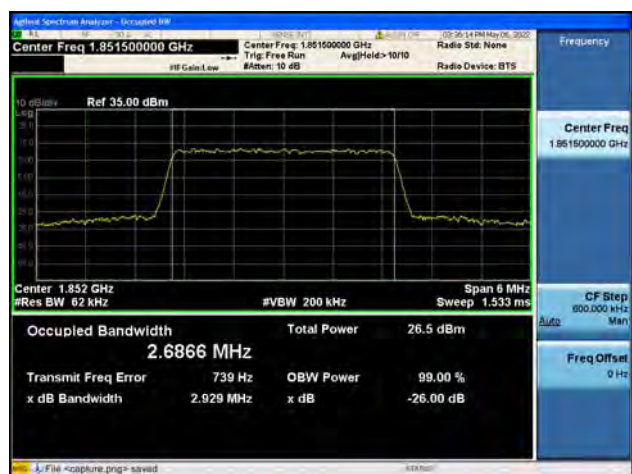
Band2 / 1.4MHz / High CH / 64QAM



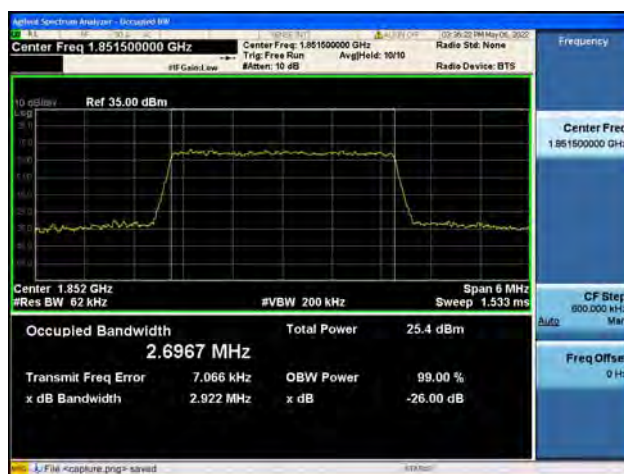
Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM

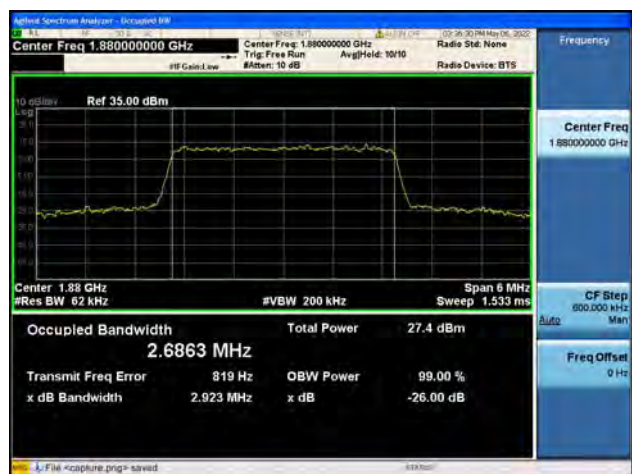


Band2 / 3MHz / Low CH / 64QAM





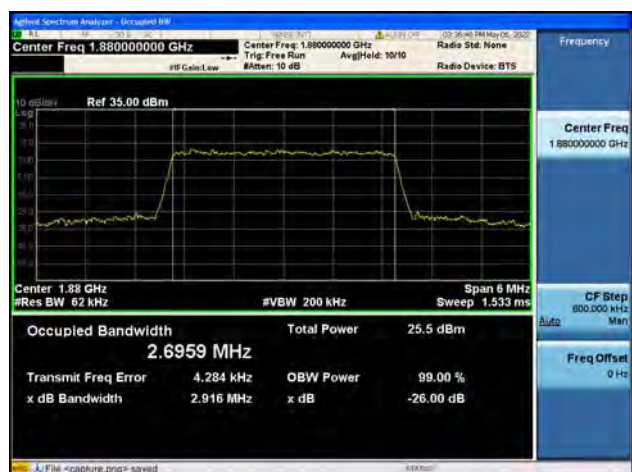
Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



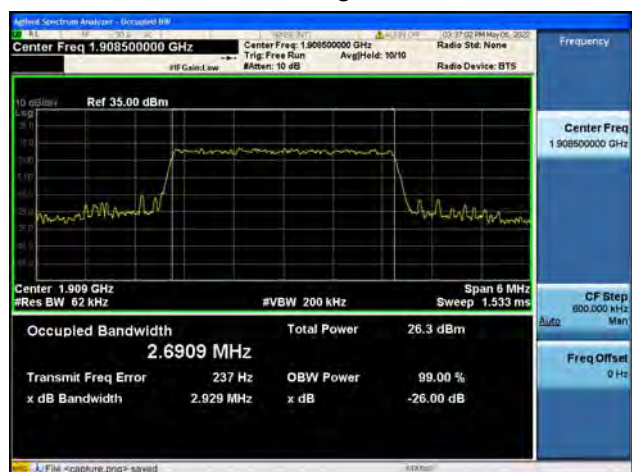
Band2 / 3MHz / Mid CH / 64QAM



Band2 / 3MHz / High CH / QPSK



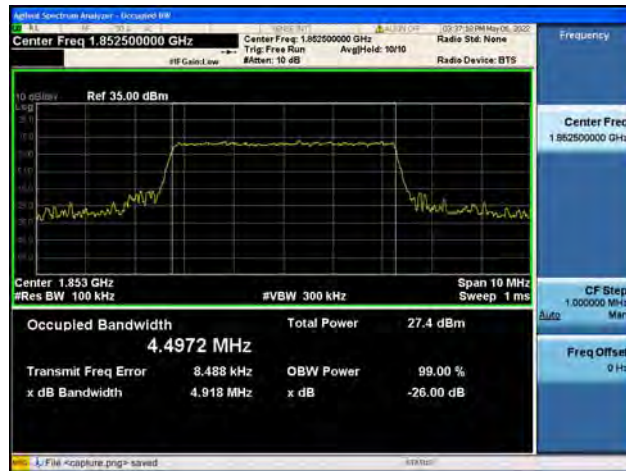
Band2 / 3MHz / High CH / 16QAM



Band2 / 3MHz / High CH / 64QAM



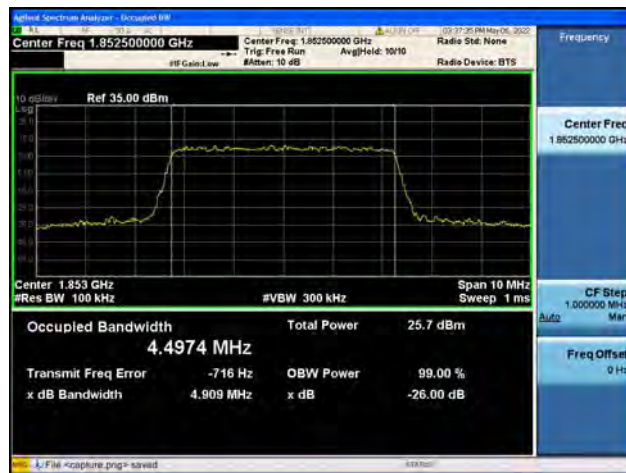
Band2 / 5MHz / Low CH / QPSK



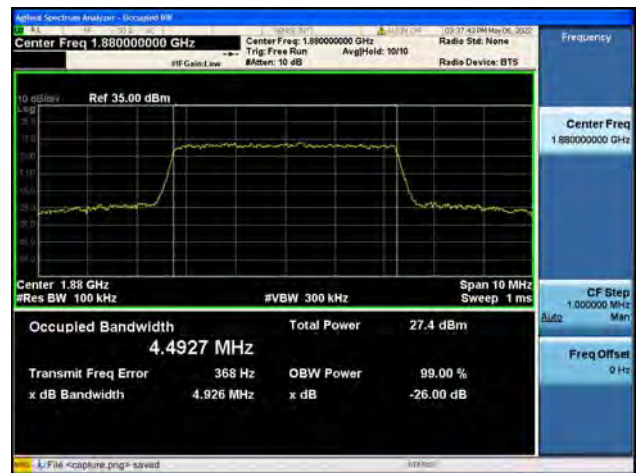
Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Low CH / 64QAM



Band2 / 5MHz / Mid CH / QPSK



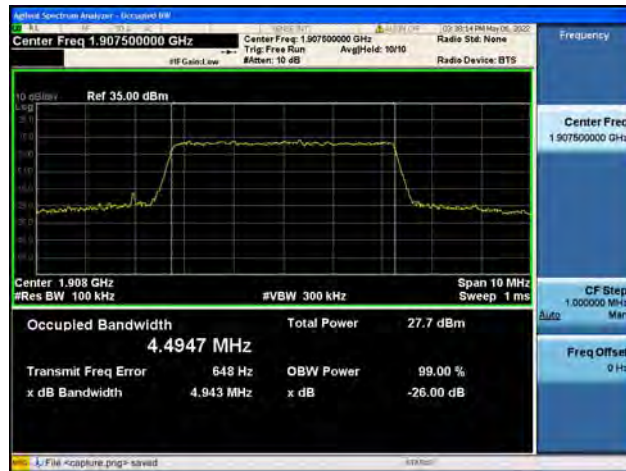
Band2 / 5MHz / Mid CH / 16QAM



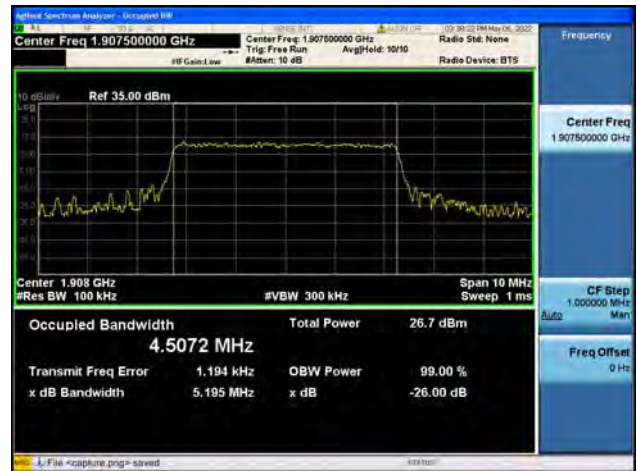
Band2 / 5MHz / Mid CH / 64QAM



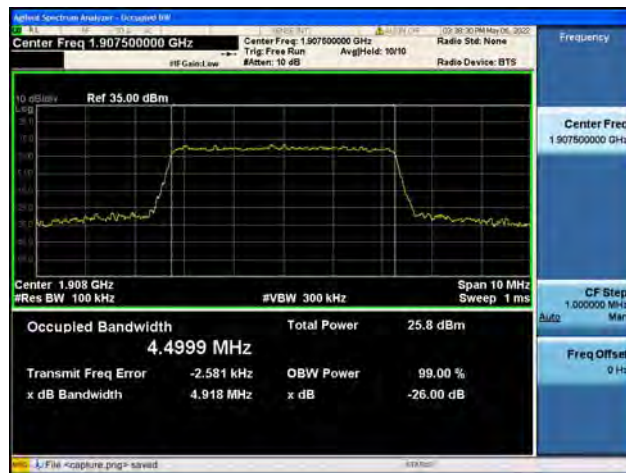
Band2 / 5MHz / High CH / QPSK



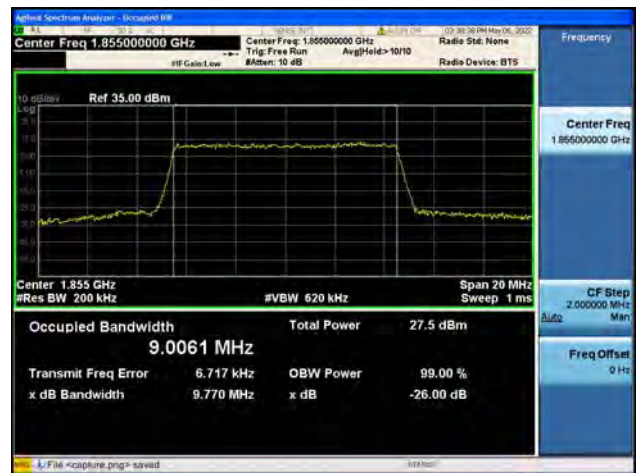
Band2 / 5MHz / High CH / 16QAM



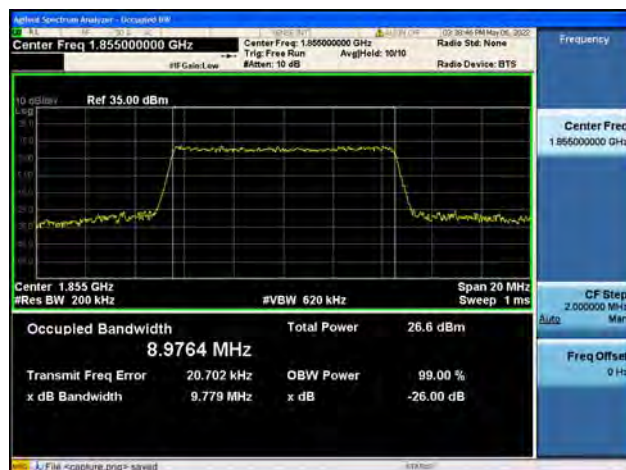
Band2 / 5MHz / High CH / 64QAM



Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Low CH / 64QAM

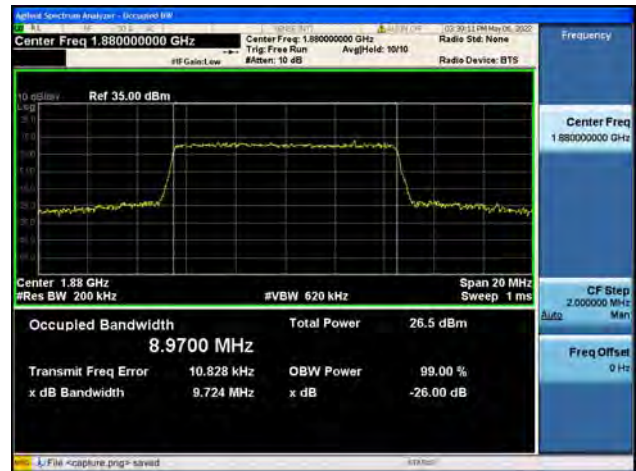




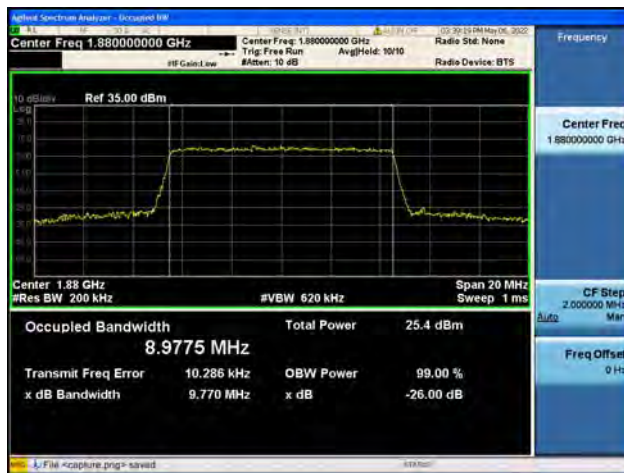
Band2 / 10MHz / Mid CH / QPSK



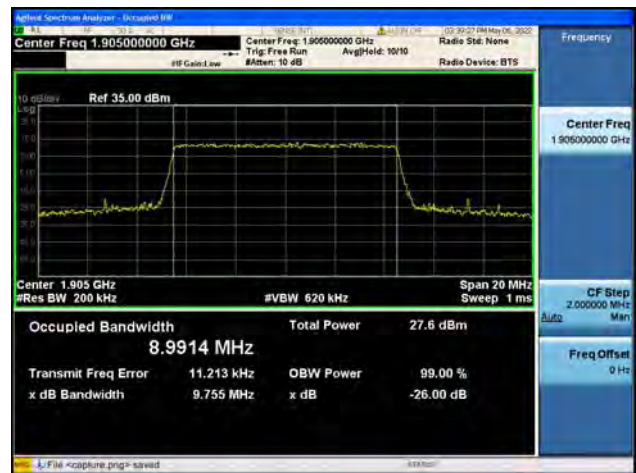
Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / Mid CH / 64QAM



Band2 / 10MHz / High CH / QPSK



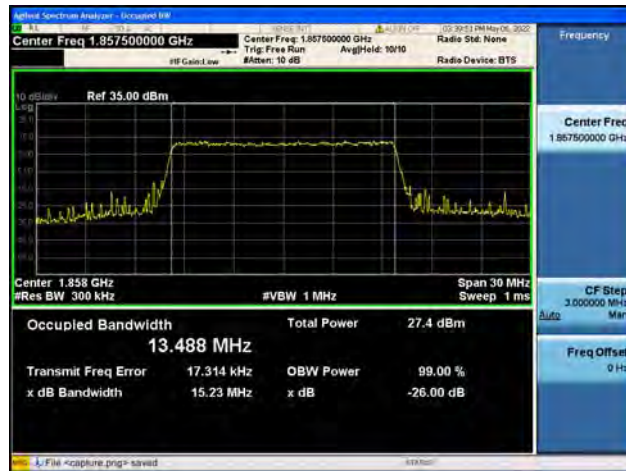
Band2 / 10MHz / High CH / 16QAM



Band2 / 10MHz / High CH / 64QAM



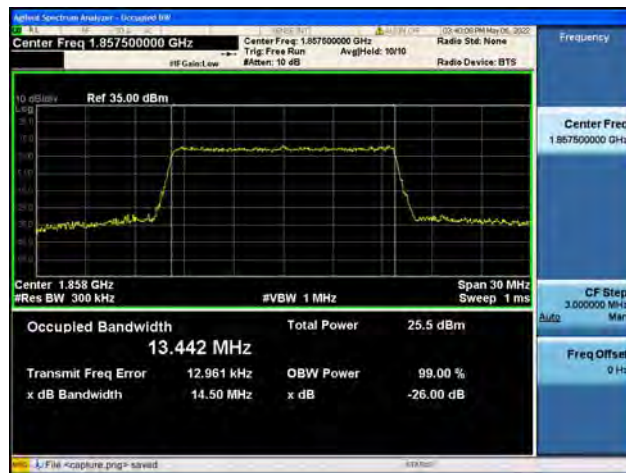
Band2 / 15MHz / Low CH / QPSK



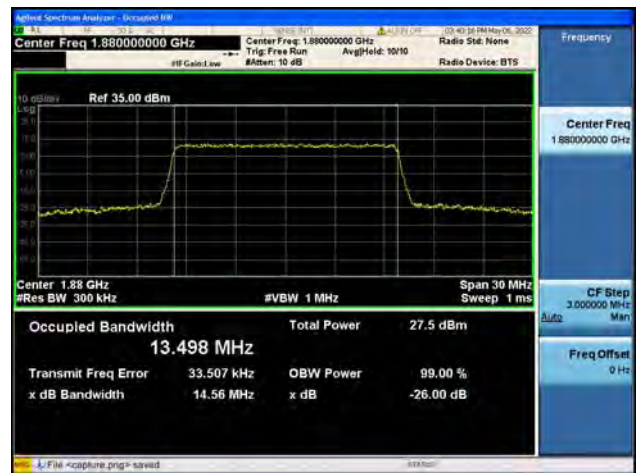
Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Low CH / 64QAM



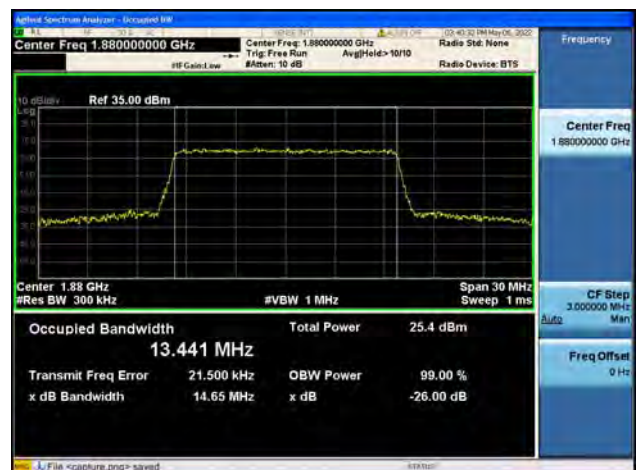
Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM

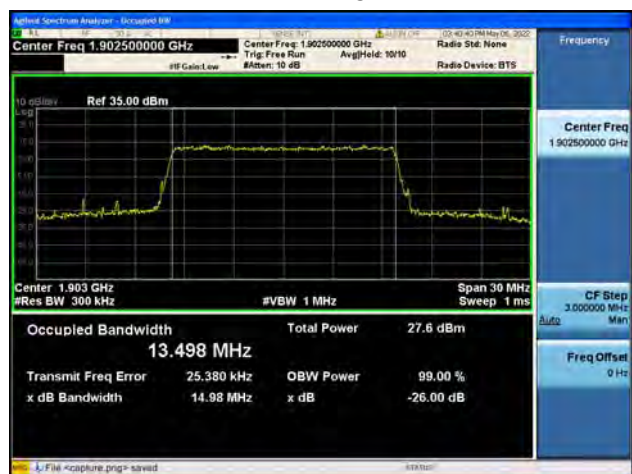


Band2 / 15MHz / Mid CH / 64QAM

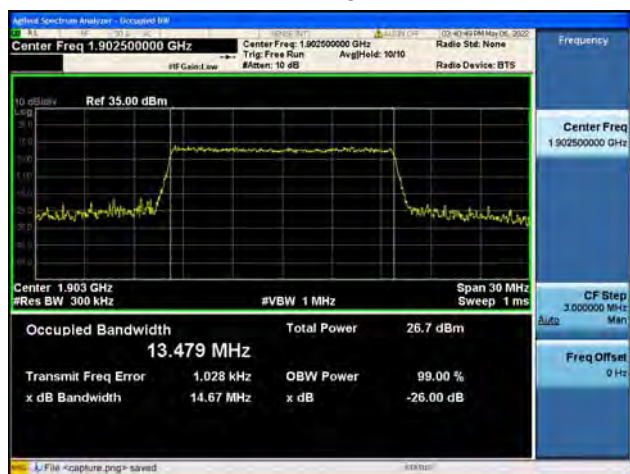




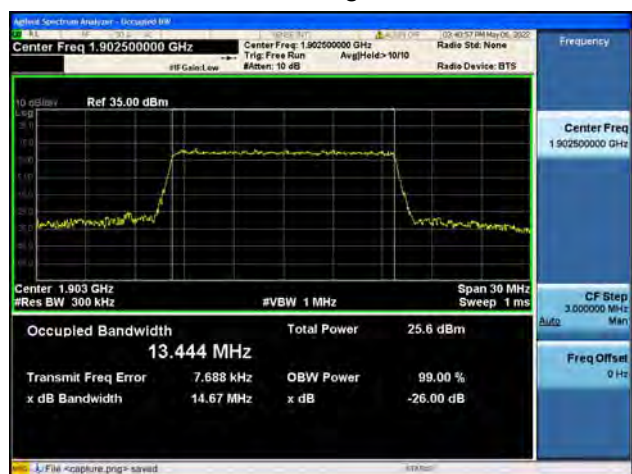
Band2 / 15MHz / High CH / QPSK



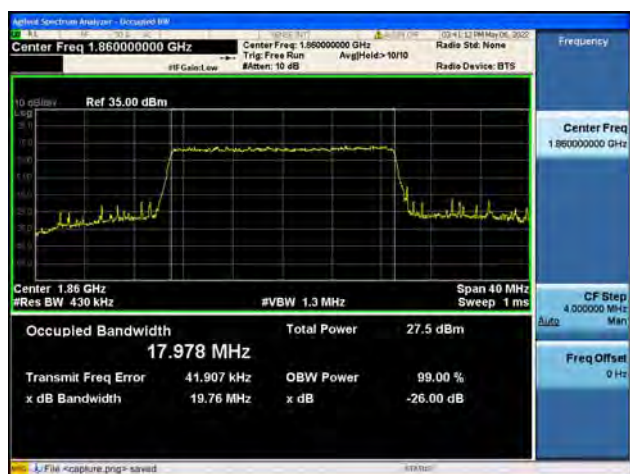
Band2 / 15MHz / High CH / 16QAM



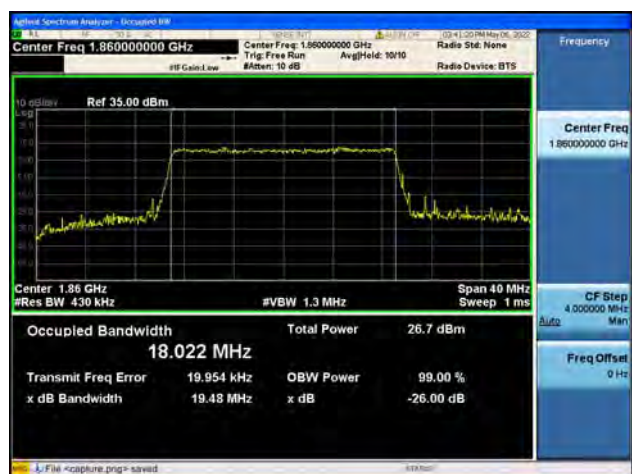
Band2 / 15MHz / High CH / 64QAM



Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM

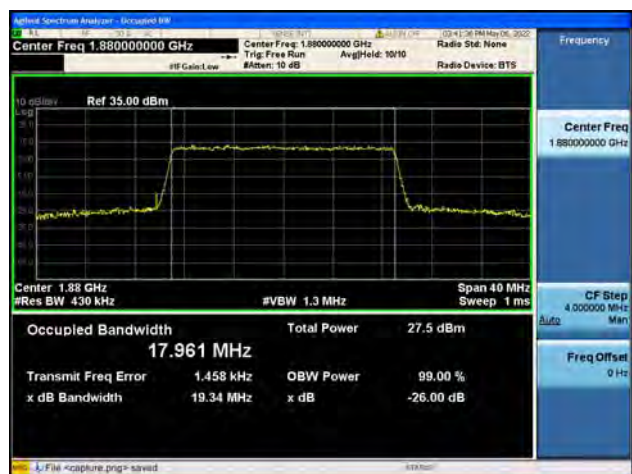


Band2 / 20MHz / Low CH / 64QAM





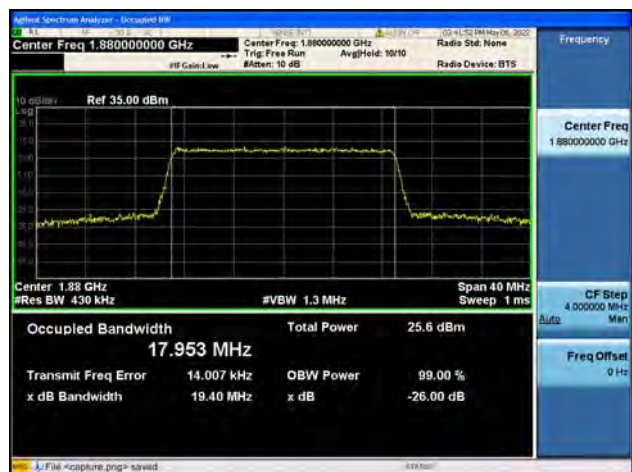
Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / Mid CH / 64QAM



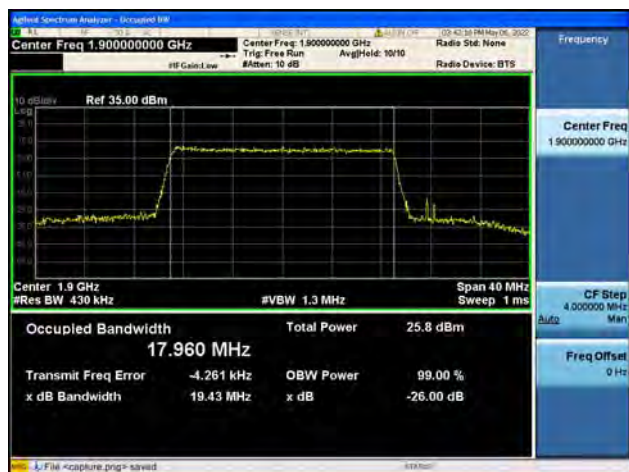
Band2 / 20MHz / High CH / QPSK



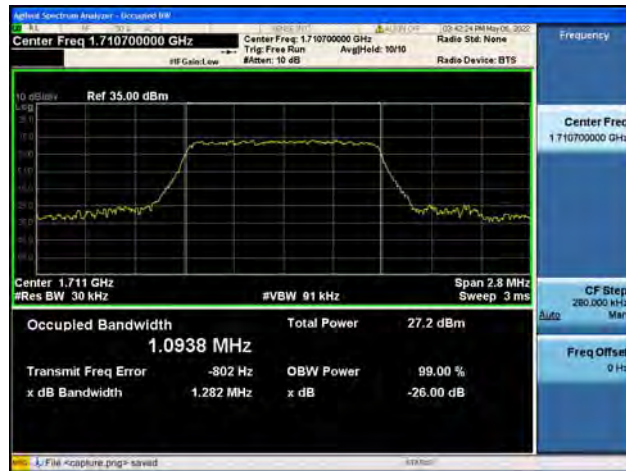
Band2 / 20MHz / High CH / 16QAM



Band2 / 20MHz / High CH / 64QAM



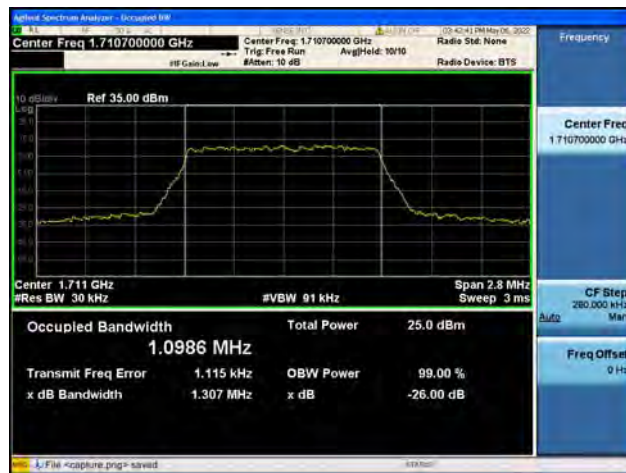
Band4 / 1.4MHz / Low CH / QPSK



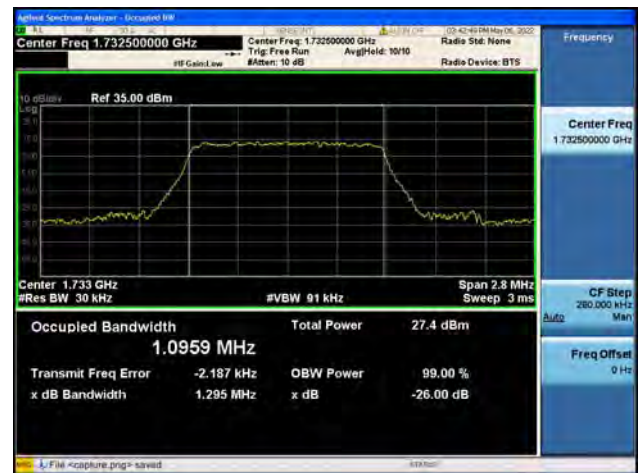
Band4 / 1.4MHz / Low CH / 16QAM



Band4 / 1.4MHz / Low CH / 64QAM



Band4 / 1.4MHz / Mid CH / QPSK



Band4 / 1.4MHz / Mid CH / 16QAM

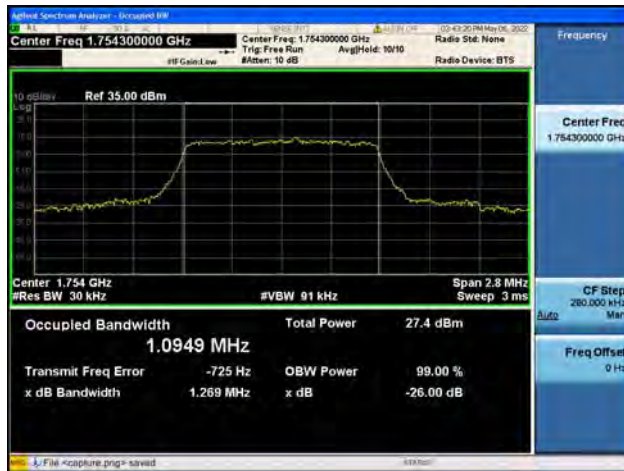


Band4 / 1.4MHz / Mid CH / 64QAM

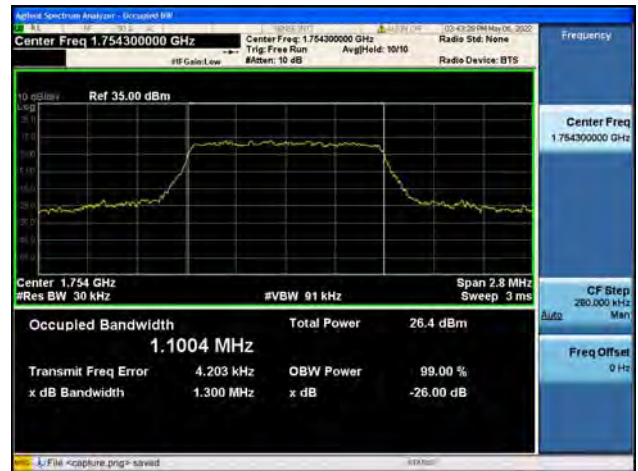




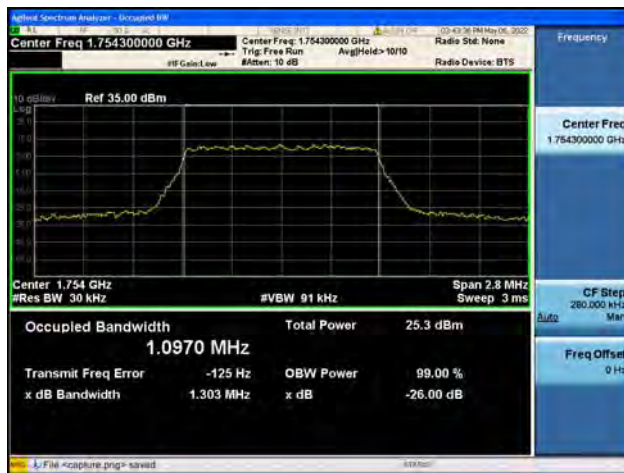
Band4 / 1.4MHz / High CH / QPSK



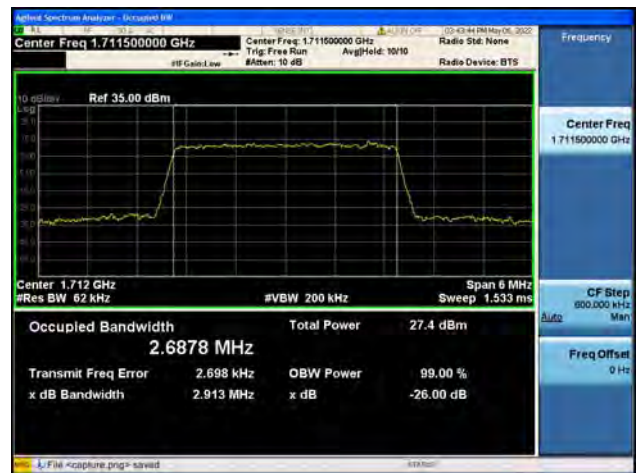
Band4 / 1.4MHz / High CH / 16QAM



Band4 / 1.4MHz / High CH / 64QAM



Band4 / 3MHz / Low CH / QPSK



Band4 / 3MHz / Low CH / 16QAM



Band4 / 3MHz / Low CH / 64QAM

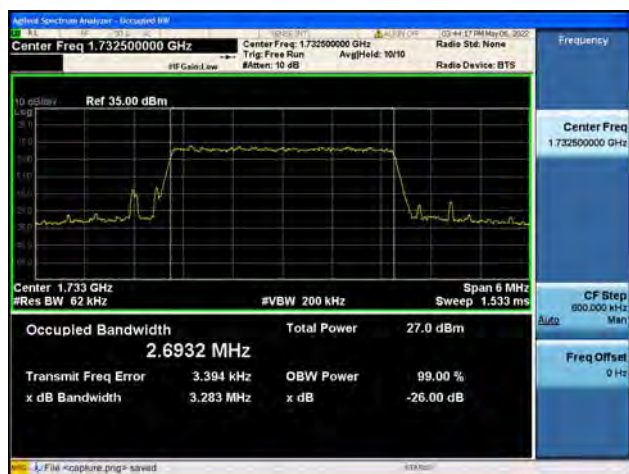




Band4 / 3MHz / Mid CH / QPSK



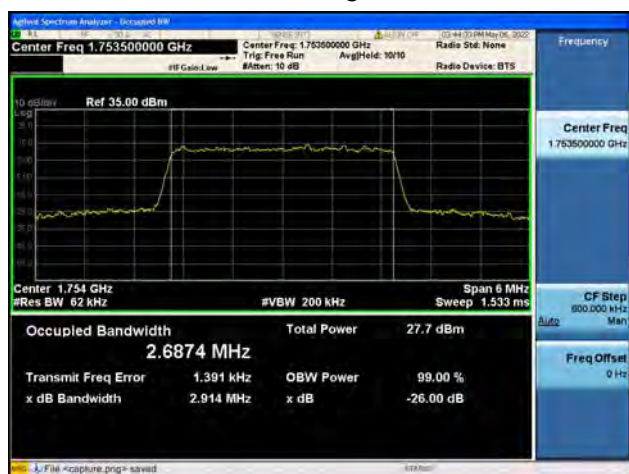
Band4 / 3MHz / Mid CH / 16QAM



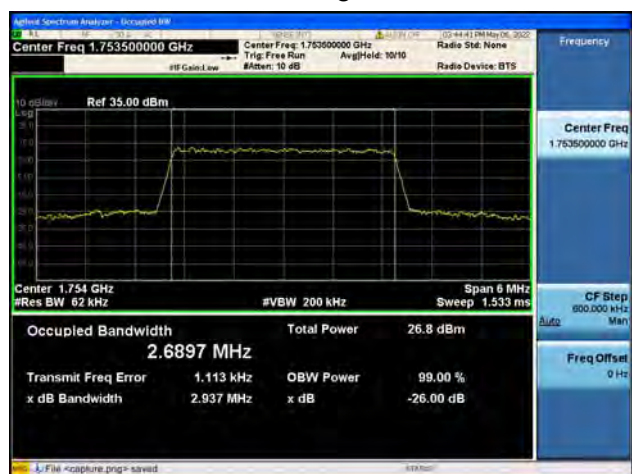
Band4 / 3MHz / Mid CH / 64QAM



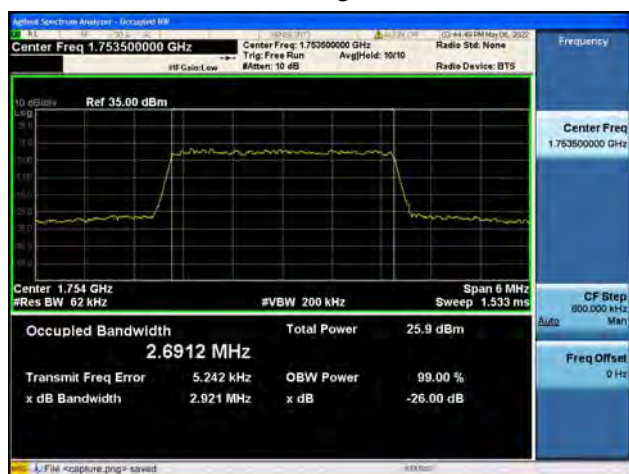
Band4 / 3MHz / High CH / QPSK



Band4 / 3MHz / High CH / 16QAM

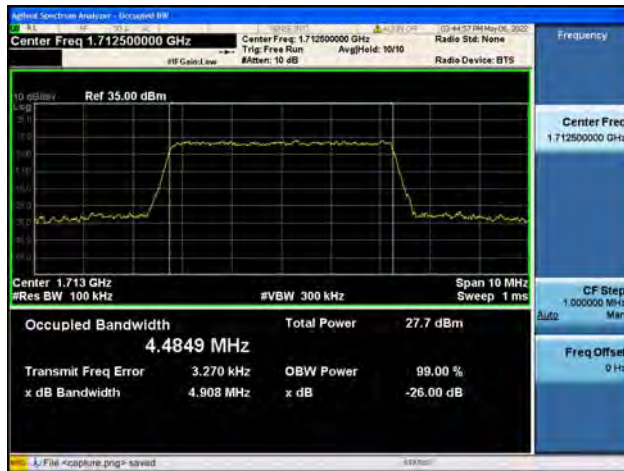


Band4 / 3MHz / High CH / 64QAM





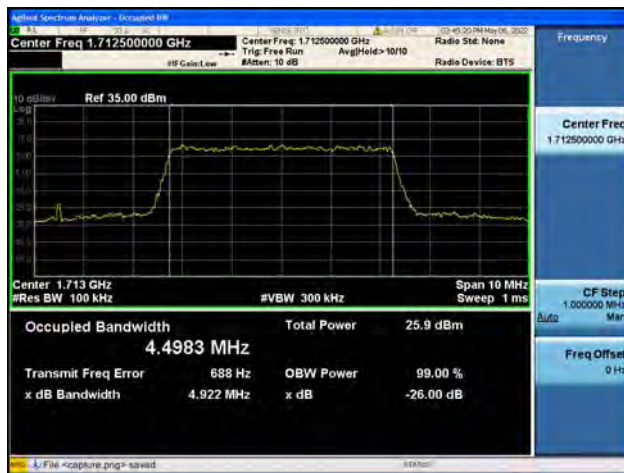
Band4 / 5MHz / Low CH / QPSK



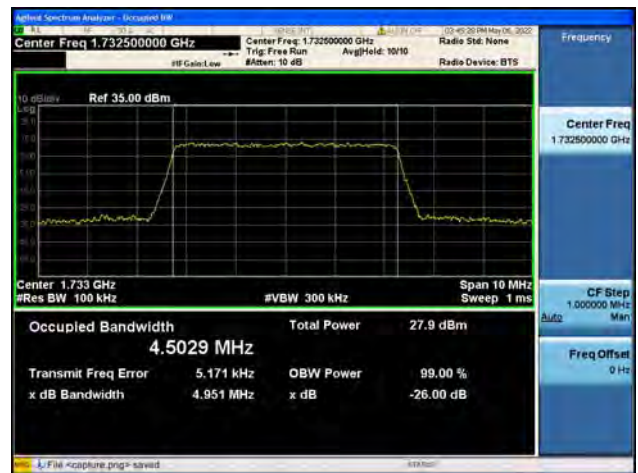
Band4 / 5MHz / Low CH / 16QAM



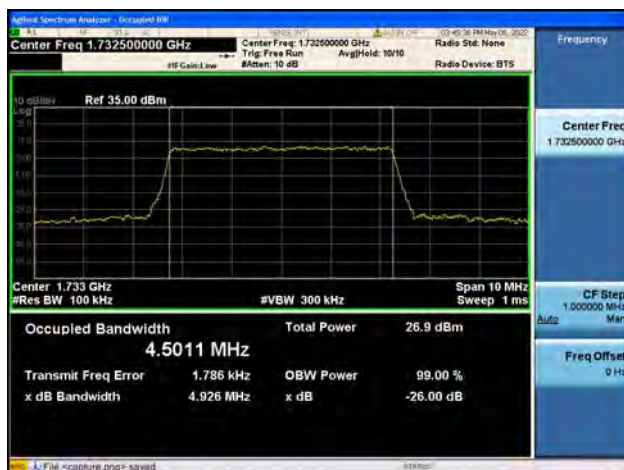
Band4 / 5MHz / Low CH / 64QAM



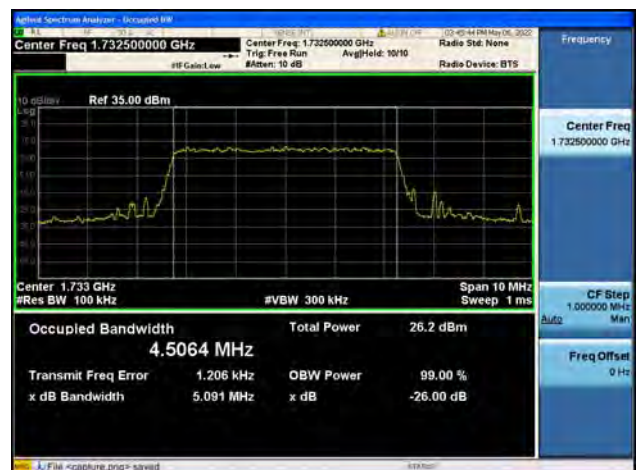
Band4 / 5MHz / Mid CH / QPSK



Band4 / 5MHz / Mid CH / 16QAM

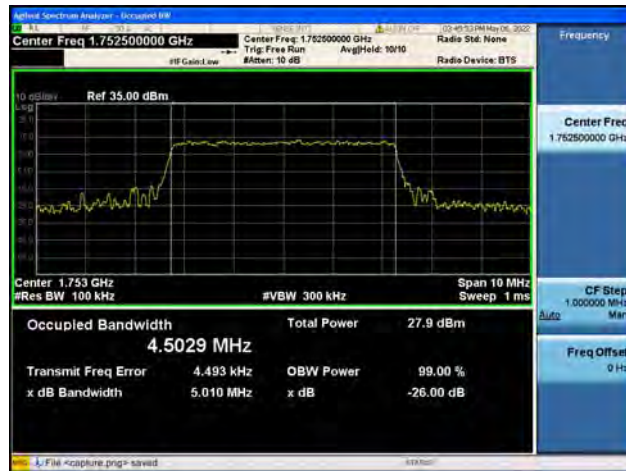


Band4 / 5MHz / Mid CH / 64QAM

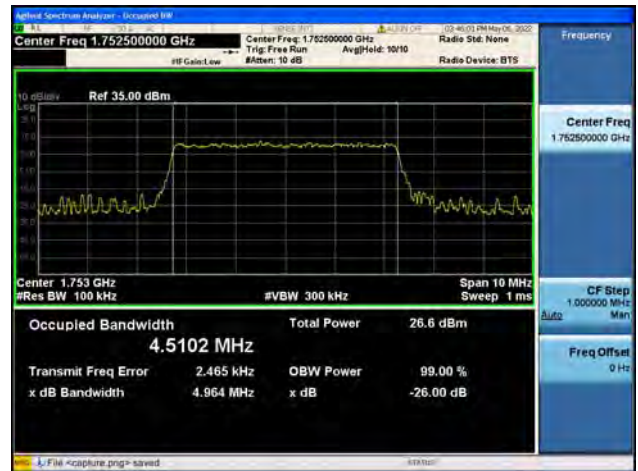




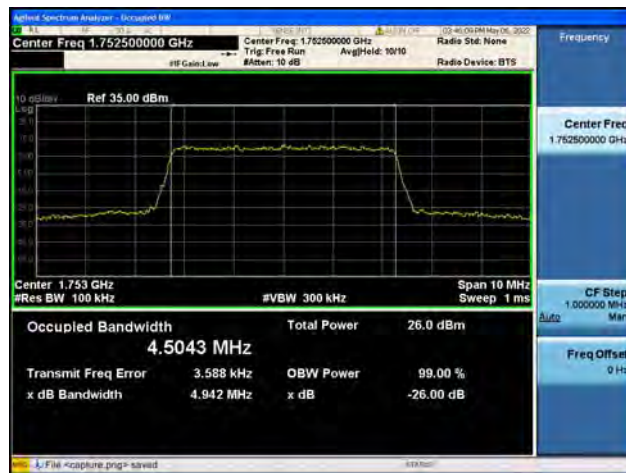
Band4 / 5MHz / High CH / QPSK



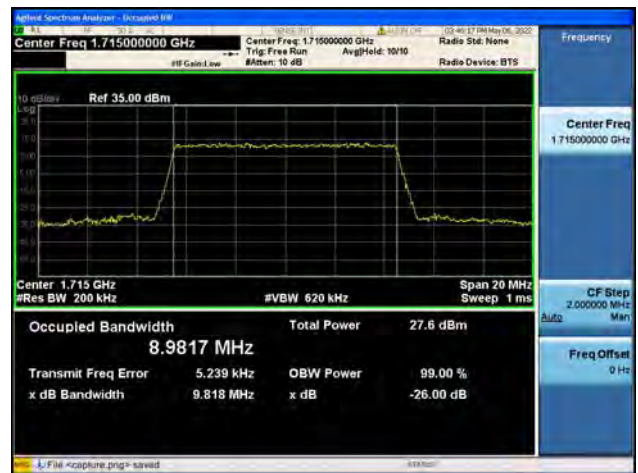
Band4 / 5MHz / High CH / 16QAM



Band4 / 5MHz / High CH / 64QAM



Band4 / 10MHz / Low CH / QPSK



Band4 / 10MHz / Low CH / 16QAM

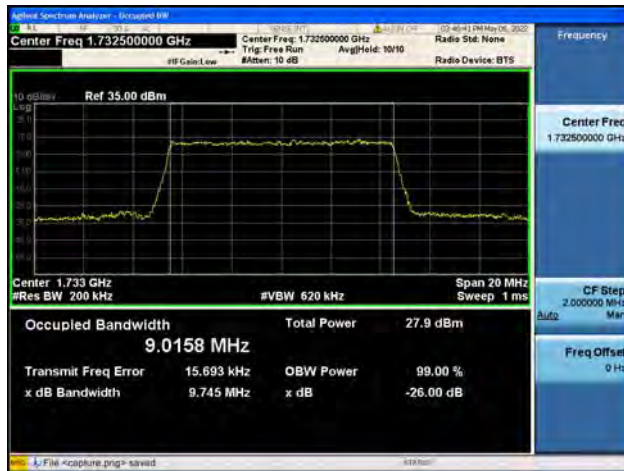


Band4 / 10MHz / Low CH / 64QAM





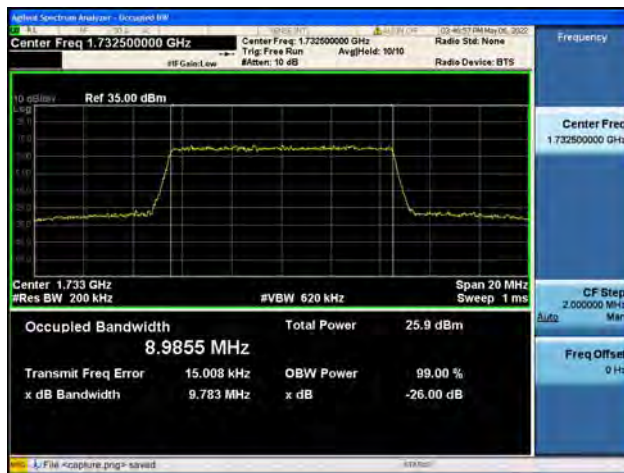
Band4 / 10MHz / Mid CH / QPSK



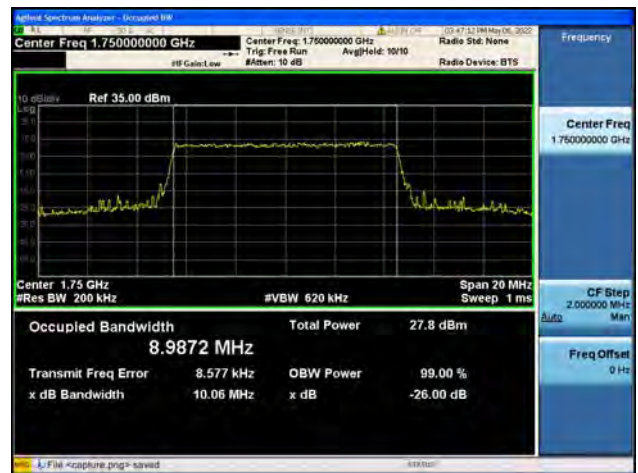
Band4 / 10MHz / Mid CH / 16QAM



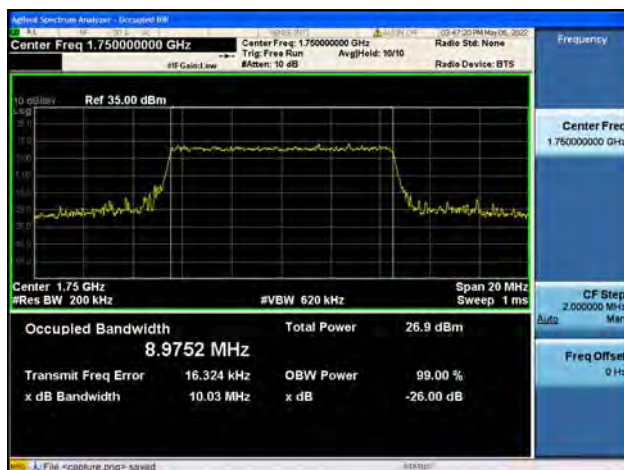
Band4 / 10MHz / Mid CH / 64QAM



Band4 / 10MHz / High CH / QPSK



Band4 / 10MHz / High CH / 16QAM

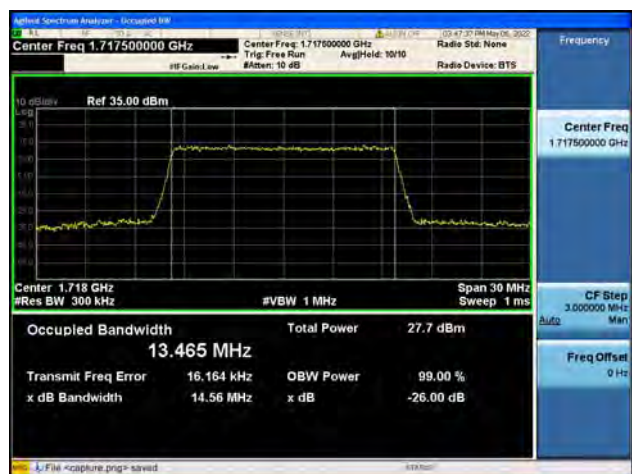


Band4 / 10MHz / High CH / 64QAM

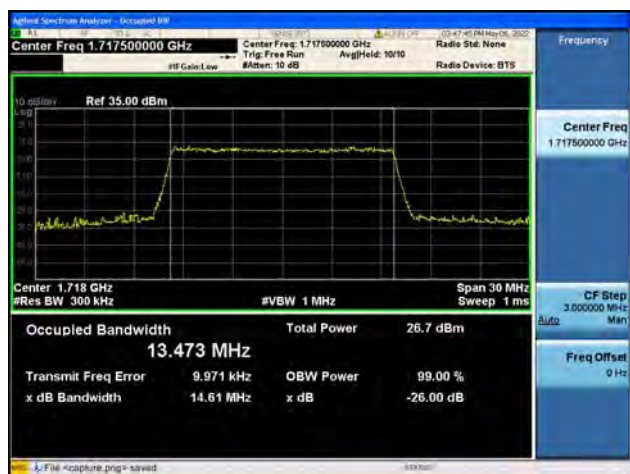




Band4 / 15MHz / Low CH / QPSK



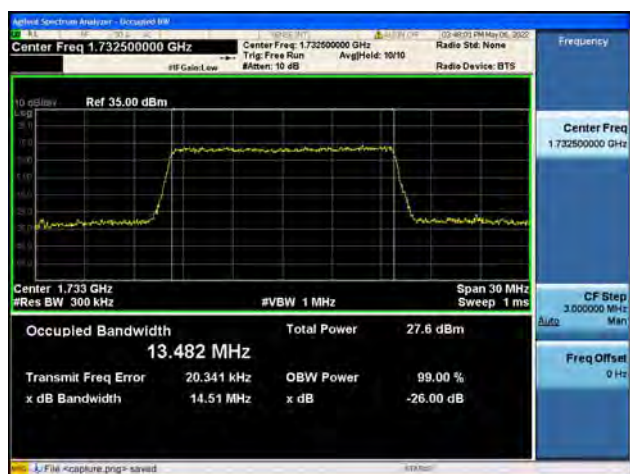
Band4 / 15MHz / Low CH / 16QAM



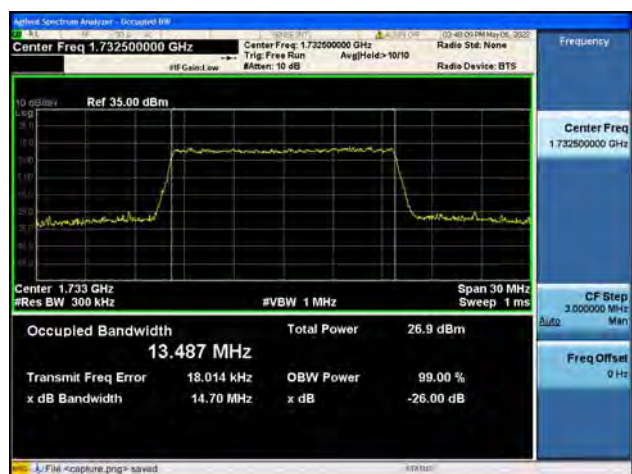
Band4 / 15MHz / Low CH / 64QAM



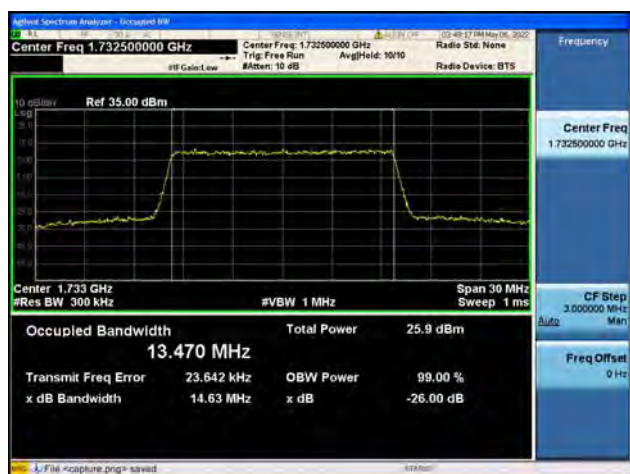
Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM

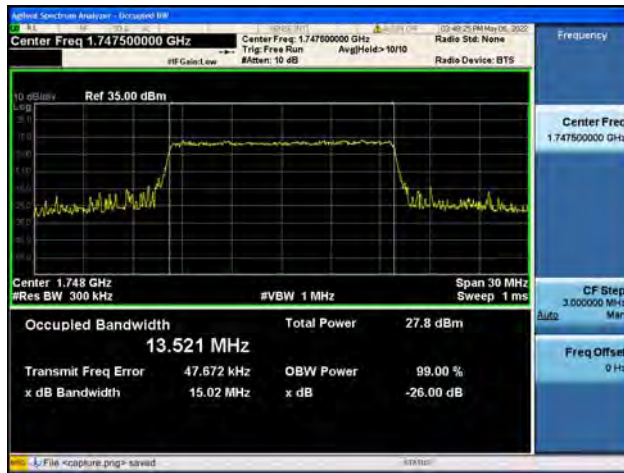


Band4 / 15MHz / Mid CH / 64QAM

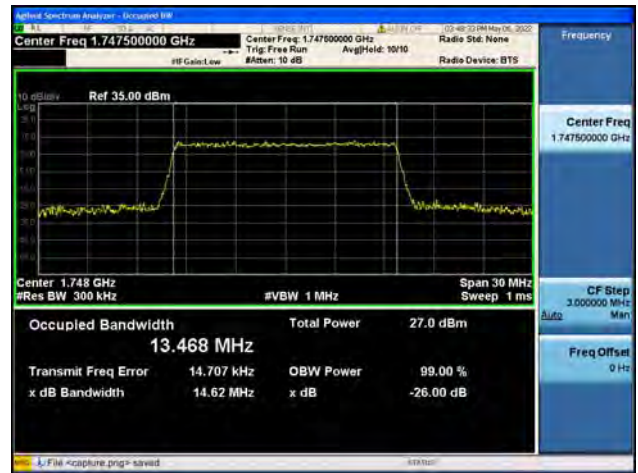




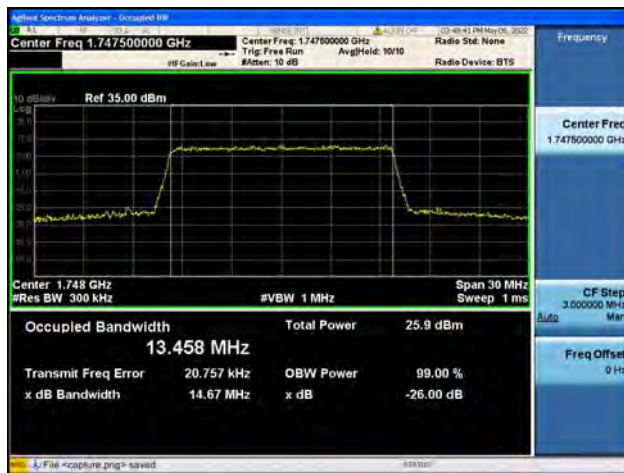
Band4 / 15MHz / High CH / QPSK



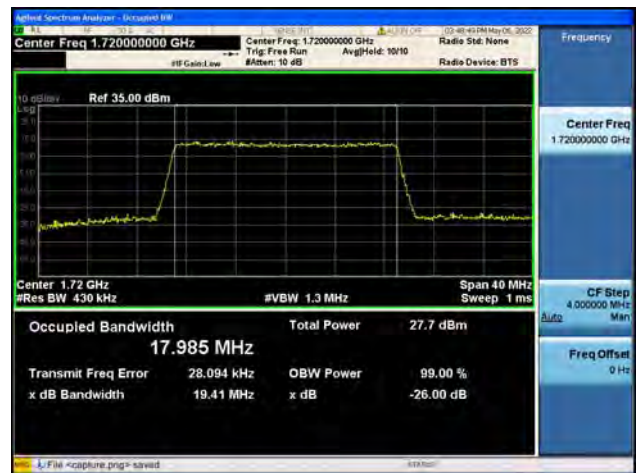
Band4 / 15MHz / High CH / 16QAM



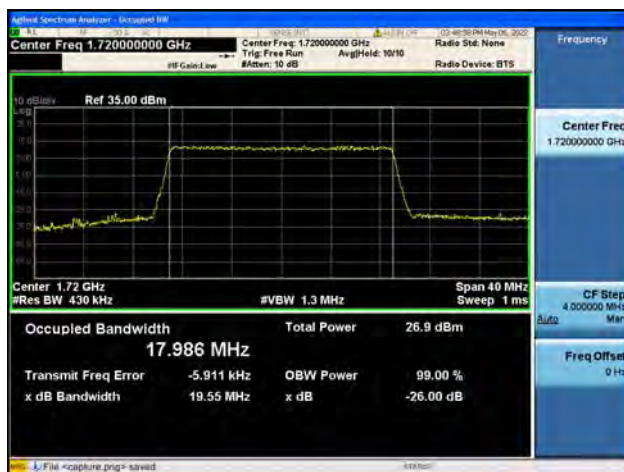
Band4 / 15MHz / High CH / 64QAM



Band4 / 20MHz / Low CH / QPSK



Band4 / 20MHz / Low CH / 16QAM

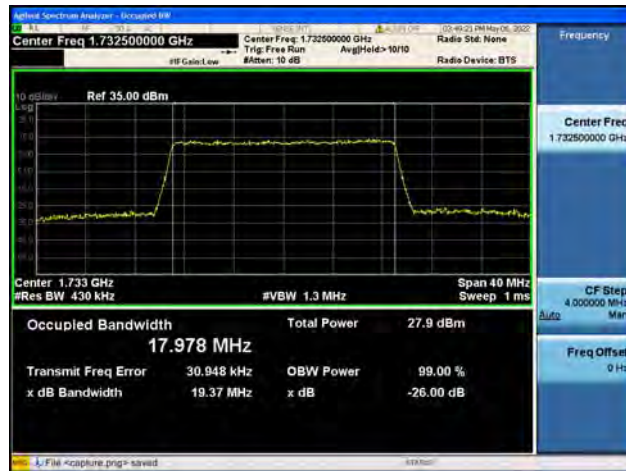


Band4 / 20MHz / Low CH / 64QAM

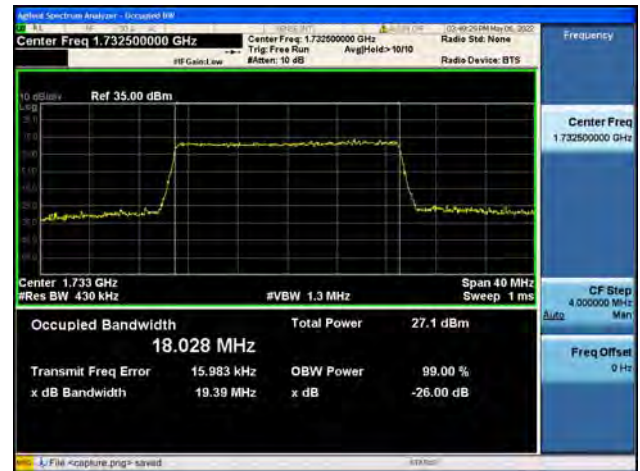




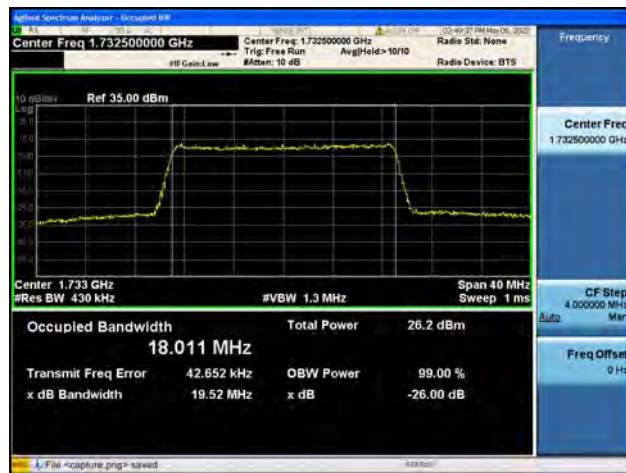
Band4 / 20MHz / Mid CH / QPSK



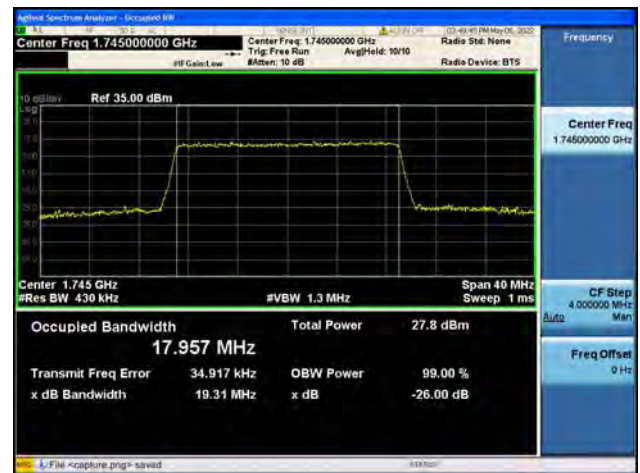
Band4 / 20MHz / Mid CH / 16QAM



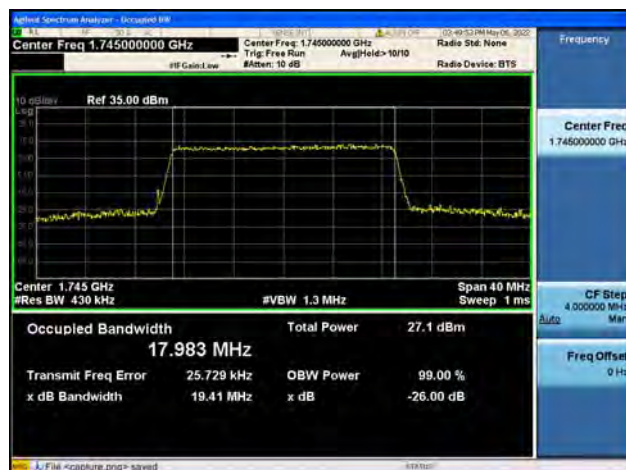
Band4 / 20MHz / Mid CH / 64QAM



Band4 / 20MHz / High CH / QPSK



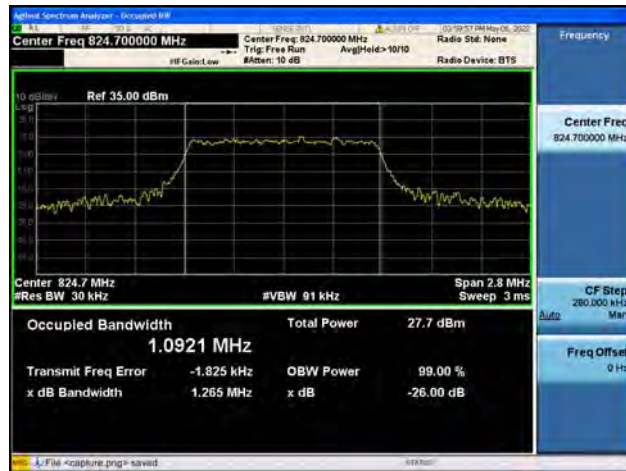
Band4 / 20MHz / High CH / 16QAM



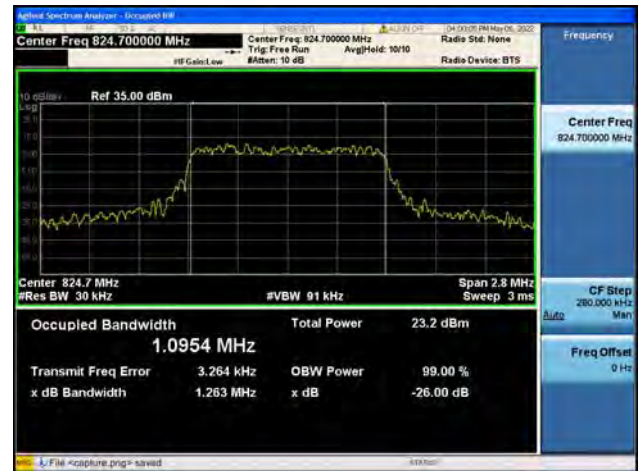
Band4 / 20MHz / High CH / 64QAM



Band5 / 1.4MHz / Low CH / QPSK



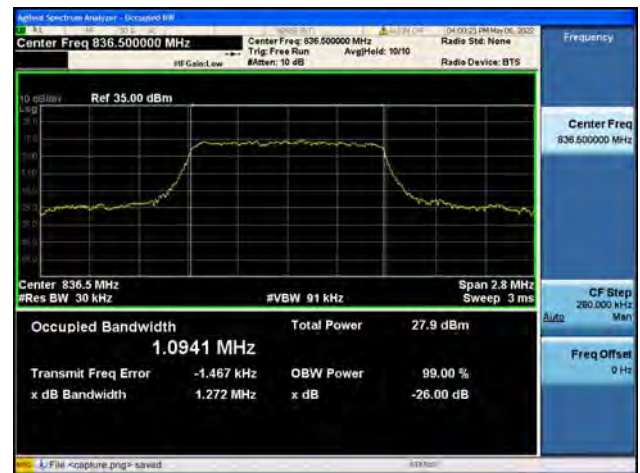
Band5 / 1.4MHz / Low CH / 16QAM



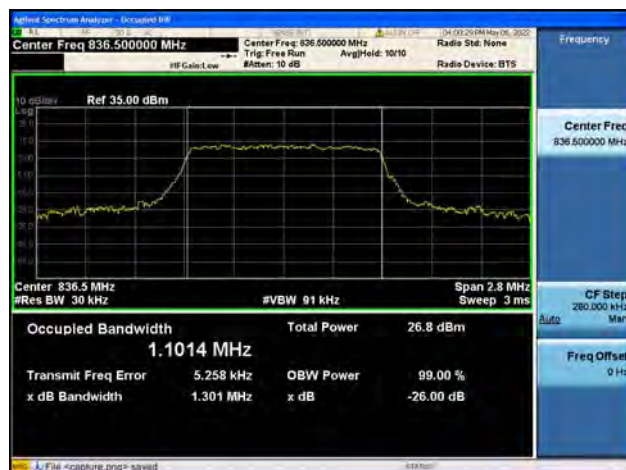
Band5 / 1.4MHz / Low CH / 64QAM



Band5 / 1.4MHz / Mid CH / QPSK



Band5 / 1.4MHz / Mid CH / 16QAM

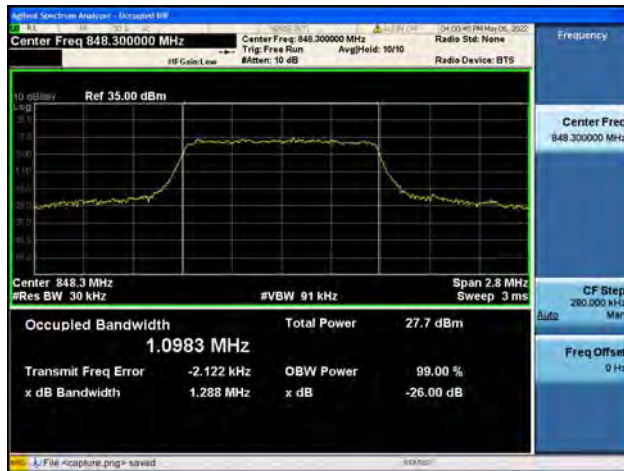


Band5 / 1.4MHz / Mid CH / 64QAM

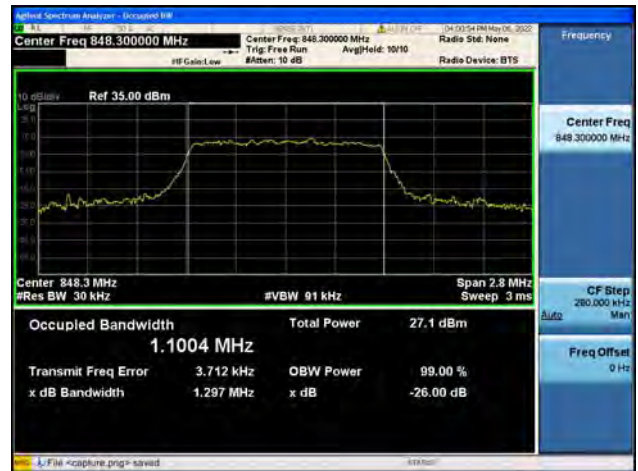




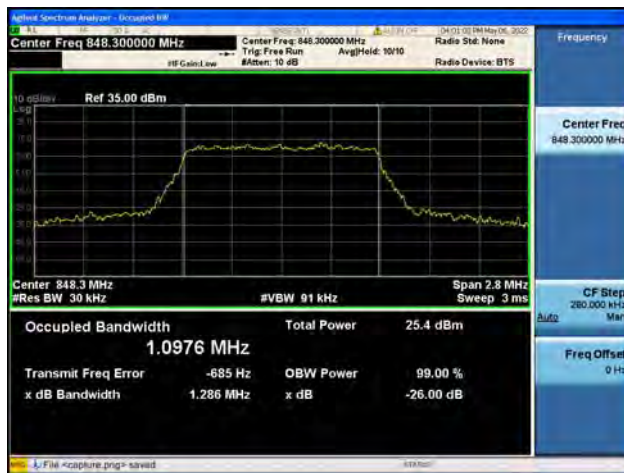
Band5 / 1.4MHz / High CH / QPSK



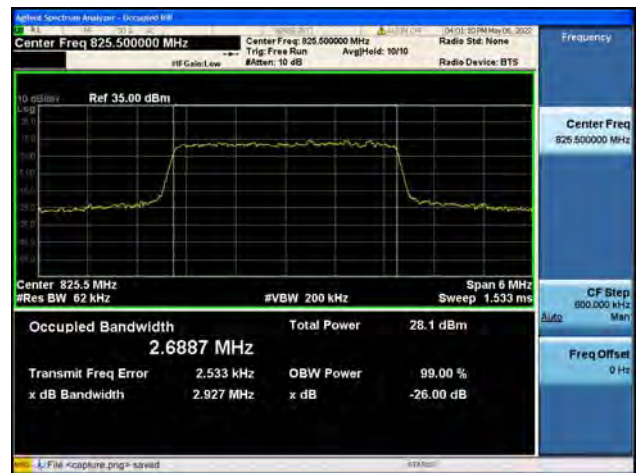
Band5 / 1.4MHz / High CH / 16QAM



Band5 / 1.4MHz / High CH / 64QAM



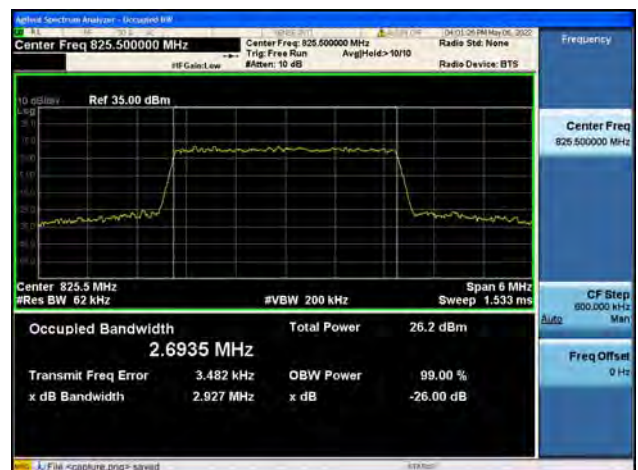
Band5 / 3MHz / Low CH / QPSK



Band5 / 3MHz / Low CH / 16QAM

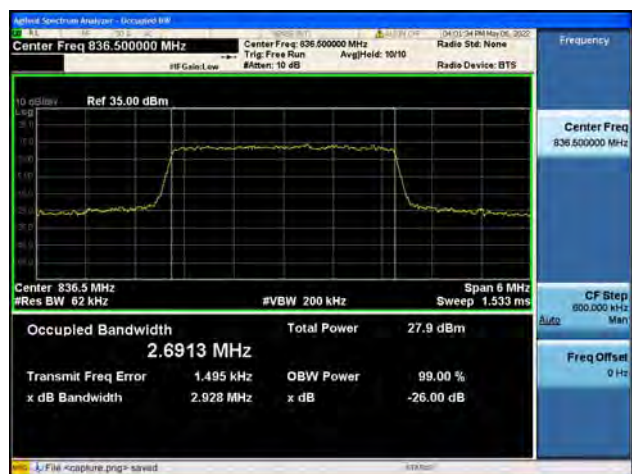


Band5 / 3MHz / Low CH / 64QAM





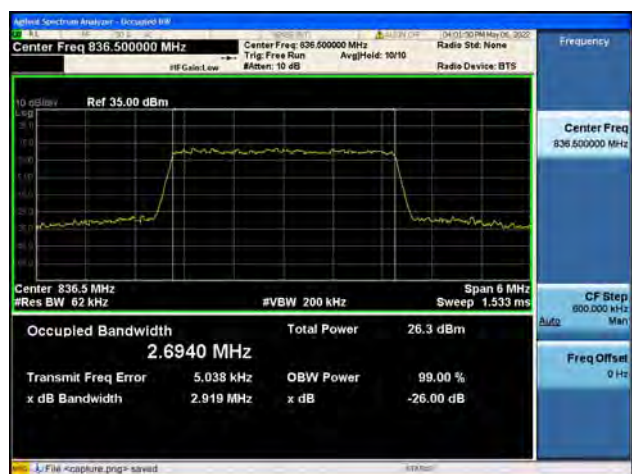
Band5 / 3MHz / Mid CH / QPSK



Band5 / 3MHz / Mid CH / 16QAM



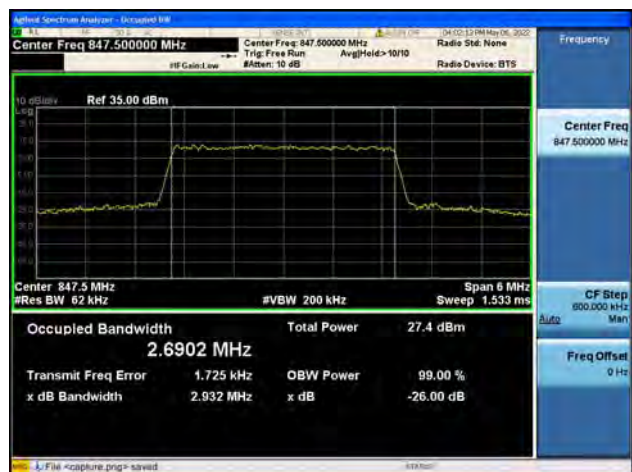
Band5 / 3MHz / Mid CH / 64QAM



Band5 / 3MHz / High CH / QPSK



Band5 / 3MHz / High CH / 16QAM



Band5 / 3MHz / High CH / 64QAM





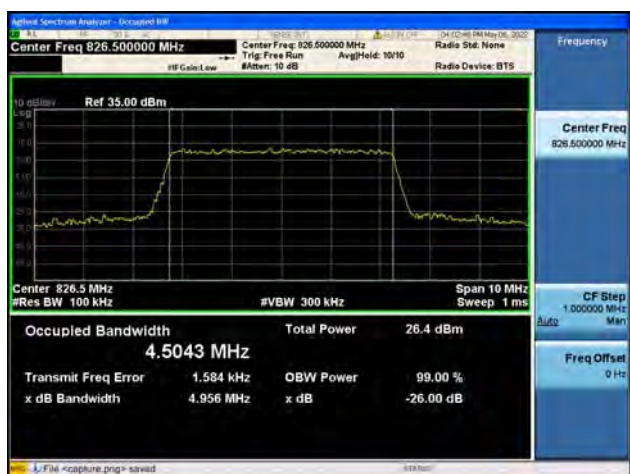
Band5 / 5MHz / Low CH / QPSK



Band5 / 5MHz / Low CH / 16QAM



Band5 / 5MHz / Low CH / 64QAM



Band5 / 5MHz / Mid CH / QPSK



Band5 / 5MHz / Mid CH / 16QAM

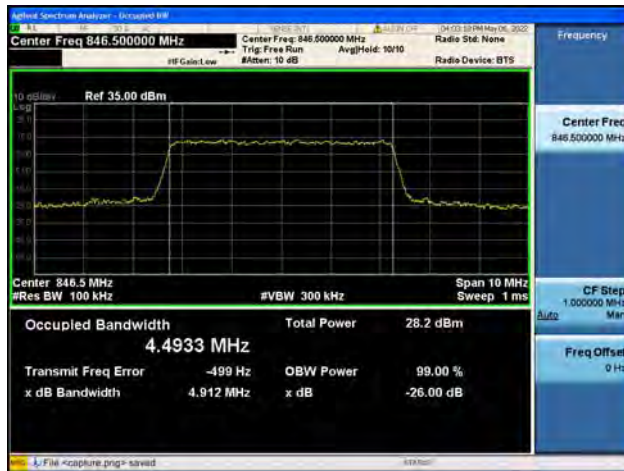


Band5 / 5MHz / Mid CH / 64QAM





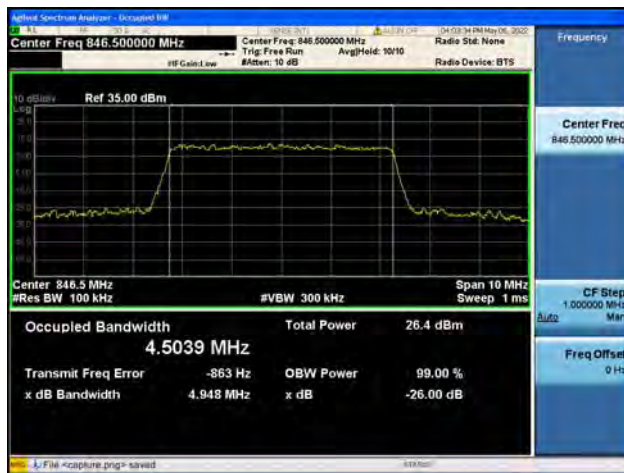
Band5 / 5MHz / High CH / QPSK



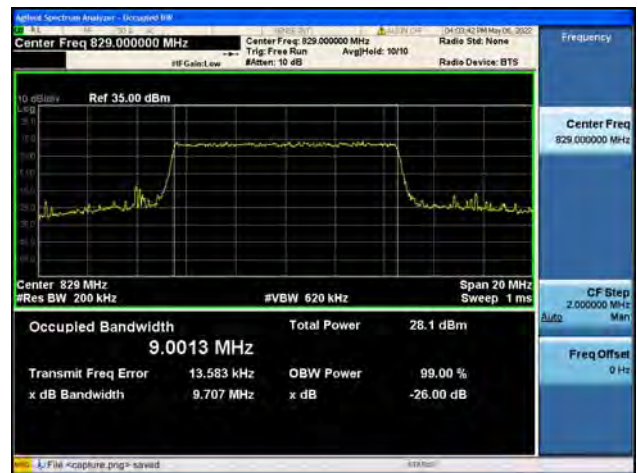
Band5 / 5MHz / High CH / 16QAM



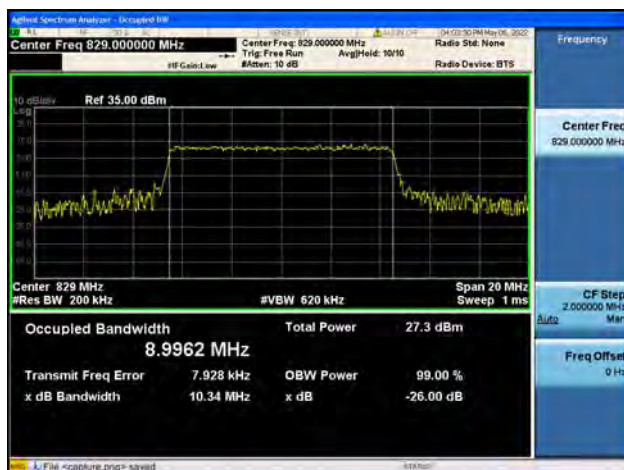
Band5 / 5MHz / High CH / 64QAM



Band5 / 10MHz / Low CH / QPSK



Band5 / 10MHz / Low CH / 16QAM

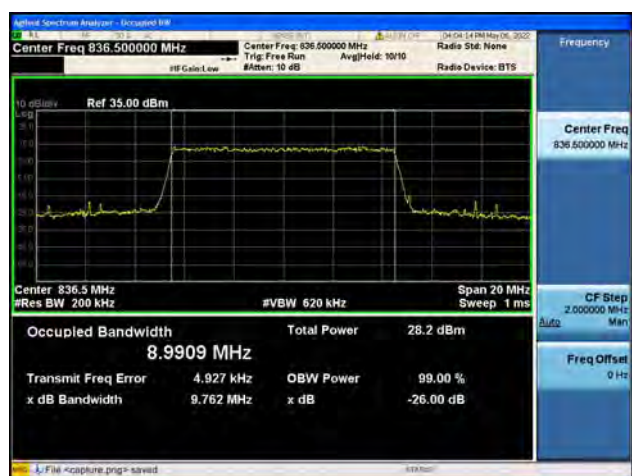


Band5 / 10MHz / Low CH / 64QAM





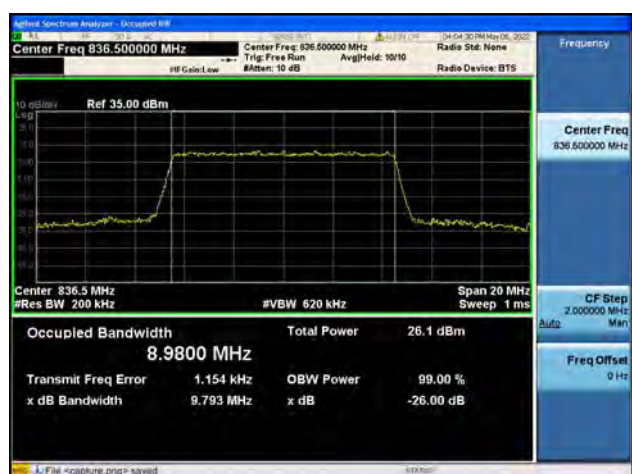
Band5 / 10MHz / Mid CH / QPSK



Band5 / 10MHz / Mid CH / 16QAM



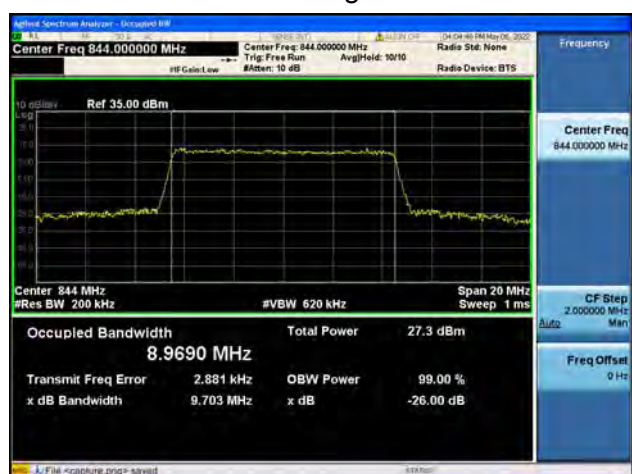
Band5 / 10MHz / Mid CH / 64QAM



Band5 / 10MHz / High CH / QPSK



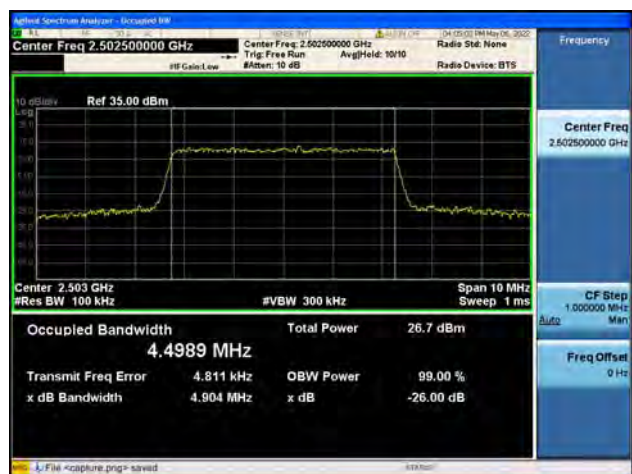
Band5 / 10MHz / High CH / 16QAM



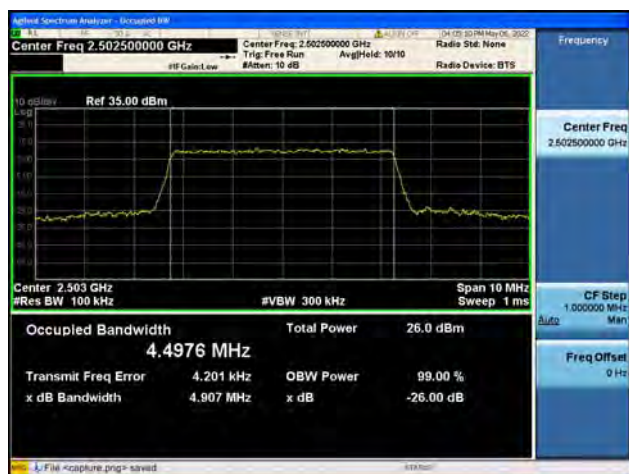
Band5 / 10MHz / High CH / 64QAM



Band7 / 5MHz / Low CH / QPSK



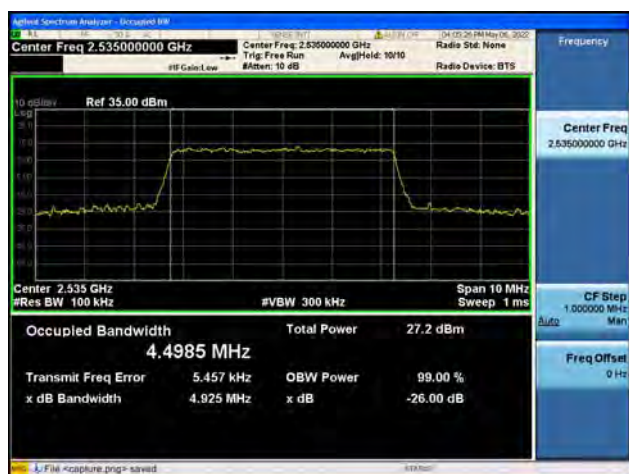
Band7 / 5MHz / Low CH / 16QAM



Band7 / 5MHz / Low CH / 64QAM



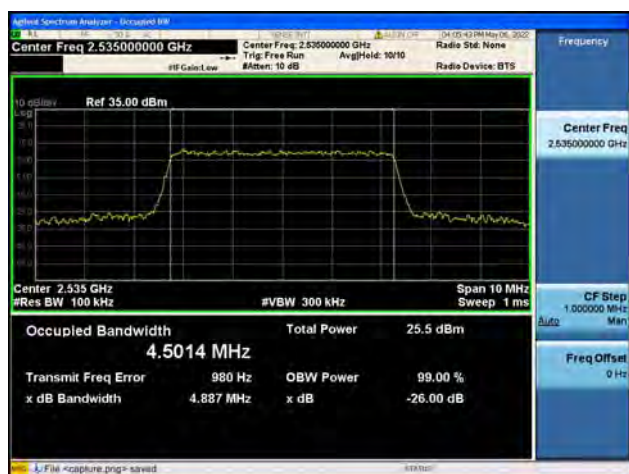
Band7 / 5MHz / Mid CH / QPSK



Band7 / 5MHz / Mid CH / 16QAM



Band7 / 5MHz / Mid CH / 64QAM





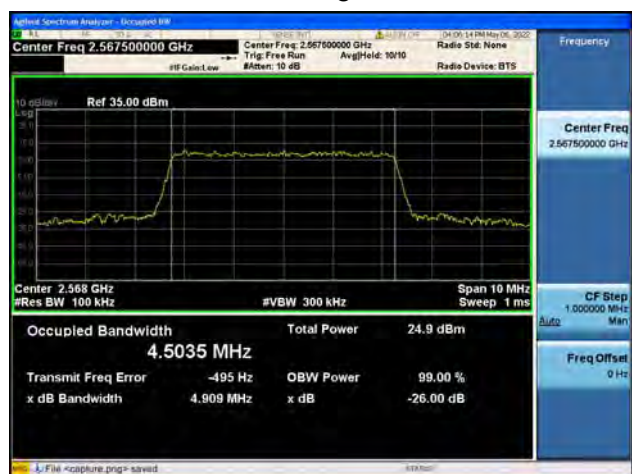
Band7 / 5MHz / High CH / QPSK



Band7 / 5MHz / High CH / 16QAM



Band7 / 5MHz / High CH / 64QAM



Band7 / 10MHz / Low CH / QPSK



Band7 / 10MHz / Low CH / 16QAM

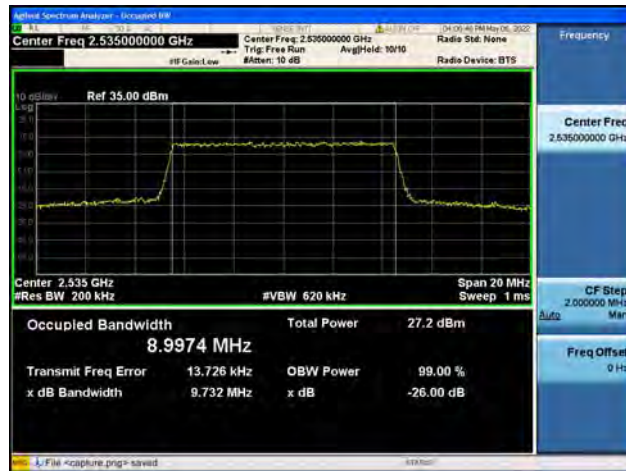


Band7 / 10MHz / Low CH / 64QAM

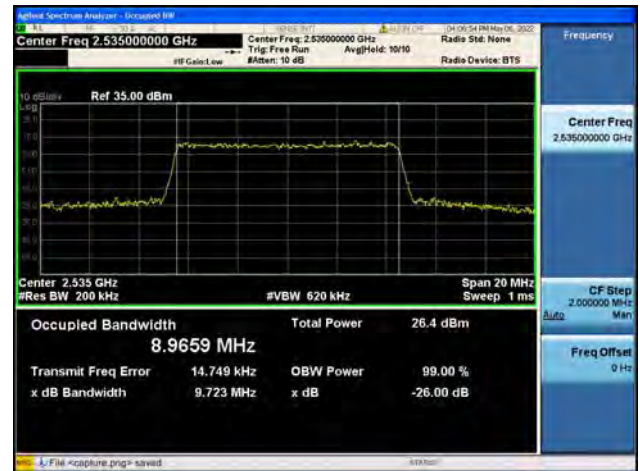




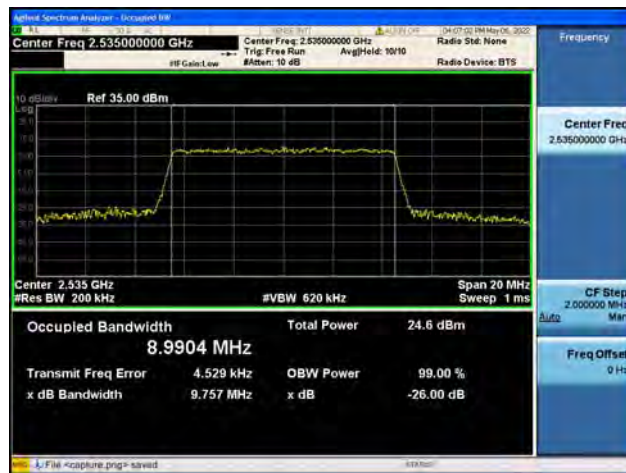
Band7 / 10MHz / Mid CH / QPSK



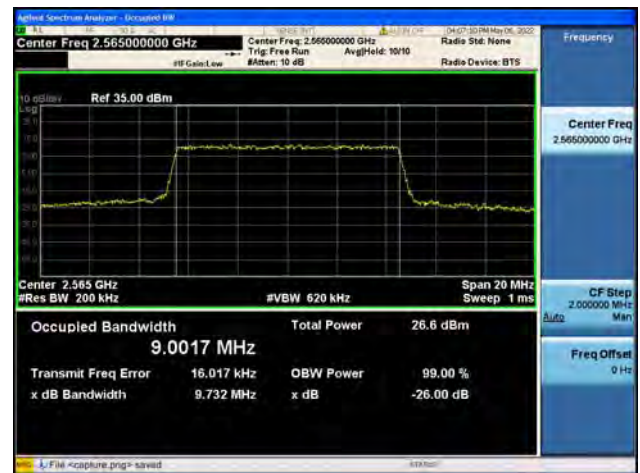
Band7 / 10MHz / Mid CH / 16QAM



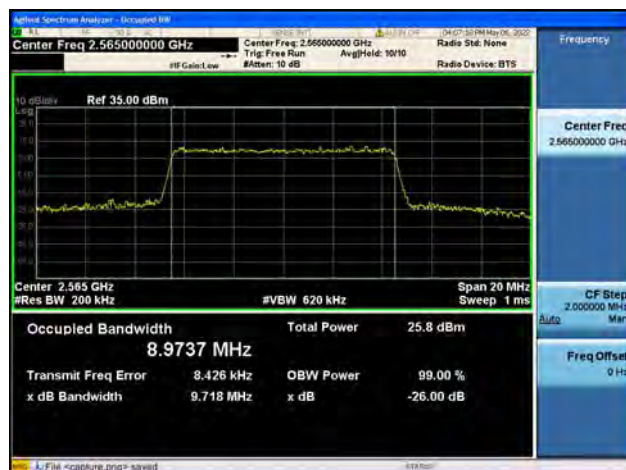
Band7 / 10MHz / Mid CH / 64QAM



Band7 / 10MHz / High CH / QPSK



Band7 / 10MHz / High CH / 16QAM

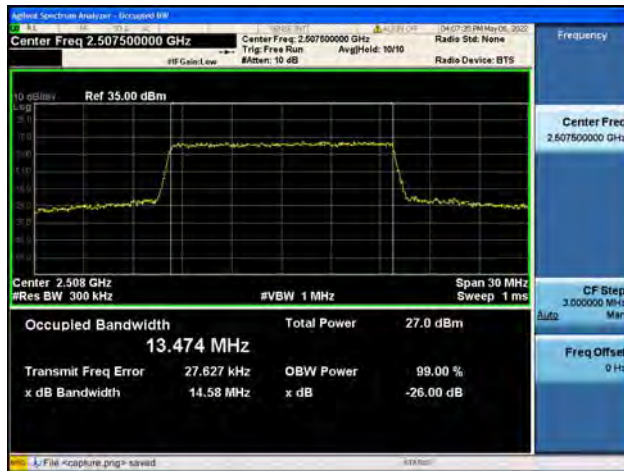


Band7 / 10MHz / High CH / 64QAM

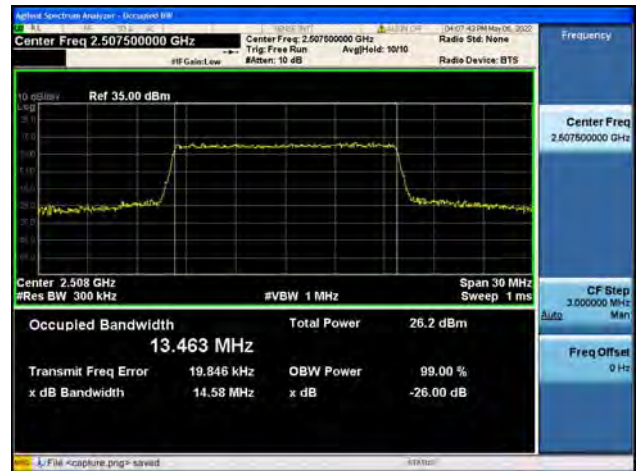




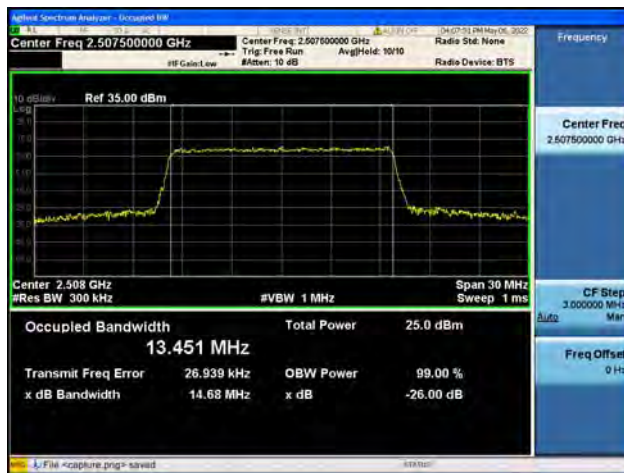
Band7 / 15MHz / Low CH / QPSK



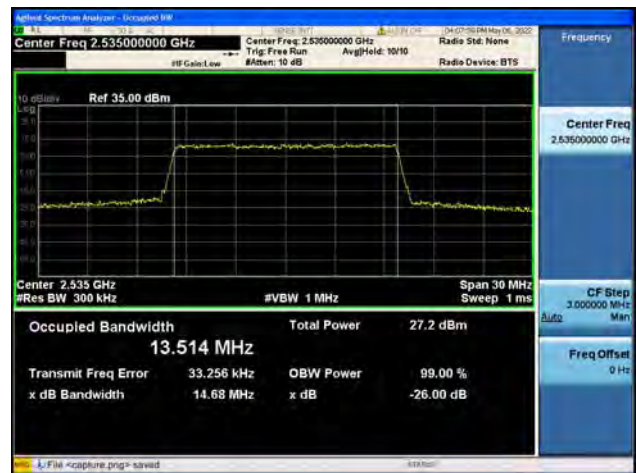
Band7 / 15MHz / Low CH / 16QAM



Band7 / 15MHz / Low CH / 64QAM



Band7 / 15MHz / Mid CH / QPSK



Band7 / 15MHz / Mid CH / 16QAM

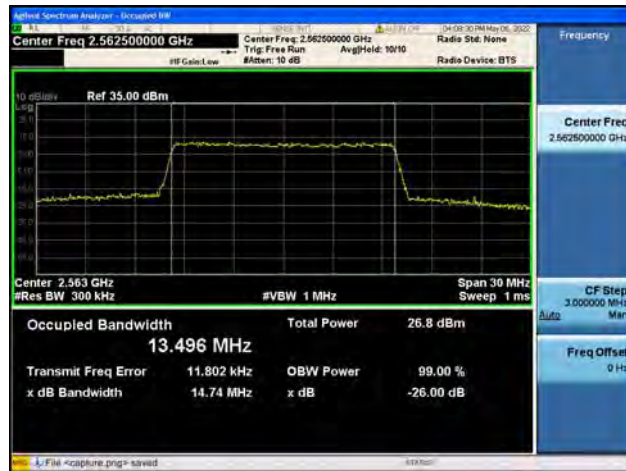


Band7 / 15MHz / Mid CH / 64QAM

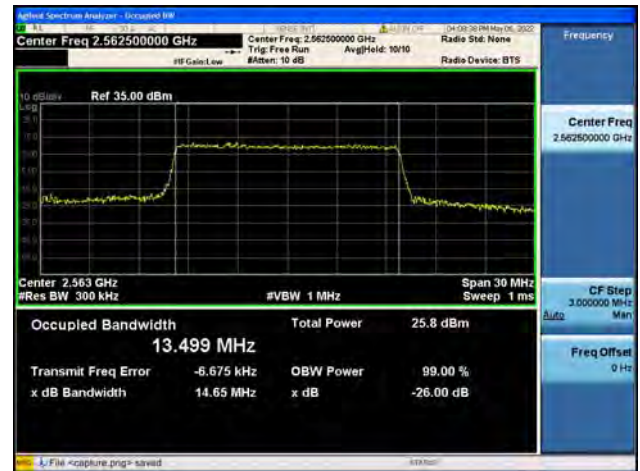




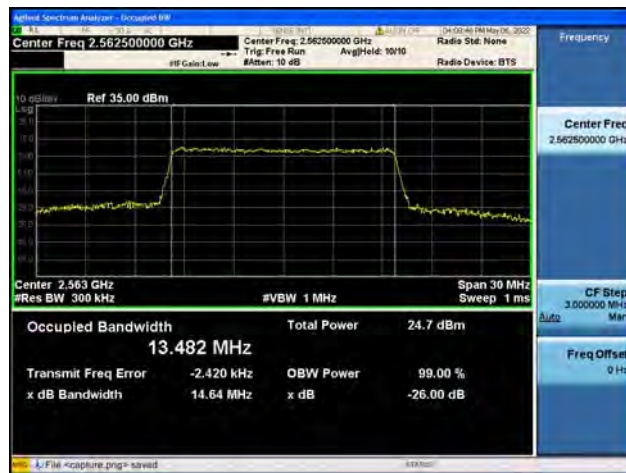
Band7 / 15MHz / High CH / QPSK



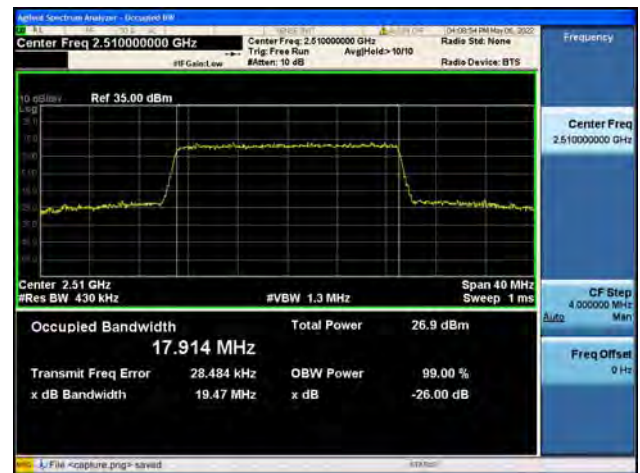
Band7 / 15MHz / High CH / 16QAM



Band7 / 15MHz / High CH / 64QAM



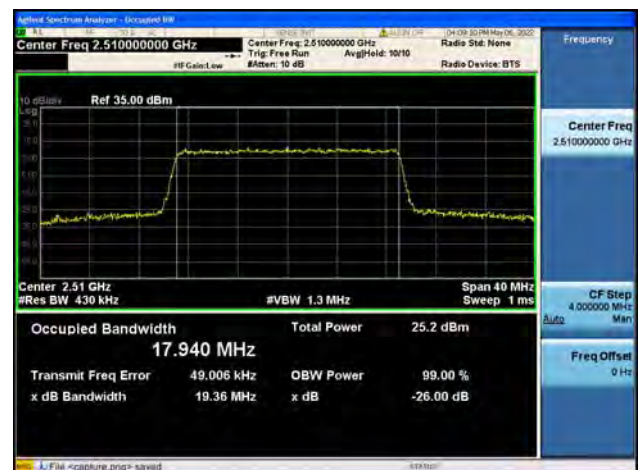
Band7 / 20MHz / Low CH / QPSK



Band7 / 20MHz / Low CH / 16QAM

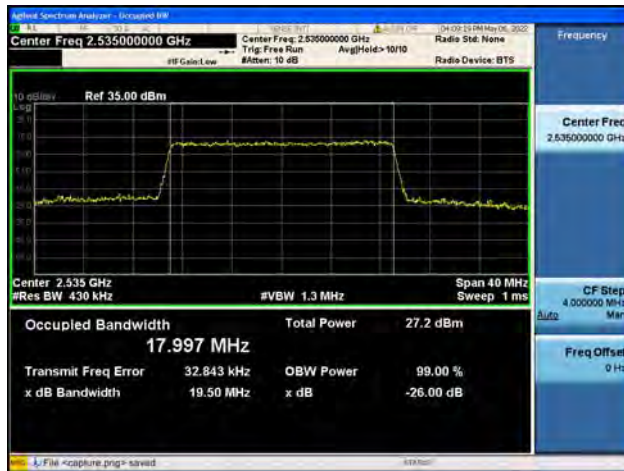


Band7 / 20MHz / Low CH / 64QAM

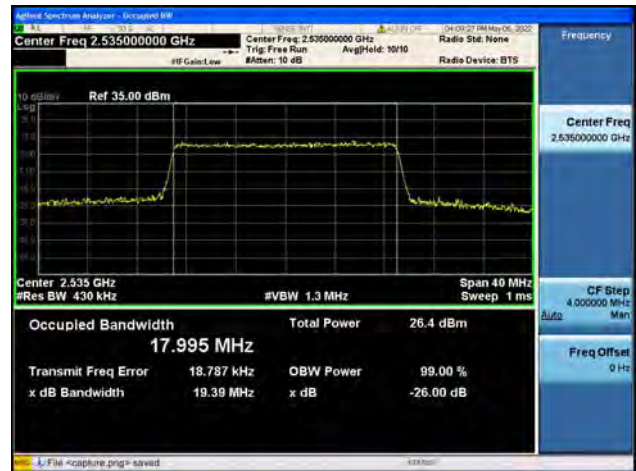




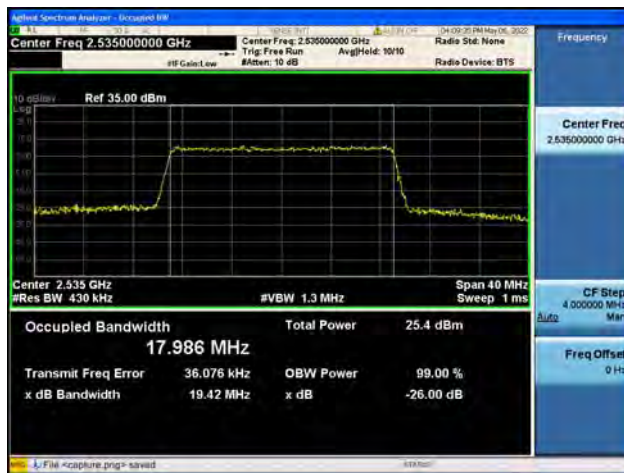
Band7 / 20MHz / Mid CH / QPSK



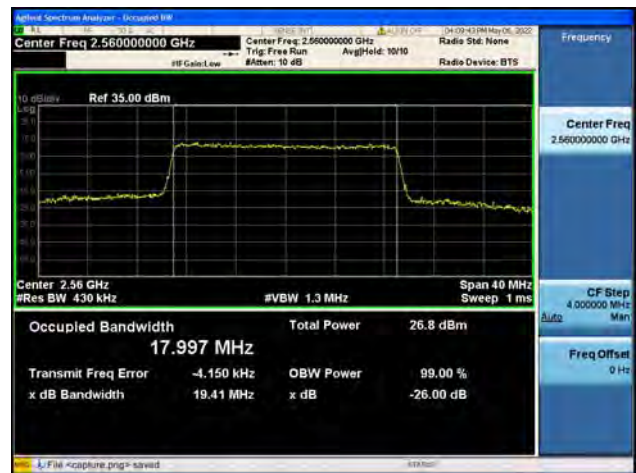
Band7 / 20MHz / Mid CH / 16QAM



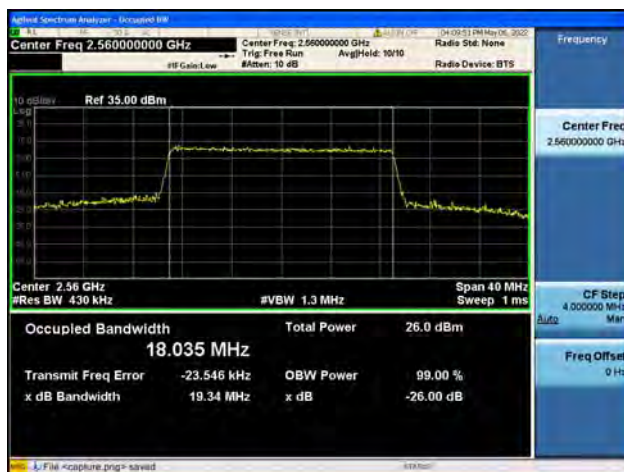
Band7 / 20MHz / Mid CH / 64QAM



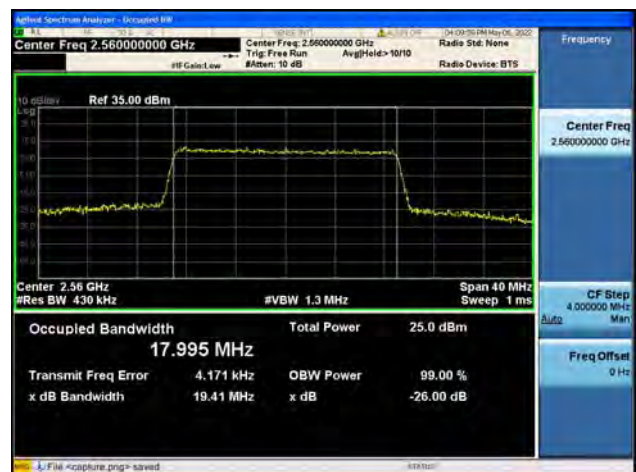
Band7 / 20MHz / High CH / QPSK



Band7 / 20MHz / High CH / 16QAM

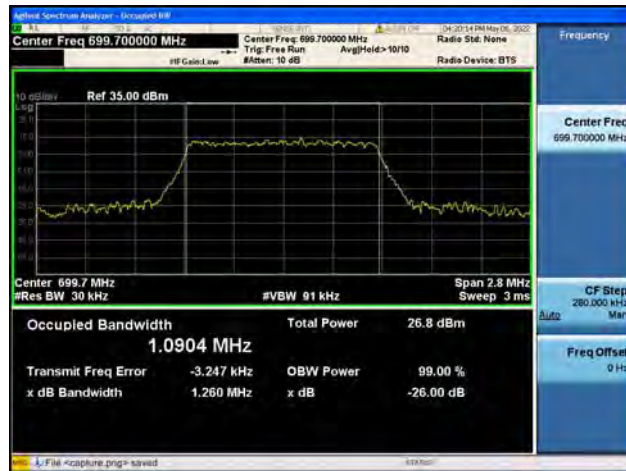


Band7 / 20MHz / High CH / 64QAM

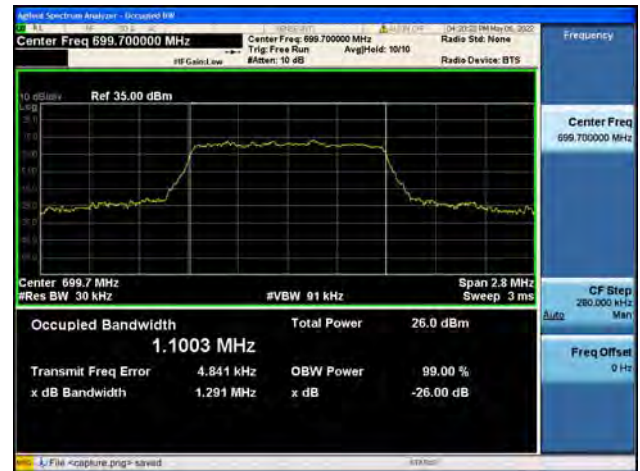




Band12 / 1.4MHz / Low CH / QPSK



Band12 / 1.4MHz / Low CH / 16QAM



Band12 / 1.4MHz / Low CH / 64QAM



Band12 / 1.4MHz / Mid CH / QPSK



Band12 / 1.4MHz / Mid CH / 16QAM

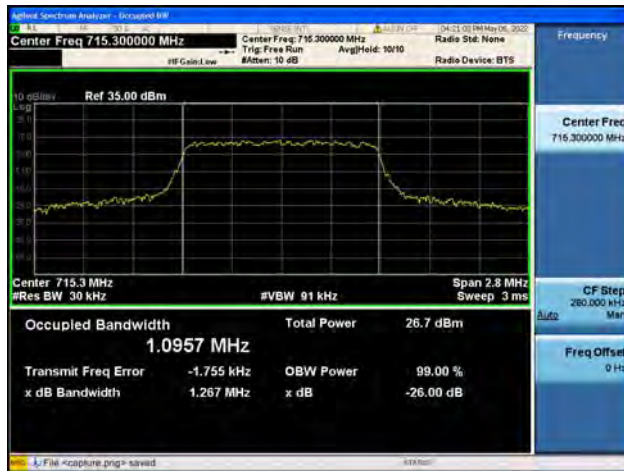


Band12 / 1.4MHz / Mid CH / 64QAM

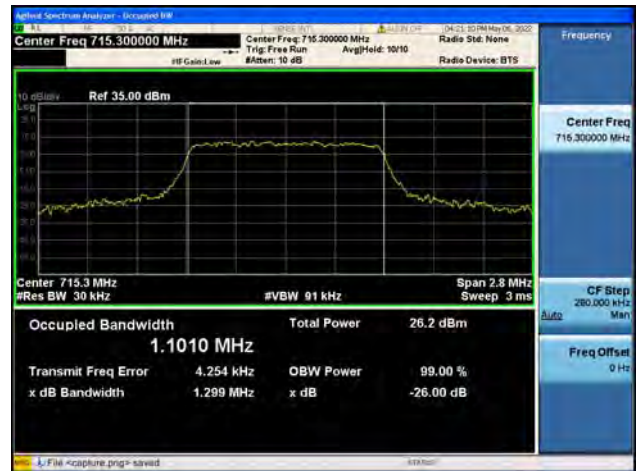




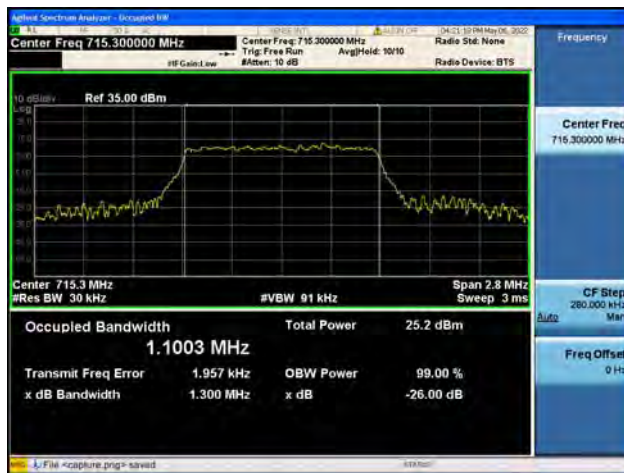
Band12 / 1.4MHz / High CH / QPSK



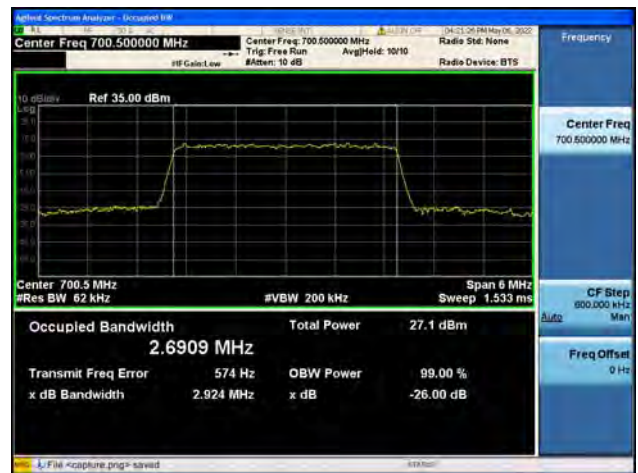
Band12 / 1.4MHz / High CH / 16QAM



Band12 / 1.4MHz / High CH / 64QAM



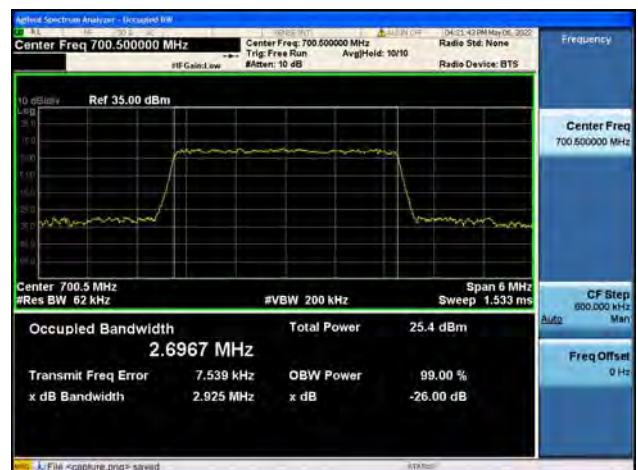
Band12 / 3MHz / Low CH / QPSK



Band12 / 3MHz / Low CH / 16QAM

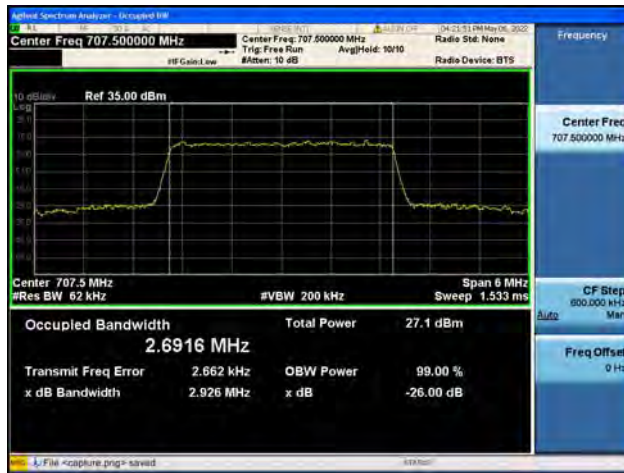


Band12 / 3MHz / Low CH / 64QAM

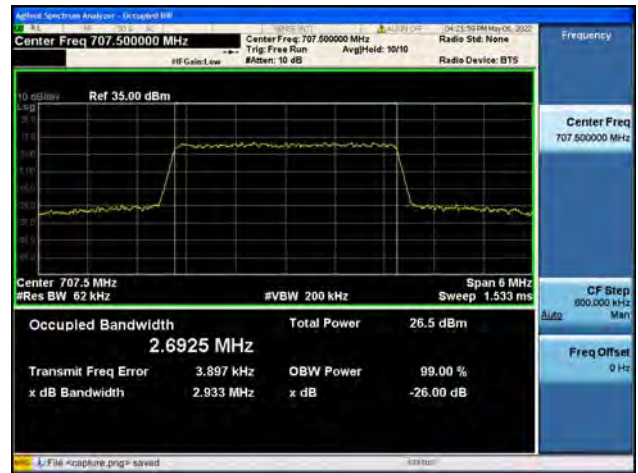




Band12 / 3MHz / Mid CH / QPSK



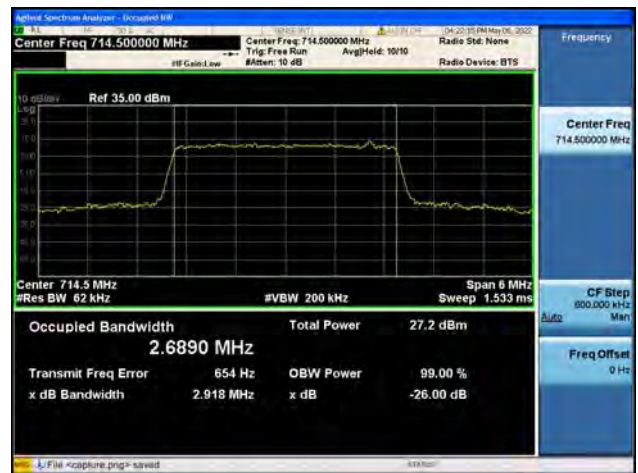
Band12 / 3MHz / Mid CH / 16QAM



Band12 / 3MHz / Mid CH / 64QAM



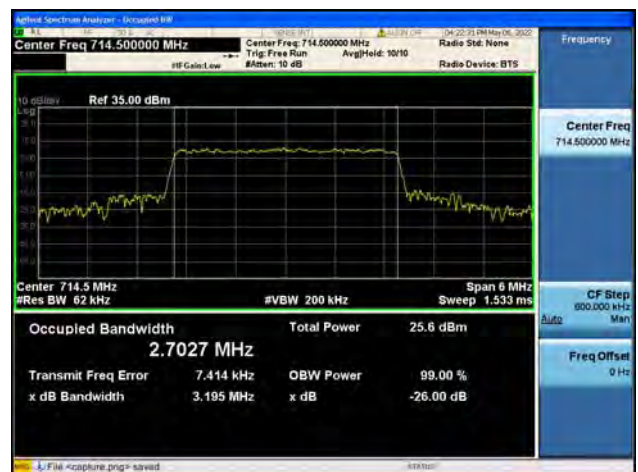
Band12 / 3MHz / High CH / QPSK



Band12 / 3MHz / High CH / 16QAM

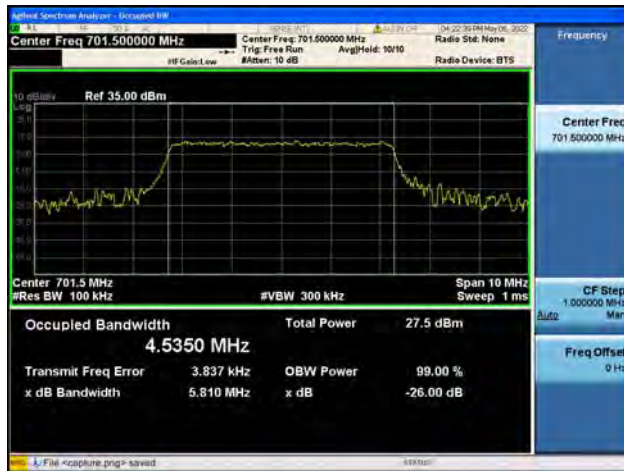


Band12 / 3MHz / High CH / 64QAM

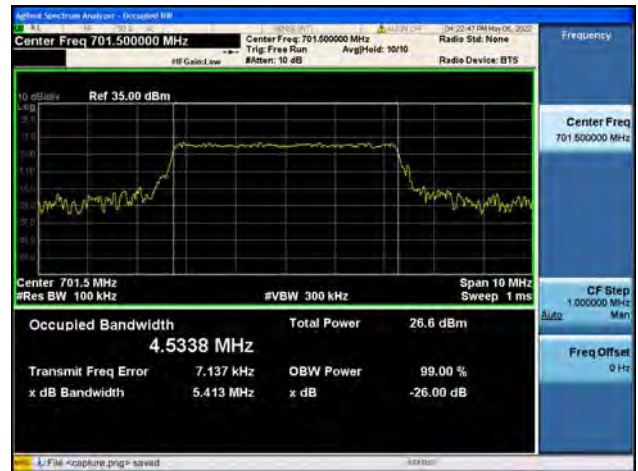




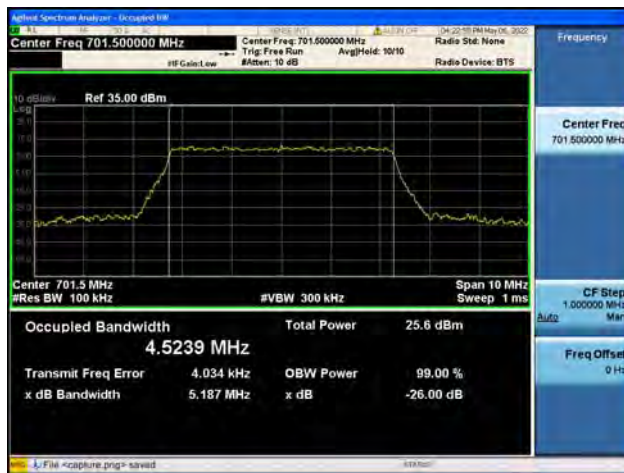
Band12 / 5MHz / Low CH / QPSK



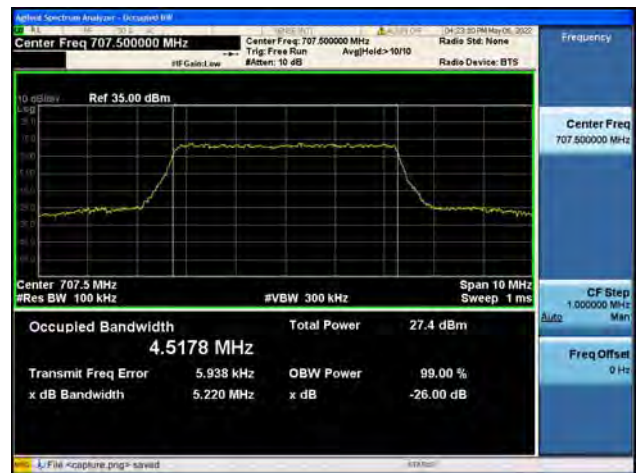
Band12 / 5MHz / Low CH / 16QAM



Band12 / 5MHz / Low CH / 64QAM



Band12 / 5MHz / Mid CH / QPSK



Band12 / 5MHz / Mid CH / 16QAM

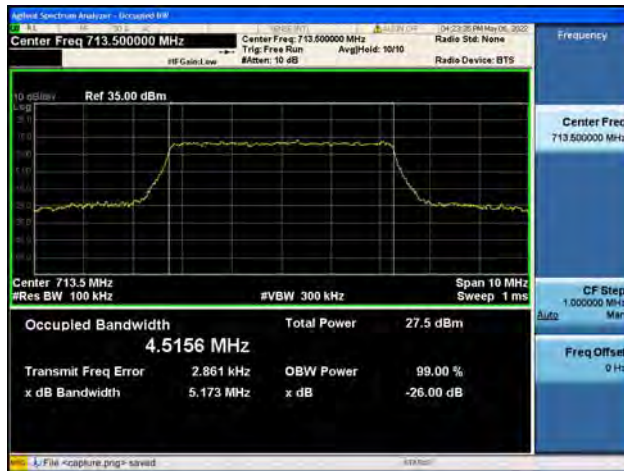


Band12 / 5MHz / Mid CH / 64QAM





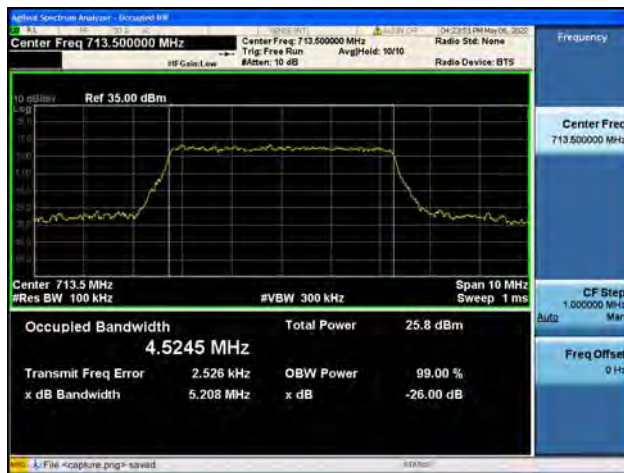
Band12 / 5MHz / High CH / QPSK



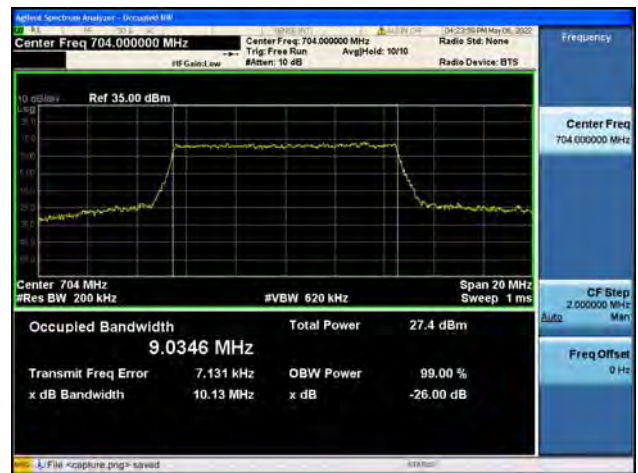
Band12 / 5MHz / High CH / 16QAM



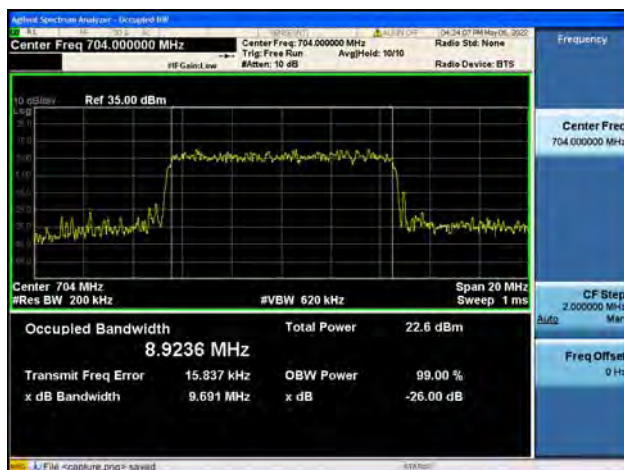
Band12 / 5MHz / High CH / 64QAM



Band12 / 10MHz / Low CH / QPSK



Band12 / 10MHz / Low CH / 16QAM



Band12 / 10MHz / Low CH / 64QAM

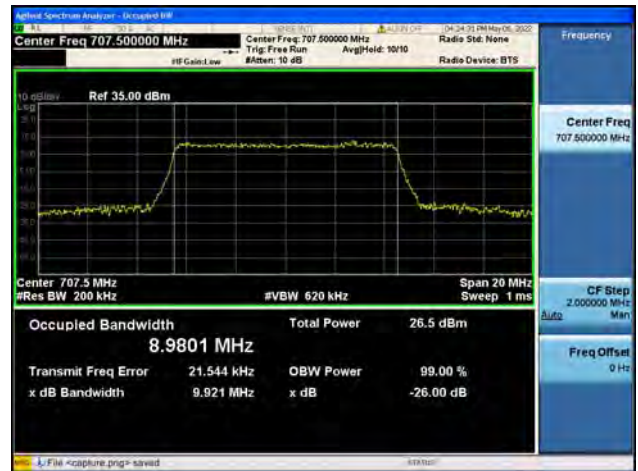




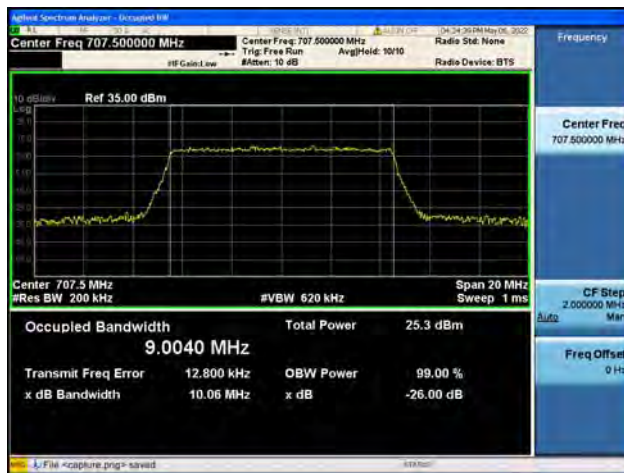
Band12 / 10MHz / Mid CH / QPSK



Band12 / 10MHz / Mid CH / 16QAM



Band12 / 10MHz / Mid CH / 64QAM



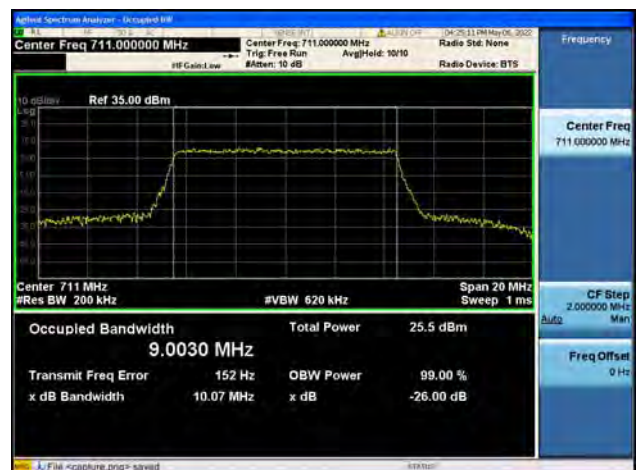
Band12 / 10MHz / High CH / QPSK



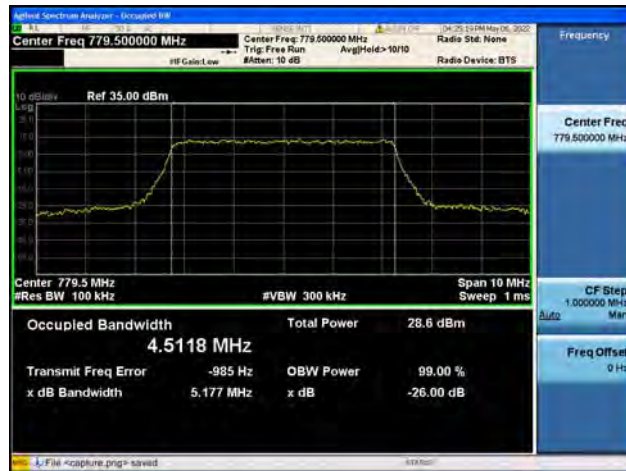
Band12 / 10MHz / High CH / 16QAM



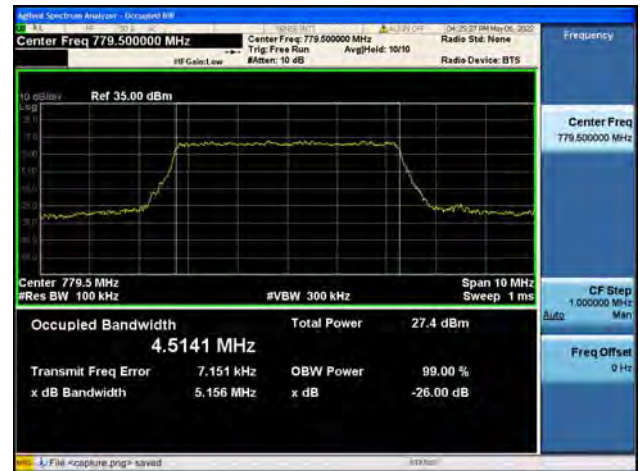
Band12 / 10MHz / High CH / 64QAM



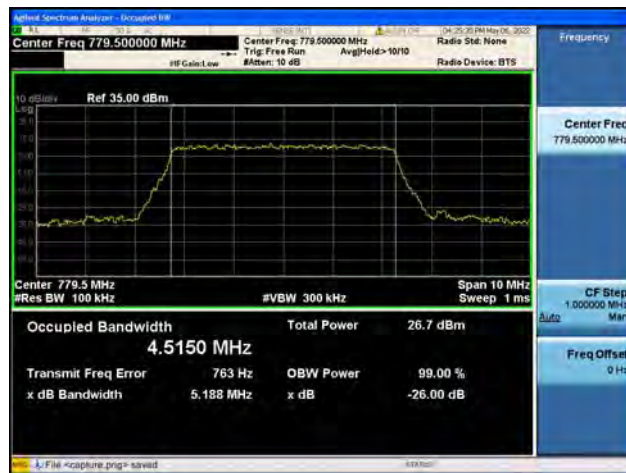
Band13 / 5MHz / Low CH / QPSK



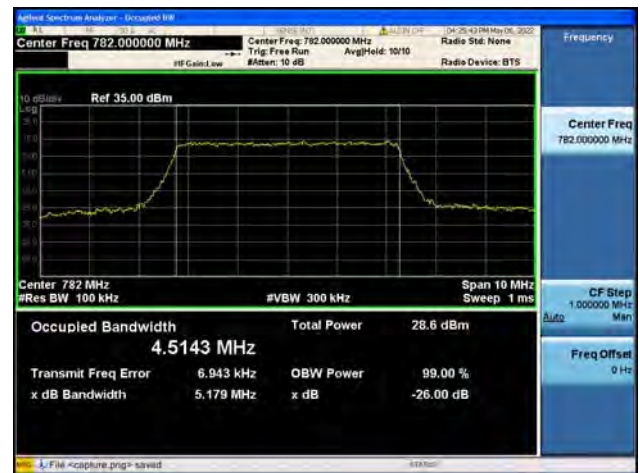
Band13 / 5MHz / Low CH / 16QAM



Band13 / 5MHz / Low CH / 64QAM



Band13 / 5MHz / Mid CH / QPSK



Band13 / 5MHz / Mid CH / 16QAM

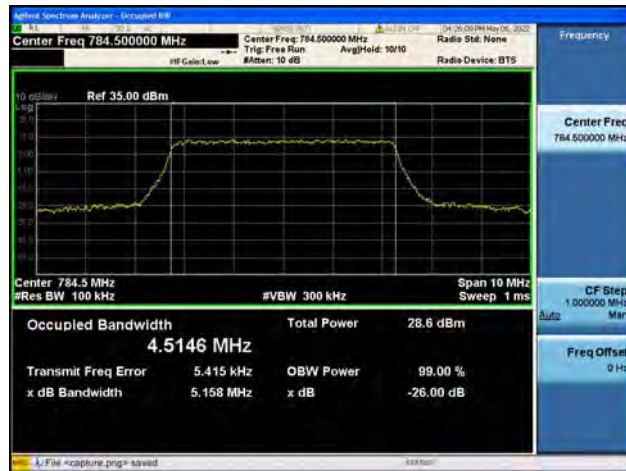


Band13 / 5MHz / Mid CH / 64QAM

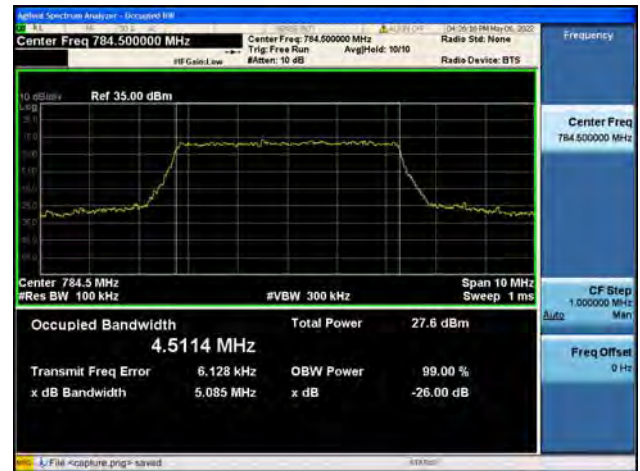




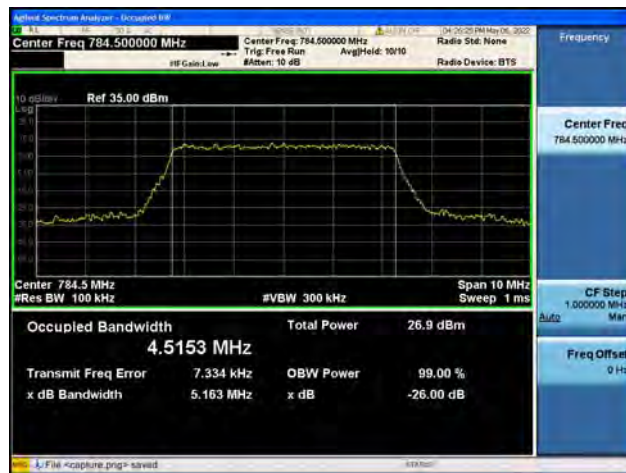
Band13 / 5MHz / High CH / QPSK



Band13 / 5MHz / High CH / 16QAM



Band13 / 5MHz / High CH / 64QAM



Band13 / 10MHz / Mid CH / QPSK



Band13 / 10MHz / Mid CH / 16QAM

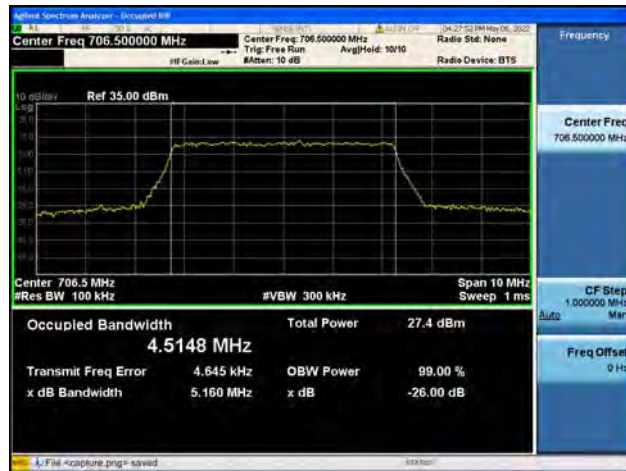


Band13 / 10MHz / Mid CH / 64QAM

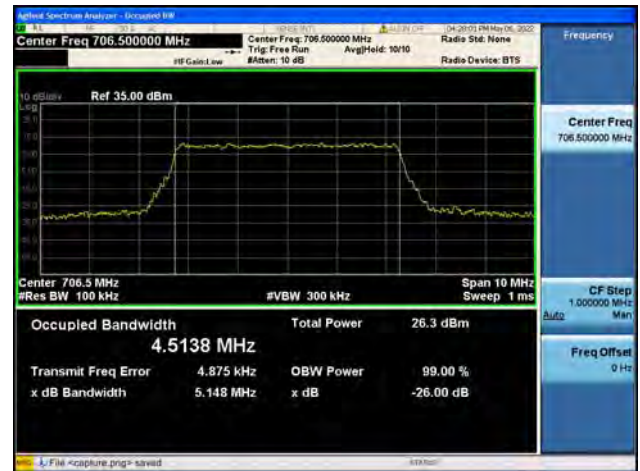




Band17 / 5MHz / Low CH / QPSK



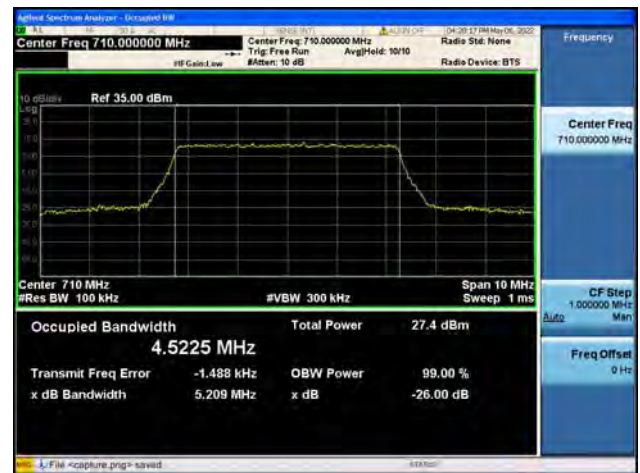
Band17 / 5MHz / Low CH / 16QAM



Band17 / 5MHz / Low CH / 64QAM



Band17 / 5MHz / Mid CH / QPSK



Band17 / 5MHz / Mid CH / 16QAM



Band17 / 5MHz / Mid CH / 64QAM





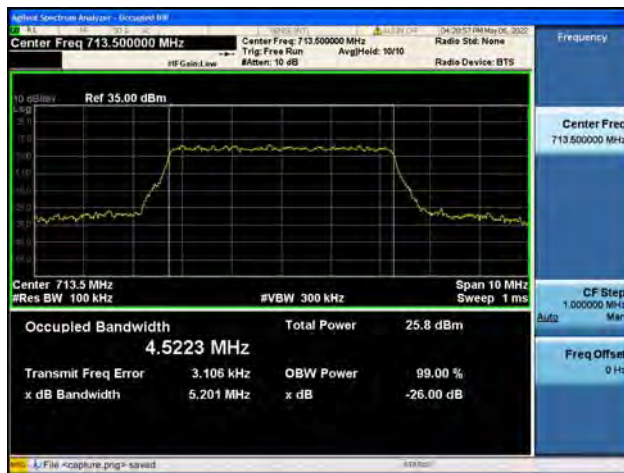
Band17 / 5MHz / High CH / QPSK



Band17 / 5MHz / High CH / 16QAM



Band17 / 5MHz / High CH / 64QAM



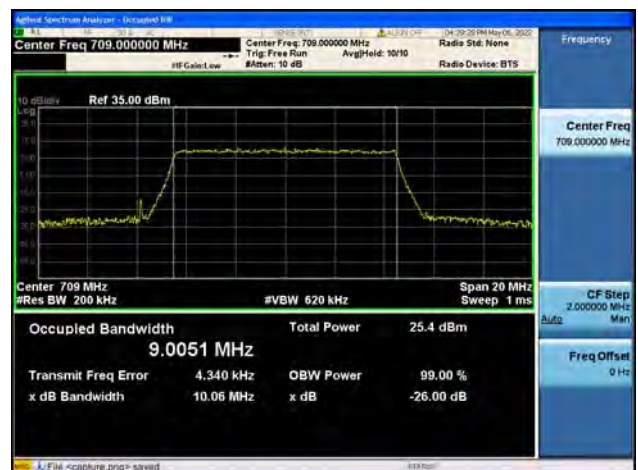
Band17 / 10MHz / Low CH / QPSK



Band17 / 10MHz / Low CH / 16QAM

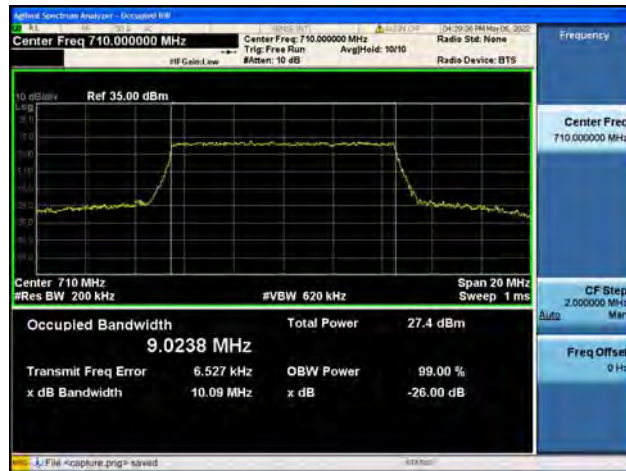


Band17 / 10MHz / Low CH / 64QAM





Band17 / 10MHz / Mid CH / QPSK



Band17 / 10MHz / Mid CH / 16QAM



Band17 / 10MHz / Mid CH / 64QAM



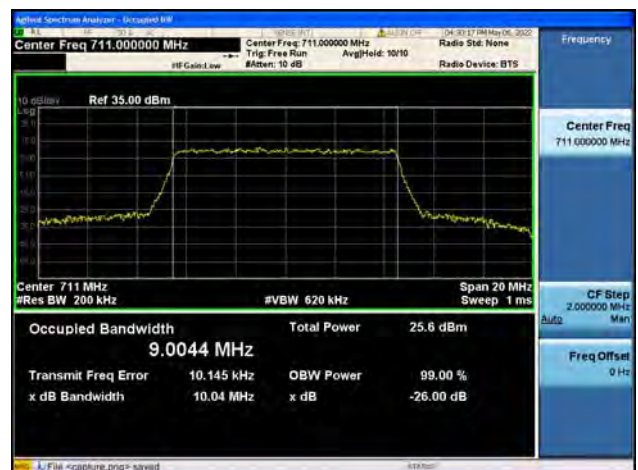
Band17 / 10MHz / High CH / QPSK



Band17 / 10MHz / High CH / 16QAM



Band17 / 10MHz / High CH / 64QAM



2.3. Frequency Stability

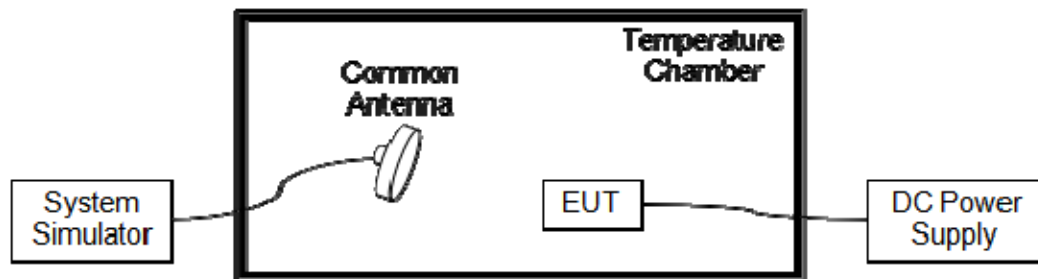
2.3.1. Requirement

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 3.87V, 4.45V 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
Normal	3.87	+20(Ref)	43	0.023	PASS
Normal		-10	-58	-0.031	
Normal		0	-20	-0.011	
Normal		+10	-28	-0.015	
Normal		+20	32	0.017	
Normal		+30	-29	-0.015	
Normal		+40	29	0.015	
Normal		+50	53	0.028	
Normal		+55	36	0.019	
High	4.50	+20	-29	-0.015	
BATT.ENDPOINT	3.45	+20	-55	-0.029	

LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.87	+20(Ref)	56	0.032	PASS
Normal		-10	-37	-0.021	
Normal		0	-57	-0.033	
Normal		+10	47	0.027	
Normal		+20	-55	-0.032	
Normal		+30	28	0.016	
Normal		+40	-24	-0.014	
Normal		+50	-54	-0.031	
Normal		+55	44	0.025	
High	4.50	+20	42	0.024	
BATT.ENDPOINT	3.45	+20	-49	-0.028	



LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.87	+20(Ref)	50	0.060	PASS
Normal		-10	19	0.023	
Normal		0	48	0.057	
Normal		+10	34	0.041	
Normal		+20	27	0.032	
Normal		+30	-42	-0.050	
Normal		+40	52	0.062	
Normal		+50	-53	-0.063	
Normal		+55	25	0.030	
High	4.50	+20	-33	-0.039	
BATT.ENDPOINT	3.45	+20	50	0.060	

LTE Band 7, QPSK, Channel 21100, Frequency 2535MHz Limit= Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.87	+20(Ref)	-29	-0.011	PASS
Normal		-10	34	0.013	
Normal		0	-20	-0.008	
Normal		+10	43	0.017	
Normal		+20	45	0.018	
Normal		+30	-38	-0.015	
Normal		+40	-55	-0.022	
Normal		+50	-28	-0.011	
Normal		+55	39	0.015	
High	4.50	+20	16	0.006	
BATT.ENDPOINT	3.45	+20	-39	-0.015	



LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.87	+20(Ref)	-18	-0.025	PASS
Normal		-10	24	0.034	
Normal		0	-54	-0.076	
Normal		+10	29	0.041	
Normal		+20	28	0.040	
Normal		+30	31	0.044	
Normal		+40	-55	-0.078	
Normal		+50	-13	-0.018	
Normal		+55	14	0.020	
High	4.50	+20	-13	-0.018	
BATT.ENDPOINT	3.45	+20	57	0.081	

LTE Band 13, QPSK, Channel 23230, Frequency 782.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.87	+20(Ref)	-28	-0.036	PASS
Normal		-10	45	0.058	
Normal		0	36	0.046	
Normal		+10	26	0.033	
Normal		+20	-26	-0.033	
Normal		+30	57	0.073	
Normal		+40	46	0.059	
Normal		+50	22	0.028	
Normal		+55	34	0.043	
High	4.50	+20	28	0.036	
BATT.ENDPOINT	3.45	+20	37	0.047	



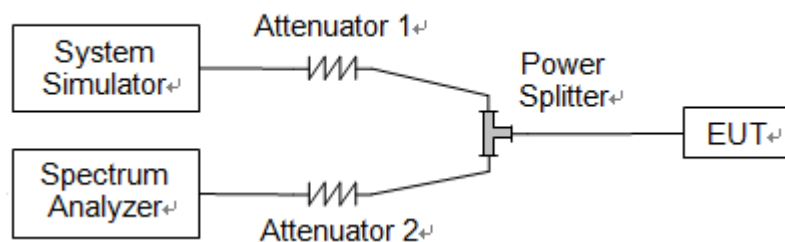
LTE Band 17, QPSK, Channel 23790, Frequency 710MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.87	+20(Ref)	19	0.027	PASS
Normal		-10	15	0.021	
Normal		0	26	0.037	
Normal		+10	-33	-0.046	
Normal		+20	-43	-0.061	
Normal		+30	19	0.027	
Normal		+40	43	0.061	
Normal		+50	14	0.020	
Normal		+55	20	0.028	
High	4.50	+20	-15	-0.021	
BATT.ENDPOINT	3.45	+20	30	0.042	

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	5.09	<=13	PASS
	Low	16QAM	6.10	<=13	PASS
	Low	64QAM	6.32	<=13	PASS
	Mid	QPSK	4.82	<=13	PASS
	Mid	16QAM	5.59	<=13	PASS
	Mid	64QAM	6.10	<=13	PASS
	High	QPSK	4.91	<=13	PASS
	High	16QAM	5.77	<=13	PASS
	High	64QAM	6.18	<=13	PASS
3	Low	QPSK	5.40	<=13	PASS
	Low	16QAM	6.24	<=13	PASS
	Low	64QAM	6.34	<=13	PASS
	Mid	QPSK	4.95	<=13	PASS
	Mid	16QAM	5.79	<=13	PASS
	Mid	64QAM	6.18	<=13	PASS
	High	QPSK	5.13	<=13	PASS
	High	16QAM	5.93	<=13	PASS
	High	64QAM	6.25	<=13	PASS
5	Low	QPSK	5.66	<=13	PASS
	Low	16QAM	6.24	<=13	PASS
	Low	64QAM	6.47	<=13	PASS
	Mid	QPSK	5.24	<=13	PASS
	Mid	16QAM	5.91	<=13	PASS
	Mid	64QAM	6.29	<=13	PASS
	High	QPSK	5.35	<=13	PASS
	High	16QAM	6.05	<=13	PASS
	High	64QAM	6.31	<=13	PASS
10	Low	QPSK	5.68	<=13	PASS
	Low	16QAM	6.30	<=13	PASS
	Low	64QAM	6.50	<=13	PASS
	Mid	QPSK	5.27	<=13	PASS
	Mid	16QAM	5.93	<=13	PASS
	Mid	64QAM	6.29	<=13	PASS
	High	QPSK	5.40	<=13	PASS
	High	16QAM	6.11	<=13	PASS
	High	64QAM	6.32	<=13	PASS



15	Low	QPSK	5.68	≤ 13	PASS
	Low	16QAM	6.32	≤ 13	PASS
	Low	64QAM	6.54	≤ 13	PASS
	Mid	QPSK	5.10	≤ 13	PASS
	Mid	16QAM	5.98	≤ 13	PASS
	Mid	64QAM	6.28	≤ 13	PASS
	High	QPSK	5.33	≤ 13	PASS
	High	16QAM	6.03	≤ 13	PASS
	High	64QAM	6.38	≤ 13	PASS
20	Low	QPSK	5.63	≤ 13	PASS
	Low	16QAM	6.36	≤ 13	PASS
	Low	64QAM	6.53	≤ 13	PASS
	Mid	QPSK	5.23	≤ 13	PASS
	Mid	16QAM	5.98	≤ 13	PASS
	Mid	64QAM	6.32	≤ 13	PASS
	High	QPSK	5.39	≤ 13	PASS
	High	16QAM	6.12	≤ 13	PASS
	High	64QAM	6.43	≤ 13	PASS



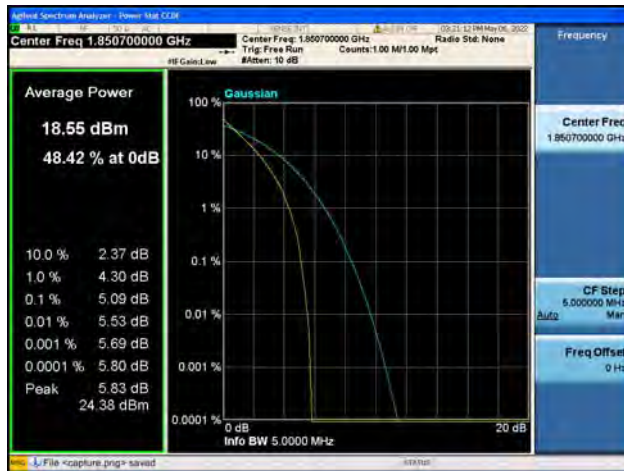
LTE Band 4					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	5.52	<=13	PASS
	Low	16QAM	6.25	<=13	PASS
	Low	64QAM	6.46	<=13	PASS
	Mid	QPSK	5.69	<=13	PASS
	Mid	16QAM	6.45	<=13	PASS
	Mid	64QAM	6.66	<=13	PASS
	High	QPSK	5.04	<=13	PASS
	High	16QAM	5.84	<=13	PASS
	High	64QAM	6.25	<=13	PASS
3	Low	QPSK	5.60	<=13	PASS
	Low	16QAM	6.38	<=13	PASS
	Low	64QAM	6.51	<=13	PASS
	Mid	QPSK	5.71	<=13	PASS
	Mid	16QAM	6.52	<=13	PASS
	Mid	64QAM	6.64	<=13	PASS
	High	QPSK	5.08	<=13	PASS
	High	16QAM	5.97	<=13	PASS
	High	64QAM	6.30	<=13	PASS
5	Low	QPSK	5.73	<=13	PASS
	Low	16QAM	6.35	<=13	PASS
	Low	64QAM	6.63	<=13	PASS
	Mid	QPSK	5.86	<=13	PASS
	Mid	16QAM	6.43	<=13	PASS
	Mid	64QAM	6.76	<=13	PASS
	High	QPSK	5.37	<=13	PASS
	High	16QAM	6.10	<=13	PASS
	High	64QAM	6.37	<=13	PASS
10	Low	QPSK	5.78	<=13	PASS
	Low	16QAM	6.43	<=13	PASS
	Low	64QAM	6.65	<=13	PASS
	Mid	QPSK	5.81	<=13	PASS
	Mid	16QAM	6.43	<=13	PASS
	Mid	64QAM	6.63	<=13	PASS
	High	QPSK	5.43	<=13	PASS
	High	16QAM	6.11	<=13	PASS
	High	64QAM	6.41	<=13	PASS



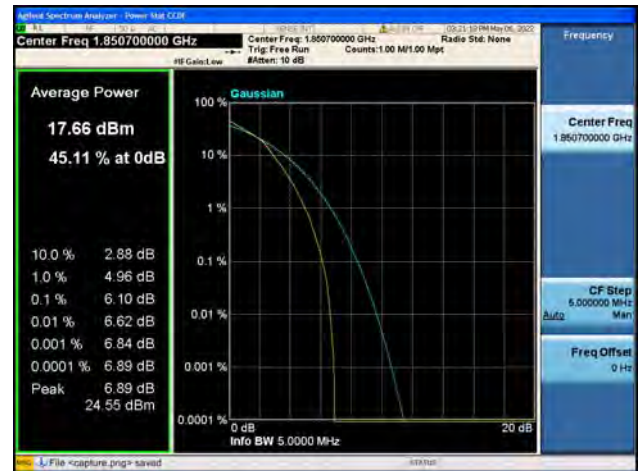
15	Low	QPSK	5.75	≤ 13	PASS
	Low	16QAM	6.42	≤ 13	PASS
	Low	64QAM	6.73	≤ 13	PASS
	Mid	QPSK	5.69	≤ 13	PASS
	Mid	16QAM	6.39	≤ 13	PASS
	Mid	64QAM	6.70	≤ 13	PASS
	High	QPSK	5.32	≤ 13	PASS
	High	16QAM	6.03	≤ 13	PASS
	High	64QAM	6.42	≤ 13	PASS
20	Low	QPSK	5.74	≤ 13	PASS
	Low	16QAM	6.45	≤ 13	PASS
	Low	64QAM	6.69	≤ 13	PASS
	Mid	QPSK	5.71	≤ 13	PASS
	Mid	16QAM	6.43	≤ 13	PASS
	Mid	64QAM	6.68	≤ 13	PASS
	High	QPSK	5.49	≤ 13	PASS
	High	16QAM	6.22	≤ 13	PASS
	High	64QAM	6.48	≤ 13	PASS



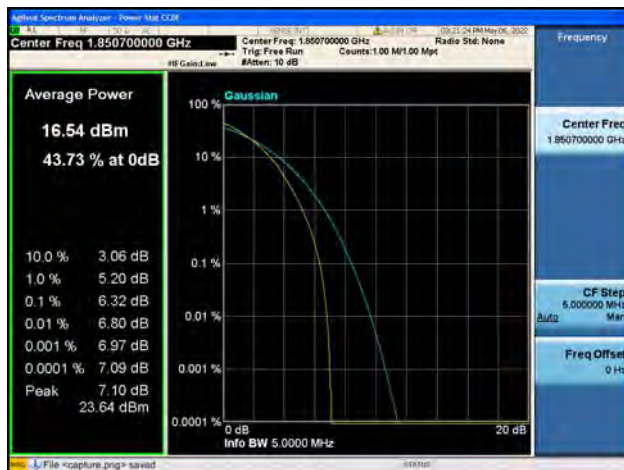
Band2 / 1.4MHz / Low CH / QPSK



Band2 / 1.4MHz / Low CH / 16QAM



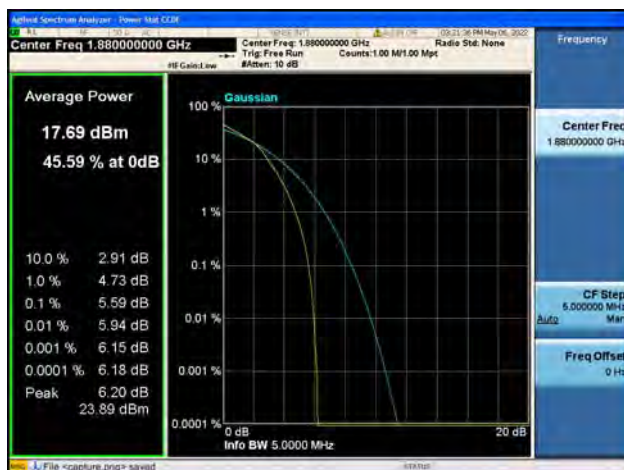
Band2 / 1.4MHz / Low CH / 64QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM



Band2 / 1.4MHz / Mid CH / 64QAM



Band2 / 1.4MHz / High CH / QPSK



Band2 / 1.4MHz / High CH / 16QAM



Band2 / 1.4MHz / High CH / 64QAM



Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Low CH / 64QAM





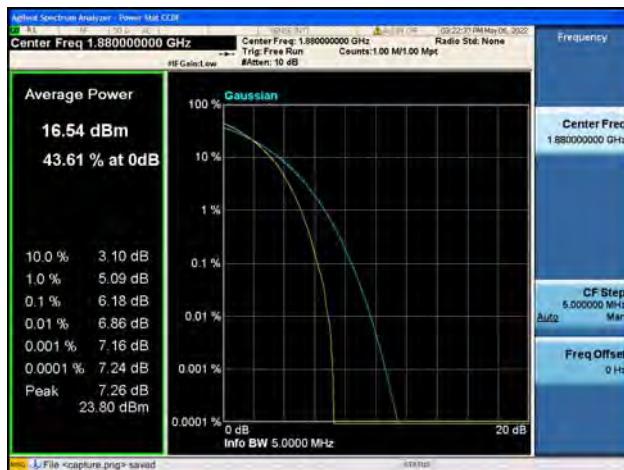
Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / Mid CH / 64QAM



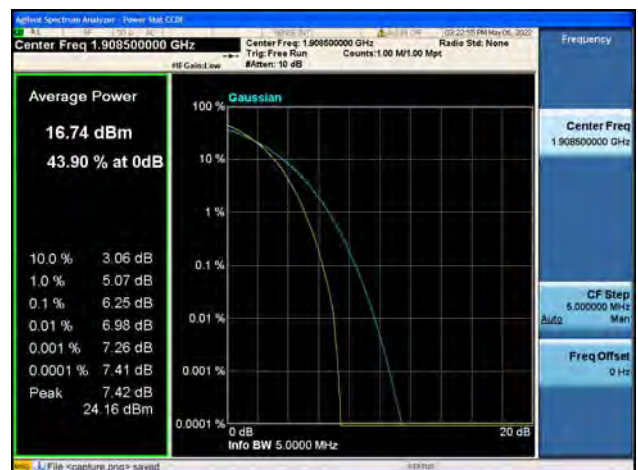
Band2 / 3MHz / High CH / QPSK



Band2 / 3MHz / High CH / 16QAM



Band2 / 3MHz / High CH / 64QAM





Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Low CH / 64QAM



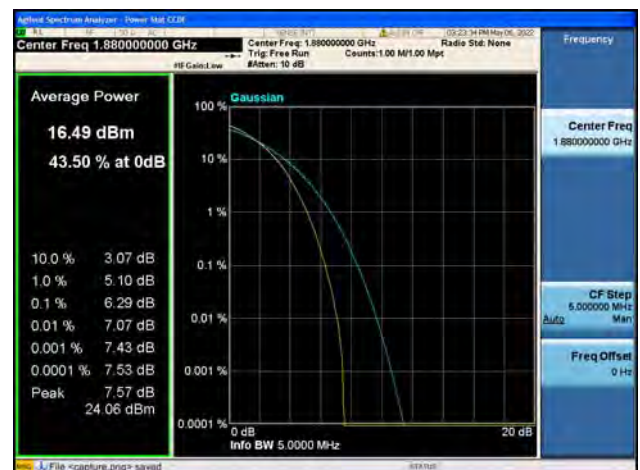
Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / Mid CH / 64QAM





Band2 / 5MHz / High CH / QPSK



Band2 / 5MHz / High CH / 16QAM



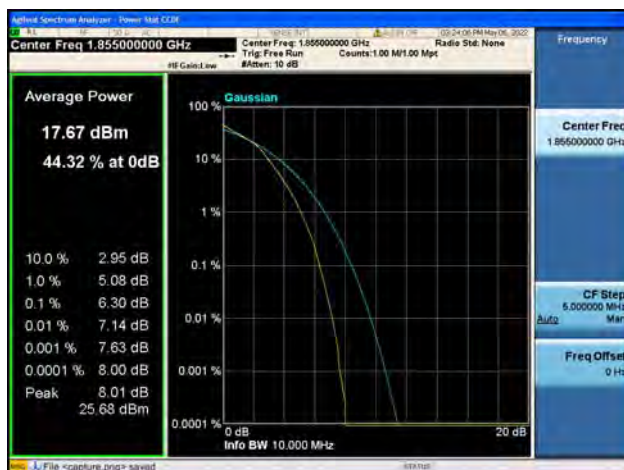
Band2 / 5MHz / High CH / 64QAM



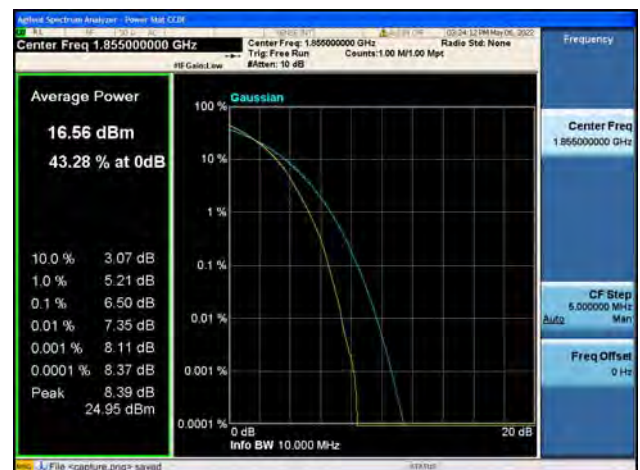
Band2 / 10MHz / Low CH / QPSK



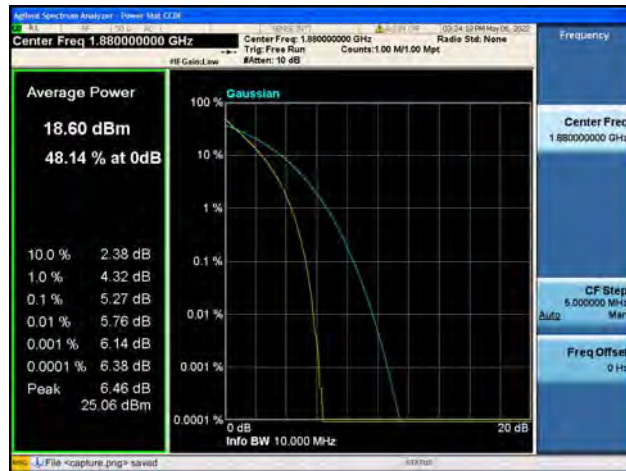
Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Low CH / 64QAM



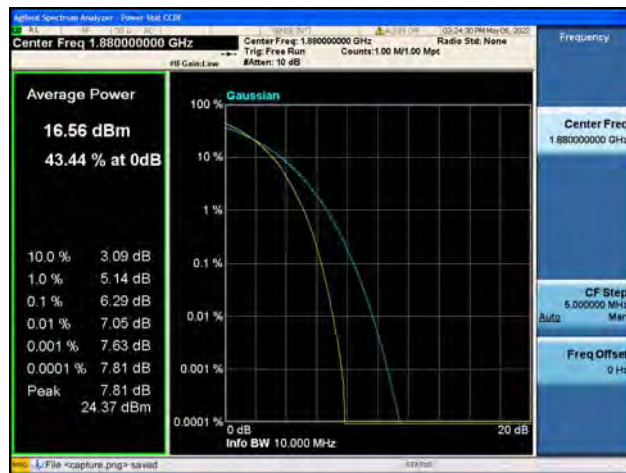
Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



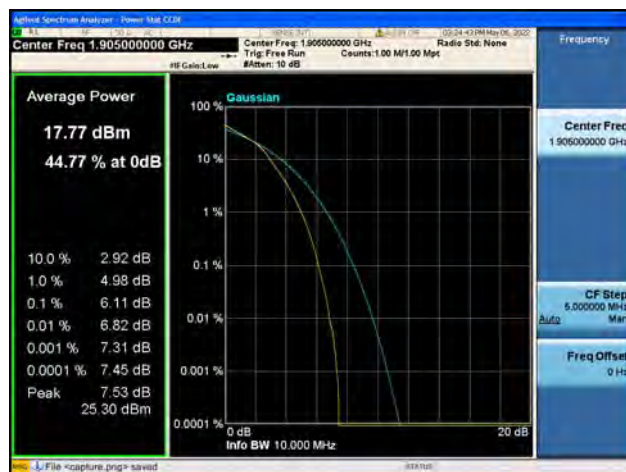
Band2 / 10MHz / Mid CH / 64QAM



Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM



Band2 / 10MHz / High CH / 64QAM





Band2 / 15MHz / Low CH / QPSK



Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Low CH / 64QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / Mid CH / 64QAM





Band2 / 15MHz / High CH / QPSK



Band2 / 15MHz / High CH / 16QAM



Band2 / 15MHz / High CH / 64QAM



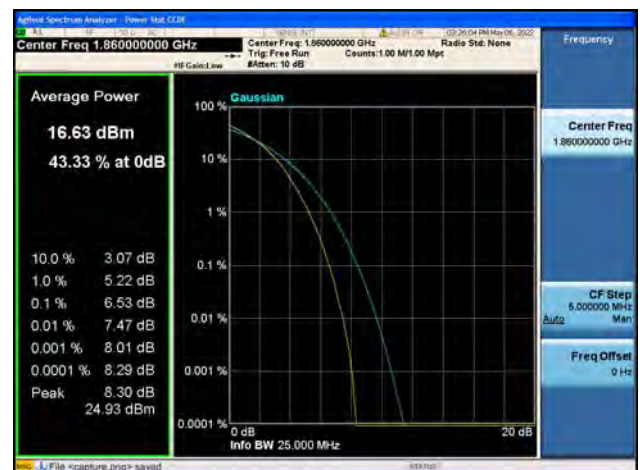
Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM

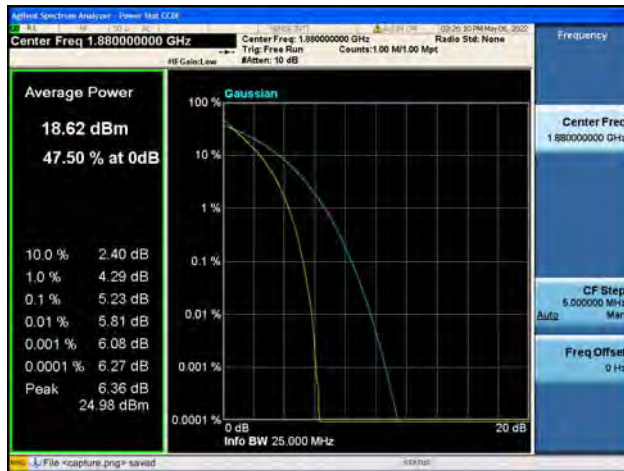


Band2 / 20MHz / Low CH / 64QAM





Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / Mid CH / 64QAM



Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM



Band2 / 20MHz / High CH / 64QAM

