



TEST REPORT

APPLICANT : BLU Products, Inc.

PRODUCT NAME : Smart Phone

MODEL NAME : G51S

BRAND NAME : BLU

FCC ID : YHLBLUG51S591

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

RECEIPT DATE : 2022-01-05

TEST DATE : 2022-01-11 to 2022-01-21

ISSUE DATE : 2022-04-22

Edited by: Zeng Xiaoying
Zeng Xiaoying (Rapporteur)

Approved by: Shen Junsheng
Shen Junsheng (Supervisor)

NOTE: This document is issued by Shenzhen Morlab Communications Technology Co., Ltd., the test report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.





DIRECTORY

- 1. Technical Information 3**
- 1.1. Applicant and Manufacturer Information 3**
- 1.2. Equipment Under Test (EUT) Description 3**
- 1.3. Maximum E.R.P./E.I.R.P. and Emission Designator 5**
- 1.4. Test Standards and Results 7**
- 1.5. Environmental Conditions 8**
- 2. 47 CFR Part 2, Part 22H, Part 24E, Part 27 H&L&M Requirements 9**
- 2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P. 9**
- 2.2. Occupied Bandwidth 75**
- 2.3. Frequency Stability 115**
- 2.4. Peak to Average Ratio 120**
- 2.5. Conducted Spurious Emissions 142**
- 2.6. Band Edge 179**
- 2.7. Radiated Spurious Emissions 213**
- Annex A Test Uncertainty 237**
- Annex B Testing Laboratory Information 238**

Change History		
Version	Date	Reason for change
1.0	2022-04-22	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:	FS185-MB-V2.1	
Software Version:	BLU_G0591WW_V11.0.G.04.00_GENERIC_18-03-2022_1703	
Modulation Type:	QPSK, 16QAM	
Carrier Aggregation:	Not Support	
Operation Band:	Band 2 / 4 / 5 / 7 / 12 / 17 / 66	
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 17	Tx: 704MHz - 716MHz
		Rx: 734MHz – 746MHz
	LTE Band 66	Tx: 1710MHz –1780MHz
		Rx: 2110MHz –2200MHz



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 17	5 MHz, 10MHz
	LTE Band 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
Antenna Type:	Fixed Internal Antenna	
Antenna Gain:	LTE Band 2	0.30dBi
	LTE Band 4	0.45dBi
	LTE Band 5	-3.70dBi
	LTE Band 7	0.60dBi
	LTE Band 12	-3.90dBi
	LTE Band 17	-3.40dBi
	LTE Band 66	0.45dBi
Accessory Information:	Battery	
	Brand Name:	BLU
	Model No.:	C856343400P
	Serial No.:	N/A
	Capacity:	4000mAh
	Rated Voltage:	3.85V
	Charge Limit:	4.40V
	Manufacturer:	Shenzhen jiujiyuan electronic technology Co.,Ltd
	AC Adapter	
	Brand Name:	BLU
	Model No.:	US-HY-2000
	Serial No.:	N/A
	Rated Output:	5.0V \pm 2.0A
	Rated Input:	100-240V \sim 50/60Hz, 0.3A
	Manufacturer:	SHENZHEN ZHONGFUXIN TECHNOIOGY CO.,LTD.

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



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

LTE Band 2		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
20		0.229	0.185	18M0G7D	18M0W7D
15		0.223	0.179	13M5G7D	13M5W7D
10		0.224	0.182	9M03G7D	8M99W7D
5		0.222	0.179	4M50G7D	4M50W7D
3		0.225	0.182	2M72G7D	2M71W7D
1.4		0.220	0.177	1M10G7D	1M10W7D
LTE Band 4		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
20		0.229	0.189	18M0G7D	18M1W7D
15		0.226	0.186	13M5G7D	13M5W7D
10		0.225	0.185	9M04G7D	8M98W7D
5		0.222	0.183	4M50G7D	4M50W7D
3		0.221	0.182	2M72G7D	2M72W7D
1.4		0.225	0.182	1M10G7D	1M10W7D
LTE Band 5		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
10		0.049	0.038	9M01G7D	8M97W7D
5		0.049	0.038	4M50G7D	4M51W7D
3		0.048	0.038	2M72G7D	2M71W7D
1.4		0.048	0.038	1M10G7D	1M10W7D
LTE Band 7		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
20		0.227	0.182	18M0G7D	18M0W7D
15		0.223	0.179	13M5G7D	13M5W7D
10		0.222	0.177	9M03G7D	8M98W7D
5		0.220	0.177	4M51G7D	4M50W7D
LTE Band 12		Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
10		0.046	0.038	9M01G7D	9M00W7D
5		0.046	0.038	4M50G7D	4M50W7D
3		0.046	0.037	2M72G7D	2M72W7D
1.4		0.046	0.038	1M10G7D	1M10W7D



LTE Band 17	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
10	0.052	0.041	9M03G7D	8M98W7D
5	0.051	0.040	4M51G7D	4M50W7D
LTE Band 66	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
20	0.219	0.182	18M1G7D	18M1W7D
15	0.214	0.177	13M5G7D	13M5W7D
10	0.217	0.179	9M02G7D	8M99W7D
5	0.218	0.181	4M50G7D	4M51W7D
3	0.218	0.179	2M72G7D	2M72W7D
1.4	0.212	0.175	1M10G7D	1M10W7D



1.4. Test Standards and Results

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

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

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

Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
2.1046 22.913(a)(2) 24.232(c) 27.50(b)(10) 27.50(c)(10) 27.50(d)(4) 27.50(h)(2)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Jan. 20, 2022	Yu Zhizheng Li Huaijie	PASS	No deviation
2.1049	Occupied Bandwidth	Jan. 14, 2022	Li Huaijie	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Jan. 21, 2022	Li Huaijie	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Radio	Jan. 14, 2022	Li Huaijie	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(c)(2) 27.53(g) 27.53(h) 27.53(m)(4)	Conducted Spurious Emissions	Jan. 17&18, 2022	Li Huaijie	PASS	No deviation
2.1051 22.917(a)	Band Edge	Jan. 12&13, 2022	Li Huaijie	PASS	No deviation



24.238(a) 27.53(g) 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	Jan. 11, 2022	Lin Jiayong	PASS	No deviation
<p>Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.</p> <p>Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 24.5dB contains two parts that cable loss 14.5dB and Attenuator 10dB.</p> <p>Note 3: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.</p> <p>Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.</p>					

1.5. Environmental Conditions

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

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



2.47 CFR Part 2, Part 22H, Part 24E, Part 27 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.

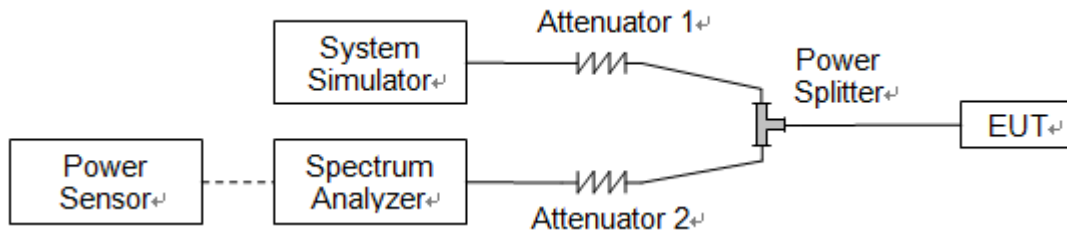
According to FCC section 27.50 (d)(4) for LTE Band 4/66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

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.

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 Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	23.06	23.29	23.26
20	QPSK	1	49	23.04	23.11	23.25
20	QPSK	1	99	23.03	23.09	23.28
20	QPSK	50	0	21.90	22.12	22.08
20	QPSK	50	24	21.94	21.89	22.04
20	QPSK	50	50	22.00	22.01	22.00
20	QPSK	100	0	22.10	22.03	22.06
20	16QAM	1	0	22.36	22.12	22.22
20	16QAM	1	49	21.97	22.02	22.13
20	16QAM	1	99	21.95	21.89	21.94
20	16QAM	50	0	21.11	21.06	21.15
20	16QAM	50	24	21.03	21.01	21.13
20	16QAM	50	50	20.97	21.03	20.91
20	16QAM	100	0	21.12	21.21	21.13



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.94	23.18	23.14
15	QPSK	1	37	22.92	23.00	23.13
15	QPSK	1	74	22.91	22.98	23.16
15	QPSK	36	0	21.78	22.00	21.96
15	QPSK	36	20	21.82	21.78	21.92
15	QPSK	36	39	21.88	21.90	21.88
15	QPSK	75	0	21.99	21.92	21.94
15	16QAM	1	0	22.24	22.01	22.10
15	16QAM	1	37	21.85	21.91	22.01
15	16QAM	1	74	21.83	21.78	21.82
15	16QAM	36	0	20.99	20.95	21.03
15	16QAM	36	20	20.91	20.90	21.01
15	16QAM	36	39	20.85	20.92	20.79
15	16QAM	75	0	21.00	21.10	21.01



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.99	23.21	23.19
10	QPSK	1	25	22.97	23.03	23.18
10	QPSK	1	49	22.96	23.01	23.21
10	QPSK	25	0	21.83	22.05	22.01
10	QPSK	25	12	21.87	21.81	21.97
10	QPSK	25	25	21.93	21.93	21.93
10	QPSK	50	0	22.02	21.95	21.99
10	16QAM	1	0	22.29	22.04	22.15
10	16QAM	1	25	21.90	21.94	22.06
10	16QAM	1	49	21.88	21.81	21.87
10	16QAM	25	0	21.04	20.98	21.08
10	16QAM	25	12	20.96	20.93	21.06
10	16QAM	25	25	20.90	20.95	20.84
10	16QAM	50	0	21.05	21.13	21.06



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.92	23.16	23.12
5	QPSK	1	12	22.90	22.98	23.11
5	QPSK	1	24	22.89	22.96	23.14
5	QPSK	12	0	21.76	21.98	21.94
5	QPSK	12	7	21.80	21.76	21.90
5	QPSK	12	13	21.86	21.88	21.86
5	QPSK	25	0	21.97	21.90	21.92
5	16QAM	1	0	22.22	21.99	22.08
5	16QAM	1	12	21.83	21.89	21.99
5	16QAM	1	24	21.81	21.76	21.80
5	16QAM	12	0	20.97	20.93	21.01
5	16QAM	12	7	20.89	20.88	20.99
5	16QAM	12	13	20.83	20.90	20.77
5	16QAM	25	0	20.98	21.08	20.99



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	23.01	23.23	23.21
3	QPSK	1	8	22.99	23.05	23.20
3	QPSK	1	14	22.98	23.03	23.23
3	QPSK	8	0	21.85	22.07	22.03
3	QPSK	8	4	21.89	21.83	21.99
3	QPSK	8	7	21.95	21.95	21.95
3	QPSK	15	0	22.04	21.97	22.01
3	16QAM	1	0	22.31	22.06	22.17
3	16QAM	1	8	21.92	21.96	22.08
3	16QAM	1	14	21.90	21.83	21.89
3	16QAM	8	0	21.06	21.00	21.10
3	16QAM	8	4	20.98	20.95	21.08
3	16QAM	8	7	20.92	20.97	20.86
3	16QAM	15	0	21.07	21.15	21.08



LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.87	23.12	23.07
1.4	QPSK	1	3	22.85	22.94	23.06
1.4	QPSK	1	5	22.84	22.92	23.09
1.4	QPSK	3	0	21.71	21.93	21.89
1.4	QPSK	3	1	21.75	21.72	21.85
1.4	QPSK	3	3	21.81	21.84	21.81
1.4	QPSK	6	0	21.93	21.86	21.87
1.4	16QAM	1	0	22.17	21.95	22.03
1.4	16QAM	1	3	21.78	21.85	21.94
1.4	16QAM	1	5	21.76	21.72	21.75
1.4	16QAM	3	0	20.92	20.89	20.96
1.4	16QAM	3	1	20.84	20.84	20.94
1.4	16QAM	3	3	20.78	20.86	20.72
1.4	16QAM	6	0	20.93	21.04	20.94



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	23.02	23.15	22.94
20	QPSK	1	49	22.97	22.91	22.84
20	QPSK	1	99	22.88	22.88	22.78
20	QPSK	50	0	21.91	21.97	21.92
20	QPSK	50	24	21.86	21.93	21.74
20	QPSK	50	50	21.74	21.81	21.82
20	QPSK	100	0	21.90	21.75	21.81
20	16QAM	1	0	22.06	22.31	22.02
20	16QAM	1	49	21.95	21.94	21.87
20	16QAM	1	99	21.86	21.82	21.95
20	16QAM	50	0	21.00	21.02	21.03
20	16QAM	50	24	20.97	20.89	20.96
20	16QAM	50	50	20.91	20.73	20.81
20	16QAM	100	0	21.08	20.86	21.17



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	22.98	23.09	22.90
15	QPSK	1	37	22.93	22.85	22.80
15	QPSK	1	74	22.84	22.82	22.74
15	QPSK	36	0	21.87	21.91	21.88
15	QPSK	36	20	21.82	21.87	21.70
15	QPSK	36	39	21.70	21.75	21.78
15	QPSK	75	0	21.86	21.69	21.77
15	16QAM	1	0	22.02	22.25	21.98
15	16QAM	1	37	21.91	21.88	21.83
15	16QAM	1	74	21.82	21.76	21.91
15	16QAM	36	0	20.96	20.96	20.99
15	16QAM	36	20	20.93	20.83	20.92
15	16QAM	36	39	20.87	20.67	20.77
15	16QAM	75	0	21.04	20.80	21.13



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	22.91	23.07	22.83
10	QPSK	1	25	22.86	22.83	22.73
10	QPSK	1	49	22.77	22.80	22.67
10	QPSK	25	0	21.80	21.89	21.81
10	QPSK	25	12	21.75	21.85	21.63
10	QPSK	25	25	21.63	21.73	21.71
10	QPSK	50	0	21.79	21.67	21.70
10	16QAM	1	0	21.95	22.23	21.91
10	16QAM	1	25	21.84	21.86	21.76
10	16QAM	1	49	21.75	21.74	21.84
10	16QAM	25	0	20.89	20.94	20.92
10	16QAM	25	12	20.86	20.81	20.85
10	16QAM	25	25	20.80	20.65	20.70
10	16QAM	50	0	20.97	20.78	21.06



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	22.85	23.01	22.77
5	QPSK	1	12	22.80	22.77	22.67
5	QPSK	1	24	22.71	22.74	22.61
5	QPSK	12	0	21.74	21.83	21.75
5	QPSK	12	7	21.69	21.79	21.57
5	QPSK	12	13	21.57	21.67	21.65
5	QPSK	25	0	21.73	21.61	21.64
5	16QAM	1	0	21.89	22.17	21.85
5	16QAM	1	12	21.78	21.80	21.70
5	16QAM	1	24	21.69	21.68	21.78
5	16QAM	12	0	20.83	20.88	20.86
5	16QAM	12	7	20.80	20.75	20.79
5	16QAM	12	13	20.74	20.59	20.64
5	16QAM	25	0	20.91	20.72	21.00



LTE Band 4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	22.91	23.00	22.83
3	QPSK	1	8	22.86	22.76	22.73
3	QPSK	1	14	22.77	22.73	22.67
3	QPSK	8	0	21.80	21.82	21.81
3	QPSK	8	4	21.75	21.78	21.63
3	QPSK	8	7	21.63	21.66	21.71
3	QPSK	15	0	21.79	21.60	21.70
3	16QAM	1	0	21.95	22.16	21.91
3	16QAM	1	8	21.84	21.79	21.76
3	16QAM	1	14	21.75	21.67	21.84
3	16QAM	8	0	20.89	20.87	20.92
3	16QAM	8	4	20.86	20.74	20.85
3	16QAM	8	7	20.80	20.58	20.70
3	16QAM	15	0	20.97	20.71	21.06



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	22.99	23.08	22.91
1.4	QPSK	1	3	22.94	22.84	22.81
1.4	QPSK	1	5	22.85	22.81	22.75
1.4	QPSK	3	0	21.88	21.90	21.89
1.4	QPSK	3	1	21.83	21.86	21.71
1.4	QPSK	3	3	21.71	21.74	21.79
1.4	QPSK	6	0	21.87	21.68	21.78
1.4	16QAM	1	0	22.03	22.14	21.96
1.4	16QAM	1	3	21.92	21.87	21.81
1.4	16QAM	1	5	21.83	21.75	21.89
1.4	16QAM	3	0	20.97	20.95	21.00
1.4	16QAM	3	1	20.94	20.82	20.93
1.4	16QAM	3	3	20.88	20.66	20.78
1.4	16QAM	6	0	21.05	20.79	21.14



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	22.69	22.75	22.64
10	QPSK	1	25	22.66	22.50	22.56
10	QPSK	1	49	22.64	22.53	22.53
10	QPSK	25	0	21.55	21.69	21.60
10	QPSK	25	12	21.53	21.58	21.52
10	QPSK	25	25	21.50	21.60	21.57
10	QPSK	50	0	21.41	21.55	21.48
10	16QAM	1	0	21.44	21.61	21.67
10	16QAM	1	25	21.57	21.54	21.67
10	16QAM	1	49	21.51	21.50	21.62
10	16QAM	25	0	20.51	20.52	20.66
10	16QAM	25	12	20.64	20.71	20.58
10	16QAM	25	25	20.58	20.63	20.60
10	16QAM	50	0	20.54	20.82	20.81



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.66	22.72	22.61
5	QPSK	1	12	22.63	22.47	22.55
5	QPSK	1	24	22.61	22.50	22.52
5	QPSK	12	0	21.52	21.66	21.59
5	QPSK	12	7	21.50	21.55	21.51
5	QPSK	12	13	21.47	21.57	21.56
5	QPSK	25	0	21.38	21.52	21.47
5	16QAM	1	0	21.41	21.58	21.66
5	16QAM	1	12	21.54	21.51	21.66
5	16QAM	1	24	21.48	21.47	21.61
5	16QAM	12	0	20.48	20.49	20.65
5	16QAM	12	7	20.61	20.68	20.57
5	16QAM	12	13	20.55	20.60	20.59
5	16QAM	25	0	20.51	20.79	20.80



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.58	22.64	22.53
3	QPSK	1	8	22.62	22.46	22.52
3	QPSK	1	14	22.60	22.49	22.49
3	QPSK	8	0	21.51	21.65	21.56
3	QPSK	8	4	21.49	21.54	21.48
3	QPSK	8	7	21.46	21.56	21.53
3	QPSK	15	0	21.37	21.51	21.44
3	16QAM	1	0	21.40	21.57	21.63
3	16QAM	1	8	21.53	21.50	21.63
3	16QAM	1	14	21.47	21.46	21.58
3	16QAM	8	0	20.47	20.48	20.62
3	16QAM	8	4	20.60	20.67	20.54
3	16QAM	8	7	20.54	20.59	20.56
3	16QAM	15	0	20.50	20.78	20.77



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.59	22.65	22.53
1.4	QPSK	1	3	22.64	22.48	22.54
1.4	QPSK	1	5	22.62	22.51	22.51
1.4	QPSK	3	0	21.53	21.67	21.58
1.4	QPSK	3	1	21.51	21.56	21.50
1.4	QPSK	3	3	21.48	21.58	21.55
1.4	QPSK	6	0	21.39	21.53	21.46
1.4	16QAM	1	0	21.42	21.59	21.65
1.4	16QAM	1	3	21.55	21.52	21.65
1.4	16QAM	1	5	21.49	21.48	21.60
1.4	16QAM	3	0	20.49	20.50	20.64
1.4	16QAM	3	1	20.62	20.69	20.56
1.4	16QAM	3	3	20.56	20.61	20.58
1.4	16QAM	6	0	20.52	20.80	20.79



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	22.85	22.96	22.88
20	QPSK	1	49	22.87	22.88	22.93
20	QPSK	1	99	22.84	22.84	22.95
20	QPSK	50	0	21.83	21.97	21.86
20	QPSK	50	24	21.74	21.82	21.89
20	QPSK	50	50	21.73	21.76	21.81
20	QPSK	100	0	21.83	21.79	21.89
20	16QAM	1	0	22.00	21.93	21.82
20	16QAM	1	49	21.82	21.90	21.93
20	16QAM	1	99	21.80	21.81	21.78
20	16QAM	50	0	20.85	20.82	20.83
20	16QAM	50	24	20.98	20.96	20.87
20	16QAM	50	50	20.94	20.86	20.74
20	16QAM	100	0	20.89	20.95	20.81



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.77	22.89	22.80
15	QPSK	1	37	22.79	22.81	22.85
15	QPSK	1	74	22.76	22.77	22.87
15	QPSK	36	0	21.75	21.89	21.79
15	QPSK	36	20	21.66	21.75	21.81
15	QPSK	36	39	21.65	21.69	21.73
15	QPSK	75	0	21.75	21.72	21.81
15	16QAM	1	0	21.92	21.86	21.74
15	16QAM	1	37	21.74	21.83	21.85
15	16QAM	1	74	21.92	21.74	21.90
15	16QAM	36	0	20.77	20.75	20.75
15	16QAM	36	20	20.90	20.89	20.79
15	16QAM	36	39	20.86	20.79	20.66
15	16QAM	75	0	20.81	20.88	20.73



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.74	22.87	22.77
10	QPSK	1	25	22.76	22.79	22.82
10	QPSK	1	49	22.73	22.75	22.84
10	QPSK	25	0	21.72	21.86	21.77
10	QPSK	25	12	21.63	21.73	21.78
10	QPSK	25	25	21.62	21.67	21.70
10	QPSK	50	0	21.72	21.70	21.78
10	16QAM	1	0	21.89	21.84	21.71
10	16QAM	1	25	21.71	21.81	21.82
10	16QAM	1	49	21.69	21.72	21.67
10	16QAM	25	0	20.74	20.73	20.72
10	16QAM	25	12	20.87	20.87	20.76
10	16QAM	25	25	20.83	20.77	20.63
10	16QAM	50	0	20.78	20.86	20.70



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.72	22.82	22.75
5	QPSK	1	12	22.74	22.73	22.80
5	QPSK	1	24	22.71	22.69	22.81
5	QPSK	12	0	21.70	21.84	21.71
5	QPSK	12	7	21.61	21.67	21.76
5	QPSK	12	13	21.60	21.61	21.68
5	QPSK	25	0	21.70	21.64	21.76
5	16QAM	1	0	21.87	21.78	21.69
5	16QAM	1	12	21.69	21.75	21.80
5	16QAM	1	24	21.67	21.66	21.65
5	16QAM	12	0	20.72	20.67	20.70
5	16QAM	12	7	20.85	20.81	20.74
5	16QAM	12	13	20.81	20.71	20.61
5	16QAM	25	0	20.76	20.80	20.68



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	22.58	22.71	22.61
10	QPSK	1	25	22.40	22.70	22.62
10	QPSK	1	49	22.42	22.68	22.67
10	QPSK	25	0	21.55	21.92	21.52
10	QPSK	25	12	21.50	21.53	21.50
10	QPSK	25	25	21.48	21.46	21.52
10	QPSK	50	0	21.51	21.48	21.56
10	16QAM	1	0	21.86	21.60	21.69
10	16QAM	1	25	21.74	21.65	21.61
10	16QAM	1	49	21.63	21.58	21.62
10	16QAM	25	0	21.00	20.62	20.77
10	16QAM	25	12	20.86	20.67	20.61
10	16QAM	25	25	20.83	20.72	20.58
10	16QAM	50	0	20.94	20.53	20.92



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.53	22.68	22.56
5	QPSK	1	12	22.35	22.67	22.57
5	QPSK	1	24	22.37	22.65	22.62
5	QPSK	12	0	21.50	21.87	21.47
5	QPSK	12	7	21.45	21.50	21.45
5	QPSK	12	13	21.43	21.43	21.47
5	QPSK	25	0	21.46	21.45	21.53
5	16QAM	1	0	21.81	21.57	21.64
5	16QAM	1	12	21.69	21.62	21.56
5	16QAM	1	24	21.58	21.55	21.57
5	16QAM	12	0	20.95	20.59	20.72
5	16QAM	12	7	20.81	20.64	20.56
5	16QAM	12	13	20.78	20.69	20.53
5	16QAM	25	0	20.89	20.50	20.87



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.51	22.67	22.54
3	QPSK	1	8	22.33	22.66	22.55
3	QPSK	1	14	22.35	22.64	22.60
3	QPSK	8	0	21.48	21.45	21.45
3	QPSK	8	4	21.43	21.49	21.43
3	QPSK	8	7	21.41	21.42	21.45
3	QPSK	15	0	21.44	21.44	21.35
3	16QAM	1	0	21.79	21.56	21.62
3	16QAM	1	8	21.67	21.61	21.54
3	16QAM	1	14	21.56	21.54	21.55
3	16QAM	8	0	20.93	20.58	20.70
3	16QAM	8	4	20.79	20.63	20.54
3	16QAM	8	7	20.76	20.68	20.51
3	16QAM	15	0	20.87	20.49	20.85



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.57	22.66	22.60
1.4	QPSK	1	3	22.39	22.64	22.61
1.4	QPSK	1	5	22.41	22.62	22.65
1.4	QPSK	3	0	21.54	21.43	21.51
1.4	QPSK	3	1	21.49	21.47	21.49
1.4	QPSK	3	3	21.47	21.40	21.51
1.4	QPSK	6	0	21.50	21.42	21.91
1.4	16QAM	1	0	21.85	21.54	21.68
1.4	16QAM	1	3	21.73	21.59	21.60
1.4	16QAM	1	5	21.62	21.52	21.61
1.4	16QAM	3	0	20.99	20.56	20.76
1.4	16QAM	3	1	20.85	20.61	20.60
1.4	16QAM	3	3	20.82	20.66	20.57
1.4	16QAM	6	0	20.93	20.47	20.91



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	22.62	22.74	22.56
10	QPSK	1	25	22.50	22.65	22.57
10	QPSK	1	49	22.60	22.63	22.73
10	QPSK	25	0	21.56	21.84	21.61
10	QPSK	25	12	21.60	21.65	21.63
10	QPSK	25	25	21.53	21.52	21.57
10	QPSK	50	0	21.64	21.78	21.63
10	16QAM	1	0	21.65	21.68	21.72
10	16QAM	1	25	21.59	21.57	21.64
10	16QAM	1	49	21.61	21.53	21.61
10	16QAM	25	0	20.62	20.51	20.52
10	16QAM	25	12	20.70	20.63	20.60
10	16QAM	25	25	20.54	20.53	20.52
10	16QAM	50	0	20.50	20.98	20.97



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.49	22.65	22.53
5	QPSK	1	12	22.37	22.56	22.54
5	QPSK	1	24	22.47	22.54	22.60
5	QPSK	12	0	21.53	21.69	21.58
5	QPSK	12	7	21.57	21.66	21.50
5	QPSK	12	13	21.50	21.53	21.54
5	QPSK	25	0	21.51	21.89	21.91
5	16QAM	1	0	21.52	21.59	21.59
5	16QAM	1	12	21.46	21.48	21.51
5	16QAM	1	24	21.48	21.44	21.48
5	16QAM	12	0	20.60	20.53	20.50
5	16QAM	12	7	20.68	20.65	20.58
5	16QAM	12	13	20.52	20.55	20.50
5	16QAM	25	0	20.48	20.89	20.84



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				132072	132322	132572
Frequency (MHz)				1720	1745	1770
20	QPSK	1	0	22.94	22.95	22.90
20	QPSK	1	49	22.91	22.67	22.77
20	QPSK	1	99	22.87	22.60	22.74
20	QPSK	50	0	21.72	21.79	21.68
20	QPSK	50	24	21.69	21.64	21.65
20	QPSK	50	50	21.63	21.60	21.57
20	QPSK	100	0	21.70	21.76	21.63
20	16QAM	1	0	22.09	22.03	22.15
20	16QAM	1	49	21.96	22.01	21.83
20	16QAM	1	99	21.91	21.87	21.92
20	16QAM	50	0	20.99	20.90	21.00
20	16QAM	50	24	20.86	20.83	20.68
20	16QAM	50	50	20.79	20.76	20.73
20	16QAM	100	0	20.97	21.03	21.05



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5
15	QPSK	1	0	22.81	22.86	22.77
15	QPSK	1	37	22.78	22.58	22.64
15	QPSK	1	74	22.74	22.51	22.61
15	QPSK	36	0	21.59	21.70	21.55
15	QPSK	36	20	21.56	21.55	21.52
15	QPSK	36	39	21.50	21.51	21.44
15	QPSK	75	0	21.57	21.67	21.50
15	16QAM	1	0	21.96	21.94	22.02
15	16QAM	1	37	21.83	21.92	21.70
15	16QAM	1	74	21.78	21.78	21.79
15	16QAM	36	0	20.86	20.81	20.87
15	16QAM	36	20	20.73	20.74	20.55
15	16QAM	36	39	20.66	20.67	20.60
15	16QAM	75	0	20.84	20.94	20.92



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				132022	132322	132622
Frequency (MHz)				1715	1745	1775
10	QPSK	1	0	22.86	22.91	22.82
10	QPSK	1	25	22.83	22.63	22.69
10	QPSK	1	49	22.79	22.56	22.66
10	QPSK	25	0	21.64	21.75	21.60
10	QPSK	25	12	21.61	21.60	21.57
10	QPSK	25	25	21.55	21.56	21.49
10	QPSK	50	0	21.62	21.72	21.55
10	16QAM	1	0	22.01	21.99	22.07
10	16QAM	1	25	21.88	21.97	21.75
10	16QAM	1	49	21.83	21.83	21.84
10	16QAM	25	0	20.91	20.86	20.92
10	16QAM	25	12	20.78	20.79	20.60
10	16QAM	25	25	20.71	20.72	20.65
10	16QAM	50	0	20.89	20.99	20.97



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	22.91	22.94	22.87
5	QPSK	1	12	22.88	22.62	22.74
5	QPSK	1	24	22.84	22.55	22.71
5	QPSK	12	0	21.69	21.74	21.65
5	QPSK	12	7	21.66	21.59	21.62
5	QPSK	12	13	21.60	21.55	21.54
5	QPSK	25	0	21.67	21.71	21.60
5	16QAM	1	0	22.06	21.98	22.12
5	16QAM	1	12	21.93	21.96	21.80
5	16QAM	1	24	21.88	21.82	21.89
5	16QAM	12	0	20.96	20.85	20.97
5	16QAM	12	7	20.83	20.78	20.65
5	16QAM	12	13	20.76	20.71	20.70
5	16QAM	25	0	20.94	20.98	21.02



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5
3	QPSK	1	0	22.87	22.93	22.83
3	QPSK	1	8	22.84	22.65	22.70
3	QPSK	1	14	22.80	22.58	22.67
3	QPSK	8	0	21.65	21.77	21.61
3	QPSK	8	4	21.62	21.62	21.58
3	QPSK	8	7	21.56	21.58	21.50
3	QPSK	15	0	21.63	21.74	21.56
3	16QAM	1	0	22.02	22.01	22.08
3	16QAM	1	8	21.89	21.99	21.76
3	16QAM	1	14	21.84	21.85	21.85
3	16QAM	8	0	20.92	20.88	20.93
3	16QAM	8	4	20.79	20.81	20.61
3	16QAM	8	7	20.72	20.74	20.66
3	16QAM	15	0	20.90	21.01	20.98



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3
1.4	QPSK	1	0	22.77	22.82	22.73
1.4	QPSK	1	3	22.74	22.54	22.60
1.4	QPSK	1	5	22.70	22.47	22.57
1.4	QPSK	3	0	21.55	21.66	21.51
1.4	QPSK	3	1	21.52	21.51	21.48
1.4	QPSK	3	3	21.46	21.47	21.40
1.4	QPSK	6	0	21.53	21.63	21.46
1.4	16QAM	1	0	21.92	21.90	21.98
1.4	16QAM	1	3	21.79	21.88	21.66
1.4	16QAM	1	5	21.74	21.74	21.75
1.4	16QAM	3	0	20.82	20.77	20.83
1.4	16QAM	3	1	20.69	20.70	20.51
1.4	16QAM	3	3	20.62	20.63	20.56
1.4	16QAM	6	0	20.80	20.90	20.88



Effective Radiated Power and Effective Isotropic Radiated Power

LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18700		18900		19100	
Frequency (MHz)				1860		1880		1900	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	23.36	0.217	23.59	0.229	23.56	0.227
20	QPSK	1	49	23.34	0.216	23.41	0.219	23.55	0.226
20	QPSK	1	99	23.33	0.215	23.39	0.218	23.58	0.228
20	QPSK	50	0	22.20	0.166	22.42	0.175	22.38	0.173
20	QPSK	50	24	22.24	0.167	22.19	0.166	22.34	0.171
20	QPSK	50	50	22.30	0.170	22.31	0.170	22.30	0.170
20	QPSK	100	0	22.40	0.174	22.33	0.171	22.36	0.172
20	16QAM	1	0	22.66	0.185	22.42	0.175	22.52	0.179
20	16QAM	1	49	22.27	0.169	22.32	0.171	22.43	0.175
20	16QAM	1	99	22.25	0.168	22.19	0.166	22.24	0.167
20	16QAM	50	0	21.41	0.138	21.36	0.137	21.45	0.140
20	16QAM	50	24	21.33	0.136	21.31	0.135	21.43	0.139
20	16QAM	50	50	21.27	0.134	21.33	0.136	21.21	0.132
20	16QAM	100	0	21.42	0.139	21.51	0.142	21.43	0.139



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18675		18900		19125	
Frequency (MHz)				1857.5		1880		1902.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	23.24	0.211	23.48	0.223	23.44	0.221
15	QPSK	1	37	23.22	0.210	23.30	0.214	23.43	0.220
15	QPSK	1	74	23.21	0.209	23.28	0.213	23.46	0.222
15	QPSK	36	0	22.08	0.161	22.30	0.170	22.26	0.168
15	QPSK	36	20	22.12	0.163	22.08	0.161	22.22	0.167
15	QPSK	36	39	22.18	0.165	22.20	0.166	22.18	0.165
15	QPSK	75	0	22.29	0.169	22.22	0.167	22.24	0.167
15	16QAM	1	0	22.54	0.179	22.31	0.170	22.40	0.174
15	16QAM	1	37	22.15	0.164	22.21	0.166	22.31	0.170
15	16QAM	1	74	22.13	0.163	22.08	0.161	22.12	0.163
15	16QAM	36	0	21.29	0.135	21.25	0.133	21.33	0.136
15	16QAM	36	20	21.21	0.132	21.20	0.132	21.31	0.135
15	16QAM	36	39	21.15	0.130	21.22	0.132	21.09	0.129
15	16QAM	75	0	21.30	0.135	21.40	0.138	21.31	0.135



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18650		18900		19150	
Frequency (MHz)				1855		1880		1905	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	23.29	0.213	23.51	0.224	23.49	0.223
10	QPSK	1	25	23.27	0.212	23.33	0.215	23.48	0.223
10	QPSK	1	49	23.26	0.212	23.31	0.214	23.51	0.224
10	QPSK	25	0	22.13	0.163	22.35	0.172	22.31	0.170
10	QPSK	25	12	22.17	0.165	22.11	0.163	22.27	0.169
10	QPSK	25	25	22.23	0.167	22.23	0.167	22.23	0.167
10	QPSK	50	0	22.32	0.171	22.25	0.168	22.29	0.169
10	16QAM	1	0	22.59	0.182	22.34	0.171	22.45	0.176
10	16QAM	1	25	22.20	0.166	22.24	0.167	22.36	0.172
10	16QAM	1	49	22.18	0.165	22.11	0.163	22.17	0.165
10	16QAM	25	0	21.34	0.136	21.28	0.134	21.38	0.137
10	16QAM	25	12	21.26	0.134	21.23	0.133	21.36	0.137
10	16QAM	25	25	21.20	0.132	21.25	0.133	21.14	0.130
10	16QAM	50	0	21.35	0.136	21.43	0.139	21.36	0.137



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18625		18900		19175	
Frequency (MHz)				1852.5		1880		1907.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	23.22	0.210	23.46	0.222	23.42	0.220
5	QPSK	1	12	23.20	0.209	23.28	0.213	23.41	0.219
5	QPSK	1	24	23.19	0.208	23.26	0.212	23.44	0.221
5	QPSK	12	0	22.06	0.161	22.28	0.169	22.24	0.167
5	QPSK	12	7	22.10	0.162	22.06	0.161	22.20	0.166
5	QPSK	12	13	22.16	0.164	22.18	0.165	22.16	0.164
5	QPSK	25	0	22.27	0.169	22.20	0.166	22.22	0.167
5	16QAM	1	0	22.52	0.179	22.29	0.169	22.38	0.173
5	16QAM	1	12	22.13	0.163	22.19	0.166	22.29	0.169
5	16QAM	1	24	22.11	0.163	22.06	0.161	22.10	0.162
5	16QAM	12	0	21.27	0.134	21.23	0.133	21.31	0.135
5	16QAM	12	7	21.19	0.132	21.18	0.131	21.29	0.135
5	16QAM	12	13	21.13	0.130	21.20	0.132	21.07	0.128
5	16QAM	25	0	21.28	0.134	21.38	0.137	21.29	0.135



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18615		18900		19185	
Frequency (MHz)				1851.5		1880		1908.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	23.31	0.214	23.53	0.225	23.51	0.224
3	QPSK	1	8	23.29	0.213	23.35	0.216	23.50	0.224
3	QPSK	1	14	23.28	0.213	23.33	0.215	23.53	0.225
3	QPSK	8	0	22.15	0.164	22.37	0.173	22.33	0.171
3	QPSK	8	4	22.19	0.166	22.13	0.163	22.29	0.169
3	QPSK	8	7	22.25	0.168	22.25	0.168	22.25	0.168
3	QPSK	15	0	22.34	0.171	22.27	0.169	22.31	0.170
3	16QAM	1	0	22.61	0.182	22.36	0.172	22.47	0.177
3	16QAM	1	8	22.22	0.167	22.26	0.168	22.38	0.173
3	16QAM	1	14	22.20	0.166	22.13	0.163	22.19	0.166
3	16QAM	8	0	21.36	0.137	21.30	0.135	21.40	0.138
3	16QAM	8	4	21.28	0.134	21.25	0.133	21.38	0.137
3	16QAM	8	7	21.22	0.132	21.27	0.134	21.16	0.131
3	16QAM	15	0	21.37	0.137	21.45	0.140	21.38	0.137



LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18607		18900		19193	
Frequency (MHz)				1850.7		1880		1909.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	23.17	0.207	23.42	0.220	23.37	0.217
1.4	QPSK	1	3	23.15	0.207	23.24	0.211	23.36	0.217
1.4	QPSK	1	5	23.14	0.206	23.22	0.210	23.39	0.218
1.4	QPSK	3	0	22.01	0.159	22.23	0.167	22.19	0.166
1.4	QPSK	3	1	22.05	0.160	22.02	0.159	22.15	0.164
1.4	QPSK	3	3	22.11	0.163	22.14	0.164	22.11	0.163
1.4	QPSK	6	0	22.23	0.167	22.16	0.164	22.17	0.165
1.4	16QAM	1	0	22.47	0.177	22.25	0.168	22.33	0.171
1.4	16QAM	1	3	22.08	0.161	22.15	0.164	22.24	0.167
1.4	16QAM	1	5	22.06	0.161	22.02	0.159	22.05	0.160
1.4	16QAM	3	0	21.22	0.132	21.19	0.132	21.26	0.134
1.4	16QAM	3	1	21.14	0.130	21.14	0.130	21.24	0.133
1.4	16QAM	3	3	21.08	0.128	21.16	0.131	21.02	0.126
1.4	16QAM	6	0	21.23	0.133	21.34	0.136	21.24	0.133



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20050		20175		20300	
Frequency (MHz)				1720		1732.5		1745	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	23.47	0.222	23.60	0.229	23.39	0.218
20	QPSK	1	49	23.42	0.220	23.36	0.217	23.29	0.213
20	QPSK	1	99	23.33	0.215	23.33	0.215	23.23	0.210
20	QPSK	50	0	22.36	0.172	22.42	0.175	22.37	0.173
20	QPSK	50	24	22.31	0.170	22.38	0.173	22.19	0.166
20	QPSK	50	50	22.19	0.166	22.26	0.168	22.27	0.169
20	QPSK	100	0	22.35	0.172	22.20	0.166	22.26	0.168
20	16QAM	1	0	22.51	0.178	22.76	0.189	22.47	0.177
20	16QAM	1	49	22.40	0.174	22.39	0.173	22.32	0.171
20	16QAM	1	99	22.31	0.170	22.27	0.169	22.40	0.174
20	16QAM	50	0	21.45	0.140	21.47	0.140	21.48	0.141
20	16QAM	50	24	21.42	0.139	21.34	0.136	21.41	0.138
20	16QAM	50	50	21.36	0.137	21.18	0.131	21.26	0.134
20	16QAM	100	0	21.53	0.142	21.31	0.135	21.62	0.145



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20025		20175		20325	
Frequency (MHz)				1717.5		1732.5		1747.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	23.43	0.220	23.54	0.226	23.35	0.216
15	QPSK	1	37	23.38	0.218	23.30	0.214	23.25	0.211
15	QPSK	1	74	23.29	0.213	23.27	0.212	23.19	0.208
15	QPSK	36	0	22.32	0.171	22.36	0.172	22.33	0.171
15	QPSK	36	20	22.27	0.169	22.32	0.171	22.15	0.164
15	QPSK	36	39	22.15	0.164	22.20	0.166	22.23	0.167
15	QPSK	75	0	22.31	0.170	22.14	0.164	22.22	0.167
15	16QAM	1	0	22.47	0.177	22.70	0.186	22.43	0.175
15	16QAM	1	37	22.36	0.172	22.33	0.171	22.28	0.169
15	16QAM	1	74	22.27	0.169	22.21	0.166	22.36	0.172
15	16QAM	36	0	21.41	0.138	21.41	0.138	21.44	0.139
15	16QAM	36	20	21.38	0.137	21.28	0.134	21.37	0.137
15	16QAM	36	39	21.32	0.136	21.12	0.129	21.22	0.132
15	16QAM	75	0	21.49	0.141	21.25	0.133	21.58	0.144



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20000		20175		20350	
Frequency (MHz)				1715		1732.5		1750	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	23.36	0.217	23.52	0.225	23.28	0.213
10	QPSK	1	25	23.31	0.214	23.28	0.213	23.18	0.208
10	QPSK	1	49	23.22	0.210	23.25	0.211	23.12	0.205
10	QPSK	25	0	22.25	0.168	22.34	0.171	22.26	0.168
10	QPSK	25	12	22.20	0.166	22.30	0.170	22.08	0.161
10	QPSK	25	25	22.08	0.161	22.18	0.165	22.16	0.164
10	QPSK	50	0	22.24	0.167	22.12	0.163	22.15	0.164
10	16QAM	1	0	22.40	0.174	22.68	0.185	22.36	0.172
10	16QAM	1	25	22.29	0.169	22.31	0.170	22.21	0.166
10	16QAM	1	49	22.20	0.166	22.19	0.166	22.29	0.169
10	16QAM	25	0	21.34	0.136	21.39	0.138	21.37	0.137
10	16QAM	25	12	21.31	0.135	21.26	0.134	21.30	0.135
10	16QAM	25	25	21.25	0.133	21.10	0.129	21.15	0.130
10	16QAM	50	0	21.42	0.139	21.23	0.133	21.51	0.142



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19975		20175		20375	
Frequency (MHz)				1712.5		1732.5		1752.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	23.30	0.214	23.46	0.222	23.22	0.210
5	QPSK	1	12	23.25	0.211	23.22	0.210	23.12	0.205
5	QPSK	1	24	23.16	0.207	23.19	0.208	23.06	0.202
5	QPSK	12	0	22.19	0.166	22.28	0.169	22.20	0.166
5	QPSK	12	7	22.14	0.164	22.24	0.167	22.02	0.159
5	QPSK	12	13	22.02	0.159	22.12	0.163	22.10	0.162
5	QPSK	25	0	22.18	0.165	22.06	0.161	22.09	0.162
5	16QAM	1	0	22.34	0.171	22.62	0.183	22.30	0.170
5	16QAM	1	12	22.23	0.167	22.25	0.168	22.15	0.164
5	16QAM	1	24	22.14	0.164	22.13	0.163	22.23	0.167
5	16QAM	12	0	21.28	0.134	21.33	0.136	21.31	0.135
5	16QAM	12	7	21.25	0.133	21.20	0.132	21.24	0.133
5	16QAM	12	13	21.19	0.132	21.04	0.127	21.09	0.129
5	16QAM	25	0	21.36	0.137	21.17	0.131	21.45	0.140



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19965		20175		20385	
Frequency (MHz)				1711.5		1732.5		1753.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	23.36	0.217	23.45	0.221	23.28	0.213
3	QPSK	1	8	23.31	0.214	23.21	0.209	23.18	0.208
3	QPSK	1	14	23.22	0.210	23.18	0.208	23.12	0.205
3	QPSK	8	0	22.25	0.168	22.27	0.169	22.26	0.168
3	QPSK	8	4	22.20	0.166	22.23	0.167	22.08	0.161
3	QPSK	8	7	22.08	0.161	22.11	0.163	22.16	0.164
3	QPSK	15	0	22.24	0.167	22.05	0.160	22.15	0.164
3	16QAM	1	0	22.40	0.174	22.61	0.182	22.36	0.172
3	16QAM	1	8	22.29	0.169	22.24	0.167	22.21	0.166
3	16QAM	1	14	22.20	0.166	22.12	0.163	22.29	0.169
3	16QAM	8	0	21.34	0.136	21.32	0.136	21.37	0.137
3	16QAM	8	4	21.31	0.135	21.19	0.132	21.30	0.135
3	16QAM	8	7	21.25	0.133	21.03	0.127	21.15	0.130
3	16QAM	15	0	21.42	0.139	21.16	0.131	21.51	0.142



LTE Band 4				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19957		20175		20393	
Frequency (MHz)				1710.7		1732.5		1754.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	23.44	0.221	23.53	0.225	23.36	0.217
1.4	QPSK	1	3	23.39	0.218	23.29	0.213	23.26	0.212
1.4	QPSK	1	5	23.30	0.214	23.26	0.212	23.20	0.209
1.4	QPSK	3	0	22.33	0.171	22.35	0.172	22.34	0.171
1.4	QPSK	3	1	22.28	0.169	22.31	0.170	22.16	0.164
1.4	QPSK	3	3	22.16	0.164	22.19	0.166	22.24	0.167
1.4	QPSK	6	0	22.32	0.171	22.13	0.163	22.23	0.167
1.4	16QAM	1	0	22.48	0.177	22.59	0.182	22.41	0.174
1.4	16QAM	1	3	22.37	0.173	22.32	0.171	22.26	0.168
1.4	16QAM	1	5	22.28	0.169	22.20	0.166	22.34	0.171
1.4	16QAM	3	0	21.42	0.139	21.40	0.138	21.45	0.140
1.4	16QAM	3	1	21.39	0.138	21.27	0.134	21.38	0.137
1.4	16QAM	3	3	21.33	0.136	21.11	0.129	21.23	0.133
1.4	16QAM	6	0	21.50	0.141	21.24	0.133	21.59	0.144



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20450		20525		20600	
Frequency (MHz)				829		836.5		844	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	16.84	0.048	16.90	0.049	16.79	0.048
10	QPSK	1	25	16.81	0.048	16.65	0.046	16.71	0.047
10	QPSK	1	49	16.79	0.048	16.68	0.047	16.68	0.047
10	QPSK	25	0	15.70	0.037	15.84	0.038	15.75	0.038
10	QPSK	25	12	15.68	0.037	15.73	0.037	15.67	0.037
10	QPSK	25	25	15.65	0.037	15.75	0.038	15.72	0.037
10	QPSK	50	0	15.56	0.036	15.70	0.037	15.63	0.037
10	16QAM	1	0	15.59	0.036	15.76	0.038	15.82	0.038
10	16QAM	1	25	15.72	0.037	15.69	0.037	15.82	0.038
10	16QAM	1	49	15.66	0.037	15.65	0.037	15.77	0.038
10	16QAM	25	0	14.66	0.029	14.67	0.029	14.81	0.030
10	16QAM	25	12	14.79	0.030	14.86	0.031	14.73	0.030
10	16QAM	25	25	14.73	0.030	14.78	0.030	14.75	0.030
10	16QAM	50	0	14.69	0.029	14.97	0.031	14.96	0.031



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20425		20525		20625	
Frequency (MHz)				826.5		836.5		846.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	16.81	0.048	16.87	0.049	16.76	0.047
5	QPSK	1	12	16.78	0.048	16.62	0.046	16.70	0.047
5	QPSK	1	24	16.76	0.047	16.65	0.046	16.67	0.046
5	QPSK	12	0	15.67	0.037	15.81	0.038	15.74	0.037
5	QPSK	12	7	15.65	0.037	15.70	0.037	15.66	0.037
5	QPSK	12	13	15.62	0.036	15.72	0.037	15.71	0.037
5	QPSK	25	0	15.53	0.036	15.67	0.037	15.62	0.036
5	16QAM	1	0	15.56	0.036	15.73	0.037	15.81	0.038
5	16QAM	1	12	15.69	0.037	15.66	0.037	15.81	0.038
5	16QAM	1	24	15.63	0.037	15.62	0.036	15.76	0.038
5	16QAM	12	0	14.63	0.029	14.64	0.029	14.80	0.030
5	16QAM	12	7	14.76	0.030	14.83	0.030	14.72	0.030
5	16QAM	12	13	14.70	0.030	14.75	0.030	14.74	0.030
5	16QAM	25	0	14.66	0.029	14.94	0.031	14.95	0.031



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20415		20525		20635	
Frequency (MHz)				825.5		836.5		847.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	16.73	0.047	16.79	0.048	16.68	0.047
3	QPSK	1	8	16.77	0.048	16.61	0.046	16.67	0.046
3	QPSK	1	14	16.75	0.047	16.64	0.046	16.64	0.046
3	QPSK	8	0	15.66	0.037	15.80	0.038	15.71	0.037
3	QPSK	8	4	15.64	0.037	15.69	0.037	15.63	0.037
3	QPSK	8	7	15.61	0.036	15.71	0.037	15.68	0.037
3	QPSK	15	0	15.52	0.036	15.66	0.037	15.59	0.036
3	16QAM	1	0	15.55	0.036	15.72	0.037	15.78	0.038
3	16QAM	1	8	15.68	0.037	15.65	0.037	15.78	0.038
3	16QAM	1	14	15.62	0.036	15.61	0.036	15.73	0.037
3	16QAM	8	0	14.62	0.029	14.63	0.029	14.77	0.030
3	16QAM	8	4	14.75	0.030	14.82	0.030	14.69	0.029
3	16QAM	8	7	14.69	0.029	14.74	0.030	14.71	0.030
3	16QAM	15	0	14.65	0.029	14.93	0.031	14.92	0.031



LTE Band 5				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20407		20525		20643	
Frequency (MHz)				824.7		836.5		848.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	16.74	0.047	16.80	0.048	16.68	0.047
1.4	QPSK	1	3	16.79	0.048	16.63	0.046	16.69	0.047
1.4	QPSK	1	5	16.77	0.048	16.66	0.046	16.66	0.046
1.4	QPSK	3	0	15.68	0.037	15.82	0.038	15.73	0.037
1.4	QPSK	3	1	15.66	0.037	15.71	0.037	15.65	0.037
1.4	QPSK	3	3	15.63	0.037	15.73	0.037	15.70	0.037
1.4	QPSK	6	0	15.54	0.036	15.68	0.037	15.61	0.036
1.4	16QAM	1	0	15.57	0.036	15.74	0.037	15.80	0.038
1.4	16QAM	1	3	15.70	0.037	15.67	0.037	15.80	0.038
1.4	16QAM	1	5	15.64	0.037	15.63	0.037	15.75	0.038
1.4	16QAM	3	0	14.64	0.029	14.65	0.029	14.79	0.030
1.4	16QAM	3	1	14.77	0.030	14.84	0.030	14.71	0.030
1.4	16QAM	3	3	14.71	0.030	14.76	0.030	14.73	0.030
1.4	16QAM	6	0	14.67	0.029	14.95	0.031	14.94	0.031



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20850		21100		21350	
Frequency (MHz)				2510		2535		2560	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	23.45	0.221	23.56	0.227	23.48	0.223
20	QPSK	1	49	23.47	0.222	23.48	0.223	23.53	0.225
20	QPSK	1	99	23.44	0.221	23.44	0.221	23.55	0.226
20	QPSK	50	0	22.43	0.175	22.57	0.181	22.46	0.176
20	QPSK	50	24	22.34	0.171	22.42	0.175	22.49	0.177
20	QPSK	50	50	22.33	0.171	22.36	0.172	22.41	0.174
20	QPSK	100	0	22.43	0.175	22.39	0.173	22.49	0.177
20	16QAM	1	0	22.60	0.182	22.53	0.179	22.42	0.175
20	16QAM	1	49	22.42	0.175	22.50	0.178	22.53	0.179
20	16QAM	1	99	22.40	0.174	22.41	0.174	22.38	0.173
20	16QAM	50	0	21.45	0.140	21.42	0.139	21.43	0.139
20	16QAM	50	24	21.58	0.144	21.56	0.143	21.47	0.140
20	16QAM	50	50	21.54	0.143	21.46	0.140	21.34	0.136
20	16QAM	100	0	21.49	0.141	21.55	0.143	21.41	0.138



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20825		21100		21375	
Frequency (MHz)				2507.5		2535		2562.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	23.37	0.217	23.49	0.223	23.40	0.219
15	QPSK	1	37	23.39	0.218	23.41	0.219	23.45	0.221
15	QPSK	1	74	23.36	0.217	23.37	0.217	23.47	0.222
15	QPSK	36	0	22.35	0.172	22.49	0.177	22.39	0.173
15	QPSK	36	20	22.26	0.168	22.35	0.172	22.41	0.174
15	QPSK	36	39	22.25	0.168	22.29	0.169	22.33	0.171
15	QPSK	75	0	22.35	0.172	22.32	0.171	22.41	0.174
15	16QAM	1	0	22.52	0.179	22.46	0.176	22.34	0.171
15	16QAM	1	37	22.34	0.171	22.43	0.175	22.45	0.176
15	16QAM	1	74	22.52	0.179	22.34	0.171	22.50	0.178
15	16QAM	36	0	21.37	0.137	21.35	0.136	21.35	0.136
15	16QAM	36	20	21.50	0.141	21.49	0.141	21.39	0.138
15	16QAM	36	39	21.46	0.140	21.39	0.138	21.26	0.134
15	16QAM	75	0	21.41	0.138	21.48	0.141	21.33	0.136



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20800		21100		21400	
Frequency (MHz)				2505		2535		2565	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	23.34	0.216	23.47	0.222	23.37	0.217
10	QPSK	1	25	23.36	0.217	23.39	0.218	23.42	0.220
10	QPSK	1	49	23.33	0.215	23.35	0.216	23.44	0.221
10	QPSK	25	0	22.32	0.171	22.46	0.176	22.37	0.173
10	QPSK	25	12	22.23	0.167	22.33	0.171	22.38	0.173
10	QPSK	25	25	22.22	0.167	22.27	0.169	22.30	0.170
10	QPSK	50	0	22.32	0.171	22.30	0.170	22.38	0.173
10	16QAM	1	0	22.49	0.177	22.44	0.175	22.31	0.170
10	16QAM	1	25	22.31	0.170	22.41	0.174	22.42	0.175
10	16QAM	1	49	22.29	0.169	22.32	0.171	22.27	0.169
10	16QAM	25	0	21.34	0.136	21.33	0.136	21.32	0.136
10	16QAM	25	12	21.47	0.140	21.47	0.140	21.36	0.137
10	16QAM	25	25	21.43	0.139	21.37	0.137	21.23	0.133
10	16QAM	50	0	21.38	0.137	21.46	0.140	21.30	0.135



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20775		21100		21425	
Frequency (MHz)				2502.5		2535		2567.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	23.32	0.215	23.42	0.220	23.35	0.216
5	QPSK	1	12	23.34	0.216	23.33	0.215	23.40	0.219
5	QPSK	1	24	23.31	0.214	23.29	0.213	23.41	0.219
5	QPSK	12	0	22.30	0.170	22.44	0.175	22.31	0.170
5	QPSK	12	7	22.21	0.166	22.27	0.169	22.36	0.172
5	QPSK	12	13	22.20	0.166	22.21	0.166	22.28	0.169
5	QPSK	25	0	22.30	0.170	22.24	0.167	22.36	0.172
5	16QAM	1	0	22.47	0.177	22.38	0.173	22.29	0.169
5	16QAM	1	12	22.29	0.169	22.35	0.172	22.40	0.174
5	16QAM	1	24	22.27	0.169	22.26	0.168	22.25	0.168
5	16QAM	12	0	21.32	0.136	21.27	0.134	21.30	0.135
5	16QAM	12	7	21.45	0.140	21.41	0.138	21.34	0.136
5	16QAM	12	13	21.41	0.138	21.31	0.135	21.21	0.132
5	16QAM	25	0	21.36	0.137	21.40	0.138	21.28	0.134



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23060		23095		23130	
Frequency (MHz)				704		707.5		711	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	16.53	0.045	16.66	0.046	16.56	0.045
10	QPSK	1	25	16.35	0.043	16.65	0.046	16.57	0.045
10	QPSK	1	49	16.37	0.043	16.63	0.046	16.62	0.046
10	QPSK	25	0	15.50	0.035	15.87	0.039	15.47	0.035
10	QPSK	25	12	15.45	0.035	15.48	0.035	15.45	0.035
10	QPSK	25	25	15.43	0.035	15.41	0.035	15.47	0.035
10	QPSK	50	0	15.46	0.035	15.43	0.035	15.51	0.036
10	16QAM	1	0	15.81	0.038	15.55	0.036	15.64	0.037
10	16QAM	1	25	15.69	0.037	15.60	0.036	15.56	0.036
10	16QAM	1	49	15.58	0.036	15.53	0.036	15.57	0.036
10	16QAM	25	0	14.95	0.031	14.57	0.029	14.72	0.030
10	16QAM	25	12	14.81	0.030	14.62	0.029	14.56	0.029
10	16QAM	25	25	14.78	0.030	14.67	0.029	14.53	0.028
10	16QAM	50	0	14.89	0.031	14.48	0.028	14.87	0.031



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23035		23095		23155	
Frequency (MHz)				701.5		707.5		713.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	16.48	0.044	16.63	0.046	16.51	0.045
5	QPSK	1	12	16.30	0.043	16.62	0.046	16.52	0.045
5	QPSK	1	24	16.32	0.043	16.60	0.046	16.57	0.045
5	QPSK	12	0	15.45	0.035	15.82	0.038	15.42	0.035
5	QPSK	12	7	15.40	0.035	15.45	0.035	15.40	0.035
5	QPSK	12	13	15.38	0.035	15.38	0.035	15.42	0.035
5	QPSK	25	0	15.41	0.035	15.40	0.035	15.48	0.035
5	16QAM	1	0	15.76	0.038	15.52	0.036	15.59	0.036
5	16QAM	1	12	15.64	0.037	15.57	0.036	15.51	0.036
5	16QAM	1	24	15.53	0.036	15.50	0.035	15.52	0.036
5	16QAM	12	0	14.90	0.031	14.54	0.028	14.67	0.029
5	16QAM	12	7	14.76	0.030	14.59	0.029	14.51	0.028
5	16QAM	12	13	14.73	0.030	14.64	0.029	14.48	0.028
5	16QAM	25	0	14.84	0.030	14.45	0.028	14.82	0.030



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23025		23095		23165	
Frequency (MHz)				700.5		707.5		714.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	16.46	0.044	16.62	0.046	16.49	0.045
3	QPSK	1	8	16.28	0.042	16.61	0.046	16.50	0.045
3	QPSK	1	14	16.30	0.043	16.59	0.046	16.55	0.045
3	QPSK	8	0	15.43	0.035	15.40	0.035	15.40	0.035
3	QPSK	8	4	15.38	0.035	15.44	0.035	15.38	0.035
3	QPSK	8	7	15.36	0.034	15.37	0.034	15.40	0.035
3	QPSK	15	0	15.39	0.035	15.39	0.035	15.30	0.034
3	16QAM	1	0	15.74	0.037	15.51	0.036	15.57	0.036
3	16QAM	1	8	15.62	0.036	15.56	0.036	15.49	0.035
3	16QAM	1	14	15.51	0.036	15.49	0.035	15.50	0.035
3	16QAM	8	0	14.88	0.031	14.53	0.028	14.65	0.029
3	16QAM	8	4	14.74	0.030	14.58	0.029	14.49	0.028
3	16QAM	8	7	14.71	0.030	14.63	0.029	14.46	0.028
3	16QAM	15	0	14.82	0.030	14.44	0.028	14.80	0.030



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23017		23095		23173	
Frequency (MHz)				699.7		707.5		715.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	16.52	0.045	16.61	0.046	16.55	0.045
1.4	QPSK	1	3	16.34	0.043	16.59	0.046	16.56	0.045
1.4	QPSK	1	5	16.36	0.043	16.57	0.045	16.60	0.046
1.4	QPSK	3	0	15.49	0.035	15.38	0.035	15.46	0.035
1.4	QPSK	3	1	15.44	0.035	15.42	0.035	15.44	0.035
1.4	QPSK	3	3	15.42	0.035	15.35	0.034	15.46	0.035
1.4	QPSK	6	0	15.45	0.035	15.37	0.034	15.86	0.039
1.4	16QAM	1	0	15.80	0.038	15.49	0.035	15.63	0.037
1.4	16QAM	1	3	15.68	0.037	15.54	0.036	15.55	0.036
1.4	16QAM	1	5	15.57	0.036	15.47	0.035	15.56	0.036
1.4	16QAM	3	0	14.94	0.031	14.51	0.028	14.71	0.030
1.4	16QAM	3	1	14.80	0.030	14.56	0.029	14.55	0.029
1.4	16QAM	3	3	14.77	0.030	14.61	0.029	14.52	0.028
1.4	16QAM	6	0	14.88	0.031	14.42	0.028	14.86	0.031



LTE Band 17				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23780		23790		23800	
Frequency (MHz)				709		710		711	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	17.07	0.051	17.19	0.052	17.01	0.050
10	QPSK	1	25	16.95	0.050	17.10	0.051	17.02	0.050
10	QPSK	1	49	17.05	0.051	17.08	0.051	17.18	0.052
10	QPSK	25	0	16.01	0.040	16.29	0.043	16.06	0.040
10	QPSK	25	12	16.05	0.040	16.10	0.041	16.08	0.041
10	QPSK	25	25	15.98	0.040	15.97	0.040	16.02	0.040
10	QPSK	50	0	16.09	0.041	16.23	0.042	16.08	0.041
10	16QAM	1	0	16.10	0.041	16.13	0.041	16.17	0.041
10	16QAM	1	25	16.04	0.040	16.02	0.040	16.09	0.041
10	16QAM	1	49	16.06	0.040	15.98	0.040	16.06	0.040
10	16QAM	25	0	15.07	0.032	14.96	0.031	14.97	0.031
10	16QAM	25	12	15.15	0.033	15.08	0.032	15.05	0.032
10	16QAM	25	25	14.99	0.032	14.98	0.031	14.97	0.031
10	16QAM	50	0	14.95	0.031	15.43	0.035	15.42	0.035



LTE Band 17				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23755		23790		23825	
Frequency (MHz)				706.5		710		713.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	16.94	0.049	17.10	0.051	16.98	0.050
5	QPSK	1	12	16.82	0.048	17.01	0.050	16.99	0.050
5	QPSK	1	24	16.92	0.049	16.99	0.050	17.05	0.051
5	QPSK	12	0	15.98	0.040	16.14	0.041	16.03	0.040
5	QPSK	12	7	16.02	0.040	16.11	0.041	15.95	0.039
5	QPSK	12	13	15.95	0.039	15.98	0.040	15.99	0.040
5	QPSK	25	0	15.96	0.039	16.34	0.043	16.36	0.043
5	16QAM	1	0	15.97	0.040	16.04	0.040	16.04	0.040
5	16QAM	1	12	15.91	0.039	15.93	0.039	15.96	0.039
5	16QAM	1	24	15.93	0.039	15.89	0.039	15.93	0.039
5	16QAM	12	0	15.05	0.032	14.98	0.031	14.95	0.031
5	16QAM	12	7	15.13	0.033	15.10	0.032	15.03	0.032
5	16QAM	12	13	14.97	0.031	15.00	0.032	14.95	0.031
5	16QAM	25	0	14.93	0.031	15.34	0.034	15.29	0.034



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				132072		132322		132572	
Frequency (MHz)				1720		1745		1770	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	23.39	0.218	23.40	0.219	23.35	0.216
20	QPSK	1	49	23.36	0.217	23.12	0.205	23.22	0.210
20	QPSK	1	99	23.32	0.215	23.05	0.202	23.19	0.208
20	QPSK	50	0	22.17	0.165	22.24	0.167	22.13	0.163
20	QPSK	50	24	22.14	0.164	22.09	0.162	22.10	0.162
20	QPSK	50	50	22.08	0.161	22.05	0.160	22.02	0.159
20	QPSK	100	0	22.15	0.164	22.21	0.166	22.08	0.161
20	16QAM	1	0	22.54	0.179	22.48	0.177	22.60	0.182
20	16QAM	1	49	22.41	0.174	22.46	0.176	22.28	0.169
20	16QAM	1	99	22.36	0.172	22.32	0.171	22.37	0.173
20	16QAM	50	0	21.44	0.139	21.35	0.136	21.45	0.140
20	16QAM	50	24	21.31	0.135	21.28	0.134	21.13	0.130
20	16QAM	50	50	21.24	0.133	21.21	0.132	21.18	0.131
20	16QAM	100	0	21.42	0.139	21.48	0.141	21.50	0.141



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				132047		132322		132597	
Frequency (MHz)				1717.5		1745		1772.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	23.26	0.212	23.31	0.214	23.22	0.210
15	QPSK	1	37	23.23	0.210	23.03	0.201	23.09	0.204
15	QPSK	1	74	23.19	0.208	22.96	0.198	23.06	0.202
15	QPSK	36	0	22.04	0.160	22.15	0.164	22.00	0.158
15	QPSK	36	20	22.01	0.159	22.00	0.158	21.97	0.157
15	QPSK	36	39	21.95	0.157	21.96	0.157	21.89	0.155
15	QPSK	75	0	22.02	0.159	22.12	0.163	21.95	0.157
15	16QAM	1	0	22.41	0.174	22.39	0.173	22.47	0.177
15	16QAM	1	37	22.28	0.169	22.37	0.173	22.15	0.164
15	16QAM	1	74	22.23	0.167	22.23	0.167	22.24	0.167
15	16QAM	36	0	21.31	0.135	21.26	0.134	21.32	0.136
15	16QAM	36	20	21.18	0.131	21.19	0.132	21.00	0.126
15	16QAM	36	39	21.11	0.129	21.12	0.129	21.05	0.127
15	16QAM	75	0	21.29	0.135	21.39	0.138	21.37	0.137



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				132022		132322		132622	
Frequency (MHz)				1715		1745		1775	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	23.31	0.214	23.36	0.217	23.27	0.212
10	QPSK	1	25	23.28	0.213	23.08	0.203	23.14	0.206
10	QPSK	1	49	23.24	0.211	23.01	0.200	23.11	0.205
10	QPSK	25	0	22.09	0.162	22.20	0.166	22.05	0.160
10	QPSK	25	12	22.06	0.161	22.05	0.160	22.02	0.159
10	QPSK	25	25	22.00	0.158	22.01	0.159	21.94	0.156
10	QPSK	50	0	22.07	0.161	22.17	0.165	22.00	0.158
10	16QAM	1	0	22.46	0.176	22.44	0.175	22.52	0.179
10	16QAM	1	25	22.33	0.171	22.42	0.175	22.20	0.166
10	16QAM	1	49	22.28	0.169	22.28	0.169	22.29	0.169
10	16QAM	25	0	21.36	0.137	21.31	0.135	21.37	0.137
10	16QAM	25	12	21.23	0.133	21.24	0.133	21.05	0.127
10	16QAM	25	25	21.16	0.131	21.17	0.131	21.10	0.129
10	16QAM	50	0	21.34	0.136	21.44	0.139	21.42	0.139



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				131997		132322		132647	
Frequency (MHz)				1712.5		1745		1777.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	23.36	0.217	23.39	0.218	23.32	0.215
5	QPSK	1	12	23.33	0.215	23.07	0.203	23.19	0.208
5	QPSK	1	24	23.29	0.213	23.00	0.200	23.16	0.207
5	QPSK	12	0	22.14	0.164	22.19	0.166	22.10	0.162
5	QPSK	12	7	22.11	0.163	22.04	0.160	22.07	0.161
5	QPSK	12	13	22.05	0.160	22.00	0.158	21.99	0.158
5	QPSK	25	0	22.12	0.163	22.16	0.164	22.05	0.160
5	16QAM	1	0	22.51	0.178	22.43	0.175	22.57	0.181
5	16QAM	1	12	22.38	0.173	22.41	0.174	22.25	0.168
5	16QAM	1	24	22.33	0.171	22.27	0.169	22.34	0.171
5	16QAM	12	0	21.41	0.138	21.30	0.135	21.42	0.139
5	16QAM	12	7	21.28	0.134	21.23	0.133	21.10	0.129
5	16QAM	12	13	21.21	0.132	21.16	0.131	21.15	0.130
5	16QAM	25	0	21.39	0.138	21.43	0.139	21.47	0.140



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				131987		132322		132657	
Frequency (MHz)				1711.5		1745		1778.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	23.32	0.215	23.38	0.218	23.28	0.213
3	QPSK	1	8	23.29	0.213	23.10	0.204	23.15	0.207
3	QPSK	1	14	23.25	0.211	23.03	0.201	23.12	0.205
3	QPSK	8	0	22.10	0.162	22.22	0.167	22.06	0.161
3	QPSK	8	4	22.07	0.161	22.07	0.161	22.03	0.160
3	QPSK	8	7	22.01	0.159	22.03	0.160	21.95	0.157
3	QPSK	15	0	22.08	0.161	22.19	0.166	22.01	0.159
3	16QAM	1	0	22.47	0.177	22.46	0.176	22.53	0.179
3	16QAM	1	8	22.34	0.171	22.44	0.175	22.21	0.166
3	16QAM	1	14	22.29	0.169	22.30	0.170	22.30	0.170
3	16QAM	8	0	21.37	0.137	21.33	0.136	21.38	0.137
3	16QAM	8	4	21.24	0.133	21.26	0.134	21.06	0.128
3	16QAM	8	7	21.17	0.131	21.19	0.132	21.11	0.129
3	16QAM	15	0	21.35	0.136	21.46	0.140	21.43	0.139



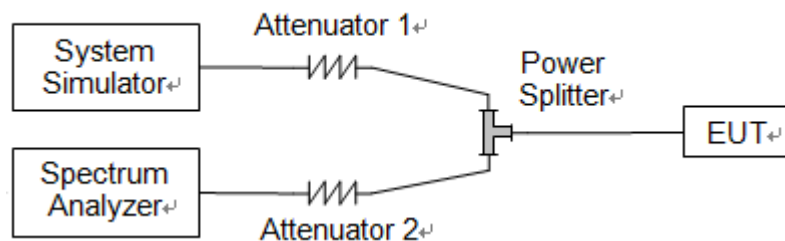
LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				131979		132322		132665	
Frequency (MHz)				1710.7		1745		1779.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	23.22	0.210	23.27	0.212	23.18	0.208
1.4	QPSK	1	3	23.19	0.208	22.99	0.199	23.05	0.202
1.4	QPSK	1	5	23.15	0.207	22.92	0.196	23.02	0.200
1.4	QPSK	3	0	22.00	0.158	22.11	0.163	21.96	0.157
1.4	QPSK	3	1	21.97	0.157	21.96	0.157	21.93	0.156
1.4	QPSK	3	3	21.91	0.155	21.92	0.156	21.85	0.153
1.4	QPSK	6	0	21.98	0.158	22.08	0.161	21.91	0.155
1.4	16QAM	1	0	22.37	0.173	22.35	0.172	22.43	0.175
1.4	16QAM	1	3	22.24	0.167	22.33	0.171	22.11	0.163
1.4	16QAM	1	5	22.19	0.166	22.19	0.166	22.20	0.166
1.4	16QAM	3	0	21.27	0.134	21.22	0.132	21.28	0.134
1.4	16QAM	3	1	21.14	0.130	21.15	0.130	20.96	0.125
1.4	16QAM	3	3	21.07	0.128	21.08	0.128	21.01	0.126
1.4	16QAM	6	0	21.25	0.133	21.35	0.136	21.33	0.136

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	1.10	1.24
	Low	16QAM	1.10	1.26
	Mid	QPSK	1.10	1.24
	Mid	16QAM	1.10	1.25
	High	QPSK	1.10	1.26
	High	16QAM	1.10	1.26
3	Low	QPSK	2.72	3.05
	Low	16QAM	2.71	3.07
	Mid	QPSK	2.72	3.06
	Mid	16QAM	2.71	3.06
	High	QPSK	2.71	3.06
	High	16QAM	2.71	3.04
5	Low	QPSK	4.49	4.95
	Low	16QAM	4.50	4.97
	Mid	QPSK	4.49	4.97
	Mid	16QAM	4.50	4.97
	High	QPSK	4.50	4.97
	High	16QAM	4.50	5.00
10	Low	QPSK	8.98	9.72
	Low	16QAM	8.99	9.83
	Mid	QPSK	9.01	9.95
	Mid	16QAM	8.98	9.84
	High	QPSK	9.03	9.93
	High	16QAM	8.99	9.89
15	Low	QPSK	13.50	14.83
	Low	16QAM	13.46	14.70
	Mid	QPSK	13.52	14.80
	Mid	16QAM	13.49	14.94
	High	QPSK	13.48	14.95
	High	16QAM	13.50	14.85
20	Low	QPSK	17.99	19.74
	Low	16QAM	18.00	19.89
	Mid	QPSK	18.00	19.40
	Mid	16QAM	18.04	19.80
	High	QPSK	18.00	19.77
	High	16QAM	18.01	19.90



LTE Band 4				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.24
	Low	16QAM	1.10	1.26
	Mid	QPSK	1.10	1.25
	Mid	16QAM	1.10	1.26
	High	QPSK	1.10	1.24
	High	16QAM	1.10	1.25
3	Low	QPSK	2.72	3.04
	Low	16QAM	2.72	3.04
	Mid	QPSK	2.71	3.04
	Mid	16QAM	2.71	3.05
	High	QPSK	2.72	3.05
	High	16QAM	2.72	3.06
5	Low	QPSK	4.51	4.98
	Low	16QAM	4.50	4.97
	Mid	QPSK	4.50	5.00
	Mid	16QAM	4.50	4.97
	High	QPSK	4.48	4.97
	High	16QAM	4.50	4.97
10	Low	QPSK	9.04	9.89
	Low	16QAM	8.98	9.81
	Mid	QPSK	9.01	10.01
	Mid	16QAM	8.98	9.86
	High	QPSK	9.01	9.96
	High	16QAM	8.95	9.74
15	Low	QPSK	13.51	15.05
	Low	16QAM	13.51	15.03
	Mid	QPSK	13.48	14.95
	Mid	16QAM	13.51	14.91
	High	QPSK	13.48	14.79
	High	16QAM	13.50	14.97
20	Low	QPSK	17.99	19.79
	Low	16QAM	18.04	19.93
	Mid	QPSK	17.99	19.74
	Mid	16QAM	18.06	19.98
	High	QPSK	18.01	19.78
	High	16QAM	18.05	19.84



LTE Band 5				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.24
	Low	16QAM	1.10	1.26
	Mid	QPSK	1.10	1.24
	Mid	16QAM	1.10	1.25
	High	QPSK	1.10	1.24
	High	16QAM	1.10	1.24
3	Low	QPSK	2.72	3.04
	Low	16QAM	2.70	3.05
	Mid	QPSK	2.72	3.04
	Mid	16QAM	2.71	3.06
	High	QPSK	2.71	3.05
	High	16QAM	2.71	3.04
5	Low	QPSK	4.50	4.97
	Low	16QAM	4.50	4.97
	Mid	QPSK	4.50	4.97
	Mid	16QAM	4.51	4.98
	High	QPSK	4.49	4.96
	High	16QAM	4.49	4.98
10	Low	QPSK	8.99	9.94
	Low	16QAM	8.97	9.80
	Mid	QPSK	9.01	9.88
	Mid	16QAM	8.97	9.86
	High	QPSK	9.00	9.83
	High	16QAM	8.96	9.81



LTE Band 7				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.51	4.98
	Low	16QAM	4.50	4.96
	Mid	QPSK	4.50	4.97
	Mid	16QAM	4.49	4.98
	High	QPSK	4.49	4.99
	High	16QAM	4.50	4.98
10	Low	QPSK	9.03	9.95
	Low	16QAM	8.97	9.81
	Mid	QPSK	9.02	9.83
	Mid	16QAM	8.97	9.88
	High	QPSK	9.00	9.92
	High	16QAM	8.98	9.85
15	Low	QPSK	13.52	14.95
	Low	16QAM	13.48	14.97
	Mid	QPSK	13.51	14.89
	Mid	16QAM	13.49	14.89
	High	QPSK	13.47	14.87
	High	16QAM	13.47	14.87
20	Low	QPSK	17.99	19.79
	Low	16QAM	18.02	19.89
	Mid	QPSK	18.00	19.78
	Mid	16QAM	18.04	19.87
	High	QPSK	17.98	19.75
	High	16QAM	18.00	19.82



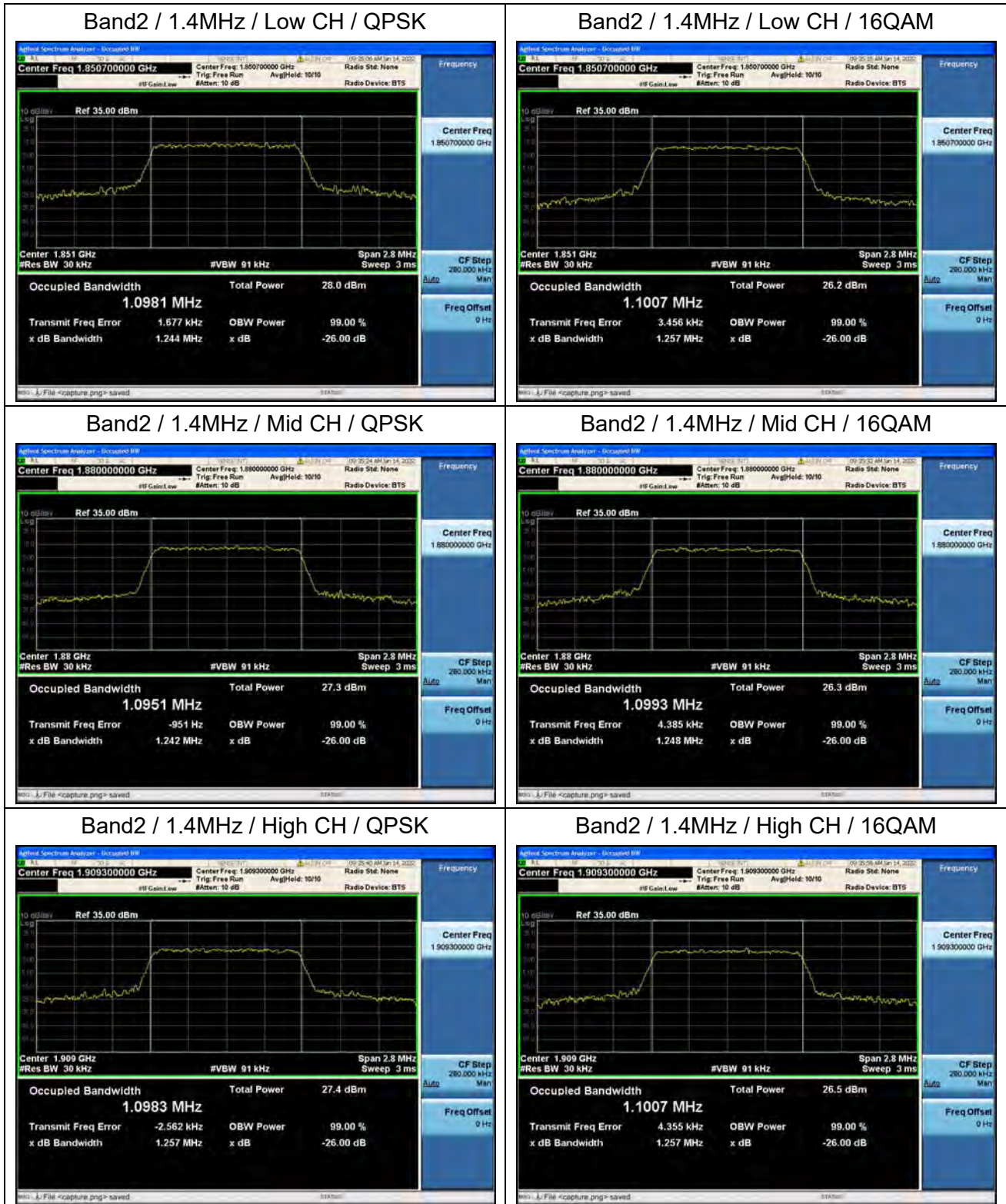
LTE Band 12				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.24
	Low	16QAM	1.10	1.25
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.10	1.25
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.25
3	Low	QPSK	2.71	3.04
	Low	16QAM	2.72	3.05
	Mid	QPSK	2.71	3.04
	Mid	16QAM	2.71	3.06
	High	QPSK	2.72	3.05
	High	16QAM	2.71	3.06
5	Low	QPSK	4.49	4.96
	Low	16QAM	4.50	5.00
	Mid	QPSK	4.49	4.96
	Mid	16QAM	4.50	4.95
	High	QPSK	4.50	4.94
	High	16QAM	4.50	4.93
10	Low	QPSK	9.00	9.83
	Low	16QAM	8.94	9.79
	Mid	QPSK	9.00	9.86
	Mid	16QAM	8.95	9.83
	High	QPSK	9.01	9.90
	High	16QAM	9.00	9.82

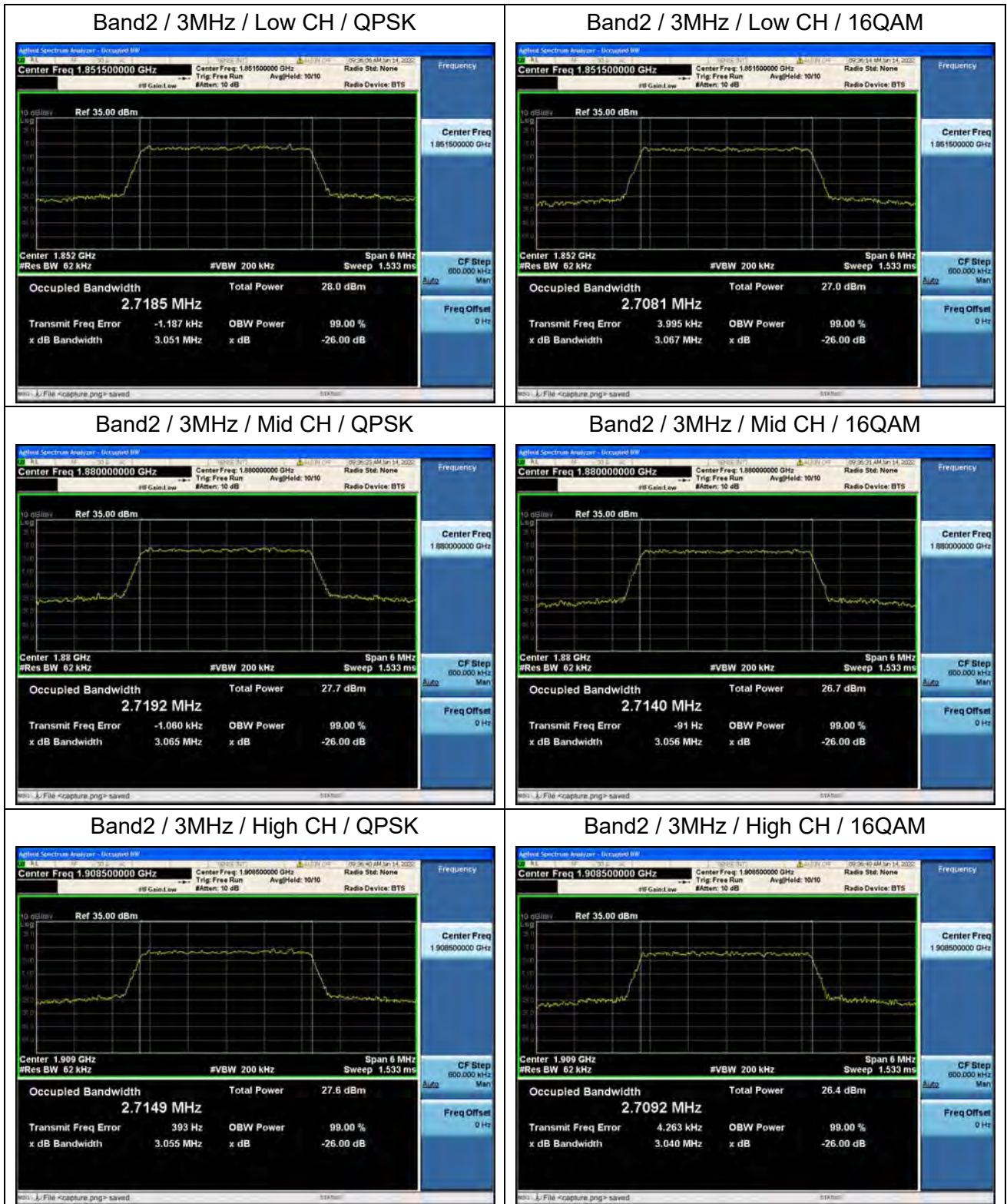


LTE Band 17				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.51	4.98
	Low	16QAM	4.49	4.93
	Mid	QPSK	4.51	4.96
	Mid	16QAM	4.50	4.99
	High	QPSK	4.50	4.97
	High	16QAM	4.49	4.92
10	Low	QPSK	8.99	9.95
	Low	16QAM	8.97	9.87
	Mid	QPSK	9.01	9.84
	Mid	16QAM	8.98	9.80
	High	QPSK	9.03	9.92
	High	16QAM	8.98	9.81



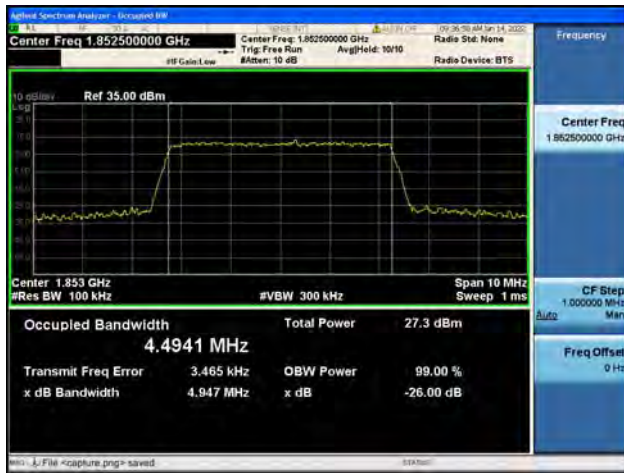
LTE Band 66				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.26
	Low	16QAM	1.10	1.27
	Mid	QPSK	1.10	1.24
	Mid	16QAM	1.10	1.25
	High	QPSK	1.10	1.25
	High	16QAM	1.10	1.26
3	Low	QPSK	2.72	3.06
	Low	16QAM	2.72	3.06
	Mid	QPSK	2.72	3.05
	Mid	16QAM	2.71	3.04
	High	QPSK	2.72	3.07
	High	16QAM	2.71	3.06
5	Low	QPSK	4.50	4.99
	Low	16QAM	4.51	4.98
	Mid	QPSK	4.50	4.96
	Mid	16QAM	4.50	5.01
	High	QPSK	4.50	4.99
	High	16QAM	4.51	4.99
10	Low	QPSK	9.02	9.96
	Low	16QAM	8.99	9.86
	Mid	QPSK	9.02	9.68
	Mid	16QAM	8.97	9.82
	High	QPSK	9.01	9.90
	High	16QAM	8.98	9.84
15	Low	QPSK	13.50	14.93
	Low	16QAM	13.51	15.00
	Mid	QPSK	13.51	14.89
	Mid	16QAM	13.48	14.88
	High	QPSK	13.50	14.98
	High	16QAM	13.52	15.02
20	Low	QPSK	18.04	19.79
	Low	16QAM	18.00	19.60
	Mid	QPSK	18.02	19.83
	Mid	16QAM	17.99	19.84
	High	QPSK	18.02	19.78
	High	16QAM	18.09	19.82



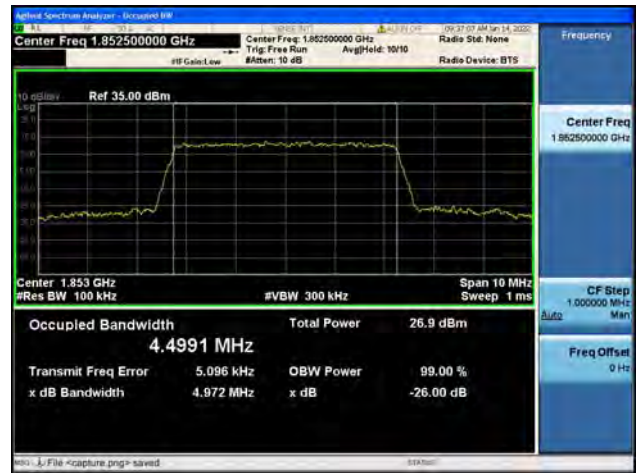




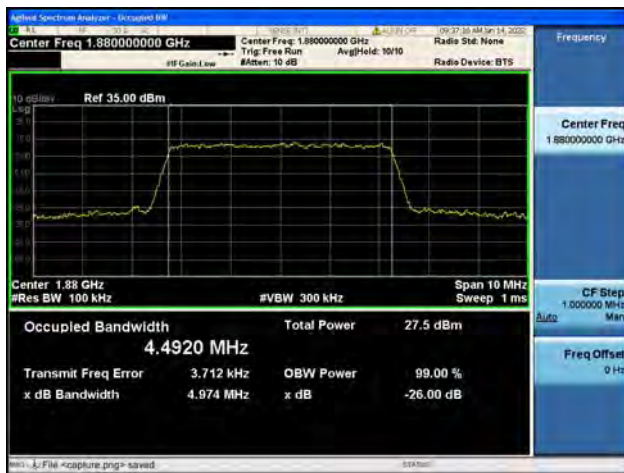
Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Mid CH / QPSK



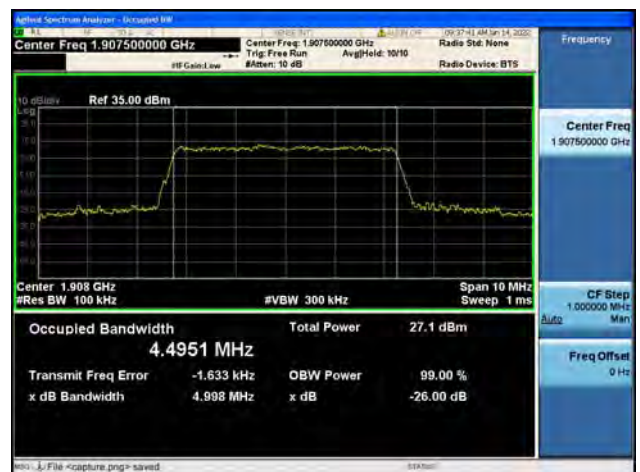
Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK

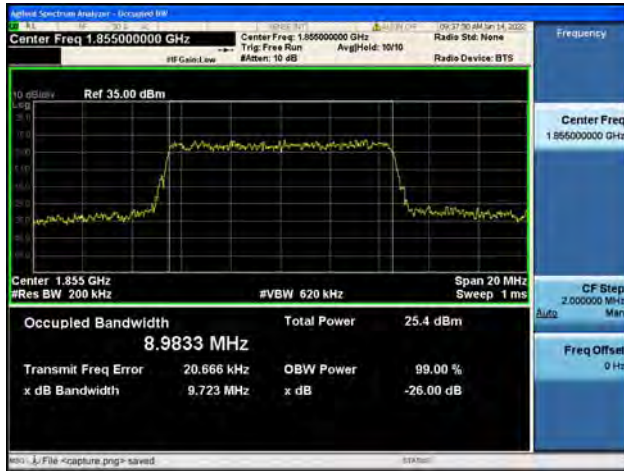


Band2 / 5MHz / High CH / 16QAM

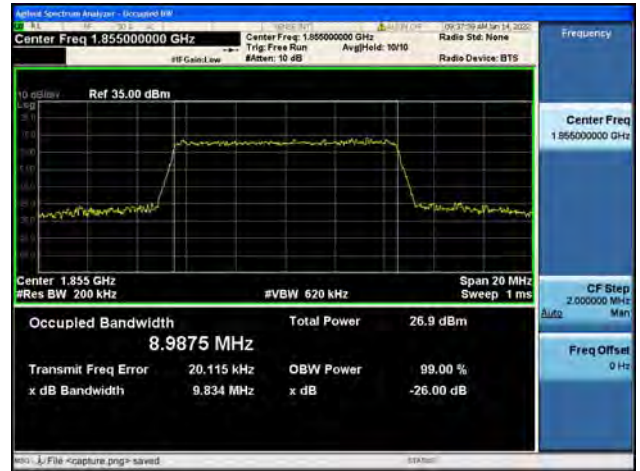




Band2 / 10MHz / Low CH / QPSK



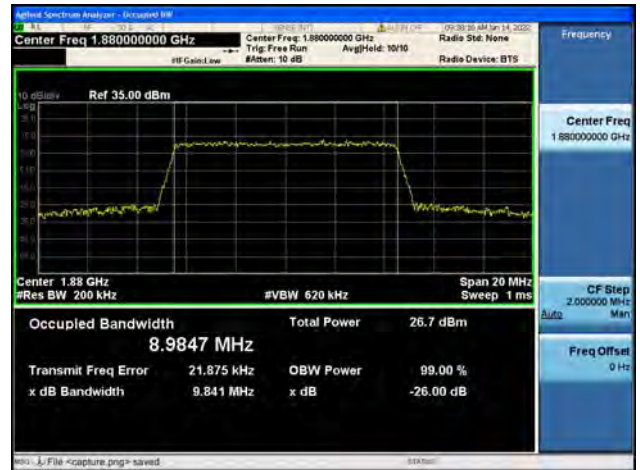
Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Mid CH / QPSK



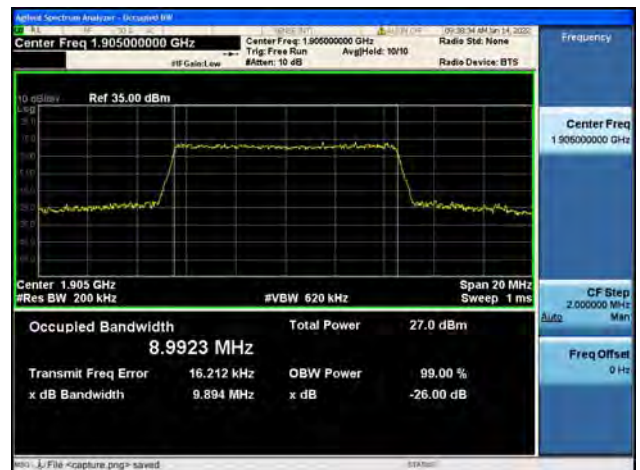
Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK

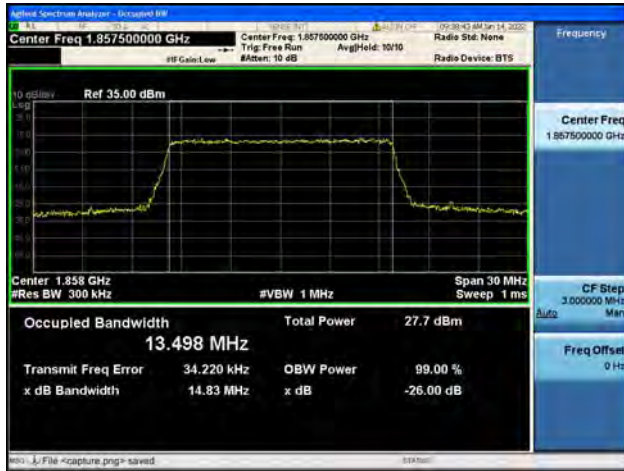


Band2 / 10MHz / High CH / 16QAM

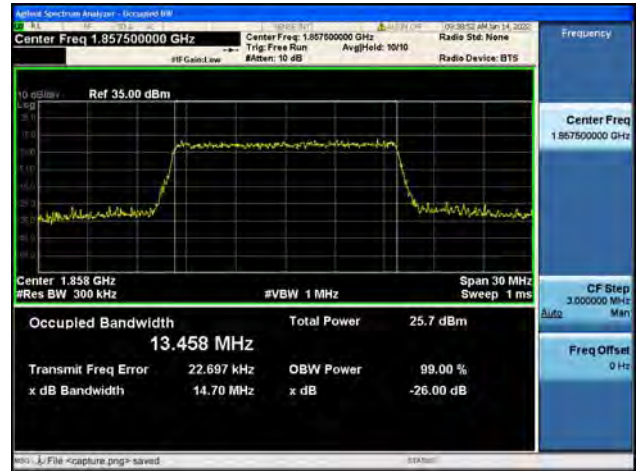




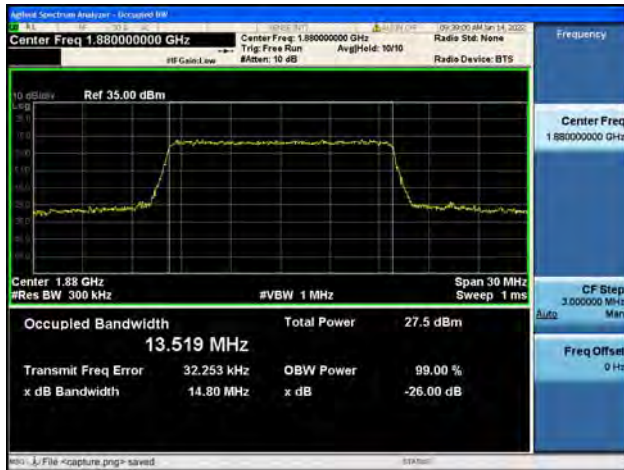
Band2 / 15MHz / Low CH / QPSK



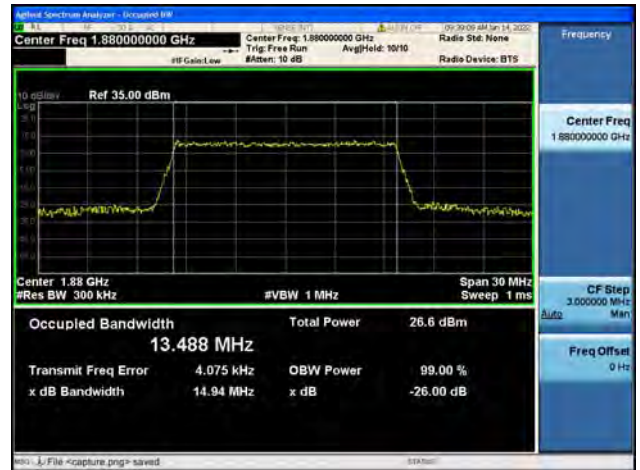
Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK

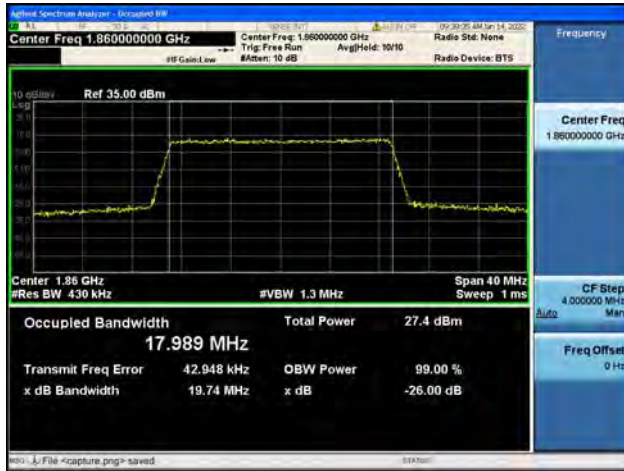


Band2 / 15MHz / High CH / 16QAM





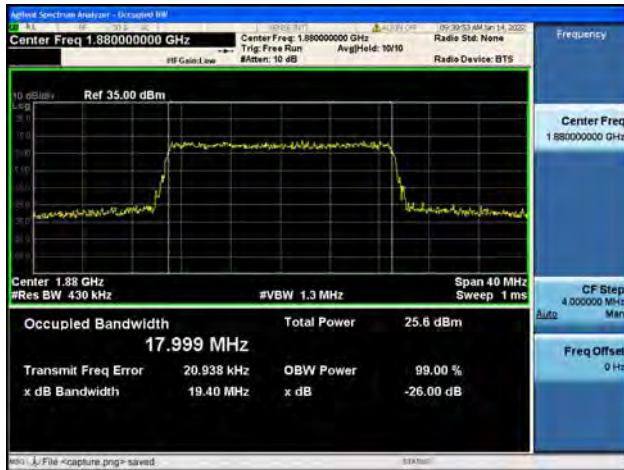
Band2 / 20MHz / Low CH / QPSK



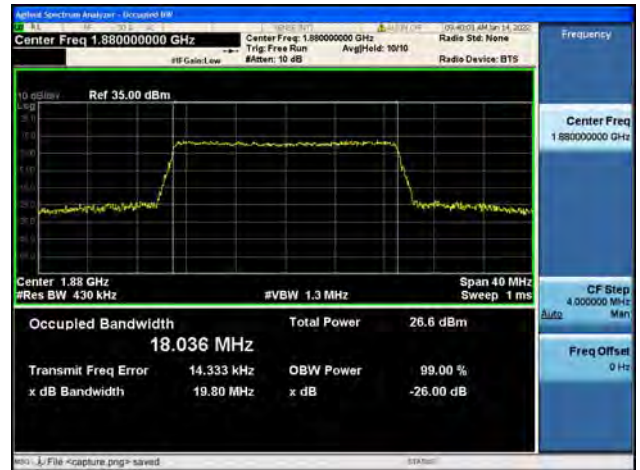
Band2 / 20MHz / Low CH / 16QAM



Band2 / 20MHz / Mid CH / QPSK



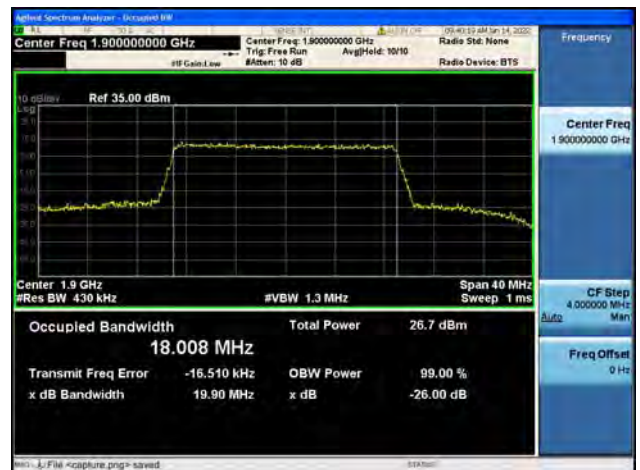
Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / High CH / QPSK

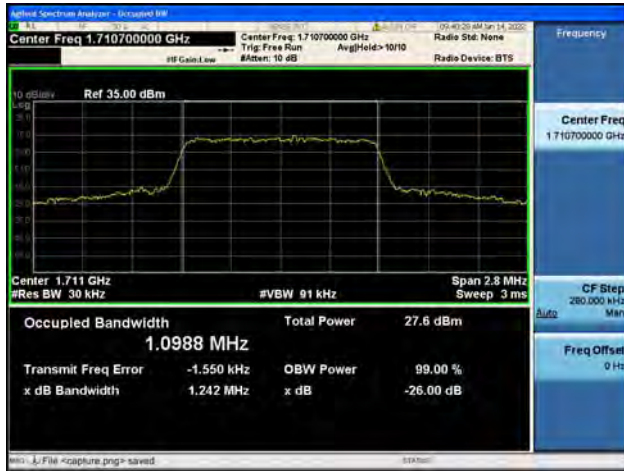


Band2 / 20MHz / High CH / 16QAM

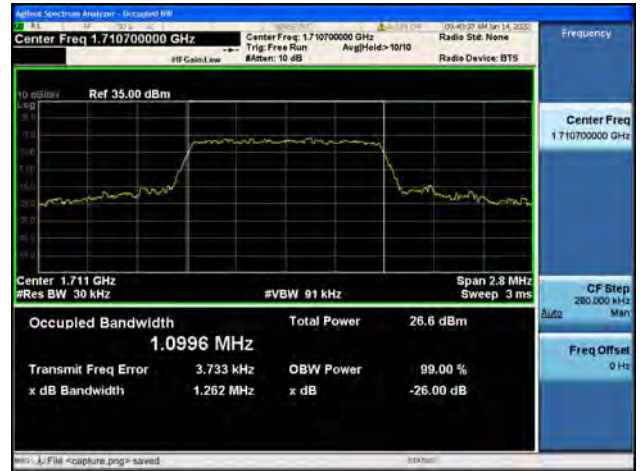




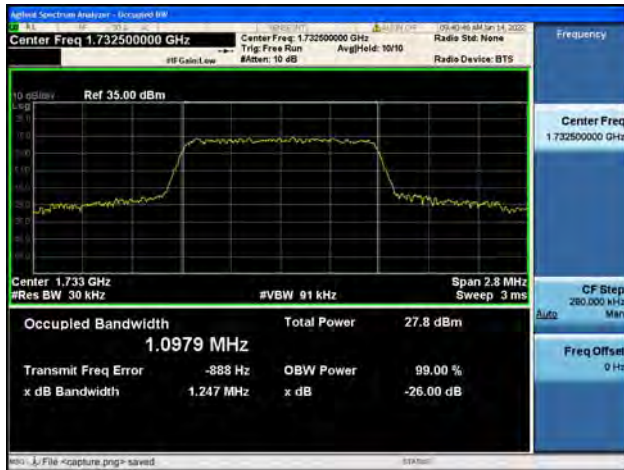
Band4 / 1.4MHz / Low CH / QPSK



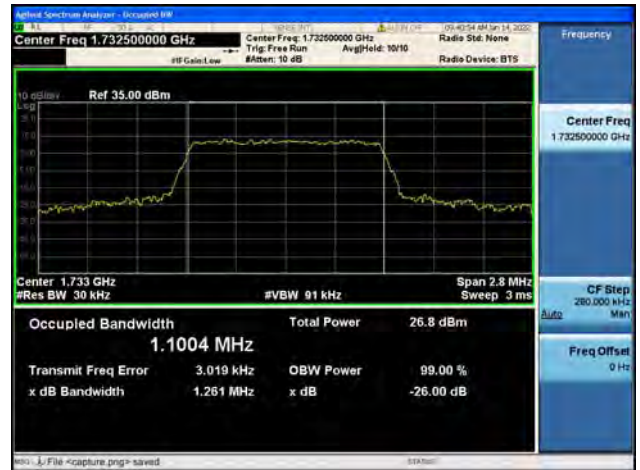
Band4 / 1.4MHz / Low CH / 16QAM



Band4 / 1.4MHz / Mid CH / QPSK



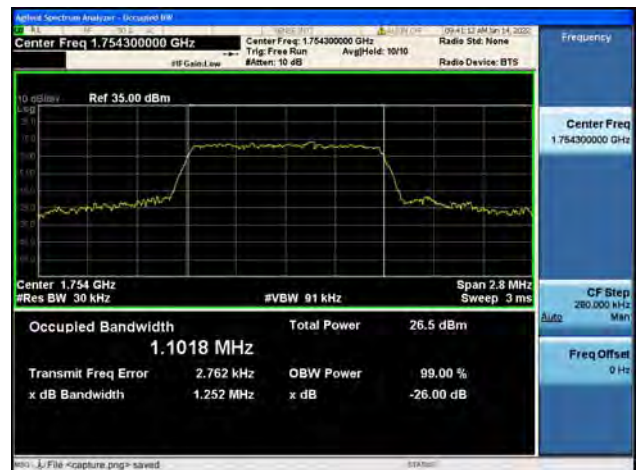
Band4 / 1.4MHz / Mid CH / 16QAM



Band4 / 1.4MHz / High CH / QPSK

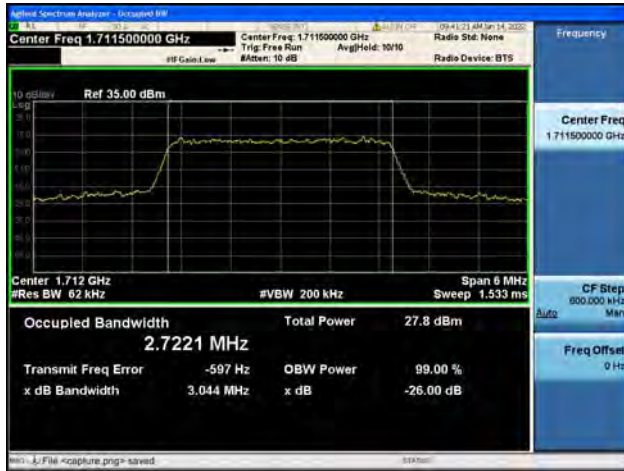


Band4 / 1.4MHz / High CH / 16QAM





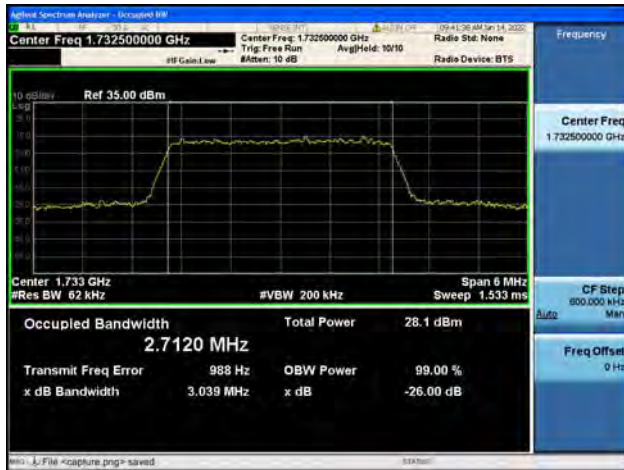
Band4 / 3MHz / Low CH / QPSK



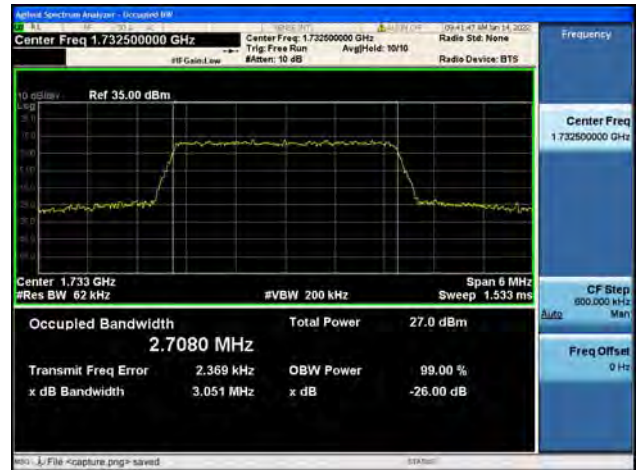
Band4 / 3MHz / Low CH / 16QAM



Band4 / 3MHz / Mid CH / QPSK



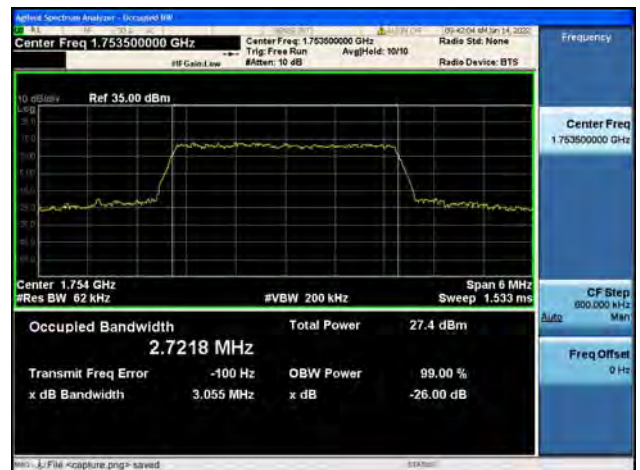
Band4 / 3MHz / Mid CH / 16QAM



Band4 / 3MHz / High CH / QPSK

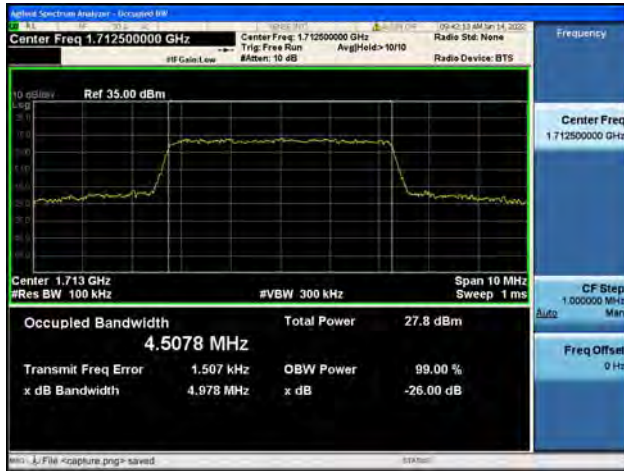


Band4 / 3MHz / High CH / 16QAM





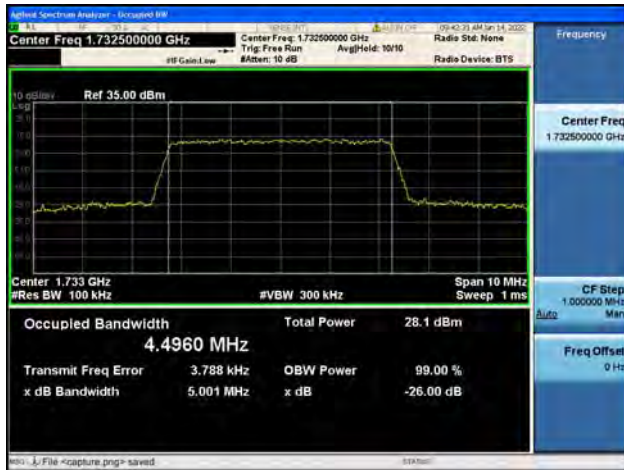
Band4 / 5MHz / Low CH / QPSK



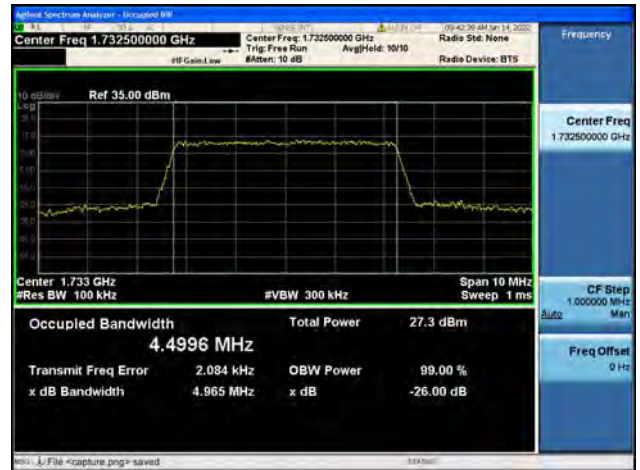
Band4 / 5MHz / Low CH / 16QAM



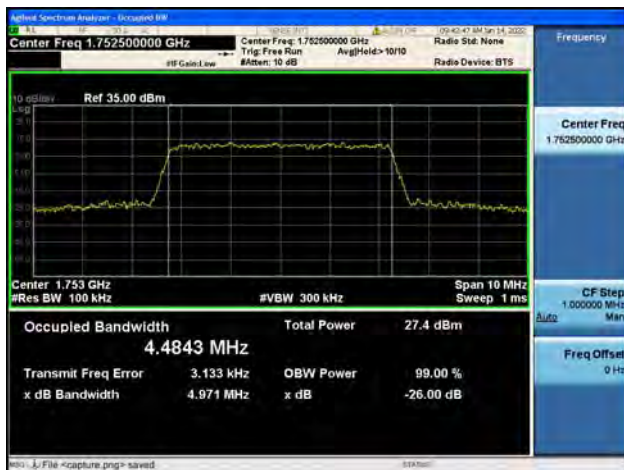
Band4 / 5MHz / Mid CH / QPSK



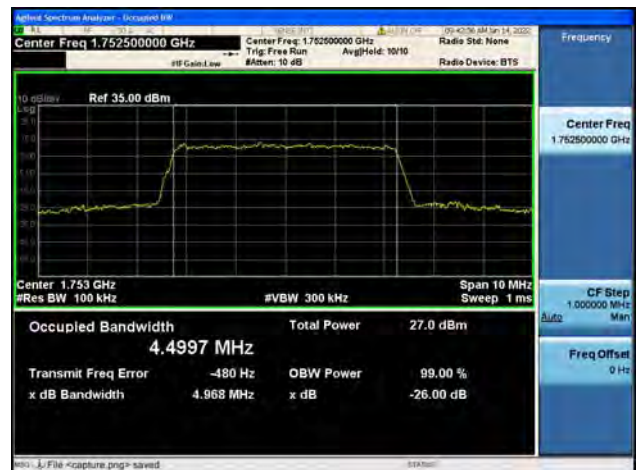
Band4 / 5MHz / Mid CH / 16QAM



Band4 / 5MHz / High CH / QPSK

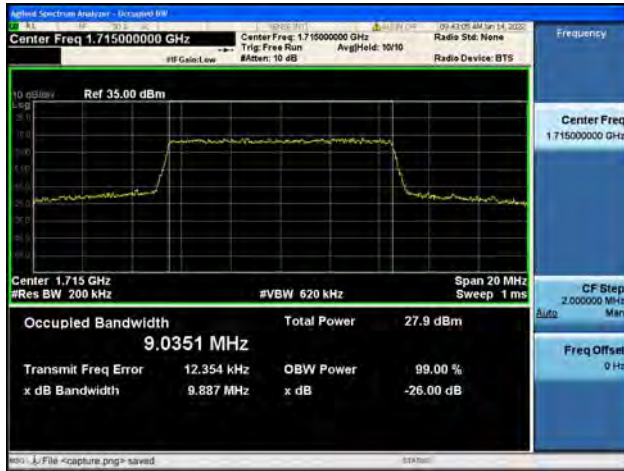


Band4 / 5MHz / High CH / 16QAM

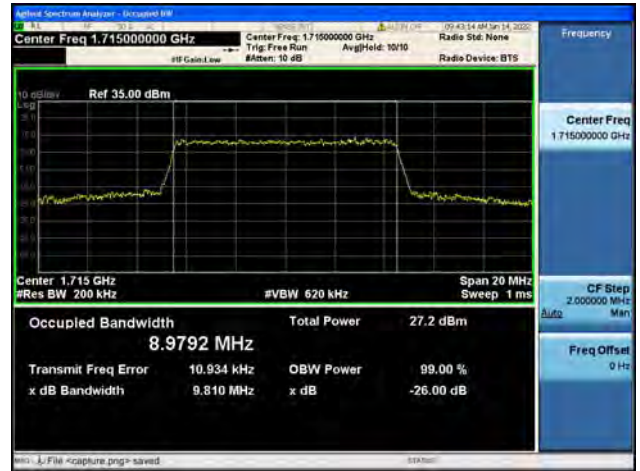




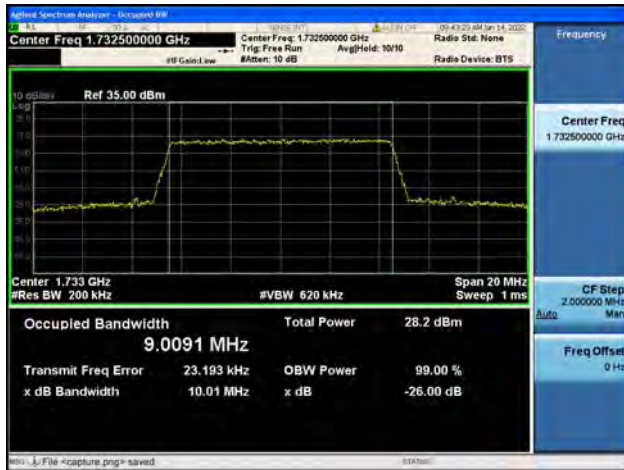
Band4 / 10MHz / Low CH / QPSK



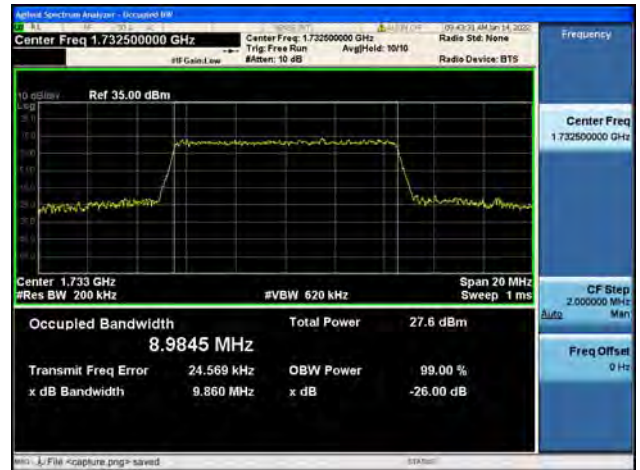
Band4 / 10MHz / Low CH / 16QAM



Band4 / 10MHz / Mid CH / QPSK



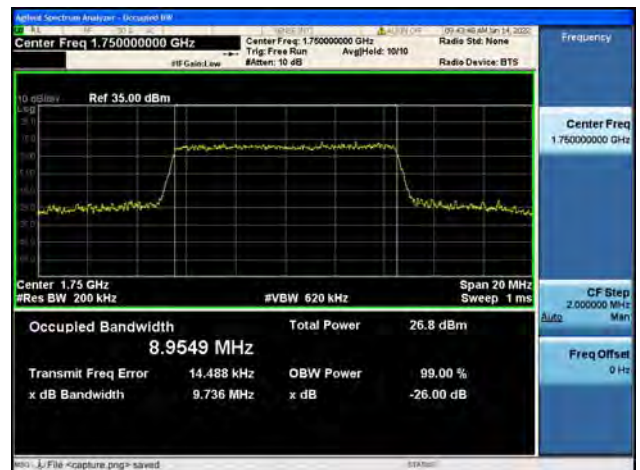
Band4 / 10MHz / Mid CH / 16QAM



Band4 / 10MHz / High CH / QPSK

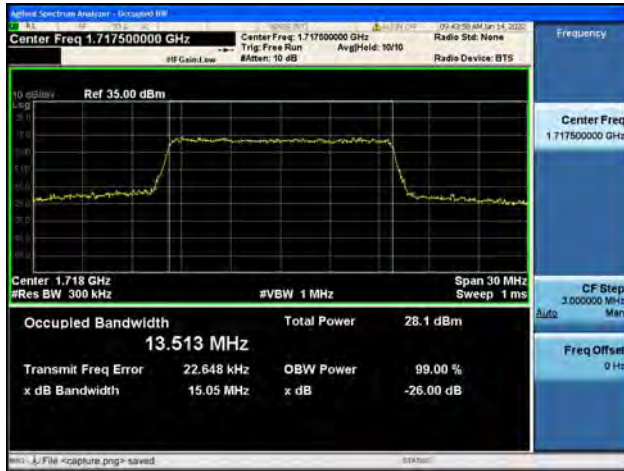


Band4 / 10MHz / High CH / 16QAM

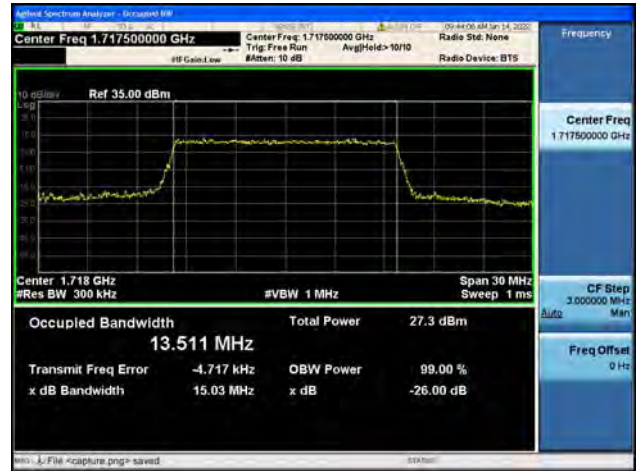




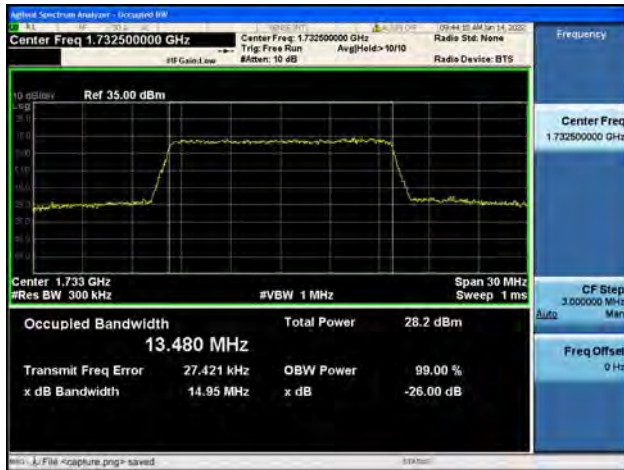
Band4 / 15MHz / Low CH / QPSK



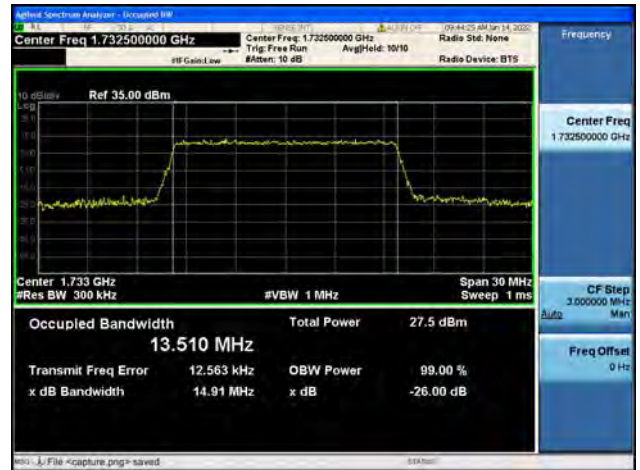
Band4 / 15MHz / Low CH / 16QAM



Band4 / 15MHz / Mid CH / QPSK



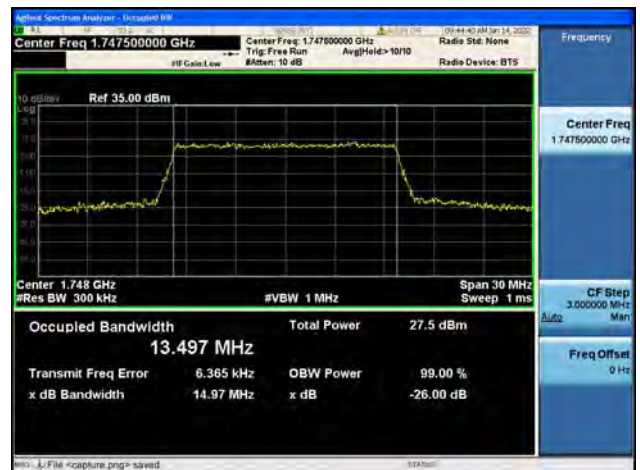
Band4 / 15MHz / Mid CH / 16QAM



Band4 / 15MHz / High CH / QPSK

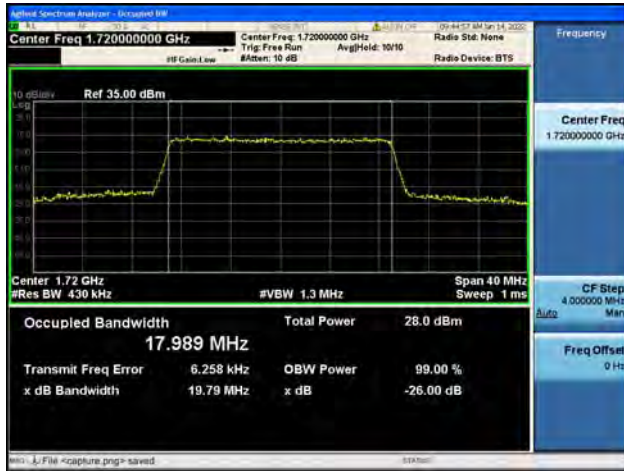


Band4 / 15MHz / High CH / 16QAM





Band4 / 20MHz / Low CH / QPSK



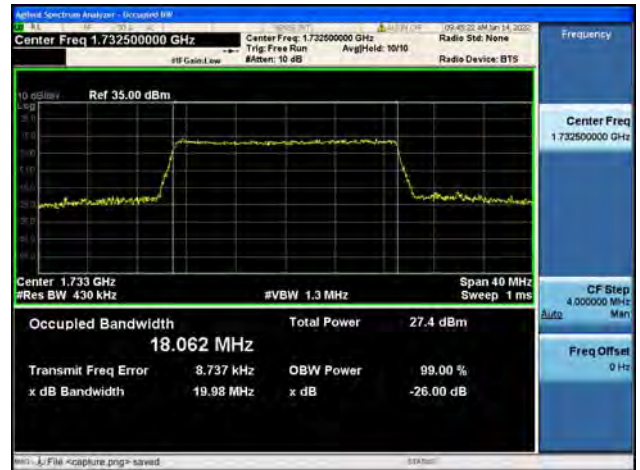
Band4 / 20MHz / Low CH / 16QAM



Band4 / 20MHz / Mid CH / QPSK



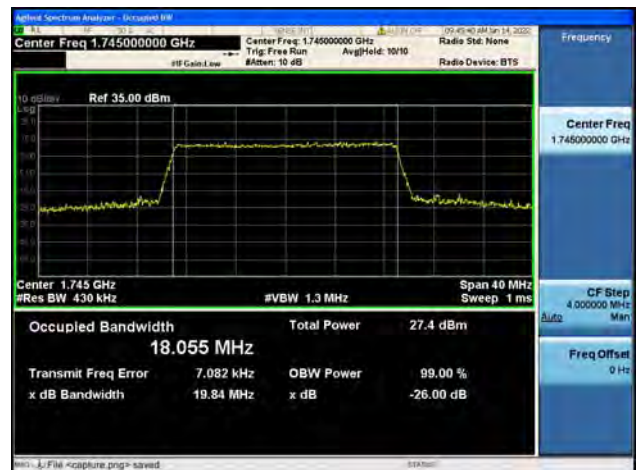
Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / High CH / QPSK

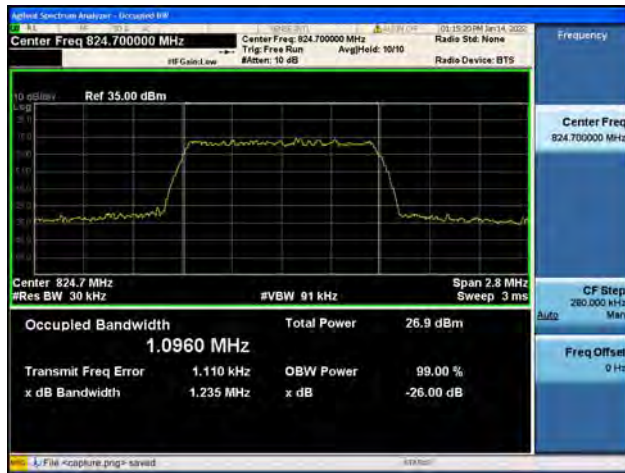


Band4 / 20MHz / High CH / 16QAM





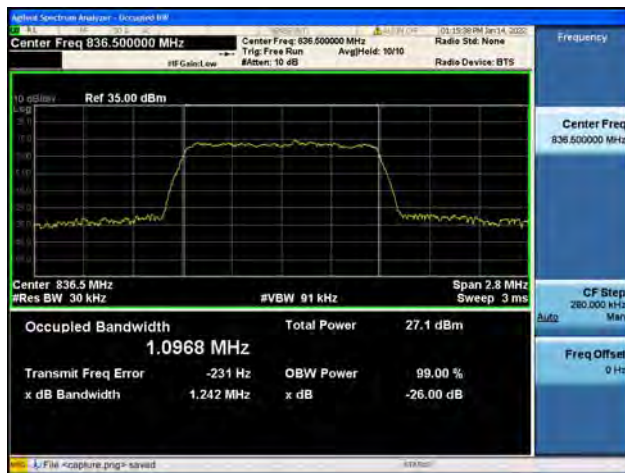
Band5 / 1.4MHz / Low CH / QPSK



Band5 / 1.4MHz / Low CH / 16QAM



Band5 / 1.4MHz / Mid CH / QPSK



Band5 / 1.4MHz / Mid CH / 16QAM



Band5 / 1.4MHz / High CH / QPSK



Band5 / 1.4MHz / High CH / 16QAM

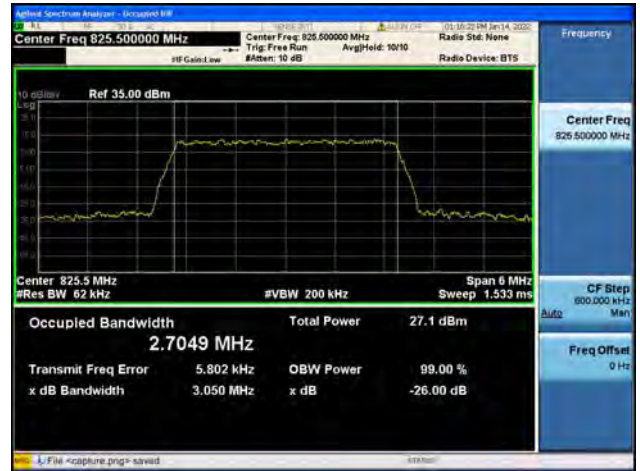




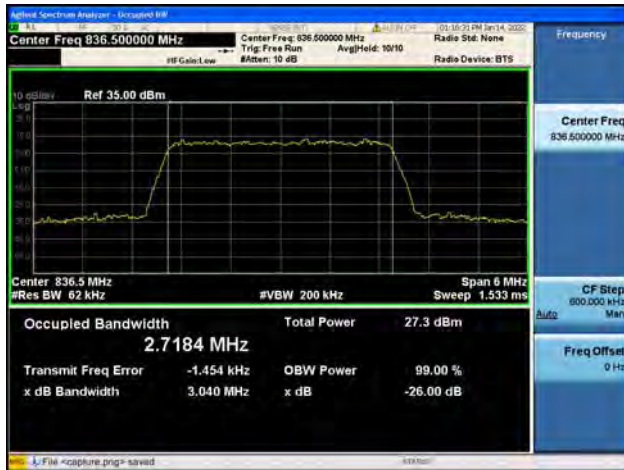
Band5 / 3MHz / Low CH / QPSK



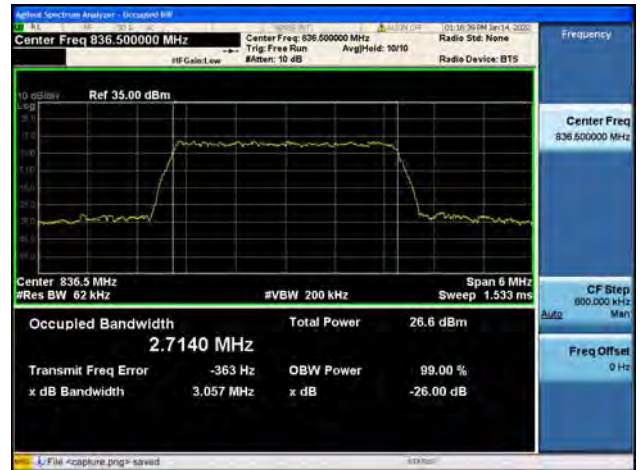
Band5 / 3MHz / Low CH / 16QAM



Band5 / 3MHz / Mid CH / QPSK



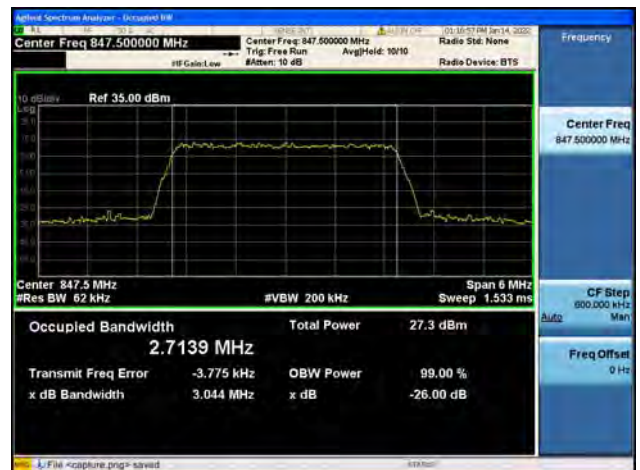
Band5 / 3MHz / Mid CH / 16QAM



Band5 / 3MHz / High CH / QPSK

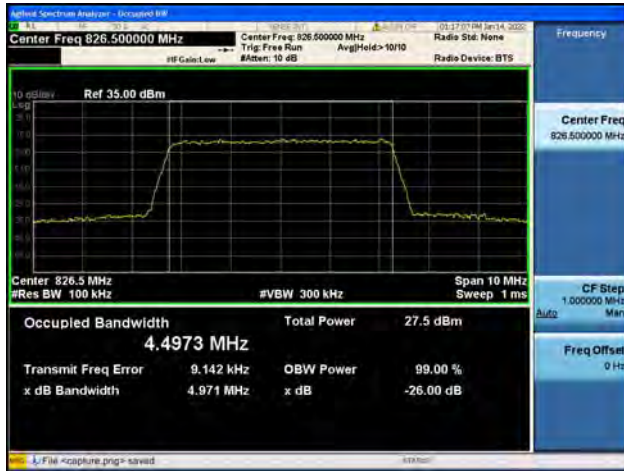


Band5 / 3MHz / High CH / 16QAM

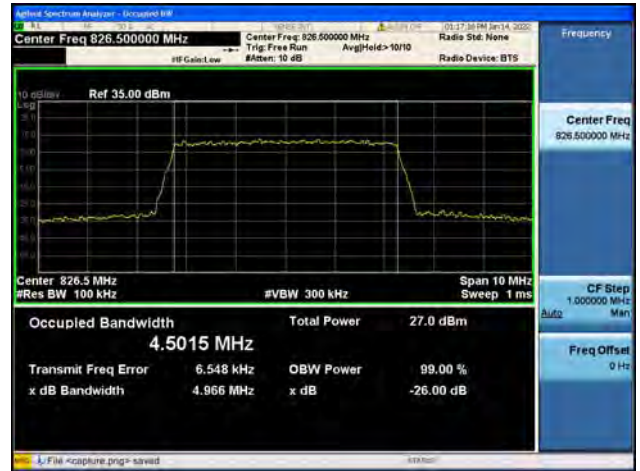




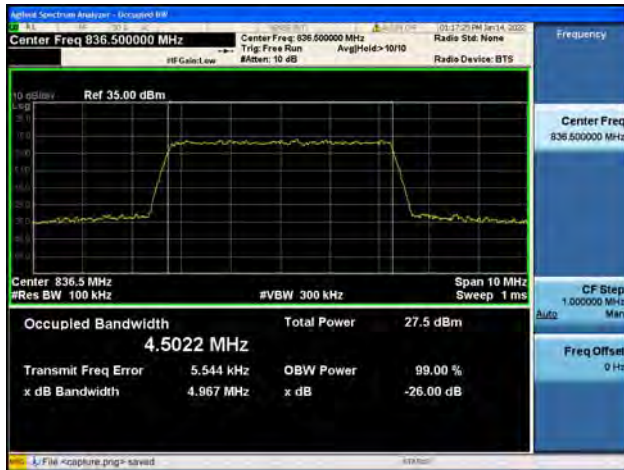
Band5 / 5MHz / Low CH / QPSK



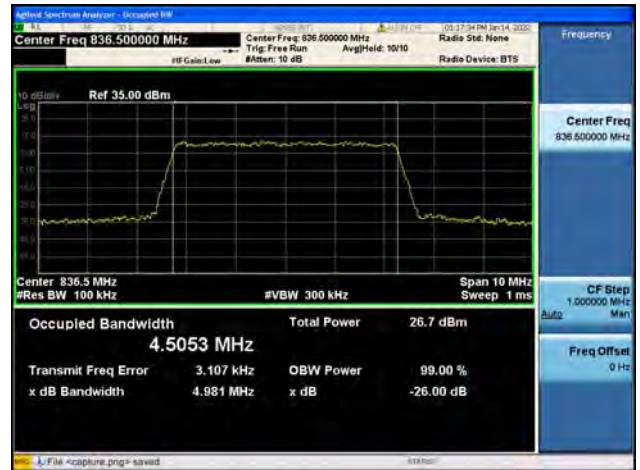
Band5 / 5MHz / Low CH / 16QAM



Band5 / 5MHz / Mid CH / QPSK



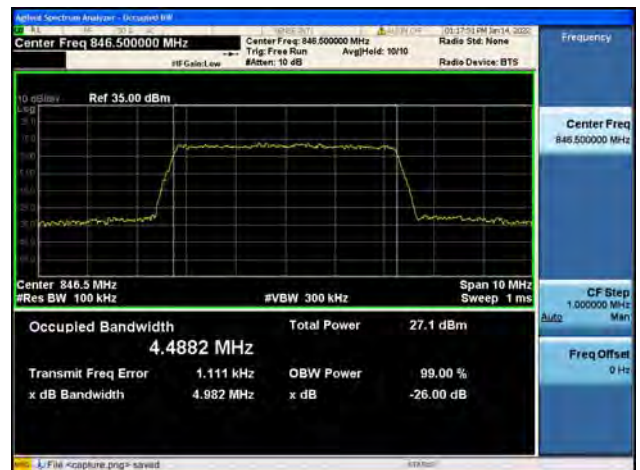
Band5 / 5MHz / Mid CH / 16QAM



Band5 / 5MHz / High CH / QPSK

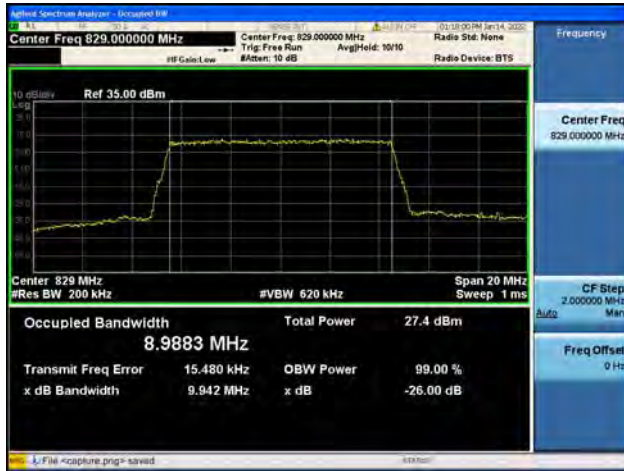


Band5 / 5MHz / High CH / 16QAM

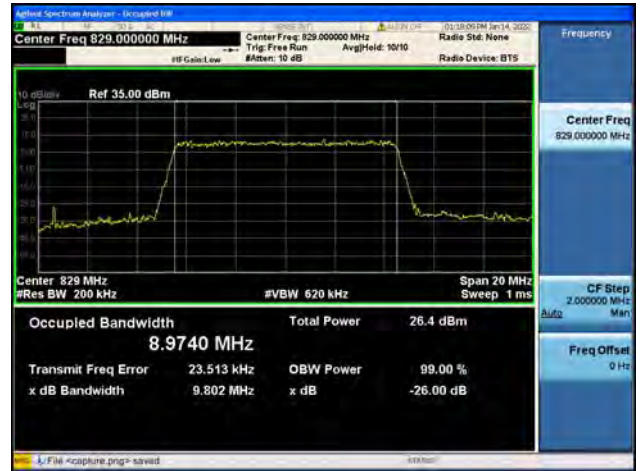




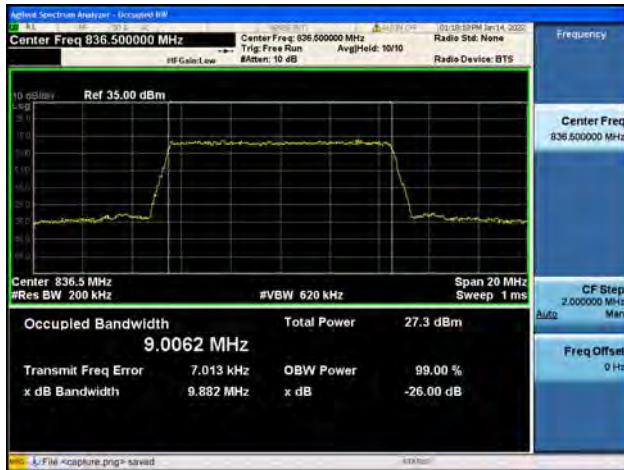
Band5 / 10MHz / Low CH / QPSK



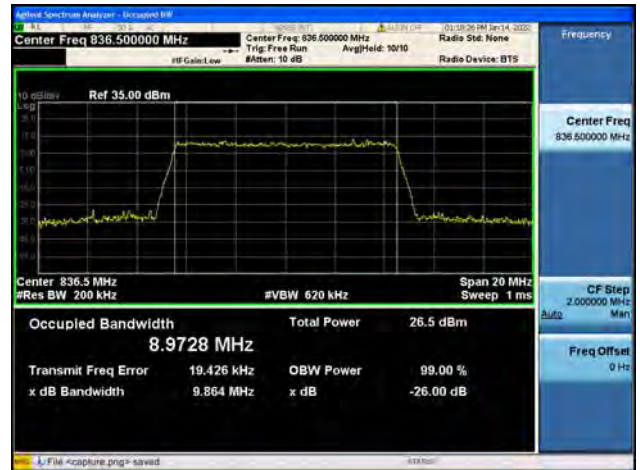
Band5 / 10MHz / Low CH / 16QAM



Band5 / 10MHz / Mid CH / QPSK



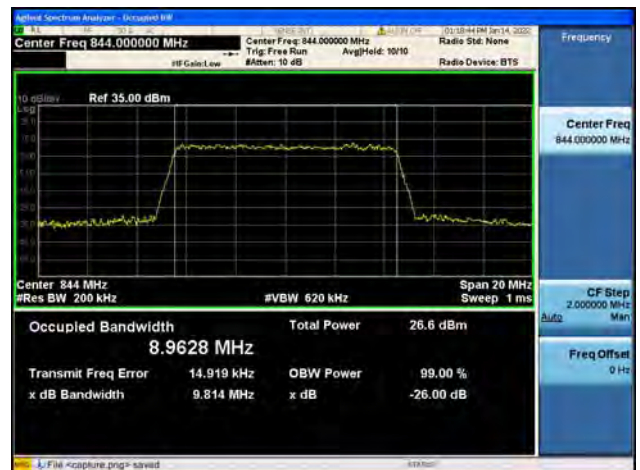
Band5 / 10MHz / Mid CH / 16QAM



Band5 / 10MHz / High CH / QPSK



Band5 / 10MHz / High CH / 16QAM

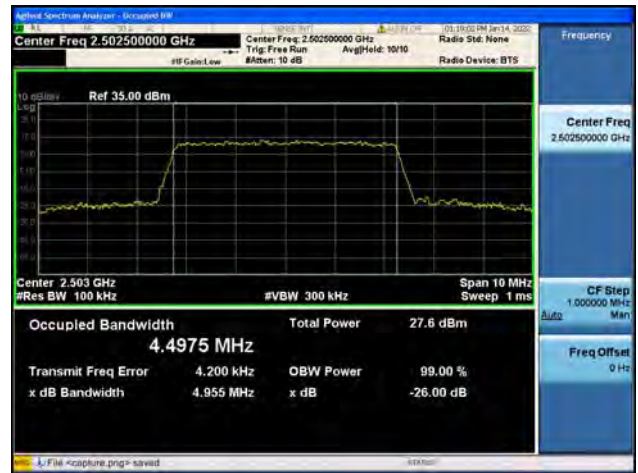




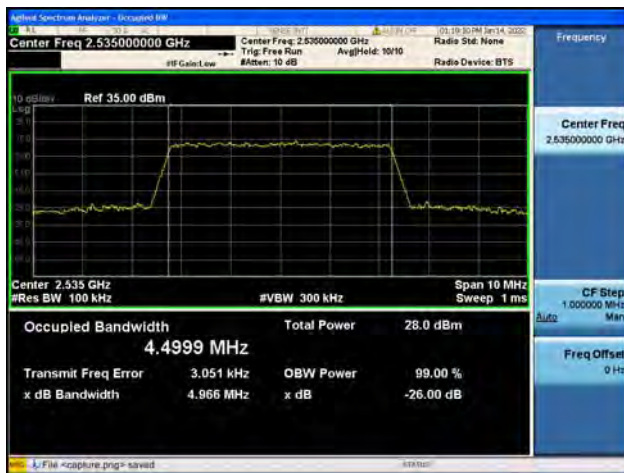
Band7 / 5MHz / Low CH / QPSK



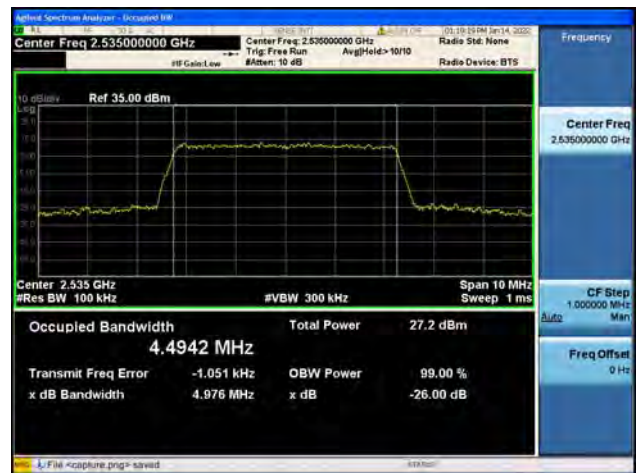
Band7 / 5MHz / Low CH / 16QAM



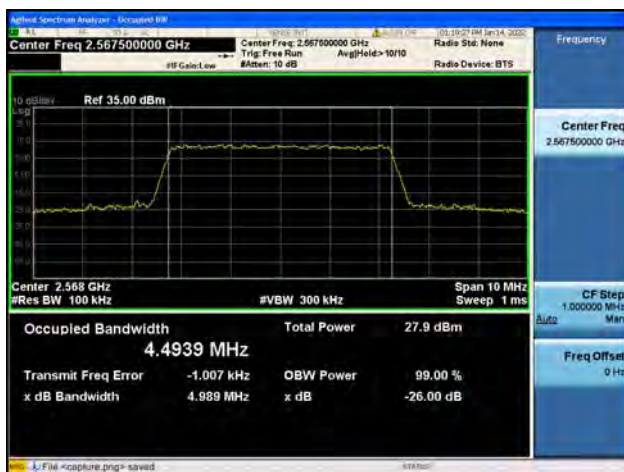
Band7 / 5MHz / Mid CH / QPSK



Band7 / 5MHz / Mid CH / 16QAM



Band7 / 5MHz / High CH / QPSK



Band7 / 5MHz / High CH / 16QAM

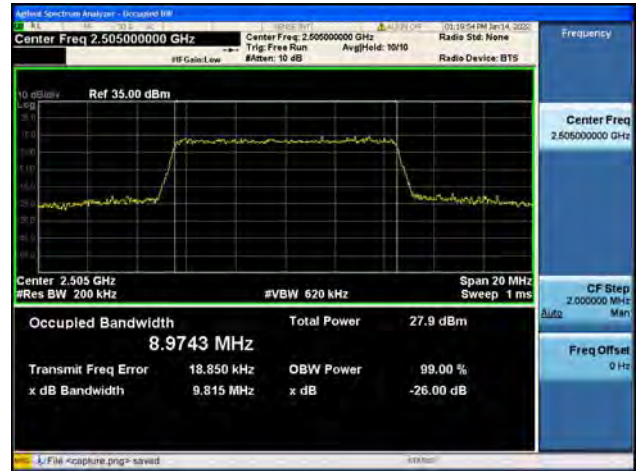




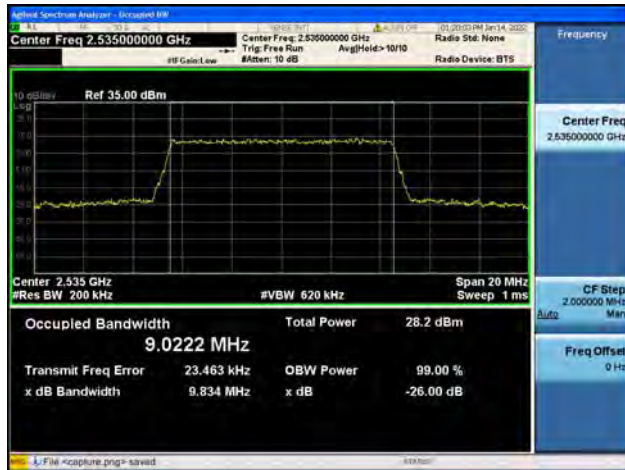
Band7 / 10MHz / Low CH / QPSK



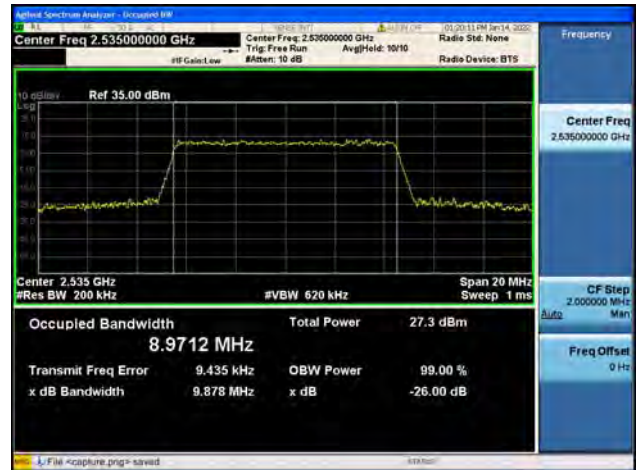
Band7 / 10MHz / Low CH / 16QAM



Band7 / 10MHz / Mid CH / QPSK



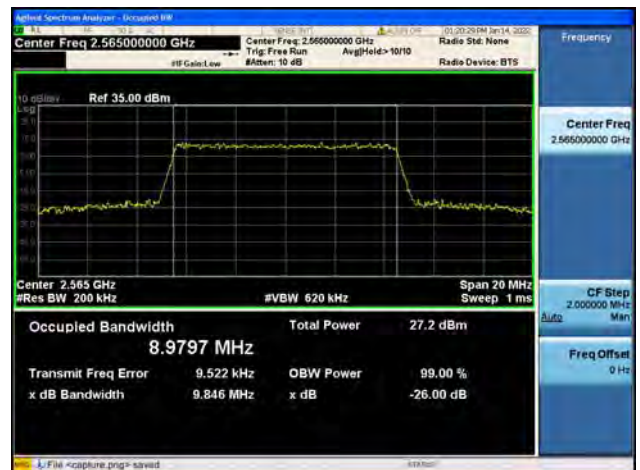
Band7 / 10MHz / Mid CH / 16QAM



Band7 / 10MHz / High CH / QPSK



Band7 / 10MHz / High CH / 16QAM

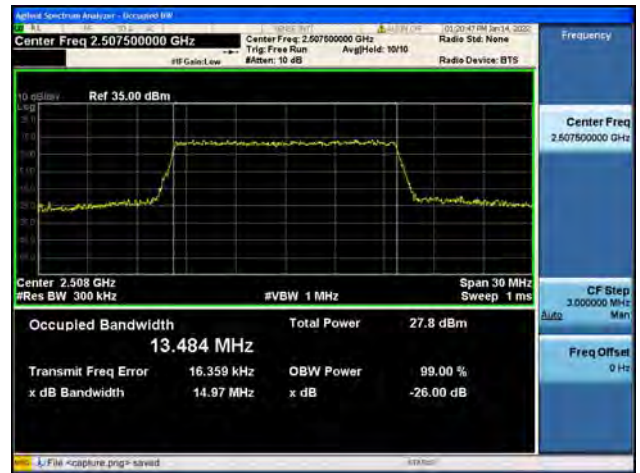




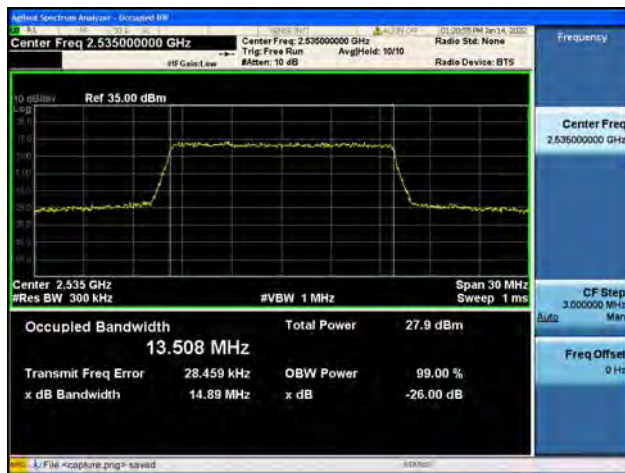
Band7 / 15MHz / Low CH / QPSK



Band7 / 15MHz / Low CH / 16QAM



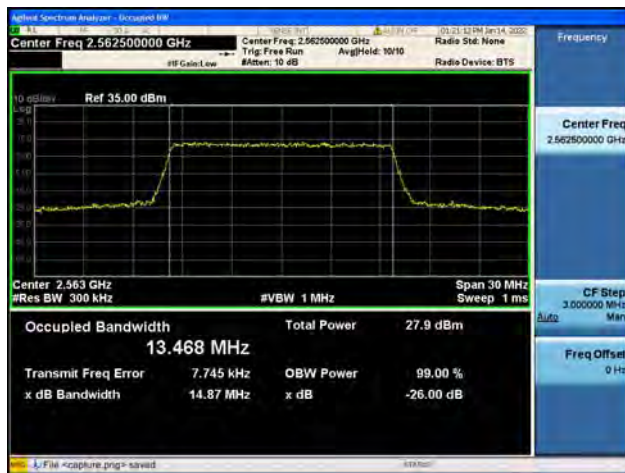
Band7 / 15MHz / Mid CH / QPSK



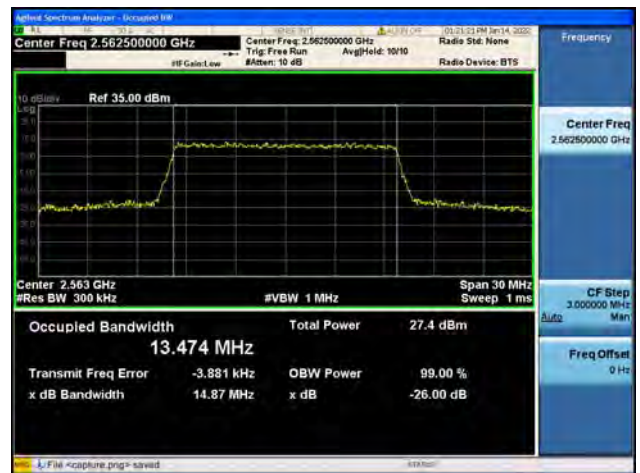
Band7 / 15MHz / Mid CH / 16QAM



Band7 / 15MHz / High CH / QPSK



Band7 / 15MHz / High CH / 16QAM





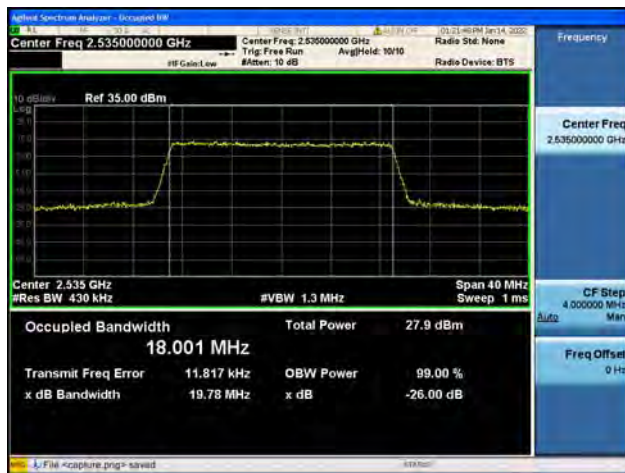
Band7 / 20MHz / Low CH / QPSK



Band7 / 20MHz / Low CH / 16QAM



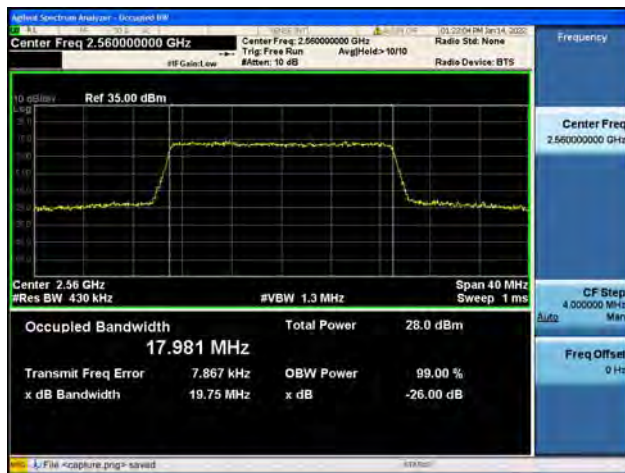
Band7 / 20MHz / Mid CH / QPSK



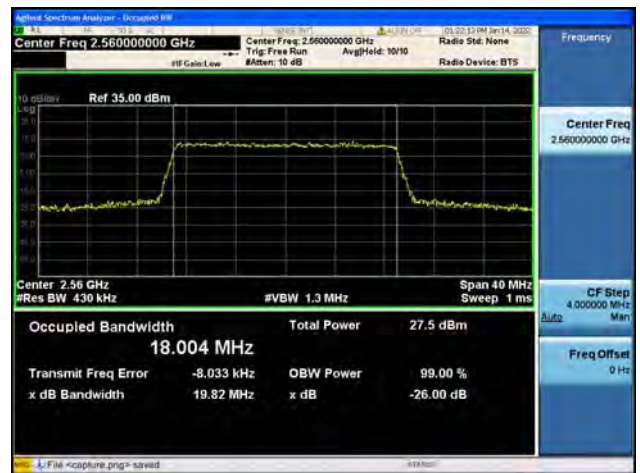
Band7 / 20MHz / Mid CH / 16QAM



Band7 / 20MHz / High CH / QPSK

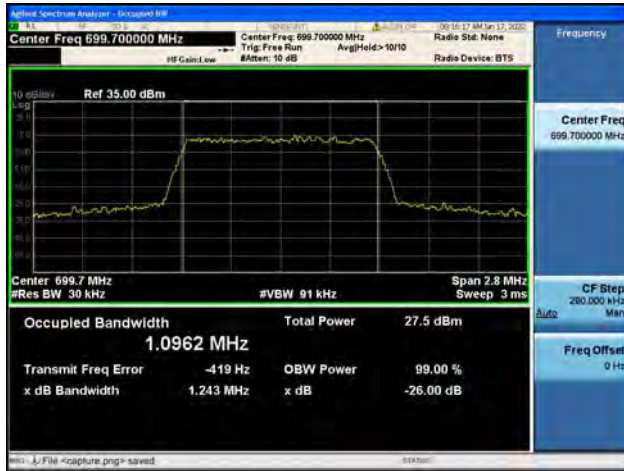


Band7 / 20MHz / High CH / 16QAM





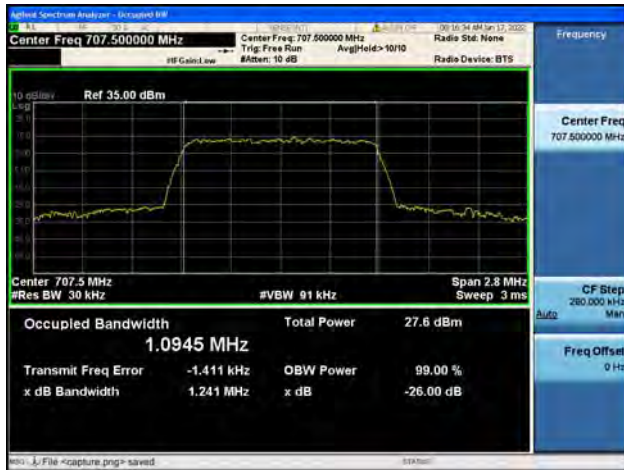
Band12 / 1.4MHz / Low CH / QPSK



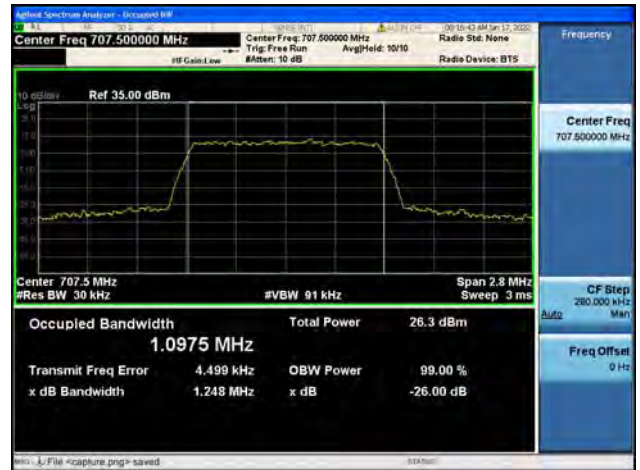
Band12 / 1.4MHz / Low CH / 16QAM



Band12 / 1.4MHz / Mid CH / QPSK



Band12 / 1.4MHz / Mid CH / 16QAM



Band12 / 1.4MHz / High CH / QPSK



Band12 / 1.4MHz / High CH / 16QAM





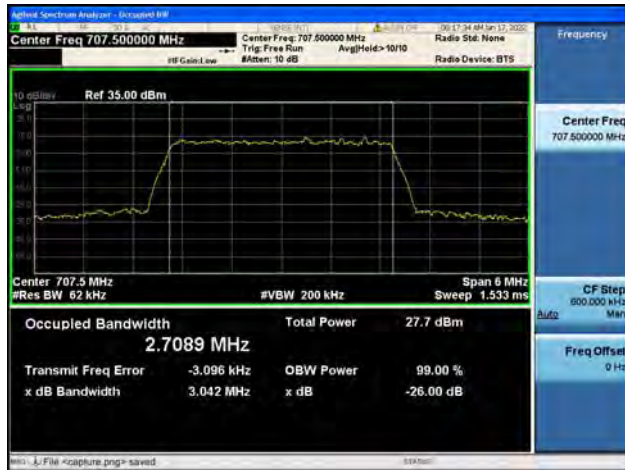
Band12 / 3MHz / Low CH / QPSK



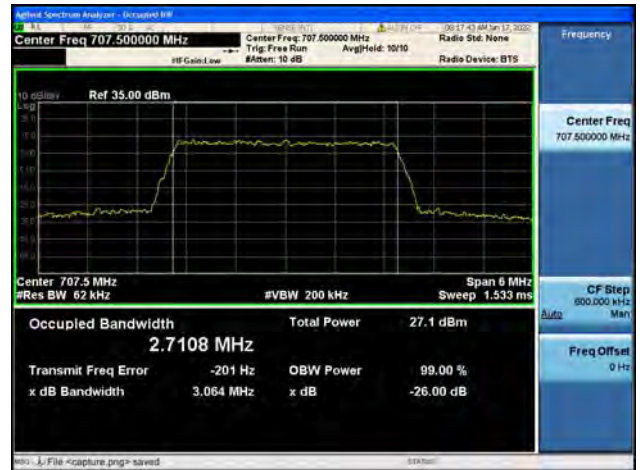
Band12 / 3MHz / Low CH / 16QAM



Band12 / 3MHz / Mid CH / QPSK



Band12 / 3MHz / Mid CH / 16QAM



Band12 / 3MHz / High CH / QPSK

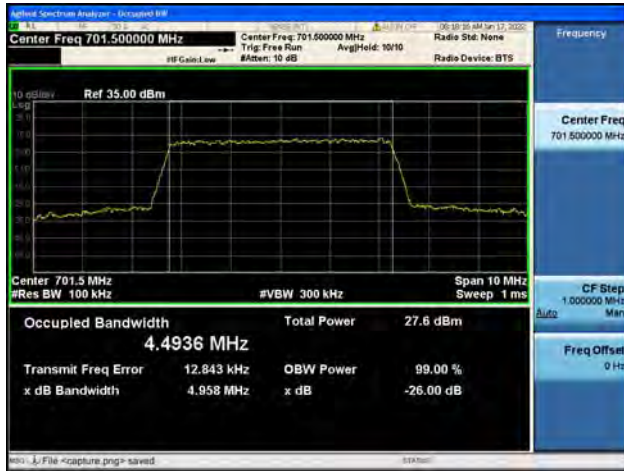


Band12 / 3MHz / High CH / 16QAM





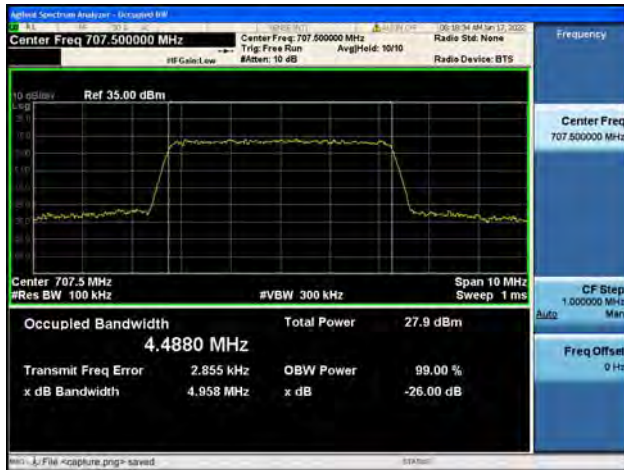
Band12 / 5MHz / Low CH / QPSK



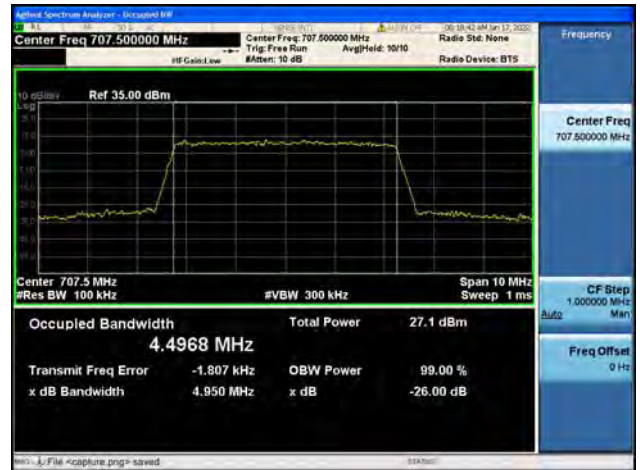
Band12 / 5MHz / Low CH / 16QAM



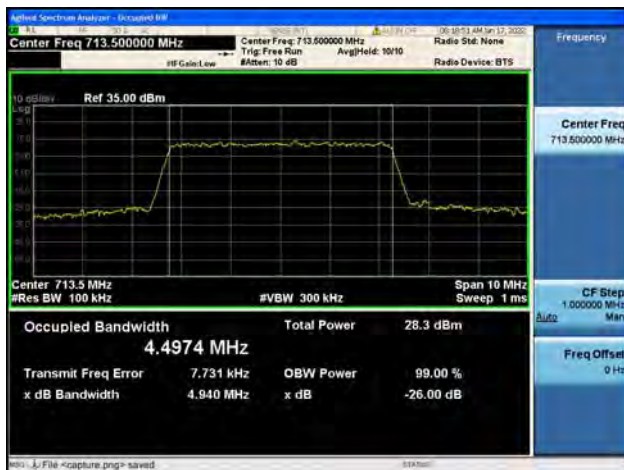
Band12 / 5MHz / Mid CH / QPSK



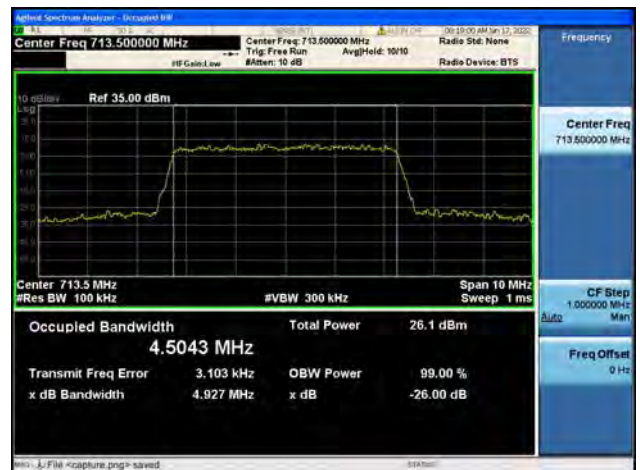
Band12 / 5MHz / Mid CH / 16QAM



Band12 / 5MHz / High CH / QPSK



Band12 / 5MHz / High CH / 16QAM

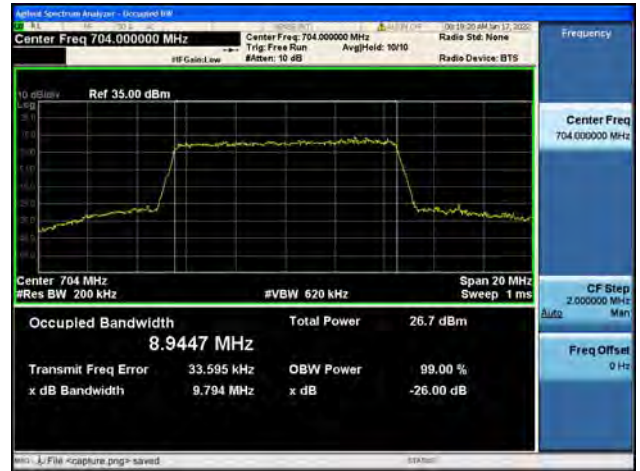




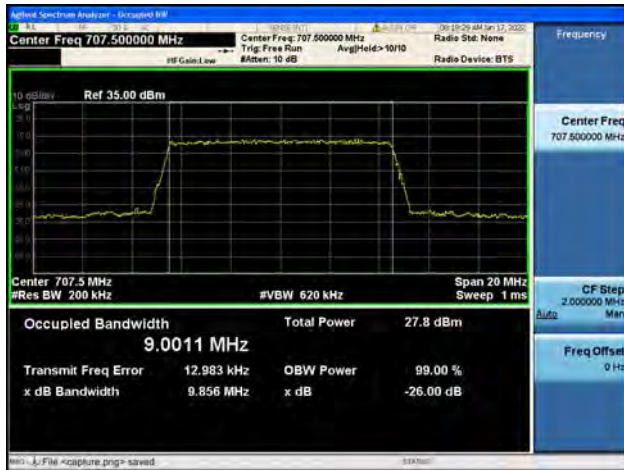
Band12 / 10MHz / Low CH / QPSK



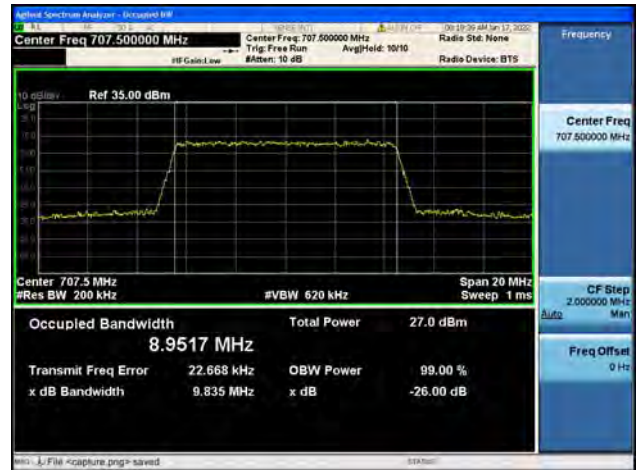
Band12 / 10MHz / Low CH / 16QAM



Band12 / 10MHz / Mid CH / QPSK



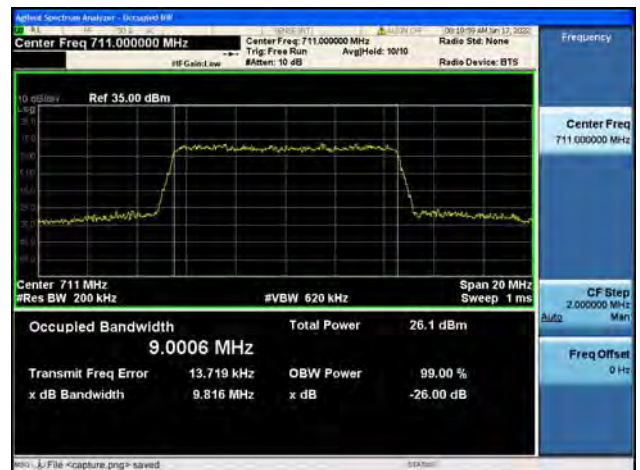
Band12 / 10MHz / Mid CH / 16QAM



Band12 / 10MHz / High CH / QPSK

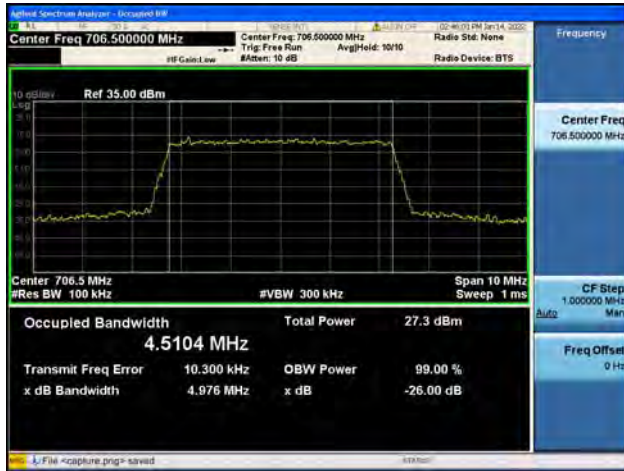


Band12 / 10MHz / High CH / 16QAM

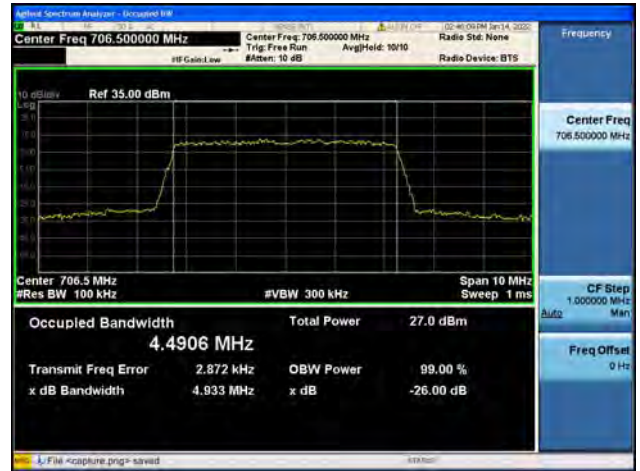




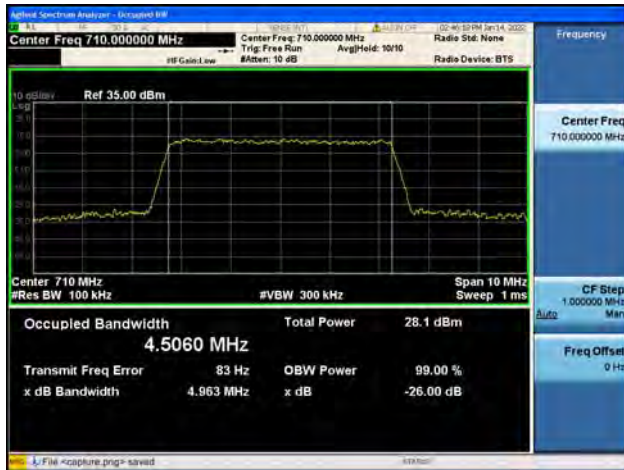
Band17 / 5MHz / Low CH / QPSK



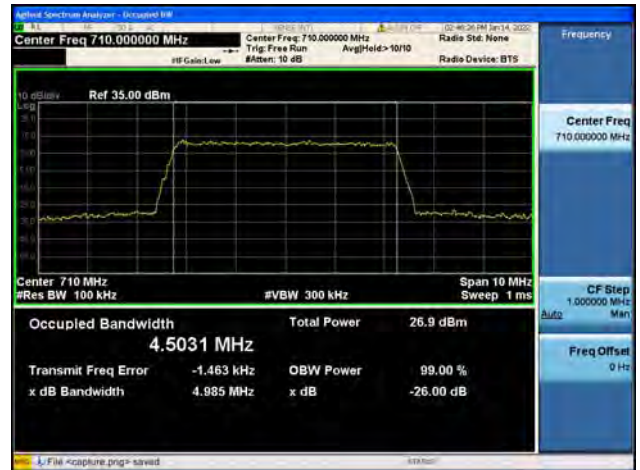
Band17 / 5MHz / Low CH / 16QAM



Band17 / 5MHz / Mid CH / QPSK



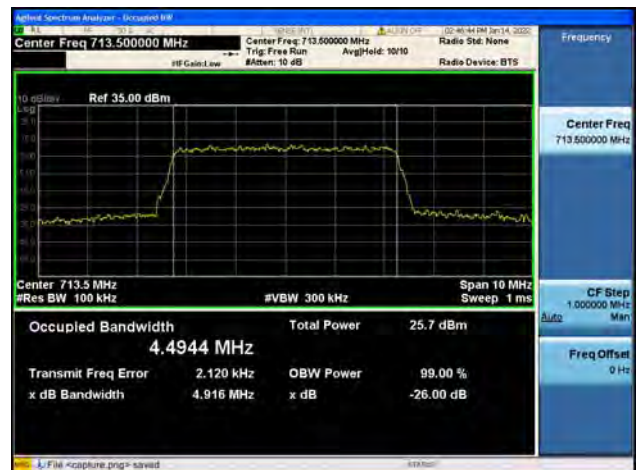
Band17 / 5MHz / Mid CH / 16QAM



Band17 / 5MHz / High CH / QPSK

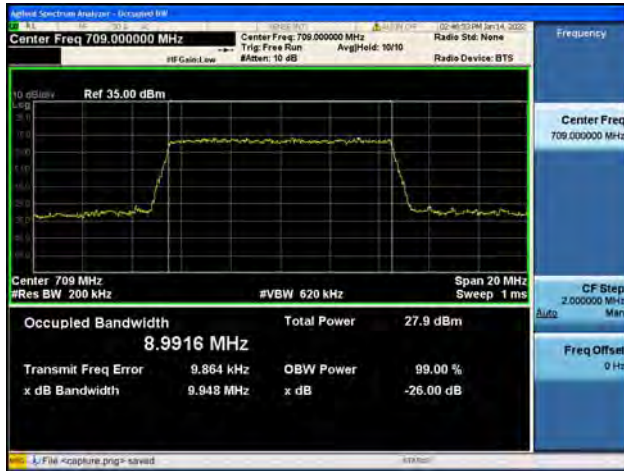


Band17 / 5MHz / High CH / 16QAM





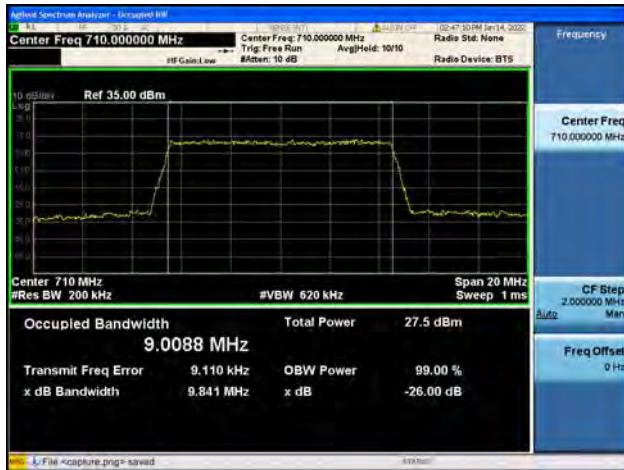
Band17 / 10MHz / Low CH / QPSK



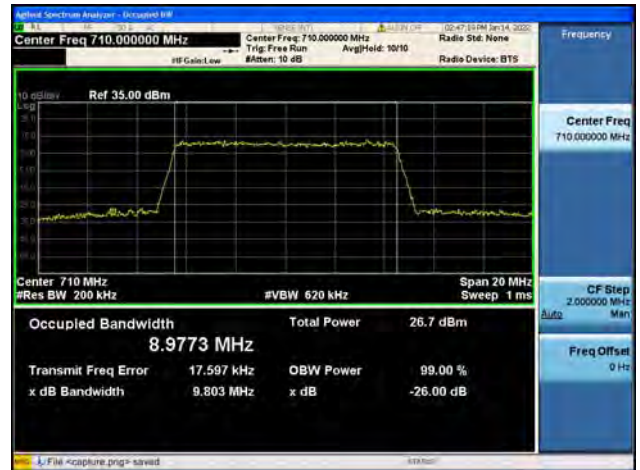
Band17 / 10MHz / Low CH / 16QAM



Band17 / 10MHz / Mid CH / QPSK



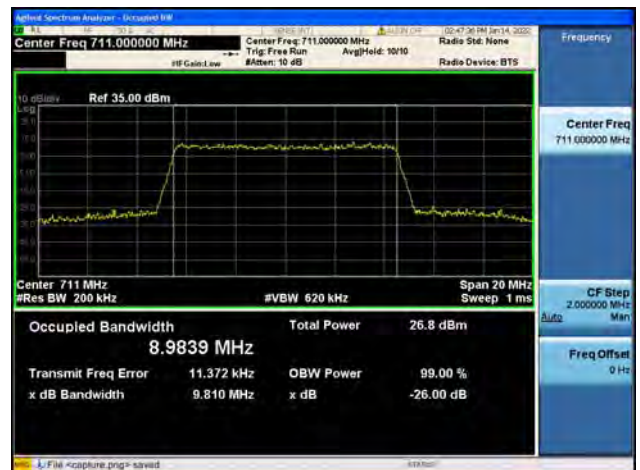
Band17 / 10MHz / Mid CH / 16QAM



Band17 / 10MHz / High CH / QPSK

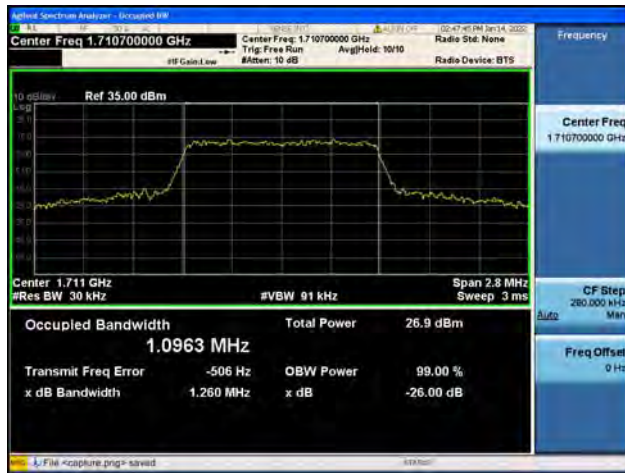


Band17 / 10MHz / High CH / 16QAM

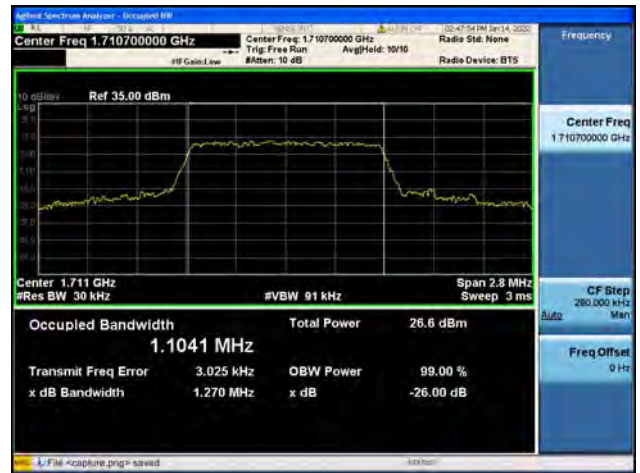




Band66 / 1.4MHz / Low CH / QPSK



Band66 / 1.4MHz / Low CH / 16QAM



Band66 / 1.4MHz / Mid CH / QPSK



Band66 / 1.4MHz / Mid CH / 16QAM



Band66 / 1.4MHz / High CH / QPSK

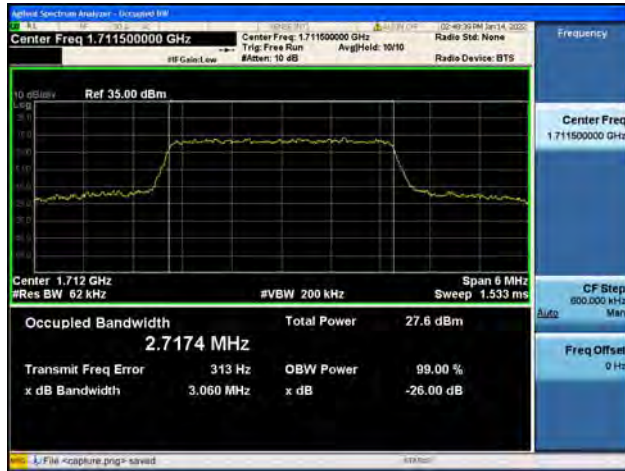


Band66 / 1.4MHz / High CH / 16QAM





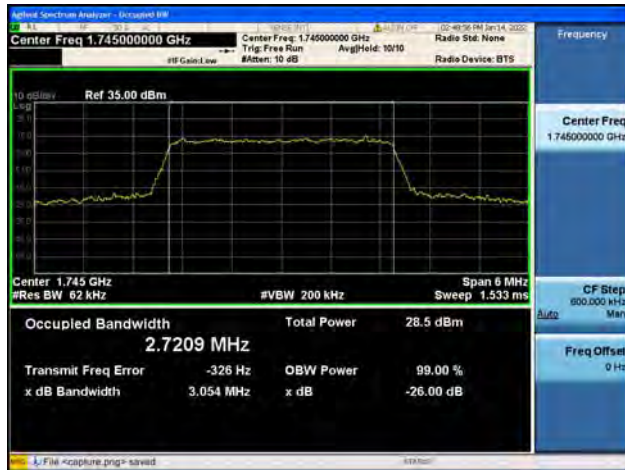
Band66 / 3MHz / Low CH / QPSK



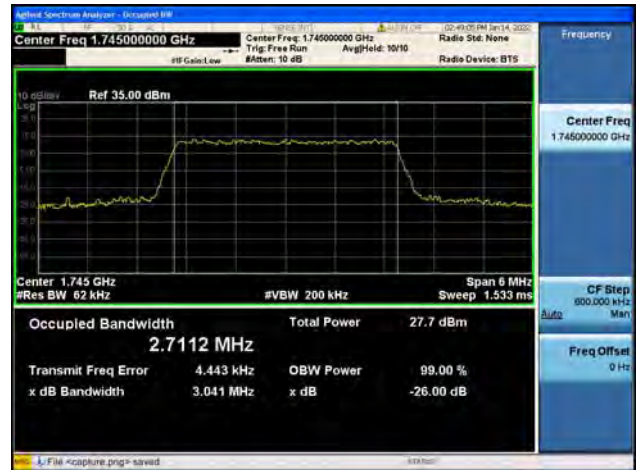
Band66 / 3MHz / Low CH / 16QAM



Band66 / 3MHz / Mid CH / QPSK



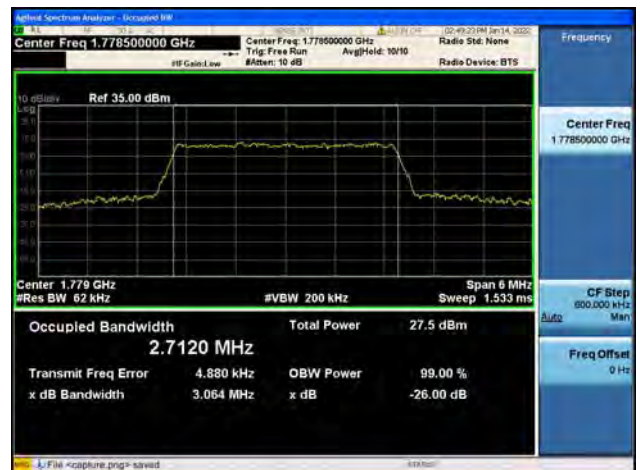
Band66 / 3MHz / Mid CH / 16QAM



Band66 / 3MHz / High CH / QPSK

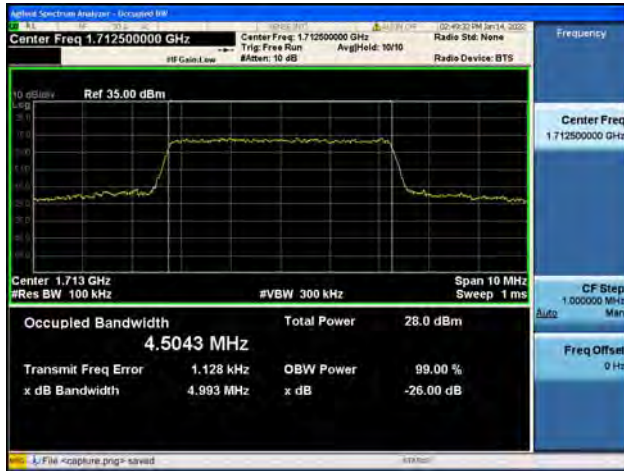


Band66 / 3MHz / High CH / 16QAM

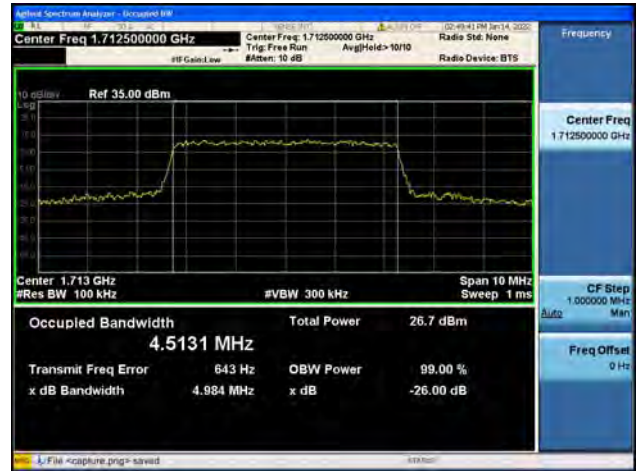




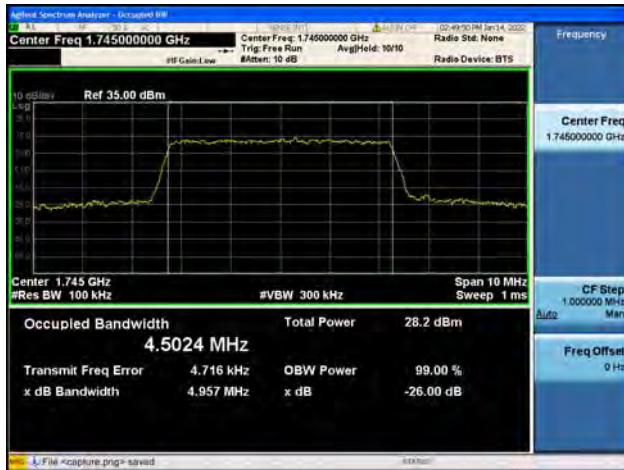
Band66 / 5MHz / Low CH / QPSK



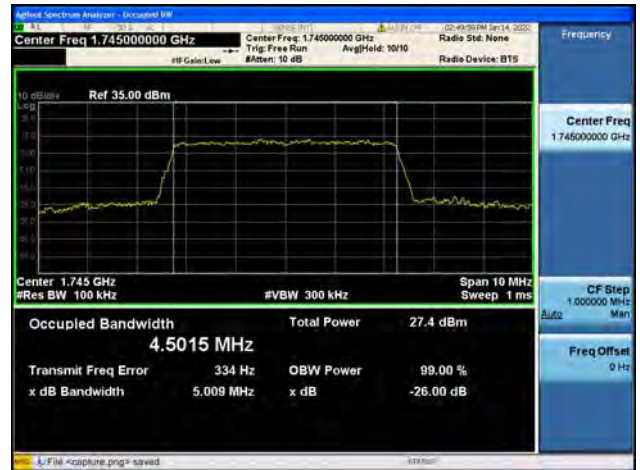
Band66 / 5MHz / Low CH / 16QAM



Band66 / 5MHz / Mid CH / QPSK



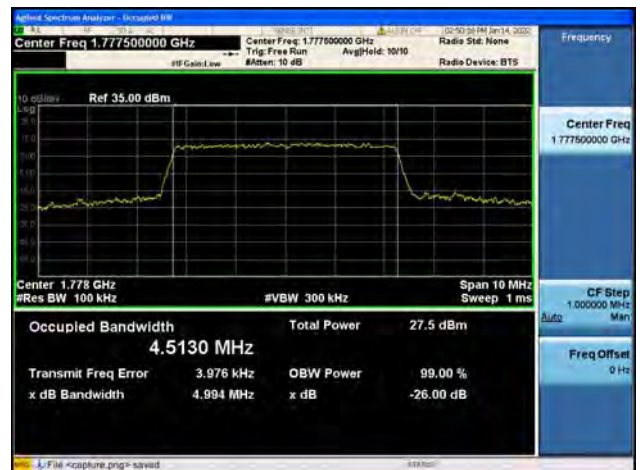
Band66 / 5MHz / Mid CH / 16QAM



Band66 / 5MHz / High CH / QPSK

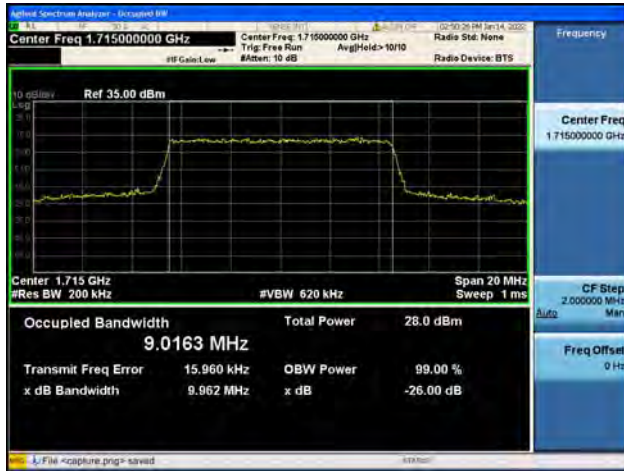


Band66 / 5MHz / High CH / 16QAM





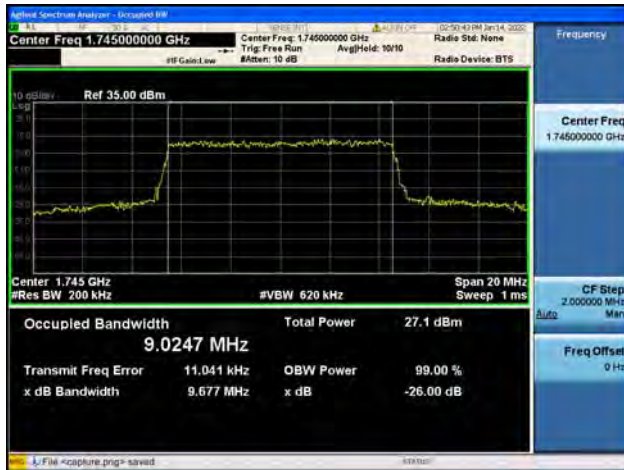
Band66 / 10MHz / Low CH / QPSK



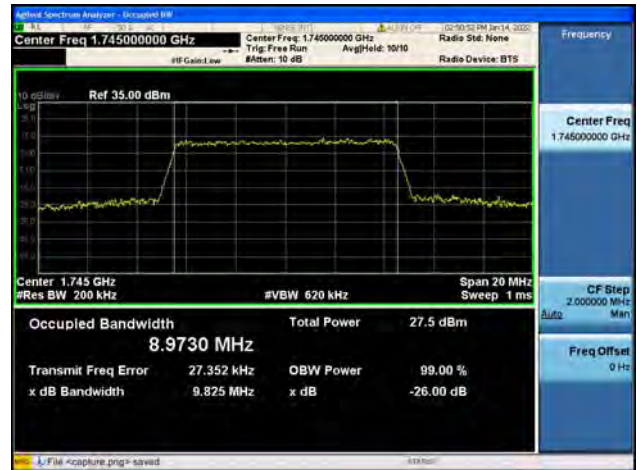
Band66 / 10MHz / Low CH / 16QAM



Band66 / 10MHz / Mid CH / QPSK



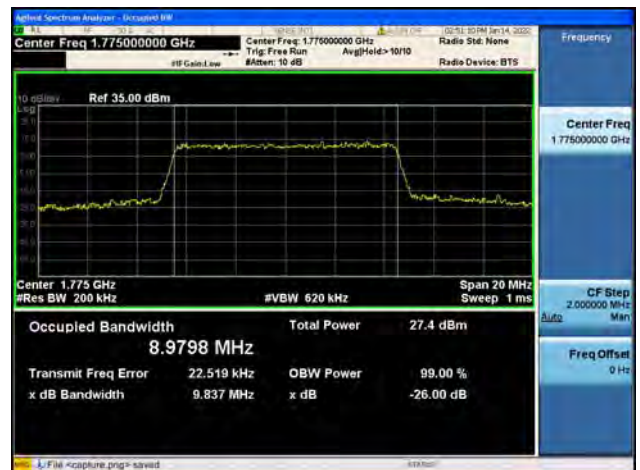
Band66 / 10MHz / Mid CH / 16QAM



Band66 / 10MHz / High CH / QPSK

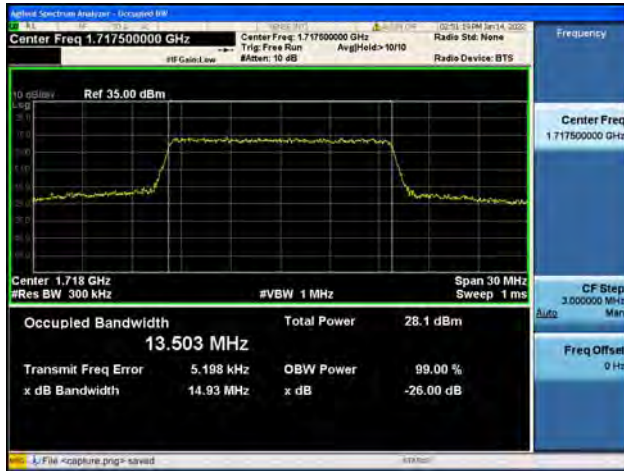


Band66 / 10MHz / High CH / 16QAM





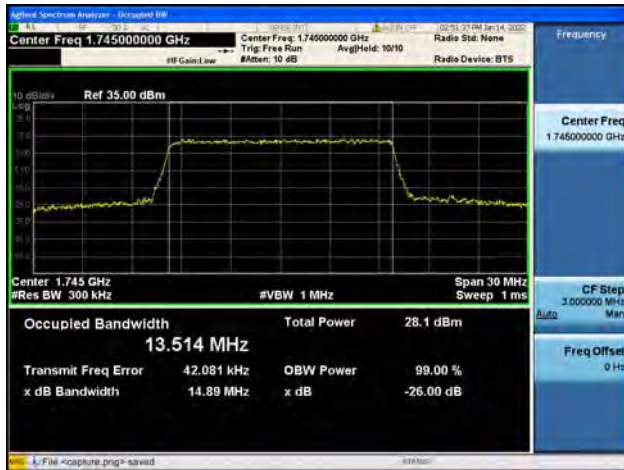
Band66 / 15MHz / Low CH / QPSK



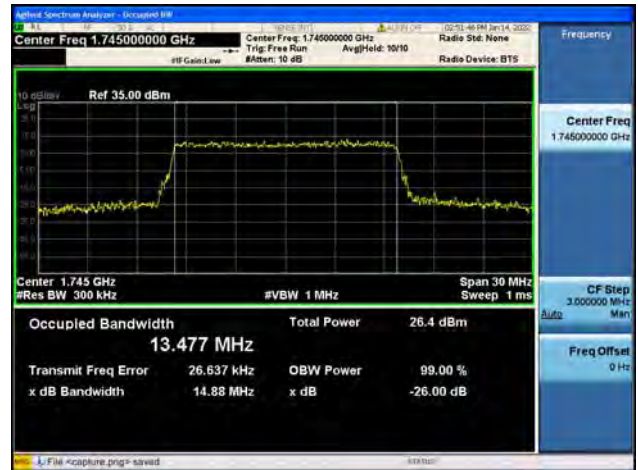
Band66 / 15MHz / Low CH / 16QAM



Band66 / 15MHz / Mid CH / QPSK



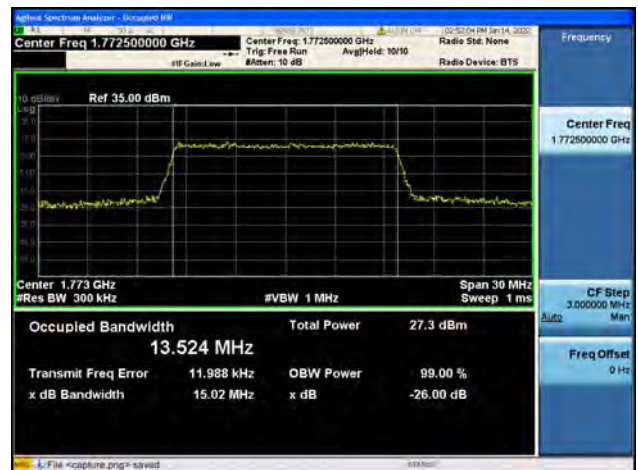
Band66 / 15MHz / Mid CH / 16QAM



Band66 / 15MHz / High CH / QPSK

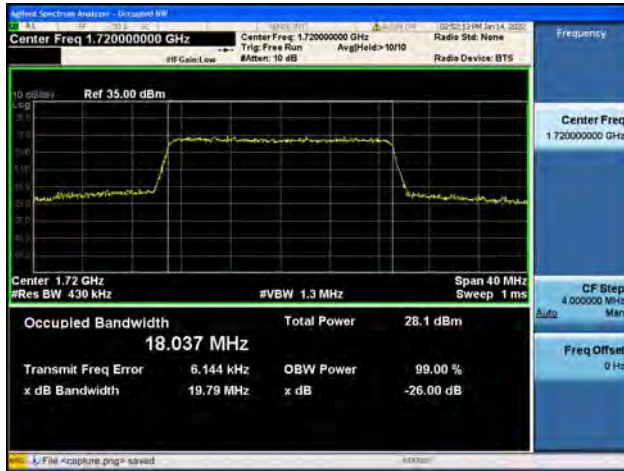


Band66 / 15MHz / High CH / 16QAM

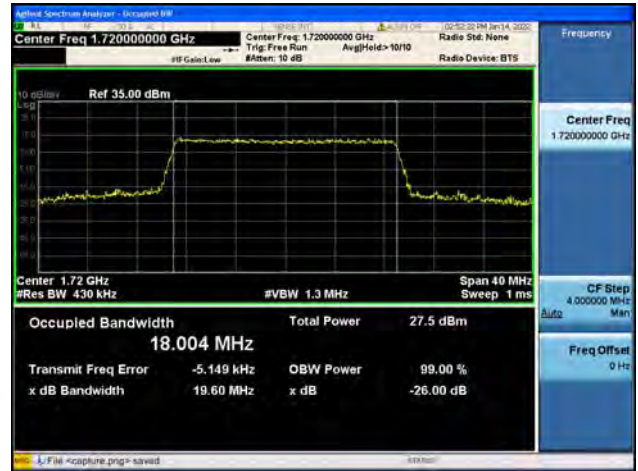




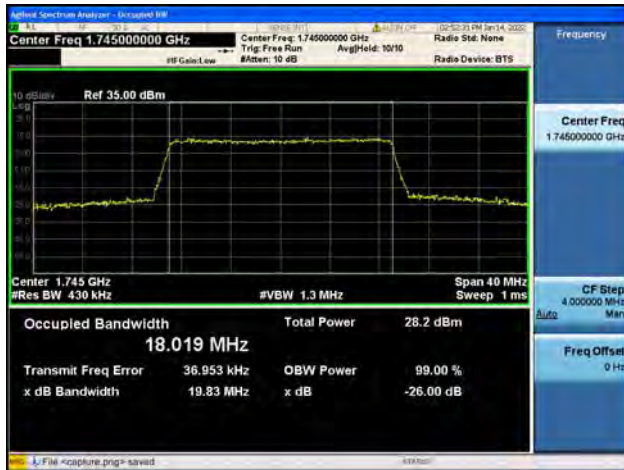
Band66 / 20MHz / Low CH / QPSK



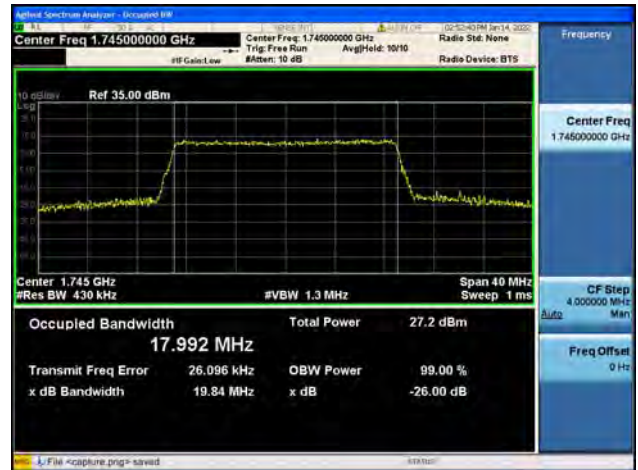
Band66 / 20MHz / Low CH / 16QAM



Band66 / 20MHz / Mid CH / QPSK



Band66 / 20MHz / Mid CH / 16QAM



Band66 / 20MHz / High CH / QPSK



Band66 / 20MHz / High CH / 16QAM



2.3. Frequency Stability

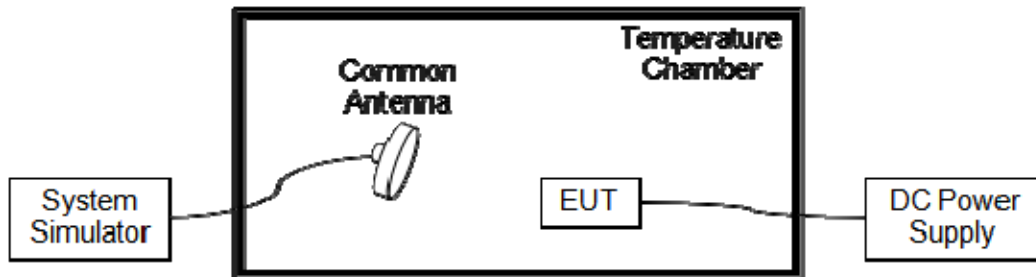
2.3.1. Requirement

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

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

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

2.3.2. Test Description



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

2.3.3. Test Procedure

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



2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.85V, 4.40V and 3.00V, 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	3.80	+20(Ref)	18	0.010	PASS
Normal		-10	-33	-0.018	
Normal		0	41	0.022	
Normal		+10	23	0.012	
Normal		+20	38	0.020	
Normal		+30	57	0.030	
Normal		+40	-25	-0.013	
Normal		+50	52	0.028	
Normal		+55	-21	-0.011	
High	4.40	+20	50	0.027	
BATT.ENDPOINT	3.00	+20	37	0.020	

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	3.80	+20(Ref)	30	0.017	PASS
Normal		-10	-35	-0.020	
Normal		0	-48	-0.028	
Normal		+10	42	0.024	
Normal		+20	15	0.009	
Normal		+30	31	0.018	
Normal		+40	25	0.014	
Normal		+50	-14	-0.008	
Normal		+55	24	0.014	
High	4.40	+20	-20	-0.012	
BATT.ENDPOINT	3.00	+20	-22	-0.013	



LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	39	0.047	PASS
Normal		-10	-21	-0.025	
Normal		0	53	0.063	
Normal		+10	-44	-0.053	
Normal		+20	18	0.022	
Normal		+30	37	0.044	
Normal		+40	26	0.031	
Normal		+50	57	0.068	
Normal		+55	53	0.063	
High	4.40	+20	22	0.026	
BATT.ENDPOINT	3.00	+20	45	0.054	

LTE Band 7, QPSK, Channel 21100, Frequency 2535MHz Limit= Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	43	0.017	PASS
Normal		-10	-23	-0.009	
Normal		0	51	0.020	
Normal		+10	23	0.009	
Normal		+20	19	0.007	
Normal		+30	44	0.017	
Normal		+40	29	0.011	
Normal		+50	18	0.007	
Normal		+55	-36	-0.014	
High	4.40	+20	13	0.005	
BATT.ENDPOINT	3.00	+20	27	0.011	



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	3.80	+20(Ref)	31	0.044	PASS
Normal		-10	50	0.071	
Normal		0	-33	-0.047	
Normal		+10	-47	-0.066	
Normal		+20	-52	-0.073	
Normal		+30	-43	-0.061	
Normal		+40	-18	-0.025	
Normal		+50	-57	-0.081	
Normal		+55	-18	-0.025	
High	4.40	+20	-53	-0.075	
BATT.ENDPOINT	3.00	+20	-54	-0.076	

LTE Band 17, QPSK, Channel 23790, Frequency 710MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	20	0.028	PASS
Normal		-10	48	0.068	
Normal		0	56	0.079	
Normal		+10	-28	-0.039	
Normal		+20	44	0.062	
Normal		+30	-17	-0.024	
Normal		+40	32	0.045	
Normal		+50	39	0.055	
High	4.40	+55	-33	-0.046	
BATT.ENDPOINT	3.00	+20	-33	-0.046	



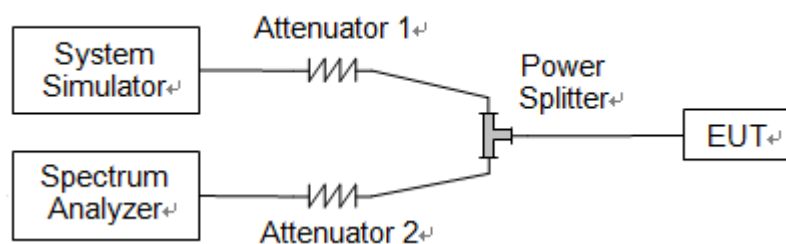
LTE Band 66, QPSK, Channel 132322, Frequency 1745.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	41	0.023	PASS
Normal		-10	21	0.012	
Normal		0	13	0.007	
Normal		+10	27	0.015	
Normal		+20	24	0.014	
Normal		+30	-14	-0.008	
Normal		+40	33	0.019	
Normal		+50	33	0.019	
Normal		+55	-14	-0.008	
High	4.40	+20	16	0.009	
BATT.ENDPOINT	3.00	+20	-36	-0.021	

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	5.23	<=13	PASS
	Low	16QAM	6.20	<=13	PASS
	Mid	QPSK	5.35	<=13	PASS
	Mid	16QAM	6.19	<=13	PASS
	High	QPSK	4.93	<=13	PASS
	High	16QAM	5.80	<=13	PASS
3	Low	QPSK	5.41	<=13	PASS
	Low	16QAM	6.09	<=13	PASS
	Mid	QPSK	5.36	<=13	PASS
	Mid	16QAM	6.14	<=13	PASS
	High	QPSK	4.68	<=13	PASS
	High	16QAM	5.73	<=13	PASS
5	Low	QPSK	5.42	<=13	PASS
	Low	16QAM	6.08	<=13	PASS
	Mid	QPSK	5.43	<=13	PASS
	Mid	16QAM	5.90	<=13	PASS
	High	QPSK	5.18	<=13	PASS
	High	16QAM	5.83	<=13	PASS
10	Low	QPSK	5.62	<=13	PASS
	Low	16QAM	6.07	<=13	PASS
	Mid	QPSK	5.39	<=13	PASS
	Mid	16QAM	6.18	<=13	PASS
	High	QPSK	5.34	<=13	PASS
	High	16QAM	5.93	<=13	PASS
15	Low	QPSK	5.41	<=13	PASS
	Low	16QAM	6.07	<=13	PASS
	Mid	QPSK	5.37	<=13	PASS
	Mid	16QAM	6.01	<=13	PASS
	High	QPSK	5.11	<=13	PASS
	High	16QAM	5.73	<=13	PASS
20	Low	QPSK	5.45	<=13	PASS
	Low	16QAM	6.14	<=13	PASS
	Mid	QPSK	5.48	<=13	PASS
	Mid	16QAM	6.13	<=13	PASS
	High	QPSK	5.29	<=13	PASS
	High	16QAM	5.93	<=13	PASS



LTE Band 4					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	3.99	<=13	PASS
	Low	16QAM	4.97	<=13	PASS
	Mid	QPSK	4.98	<=13	PASS
	Mid	16QAM	5.84	<=13	PASS
	High	QPSK	4.66	<=13	PASS
	High	16QAM	5.56	<=13	PASS
3	Low	QPSK	4.06	<=13	PASS
	Low	16QAM	4.94	<=13	PASS
	Mid	QPSK	4.79	<=13	PASS
	Mid	16QAM	5.79	<=13	PASS
	High	QPSK	4.74	<=13	PASS
	High	16QAM	5.51	<=13	PASS
5	Low	QPSK	4.65	<=13	PASS
	Low	16QAM	5.30	<=13	PASS
	Mid	QPSK	5.27	<=13	PASS
	Mid	16QAM	5.81	<=13	PASS
	High	QPSK	5.03	<=13	PASS
	High	16QAM	5.55	<=13	PASS
10	Low	QPSK	4.92	<=13	PASS
	Low	16QAM	5.52	<=13	PASS
	Mid	QPSK	5.29	<=13	PASS
	Mid	16QAM	5.97	<=13	PASS
	High	QPSK	5.19	<=13	PASS
	High	16QAM	5.84	<=13	PASS
15	Low	QPSK	4.57	<=13	PASS
	Low	16QAM	5.28	<=13	PASS
	Mid	QPSK	4.96	<=13	PASS
	Mid	16QAM	5.79	<=13	PASS
	High	QPSK	4.98	<=13	PASS
	High	16QAM	5.67	<=13	PASS
20	Low	QPSK	4.95	<=13	PASS
	Low	16QAM	5.59	<=13	PASS
	Mid	QPSK	5.22	<=13	PASS
	Mid	16QAM	5.89	<=13	PASS
	High	QPSK	5.14	<=13	PASS
	High	16QAM	5.89	<=13	PASS



LTE Band 66					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.02	<=13	PASS
	Low	16QAM	4.99	<=13	PASS
	Mid	QPSK	4.95	<=13	PASS
	Mid	16QAM	5.74	<=13	PASS
	High	QPSK	4.26	<=13	PASS
	High	16QAM	5.19	<=13	PASS
3	Low	QPSK	4.25	<=13	PASS
	Low	16QAM	4.89	<=13	PASS
	Mid	QPSK	4.94	<=13	PASS
	Mid	16QAM	5.70	<=13	PASS
	High	QPSK	4.48	<=13	PASS
	High	16QAM	5.20	<=13	PASS
5	Low	QPSK	4.64	<=13	PASS
	Low	16QAM	5.32	<=13	PASS
	Mid	QPSK	5.20	<=13	PASS
	Mid	16QAM	5.83	<=13	PASS
	High	QPSK	4.84	<=13	PASS
	High	16QAM	5.28	<=13	PASS
10	Low	QPSK	4.84	<=13	PASS
	Low	16QAM	5.52	<=13	PASS
	Mid	QPSK	5.24	<=13	PASS
	Mid	16QAM	5.89	<=13	PASS
	High	QPSK	5.11	<=13	PASS
	High	16QAM	5.76	<=13	PASS
15	Low	QPSK	4.60	<=13	PASS
	Low	16QAM	5.28	<=13	PASS
	Mid	QPSK	5.08	<=13	PASS
	Mid	16QAM	5.72	<=13	PASS
	High	QPSK	4.9	<=13	PASS
	High	16QAM	5.55	<=13	PASS
20	Low	QPSK	4.91	<=13	PASS
	Low	16QAM	5.63	<=13	PASS
	Mid	QPSK	5.18	<=13	PASS
	Mid	16QAM	5.84	<=13	PASS
	High	QPSK	5.08	<=13	PASS
	High	16QAM	5.79	<=13	PASS



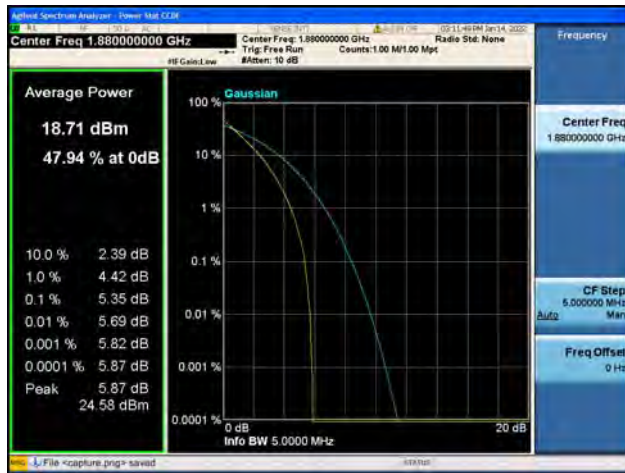
Band2 / 1.4MHz / Low CH / QPSK



Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM



Band2 / 1.4MHz / High CH / QPSK



Band2 / 1.4MHz / High CH / 16QAM

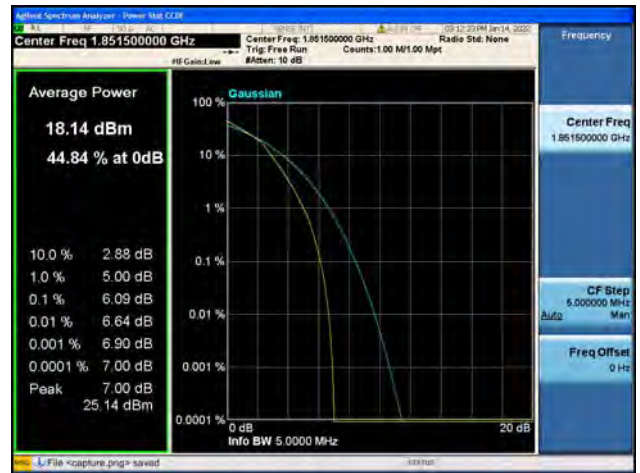




Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK



Band2 / 3MHz / High CH / 16QAM





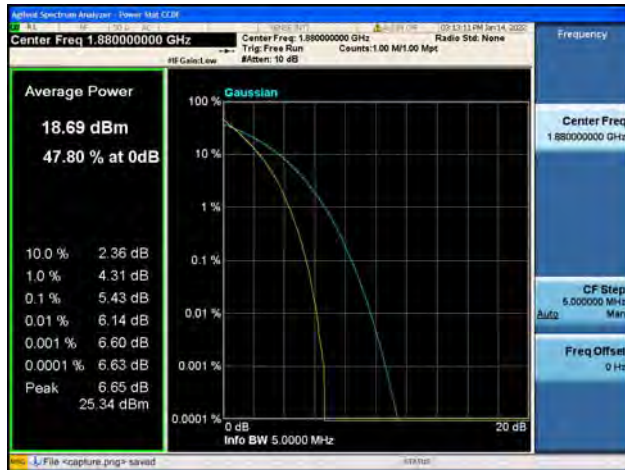
Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK



Band2 / 5MHz / High CH / 16QAM





Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM





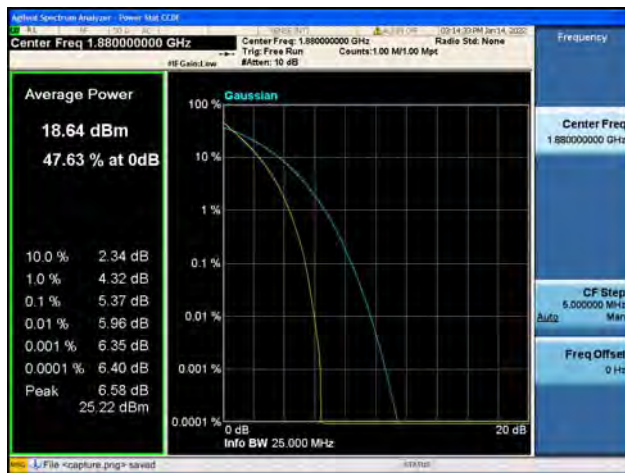
Band2 / 15MHz / Low CH / QPSK



Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK



Band2 / 15MHz / High CH / 16QAM

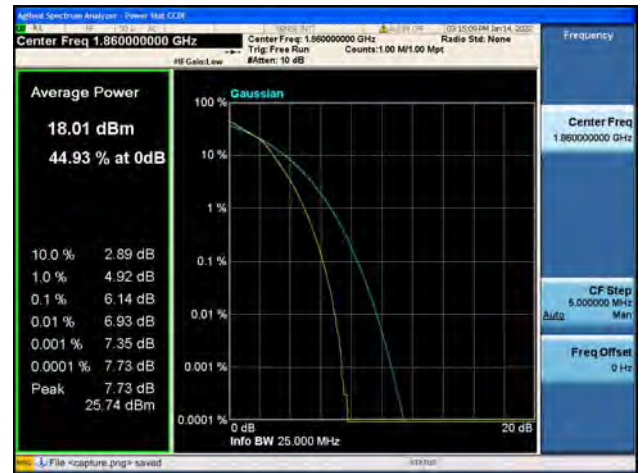




Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM



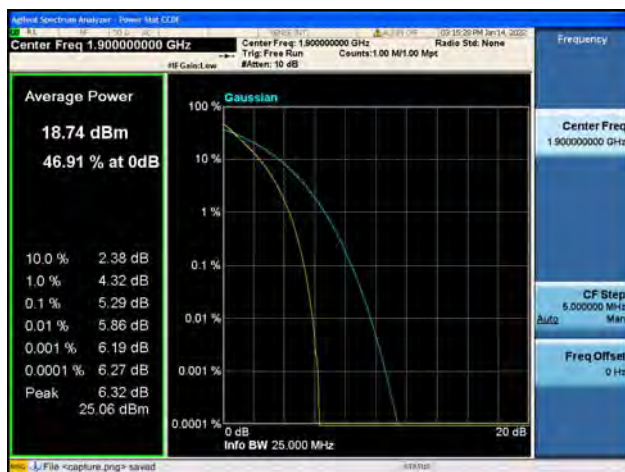
Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM





Band4 / 1.4MHz / Low CH / QPSK



Band4 / 1.4MHz / Low CH / 16QAM



Band4 / 1.4MHz / Mid CH / QPSK



Band4 / 1.4MHz / Mid CH / 16QAM



Band4 / 1.4MHz / High CH / QPSK



Band4 / 1.4MHz / High CH / 16QAM





Band4 / 3MHz / Low CH / QPSK



Band4 / 3MHz / Low CH / 16QAM



Band4 / 3MHz / Mid CH / QPSK



Band4 / 3MHz / Mid CH / 16QAM



Band4 / 3MHz / High CH / QPSK

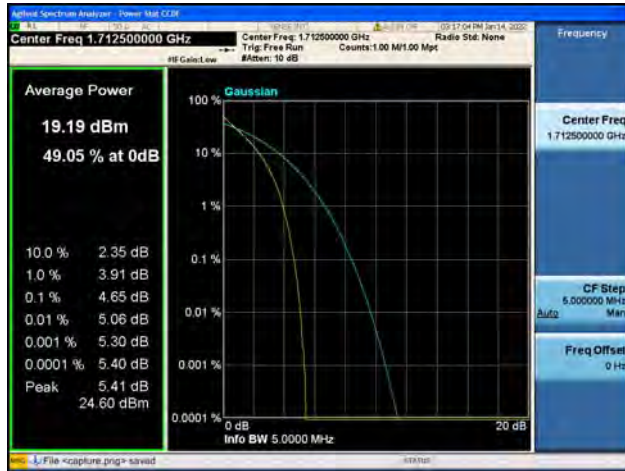


Band4 / 3MHz / High CH / 16QAM

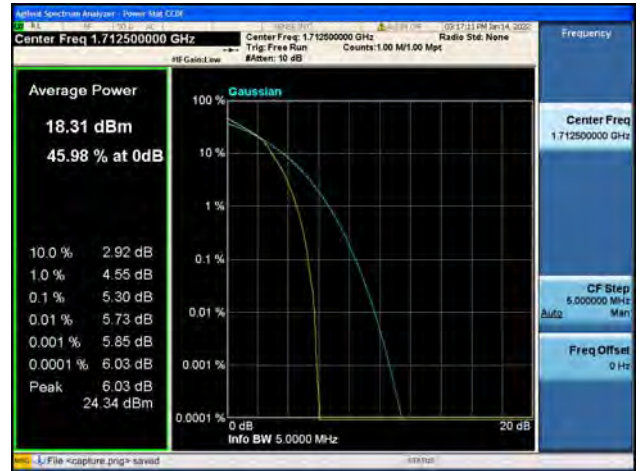




Band4 / 5MHz / Low CH / QPSK



Band4 / 5MHz / Low CH / 16QAM



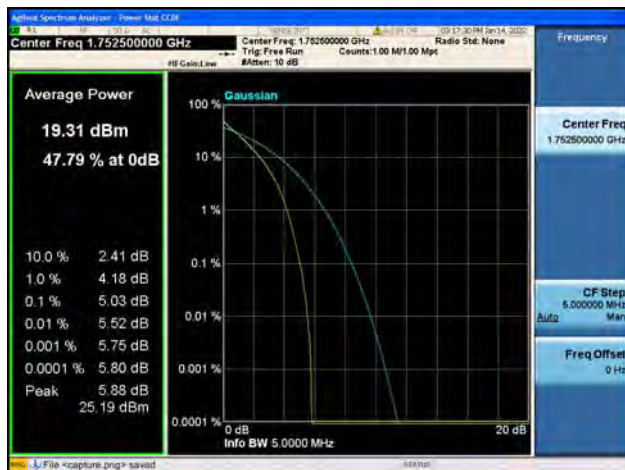
Band4 / 5MHz / Mid CH / QPSK



Band4 / 5MHz / Mid CH / 16QAM



Band4 / 5MHz / High CH / QPSK



Band4 / 5MHz / High CH / 16QAM





Band4 / 10MHz / Low CH / QPSK



Band4 / 10MHz / Low CH / 16QAM



Band4 / 10MHz / Mid CH / QPSK



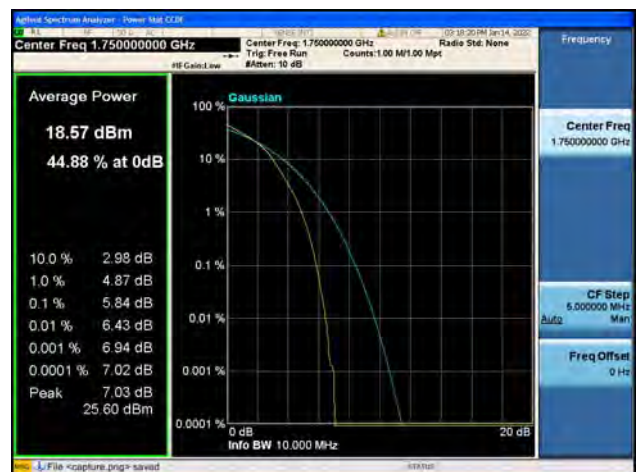
Band4 / 10MHz / Mid CH / 16QAM



Band4 / 10MHz / High CH / QPSK



Band4 / 10MHz / High CH / 16QAM





Band4 / 15MHz / Low CH / QPSK



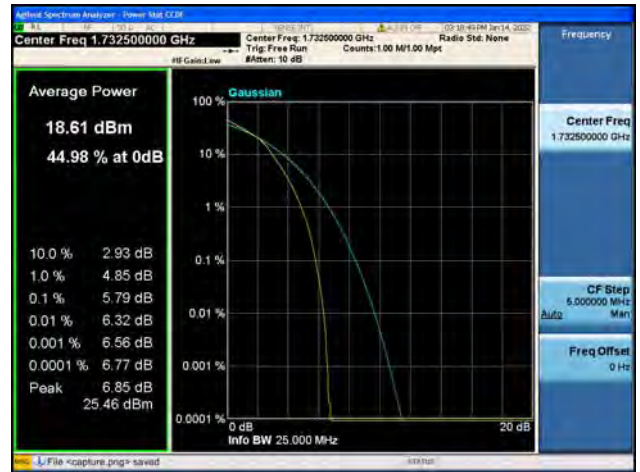
Band4 / 15MHz / Low CH / 16QAM



Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM



Band4 / 15MHz / High CH / QPSK

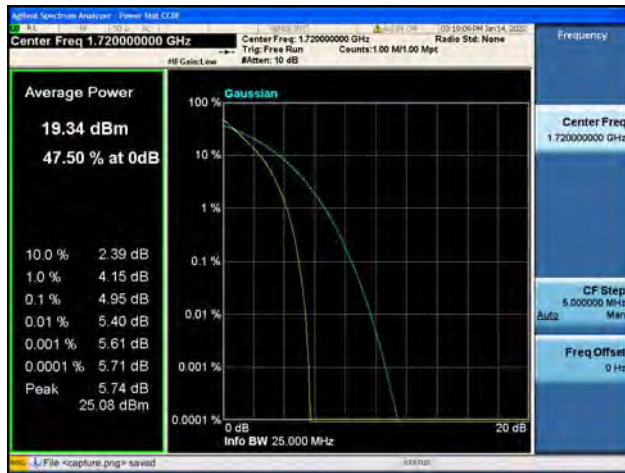


Band4 / 15MHz / High CH / 16QAM





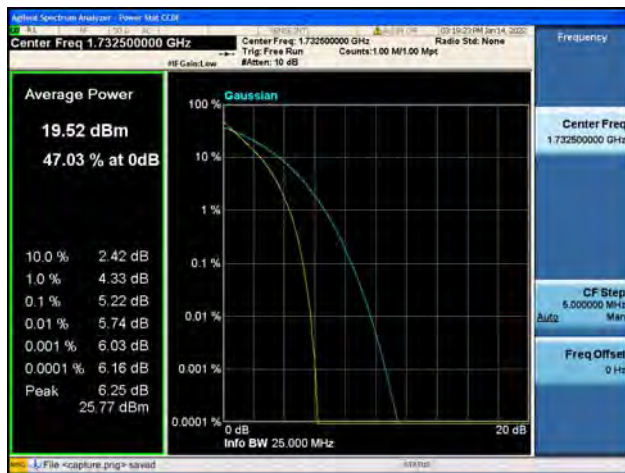
Band4 / 20MHz / Low CH / QPSK



Band4 / 20MHz / Low CH / 16QAM



Band4 / 20MHz / Mid CH / QPSK



Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / High CH / QPSK



Band4 / 20MHz / High CH / 16QAM





Band66 / 1.4MHz / Low CH / QPSK



Band66 / 1.4MHz / Low CH / 16QAM



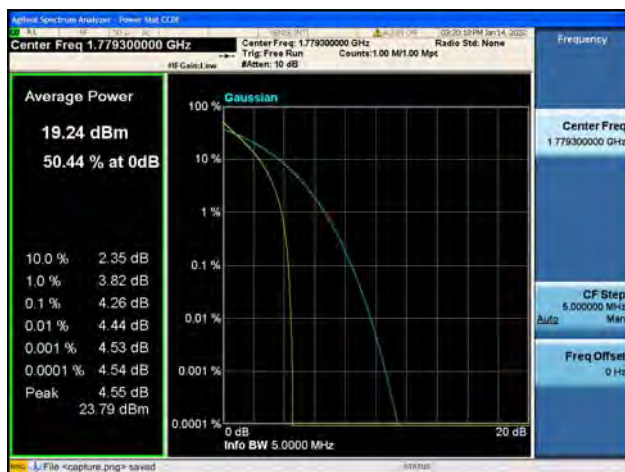
Band66 / 1.4MHz / Mid CH / QPSK



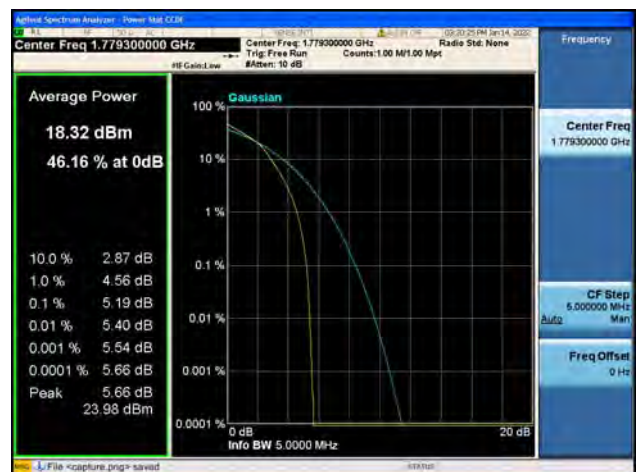
Band66 / 1.4MHz / Mid CH / 16QAM



Band66 / 1.4MHz / High CH / QPSK



Band66 / 1.4MHz / High CH / 16QAM





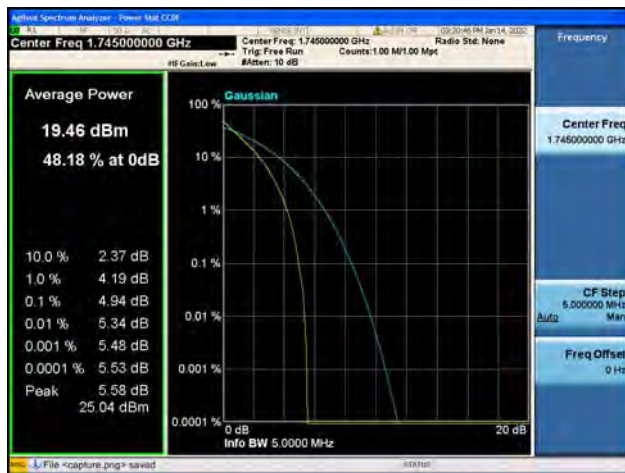
Band66 / 3MHz / Low CH / QPSK



Band66 / 3MHz / Low CH / 16QAM



Band66 / 3MHz / Mid CH / QPSK



Band66 / 3MHz / Mid CH / 16QAM



Band66 / 3MHz / High CH / QPSK



Band66 / 3MHz / High CH / 16QAM

