



TEST REPORT

APPLICANT : Reliance Communications LLC

PRODUCT NAME : Orbic Myra

MODEL NAME : R678L5S6

BRAND NAME : Orbic

FCC ID : 2ABGH-R678L5S6

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

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Change History		
Version	Date	Reason for change
1.0	2022-08-02	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Reliance Communications LLC
Applicant Address:	1560 Fifth Ave BayShore, NY 11706
Manufacturer:	ZJY RIGHT SOURCE INDIA PRIVATE LIMITED
Manufacturer Address:	MIDC industrial Area, Shiravane, Nerul, India

1.2. Equipment Under Test (EUT) Description

Product Name:	Orbic Myra	
Sample No.:	33#	
Hardware Version:	V2.2	
Software Version:	ORB678L5S6_v1.0.68_BVT-NA	
Modulation Type:	QPSK, 16QAM, 64QAM	
Carrier Aggregation:	Support	
Operation Band:	Band 2 / 4 / 5 / 12 / 13 / 17 / 46 / 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 12	Tx: 699MHz - 716MHz
		Rx: 729MHz – 746MHz
	LTE Band 13	Tx: 777MHz–787MHz
		Rx: 746MHz–756MHz
	LTE Band 17	Tx: 704MHz - 716MHz
		Rx: 734MHz – 746MHz
	LTE Band 46	Rx: 5150MHz–5925MHz
	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 12	1.4MHz, 3 MHz, 5 MHz, 10MHz
	LTE Band 13	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:	Top Antenna	
	LTE Band 2	-0.28dBi
	LTE Band 4	-1.55dBi
	LTE Band 5	-1.57dBi
	LTE Band 12	-1.77dBi
	LTE Band 13	-1.52dBi
	LTE Band 17	-1.77dBi
	LTE Band 66	-1.55dBi
	Bottom Antenna	
	LTE Band 5	-1.57dBi
	LTE Band 12	-1.77dBi
	LTE Band 13	-1.52dBi
	Accessory Information:	Battery
Brand Name:		Orbic
Model No.:		BLE-5001
Serial No.:		(N/A, marked #1 by test site)
Capacity:		5000mAh
Rated Voltage:		3.85V
Charge Limit:		4.40V
Manufacturer:		HUIZHOU DXDRAGON INC
AC Adapter		
Brand Name:		Orbic
Model No.:		BLJ-QC06HU
Serial No.:		(N/A, marked #1 by test site)
Rated Output:		5V=3A, 9V=2A, 12V=1.5A,
Rated Input:		100-240V~50/60Hz, 0.5A
Manufacturer:		Baolijin



Note 1: There is no test for LTE B17 due to the band is completely covered by LTE B12 and its power level setting also same as LTE B12.

Note 2: The EUT supports top antenna and bottom antenna for LTE Band 5 / 12 / 13. For test item Transmitter Conducted Output Power and E.R.P./E.I.R.P. and Radiated Spurious Emissions we recorded the test result of two antennas separately, for other test items both of the two antennas were tested separately, we only recorded the worst test result(Top Antenna) in this report.

Note 3: 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)					
	Top Antenna			Bottom Antenna		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20	0.141	0.108	0.104	/	/	/
15	0.137	0.111	0.111	/	/	/
10	0.134	0.113	0.103	/	/	/
5	0.136	0.112	0.110	/	/	/
3	0.138	0.107	0.106	/	/	/
1.4	0.133	0.112	0.112	/	/	/
LTE Band 4	Maximum E.R.P./E.I.R.P. (W)					
	Top Antenna			Bottom Antenna		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20	0.100	0.079	0.081	/	/	/
15	0.098	0.077	0.081	/	/	/
10	0.097	0.078	0.081	/	/	/
5	0.096	0.078	0.080	/	/	/
3	0.098	0.079	0.076	/	/	/
1.4	0.096	0.079	0.077	/	/	/
LTE Band 5	Maximum E.R.P./E.I.R.P. (W)					
	Top Antenna			Bottom Antenna		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.108	0.087	0.070	0.071	0.060	0.046
5	0.103	0.089	0.069	0.068	0.059	0.047
3	0.101	0.089	0.069	0.067	0.059	0.045
1.4	0.099	0.090	0.071	0.066	0.060	0.047



LTE Band 12	Maximum E.R.P./E.I.R.P. (W)					
	Top Antenna			Bottom Antenna		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.106	0.086	0.069	0.095	0.079	0.072
5	0.105	0.091	0.070	0.094	0.078	0.071
3	0.104	0.094	0.070	0.094	0.080	0.072
1.4	0.104	0.088	0.069	0.091	0.081	0.075
LTE Band 13	Maximum E.R.P./E.I.R.P. (W)					
	Top Antenna			Bottom Antenna		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.101	0.086	0.071	0.096	0.076	0.070
5	0.099	0.088	0.071	0.091	0.081	0.076
LTE Band 66	Top Antenna			Bottom Antenna		
	BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM
20	0.101	0.080	0.081	/	/	/
15	0.099	0.079	0.080	/	/	/
10	0.100	0.084	0.078	/	/	/
5	0.095	0.078	0.074	/	/	/
3	0.094	0.083	0.076	/	/	/
1.4	0.098	0.082	0.074	/	/	/



LTE B2		Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	
1.4	1M09G7D	1M10W7D	1M09W7D	
3	2M70G7D	2M71W7D	2M71W7D	
5	4M51G7D	4M51W7D	4M51W7D	
10	9M02G7D	8M98W7D	8M99W7D	
15	13M5G7D	13M5W7D	13M5W7D	
20	18M1G7D	18M0W7D	18M0W7D	
LTE B4		Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	
1.4	1M10G7D	1M10W7D	1M09W7D	
3	2M70G7D	2M70W7D	2M71W7D	
5	4M51G7D	4M51W7D	4M51W7D	
10	9M02G7D	8M99W7D	9M01W7D	
15	13M5G7D	13M5W7D	13M5W7D	
20	18M0G7D	18M0W7D	18M0W7D	
LTE B5		Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	
1.4	1M09G7D	1M10W7D	1M09W7D	
3	2M70G7D	2M70W7D	2M71W7D	
5	4M51G7D	4M51W7D	4M51W7D	
10	8M99G7D	8M97W7D	8M98W7D	
LTE B12		Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	
1.4	1M10G7D	1M10W7D	1M09W7D	
3	2M70G7D	2M70W7D	2M71W7D	
5	4M51G7D	4M51W7D	4M50W7D	
10	9M00G7D	8M97W7D	8M98W7D	
LTE B13		Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM	
5	4M50G7D	4M51W7D	4M50W7D	
10	8M96G7D	8M96W7D	8M98W7D	



LTE B66	Emission Designator (99%OBW)		
	QPSK	16QAM	64QAM
BW(MHz)			
1.4	1M09G7D	1M10W7D	1M09W7D
3	2M70G7D	2M70W7D	2M70W7D
5	4M50G7D	4M51W7D	4M51W7D
10	9M03G7D	8M98W7D	9M00W7D
15	13M5G7D	13M5W7D	13M5W7D
20	18M0G7D	18M0W7D	18M1W7D



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)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Feb 01&03, 2021 May 15&26, 2021	Chen Hao Peng Xuwei	PASS	No deviation
2.1049	Occupied Bandwidth	Oct 30, 2020 Nov 14, 2020 Dec 24, 2020 Jan 05, 2021	Ling Keye	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Feb 02, 2021	Ling Keye	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Radio	Oct 30, 2020 Nov 14, 2020 Dec 24&31, 2020 Jan 05, 2021	Ling Keye	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(c)(2) 27.53(g) 27.53(h)	Conducted Spurious Emissions	Nov 06&09, 2020 Dec 24, 2020 Jan 05, 2021	Ling Keye	PASS	No deviation



2.1051 22.917(a) 24.238(a) 27.53(c)(2) 27.53(g) 27.53(h)	Band Edge	Oct 30, 2020 Nov 02&14&16, 2020 Dec 24, 2020	Ling Keye	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(c)(2) 27.53(g) 27.53(h)	Radiated Spurious Emissions	Nov 12, 2020 Jan 14&15, 2021	Peng Xuwei	PASS	No deviation

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

Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 23.5dB contains two parts that cable loss 13.5dB and Attenuator 10dB.

Note 3: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

1.5. Environmental Conditions

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

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



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

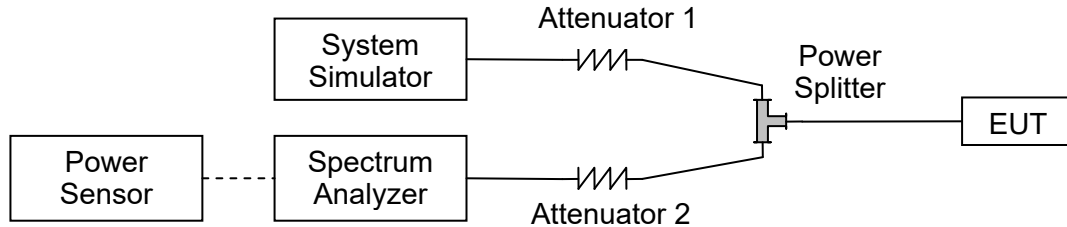
According to FCC section 27.50 (d)(4) for LTE Band 4/66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

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

According to FCC section 27.50 (c)(10) for LTE Band 12, 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.

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

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



2.1.4. Result

Conducted Output Power
Top Antenna

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	21.59	21.76	21.73
20	QPSK	1	49	21.55	21.63	21.56
20	QPSK	1	99	21.53	21.69	21.67
20	QPSK	50	0	20.61	20.69	20.67
20	QPSK	50	24	20.53	20.48	20.42
20	QPSK	50	50	20.48	20.44	20.50
20	QPSK	100	0	20.41	20.50	20.46
20	16QAM	1	0	20.47	20.47	20.49
20	16QAM	1	49	20.31	20.61	20.57
20	16QAM	1	99	20.56	20.41	20.57
20	16QAM	50	0	20.49	20.46	20.44
20	16QAM	50	24	20.45	20.50	20.51
20	16QAM	50	50	20.53	20.50	20.57
20	16QAM	100	0	20.56	20.57	20.44
20	64QAM	1	0	20.43	20.38	20.36
20	64QAM	1	49	20.38	20.32	20.23
20	64QAM	1	99	20.33	20.42	20.42
20	64QAM	50	0	20.43	20.35	20.40
20	64QAM	50	24	20.46	20.40	20.45
20	64QAM	50	50	20.45	20.46	20.40
20	64QAM	100	0	20.45	20.42	20.43



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	21.50	21.53	21.44
15	QPSK	1	37	21.29	21.65	21.53
15	QPSK	1	74	21.66	21.58	21.66
15	QPSK	36	0	20.40	20.49	20.48
15	QPSK	36	20	20.39	20.58	20.55
15	QPSK	36	39	20.51	20.52	20.49
15	QPSK	75	0	20.43	20.49	20.45
15	16QAM	1	0	20.52	20.60	20.54
15	16QAM	1	37	20.65	20.68	20.54
15	16QAM	1	74	20.60	20.72	20.72
15	16QAM	36	0	20.39	20.44	20.47
15	16QAM	36	20	20.48	20.41	20.54
15	16QAM	36	39	20.53	20.62	20.59
15	16QAM	75	0	20.40	20.42	20.51
15	64QAM	1	0	20.52	20.28	20.34
15	64QAM	1	37	20.51	20.32	20.74
15	64QAM	1	74	20.40	20.44	20.59
15	64QAM	36	0	20.25	20.42	20.30
15	64QAM	36	20	20.45	20.47	20.37
15	64QAM	36	39	20.33	20.38	20.47
15	64QAM	75	0	20.32	20.39	20.38



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	21.35	21.34	21.44
10	QPSK	1	25	21.46	21.56	21.44
10	QPSK	1	49	21.35	21.43	21.35
10	QPSK	25	0	20.63	20.64	20.60
10	QPSK	25	12	20.35	20.47	20.40
10	QPSK	25	25	20.26	20.39	20.35
10	QPSK	50	0	20.32	20.41	20.39
10	16QAM	1	0	20.80	20.73	20.72
10	16QAM	1	25	20.49	20.45	20.52
10	16QAM	1	49	20.44	20.52	20.31
10	16QAM	25	0	20.34	20.33	20.42
10	16QAM	25	12	20.44	20.40	20.39
10	16QAM	25	25	20.39	20.35	20.34
10	16QAM	50	0	20.35	20.28	20.32
10	64QAM	1	0	20.30	20.35	20.35
10	64QAM	1	25	20.33	20.38	20.42
10	64QAM	1	49	20.00	20.13	20.10
10	64QAM	25	0	20.30	20.34	20.35
10	64QAM	25	12	20.33	20.31	20.32
10	64QAM	25	25	20.26	20.28	20.26
10	64QAM	50	0	20.27	20.27	20.24



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	21.49	21.54	21.48
5	QPSK	1	12	21.48	21.59	21.46
5	QPSK	1	24	21.44	21.60	21.53
5	QPSK	12	0	20.38	20.29	20.36
5	QPSK	12	7	20.39	20.44	20.36
5	QPSK	12	13	20.38	20.37	20.40
5	QPSK	25	0	20.37	20.35	20.37
5	16QAM	1	0	20.50	20.40	20.78
5	16QAM	1	12	20.48	20.41	20.78
5	16QAM	1	24	20.51	20.38	20.77
5	16QAM	12	0	20.45	20.48	20.25
5	16QAM	12	7	20.41	20.43	20.37
5	16QAM	12	13	20.44	20.33	20.28
5	16QAM	25	0	20.36	20.34	20.32
5	64QAM	1	0	20.69	20.24	20.29
5	64QAM	1	12	20.68	20.34	20.45
5	64QAM	1	24	20.69	20.33	20.35
5	64QAM	12	0	20.54	20.47	20.46
5	64QAM	12	7	20.60	20.44	20.44
5	64QAM	12	13	20.57	20.53	20.51
5	64QAM	25	0	20.64	20.44	20.51



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	21.54	21.32	21.44
3	QPSK	1	8	21.47	21.68	21.51
3	QPSK	1	14	21.66	21.53	21.53
3	QPSK	8	0	20.38	20.33	20.35
3	QPSK	8	4	20.44	20.38	20.39
3	QPSK	8	7	20.44	20.38	20.34
3	QPSK	15	0	20.36	20.44	20.37
3	16QAM	1	0	20.52	20.43	20.37
3	16QAM	1	8	20.56	20.50	20.46
3	16QAM	1	14	20.49	20.46	20.34
3	16QAM	8	0	20.40	20.53	20.45
3	16QAM	8	4	20.47	20.44	20.50
3	16QAM	8	7	20.37	20.42	20.45
3	16QAM	15	0	20.40	20.44	20.39
3	64QAM	1	0	20.37	20.30	20.33
3	64QAM	1	8	20.55	20.54	20.14
3	64QAM	1	14	20.16	20.52	20.16
3	64QAM	8	0	20.28	20.30	20.38
3	64QAM	8	4	20.38	20.28	20.52
3	64QAM	8	7	20.48	20.37	20.47
3	64QAM	15	0	20.33	20.33	20.55



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	21.41	21.43	21.39
1.4	QPSK	1	3	21.51	21.49	21.48
1.4	QPSK	1	5	21.48	21.46	21.44
1.4	QPSK	3	0	21.35	21.25	21.42
1.4	QPSK	3	1	21.43	21.26	21.33
1.4	QPSK	3	3	21.11	21.15	21.42
1.4	QPSK	6	0	20.58	20.56	20.55
1.4	16QAM	1	0	20.61	20.61	20.55
1.4	16QAM	1	3	20.57	20.77	20.75
1.4	16QAM	1	5	20.45	20.65	20.33
1.4	16QAM	3	0	20.47	20.52	20.49
1.4	16QAM	3	1	20.65	20.47	20.52
1.4	16QAM	3	3	20.67	20.64	20.38
1.4	16QAM	6	0	20.68	20.61	20.56
1.4	64QAM	1	0	20.44	20.36	20.39
1.4	64QAM	1	3	20.46	20.67	20.55
1.4	64QAM	1	5	20.44	20.79	20.38
1.4	64QAM	3	0	20.47	20.53	20.54
1.4	64QAM	3	1	20.56	20.53	20.27
1.4	64QAM	3	3	20.48	20.62	20.39
1.4	64QAM	6	0	20.53	20.56	20.45



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	21.42	21.54	21.49
20	QPSK	1	49	21.28	21.36	21.35
20	QPSK	1	99	21.20	21.33	21.45
20	QPSK	50	0	20.50	20.63	20.60
20	QPSK	50	24	20.50	20.58	20.58
20	QPSK	50	50	20.39	20.50	20.51
20	QPSK	100	0	20.49	20.53	20.60
20	16QAM	1	0	20.36	20.44	20.33
20	16QAM	1	49	20.51	20.28	20.42
20	16QAM	1	99	20.30	20.52	20.28
20	16QAM	50	0	20.17	20.22	20.32
20	16QAM	50	24	20.13	20.24	20.13
20	16QAM	50	50	20.09	20.10	20.10
20	16QAM	100	0	20.11	20.19	20.20
20	64QAM	1	0	20.28	20.39	20.61
20	64QAM	1	49	20.32	20.25	20.13
20	64QAM	1	99	20.59	20.16	20.63
20	64QAM	50	0	20.29	20.38	20.33
20	64QAM	50	24	20.31	20.42	20.36
20	64QAM	50	50	20.35	20.30	20.32
20	64QAM	100	0	20.38	20.36	20.45



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	21.29	21.33	21.43
15	QPSK	1	37	21.33	21.42	21.34
15	QPSK	1	74	21.20	21.42	21.45
15	QPSK	36	0	20.44	20.51	20.54
15	QPSK	36	20	20.48	20.61	20.57
15	QPSK	36	39	20.53	20.52	20.61
15	QPSK	75	0	20.48	20.50	20.51
15	16QAM	1	0	20.18	20.40	20.12
15	16QAM	1	37	20.26	20.26	20.10
15	16QAM	1	74	20.12	20.42	20.21
15	16QAM	36	0	20.13	20.15	20.34
15	16QAM	36	20	20.08	20.15	20.21
15	16QAM	36	39	20.04	20.13	20.19
15	16QAM	75	0	20.15	20.16	20.25
15	64QAM	1	0	20.15	20.46	20.51
15	64QAM	1	37	20.57	20.33	20.39
15	64QAM	1	74	20.61	20.32	20.36
15	64QAM	36	0	20.26	20.33	20.37
15	64QAM	36	20	20.32	20.34	20.36
15	64QAM	36	39	20.35	20.31	20.33
15	64QAM	75	0	20.28	20.39	20.32



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	21.21	21.40	21.23
10	QPSK	1	25	21.19	21.32	21.33
10	QPSK	1	49	21.27	21.10	21.33
10	QPSK	25	0	20.27	20.49	20.51
10	QPSK	25	12	20.39	20.45	20.49
10	QPSK	25	25	20.28	20.39	20.46
10	QPSK	50	0	20.34	20.44	20.36
10	16QAM	1	0	20.09	20.24	20.00
10	16QAM	1	25	20.36	20.10	20.42
10	16QAM	1	49	20.43	20.33	20.32
10	16QAM	25	0	20.09	20.08	20.07
10	16QAM	25	12	20.01	20.11	20.08
10	16QAM	25	25	20.35	20.26	20.35
10	16QAM	50	0	20.29	20.33	20.45
10	64QAM	1	0	20.20	20.28	20.18
10	64QAM	1	25	20.27	20.56	20.65
10	64QAM	1	49	20.25	20.29	20.24
10	64QAM	25	0	20.09	20.23	20.22
10	64QAM	25	12	20.18	20.29	20.33
10	64QAM	25	25	20.06	20.18	20.20
10	64QAM	50	0	20.12	20.19	20.18



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	21.11	21.33	21.38
5	QPSK	1	12	21.17	21.32	21.29
5	QPSK	1	24	21.12	21.24	21.23
5	QPSK	12	0	20.35	20.35	20.39
5	QPSK	12	7	20.35	20.46	20.43
5	QPSK	12	13	20.30	20.47	20.39
5	QPSK	25	0	20.33	20.37	20.43
5	16QAM	1	0	19.99	20.40	20.08
5	16QAM	1	12	20.10	20.45	20.04
5	16QAM	1	24	20.04	20.39	19.99
5	16QAM	12	0	20.03	19.97	20.00
5	16QAM	12	7	20.06	20.10	20.08
5	16QAM	12	13	20.33	20.40	20.44
5	16QAM	25	0	20.34	20.45	20.38
5	64QAM	1	0	20.16	20.60	20.58
5	64QAM	1	12	20.54	20.30	20.57
5	64QAM	1	24	20.50	20.20	20.27
5	64QAM	12	0	20.17	20.24	20.26
5	64QAM	12	7	20.16	20.25	20.31
5	64QAM	12	13	20.17	20.23	20.22
5	64QAM	25	0	20.12	20.26	20.17



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				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	21.23	21.24	21.36
3	QPSK	1	8	21.32	21.46	21.40
3	QPSK	1	14	21.12	21.31	21.31
3	QPSK	8	0	20.33	20.39	20.40
3	QPSK	8	4	20.39	20.47	20.49
3	QPSK	8	7	20.35	20.45	20.45
3	QPSK	15	0	20.35	20.41	20.35
3	16QAM	1	0	20.19	20.28	20.32
3	16QAM	1	8	20.41	20.41	20.15
3	16QAM	1	14	20.32	20.10	20.18
3	16QAM	8	0	20.11	20.12	20.21
3	16QAM	8	4	20.21	20.21	20.22
3	16QAM	8	7	20.43	20.51	20.55
3	16QAM	15	0	20.43	20.41	20.48
3	64QAM	1	0	20.15	20.24	20.22
3	64QAM	1	8	20.34	20.22	20.38
3	64QAM	1	14	20.15	20.22	20.05
3	64QAM	8	0	20.13	20.17	20.11
3	64QAM	8	4	20.25	20.23	20.27
3	64QAM	8	7	20.19	20.26	20.38
3	64QAM	15	0	20.15	20.23	20.14



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	20.98	21.19	21.20
1.4	QPSK	1	3	21.32	21.32	21.36
1.4	QPSK	1	5	21.18	21.27	21.29
1.4	QPSK	3	0	21.26	21.23	21.22
1.4	QPSK	3	1	21.22	21.32	21.37
1.4	QPSK	3	3	21.21	21.28	21.27
1.4	QPSK	6	0	20.11	20.20	20.20
1.4	16QAM	1	0	20.08	20.55	20.21
1.4	16QAM	1	3	20.21	20.29	20.33
1.4	16QAM	1	5	20.27	20.43	20.23
1.4	16QAM	3	0	20.30	20.34	20.25
1.4	16QAM	3	1	20.31	20.34	20.36
1.4	16QAM	3	3	20.30	20.42	20.31
1.4	16QAM	6	0	20.21	20.22	20.13
1.4	64QAM	1	0	20.04	19.98	20.12
1.4	64QAM	1	3	20.30	20.28	20.40
1.4	64QAM	1	5	20.21	20.17	20.01
1.4	64QAM	3	0	20.12	20.10	20.29
1.4	64QAM	3	1	20.03	20.18	20.15
1.4	64QAM	3	3	20.09	20.26	20.14
1.4	64QAM	6	0	20.08	20.09	20.16



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	24.34	24.47	24.18
10	QPSK	1	25	24.21	24.32	24.34
10	QPSK	1	49	24.22	24.15	24.09
10	QPSK	25	0	23.20	23.32	23.21
10	QPSK	25	12	23.24	23.23	23.19
10	QPSK	25	25	23.32	23.19	23.28
10	QPSK	50	0	23.28	23.23	23.31
10	16QAM	1	0	23.59	23.29	23.68
10	16QAM	1	25	23.25	23.23	23.27
10	16QAM	1	49	23.54	23.35	23.48
10	16QAM	25	0	22.26	22.24	22.31
10	16QAM	25	12	22.32	22.25	22.32
10	16QAM	25	25	22.28	22.31	22.25
10	16QAM	50	0	22.31	22.30	22.22
10	64QAM	1	0	22.40	22.61	22.35
10	64QAM	1	25	22.31	22.53	22.54
10	64QAM	1	49	22.56	22.42	22.22
10	64QAM	25	0	22.23	22.21	22.20
10	64QAM	25	12	22.33	22.21	22.15
10	64QAM	25	25	22.21	22.31	22.20
10	64QAM	50	0	22.28	22.29	22.24



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	24.22	24.07	24.09
5	QPSK	1	12	24.26	24.05	24.11
5	QPSK	1	24	24.20	24.21	23.97
5	QPSK	12	0	23.32	23.26	23.20
5	QPSK	12	7	23.25	23.23	23.20
5	QPSK	12	13	23.28	23.20	23.21
5	QPSK	25	0	23.26	23.31	23.20
5	16QAM	1	0	23.36	23.38	23.66
5	16QAM	1	12	23.37	23.42	23.30
5	16QAM	1	24	23.27	23.21	23.68
5	16QAM	12	0	22.20	22.14	22.30
5	16QAM	12	7	22.34	22.32	22.24
5	16QAM	12	13	22.27	22.32	22.30
5	16QAM	25	0	22.34	22.31	22.09
5	64QAM	1	0	22.54	22.61	22.34
5	64QAM	1	12	22.55	22.51	22.28
5	64QAM	1	24	22.42	22.45	22.33
5	64QAM	12	0	22.19	22.16	22.17
5	64QAM	12	7	22.31	22.24	22.17
5	64QAM	12	13	22.22	22.21	22.27
5	64QAM	25	0	22.20	22.28	22.22



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	24.14	24.05	24.02
3	QPSK	1	8	24.21	24.11	24.03
3	QPSK	1	14	24.03	24.11	24.07
3	QPSK	8	0	23.23	23.17	23.22
3	QPSK	8	4	23.22	23.20	23.20
3	QPSK	8	7	23.26	23.24	23.21
3	QPSK	15	0	23.19	23.23	23.10
3	16QAM	1	0	23.40	23.60	23.37
3	16QAM	1	8	23.66	23.60	23.33
3	16QAM	1	14	23.49	23.52	23.29
3	16QAM	8	0	22.25	22.19	22.31
3	16QAM	8	4	22.39	22.23	22.09
3	16QAM	8	7	22.11	22.24	22.25
3	16QAM	15	0	22.26	22.32	22.24
3	64QAM	1	0	22.44	22.34	22.34
3	64QAM	1	8	22.35	22.24	22.51
3	64QAM	1	14	22.35	22.51	22.45
3	64QAM	8	0	22.29	22.12	22.07
3	64QAM	8	4	22.18	22.46	22.13
3	64QAM	8	7	22.35	22.16	22.23
3	64QAM	15	0	22.24	22.23	22.16



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	24.04	24.05	24.06
1.4	QPSK	1	3	24.11	24.08	24.06
1.4	QPSK	1	5	23.98	24.08	23.96
1.4	QPSK	3	0	24.06	24.06	24.05
1.4	QPSK	3	1	24.08	24.08	24.02
1.4	QPSK	3	3	24.01	24.12	23.95
1.4	QPSK	6	0	23.11	23.12	23.08
1.4	16QAM	1	0	23.59	23.39	23.34
1.4	16QAM	1	3	23.70	23.68	23.35
1.4	16QAM	1	5	23.68	23.48	23.30
1.4	16QAM	3	0	23.03	23.07	23.18
1.4	16QAM	3	1	23.08	23.15	23.18
1.4	16QAM	3	3	23.05	23.06	23.04
1.4	16QAM	6	0	22.56	22.35	22.28
1.4	64QAM	1	0	22.65	22.41	22.39
1.4	64QAM	1	3	22.28	22.65	22.36
1.4	64QAM	1	5	22.54	22.54	22.24
1.4	64QAM	3	0	22.35	22.42	22.32
1.4	64QAM	3	1	22.26	22.26	22.39
1.4	64QAM	3	3	22.45	22.34	22.34
1.4	64QAM	6	0	22.36	22.28	22.54



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	24.42	24.14	24.19
10	QPSK	1	25	24.33	24.32	24.38
10	QPSK	1	49	24.32	24.32	24.33
10	QPSK	25	0	23.47	23.30	23.34
10	QPSK	25	12	23.44	23.35	23.42
10	QPSK	25	25	23.27	23.24	23.33
10	QPSK	50	0	23.38	23.24	23.46
10	16QAM	1	0	23.46	23.35	23.34
10	16QAM	1	25	23.21	23.51	23.51
10	16QAM	1	49	23.36	23.61	23.50
10	16QAM	25	0	22.33	22.29	22.35
10	16QAM	25	12	22.43	22.43	22.41
10	16QAM	25	25	22.31	22.49	22.44
10	16QAM	50	0	22.38	22.34	22.44
10	64QAM	1	0	22.41	22.54	22.43
10	64QAM	1	25	22.32	22.55	22.42
10	64QAM	1	49	22.35	22.42	22.51
10	64QAM	25	0	22.51	22.25	22.31
10	64QAM	25	12	22.45	22.42	22.35
10	64QAM	25	25	22.37	22.51	22.36
10	64QAM	50	0	22.26	22.26	22.40



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	24.24	24.16	24.29
5	QPSK	1	12	24.35	24.26	24.15
5	QPSK	1	24	24.31	24.37	24.28
5	QPSK	12	0	23.24	23.38	23.28
5	QPSK	12	7	23.38	23.43	23.37
5	QPSK	12	13	23.32	23.35	23.37
5	QPSK	25	0	23.30	23.34	23.24
5	16QAM	1	0	23.64	23.73	23.71
5	16QAM	1	12	23.46	23.57	23.50
5	16QAM	1	24	23.36	23.50	23.57
5	16QAM	12	0	22.25	22.39	22.38
5	16QAM	12	7	22.48	22.42	22.44
5	16QAM	12	13	22.35	22.38	22.41
5	16QAM	25	0	22.40	22.39	22.20
5	64QAM	1	0	22.54	22.42	22.51
5	64QAM	1	12	22.55	22.35	22.34
5	64QAM	1	24	22.61	22.62	22.55
5	64QAM	12	0	22.18	22.40	22.31
5	64QAM	12	7	22.45	22.35	22.42
5	64QAM	12	13	22.32	22.43	22.40
5	64QAM	25	0	22.38	22.41	22.27



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	24.28	24.29	24.28
3	QPSK	1	8	24.32	24.33	24.33
3	QPSK	1	14	24.26	24.26	24.24
3	QPSK	8	0	23.31	23.40	23.30
3	QPSK	8	4	23.34	23.31	23.41
3	QPSK	8	7	23.29	23.34	23.24
3	QPSK	15	0	23.29	23.26	23.27
3	16QAM	1	0	23.81	23.58	23.69
3	16QAM	1	8	23.78	23.85	23.70
3	16QAM	1	14	23.72	23.90	23.60
3	16QAM	8	0	22.47	22.49	22.34
3	16QAM	8	4	22.45	22.41	22.34
3	16QAM	8	7	22.29	22.48	22.29
3	16QAM	15	0	22.46	22.40	22.24
3	64QAM	1	0	22.51	22.42	22.42
3	64QAM	1	8	22.52	22.61	22.51
3	64QAM	1	14	22.55	22.51	22.50
3	64QAM	8	0	22.38	22.36	22.26
3	64QAM	8	4	22.30	22.37	22.34
3	64QAM	8	7	22.38	22.30	22.25
3	64QAM	15	0	22.28	22.44	22.30



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	24.28	24.20	24.20
1.4	QPSK	1	3	24.17	24.34	24.23
1.4	QPSK	1	5	24.14	24.20	24.13
1.4	QPSK	3	0	24.16	24.16	24.26
1.4	QPSK	3	1	24.17	24.26	24.18
1.4	QPSK	3	3	24.15	24.25	24.26
1.4	QPSK	6	0	23.28	23.29	23.30
1.4	16QAM	1	0	23.46	23.49	23.45
1.4	16QAM	1	3	23.43	23.58	23.48
1.4	16QAM	1	5	23.40	23.42	23.42
1.4	16QAM	3	0	23.33	23.34	23.34
1.4	16QAM	3	1	23.40	23.40	23.29
1.4	16QAM	3	3	23.29	23.34	23.27
1.4	16QAM	6	0	22.30	22.39	22.34
1.4	64QAM	1	0	22.38	22.38	22.25
1.4	64QAM	1	3	22.38	22.54	22.35
1.4	64QAM	1	5	22.35	22.38	22.48
1.4	64QAM	3	0	22.29	22.51	22.27
1.4	64QAM	3	1	22.26	22.26	22.36
1.4	64QAM	3	3	22.28	22.54	22.29
1.4	64QAM	6	0	22.30	22.36	22.30



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	23230	/
Frequency (MHz)				/	782	/
10	QPSK	1	0	/	24.02	/
10	QPSK	1	25	/	24.20	/
10	QPSK	1	49	/	24.10	/
10	QPSK	25	0	/	23.08	/
10	QPSK	25	12	/	23.15	/
10	QPSK	25	25	/	23.17	/
10	QPSK	50	0	/	23.16	/
10	16QAM	1	0	/	23.26	/
10	16QAM	1	25	/	23.50	/
10	16QAM	1	49	/	23.47	/
10	16QAM	25	0	/	22.64	/
10	16QAM	25	12	/	22.54	/
10	16QAM	25	25	/	22.54	/
10	16QAM	50	0	/	22.62	/
10	64QAM	1	0	/	22.51	/
10	64QAM	1	25	/	22.62	/
10	64QAM	1	49	/	22.48	/
10	64QAM	25	0	/	22.54	/
10	64QAM	25	12	/	22.56	/
10	64QAM	25	25	/	22.67	/
10	64QAM	50	0	/	22.51	/



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	23.97	24.11	24.08
5	QPSK	1	12	24.04	24.07	24.02
5	QPSK	1	24	24.02	24.02	24.08
5	QPSK	12	0	23.04	23.06	23.07
5	QPSK	12	7	23.18	23.04	23.17
5	QPSK	12	13	23.09	23.18	23.11
5	QPSK	25	0	23.20	23.13	23.16
5	16QAM	1	0	23.55	23.38	23.30
5	16QAM	1	12	23.21	23.56	23.50
5	16QAM	1	24	23.43	23.59	23.57
5	16QAM	12	0	22.56	22.07	22.13
5	16QAM	12	7	22.61	22.05	22.25
5	16QAM	12	13	22.54	22.27	22.16
5	16QAM	25	0	22.52	22.45	22.15
5	64QAM	1	0	22.55	22.61	22.61
5	64QAM	1	12	22.45	22.45	22.29
5	64QAM	1	24	22.61	22.26	22.34
5	64QAM	12	0	22.45	22.34	22.48
5	64QAM	12	7	22.48	22.27	22.34
5	64QAM	12	13	22.64	22.17	22.13
5	64QAM	25	0	22.35	22.13	22.24



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	21.45	21.61	21.50
20	QPSK	1	49	21.31	21.44	21.47
20	QPSK	1	99	21.41	21.42	21.41
20	QPSK	50	0	20.62	20.72	20.63
20	QPSK	50	24	20.59	20.53	20.32
20	QPSK	50	50	20.64	20.70	20.63
20	QPSK	100	0	20.65	20.67	20.58
20	16QAM	1	0	20.58	20.13	20.26
20	16QAM	1	49	20.33	20.28	20.42
20	16QAM	1	99	20.42	20.47	20.36
20	16QAM	50	0	20.31	20.33	20.27
20	16QAM	50	24	20.35	20.39	20.28
20	16QAM	50	50	20.40	20.41	20.35
20	16QAM	100	0	20.30	20.38	20.43
20	64QAM	1	0	20.13	20.25	20.59
20	64QAM	1	49	20.57	20.63	20.22
20	64QAM	1	99	20.59	20.27	20.20
20	64QAM	50	0	20.10	20.04	20.01
20	64QAM	50	24	20.15	20.18	20.10
20	64QAM	50	50	20.20	20.17	20.17
20	64QAM	100	0	20.12	20.05	20.16



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	21.20	21.36	21.31
15	QPSK	1	37	21.36	21.52	21.36
15	QPSK	1	74	21.32	21.51	21.37
15	QPSK	36	0	20.35	20.42	20.41
15	QPSK	36	20	20.46	20.48	20.45
15	QPSK	36	39	20.41	20.44	20.41
15	QPSK	75	0	20.37	20.49	20.45
15	16QAM	1	0	20.38	20.40	20.42
15	16QAM	1	37	20.55	20.50	20.51
15	16QAM	1	74	20.51	20.49	20.45
15	16QAM	36	0	20.25	20.22	20.25
15	16QAM	36	20	20.39	20.44	20.28
15	16QAM	36	39	20.34	20.31	20.36
15	16QAM	75	0	20.35	20.31	20.33
15	64QAM	1	0	20.11	20.12	20.17
15	64QAM	1	37	20.56	20.26	20.19
15	64QAM	1	74	20.54	20.23	20.28
15	64QAM	36	0	20.08	20.10	20.05
15	64QAM	36	20	20.18	20.06	20.12
15	64QAM	36	39	20.05	20.15	20.20
15	64QAM	75	0	20.20	20.16	20.13



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	21.28	21.37	21.22
10	QPSK	1	25	21.46	21.45	21.55
10	QPSK	1	49	21.40	21.51	21.46
10	QPSK	25	0	20.43	20.41	20.41
10	QPSK	25	12	20.46	20.49	20.50
10	QPSK	25	25	20.41	20.49	20.43
10	QPSK	50	0	20.40	20.48	20.34
10	16QAM	1	0	20.41	20.77	20.36
10	16QAM	1	25	20.61	20.59	20.54
10	16QAM	1	49	20.44	20.49	20.35
10	16QAM	25	0	20.41	20.30	20.33
10	16QAM	25	12	20.46	20.43	20.54
10	16QAM	25	25	20.30	20.33	20.39
10	16QAM	50	0	20.28	20.21	20.20
10	64QAM	1	0	20.12	20.46	20.45
10	64QAM	1	25	20.41	20.31	20.32
10	64QAM	1	49	20.34	20.19	20.30
10	64QAM	25	0	20.01	20.09	20.00
10	64QAM	25	12	20.10	20.14	20.13
10	64QAM	25	25	20.09	20.01	20.16
10	64QAM	50	0	20.08	20.10	20.02



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				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	21.34	21.35	21.27
5	QPSK	1	12	21.29	21.33	21.22
5	QPSK	1	24	21.24	21.19	21.24
5	QPSK	12	0	20.15	20.52	20.19
5	QPSK	12	7	20.21	20.18	20.08
5	QPSK	12	13	20.31	20.34	20.31
5	QPSK	25	0	20.26	20.28	20.25
5	16QAM	1	0	20.07	20.17	20.35
5	16QAM	1	12	20.22	20.08	20.36
5	16QAM	1	24	20.16	20.47	20.12
5	16QAM	12	0	20.01	20.11	20.04
5	16QAM	12	7	20.06	19.98	20.09
5	16QAM	12	13	20.14	20.19	20.02
5	16QAM	25	0	20.02	20.14	20.12
5	64QAM	1	0	20.30	20.14	19.87
5	64QAM	1	12	20.24	20.21	20.26
5	64QAM	1	24	20.22	20.27	20.18
5	64QAM	12	0	19.96	19.97	20.02
5	64QAM	12	7	20.01	20.02	20.02
5	64QAM	12	13	20.05	20.12	19.97
5	64QAM	25	0	19.98	19.95	20.07



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	21.17	21.26	21.26
3	QPSK	1	8	21.27	21.24	21.28
3	QPSK	1	14	21.21	21.28	21.28
3	QPSK	8	0	20.24	20.33	20.35
3	QPSK	8	4	20.32	20.39	20.34
3	QPSK	8	7	20.35	20.38	20.42
3	QPSK	15	0	20.41	20.34	20.36
3	16QAM	1	0	20.57	20.68	20.75
3	16QAM	1	8	20.39	20.50	20.48
3	16QAM	1	14	20.43	20.43	20.65
3	16QAM	8	0	20.02	20.13	20.15
3	16QAM	8	4	20.09	20.12	20.11
3	16QAM	8	7	20.15	20.13	20.02
3	16QAM	15	0	20.10	20.18	20.10
3	64QAM	1	0	20.20	20.17	20.05
3	64QAM	1	8	20.10	20.25	20.34
3	64QAM	1	14	20.09	20.21	20.27
3	64QAM	8	0	19.94	20.02	20.01
3	64QAM	8	4	20.05	20.04	20.11
3	64QAM	8	7	20.09	20.00	20.02
3	64QAM	15	0	19.94	20.04	19.99



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	21.31	21.35	21.28
1.4	QPSK	1	3	21.42	21.41	21.43
1.4	QPSK	1	5	21.31	21.36	21.32
1.4	QPSK	3	0	21.26	21.39	21.37
1.4	QPSK	3	1	21.47	21.47	21.48
1.4	QPSK	3	3	21.42	21.44	21.40
1.4	QPSK	6	0	20.40	20.37	20.35
1.4	16QAM	1	0	20.44	20.38	20.23
1.4	16QAM	1	3	20.25	20.68	20.35
1.4	16QAM	1	5	20.37	20.38	20.37
1.4	16QAM	3	0	20.21	20.24	20.25
1.4	16QAM	3	1	20.37	20.45	20.29
1.4	16QAM	3	3	20.20	20.34	20.34
1.4	16QAM	6	0	20.13	20.33	20.23
1.4	64QAM	1	0	19.96	20.11	19.95
1.4	64QAM	1	3	20.08	20.01	20.06
1.4	64QAM	1	5	20.24	20.27	20.23
1.4	64QAM	3	0	20.14	20.15	19.98
1.4	64QAM	3	1	20.12	20.36	20.21
1.4	64QAM	3	3	20.14	19.98	20.14
1.4	64QAM	6	0	20.10	20.11	19.98



Bottom Antenna

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	22.56	22.69	22.40
10	QPSK	1	25	22.43	22.54	22.56
10	QPSK	1	49	22.44	22.37	22.31
10	QPSK	25	0	21.42	21.54	21.43
10	QPSK	25	12	21.46	21.45	21.41
10	QPSK	25	25	21.54	21.41	21.50
10	QPSK	50	0	21.50	21.45	21.53
10	16QAM	1	0	21.81	21.51	21.90
10	16QAM	1	25	21.47	21.45	21.49
10	16QAM	1	49	21.76	21.57	21.70
10	16QAM	25	0	20.48	20.46	20.53
10	16QAM	25	12	20.54	20.47	20.54
10	16QAM	25	25	20.50	20.53	20.47
10	16QAM	50	0	20.53	20.52	20.44
10	64QAM	1	0	20.62	20.83	20.57
10	64QAM	1	25	20.53	20.75	20.76
10	64QAM	1	49	20.78	20.64	20.44
10	64QAM	25	0	20.45	20.43	20.42
10	64QAM	25	12	20.55	20.43	20.37
10	64QAM	25	25	20.43	20.53	20.42
10	64QAM	50	0	20.50	20.51	20.46



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	22.44	22.29	22.31
5	QPSK	1	12	22.48	22.27	22.33
5	QPSK	1	24	22.42	22.43	22.19
5	QPSK	12	0	21.54	21.48	21.42
5	QPSK	12	7	21.47	21.45	21.42
5	QPSK	12	13	21.50	21.42	21.43
5	QPSK	25	0	21.48	21.53	21.42
5	16QAM	1	0	21.58	21.60	21.88
5	16QAM	1	12	21.59	21.64	21.52
5	16QAM	1	24	21.49	21.43	21.90
5	16QAM	12	0	20.42	20.36	20.52
5	16QAM	12	7	20.56	20.54	20.46
5	16QAM	12	13	20.49	20.54	20.52
5	16QAM	25	0	20.56	20.53	20.31
5	64QAM	1	0	20.76	20.83	20.56
5	64QAM	1	12	20.77	20.73	20.50
5	64QAM	1	24	20.64	20.67	20.55
5	64QAM	12	0	20.41	20.38	20.39
5	64QAM	12	7	20.53	20.46	20.39
5	64QAM	12	13	20.44	20.43	20.49
5	64QAM	25	0	20.42	20.50	20.44



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	22.36	22.27	22.24
3	QPSK	1	8	22.43	22.33	22.25
3	QPSK	1	14	22.25	22.33	22.29
3	QPSK	8	0	21.45	21.39	21.44
3	QPSK	8	4	21.44	21.42	21.42
3	QPSK	8	7	21.48	21.46	21.43
3	QPSK	15	0	21.41	21.45	21.32
3	16QAM	1	0	21.62	21.82	21.59
3	16QAM	1	8	21.88	21.82	21.55
3	16QAM	1	14	21.71	21.74	21.51
3	16QAM	8	0	20.47	20.41	20.53
3	16QAM	8	4	20.61	20.45	20.31
3	16QAM	8	7	20.33	20.46	20.47
3	16QAM	15	0	20.48	20.54	20.46
3	64QAM	1	0	20.66	20.56	20.56
3	64QAM	1	8	20.57	20.46	20.73
3	64QAM	1	14	20.57	20.73	20.67
3	64QAM	8	0	20.51	20.34	20.29
3	64QAM	8	4	20.40	20.68	20.35
3	64QAM	8	7	20.57	20.38	20.45
3	64QAM	15	0	20.46	20.45	20.38



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	22.26	22.27	22.28
1.4	QPSK	1	3	22.33	22.30	22.28
1.4	QPSK	1	5	22.20	22.30	22.18
1.4	QPSK	3	0	22.28	22.28	22.27
1.4	QPSK	3	1	22.30	22.30	22.24
1.4	QPSK	3	3	22.23	22.34	22.17
1.4	QPSK	6	0	21.33	21.34	21.30
1.4	16QAM	1	0	21.81	21.61	21.56
1.4	16QAM	1	3	21.92	21.90	21.57
1.4	16QAM	1	5	21.90	21.70	21.52
1.4	16QAM	3	0	21.25	21.29	21.40
1.4	16QAM	3	1	21.30	21.37	21.40
1.4	16QAM	3	3	21.27	21.28	21.26
1.4	16QAM	6	0	20.78	20.57	20.50
1.4	64QAM	1	0	20.87	20.63	20.61
1.4	64QAM	1	3	20.50	20.87	20.58
1.4	64QAM	1	5	20.76	20.76	20.46
1.4	64QAM	3	0	20.57	20.64	20.54
1.4	64QAM	3	1	20.48	20.48	20.61
1.4	64QAM	3	3	20.67	20.56	20.56
1.4	64QAM	6	0	20.58	20.50	20.76



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	23.93	23.76	23.80
10	QPSK	1	25	23.81	23.68	23.60
10	QPSK	1	49	23.67	23.85	23.72
10	QPSK	25	0	22.92	22.84	22.84
10	QPSK	25	12	22.82	22.74	22.89
10	QPSK	25	25	22.84	22.75	22.86
10	QPSK	50	0	22.96	22.75	22.92
10	16QAM	1	0	22.98	23.00	23.10
10	16QAM	1	25	22.95	23.12	22.82
10	16QAM	1	49	23.05	23.06	23.12
10	16QAM	25	0	22.74	22.76	22.64
10	16QAM	25	12	22.87	22.64	22.53
10	16QAM	25	25	22.49	22.58	22.55
10	16QAM	50	0	22.79	22.67	22.62
10	64QAM	1	0	22.38	22.56	22.64
10	64QAM	1	25	22.62	22.56	22.49
10	64QAM	1	49	22.58	22.67	22.68
10	64QAM	25	0	22.77	22.64	22.75
10	64QAM	25	12	22.64	22.58	22.49
10	64QAM	25	25	22.55	22.64	22.57
10	64QAM	50	0	22.64	22.58	22.61



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	23.68	23.60	23.70
5	QPSK	1	12	23.69	23.80	23.71
5	QPSK	1	24	23.76	23.90	23.63
5	QPSK	12	0	22.76	22.85	22.77
5	QPSK	12	7	22.83	22.90	22.94
5	QPSK	12	13	22.81	22.90	22.77
5	QPSK	25	0	22.85	22.89	22.76
5	16QAM	1	0	22.96	22.89	23.07
5	16QAM	1	12	22.82	23.01	22.99
5	16QAM	1	24	23.21	22.90	23.19
5	16QAM	12	0	22.82	22.57	22.55
5	16QAM	12	7	22.64	22.62	22.60
5	16QAM	12	13	22.75	22.57	22.45
5	16QAM	25	0	22.62	22.55	22.51
5	64QAM	1	0	22.64	22.62	22.62
5	64QAM	1	12	22.54	22.34	22.34
5	64QAM	1	24	22.56	22.54	22.34
5	64QAM	12	0	22.67	22.15	22.51
5	64QAM	12	7	22.55	22.61	22.34
5	64QAM	12	13	22.62	22.51	22.54
5	64QAM	25	0	22.57	22.54	22.57



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	23.78	23.77	23.71
3	QPSK	1	8	23.65	23.93	23.89
3	QPSK	1	14	23.60	23.82	23.75
3	QPSK	8	0	22.82	22.82	22.74
3	QPSK	8	4	22.80	22.83	22.83
3	QPSK	8	7	22.75	22.83	22.82
3	QPSK	15	0	22.80	22.79	22.75
3	16QAM	1	0	23.16	22.89	22.94
3	16QAM	1	8	23.05	22.98	23.00
3	16QAM	1	14	23.02	23.10	23.11
3	16QAM	8	0	22.57	22.62	22.62
3	16QAM	8	4	22.62	22.51	22.54
3	16QAM	8	7	22.57	22.31	22.32
3	16QAM	15	0	22.46	22.61	22.43
3	64QAM	1	0	22.59	22.54	22.62
3	64QAM	1	8	22.61	22.53	22.55
3	64QAM	1	14	22.63	22.50	22.44
3	64QAM	8	0	22.57	22.72	22.57
3	64QAM	8	4	22.62	22.61	22.54
3	64QAM	8	7	22.57	22.46	22.53
3	64QAM	15	0	22.56	22.72	22.61



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	23.62	23.72	23.72
1.4	QPSK	1	3	23.70	23.75	23.72
1.4	QPSK	1	5	23.62	23.69	23.62
1.4	QPSK	3	0	23.68	23.72	23.66
1.4	QPSK	3	1	23.70	23.68	23.72
1.4	QPSK	3	3	23.65	23.72	23.60
1.4	QPSK	6	0	22.74	22.73	22.73
1.4	16QAM	1	0	22.95	23.24	22.90
1.4	16QAM	1	3	22.94	23.11	22.92
1.4	16QAM	1	5	23.09	23.19	23.10
1.4	16QAM	3	0	22.73	22.72	22.76
1.4	16QAM	3	1	22.84	22.75	22.89
1.4	16QAM	3	3	22.71	22.68	22.78
1.4	16QAM	6	0	22.65	22.66	22.82
1.4	64QAM	1	0	22.64	22.64	22.90
1.4	64QAM	1	3	22.82	22.71	22.87
1.4	64QAM	1	5	22.83	22.90	22.83
1.4	64QAM	3	0	22.71	22.82	22.96
1.4	64QAM	3	1	22.79	22.76	22.89
1.4	64QAM	3	3	22.70	22.79	22.77
1.4	64QAM	6	0	22.55	22.75	22.64



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	23230	/
Frequency (MHz)				/	782	/
10	QPSK	1	0	/	23.67	/
10	QPSK	1	25	/	23.99	/
10	QPSK	1	49	/	23.60	/
10	QPSK	25	0	/	22.66	/
10	QPSK	25	12	/	22.74	/
10	QPSK	25	25	/	22.75	/
10	QPSK	50	0	/	22.73	/
10	16QAM	1	0	/	22.80	/
10	16QAM	1	25	/	22.97	/
10	16QAM	1	49	/	22.80	/
10	16QAM	25	0	/	22.66	/
10	16QAM	25	12	/	22.75	/
10	16QAM	25	25	/	22.84	/
10	16QAM	50	0	/	22.82	/
10	64QAM	1	0	/	22.56	/
10	64QAM	1	25	/	22.37	/
10	64QAM	1	49	/	22.62	/
10	64QAM	25	0	/	21.79	/
10	64QAM	25	12	/	21.76	/
10	64QAM	25	25	/	21.72	/
10	64QAM	50	0	/	21.62	/



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	23.55	23.71	23.73
5	QPSK	1	12	23.59	23.65	23.61
5	QPSK	1	24	23.71	23.80	23.72
5	QPSK	12	0	22.68	22.72	22.68
5	QPSK	12	7	22.80	22.69	22.80
5	QPSK	12	13	22.79	22.73	22.73
5	QPSK	25	0	22.83	22.67	22.76
5	16QAM	1	0	22.90	22.77	22.81
5	16QAM	1	12	22.98	22.99	23.01
5	16QAM	1	24	23.26	23.05	22.91
5	16QAM	12	0	22.75	22.75	22.75
5	16QAM	12	7	22.64	22.72	22.65
5	16QAM	12	13	22.57	22.61	22.54
5	16QAM	25	0	22.68	22.73	22.62
5	64QAM	1	0	22.98	22.45	22.76
5	64QAM	1	12	22.35	22.62	22.86
5	64QAM	1	24	22.66	22.61	22.63
5	64QAM	12	0	21.62	21.82	21.69
5	64QAM	12	7	21.86	21.71	21.74
5	64QAM	12	13	21.82	21.82	21.75
5	64QAM	25	0	21.84	21.80	21.79



Effective Radiated Power and Effective Isotropic Radiated Power

Top Antenna

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	21.31	0.135	21.48	0.141	21.45	0.140
20	QPSK	1	49	21.27	0.134	21.35	0.136	21.28	0.134
20	QPSK	1	99	21.25	0.133	21.41	0.138	21.39	0.138
20	QPSK	50	0	20.33	0.108	20.41	0.110	20.39	0.109
20	QPSK	50	24	20.25	0.106	20.20	0.105	20.14	0.103
20	QPSK	50	50	20.20	0.105	20.16	0.104	20.22	0.105
20	QPSK	100	0	20.13	0.103	20.22	0.105	20.18	0.104
20	16QAM	1	0	20.19	0.104	20.19	0.104	20.21	0.105
20	16QAM	1	49	20.03	0.101	20.33	0.108	20.29	0.107
20	16QAM	1	99	20.28	0.107	20.13	0.103	20.29	0.107
20	16QAM	50	0	20.21	0.105	20.18	0.104	20.16	0.104
20	16QAM	50	24	20.17	0.104	20.22	0.105	20.23	0.105
20	16QAM	50	50	20.25	0.106	20.22	0.105	20.29	0.107
20	16QAM	100	0	20.28	0.107	20.29	0.107	20.16	0.104
20	64QAM	1	0	20.15	0.104	20.10	0.102	20.08	0.102
20	64QAM	1	49	20.10	0.102	20.04	0.101	19.95	0.099
20	64QAM	1	99	20.05	0.101	20.14	0.103	20.14	0.103
20	64QAM	50	0	20.15	0.104	20.07	0.102	20.12	0.103
20	64QAM	50	24	20.18	0.104	20.12	0.103	20.17	0.104
20	64QAM	50	50	20.17	0.104	20.18	0.104	20.12	0.103
20	64QAM	100	0	20.17	0.104	20.14	0.103	20.15	0.104



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	21.22	0.132	21.25	0.133	21.16	0.131
15	QPSK	1	37	21.01	0.126	21.37	0.137	21.25	0.133
15	QPSK	1	74	21.38	0.137	21.30	0.135	21.38	0.137
15	QPSK	36	0	20.12	0.103	20.21	0.105	20.20	0.105
15	QPSK	36	20	20.11	0.103	20.30	0.107	20.27	0.106
15	QPSK	36	39	20.23	0.105	20.24	0.106	20.21	0.105
15	QPSK	75	0	20.15	0.104	20.21	0.105	20.17	0.104
15	16QAM	1	0	20.24	0.106	20.32	0.108	20.26	0.106
15	16QAM	1	37	20.37	0.109	20.40	0.110	20.26	0.106
15	16QAM	1	74	20.32	0.108	20.44	0.111	20.44	0.111
15	16QAM	36	0	20.11	0.103	20.16	0.104	20.19	0.104
15	16QAM	36	20	20.20	0.105	20.13	0.103	20.26	0.106
15	16QAM	36	39	20.25	0.106	20.34	0.108	20.31	0.107
15	16QAM	75	0	20.12	0.103	20.14	0.103	20.23	0.105
15	64QAM	1	0	20.24	0.106	20.00	0.100	20.06	0.101
15	64QAM	1	37	20.23	0.105	20.04	0.101	20.46	0.111
15	64QAM	1	74	20.12	0.103	20.16	0.104	20.31	0.107
15	64QAM	36	0	19.97	0.099	20.14	0.103	20.02	0.100
15	64QAM	36	20	20.17	0.104	20.19	0.104	20.09	0.102
15	64QAM	36	39	20.05	0.101	20.10	0.102	20.19	0.104
15	64QAM	75	0	20.04	0.101	20.11	0.103	20.10	0.102



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	21.07	0.128	21.06	0.128	21.16	0.131
10	QPSK	1	25	21.18	0.131	21.28	0.134	21.16	0.131
10	QPSK	1	49	21.07	0.128	21.15	0.130	21.07	0.128
10	QPSK	25	0	20.35	0.108	20.36	0.109	20.32	0.108
10	QPSK	25	12	20.07	0.102	20.19	0.104	20.12	0.103
10	QPSK	25	25	19.98	0.100	20.11	0.103	20.07	0.102
10	QPSK	50	0	20.04	0.101	20.13	0.103	20.11	0.103
10	16QAM	1	0	20.52	0.113	20.45	0.111	20.44	0.111
10	16QAM	1	25	20.21	0.105	20.17	0.104	20.24	0.106
10	16QAM	1	49	20.16	0.104	20.24	0.106	20.03	0.101
10	16QAM	25	0	20.06	0.101	20.05	0.101	20.14	0.103
10	16QAM	25	12	20.16	0.104	20.12	0.103	20.11	0.103
10	16QAM	25	25	20.11	0.103	20.07	0.102	20.06	0.101
10	16QAM	50	0	20.07	0.102	20.00	0.100	20.04	0.101
10	64QAM	1	0	20.02	0.100	20.07	0.102	20.07	0.102
10	64QAM	1	25	20.05	0.101	20.10	0.102	20.14	0.103
10	64QAM	1	49	19.72	0.094	19.85	0.097	19.82	0.096
10	64QAM	25	0	20.02	0.100	20.06	0.101	20.07	0.102
10	64QAM	25	12	20.05	0.101	20.03	0.101	20.04	0.101
10	64QAM	25	25	19.98	0.100	20.00	0.100	19.98	0.100
10	64QAM	50	0	19.99	0.100	19.99	0.100	19.96	0.099



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	21.21	0.132	21.26	0.134	21.20	0.132
5	QPSK	1	12	21.20	0.132	21.31	0.135	21.18	0.131
5	QPSK	1	24	21.16	0.131	21.32	0.136	21.25	0.133
5	QPSK	12	0	20.10	0.102	20.01	0.100	20.08	0.102
5	QPSK	12	7	20.11	0.103	20.16	0.104	20.08	0.102
5	QPSK	12	13	20.10	0.102	20.09	0.102	20.12	0.103
5	QPSK	25	0	20.09	0.102	20.07	0.102	20.09	0.102
5	16QAM	1	0	20.22	0.105	20.12	0.103	20.50	0.112
5	16QAM	1	12	20.20	0.105	20.13	0.103	20.50	0.112
5	16QAM	1	24	20.23	0.105	20.10	0.102	20.49	0.112
5	16QAM	12	0	20.17	0.104	20.20	0.105	19.97	0.099
5	16QAM	12	7	20.13	0.103	20.15	0.104	20.09	0.102
5	16QAM	12	13	20.16	0.104	20.05	0.101	20.00	0.100
5	16QAM	25	0	20.08	0.102	20.06	0.101	20.04	0.101
5	64QAM	1	0	20.41	0.110	19.96	0.099	20.01	0.100
5	64QAM	1	12	20.40	0.110	20.06	0.101	20.17	0.104
5	64QAM	1	24	20.41	0.110	20.05	0.101	20.07	0.102
5	64QAM	12	0	20.26	0.106	20.19	0.104	20.18	0.104
5	64QAM	12	7	20.32	0.108	20.16	0.104	20.16	0.104
5	64QAM	12	13	20.29	0.107	20.25	0.106	20.23	0.105
5	64QAM	25	0	20.36	0.109	20.16	0.104	20.23	0.105



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	21.26	0.134	21.04	0.127	21.16	0.131
3	QPSK	1	8	21.19	0.132	21.40	0.138	21.23	0.133
3	QPSK	1	14	21.38	0.137	21.25	0.133	21.25	0.133
3	QPSK	8	0	20.10	0.102	20.05	0.101	20.07	0.102
3	QPSK	8	4	20.16	0.104	20.10	0.102	20.11	0.103
3	QPSK	8	7	20.16	0.104	20.10	0.102	20.06	0.101
3	QPSK	15	0	20.08	0.102	20.16	0.104	20.09	0.102
3	16QAM	1	0	20.24	0.106	20.15	0.104	20.09	0.102
3	16QAM	1	8	20.28	0.107	20.22	0.105	20.18	0.104
3	16QAM	1	14	20.21	0.105	20.18	0.104	20.06	0.101
3	16QAM	8	0	20.12	0.103	20.25	0.106	20.17	0.104
3	16QAM	8	4	20.19	0.104	20.16	0.104	20.22	0.105
3	16QAM	8	7	20.09	0.102	20.14	0.103	20.17	0.104
3	16QAM	15	0	20.12	0.103	20.16	0.104	20.11	0.103
3	64QAM	1	0	20.09	0.102	20.02	0.100	20.05	0.101
3	64QAM	1	8	20.27	0.106	20.26	0.106	19.86	0.097
3	64QAM	1	14	19.88	0.097	20.24	0.106	19.88	0.097
3	64QAM	8	0	20.00	0.100	20.02	0.100	20.10	0.102
3	64QAM	8	4	20.10	0.102	20.00	0.100	20.24	0.106
3	64QAM	8	7	20.20	0.105	20.09	0.102	20.19	0.104
3	64QAM	15	0	20.05	0.101	20.05	0.101	20.27	0.106



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	21.13	0.130	21.15	0.130	21.11	0.129
1.4	QPSK	1	3	21.23	0.133	21.21	0.132	21.20	0.132
1.4	QPSK	1	5	21.20	0.132	21.18	0.131	21.16	0.131
1.4	QPSK	3	0	21.07	0.128	20.97	0.125	21.14	0.130
1.4	QPSK	3	1	21.15	0.130	20.98	0.125	21.05	0.127
1.4	QPSK	3	3	20.83	0.121	20.87	0.122	21.14	0.130
1.4	QPSK	6	0	20.30	0.107	20.28	0.107	20.27	0.106
1.4	16QAM	1	0	20.33	0.108	20.33	0.108	20.27	0.106
1.4	16QAM	1	3	20.29	0.107	20.49	0.112	20.47	0.111
1.4	16QAM	1	5	20.17	0.104	20.37	0.109	20.05	0.101
1.4	16QAM	3	0	20.19	0.104	20.24	0.106	20.21	0.105
1.4	16QAM	3	1	20.37	0.109	20.19	0.104	20.24	0.106
1.4	16QAM	3	3	20.39	0.109	20.36	0.109	20.10	0.102
1.4	16QAM	6	0	20.40	0.110	20.33	0.108	20.28	0.107
1.4	64QAM	1	0	20.16	0.104	20.08	0.102	20.11	0.103
1.4	64QAM	1	3	20.18	0.104	20.39	0.109	20.27	0.106
1.4	64QAM	1	5	20.16	0.104	20.51	0.112	20.10	0.102
1.4	64QAM	3	0	20.19	0.104	20.25	0.106	20.26	0.106
1.4	64QAM	3	1	20.28	0.107	20.25	0.106	19.99	0.100
1.4	64QAM	3	3	20.20	0.105	20.34	0.108	20.11	0.103
1.4	64QAM	6	0	20.25	0.106	20.28	0.107	20.17	0.104



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	19.87	0.097	19.99	0.100	19.94	0.099
20	QPSK	1	49	19.73	0.094	19.81	0.096	19.80	0.095
20	QPSK	1	99	19.65	0.092	19.78	0.095	19.90	0.098
20	QPSK	50	0	18.95	0.079	19.08	0.081	19.05	0.080
20	QPSK	50	24	18.95	0.079	19.03	0.080	19.03	0.080
20	QPSK	50	50	18.84	0.077	18.95	0.079	18.96	0.079
20	QPSK	100	0	18.94	0.078	18.98	0.079	19.05	0.080
20	16QAM	1	0	18.81	0.076	18.89	0.077	18.78	0.076
20	16QAM	1	49	18.96	0.079	18.73	0.075	18.87	0.077
20	16QAM	1	99	18.75	0.075	18.97	0.079	18.73	0.075
20	16QAM	50	0	18.62	0.073	18.67	0.074	18.77	0.075
20	16QAM	50	24	18.58	0.072	18.69	0.074	18.58	0.072
20	16QAM	50	50	18.54	0.071	18.55	0.072	18.55	0.072
20	16QAM	100	0	18.56	0.072	18.64	0.073	18.65	0.073
20	64QAM	1	0	18.73	0.075	18.84	0.077	19.06	0.081
20	64QAM	1	49	18.77	0.075	18.70	0.074	18.58	0.072
20	64QAM	1	99	19.04	0.080	18.61	0.073	19.08	0.081
20	64QAM	50	0	18.74	0.075	18.83	0.076	18.78	0.076
20	64QAM	50	24	18.76	0.075	18.87	0.077	18.81	0.076
20	64QAM	50	50	18.80	0.076	18.75	0.075	18.77	0.075
20	64QAM	100	0	18.83	0.076	18.81	0.076	18.90	0.078



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	19.74	0.094	19.78	0.095	19.88	0.097
15	QPSK	1	37	19.78	0.095	19.87	0.097	19.79	0.095
15	QPSK	1	74	19.65	0.092	19.87	0.097	19.90	0.098
15	QPSK	36	0	18.89	0.077	18.96	0.079	18.99	0.079
15	QPSK	36	20	18.93	0.078	19.06	0.081	19.02	0.080
15	QPSK	36	39	18.98	0.079	18.97	0.079	19.06	0.081
15	QPSK	75	0	18.93	0.078	18.95	0.079	18.96	0.079
15	16QAM	1	0	18.63	0.073	18.85	0.077	18.57	0.072
15	16QAM	1	37	18.71	0.074	18.71	0.074	18.55	0.072
15	16QAM	1	74	18.57	0.072	18.87	0.077	18.66	0.073
15	16QAM	36	0	18.58	0.072	18.60	0.072	18.79	0.076
15	16QAM	36	20	18.53	0.071	18.60	0.072	18.66	0.073
15	16QAM	36	39	18.49	0.071	18.58	0.072	18.64	0.073
15	16QAM	75	0	18.60	0.072	18.61	0.073	18.70	0.074
15	64QAM	1	0	18.60	0.072	18.91	0.078	18.96	0.079
15	64QAM	1	37	19.02	0.080	18.78	0.076	18.84	0.077
15	64QAM	1	74	19.06	0.081	18.77	0.075	18.81	0.076
15	64QAM	36	0	18.71	0.074	18.78	0.076	18.82	0.076
15	64QAM	36	20	18.77	0.075	18.79	0.076	18.81	0.076
15	64QAM	36	39	18.80	0.076	18.76	0.075	18.78	0.076
15	64QAM	75	0	18.73	0.075	18.84	0.077	18.77	0.075



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	19.66	0.092	19.85	0.097	19.68	0.093
10	QPSK	1	25	19.64	0.092	19.77	0.095	19.78	0.095
10	QPSK	1	49	19.72	0.094	19.55	0.090	19.78	0.095
10	QPSK	25	0	18.72	0.074	18.94	0.078	18.96	0.079
10	QPSK	25	12	18.84	0.077	18.90	0.078	18.94	0.078
10	QPSK	25	25	18.73	0.075	18.84	0.077	18.91	0.078
10	QPSK	50	0	18.79	0.076	18.89	0.077	18.81	0.076
10	16QAM	1	0	18.54	0.071	18.69	0.074	18.45	0.070
10	16QAM	1	25	18.81	0.076	18.55	0.072	18.87	0.077
10	16QAM	1	49	18.88	0.077	18.78	0.076	18.77	0.075
10	16QAM	25	0	18.54	0.071	18.53	0.071	18.52	0.071
10	16QAM	25	12	18.46	0.070	18.56	0.072	18.53	0.071
10	16QAM	25	25	18.80	0.076	18.71	0.074	18.80	0.076
10	16QAM	50	0	18.74	0.075	18.78	0.076	18.90	0.078
10	64QAM	1	0	18.65	0.073	18.73	0.075	18.63	0.073
10	64QAM	1	25	18.72	0.074	19.01	0.080	19.10	0.081
10	64QAM	1	49	18.70	0.074	18.74	0.075	18.69	0.074
10	64QAM	25	0	18.54	0.071	18.68	0.074	18.67	0.074
10	64QAM	25	12	18.63	0.073	18.74	0.075	18.78	0.076
10	64QAM	25	25	18.51	0.071	18.63	0.073	18.65	0.073
10	64QAM	50	0	18.57	0.072	18.64	0.073	18.63	0.073



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	19.56	0.090	19.78	0.095	19.83	0.096
5	QPSK	1	12	19.62	0.092	19.77	0.095	19.74	0.094
5	QPSK	1	24	19.57	0.091	19.69	0.093	19.68	0.093
5	QPSK	12	0	18.80	0.076	18.80	0.076	18.84	0.077
5	QPSK	12	7	18.80	0.076	18.91	0.078	18.88	0.077
5	QPSK	12	13	18.75	0.075	18.92	0.078	18.84	0.077
5	QPSK	25	0	18.78	0.076	18.82	0.076	18.88	0.077
5	16QAM	1	0	18.44	0.070	18.85	0.077	18.53	0.071
5	16QAM	1	12	18.55	0.072	18.90	0.078	18.49	0.071
5	16QAM	1	24	18.49	0.071	18.84	0.077	18.44	0.070
5	16QAM	12	0	18.48	0.070	18.42	0.070	18.45	0.070
5	16QAM	12	7	18.51	0.071	18.55	0.072	18.53	0.071
5	16QAM	12	13	18.78	0.076	18.85	0.077	18.89	0.077
5	16QAM	25	0	18.79	0.076	18.90	0.078	18.83	0.076
5	64QAM	1	0	18.61	0.073	19.05	0.080	19.03	0.080
5	64QAM	1	12	18.99	0.079	18.75	0.075	19.02	0.080
5	64QAM	1	24	18.95	0.079	18.65	0.073	18.72	0.074
5	64QAM	12	0	18.62	0.073	18.69	0.074	18.71	0.074
5	64QAM	12	7	18.61	0.073	18.70	0.074	18.76	0.075
5	64QAM	12	13	18.62	0.073	18.68	0.074	18.67	0.074
5	64QAM	25	0	18.57	0.072	18.71	0.074	18.62	0.073



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	19.68	0.093	19.69	0.093	19.81	0.096
3	QPSK	1	8	19.77	0.095	19.91	0.098	19.85	0.097
3	QPSK	1	14	19.57	0.091	19.76	0.095	19.76	0.095
3	QPSK	8	0	18.78	0.076	18.84	0.077	18.85	0.077
3	QPSK	8	4	18.84	0.077	18.92	0.078	18.94	0.078
3	QPSK	8	7	18.80	0.076	18.90	0.078	18.90	0.078
3	QPSK	15	0	18.80	0.076	18.86	0.077	18.80	0.076
3	16QAM	1	0	18.64	0.073	18.73	0.075	18.77	0.075
3	16QAM	1	8	18.86	0.077	18.86	0.077	18.60	0.072
3	16QAM	1	14	18.77	0.075	18.55	0.072	18.63	0.073
3	16QAM	8	0	18.56	0.072	18.57	0.072	18.66	0.073
3	16QAM	8	4	18.66	0.073	18.66	0.073	18.67	0.074
3	16QAM	8	7	18.88	0.077	18.96	0.079	19.00	0.079
3	16QAM	15	0	18.88	0.077	18.86	0.077	18.93	0.078
3	64QAM	1	0	18.60	0.072	18.69	0.074	18.67	0.074
3	64QAM	1	8	18.79	0.076	18.67	0.074	18.83	0.076
3	64QAM	1	14	18.60	0.072	18.67	0.074	18.50	0.071
3	64QAM	8	0	18.58	0.072	18.62	0.073	18.56	0.072
3	64QAM	8	4	18.70	0.074	18.68	0.074	18.72	0.074
3	64QAM	8	7	18.64	0.073	18.71	0.074	18.83	0.076
3	64QAM	15	0	18.60	0.072	18.68	0.074	18.59	0.072



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	19.43	0.088	19.64	0.092	19.65	0.092
1.4	QPSK	1	3	19.77	0.095	19.77	0.095	19.81	0.096
1.4	QPSK	1	5	19.63	0.092	19.72	0.094	19.74	0.094
1.4	QPSK	3	0	19.71	0.094	19.68	0.093	19.67	0.093
1.4	QPSK	3	1	19.67	0.093	19.77	0.095	19.82	0.096
1.4	QPSK	3	3	19.66	0.092	19.73	0.094	19.72	0.094
1.4	QPSK	6	0	18.56	0.072	18.65	0.073	18.65	0.073
1.4	16QAM	1	0	18.53	0.071	19.00	0.079	18.66	0.073
1.4	16QAM	1	3	18.66	0.073	18.74	0.075	18.78	0.076
1.4	16QAM	1	5	18.72	0.074	18.88	0.077	18.68	0.074
1.4	16QAM	3	0	18.75	0.075	18.79	0.076	18.70	0.074
1.4	16QAM	3	1	18.76	0.075	18.79	0.076	18.81	0.076
1.4	16QAM	3	3	18.75	0.075	18.87	0.077	18.76	0.075
1.4	16QAM	6	0	18.66	0.073	18.67	0.074	18.58	0.072
1.4	64QAM	1	0	18.49	0.071	18.43	0.070	18.57	0.072
1.4	64QAM	1	3	18.75	0.075	18.73	0.075	18.85	0.077
1.4	64QAM	1	5	18.66	0.073	18.62	0.073	18.46	0.070
1.4	64QAM	3	0	18.57	0.072	18.55	0.072	18.74	0.075
1.4	64QAM	3	1	18.48	0.070	18.63	0.073	18.60	0.072
1.4	64QAM	3	3	18.54	0.071	18.71	0.074	18.59	0.072
1.4	64QAM	6	0	18.53	0.071	18.54	0.071	18.61	0.073



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	20.19	0.104	20.32	0.108	20.03	0.101
10	QPSK	1	25	20.06	0.101	20.17	0.104	20.19	0.104
10	QPSK	1	49	20.07	0.102	20.00	0.100	19.94	0.099
10	QPSK	25	0	19.05	0.080	19.17	0.083	19.06	0.081
10	QPSK	25	12	19.09	0.081	19.08	0.081	19.04	0.080
10	QPSK	25	25	19.17	0.083	19.04	0.080	19.13	0.082
10	QPSK	50	0	19.13	0.082	19.08	0.081	19.16	0.082
10	16QAM	1	0	19.44	0.088	19.14	0.082	19.53	0.090
10	16QAM	1	25	19.10	0.081	19.08	0.081	19.12	0.082
10	16QAM	1	49	19.39	0.087	19.20	0.083	19.33	0.086
10	16QAM	25	0	18.11	0.065	18.09	0.064	18.16	0.065
10	16QAM	25	12	18.17	0.066	18.10	0.065	18.17	0.066
10	16QAM	25	25	18.13	0.065	18.16	0.065	18.10	0.065
10	16QAM	50	0	18.16	0.065	18.15	0.065	18.07	0.064
10	64QAM	1	0	18.25	0.067	18.46	0.070	18.20	0.066
10	64QAM	1	25	18.16	0.065	18.38	0.069	18.39	0.069
10	64QAM	1	49	18.41	0.069	18.27	0.067	18.07	0.064
10	64QAM	25	0	18.08	0.064	18.06	0.064	18.05	0.064
10	64QAM	25	12	18.18	0.066	18.06	0.064	18.00	0.063
10	64QAM	25	25	18.06	0.064	18.16	0.065	18.05	0.064
10	64QAM	50	0	18.13	0.065	18.14	0.065	18.09	0.064



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	20.07	0.102	19.92	0.098	19.94	0.099
5	QPSK	1	12	20.11	0.103	19.90	0.098	19.96	0.099
5	QPSK	1	24	20.05	0.101	20.06	0.101	19.82	0.096
5	QPSK	12	0	19.17	0.083	19.11	0.081	19.05	0.080
5	QPSK	12	7	19.10	0.081	19.08	0.081	19.05	0.080
5	QPSK	12	13	19.13	0.082	19.05	0.080	19.06	0.081
5	QPSK	25	0	19.11	0.081	19.16	0.082	19.05	0.080
5	16QAM	1	0	19.21	0.083	19.23	0.084	19.51	0.089
5	16QAM	1	12	19.22	0.084	19.27	0.085	19.15	0.082
5	16QAM	1	24	19.12	0.082	19.06	0.081	19.53	0.090
5	16QAM	12	0	18.05	0.064	17.99	0.063	18.15	0.065
5	16QAM	12	7	18.19	0.066	18.17	0.066	18.09	0.064
5	16QAM	12	13	18.12	0.065	18.17	0.066	18.15	0.065
5	16QAM	25	0	18.19	0.066	18.16	0.065	17.94	0.062
5	64QAM	1	0	18.39	0.069	18.46	0.070	18.19	0.066
5	64QAM	1	12	18.40	0.069	18.36	0.069	18.13	0.065
5	64QAM	1	24	18.27	0.067	18.30	0.068	18.18	0.066
5	64QAM	12	0	18.04	0.064	18.01	0.063	18.02	0.063
5	64QAM	12	7	18.16	0.065	18.09	0.064	18.02	0.063
5	64QAM	12	13	18.07	0.064	18.06	0.064	18.12	0.065
5	64QAM	25	0	18.05	0.064	18.13	0.065	18.07	0.064



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	19.99	0.100	19.90	0.098	19.87	0.097
3	QPSK	1	8	20.06	0.101	19.96	0.099	19.88	0.097
3	QPSK	1	14	19.88	0.097	19.96	0.099	19.92	0.098
3	QPSK	8	0	19.08	0.081	19.02	0.080	19.07	0.081
3	QPSK	8	4	19.07	0.081	19.05	0.080	19.05	0.080
3	QPSK	8	7	19.11	0.081	19.09	0.081	19.06	0.081
3	QPSK	15	0	19.04	0.080	19.08	0.081	18.95	0.079
3	16QAM	1	0	19.25	0.084	19.45	0.088	19.22	0.084
3	16QAM	1	8	19.51	0.089	19.45	0.088	19.18	0.083
3	16QAM	1	14	19.34	0.086	19.37	0.086	19.14	0.082
3	16QAM	8	0	18.10	0.065	18.04	0.064	18.16	0.065
3	16QAM	8	4	18.24	0.067	18.08	0.064	17.94	0.062
3	16QAM	8	7	17.96	0.063	18.09	0.064	18.10	0.065
3	16QAM	15	0	18.11	0.065	18.17	0.066	18.09	0.064
3	64QAM	1	0	18.29	0.067	18.19	0.066	18.19	0.066
3	64QAM	1	8	18.20	0.066	18.09	0.064	18.36	0.069
3	64QAM	1	14	18.20	0.066	18.36	0.069	18.30	0.068
3	64QAM	8	0	18.14	0.065	17.97	0.063	17.92	0.062
3	64QAM	8	4	18.03	0.064	18.31	0.068	17.98	0.063
3	64QAM	8	7	18.20	0.066	18.01	0.063	18.08	0.064
3	64QAM	15	0	18.09	0.064	18.08	0.064	18.01	0.063



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	19.89	0.097	19.90	0.098	19.91	0.098
1.4	QPSK	1	3	19.96	0.099	19.93	0.098	19.91	0.098
1.4	QPSK	1	5	19.83	0.096	19.93	0.098	19.81	0.096
1.4	QPSK	3	0	19.91	0.098	19.91	0.098	19.90	0.098
1.4	QPSK	3	1	19.93	0.098	19.93	0.098	19.87	0.097
1.4	QPSK	3	3	19.86	0.097	19.97	0.099	19.80	0.095
1.4	QPSK	6	0	18.96	0.079	18.97	0.079	18.93	0.078
1.4	16QAM	1	0	19.44	0.088	19.24	0.084	19.19	0.083
1.4	16QAM	1	3	19.55	0.090	19.53	0.090	19.20	0.083
1.4	16QAM	1	5	19.53	0.090	19.33	0.086	19.15	0.082
1.4	16QAM	3	0	18.88	0.077	18.92	0.078	19.03	0.080
1.4	16QAM	3	1	18.93	0.078	19.00	0.079	19.03	0.080
1.4	16QAM	3	3	18.90	0.078	18.91	0.078	18.89	0.077
1.4	16QAM	6	0	18.41	0.069	18.20	0.066	18.13	0.065
1.4	64QAM	1	0	18.50	0.071	18.26	0.067	18.24	0.067
1.4	64QAM	1	3	18.13	0.065	18.50	0.071	18.21	0.066
1.4	64QAM	1	5	18.39	0.069	18.39	0.069	18.09	0.064
1.4	64QAM	3	0	18.20	0.066	18.27	0.067	18.17	0.066
1.4	64QAM	3	1	18.11	0.065	18.11	0.065	18.24	0.067
1.4	64QAM	3	3	18.30	0.068	18.19	0.066	18.19	0.066
1.4	64QAM	6	0	18.21	0.066	18.13	0.065	18.39	0.069



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	20.27	0.106	19.99	0.100	20.04	0.101
10	QPSK	1	25	20.18	0.104	20.17	0.104	20.23	0.105
10	QPSK	1	49	20.17	0.104	20.17	0.104	20.18	0.104
10	QPSK	25	0	19.32	0.086	19.15	0.082	19.19	0.083
10	QPSK	25	12	19.29	0.085	19.20	0.083	19.27	0.085
10	QPSK	25	25	19.12	0.082	19.09	0.081	19.18	0.083
10	QPSK	50	0	19.23	0.084	19.09	0.081	19.31	0.085
10	16QAM	1	0	19.31	0.085	19.20	0.083	19.19	0.083
10	16QAM	1	25	19.06	0.081	19.36	0.086	19.36	0.086
10	16QAM	1	49	19.21	0.083	19.46	0.088	19.35	0.086
10	16QAM	25	0	18.18	0.066	18.14	0.065	18.20	0.066
10	16QAM	25	12	18.28	0.067	18.28	0.067	18.26	0.067
10	16QAM	25	25	18.16	0.065	18.34	0.068	18.29	0.067
10	16QAM	50	0	18.23	0.067	18.19	0.066	18.29	0.067
10	64QAM	1	0	18.26	0.067	18.39	0.069	18.28	0.067
10	64QAM	1	25	18.17	0.066	18.40	0.069	18.27	0.067
10	64QAM	1	49	18.20	0.066	18.27	0.067	18.36	0.069
10	64QAM	25	0	18.36	0.069	18.10	0.065	18.16	0.065
10	64QAM	25	12	18.30	0.068	18.27	0.067	18.20	0.066
10	64QAM	25	25	18.22	0.066	18.36	0.069	18.21	0.066
10	64QAM	50	0	18.11	0.065	18.11	0.065	18.25	0.067



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	20.09	0.102	20.01	0.100	20.14	0.103
5	QPSK	1	12	20.20	0.105	20.11	0.103	20.00	0.100
5	QPSK	1	24	20.16	0.104	20.22	0.105	20.13	0.103
5	QPSK	12	0	19.09	0.081	19.23	0.084	19.13	0.082
5	QPSK	12	7	19.23	0.084	19.28	0.085	19.22	0.084
5	QPSK	12	13	19.17	0.083	19.20	0.083	19.22	0.084
5	QPSK	25	0	19.15	0.082	19.19	0.083	19.09	0.081
5	16QAM	1	0	19.49	0.089	19.58	0.091	19.56	0.090
5	16QAM	1	12	19.31	0.085	19.42	0.087	19.35	0.086
5	16QAM	1	24	19.21	0.083	19.35	0.086	19.42	0.087
5	16QAM	12	0	18.10	0.065	18.24	0.067	18.23	0.067
5	16QAM	12	7	18.33	0.068	18.27	0.067	18.29	0.067
5	16QAM	12	13	18.20	0.066	18.23	0.067	18.26	0.067
5	16QAM	25	0	18.25	0.067	18.24	0.067	18.05	0.064
5	64QAM	1	0	18.39	0.069	18.27	0.067	18.36	0.069
5	64QAM	1	12	18.40	0.069	18.20	0.066	18.19	0.066
5	64QAM	1	24	18.46	0.070	18.47	0.070	18.40	0.069
5	64QAM	12	0	18.03	0.064	18.25	0.067	18.16	0.065
5	64QAM	12	7	18.30	0.068	18.20	0.066	18.27	0.067
5	64QAM	12	13	18.17	0.066	18.28	0.067	18.25	0.067
5	64QAM	25	0	18.23	0.067	18.26	0.067	18.12	0.065



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	20.13	0.103	20.14	0.103	20.13	0.103
3	QPSK	1	8	20.17	0.104	20.18	0.104	20.18	0.104
3	QPSK	1	14	20.11	0.103	20.11	0.103	20.09	0.102
3	QPSK	8	0	19.16	0.082	19.25	0.084	19.15	0.082
3	QPSK	8	4	19.19	0.083	19.16	0.082	19.26	0.084
3	QPSK	8	7	19.14	0.082	19.19	0.083	19.09	0.081
3	QPSK	15	0	19.14	0.082	19.11	0.081	19.12	0.082
3	16QAM	1	0	19.66	0.092	19.43	0.088	19.54	0.090
3	16QAM	1	8	19.63	0.092	19.70	0.093	19.55	0.090
3	16QAM	1	14	19.57	0.091	19.75	0.094	19.45	0.088
3	16QAM	8	0	18.32	0.068	18.34	0.068	18.19	0.066
3	16QAM	8	4	18.30	0.068	18.26	0.067	18.19	0.066
3	16QAM	8	7	18.14	0.065	18.33	0.068	18.14	0.065
3	16QAM	15	0	18.31	0.068	18.25	0.067	18.09	0.064
3	64QAM	1	0	18.36	0.069	18.27	0.067	18.27	0.067
3	64QAM	1	8	18.37	0.069	18.46	0.070	18.36	0.069
3	64QAM	1	14	18.40	0.069	18.36	0.069	18.35	0.068
3	64QAM	8	0	18.23	0.067	18.21	0.066	18.11	0.065
3	64QAM	8	4	18.15	0.065	18.22	0.066	18.19	0.066
3	64QAM	8	7	18.23	0.067	18.15	0.065	18.10	0.065
3	64QAM	15	0	18.13	0.065	18.29	0.067	18.15	0.065



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	20.13	0.103	20.05	0.101	20.05	0.101
1.4	QPSK	1	3	20.02	0.100	20.19	0.104	20.08	0.102
1.4	QPSK	1	5	19.99	0.100	20.05	0.101	19.98	0.100
1.4	QPSK	3	0	20.01	0.100	20.01	0.100	20.11	0.103
1.4	QPSK	3	1	20.02	0.100	20.11	0.103	20.03	0.101
1.4	QPSK	3	3	20.00	0.100	20.10	0.102	20.11	0.103
1.4	QPSK	6	0	19.13	0.082	19.14	0.082	19.15	0.082
1.4	16QAM	1	0	19.31	0.085	19.34	0.086	19.30	0.085
1.4	16QAM	1	3	19.28	0.085	19.43	0.088	19.33	0.086
1.4	16QAM	1	5	19.25	0.084	19.27	0.085	19.27	0.085
1.4	16QAM	3	0	19.18	0.083	19.19	0.083	19.19	0.083
1.4	16QAM	3	1	19.25	0.084	19.25	0.084	19.14	0.082
1.4	16QAM	3	3	19.14	0.082	19.19	0.083	19.12	0.082
1.4	16QAM	6	0	18.15	0.065	18.24	0.067	18.19	0.066
1.4	64QAM	1	0	18.23	0.067	18.23	0.067	18.10	0.065
1.4	64QAM	1	3	18.23	0.067	18.39	0.069	18.20	0.066
1.4	64QAM	1	5	18.20	0.066	18.23	0.067	18.33	0.068
1.4	64QAM	3	0	18.14	0.065	18.36	0.069	18.12	0.065
1.4	64QAM	3	1	18.11	0.065	18.11	0.065	18.21	0.066
1.4	64QAM	3	3	18.13	0.065	18.39	0.069	18.14	0.065
1.4	64QAM	6	0	18.15	0.065	18.21	0.066	18.15	0.065



LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				/		23230		/	
Frequency (MHz)				/		782		/	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	/	/	19.87	0.097	/	/
10	QPSK	1	25	/	/	20.05	0.101	/	/
10	QPSK	1	49	/	/	19.95	0.099	/	/
10	QPSK	25	0	/	/	18.93	0.078	/	/
10	QPSK	25	12	/	/	19.00	0.079	/	/
10	QPSK	25	25	/	/	19.02	0.080	/	/
10	QPSK	50	0	/	/	19.01	0.080	/	/
10	16QAM	1	0	/	/	19.11	0.081	/	/
10	16QAM	1	25	/	/	19.35	0.086	/	/
10	16QAM	1	49	/	/	19.32	0.086	/	/
10	16QAM	25	0	/	/	18.49	0.071	/	/
10	16QAM	25	12	/	/	18.39	0.069	/	/
10	16QAM	25	25	/	/	18.39	0.069	/	/
10	16QAM	50	0	/	/	18.47	0.070	/	/
10	64QAM	1	0	/	/	18.36	0.069	/	/
10	64QAM	1	25	/	/	18.47	0.070	/	/
10	64QAM	1	49	/	/	18.33	0.068	/	/
10	64QAM	25	0	/	/	18.39	0.069	/	/
10	64QAM	25	12	/	/	18.41	0.069	/	/
10	64QAM	25	25	/	/	18.52	0.071	/	/
10	64QAM	50	0	/	/	18.36	0.069	/	/



LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23205		23230		23255	
Frequency (MHz)				779.5		782		784.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	19.82	0.096	19.96	0.099	19.93	0.098
5	QPSK	1	12	19.89	0.097	19.92	0.098	19.87	0.097
5	QPSK	1	24	19.87	0.097	19.87	0.097	19.93	0.098
5	QPSK	12	0	18.89	0.077	18.91	0.078	18.92	0.078
5	QPSK	12	7	19.03	0.080	18.89	0.077	19.02	0.080
5	QPSK	12	13	18.94	0.078	19.03	0.080	18.96	0.079
5	QPSK	25	0	19.05	0.080	18.98	0.079	19.01	0.080
5	16QAM	1	0	19.40	0.087	19.23	0.084	19.15	0.082
5	16QAM	1	12	19.06	0.081	19.41	0.087	19.35	0.086
5	16QAM	1	24	19.28	0.085	19.44	0.088	19.42	0.087
5	16QAM	12	0	18.41	0.069	17.92	0.062	17.98	0.063
5	16QAM	12	7	18.46	0.070	17.90	0.062	18.10	0.065
5	16QAM	12	13	18.39	0.069	18.12	0.065	18.01	0.063
5	16QAM	25	0	18.37	0.069	18.30	0.068	18.00	0.063
5	64QAM	1	0	18.40	0.069	18.46	0.070	18.46	0.070
5	64QAM	1	12	18.30	0.068	18.30	0.068	18.14	0.065
5	64QAM	1	24	18.46	0.070	18.11	0.065	18.19	0.066
5	64QAM	12	0	18.30	0.068	18.19	0.066	18.33	0.068
5	64QAM	12	7	18.33	0.068	18.12	0.065	18.19	0.066
5	64QAM	12	13	18.49	0.071	18.02	0.063	17.98	0.063
5	64QAM	25	0	18.20	0.066	17.98	0.063	18.09	0.064



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	19.90	0.098	20.06	0.101	19.95	0.099
20	QPSK	1	49	19.76	0.095	19.89	0.097	19.92	0.098
20	QPSK	1	99	19.86	0.097	19.87	0.097	19.86	0.097
20	QPSK	50	0	19.07	0.081	19.17	0.083	19.08	0.081
20	QPSK	50	24	19.04	0.080	18.98	0.079	18.77	0.075
20	QPSK	50	50	19.09	0.081	19.15	0.082	19.08	0.081
20	QPSK	100	0	19.10	0.081	19.12	0.082	19.03	0.080
20	16QAM	1	0	19.03	0.080	18.58	0.072	18.71	0.074
20	16QAM	1	49	18.78	0.076	18.73	0.075	18.87	0.077
20	16QAM	1	99	18.87	0.077	18.92	0.078	18.81	0.076
20	16QAM	50	0	18.76	0.075	18.78	0.076	18.72	0.074
20	16QAM	50	24	18.80	0.076	18.84	0.077	18.73	0.075
20	16QAM	50	50	18.85	0.077	18.86	0.077	18.80	0.076
20	16QAM	100	0	18.75	0.075	18.83	0.076	18.88	0.077
20	64QAM	1	0	18.58	0.072	18.70	0.074	19.04	0.080
20	64QAM	1	49	19.02	0.080	19.08	0.081	18.67	0.074
20	64QAM	1	99	19.04	0.080	18.72	0.074	18.65	0.073
20	64QAM	50	0	18.55	0.072	18.49	0.071	18.46	0.070
20	64QAM	50	24	18.60	0.072	18.63	0.073	18.55	0.072
20	64QAM	50	50	18.65	0.073	18.62	0.073	18.62	0.073
20	64QAM	100	0	18.57	0.072	18.50	0.071	18.61	0.073



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	19.65	0.092	19.81	0.096	19.76	0.095
15	QPSK	1	37	19.81	0.096	19.97	0.099	19.81	0.096
15	QPSK	1	74	19.77	0.095	19.96	0.099	19.82	0.096
15	QPSK	36	0	18.80	0.076	18.87	0.077	18.86	0.077
15	QPSK	36	20	18.91	0.078	18.93	0.078	18.90	0.078
15	QPSK	36	39	18.86	0.077	18.89	0.077	18.86	0.077
15	QPSK	75	0	18.82	0.076	18.94	0.078	18.90	0.078
15	16QAM	1	0	18.83	0.076	18.85	0.077	18.87	0.077
15	16QAM	1	37	19.00	0.079	18.95	0.079	18.96	0.079
15	16QAM	1	74	18.96	0.079	18.94	0.078	18.90	0.078
15	16QAM	36	0	18.70	0.074	18.67	0.074	18.70	0.074
15	16QAM	36	20	18.84	0.077	18.89	0.077	18.73	0.075
15	16QAM	36	39	18.79	0.076	18.76	0.075	18.81	0.076
15	16QAM	75	0	18.80	0.076	18.76	0.075	18.78	0.076
15	64QAM	1	0	18.56	0.072	18.57	0.072	18.62	0.073
15	64QAM	1	37	19.01	0.080	18.71	0.074	18.64	0.073
15	64QAM	1	74	18.99	0.079	18.68	0.074	18.73	0.075
15	64QAM	36	0	18.53	0.071	18.55	0.072	18.50	0.071
15	64QAM	36	20	18.63	0.073	18.51	0.071	18.57	0.072
15	64QAM	36	39	18.50	0.071	18.60	0.072	18.65	0.073
15	64QAM	75	0	18.65	0.073	18.61	0.073	18.58	0.072



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	19.73	0.094	19.82	0.096	19.67	0.093
10	QPSK	1	25	19.91	0.098	19.90	0.098	20.00	0.100
10	QPSK	1	49	19.85	0.097	19.96	0.099	19.91	0.098
10	QPSK	25	0	18.88	0.077	18.86	0.077	18.86	0.077
10	QPSK	25	12	18.91	0.078	18.94	0.078	18.95	0.079
10	QPSK	25	25	18.86	0.077	18.94	0.078	18.88	0.077
10	QPSK	50	0	18.85	0.077	18.93	0.078	18.79	0.076
10	16QAM	1	0	18.86	0.077	19.22	0.084	18.81	0.076
10	16QAM	1	25	19.06	0.081	19.04	0.080	18.99	0.079
10	16QAM	1	49	18.89	0.077	18.94	0.078	18.80	0.076
10	16QAM	25	0	18.86	0.077	18.75	0.075	18.78	0.076
10	16QAM	25	12	18.91	0.078	18.88	0.077	18.99	0.079
10	16QAM	25	25	18.75	0.075	18.78	0.076	18.84	0.077
10	16QAM	50	0	18.73	0.075	18.66	0.073	18.65	0.073
10	64QAM	1	0	18.57	0.072	18.91	0.078	18.90	0.078
10	64QAM	1	25	18.86	0.077	18.76	0.075	18.77	0.075
10	64QAM	1	49	18.79	0.076	18.64	0.073	18.75	0.075
10	64QAM	25	0	18.46	0.070	18.54	0.071	18.45	0.070
10	64QAM	25	12	18.55	0.072	18.59	0.072	18.58	0.072
10	64QAM	25	25	18.54	0.071	18.46	0.070	18.61	0.073
10	64QAM	50	0	18.53	0.071	18.55	0.072	18.47	0.070



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	19.79	0.095	19.80	0.095	19.72	0.094
5	QPSK	1	12	19.74	0.094	19.78	0.095	19.67	0.093
5	QPSK	1	24	19.69	0.093	19.64	0.092	19.69	0.093
5	QPSK	12	0	18.60	0.072	18.97	0.079	18.64	0.073
5	QPSK	12	7	18.66	0.073	18.63	0.073	18.53	0.071
5	QPSK	12	13	18.76	0.075	18.79	0.076	18.76	0.075
5	QPSK	25	0	18.71	0.074	18.73	0.075	18.70	0.074
5	16QAM	1	0	18.52	0.071	18.62	0.073	18.80	0.076
5	16QAM	1	12	18.67	0.074	18.53	0.071	18.81	0.076
5	16QAM	1	24	18.61	0.073	18.92	0.078	18.57	0.072
5	16QAM	12	0	18.46	0.070	18.56	0.072	18.49	0.071
5	16QAM	12	7	18.51	0.071	18.43	0.070	18.54	0.071
5	16QAM	12	13	18.59	0.072	18.64	0.073	18.47	0.070
5	16QAM	25	0	18.47	0.070	18.59	0.072	18.57	0.072
5	64QAM	1	0	18.75	0.075	18.59	0.072	18.32	0.068
5	64QAM	1	12	18.69	0.074	18.66	0.073	18.71	0.074
5	64QAM	1	24	18.67	0.074	18.72	0.074	18.63	0.073
5	64QAM	12	0	18.41	0.069	18.42	0.070	18.47	0.070
5	64QAM	12	7	18.46	0.070	18.47	0.070	18.47	0.070
5	64QAM	12	13	18.50	0.071	18.57	0.072	18.42	0.070
5	64QAM	25	0	18.43	0.070	18.40	0.069	18.52	0.071



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	19.62	0.092	19.71	0.094	19.71	0.094
3	QPSK	1	8	19.72	0.094	19.69	0.093	19.73	0.094
3	QPSK	1	14	19.66	0.092	19.73	0.094	19.73	0.094
3	QPSK	8	0	18.69	0.074	18.78	0.076	18.80	0.076
3	QPSK	8	4	18.77	0.075	18.84	0.077	18.79	0.076
3	QPSK	8	7	18.80	0.076	18.83	0.076	18.87	0.077
3	QPSK	15	0	18.86	0.077	18.79	0.076	18.81	0.076
3	16QAM	1	0	19.02	0.080	19.13	0.082	19.20	0.083
3	16QAM	1	8	18.84	0.077	18.95	0.079	18.93	0.078
3	16QAM	1	14	18.88	0.077	18.88	0.077	19.10	0.081
3	16QAM	8	0	18.47	0.070	18.58	0.072	18.60	0.072
3	16QAM	8	4	18.54	0.071	18.57	0.072	18.56	0.072
3	16QAM	8	7	18.60	0.072	18.58	0.072	18.47	0.070
3	16QAM	15	0	18.55	0.072	18.63	0.073	18.55	0.072
3	64QAM	1	0	18.65	0.073	18.62	0.073	18.50	0.071
3	64QAM	1	8	18.55	0.072	18.70	0.074	18.79	0.076
3	64QAM	1	14	18.54	0.071	18.66	0.073	18.72	0.074
3	64QAM	8	0	18.39	0.069	18.47	0.070	18.46	0.070
3	64QAM	8	4	18.50	0.071	18.49	0.071	18.56	0.072
3	64QAM	8	7	18.54	0.071	18.45	0.070	18.47	0.070
3	64QAM	15	0	18.39	0.069	18.49	0.071	18.44	0.070



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	19.76	0.095	19.80	0.095	19.73	0.094
1.4	QPSK	1	3	19.87	0.097	19.86	0.097	19.88	0.097
1.4	QPSK	1	5	19.76	0.095	19.81	0.096	19.77	0.095
1.4	QPSK	3	0	19.71	0.094	19.84	0.096	19.82	0.096
1.4	QPSK	3	1	19.92	0.098	19.92	0.098	19.93	0.098
1.4	QPSK	3	3	19.87	0.097	19.89	0.097	19.85	0.097
1.4	QPSK	6	0	18.85	0.077	18.82	0.076	18.80	0.076
1.4	16QAM	1	0	18.89	0.077	18.83	0.076	18.68	0.074
1.4	16QAM	1	3	18.70	0.074	19.13	0.082	18.80	0.076
1.4	16QAM	1	5	18.82	0.076	18.83	0.076	18.82	0.076
1.4	16QAM	3	0	18.66	0.073	18.69	0.074	18.70	0.074
1.4	16QAM	3	1	18.82	0.076	18.90	0.078	18.74	0.075
1.4	16QAM	3	3	18.65	0.073	18.79	0.076	18.79	0.076
1.4	16QAM	6	0	18.58	0.072	18.78	0.076	18.68	0.074
1.4	64QAM	1	0	18.41	0.069	18.56	0.072	18.40	0.069
1.4	64QAM	1	3	18.53	0.071	18.46	0.070	18.51	0.071
1.4	64QAM	1	5	18.69	0.074	18.72	0.074	18.68	0.074
1.4	64QAM	3	0	18.59	0.072	18.60	0.072	18.43	0.070
1.4	64QAM	3	1	18.57	0.072	18.81	0.076	18.66	0.073
1.4	64QAM	3	3	18.59	0.072	18.43	0.070	18.59	0.072
1.4	64QAM	6	0	18.55	0.072	18.56	0.072	18.43	0.070



Bottom Antenna

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	18.41	0.069	18.54	0.071	18.25	0.067
10	QPSK	1	25	18.28	0.067	18.39	0.069	18.41	0.069
10	QPSK	1	49	18.29	0.067	18.22	0.066	18.16	0.065
10	QPSK	25	0	17.27	0.053	17.39	0.055	17.28	0.053
10	QPSK	25	12	17.31	0.054	17.30	0.054	17.26	0.053
10	QPSK	25	25	17.39	0.055	17.26	0.053	17.35	0.054
10	QPSK	50	0	17.35	0.054	17.30	0.054	17.38	0.055
10	16QAM	1	0	17.66	0.058	17.36	0.054	17.75	0.060
10	16QAM	1	25	17.32	0.054	17.30	0.054	17.34	0.054
10	16QAM	1	49	17.61	0.058	17.42	0.055	17.55	0.057
10	16QAM	25	0	16.33	0.043	16.31	0.043	16.38	0.043
10	16QAM	25	12	16.39	0.044	16.32	0.043	16.39	0.044
10	16QAM	25	25	16.35	0.043	16.38	0.043	16.32	0.043
10	16QAM	50	0	16.38	0.043	16.37	0.043	16.29	0.043
10	64QAM	1	0	16.47	0.044	16.68	0.047	16.42	0.044
10	64QAM	1	25	16.38	0.043	16.60	0.046	16.61	0.046
10	64QAM	1	49	16.63	0.046	16.49	0.045	16.29	0.043
10	64QAM	25	0	16.30	0.043	16.28	0.042	16.27	0.042
10	64QAM	25	12	16.40	0.044	16.28	0.042	16.22	0.042
10	64QAM	25	25	16.28	0.042	16.38	0.043	16.27	0.042
10	64QAM	50	0	16.35	0.043	16.36	0.043	16.31	0.043



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	18.29	0.067	18.14	0.065	18.16	0.065
5	QPSK	1	12	18.33	0.068	18.12	0.065	18.18	0.066
5	QPSK	1	24	18.27	0.067	18.28	0.067	18.04	0.064
5	QPSK	12	0	17.39	0.055	17.33	0.054	17.27	0.053
5	QPSK	12	7	17.32	0.054	17.30	0.054	17.27	0.053
5	QPSK	12	13	17.35	0.054	17.27	0.053	17.28	0.053
5	QPSK	25	0	17.33	0.054	17.38	0.055	17.27	0.053
5	16QAM	1	0	17.43	0.055	17.45	0.056	17.73	0.059
5	16QAM	1	12	17.44	0.055	17.49	0.056	17.37	0.055
5	16QAM	1	24	17.34	0.054	17.28	0.053	17.75	0.060
5	16QAM	12	0	16.27	0.042	16.21	0.042	16.37	0.043
5	16QAM	12	7	16.41	0.044	16.39	0.044	16.31	0.043
5	16QAM	12	13	16.34	0.043	16.39	0.044	16.37	0.043
5	16QAM	25	0	16.41	0.044	16.38	0.043	16.16	0.041
5	64QAM	1	0	16.61	0.046	16.68	0.047	16.41	0.044
5	64QAM	1	12	16.62	0.046	16.58	0.045	16.35	0.043
5	64QAM	1	24	16.49	0.045	16.52	0.045	16.40	0.044
5	64QAM	12	0	16.26	0.042	16.23	0.042	16.24	0.042
5	64QAM	12	7	16.38	0.043	16.31	0.043	16.24	0.042
5	64QAM	12	13	16.29	0.043	16.28	0.042	16.34	0.043
5	64QAM	25	0	16.27	0.042	16.35	0.043	16.29	0.043



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	18.21	0.066	18.12	0.065	18.09	0.064
3	QPSK	1	8	18.28	0.067	18.18	0.066	18.10	0.065
3	QPSK	1	14	18.10	0.065	18.18	0.066	18.14	0.065
3	QPSK	8	0	17.30	0.054	17.24	0.053	17.29	0.054
3	QPSK	8	4	17.29	0.054	17.27	0.053	17.27	0.053
3	QPSK	8	7	17.33	0.054	17.31	0.054	17.28	0.053
3	QPSK	15	0	17.26	0.053	17.30	0.054	17.17	0.052
3	16QAM	1	0	17.47	0.056	17.67	0.058	17.44	0.055
3	16QAM	1	8	17.73	0.059	17.67	0.058	17.40	0.055
3	16QAM	1	14	17.56	0.057	17.59	0.057	17.36	0.054
3	16QAM	8	0	16.32	0.043	16.26	0.042	16.38	0.043
3	16QAM	8	4	16.46	0.044	16.30	0.043	16.16	0.041
3	16QAM	8	7	16.18	0.041	16.31	0.043	16.32	0.043
3	16QAM	15	0	16.33	0.043	16.39	0.044	16.31	0.043
3	64QAM	1	0	16.51	0.045	16.41	0.044	16.41	0.044
3	64QAM	1	8	16.42	0.044	16.31	0.043	16.58	0.045
3	64QAM	1	14	16.42	0.044	16.58	0.045	16.52	0.045
3	64QAM	8	0	16.36	0.043	16.19	0.042	16.14	0.041
3	64QAM	8	4	16.25	0.042	16.53	0.045	16.20	0.042
3	64QAM	8	7	16.42	0.044	16.23	0.042	16.30	0.043
3	64QAM	15	0	16.31	0.043	16.30	0.043	16.23	0.042



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	18.11	0.065	18.12	0.065	18.13	0.065
1.4	QPSK	1	3	18.18	0.066	18.15	0.065	18.13	0.065
1.4	QPSK	1	5	18.05	0.064	18.15	0.065	18.03	0.064
1.4	QPSK	3	0	18.13	0.065	18.13	0.065	18.12	0.065
1.4	QPSK	3	1	18.15	0.065	18.15	0.065	18.09	0.064
1.4	QPSK	3	3	18.08	0.064	18.19	0.066	18.02	0.063
1.4	QPSK	6	0	17.18	0.052	17.19	0.052	17.15	0.052
1.4	16QAM	1	0	17.66	0.058	17.46	0.056	17.41	0.055
1.4	16QAM	1	3	17.77	0.060	17.75	0.060	17.42	0.055
1.4	16QAM	1	5	17.75	0.060	17.55	0.057	17.37	0.055
1.4	16QAM	3	0	17.10	0.051	17.14	0.052	17.25	0.053
1.4	16QAM	3	1	17.15	0.052	17.22	0.053	17.25	0.053
1.4	16QAM	3	3	17.12	0.052	17.13	0.052	17.11	0.051
1.4	16QAM	6	0	16.63	0.046	16.42	0.044	16.35	0.043
1.4	64QAM	1	0	16.72	0.047	16.48	0.044	16.46	0.044
1.4	64QAM	1	3	16.35	0.043	16.72	0.047	16.43	0.044
1.4	64QAM	1	5	16.61	0.046	16.61	0.046	16.31	0.043
1.4	64QAM	3	0	16.42	0.044	16.49	0.045	16.39	0.044
1.4	64QAM	3	1	16.33	0.043	16.33	0.043	16.46	0.044
1.4	64QAM	3	3	16.52	0.045	16.41	0.044	16.41	0.044
1.4	64QAM	6	0	16.43	0.044	16.35	0.043	16.61	0.046



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	19.78	0.095	19.61	0.091	19.65	0.092
10	QPSK	1	25	19.66	0.092	19.53	0.090	19.45	0.088
10	QPSK	1	49	19.52	0.090	19.70	0.093	19.57	0.091
10	QPSK	25	0	18.77	0.075	18.69	0.074	18.69	0.074
10	QPSK	25	12	18.67	0.074	18.59	0.072	18.74	0.075
10	QPSK	25	25	18.69	0.074	18.60	0.072	18.71	0.074
10	QPSK	50	0	18.81	0.076	18.60	0.072	18.77	0.075
10	16QAM	1	0	18.83	0.076	18.85	0.077	18.95	0.079
10	16QAM	1	25	18.80	0.076	18.97	0.079	18.67	0.074
10	16QAM	1	49	18.90	0.078	18.91	0.078	18.97	0.079
10	16QAM	25	0	18.59	0.072	18.61	0.073	18.49	0.071
10	16QAM	25	12	18.72	0.074	18.49	0.071	18.38	0.069
10	16QAM	25	25	18.34	0.068	18.43	0.070	18.40	0.069
10	16QAM	50	0	18.64	0.073	18.52	0.071	18.47	0.070
10	64QAM	1	0	18.23	0.067	18.41	0.069	18.49	0.071
10	64QAM	1	25	18.47	0.070	18.41	0.069	18.34	0.068
10	64QAM	1	49	18.43	0.070	18.52	0.071	18.53	0.071
10	64QAM	25	0	18.62	0.073	18.49	0.071	18.60	0.072
10	64QAM	25	12	18.49	0.071	18.43	0.070	18.34	0.068
10	64QAM	25	25	18.40	0.069	18.49	0.071	18.42	0.070
10	64QAM	50	0	18.49	0.071	18.43	0.070	18.46	0.070



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	19.53	0.090	19.45	0.088	19.55	0.090
5	QPSK	1	12	19.54	0.090	19.65	0.092	19.56	0.090
5	QPSK	1	24	19.61	0.091	19.75	0.094	19.48	0.089
5	QPSK	12	0	18.61	0.073	18.70	0.074	18.62	0.073
5	QPSK	12	7	18.68	0.074	18.75	0.075	18.79	0.076
5	QPSK	12	13	18.66	0.073	18.75	0.075	18.62	0.073
5	QPSK	25	0	18.70	0.074	18.74	0.075	18.61	0.073
5	16QAM	1	0	18.81	0.076	18.74	0.075	18.92	0.078
5	16QAM	1	12	18.67	0.074	18.86	0.077	18.84	0.077
5	16QAM	1	24	19.06	0.081	18.75	0.075	19.04	0.080
5	16QAM	12	0	18.67	0.074	18.42	0.070	18.40	0.069
5	16QAM	12	7	18.49	0.071	18.47	0.070	18.45	0.070
5	16QAM	12	13	18.60	0.072	18.42	0.070	18.30	0.068
5	16QAM	25	0	18.47	0.070	18.40	0.069	18.36	0.069
5	64QAM	1	0	18.49	0.071	18.47	0.070	18.47	0.070
5	64QAM	1	12	18.39	0.069	18.19	0.066	18.19	0.066
5	64QAM	1	24	18.41	0.069	18.39	0.069	18.19	0.066
5	64QAM	12	0	18.52	0.071	18.00	0.063	18.36	0.069
5	64QAM	12	7	18.40	0.069	18.46	0.070	18.19	0.066
5	64QAM	12	13	18.47	0.070	18.36	0.069	18.39	0.069
5	64QAM	25	0	18.42	0.070	18.39	0.069	18.42	0.070



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	19.63	0.092	19.62	0.092	19.56	0.090
3	QPSK	1	8	19.50	0.089	19.78	0.095	19.74	0.094
3	QPSK	1	14	19.45	0.088	19.67	0.093	19.60	0.091
3	QPSK	8	0	18.67	0.074	18.67	0.074	18.59	0.072
3	QPSK	8	4	18.65	0.073	18.68	0.074	18.68	0.074
3	QPSK	8	7	18.60	0.072	18.68	0.074	18.67	0.074
3	QPSK	15	0	18.65	0.073	18.64	0.073	18.60	0.072
3	16QAM	1	0	19.01	0.080	18.74	0.075	18.79	0.076
3	16QAM	1	8	18.90	0.078	18.83	0.076	18.85	0.077
3	16QAM	1	14	18.87	0.077	18.95	0.079	18.96	0.079
3	16QAM	8	0	18.42	0.070	18.47	0.070	18.47	0.070
3	16QAM	8	4	18.47	0.070	18.36	0.069	18.39	0.069
3	16QAM	8	7	18.42	0.070	18.16	0.065	18.17	0.066
3	16QAM	15	0	18.31	0.068	18.46	0.070	18.28	0.067
3	64QAM	1	0	18.44	0.070	18.39	0.069	18.47	0.070
3	64QAM	1	8	18.46	0.070	18.38	0.069	18.40	0.069
3	64QAM	1	14	18.48	0.070	18.35	0.068	18.29	0.067
3	64QAM	8	0	18.42	0.070	18.57	0.072	18.42	0.070
3	64QAM	8	4	18.47	0.070	18.46	0.070	18.39	0.069
3	64QAM	8	7	18.42	0.070	18.31	0.068	18.38	0.069
3	64QAM	15	0	18.41	0.069	18.57	0.072	18.46	0.070



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	19.47	0.089	19.57	0.091	19.57	0.091
1.4	QPSK	1	3	19.55	0.090	19.60	0.091	19.57	0.091
1.4	QPSK	1	5	19.47	0.089	19.54	0.090	19.47	0.089
1.4	QPSK	3	0	19.53	0.090	19.57	0.091	19.51	0.089
1.4	QPSK	3	1	19.55	0.090	19.53	0.090	19.57	0.091
1.4	QPSK	3	3	19.50	0.089	19.57	0.091	19.45	0.088
1.4	QPSK	6	0	18.59	0.072	18.58	0.072	18.58	0.072
1.4	16QAM	1	0	18.80	0.076	19.09	0.081	18.75	0.075
1.4	16QAM	1	3	18.79	0.076	18.96	0.079	18.77	0.075
1.4	16QAM	1	5	18.94	0.078	19.04	0.080	18.95	0.079
1.4	16QAM	3	0	18.58	0.072	18.57	0.072	18.61	0.073
1.4	16QAM	3	1	18.69	0.074	18.60	0.072	18.74	0.075
1.4	16QAM	3	3	18.56	0.072	18.53	0.071	18.63	0.073
1.4	16QAM	6	0	18.50	0.071	18.51	0.071	18.67	0.074
1.4	64QAM	1	0	18.49	0.071	18.49	0.071	18.75	0.075
1.4	64QAM	1	3	18.67	0.074	18.56	0.072	18.72	0.074
1.4	64QAM	1	5	18.68	0.074	18.75	0.075	18.68	0.074
1.4	64QAM	3	0	18.56	0.072	18.67	0.074	18.81	0.076
1.4	64QAM	3	1	18.64	0.073	18.61	0.073	18.74	0.075
1.4	64QAM	3	3	18.55	0.072	18.64	0.073	18.62	0.073
1.4	64QAM	6	0	18.40	0.069	18.60	0.072	18.49	0.071



LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				/		23230		/	
Frequency (MHz)				/		782		/	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	/	/	19.52	0.090	/	/
10	QPSK	1	25	/	/	19.84	0.096	/	/
10	QPSK	1	49	/	/	19.45	0.088	/	/
10	QPSK	25	0	/	/	18.51	0.071	/	/
10	QPSK	25	12	/	/	18.59	0.072	/	/
10	QPSK	25	25	/	/	18.60	0.072	/	/
10	QPSK	50	0	/	/	18.58	0.072	/	/
10	16QAM	1	0	/	/	18.65	0.073	/	/
10	16QAM	1	25	/	/	18.82	0.076	/	/
10	16QAM	1	49	/	/	18.65	0.073	/	/
10	16QAM	25	0	/	/	18.51	0.071	/	/
10	16QAM	25	12	/	/	18.60	0.072	/	/
10	16QAM	25	25	/	/	18.69	0.074	/	/
10	16QAM	50	0	/	/	18.67	0.074	/	/
10	64QAM	1	0	/	/	18.41	0.069	/	/
10	64QAM	1	25	/	/	18.22	0.066	/	/
10	64QAM	1	49	/	/	18.47	0.070	/	/
10	64QAM	25	0	/	/	17.64	0.058	/	/
10	64QAM	25	12	/	/	17.61	0.058	/	/
10	64QAM	25	25	/	/	17.57	0.057	/	/
10	64QAM	50	0	/	/	17.47	0.056	/	/



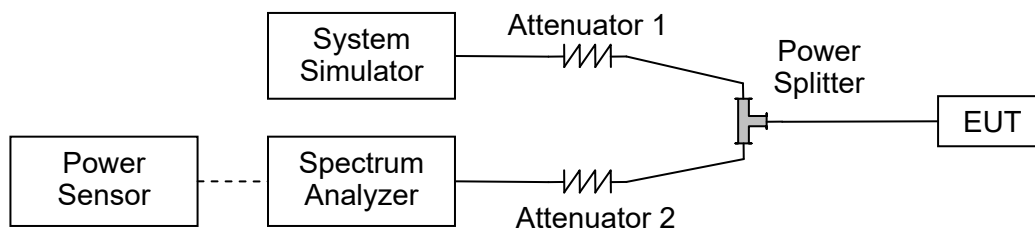
LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23205		23230		23255	
Frequency (MHz)				779.5		782		784.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	19.40	0.087	19.56	0.090	19.58	0.091
5	QPSK	1	12	19.44	0.088	19.50	0.089	19.46	0.088
5	QPSK	1	24	19.56	0.090	19.65	0.092	19.57	0.091
5	QPSK	12	0	18.53	0.071	18.57	0.072	18.53	0.071
5	QPSK	12	7	18.65	0.073	18.54	0.071	18.65	0.073
5	QPSK	12	13	18.64	0.073	18.58	0.072	18.58	0.072
5	QPSK	25	0	18.68	0.074	18.52	0.071	18.61	0.073
5	16QAM	1	0	18.75	0.075	18.62	0.073	18.66	0.073
5	16QAM	1	12	18.83	0.076	18.84	0.077	18.86	0.077
5	16QAM	1	24	19.11	0.081	18.90	0.078	18.76	0.075
5	16QAM	12	0	18.60	0.072	18.60	0.072	18.60	0.072
5	16QAM	12	7	18.49	0.071	18.57	0.072	18.50	0.071
5	16QAM	12	13	18.42	0.070	18.46	0.070	18.39	0.069
5	16QAM	25	0	18.53	0.071	18.58	0.072	18.47	0.070
5	64QAM	1	0	18.83	0.076	18.30	0.068	18.61	0.073
5	64QAM	1	12	18.20	0.066	18.47	0.070	18.71	0.074
5	64QAM	1	24	18.51	0.071	18.46	0.070	18.48	0.070
5	64QAM	12	0	17.47	0.056	17.67	0.058	17.54	0.057
5	64QAM	12	7	17.71	0.059	17.56	0.057	17.59	0.057
5	64QAM	12	13	17.67	0.058	17.67	0.058	17.60	0.058
5	64QAM	25	0	17.69	0.059	17.65	0.058	17.64	0.058

2.2. Occupied Bandwidth

2.2.1. Requirement

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

2.2.2. Test Description



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

2.2.3. Test Procedure

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

2.2.4. Test Result



LTE Band 2				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.23
	Low	16QAM	1.10	1.24
	Low	64QAM	1.09	1.24
	Mid	QPSK	1.09	1.23
	Mid	16QAM	1.09	1.23
	Mid	64QAM	1.09	1.24
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.23
	High	64QAM	1.09	1.25
3	Low	QPSK	2.70	3.00
	Low	16QAM	2.71	3.01
	Low	64QAM	2.71	3.02
	Mid	QPSK	2.70	3.00
	Mid	16QAM	2.70	3.01
	Mid	64QAM	2.71	3.00
	High	QPSK	2.70	3.00
	High	16QAM	2.70	3.00
	High	64QAM	2.71	3.00
5	Low	QPSK	4.50	4.96
	Low	16QAM	4.51	4.96
	Low	64QAM	4.50	4.97
	Mid	QPSK	4.51	4.97
	Mid	16QAM	4.51	5.00
	Mid	64QAM	4.50	4.96
	High	QPSK	4.50	4.97
	High	16QAM	4.51	5.02
	High	64QAM	4.51	4.98
10	Low	QPSK	9.02	9.86
	Low	16QAM	8.97	9.74
	Low	64QAM	8.98	9.82
	Mid	QPSK	9.01	9.86
	Mid	16QAM	8.98	9.76
	Mid	64QAM	8.99	9.84
	High	QPSK	9.02	9.83
	High	16QAM	8.98	9.78
	High	64QAM	8.99	9.82



15	Low	QPSK	13.48	14.67
	Low	16QAM	13.47	14.69
	Low	64QAM	13.48	14.64
	Mid	QPSK	13.51	15.80
	Mid	16QAM	13.49	15.15
	Mid	64QAM	13.47	14.82
	High	QPSK	13.52	14.72
	High	16QAM	13.52	14.86
	High	64QAM	13.53	14.95
20	Low	QPSK	17.94	19.50
	Low	16QAM	18.00	19.59
	Low	64QAM	17.96	19.54
	Mid	QPSK	18.00	19.58
	Mid	16QAM	18.02	19.56
	Mid	64QAM	18.01	19.43
	High	QPSK	18.07	20.28
	High	16QAM	18.04	19.64
	High	64QAM	18.02	19.54



LTE Band 4				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.23
	Low	16QAM	1.10	1.24
	Low	64QAM	1.09	1.24
	Mid	QPSK	1.09	1.23
	Mid	16QAM	1.10	1.24
	Mid	64QAM	1.09	1.24
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.24
	High	64QAM	1.09	1.24
3	Low	QPSK	2.70	2.98
	Low	16QAM	2.70	3.02
	Low	64QAM	2.71	3.01
	Mid	QPSK	2.70	2.99
	Mid	16QAM	2.70	3.00
	Mid	64QAM	2.71	2.98
	High	QPSK	2.70	2.98
	High	16QAM	2.70	3.01
	High	64QAM	2.71	3.00
5	Low	QPSK	4.51	4.99
	Low	16QAM	4.51	5.00
	Low	64QAM	4.50	4.96
	Mid	QPSK	4.50	4.97
	Mid	16QAM	4.51	5.00
	Mid	64QAM	4.50	4.97
	High	QPSK	4.50	5.00
	High	16QAM	4.51	4.98
	High	64QAM	4.51	4.97
10	Low	QPSK	9.02	9.81
	Low	16QAM	8.99	9.73
	Low	64QAM	9.00	9.90
	Mid	QPSK	9.01	9.82
	Mid	16QAM	8.98	9.77
	Mid	64QAM	8.98	9.76
	High	QPSK	9.00	9.82
	High	16QAM	8.97	9.75
	High	64QAM	9.01	9.85



15	Low	QPSK	13.52	14.67
	Low	16QAM	13.49	14.70
	Low	64QAM	13.49	14.70
	Mid	QPSK	13.49	14.70
	Mid	16QAM	13.48	14.64
	Mid	64QAM	13.47	14.64
	High	QPSK	13.50	14.76
	High	16QAM	13.49	14.65
	High	64QAM	13.47	14.71
20	Low	QPSK	17.96	19.48
	Low	16QAM	17.97	19.42
	Low	64QAM	18.00	19.55
	Mid	QPSK	17.95	19.68
	Mid	16QAM	17.92	19.37
	Mid	64QAM	17.98	19.44
	High	QPSK	17.99	19.53
	High	16QAM	18.00	19.64
	High	64QAM	18.04	19.55



LTE Band 5				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.25
	Low	16QAM	1.10	1.24
	Low	64QAM	1.09	1.24
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.10	1.24
	Mid	64QAM	1.09	1.24
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.24
	High	64QAM	1.09	1.24
3	Low	QPSK	2.70	2.99
	Low	16QAM	2.70	3.00
	Low	64QAM	2.71	3.02
	Mid	QPSK	2.70	2.96
	Mid	16QAM	2.70	3.01
	Mid	64QAM	2.70	3.01
	High	QPSK	2.70	3.00
	High	16QAM	2.70	3.00
	High	64QAM	2.71	3.00
5	Low	QPSK	4.50	5.00
	Low	16QAM	4.51	4.96
	Low	64QAM	4.50	4.95
	Mid	QPSK	4.51	5.00
	Mid	16QAM	4.50	4.96
	Mid	64QAM	4.51	4.97
	High	QPSK	4.51	5.00
	High	16QAM	4.51	4.98
	High	64QAM	4.50	4.95
10	Low	QPSK	8.99	9.79
	Low	16QAM	8.97	9.75
	Low	64QAM	8.97	9.75
	Mid	QPSK	8.99	9.81
	Mid	16QAM	8.97	9.76
	Mid	64QAM	8.98	9.78
	High	QPSK	8.98	9.83
	High	16QAM	8.96	9.79
	High	64QAM	8.97	9.84



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	1.24
	Low	64QAM	1.09	1.24
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.10	1.24
	Mid	64QAM	1.09	1.24
	High	QPSK	1.09	1.24
	High	16QAM	1.09	1.24
	High	64QAM	1.09	1.24
3	Low	QPSK	2.70	3.00
	Low	16QAM	2.70	3.01
	Low	64QAM	2.71	3.01
	Mid	QPSK	2.70	2.99
	Mid	16QAM	2.70	3.02
	Mid	64QAM	2.70	3.00
	High	QPSK	2.70	3.00
	High	16QAM	2.70	3.01
	High	64QAM	2.71	3.01
5	Low	QPSK	4.50	5.01
	Low	16QAM	4.50	4.95
	Low	64QAM	4.50	4.95
	Mid	QPSK	4.51	4.97
	Mid	16QAM	4.51	4.96
	Mid	64QAM	4.50	4.97
	High	QPSK	4.51	4.99
	High	16QAM	4.50	4.96
	High	64QAM	4.50	4.97
10	Low	QPSK	9.00	9.80
	Low	16QAM	8.96	9.78
	Low	64QAM	8.98	9.83
	Mid	QPSK	9.00	9.82
	Mid	16QAM	8.97	9.76
	Mid	64QAM	8.97	9.81
	High	QPSK	8.98	9.78
	High	16QAM	8.95	9.76
	High	64QAM	8.97	9.78



LTE Band 13				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.50	4.98
	Low	16QAM	4.49	4.99
	Low	64QAM	4.49	4.97
	Mid	QPSK	4.50	4.98
	Mid	16QAM	4.51	4.99
	Mid	64QAM	4.50	4.99
	High	QPSK	4.50	4.97
	High	16QAM	4.51	4.98
	High	64QAM	4.50	4.97
10	Mid	QPSK	8.96	9.78
	Mid	16QAM	8.96	9.74
	Mid	64QAM	8.98	9.78



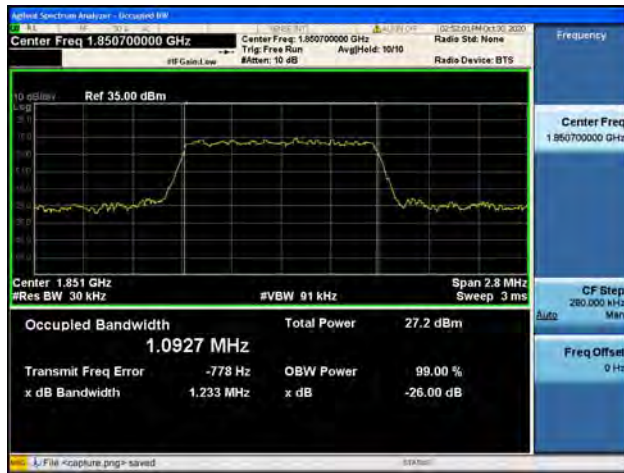
LTE Band 66				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.23
	Low	16QAM	1.10	1.23
	Low	64QAM	1.09	1.23
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.09	1.23
	Mid	64QAM	1.09	1.23
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.23
	High	64QAM	1.09	1.23
3	Low	QPSK	2.69	2.98
	Low	16QAM	2.70	2.99
	Low	64QAM	2.70	2.97
	Mid	QPSK	2.70	3.00
	Mid	16QAM	2.70	3.00
	Mid	64QAM	2.70	2.99
	High	QPSK	2.70	2.98
	High	16QAM	2.69	3.00
	High	64QAM	2.69	2.98
5	Low	QPSK	4.50	4.94
	Low	16QAM	4.51	4.97
	Low	64QAM	4.51	4.98
	Mid	QPSK	4.49	4.96
	Mid	16QAM	4.50	4.94
	Mid	64QAM	4.51	4.94
	High	QPSK	4.50	4.98
	High	16QAM	4.50	4.97
	High	64QAM	4.51	4.95
10	Low	QPSK	8.99	9.74
	Low	16QAM	8.98	9.70
	Low	64QAM	8.99	9.80
	Mid	QPSK	9.03	9.83
	Mid	16QAM	8.97	9.77
	Mid	64QAM	8.99	9.78
	High	QPSK	9.03	9.76
	High	16QAM	8.97	9.76
	High	64QAM	9.00	9.80



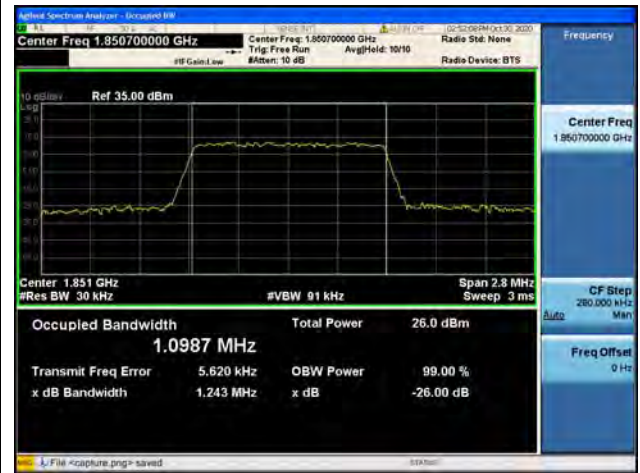
15	Low	QPSK	13.50	14.64
	Low	16QAM	13.49	14.56
	Low	64QAM	13.47	14.72
	Mid	QPSK	13.49	16.72
	Mid	16QAM	13.50	16.19
	Mid	64QAM	13.47	16.34
	High	QPSK	13.53	14.82
	High	16QAM	13.52	15.53
	High	64QAM	13.51	14.85
20	Low	QPSK	17.98	19.36
	Low	16QAM	17.99	19.28
	Low	64QAM	17.97	19.39
	Mid	QPSK	18.01	19.49
	Mid	16QAM	18.01	19.61
	Mid	64QAM	18.05	19.60
	High	QPSK	18.11	20.83
	High	16QAM	18.08	19.47
	High	64QAM	18.10	19.55



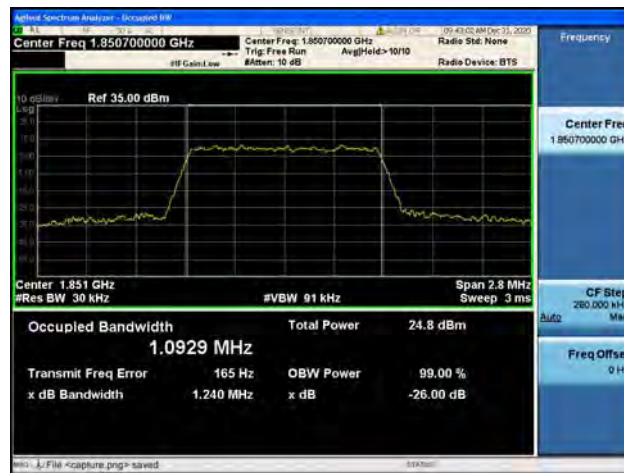
Band2 / 1.4MHz / Low CH / QPSK



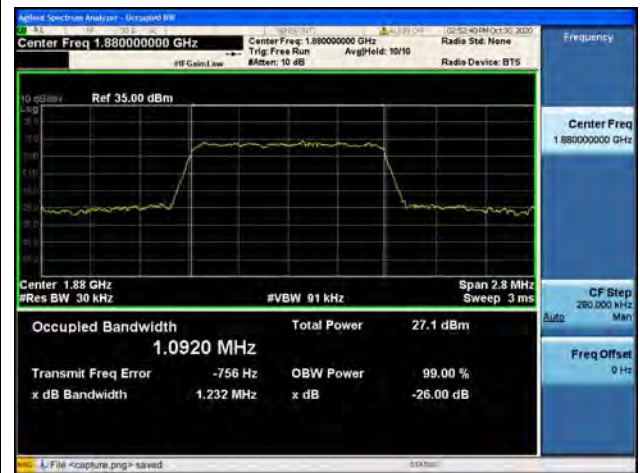
Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Low CH / 64QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM

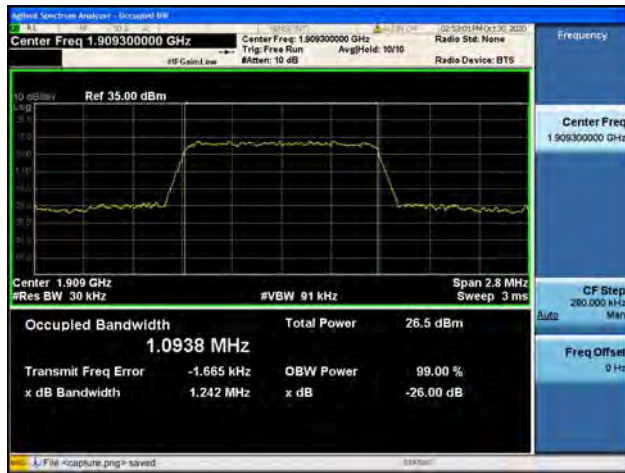


Band2 / 1.4MHz / Mid CH / 64QAM

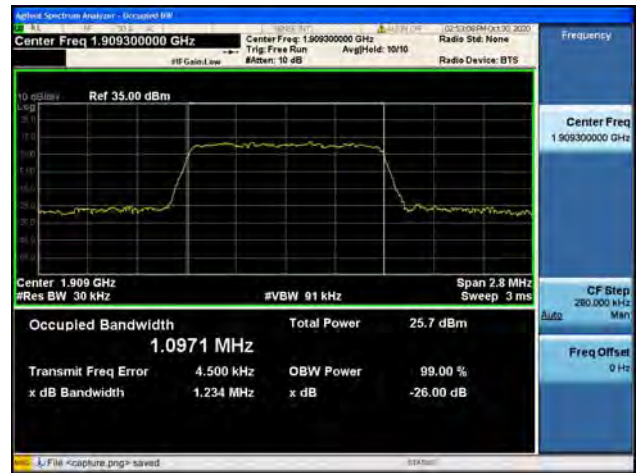




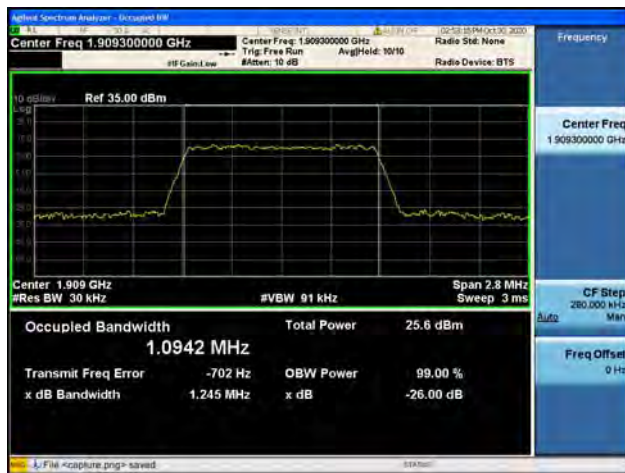
Band2 / 1.4MHz / High CH / QPSK



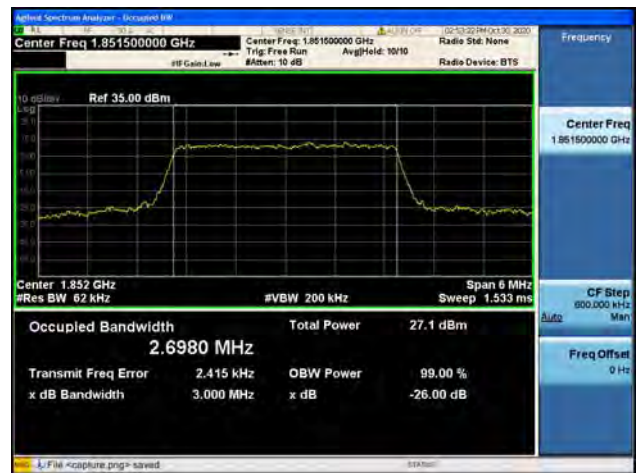
Band2 / 1.4MHz / High CH / 16QAM



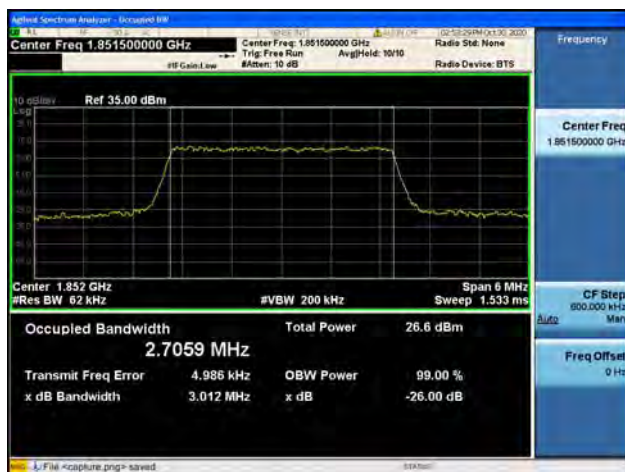
Band2 / 1.4MHz / High CH / 64QAM



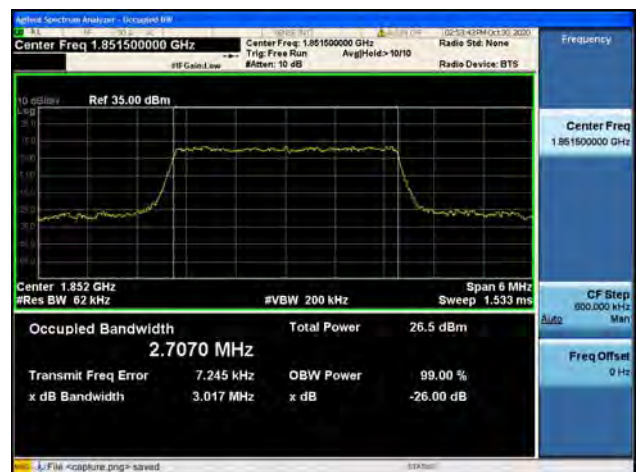
Band2 / 3MHz / Low CH / QPSK

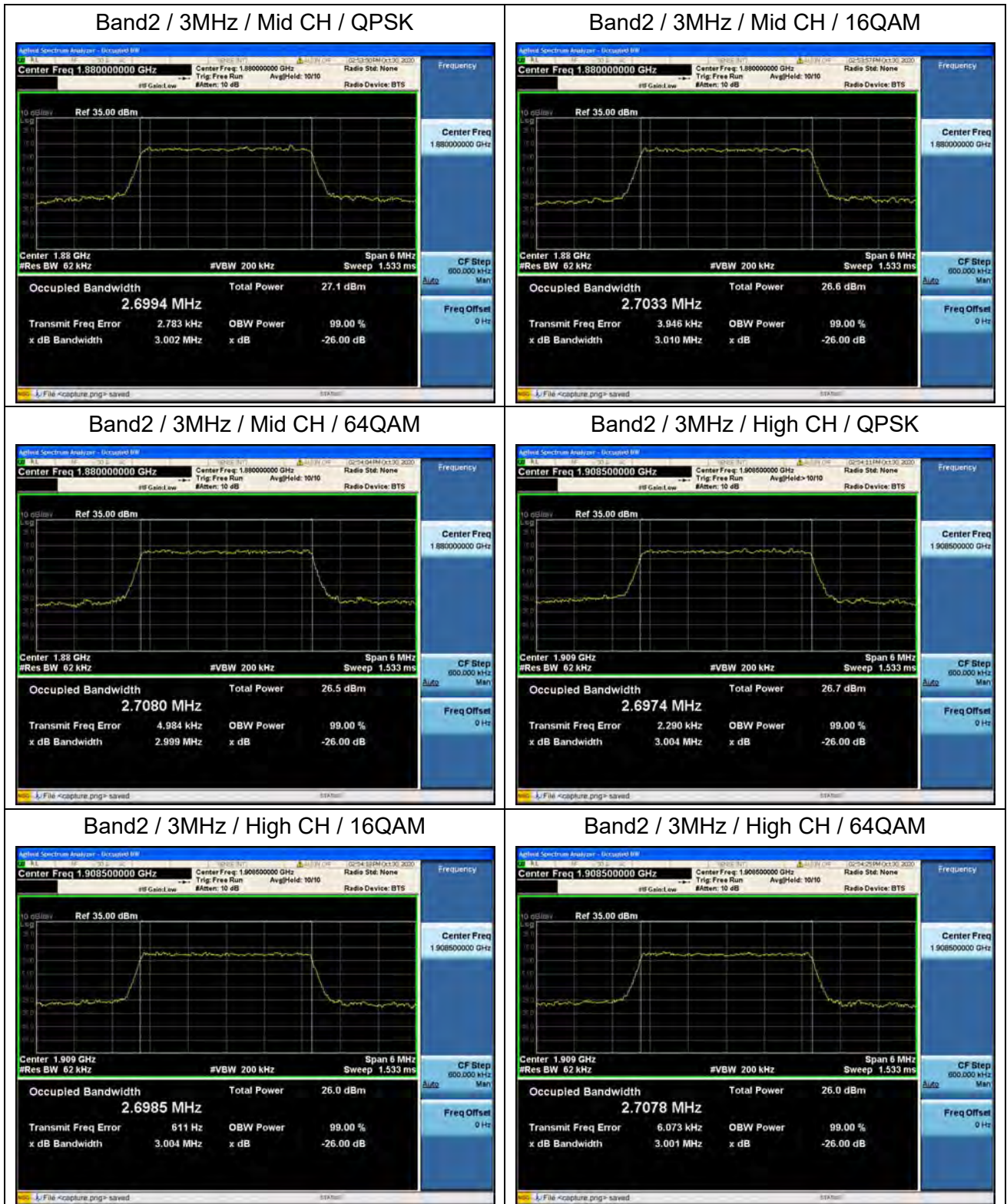


Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Low CH / 64QAM



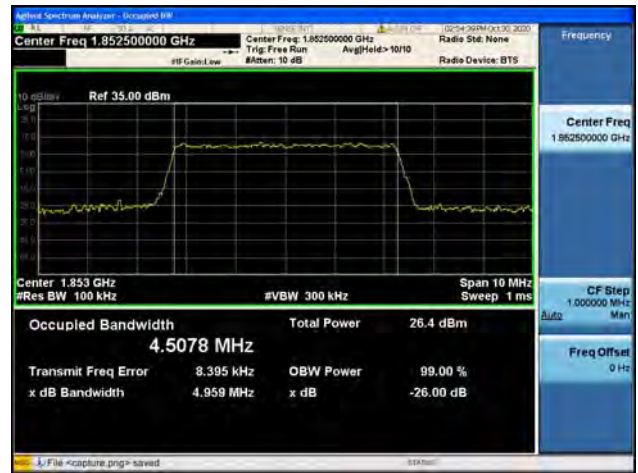




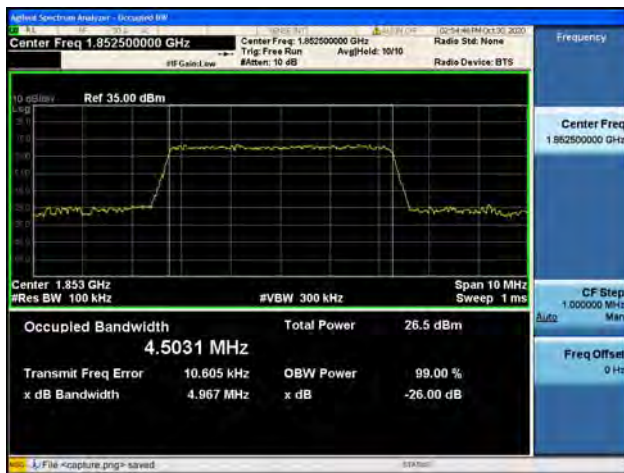
Band2 / 5MHz / Low CH / QPSK



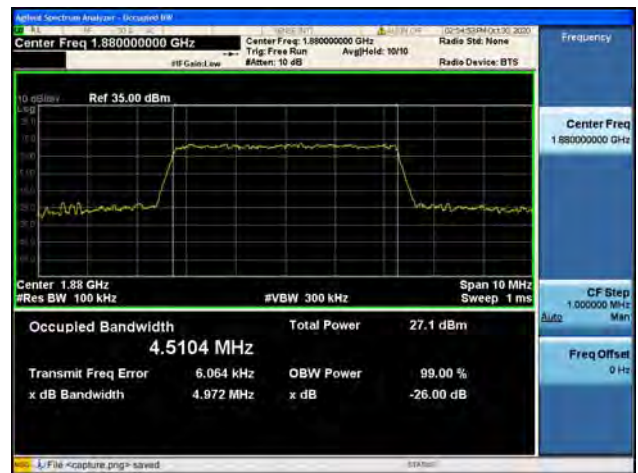
Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Low CH / 64QAM



Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM

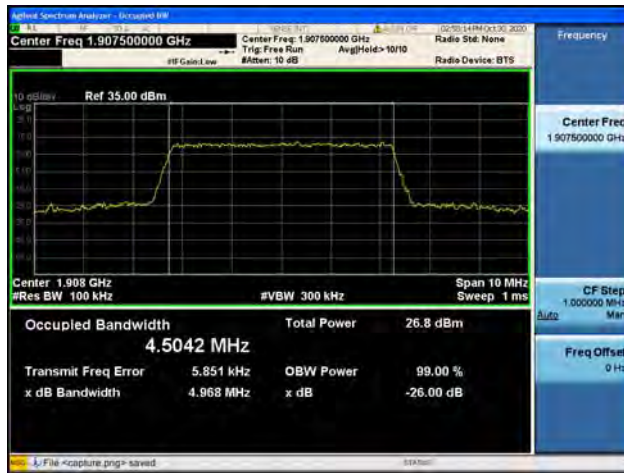


Band2 / 5MHz / Mid CH / 64QAM

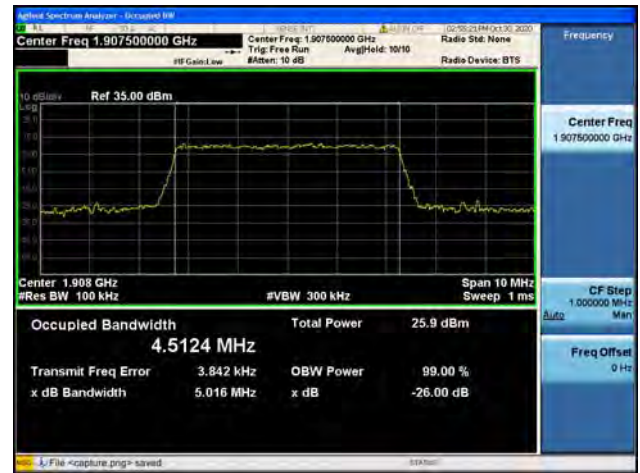




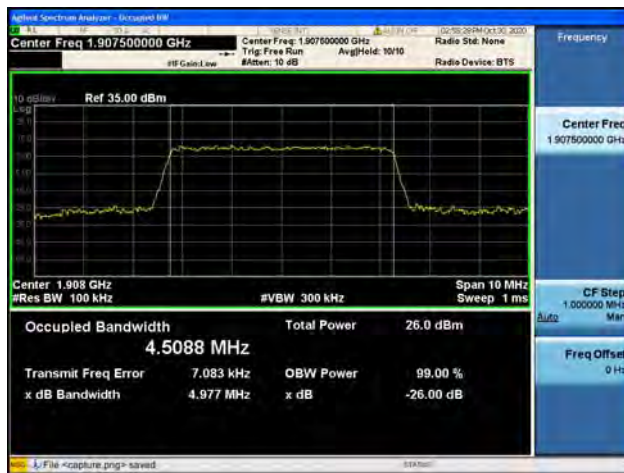
Band2 / 5MHz / High CH / QPSK



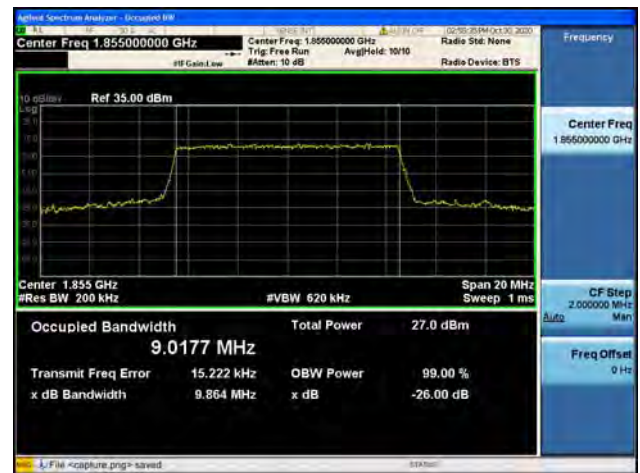
Band2 / 5MHz / High CH / 16QAM



Band2 / 5MHz / High CH / 64QAM



Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM

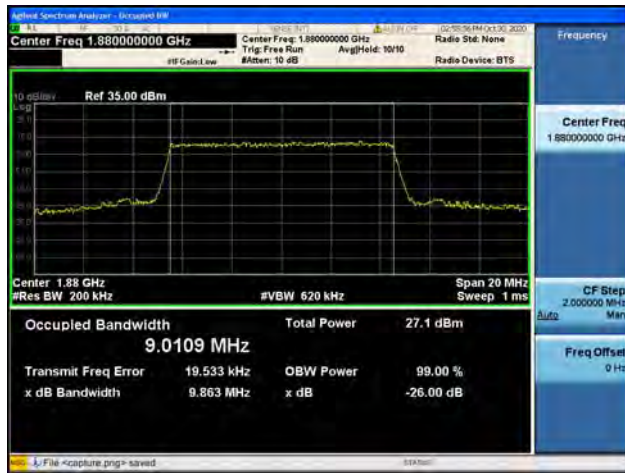


Band2 / 10MHz / Low CH / 64QAM

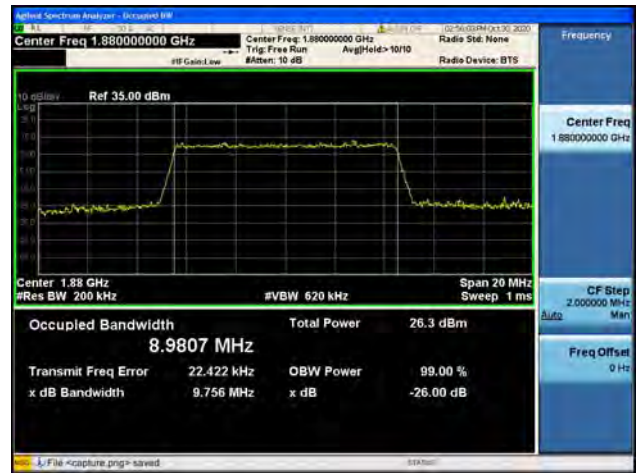




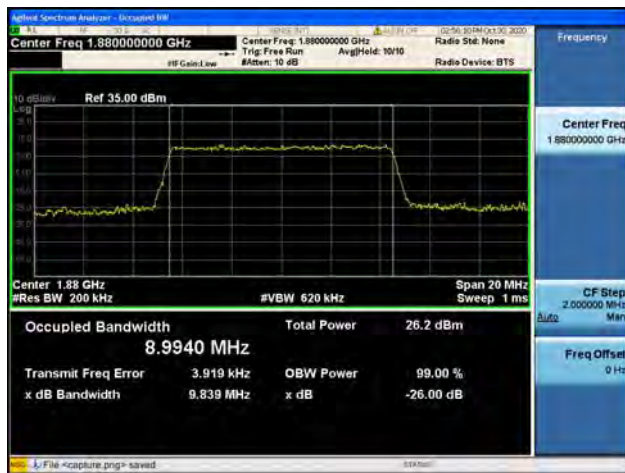
Band2 / 10MHz / Mid CH / QPSK



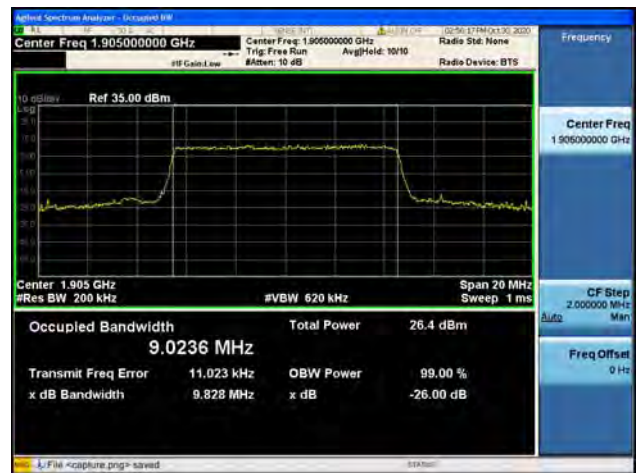
Band2 / 10MHz / Mid CH / 16QAM



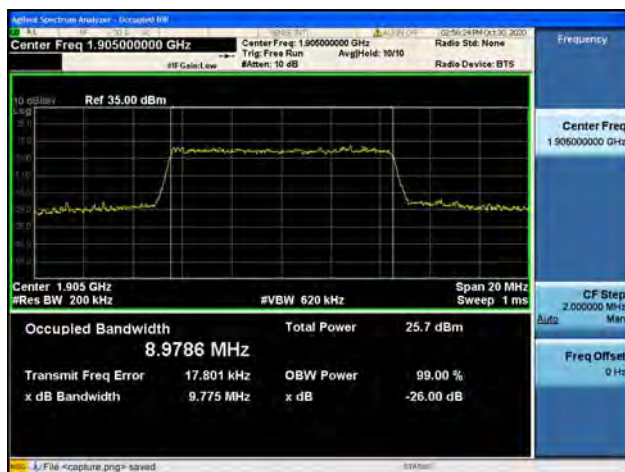
Band2 / 10MHz / Mid CH / 64QAM



Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM

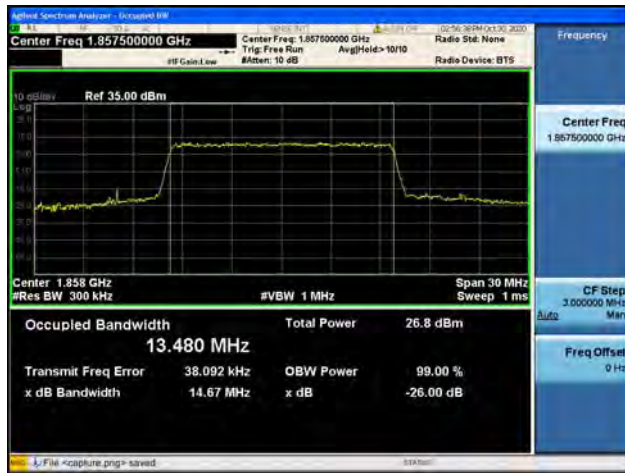


Band2 / 10MHz / High CH / 64QAM

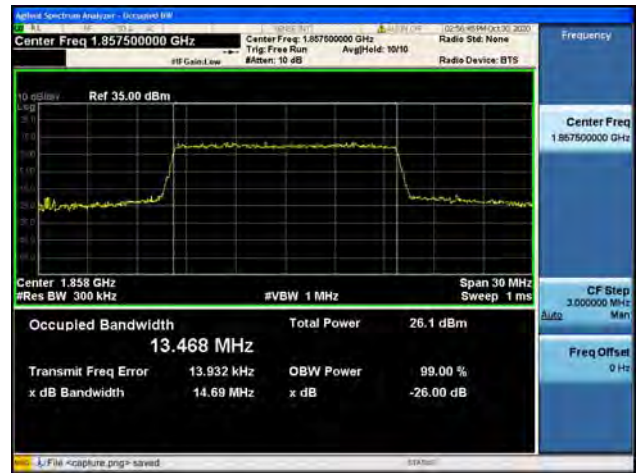




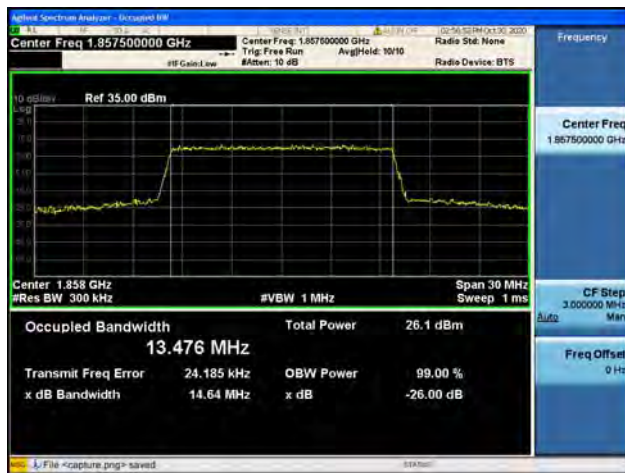
Band2 / 15MHz / Low CH / QPSK



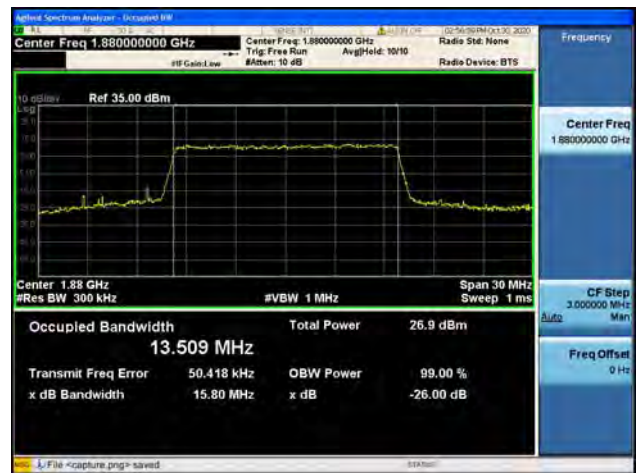
Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Low CH / 64QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / Mid CH / 64QAM

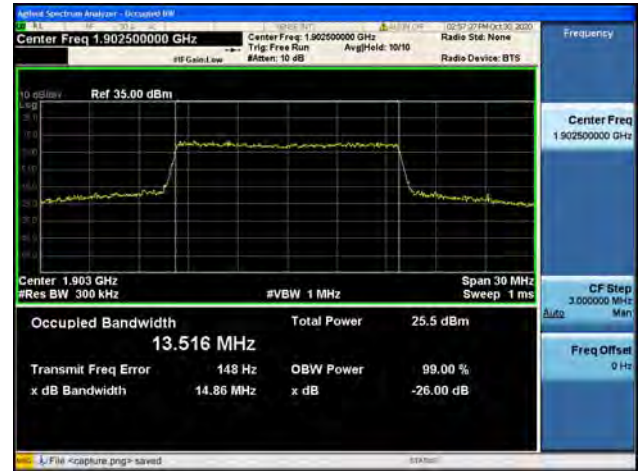




Band2 / 15MHz / High CH / QPSK



Band2 / 15MHz / High CH / 16QAM



Band2 / 15MHz / High CH / 64QAM



Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM

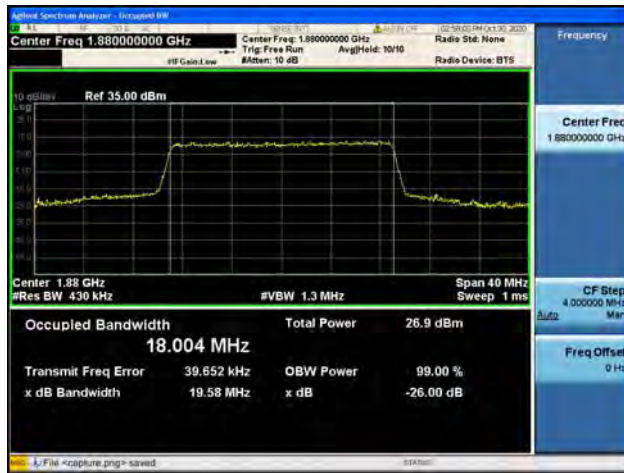


Band2 / 20MHz / Low CH / 64QAM

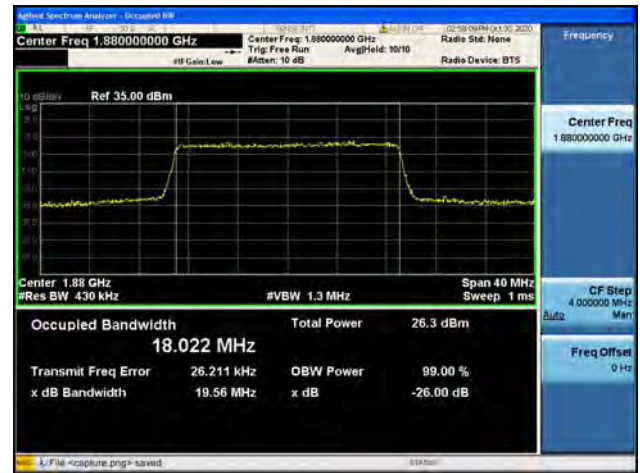




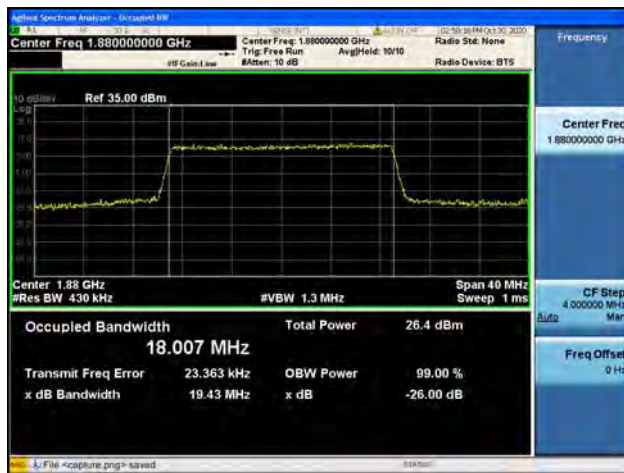
Band2 / 20MHz / Mid CH / QPSK



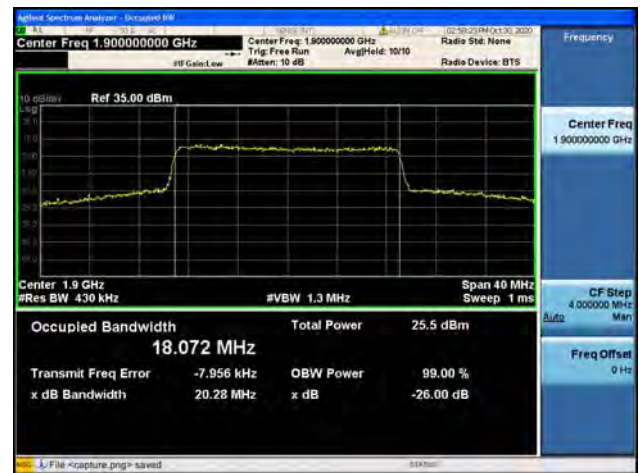
Band2 / 20MHz / Mid CH / 16QAM



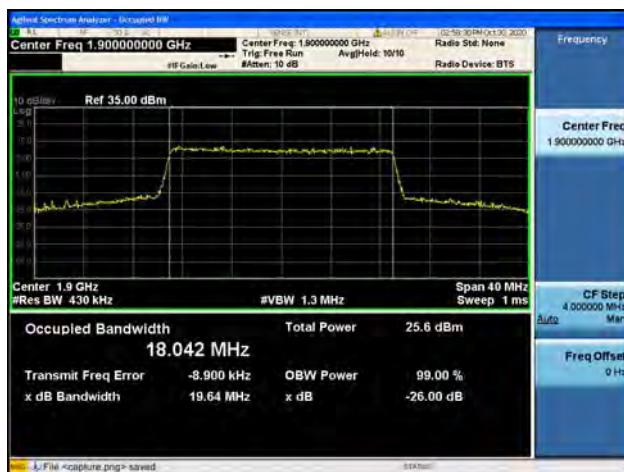
Band2 / 20MHz / Mid CH / 64QAM



Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM

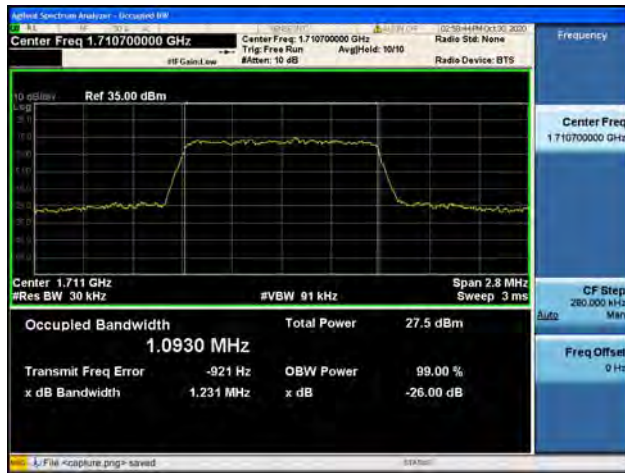


Band2 / 20MHz / High CH / 64QAM

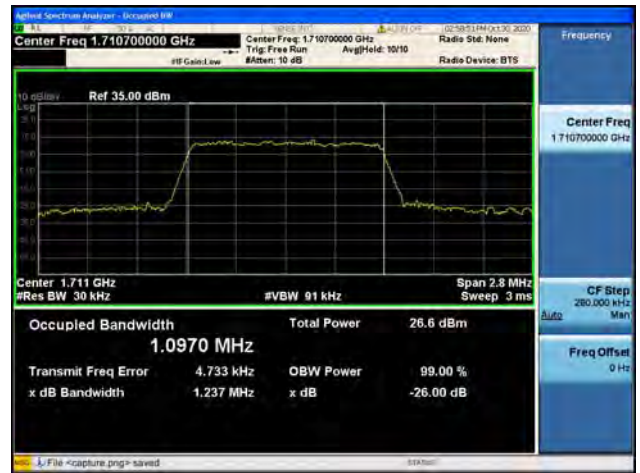




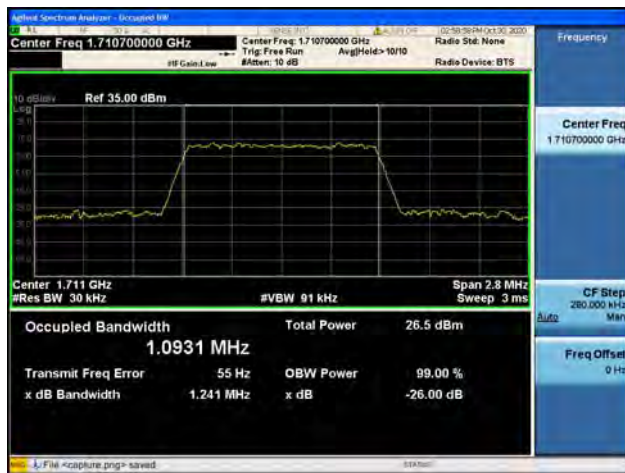
Band4 / 1.4MHz / Low CH / QPSK



Band4 / 1.4MHz / Low CH / 16QAM



Band4 / 1.4MHz / Low CH / 64QAM



Band4 / 1.4MHz / Mid CH / QPSK



Band4 / 1.4MHz / Mid CH / 16QAM

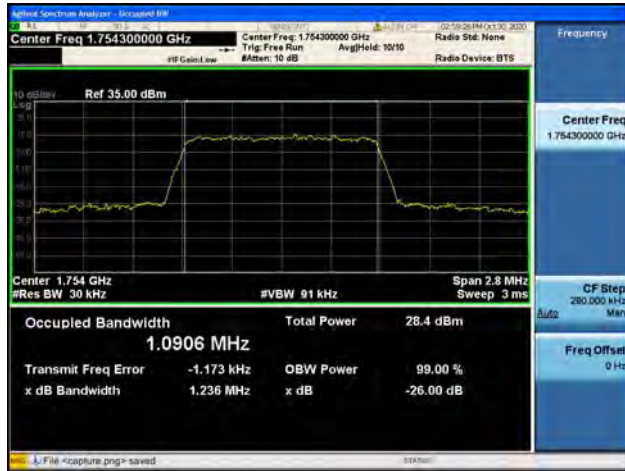


Band4 / 1.4MHz / Mid CH / 64QAM

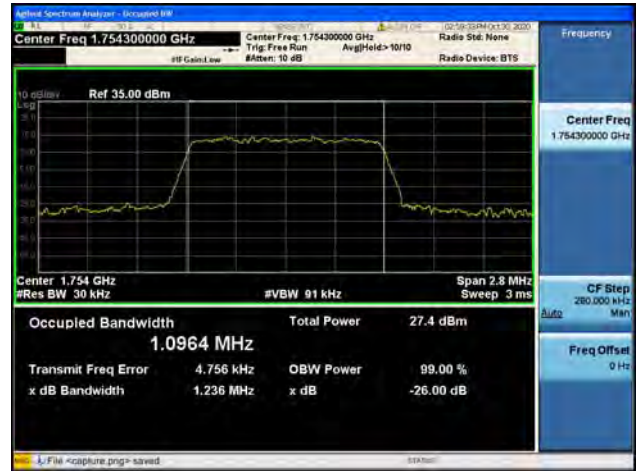




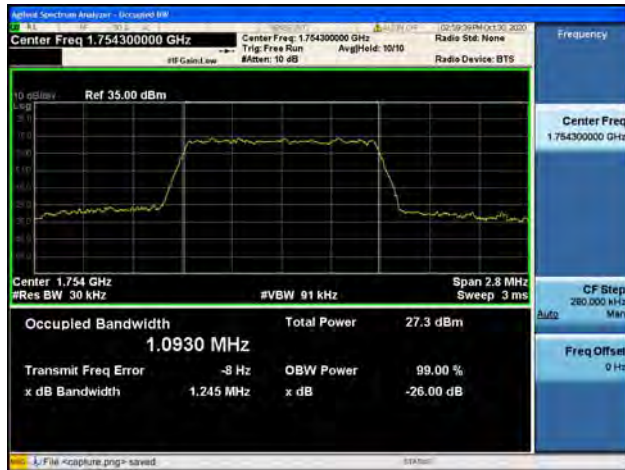
Band4 / 1.4MHz / High CH / QPSK



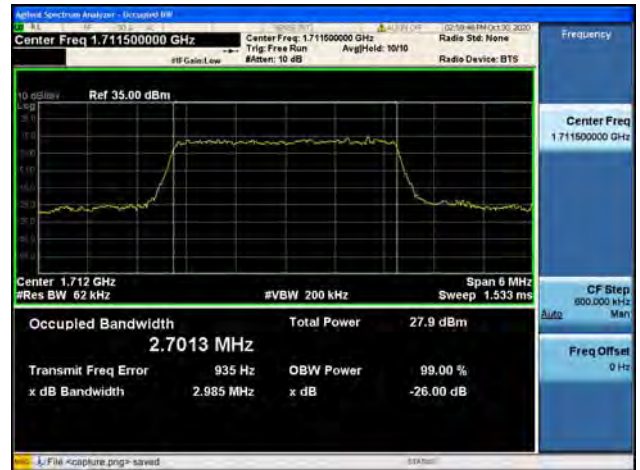
Band4 / 1.4MHz / High CH / 16QAM



Band4 / 1.4MHz / High CH / 64QAM



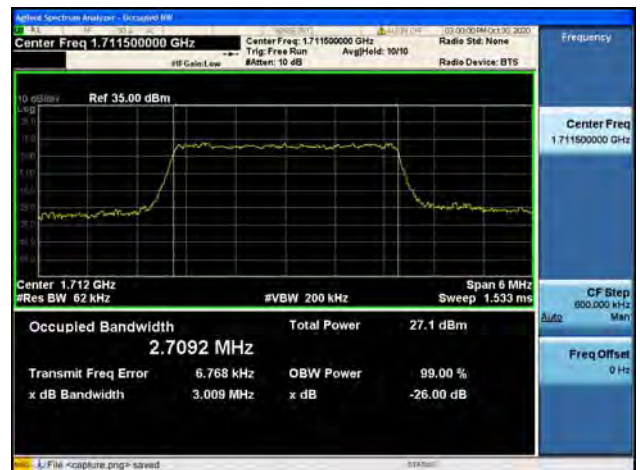
Band4 / 3MHz / Low CH / QPSK

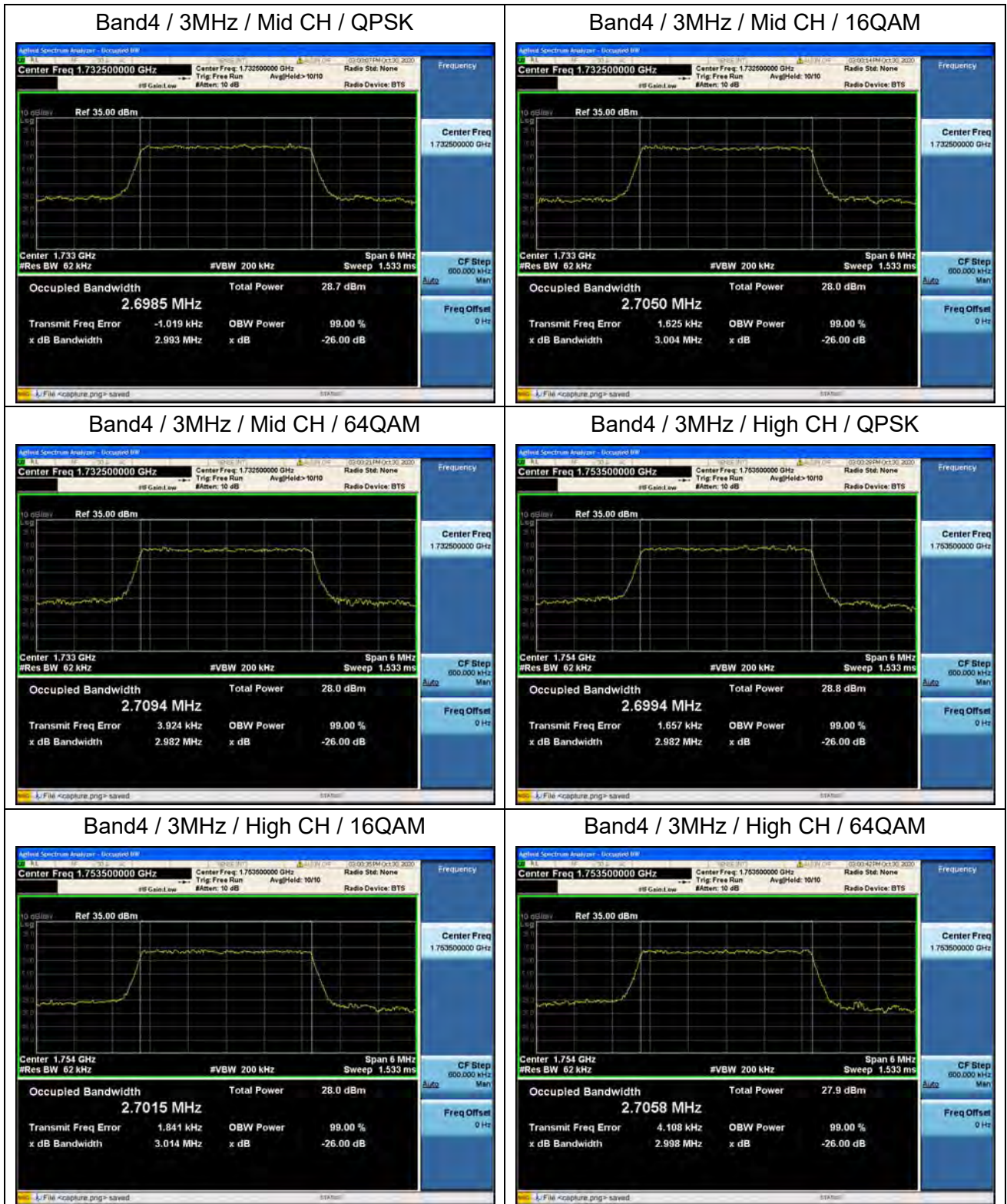


Band4 / 3MHz / Low CH / 16QAM



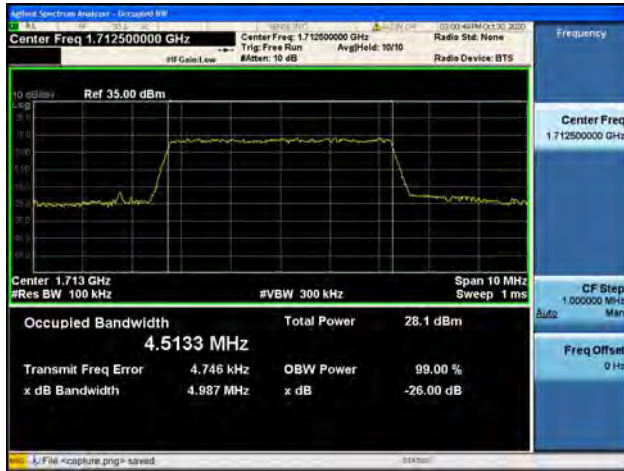
Band4 / 3MHz / Low CH / 64QAM



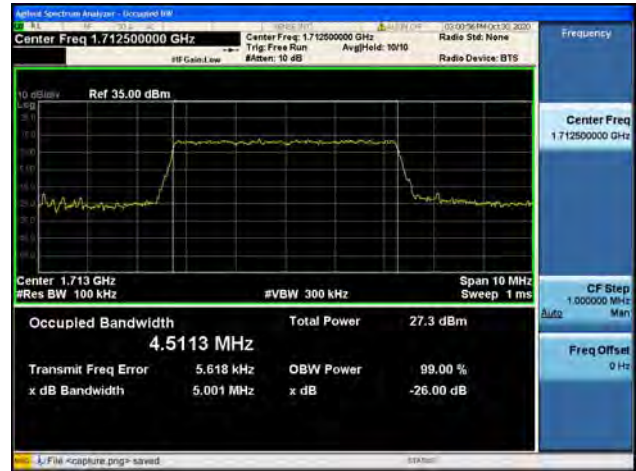




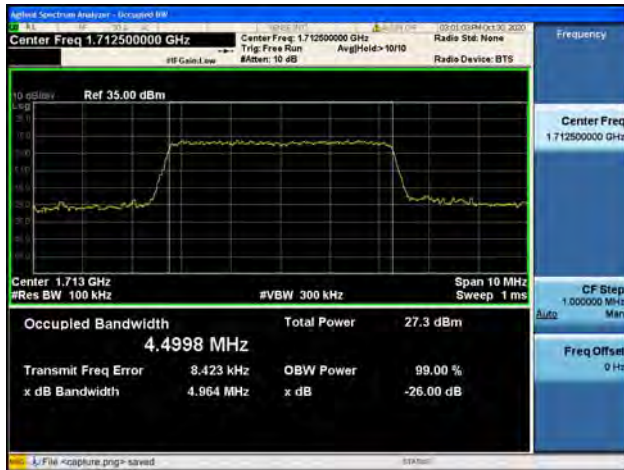
Band4 / 5MHz / Low CH / QPSK



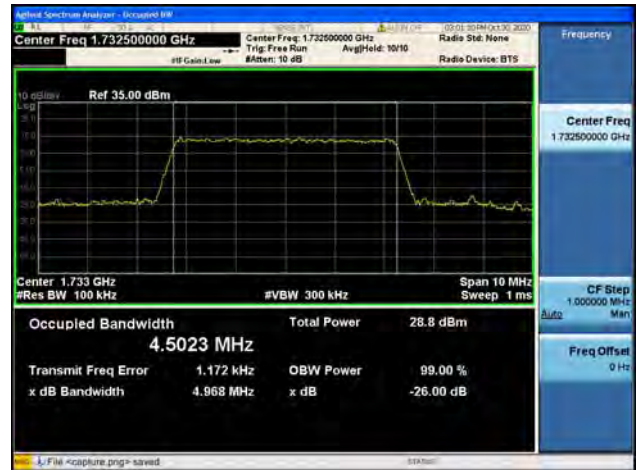
Band4 / 5MHz / Low CH / 16QAM



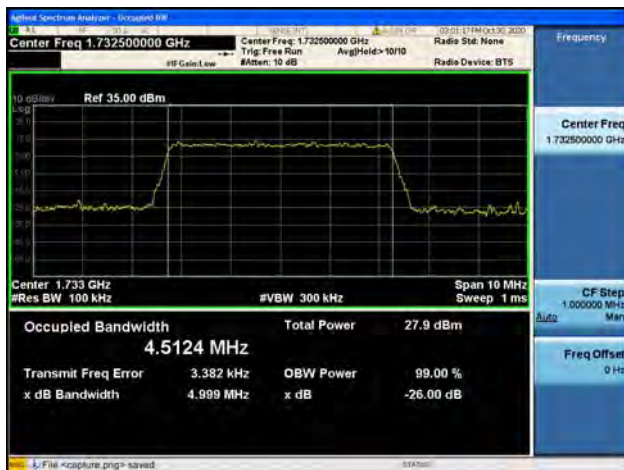
Band4 / 5MHz / Low CH / 64QAM



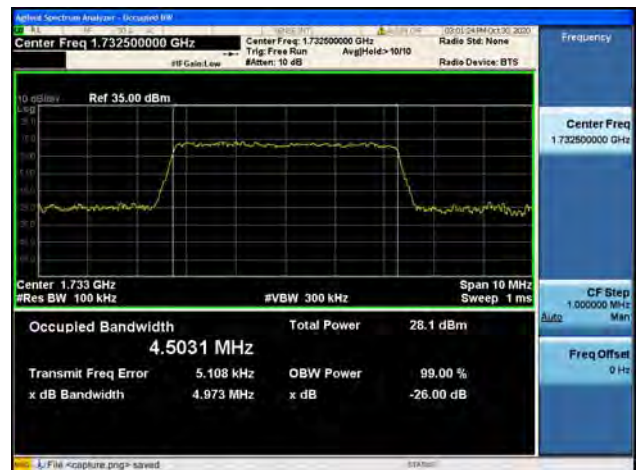
Band4 / 5MHz / Mid CH / QPSK



Band4 / 5MHz / Mid CH / 16QAM

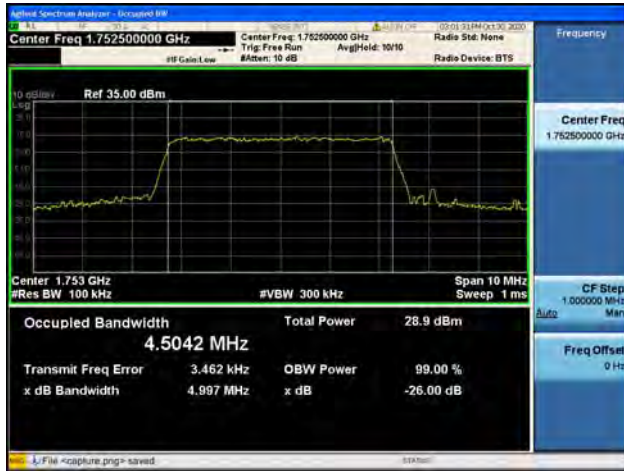


Band4 / 5MHz / Mid CH / 64QAM

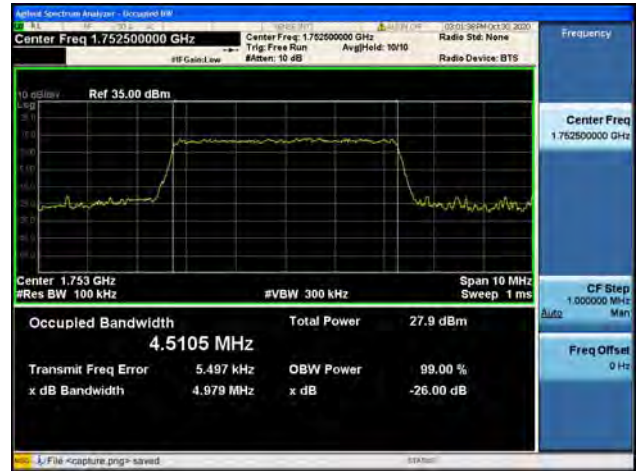




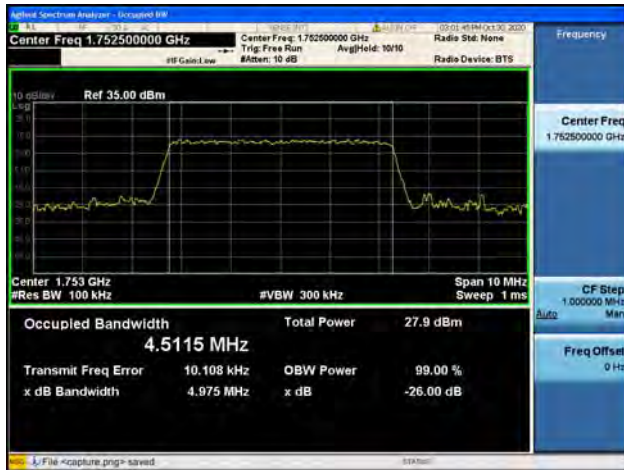
Band4 / 5MHz / High CH / QPSK



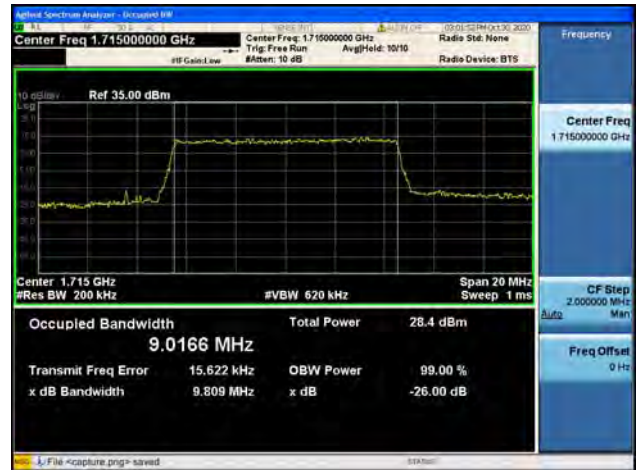
Band4 / 5MHz / High CH / 16QAM



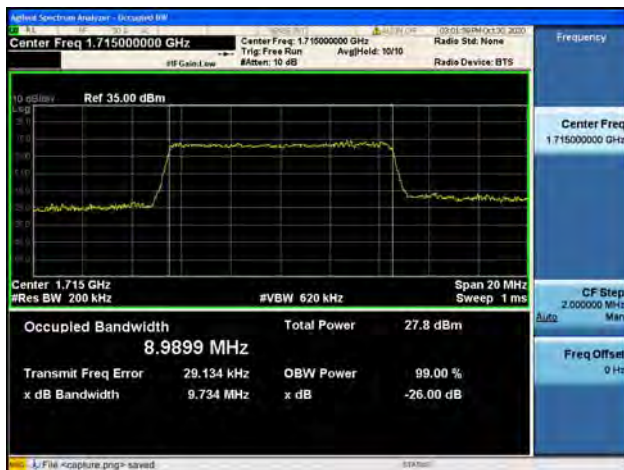
Band4 / 5MHz / High CH / 64QAM



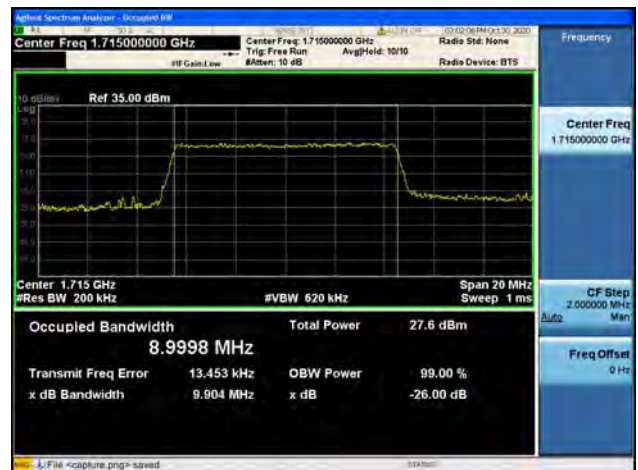
Band4 / 10MHz / Low CH / QPSK



Band4 / 10MHz / Low CH / 16QAM

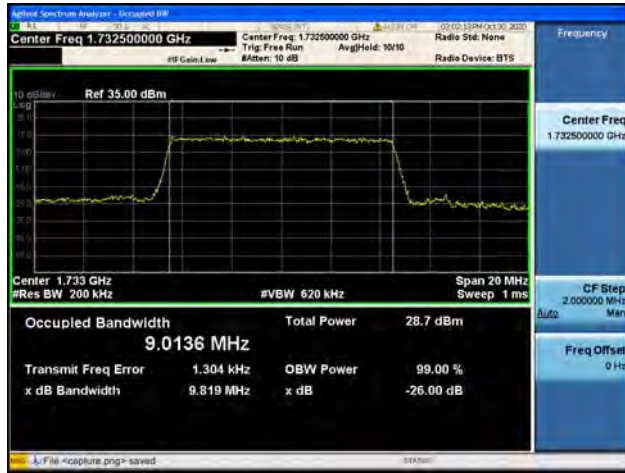


Band4 / 10MHz / Low CH / 64QAM

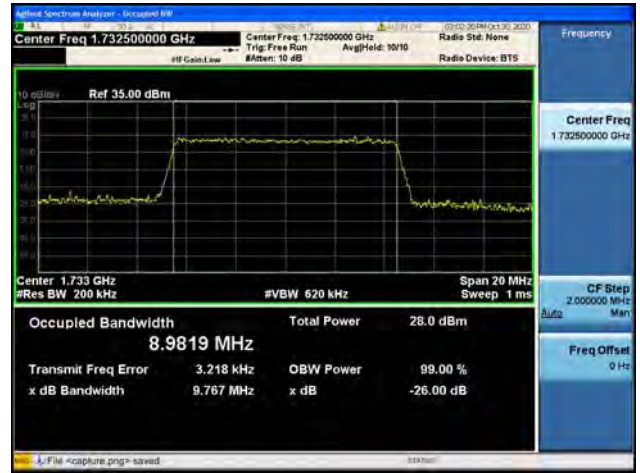




Band4 / 10MHz / Mid CH / QPSK



Band4 / 10MHz / Mid CH / 16QAM



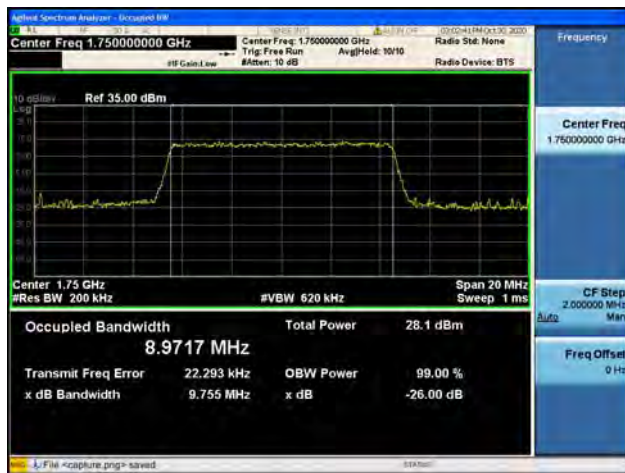
Band4 / 10MHz / Mid CH / 64QAM



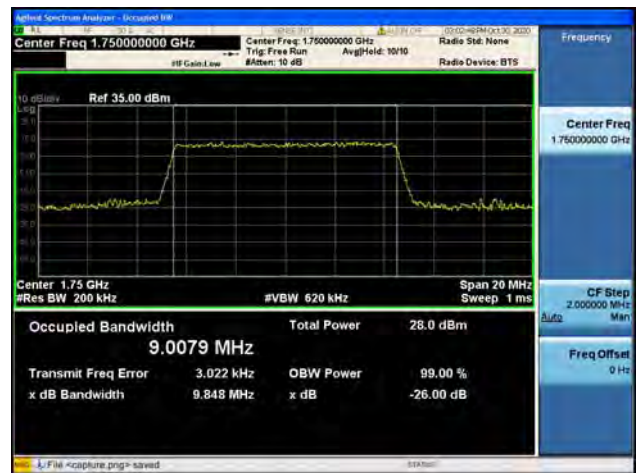
Band4 / 10MHz / High CH / QPSK



Band4 / 10MHz / High CH / 16QAM

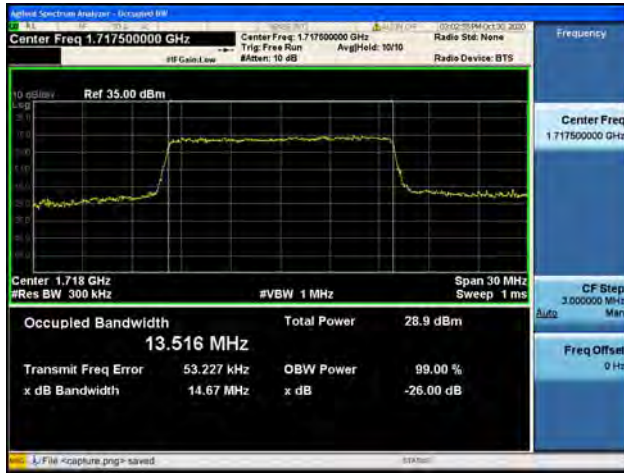


Band4 / 10MHz / High CH / 64QAM

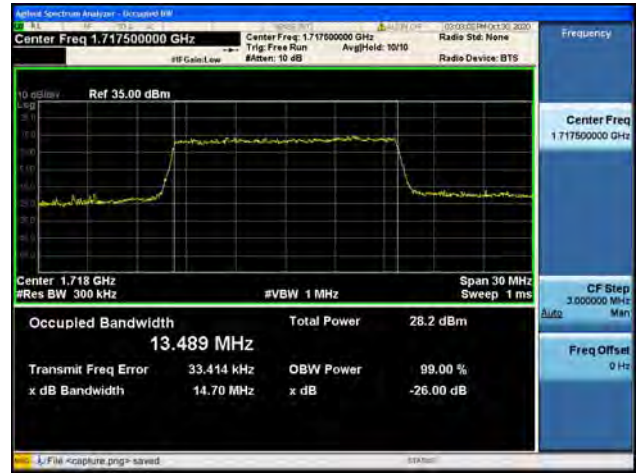




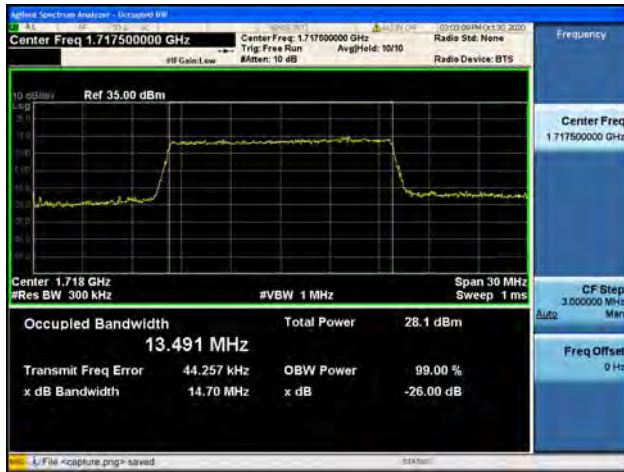
Band4 / 15MHz / Low CH / QPSK



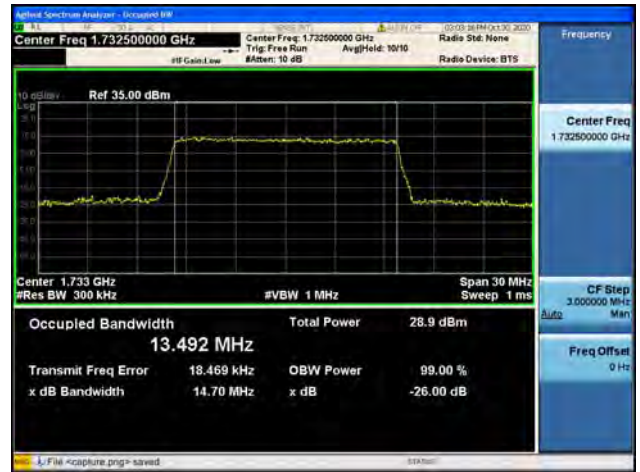
Band4 / 15MHz / Low CH / 16QAM



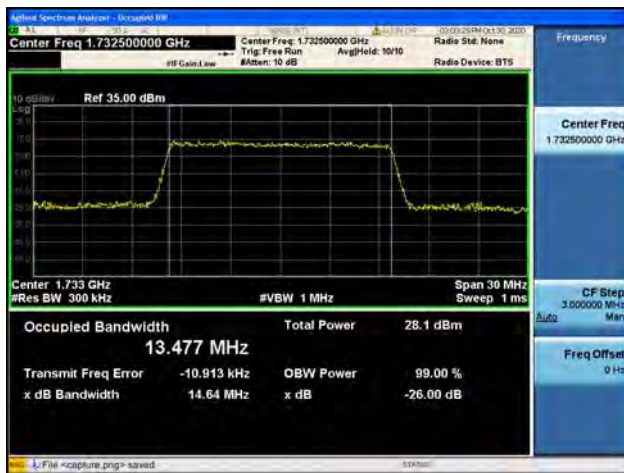
Band4 / 15MHz / Low CH / 64QAM



Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM

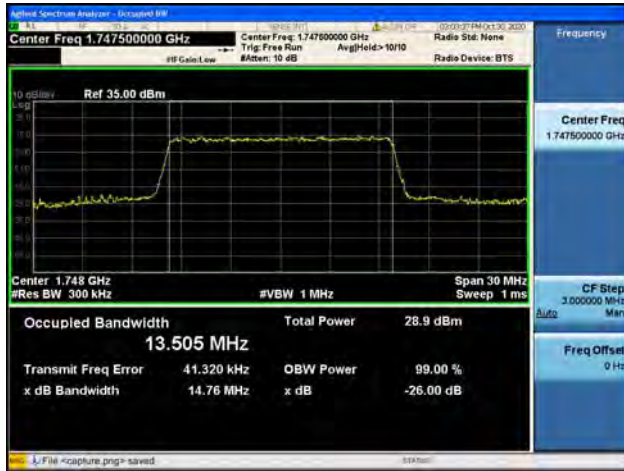


Band4 / 15MHz / Mid CH / 64QAM

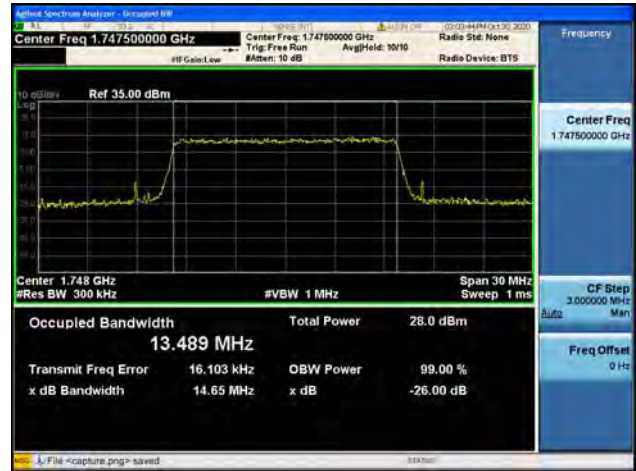




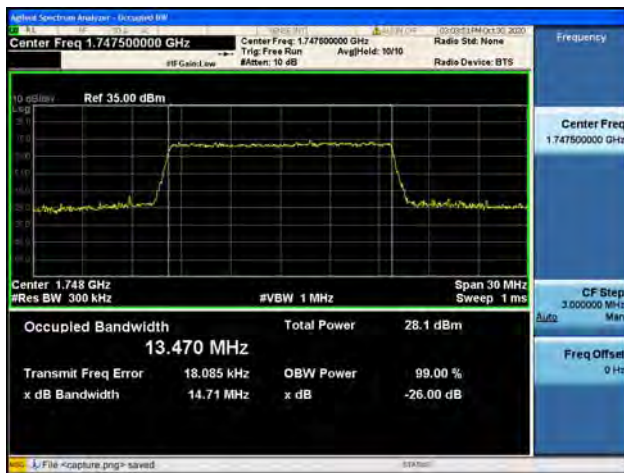
Band4 / 15MHz / High CH / QPSK



Band4 / 15MHz / High CH / 16QAM



Band4 / 15MHz / High CH / 64QAM



Band4 / 20MHz / Low CH / QPSK



Band4 / 20MHz / Low CH / 16QAM

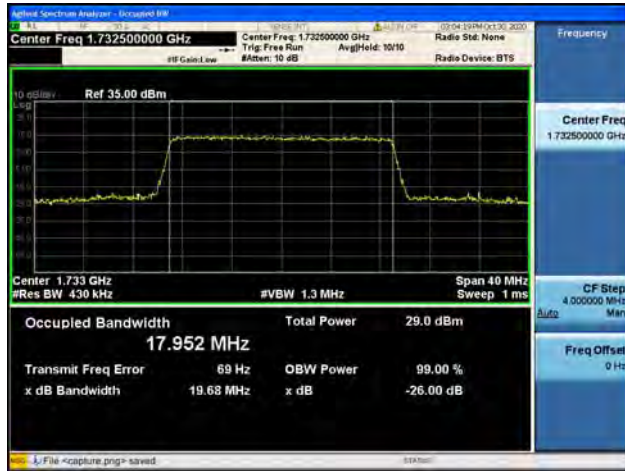


Band4 / 20MHz / Low CH / 64QAM

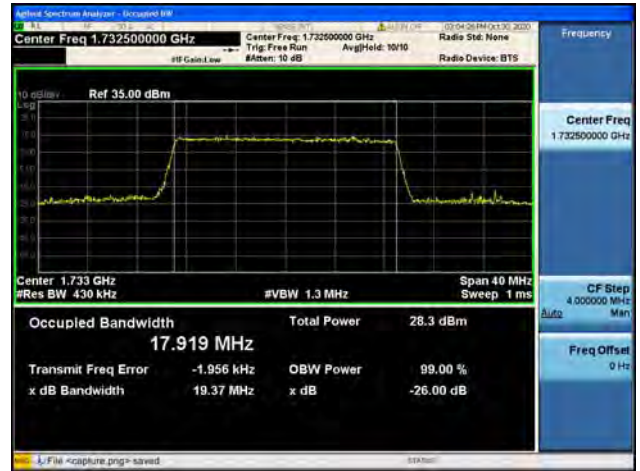




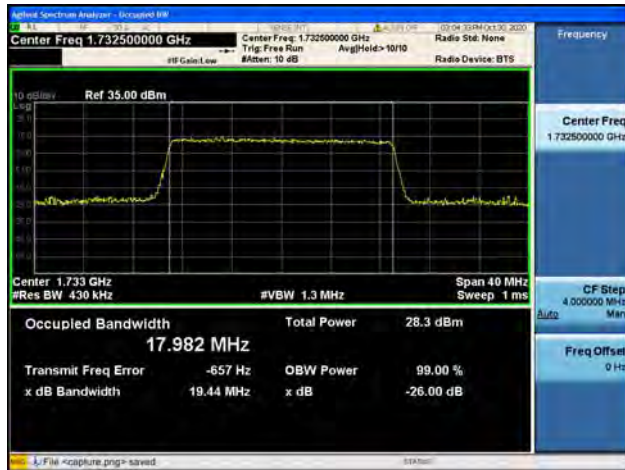
Band4 / 20MHz / Mid CH / QPSK



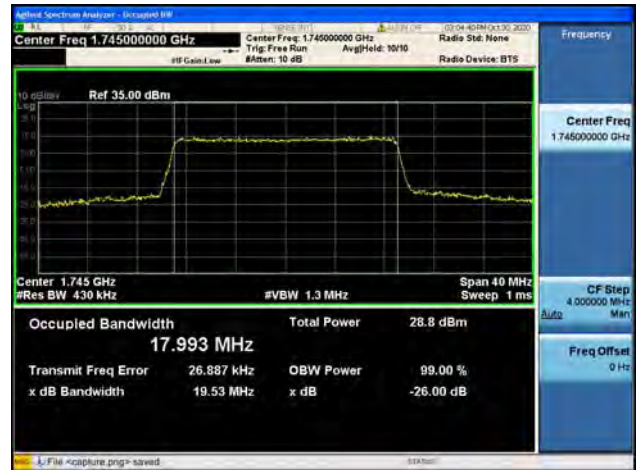
Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / Mid CH / 64QAM



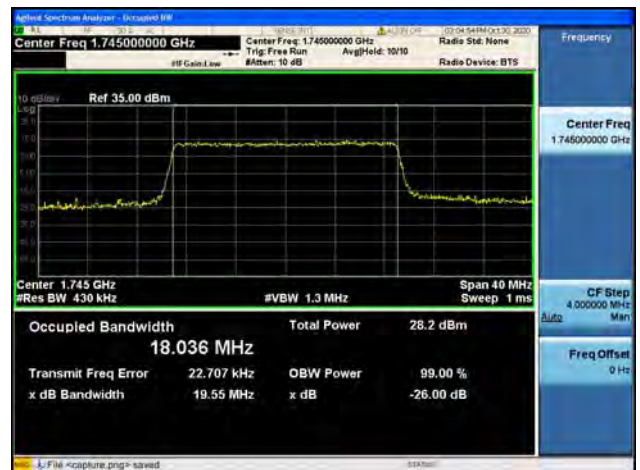
Band4 / 20MHz / High CH / QPSK



Band4 / 20MHz / High CH / 16QAM

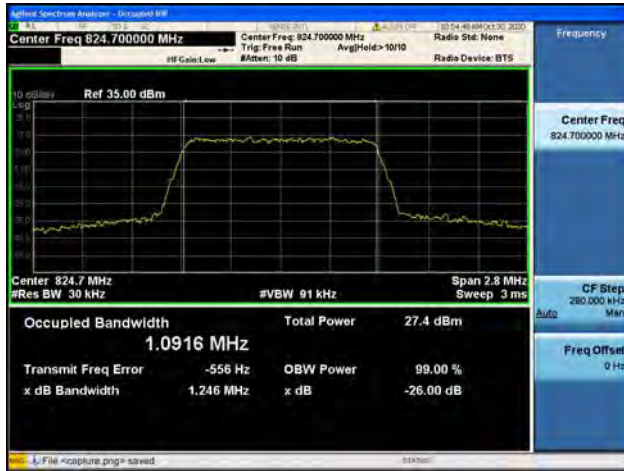


Band4 / 20MHz / High CH / 64QAM

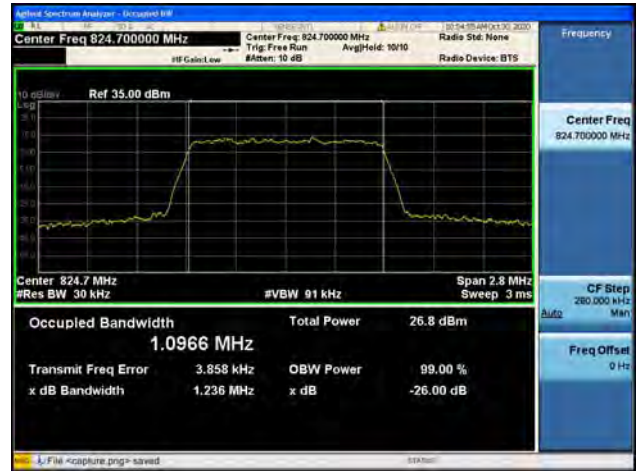




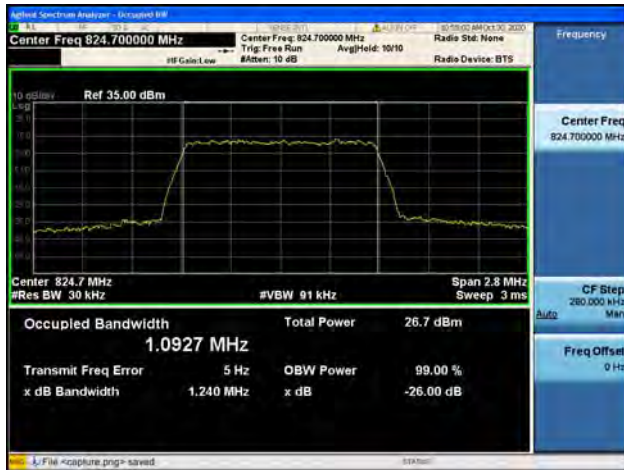
Band5 / 1.4MHz / Low CH / QPSK



Band5 / 1.4MHz / Low CH / 16QAM



Band5 / 1.4MHz / Low CH / 64QAM



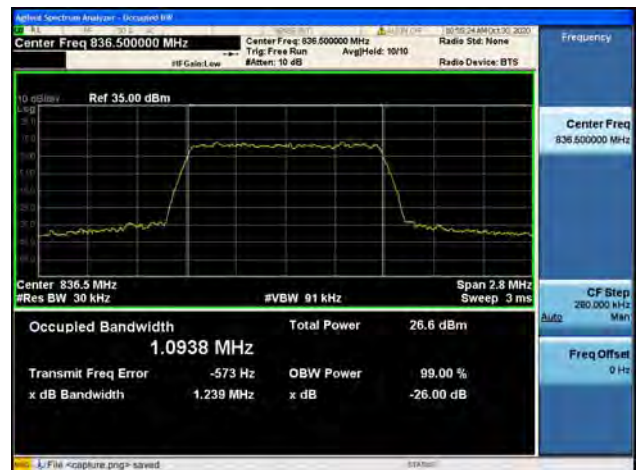
Band5 / 1.4MHz / Mid CH / QPSK



Band5 / 1.4MHz / Mid CH / 16QAM

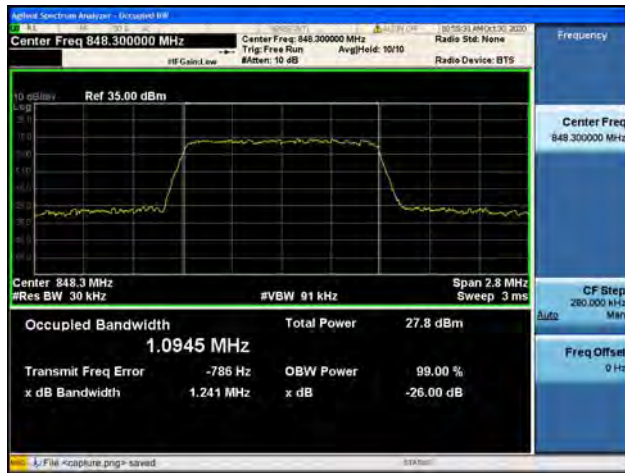


Band5 / 1.4MHz / Mid CH / 64QAM

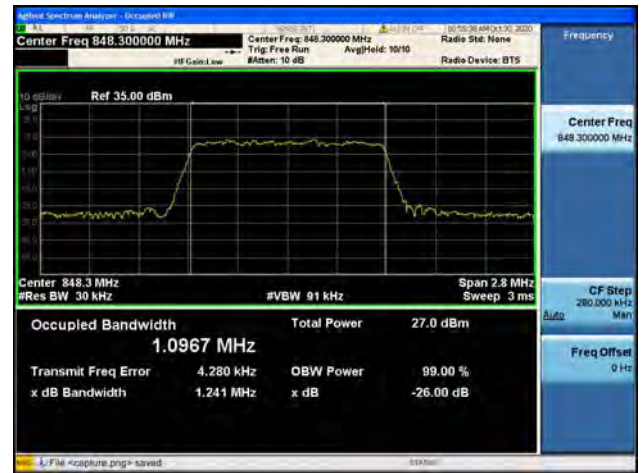




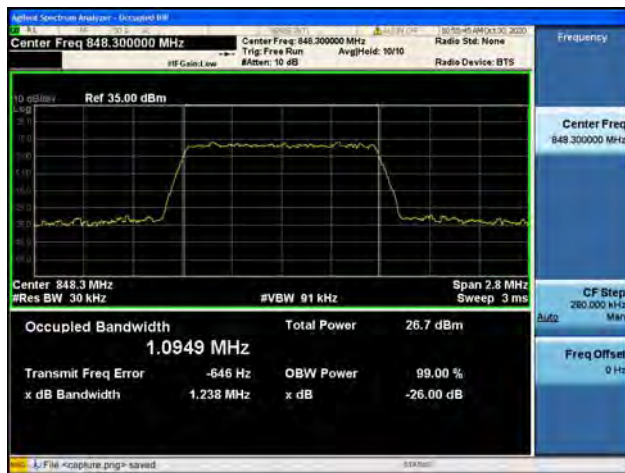
Band5 / 1.4MHz / High CH / QPSK



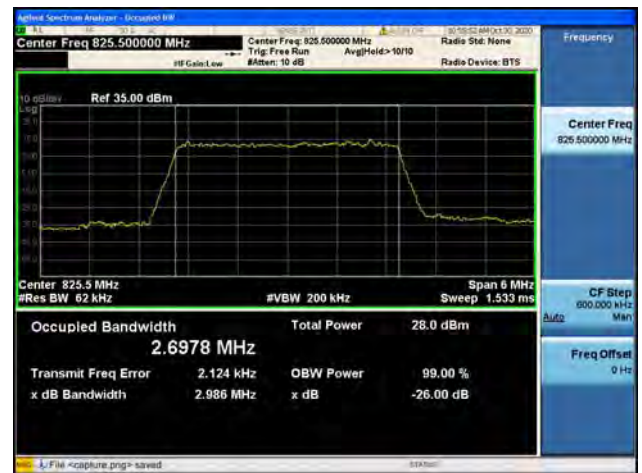
Band5 / 1.4MHz / High CH / 16QAM



Band5 / 1.4MHz / High CH / 64QAM



Band5 / 3MHz / Low CH / QPSK



Band5 / 3MHz / Low CH / 16QAM

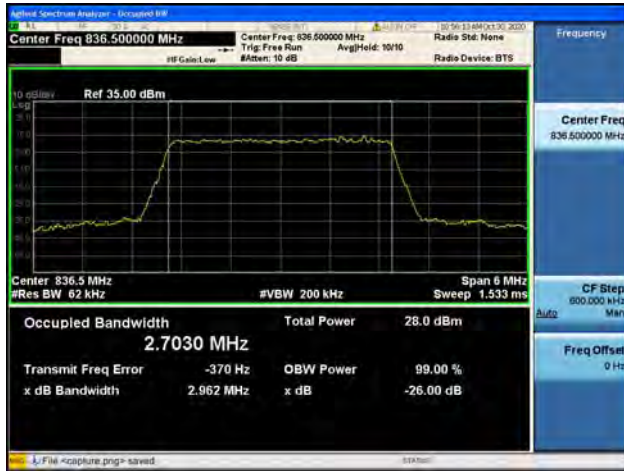


Band5 / 3MHz / Low CH / 64QAM





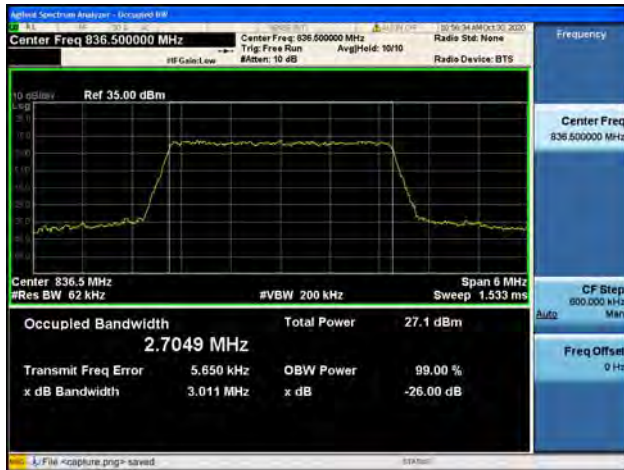
Band5 / 3MHz / Mid CH / QPSK



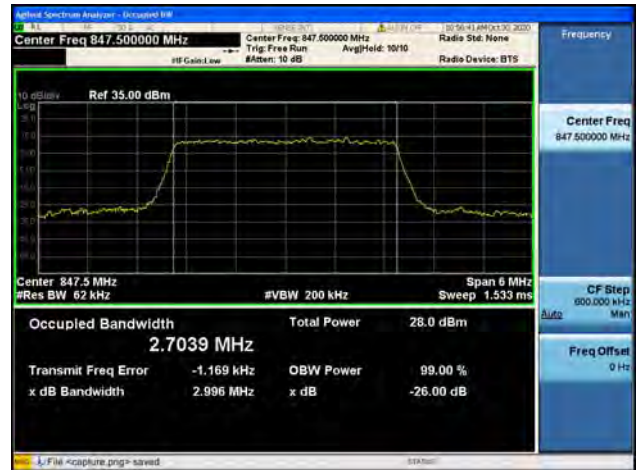
Band5 / 3MHz / Mid CH / 16QAM



Band5 / 3MHz / Mid CH / 64QAM



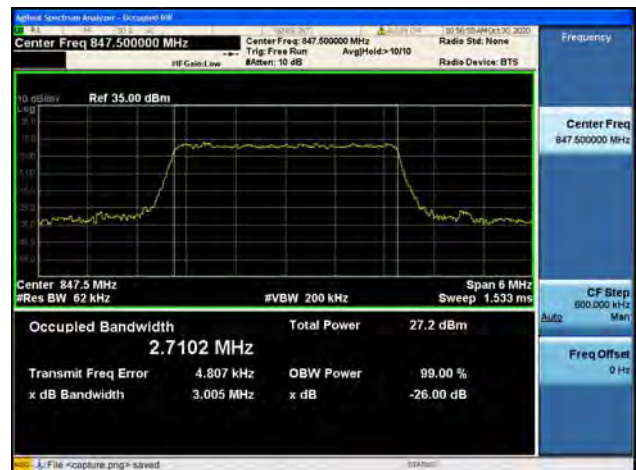
Band5 / 3MHz / High CH / QPSK



Band5 / 3MHz / High CH / 16QAM

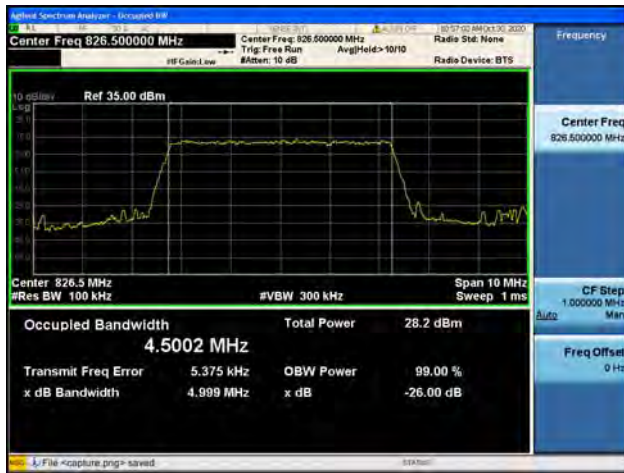


Band5 / 3MHz / High CH / 64QAM





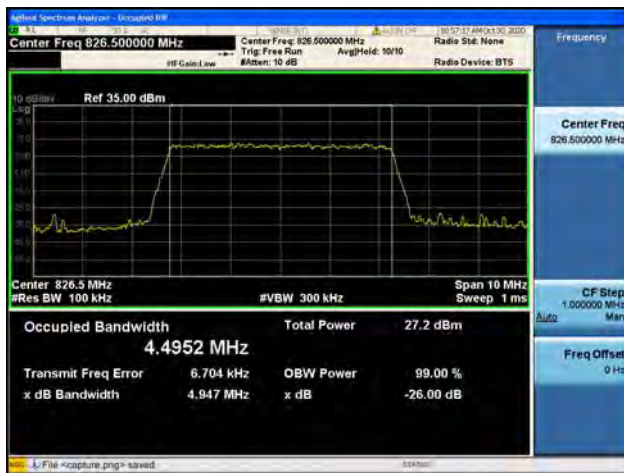
Band5 / 5MHz / Low CH / QPSK



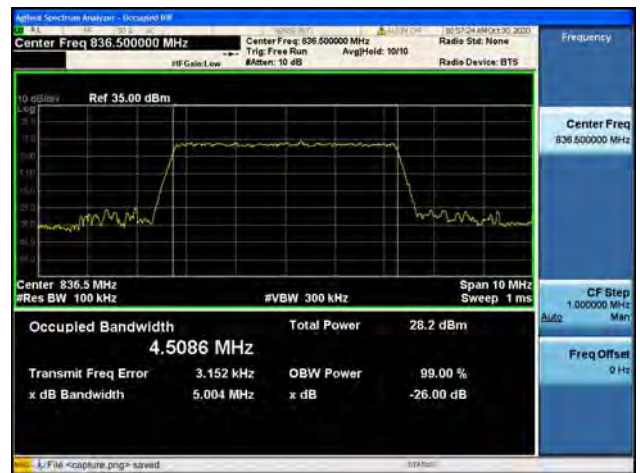
Band5 / 5MHz / Low CH / 16QAM



Band5 / 5MHz / Low CH / 64QAM



Band5 / 5MHz / Mid CH / QPSK



Band5 / 5MHz / Mid CH / 16QAM

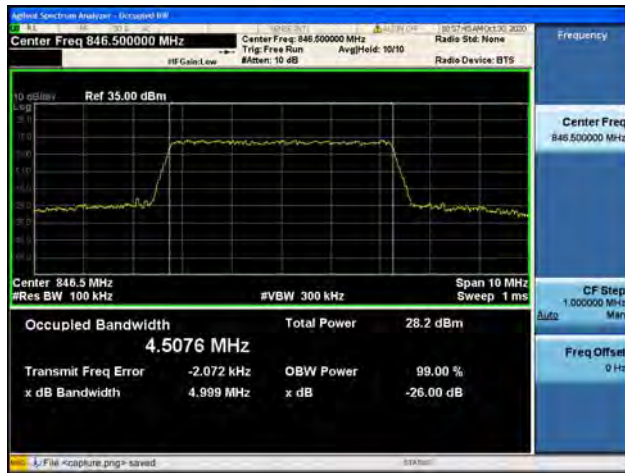


Band5 / 5MHz / Mid CH / 64QAM

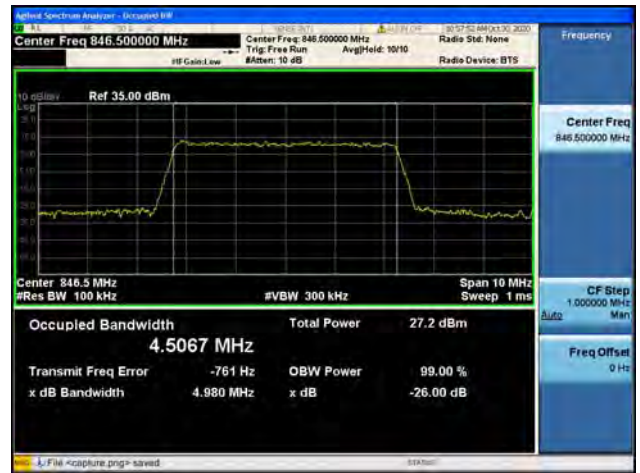




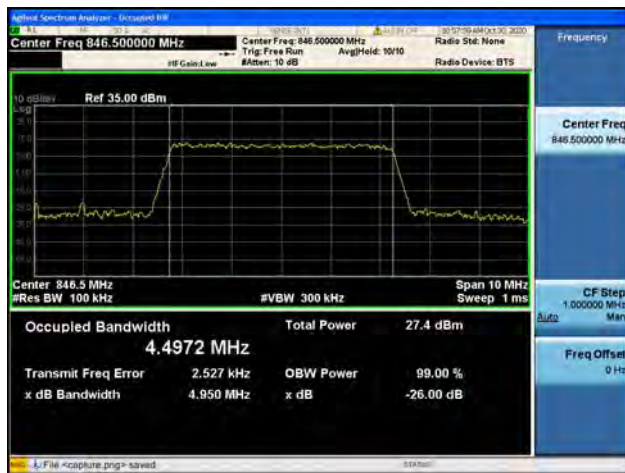
Band5 / 5MHz / High CH / QPSK



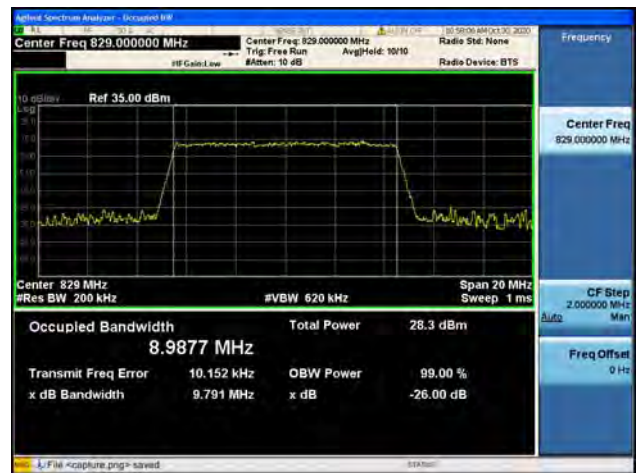
Band5 / 5MHz / High CH / 16QAM



Band5 / 5MHz / High CH / 64QAM



Band5 / 10MHz / Low CH / QPSK



Band5 / 10MHz / Low CH / 16QAM

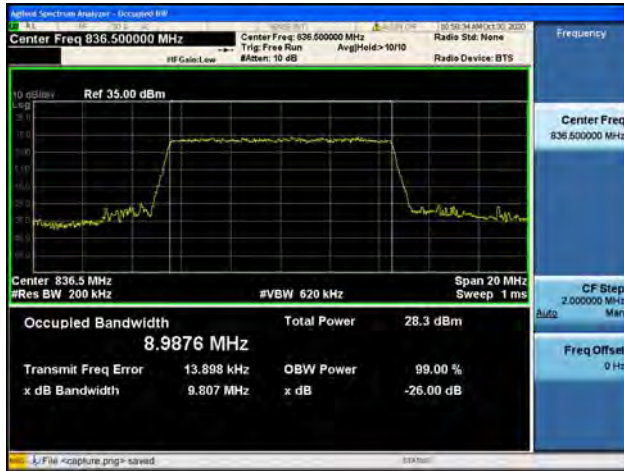


Band5 / 10MHz / Low CH / 64QAM

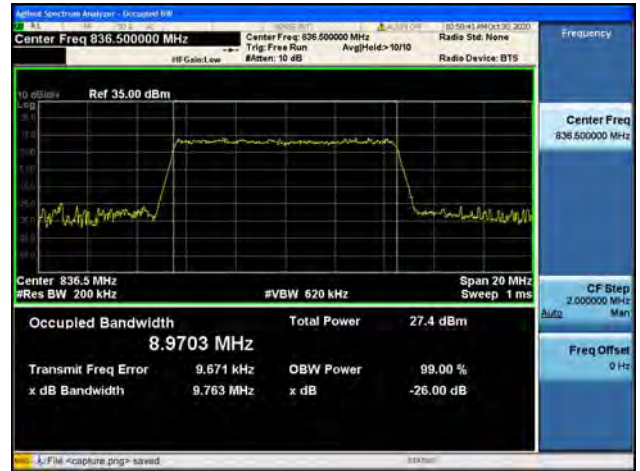




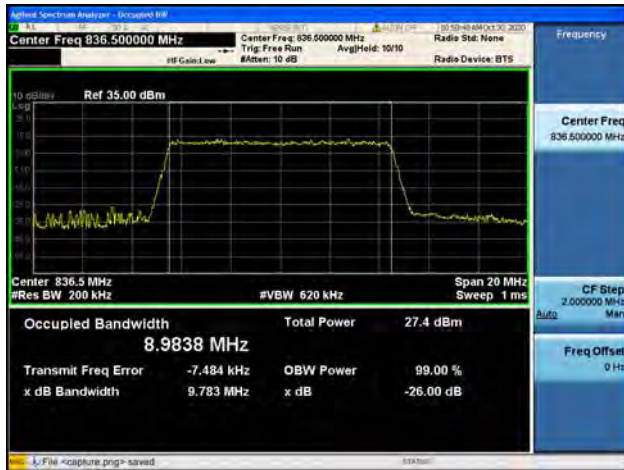
Band5 / 10MHz / Mid CH / QPSK



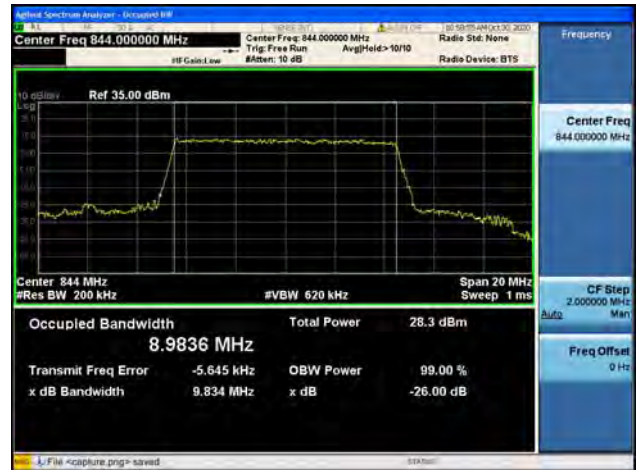
Band5 / 10MHz / Mid CH / 16QAM



Band5 / 10MHz / Mid CH / 64QAM



Band5 / 10MHz / High CH / QPSK



Band5 / 10MHz / High CH / 16QAM

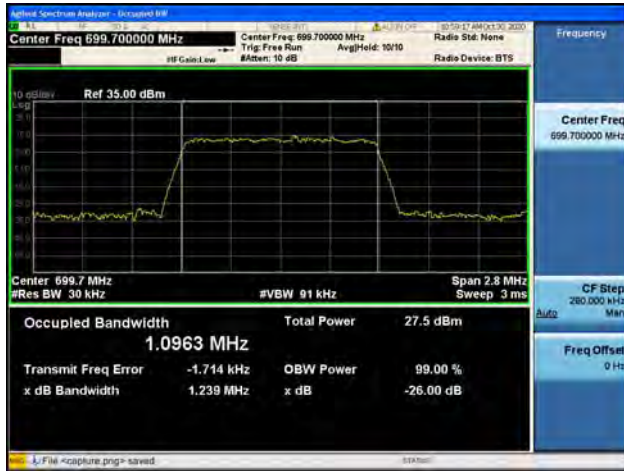


Band5 / 10MHz / High CH / 64QAM

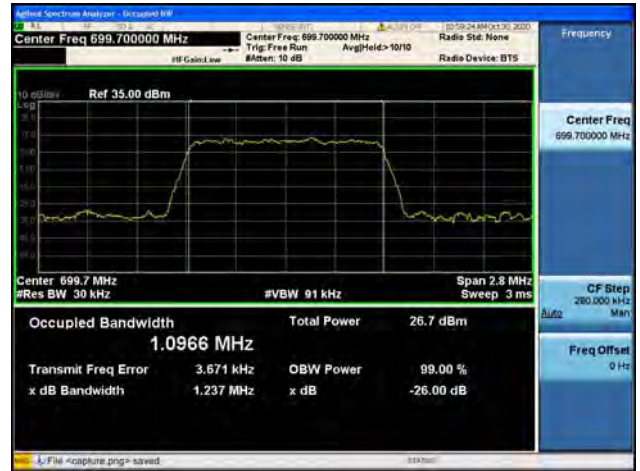




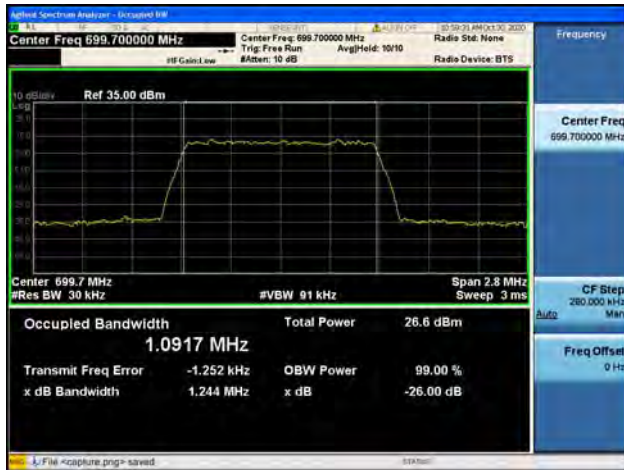
Band12 / 1.4MHz / Low CH / QPSK



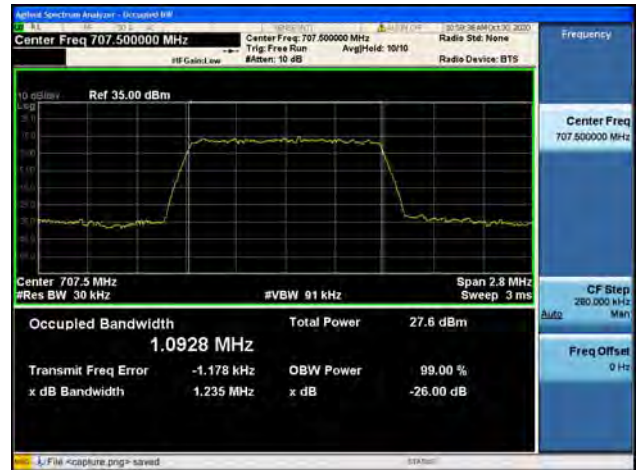
Band12 / 1.4MHz / Low CH / 16QAM



Band12 / 1.4MHz / Low CH / 64QAM



Band12 / 1.4MHz / Mid CH / QPSK



Band12 / 1.4MHz / Mid CH / 16QAM

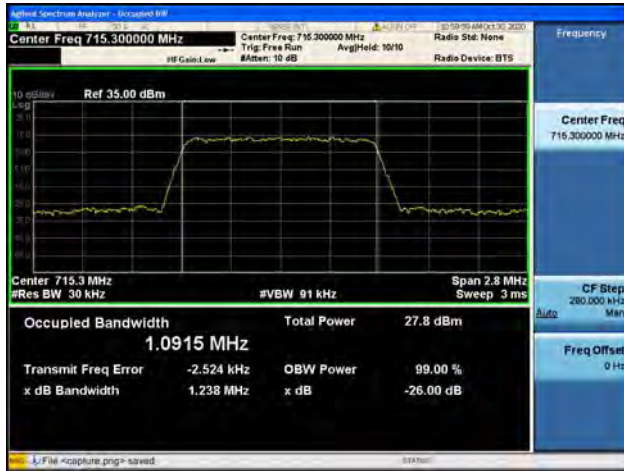


Band12 / 1.4MHz / Mid CH / 64QAM

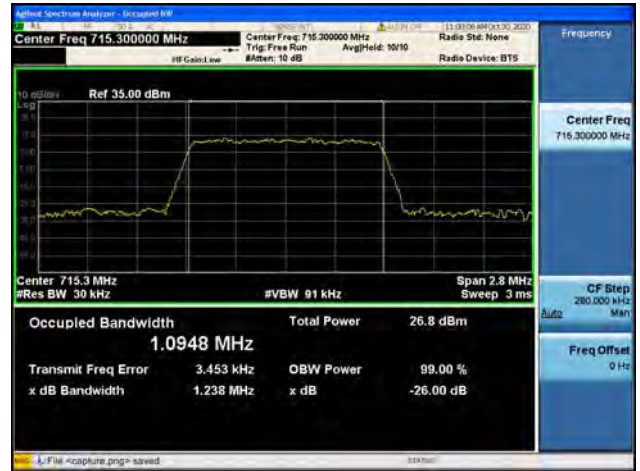




Band12 / 1.4MHz / High CH / QPSK



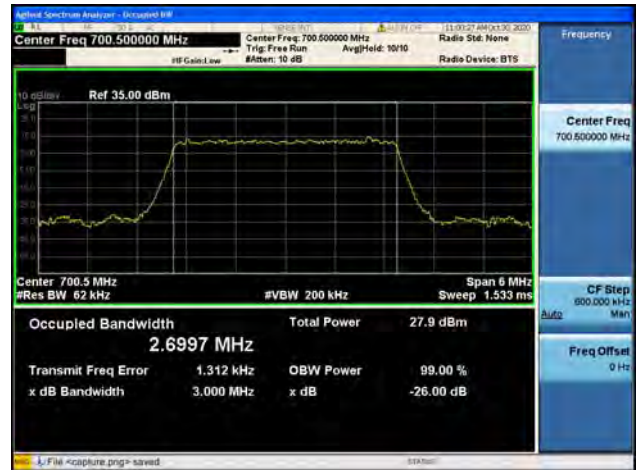
Band12 / 1.4MHz / High CH / 16QAM



Band12 / 1.4MHz / High CH / 64QAM



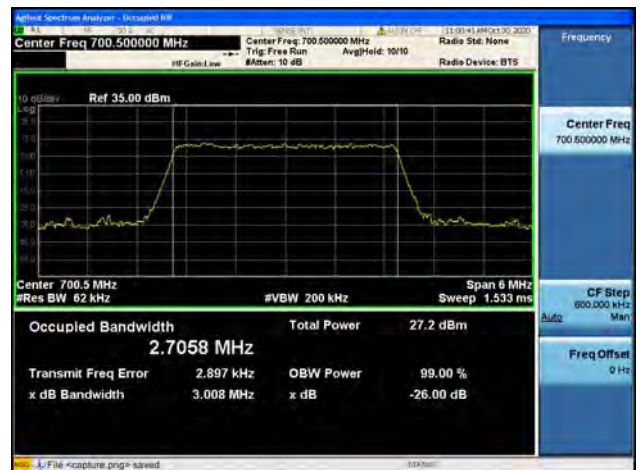
Band12 / 3MHz / Low CH / QPSK



Band12 / 3MHz / Low CH / 16QAM

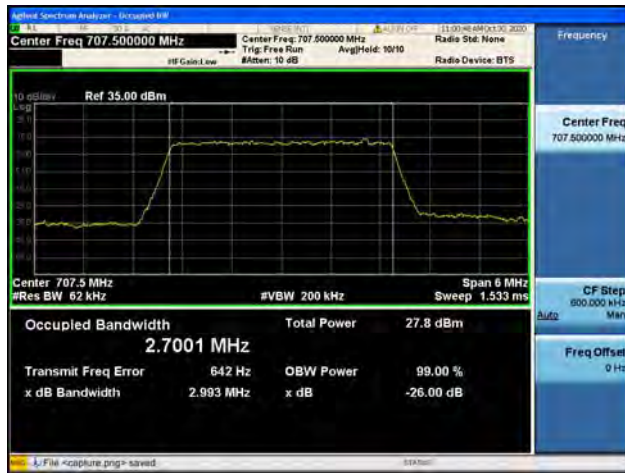


Band12 / 3MHz / Low CH / 64QAM

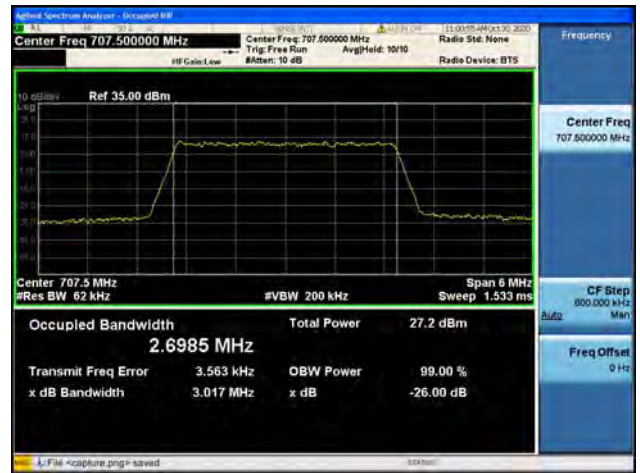




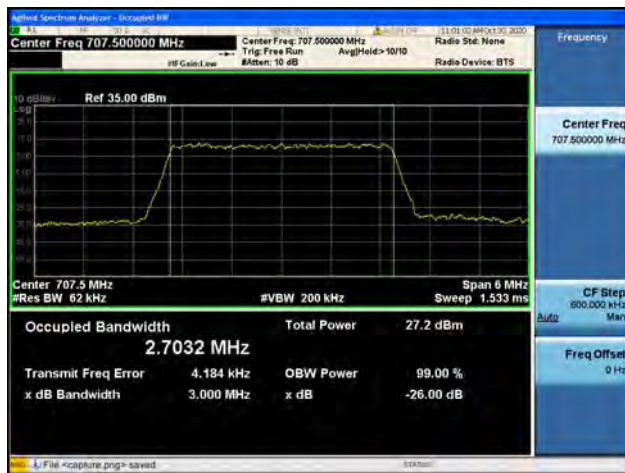
Band12 / 3MHz / Mid CH / QPSK



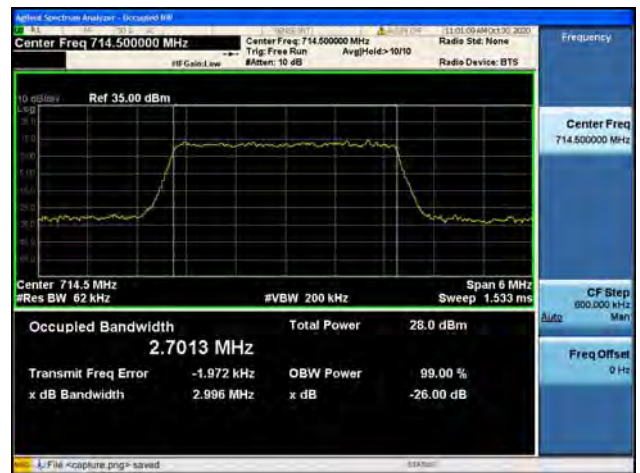
Band12 / 3MHz / Mid CH / 16QAM



Band12 / 3MHz / Mid CH / 64QAM



Band12 / 3MHz / High CH / QPSK



Band12 / 3MHz / High CH / 16QAM

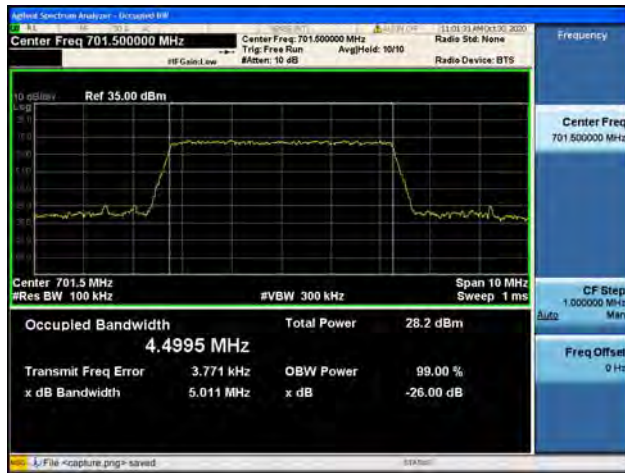


Band12 / 3MHz / High CH / 64QAM

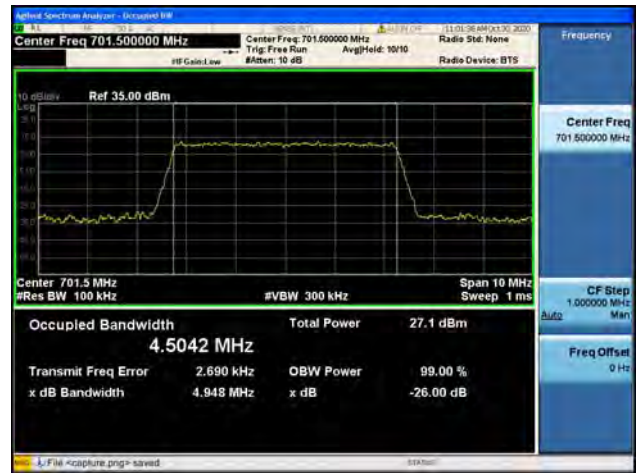




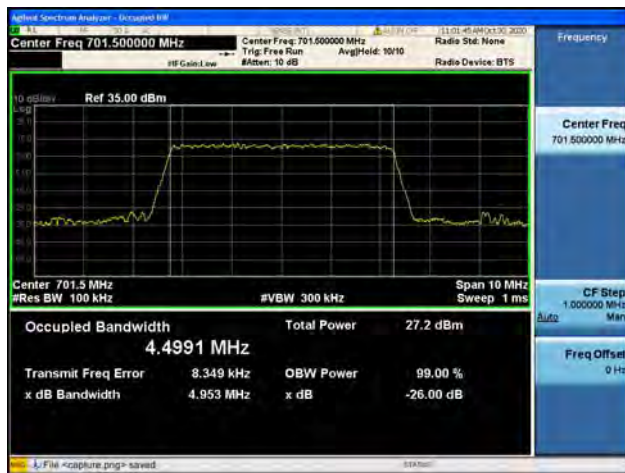
Band12 / 5MHz / Low CH / QPSK



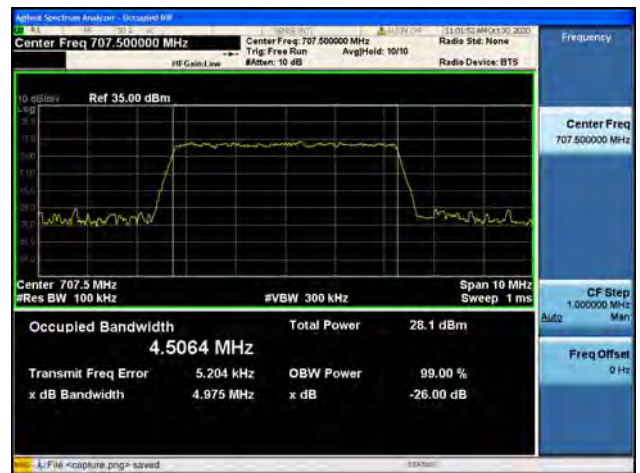
Band12 / 5MHz / Low CH / 16QAM



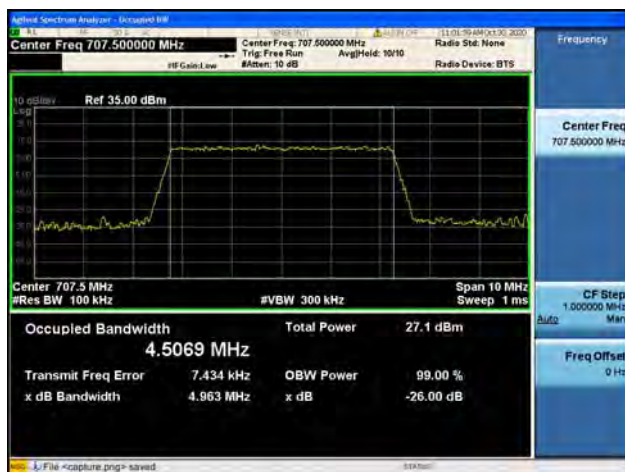
Band12 / 5MHz / Low CH / 64QAM



Band12 / 5MHz / Mid CH / QPSK



Band12 / 5MHz / Mid CH / 16QAM

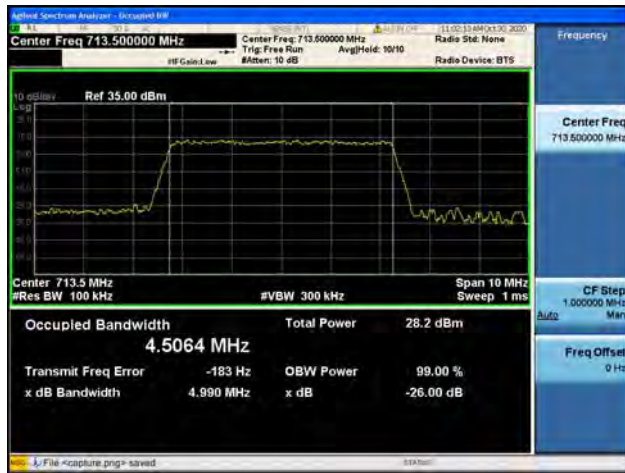


Band12 / 5MHz / Mid CH / 64QAM





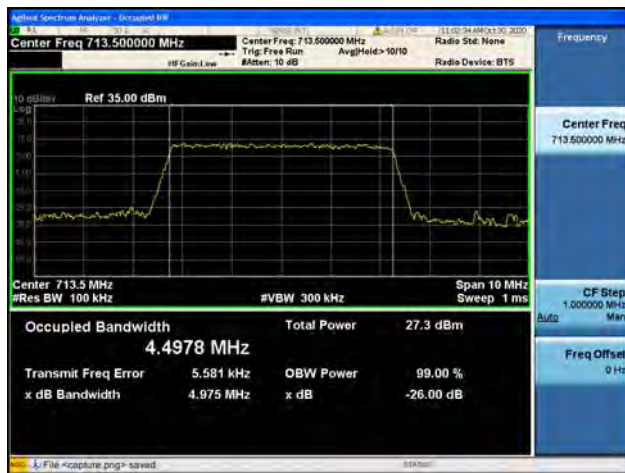
Band12 / 5MHz / High CH / QPSK



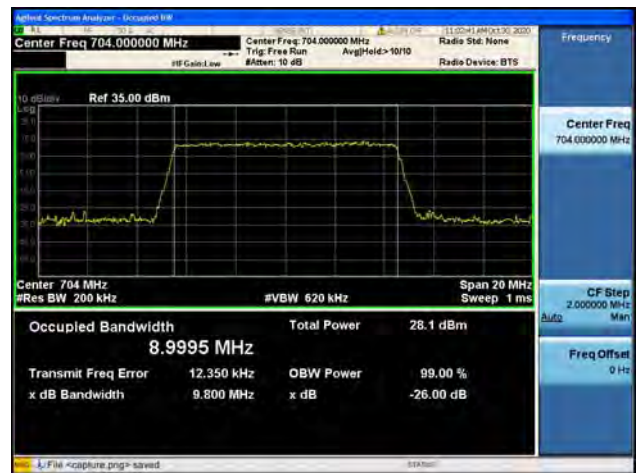
Band12 / 5MHz / High CH / 16QAM



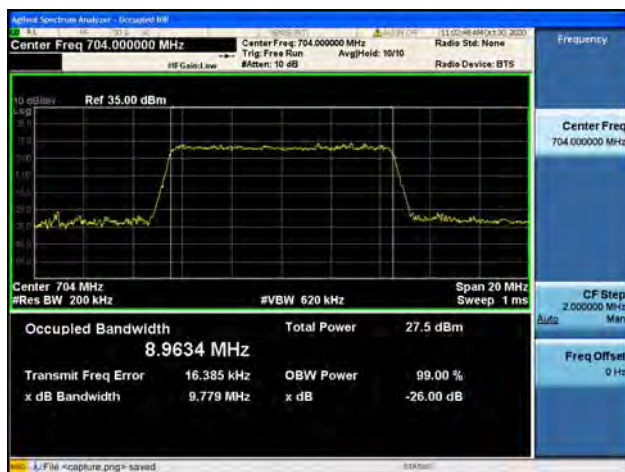
Band12 / 5MHz / High CH / 64QAM



Band12 / 10MHz / Low CH / QPSK



Band12 / 10MHz / Low CH / 16QAM

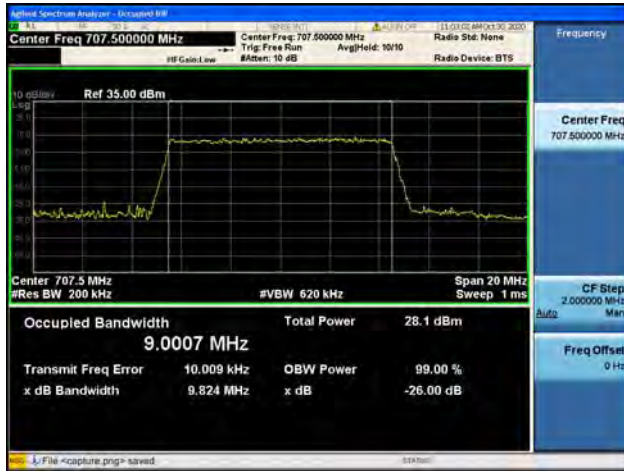


Band12 / 10MHz / Low CH / 64QAM

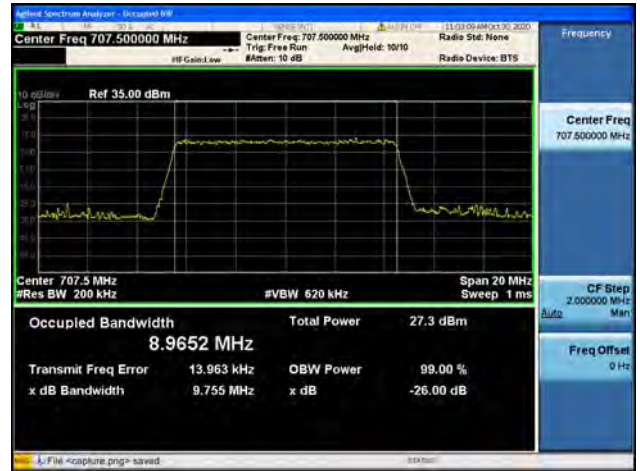




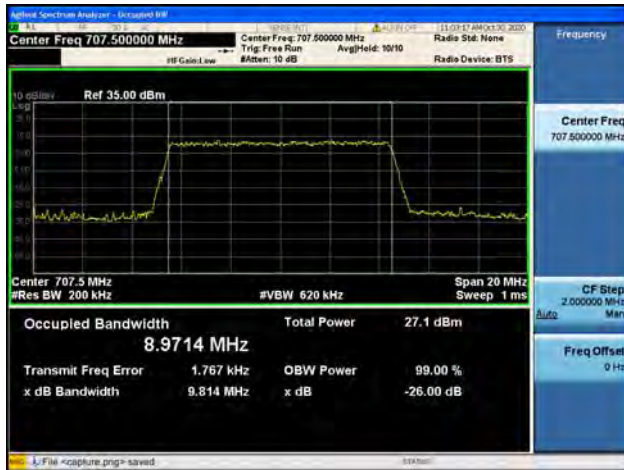
Band12 / 10MHz / Mid CH / QPSK



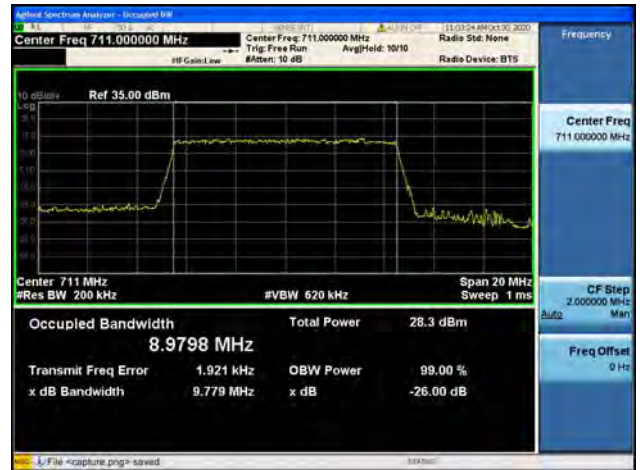
Band12 / 10MHz / Mid CH / 16QAM



Band12 / 10MHz / Mid CH / 64QAM



Band12 / 10MHz / High CH / QPSK



Band12 / 10MHz / High CH / 16QAM



Band12 / 10MHz / High CH / 64QAM

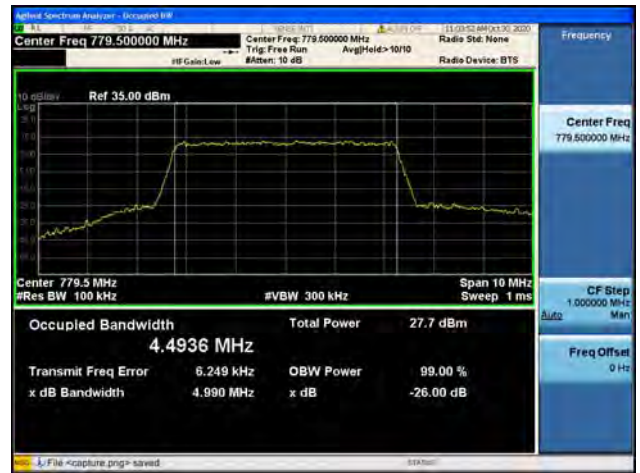




Band13 / 5MHz / Low CH / QPSK



Band13 / 5MHz / Low CH / 16QAM



Band13 / 5MHz / Low CH / 64QAM



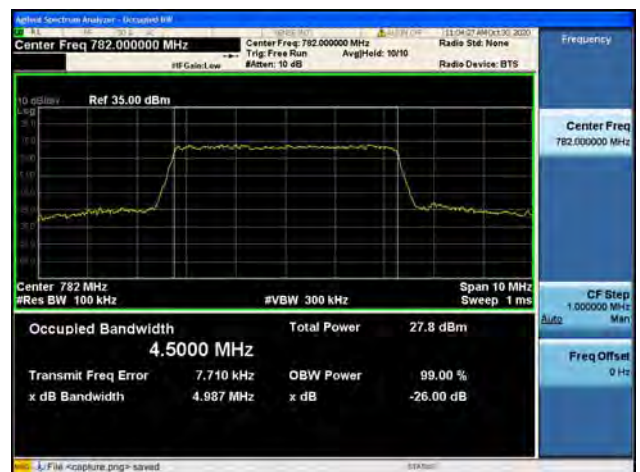
Band13 / 5MHz / Mid CH / QPSK



Band13 / 5MHz / Mid CH / 16QAM



Band13 / 5MHz / Mid CH / 64QAM

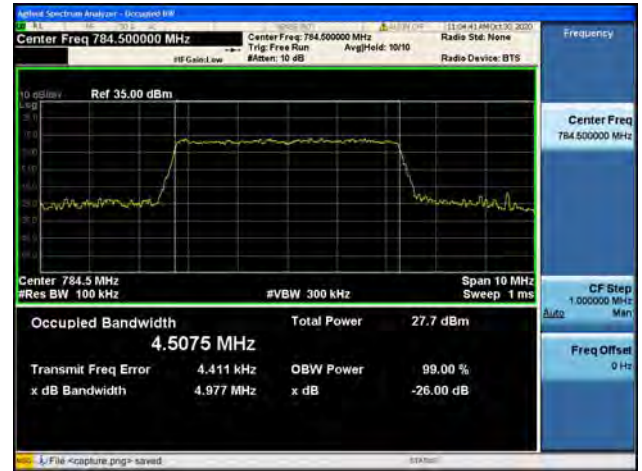




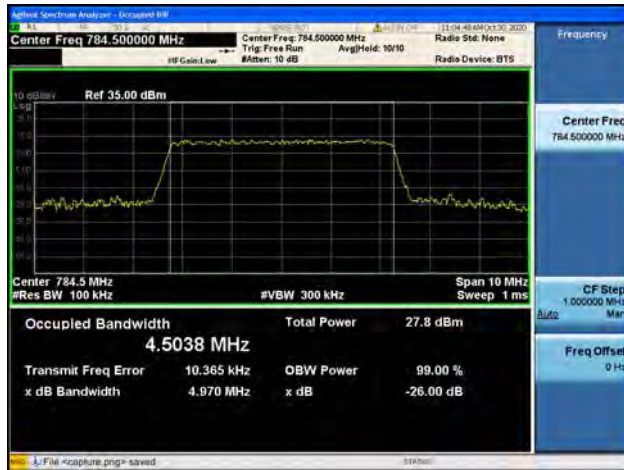
Band13 / 5MHz / High CH / QPSK



Band13 / 5MHz / High CH / 16QAM



Band13 / 5MHz / High CH / 64QAM



Band13 / 10MHz / Low CH / QPSK



Band13 / 10MHz / Low CH / 16QAM



Band13 / 10MHz / Low CH / 64QAM





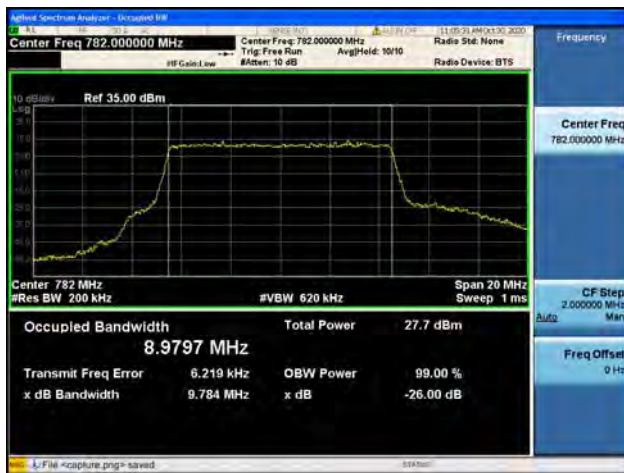
Band13 / 10MHz / Mid CH / QPSK



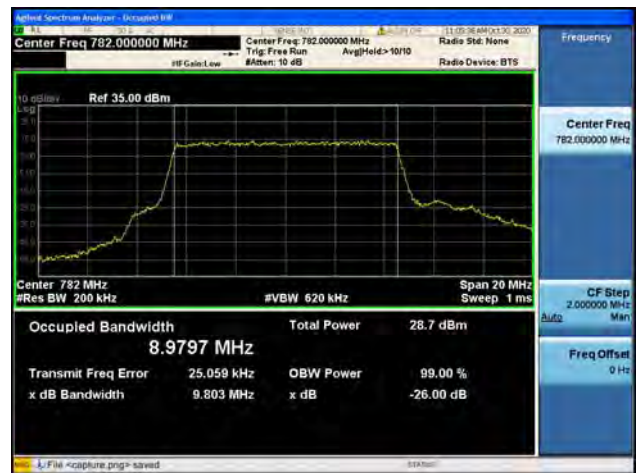
Band13 / 10MHz / Mid CH / 16QAM



Band13 / 10MHz / Mid CH / 64QAM



Band13 / 10MHz / High CH / QPSK



Band13 / 10MHz / High CH / 16QAM

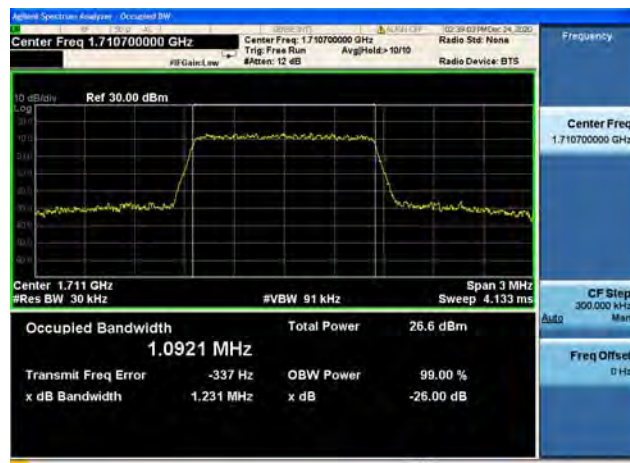


Band13 / 10MHz / High CH / 64QAM

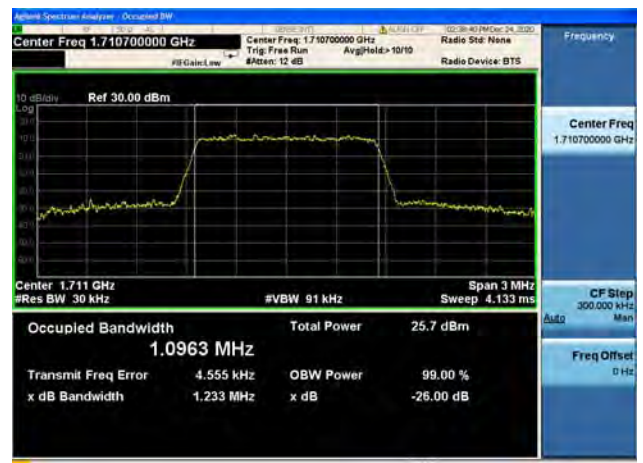




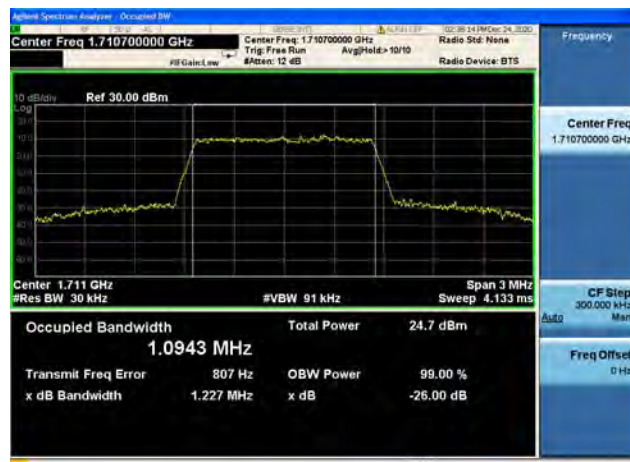
Band66 / 1.4MHz / Low CH / QPSK



Band66 / 1.4MHz / Low CH / 16QAM



Band66 / 1.4MHz / Low CH / 64QAM



Band66 / 1.4MHz / Mid CH / QPSK



Band66 / 1.4MHz / Mid CH / 16QAM



Band66 / 1.4MHz / Mid CH / 64QAM





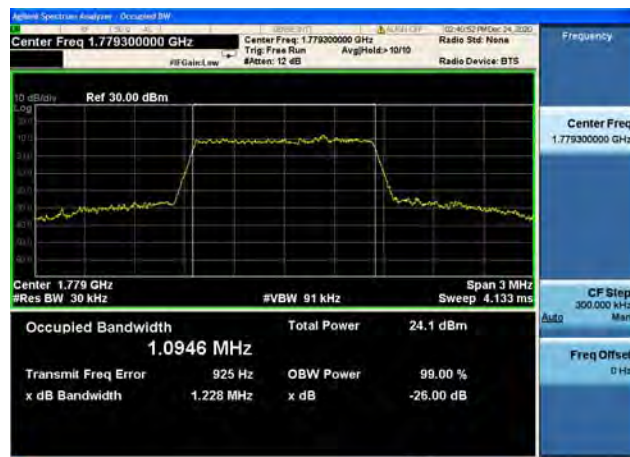
Band66 / 1.4MHz / High CH / QPSK



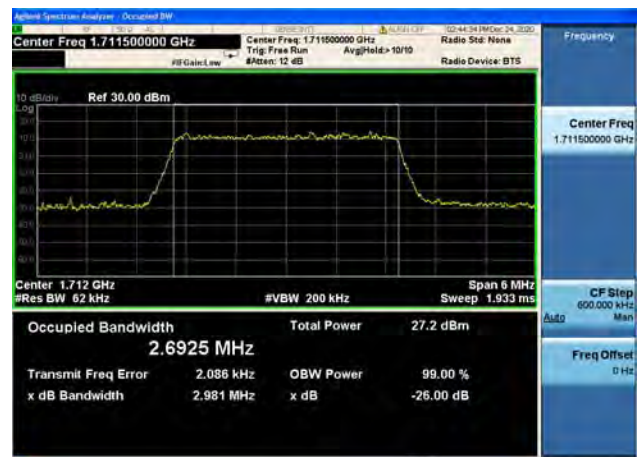
Band66 / 1.4MHz / High CH / 16QAM



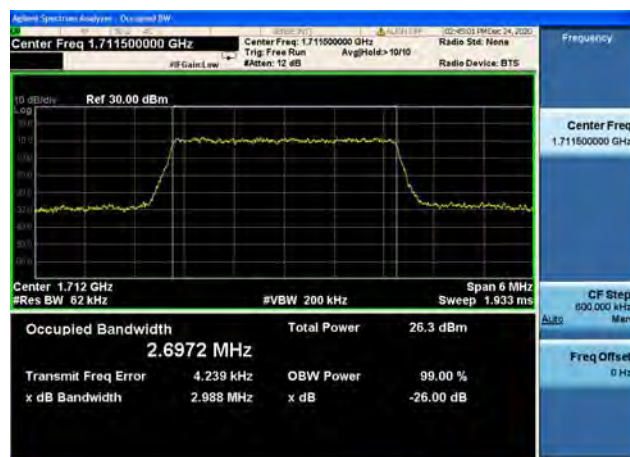
Band66 / 1.4MHz / High CH / 64QAM



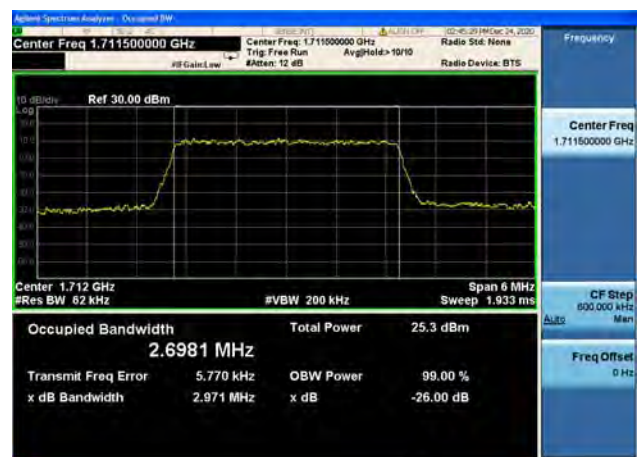
Band66 / 3MHz / Low CH / QPSK



Band66 / 3MHz / Low CH / 16QAM



Band66 / 3MHz / Low CH / 64QAM





Band66 / 3MHz / Mid CH / QPSK



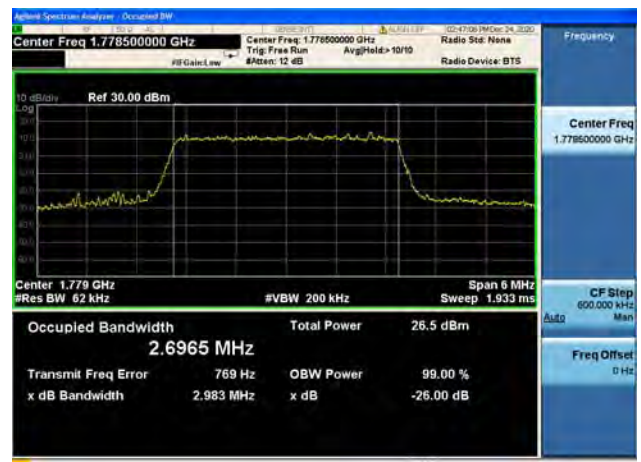
Band66 / 3MHz / Mid CH / 16QAM



Band66 / 3MHz / Mid CH / 64QAM



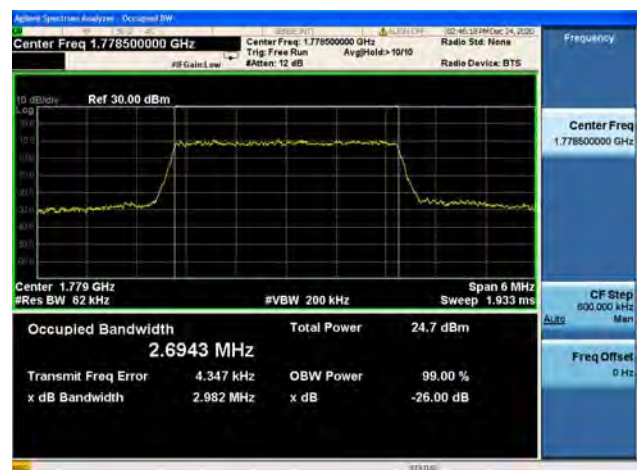
Band66 / 3MHz / High CH / QPSK



Band66 / 3MHz / High CH / 16QAM



Band66 / 3MHz / High CH / 64QAM







Band66 / 5MHz / High CH / QPSK



Band66 / 5MHz / High CH / 16QAM



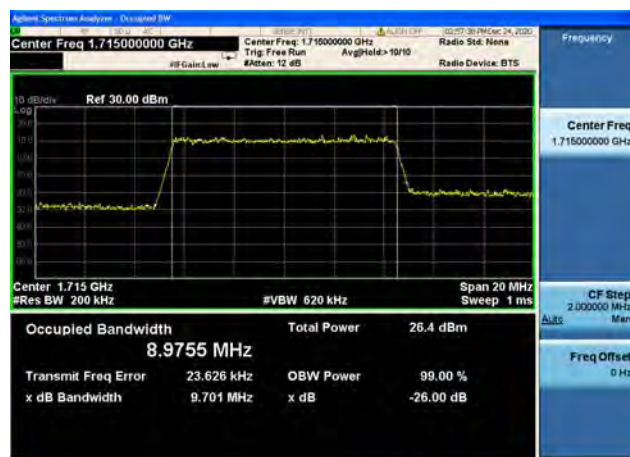
Band66 / 5MHz / High CH / 64QAM



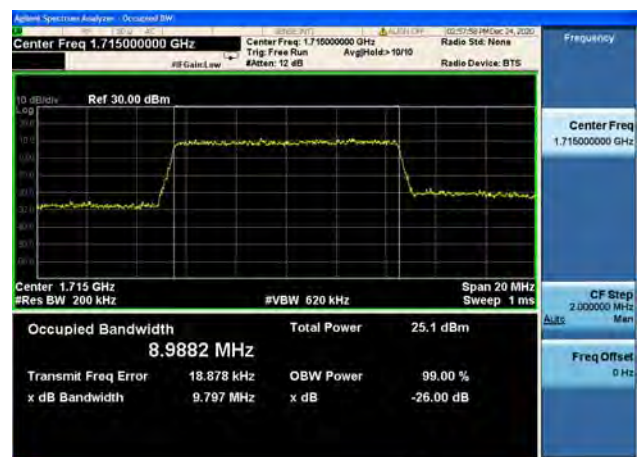
Band66 / 10MHz / Low CH / QPSK



Band66 / 10MHz / Low CH / 16QAM



Band66 / 10MHz / Low CH / 64QAM





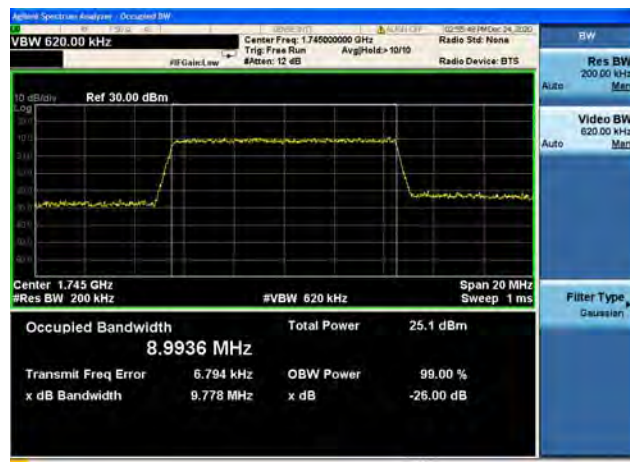
Band66 / 10MHz / Mid CH / QPSK



Band66 / 10MHz / Mid CH / 16QAM



Band66 / 10MHz / Mid CH / 64QAM



Band66 / 10MHz / High CH / QPSK



Band66 / 10MHz / High CH / 16QAM

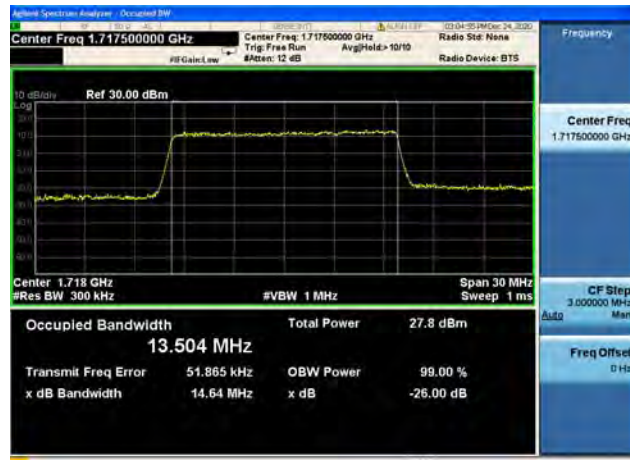


Band66 / 10MHz / High CH / 64QAM

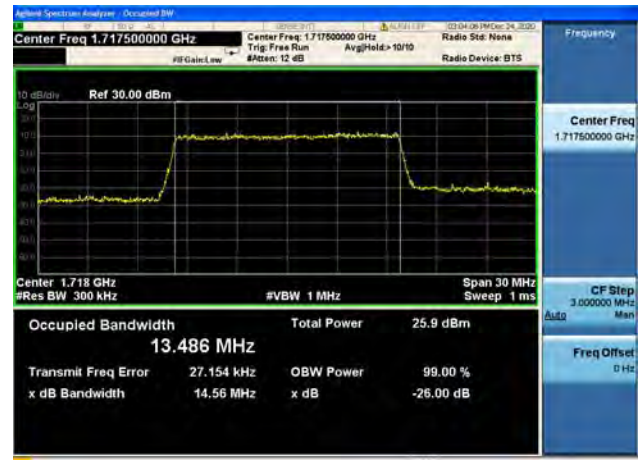




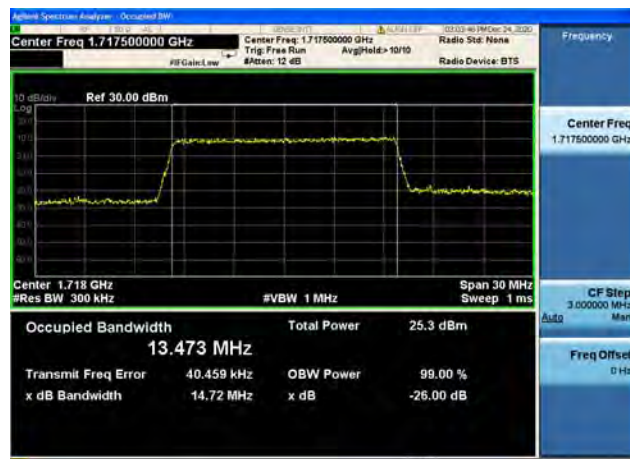
Band66 / 15MHz / Low CH / QPSK



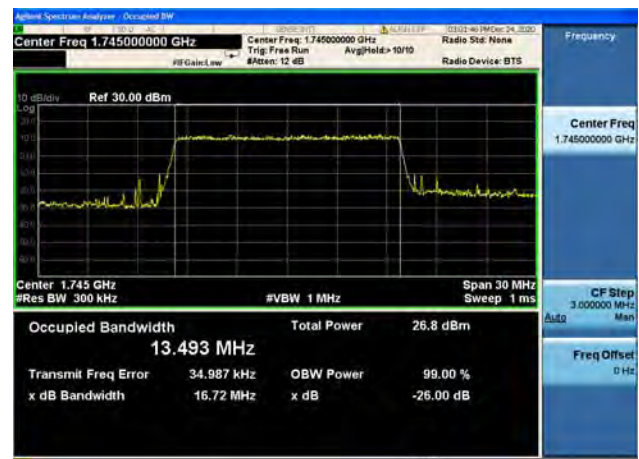
Band66 / 15MHz / Low CH / 16QAM



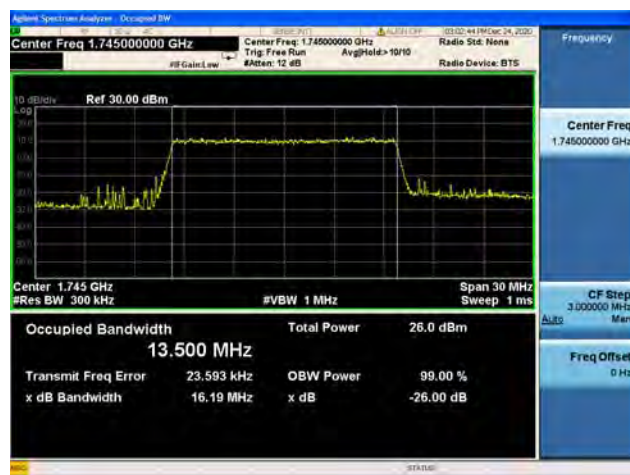
Band66 / 15MHz / Low CH / 64QAM



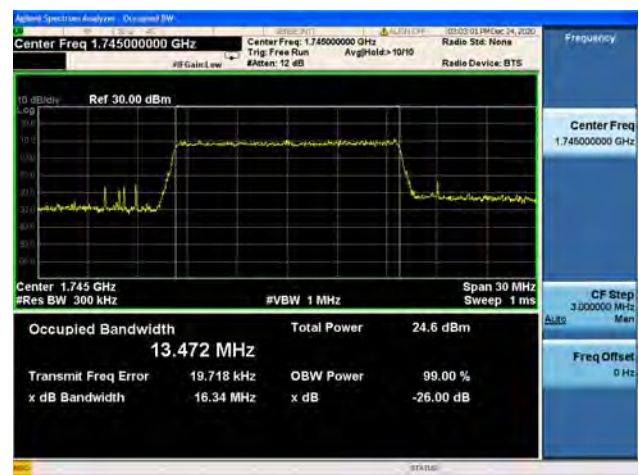
Band66 / 15MHz / Mid CH / QPSK



Band66 / 15MHz / Mid CH / 16QAM



Band66 / 15MHz / Mid CH / 64QAM





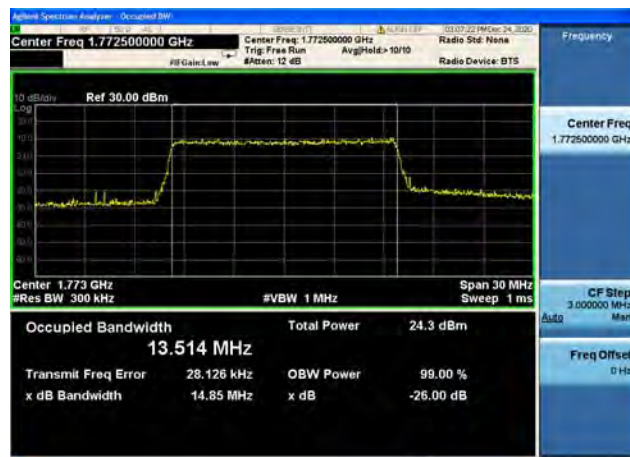
Band66 / 15MHz / High CH / QPSK



Band66 / 15MHz / High CH / 16QAM



Band66 / 15MHz / High CH / 64QAM



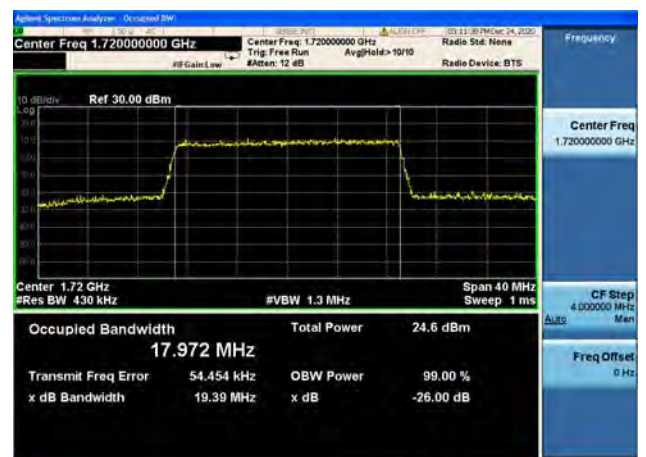
Band66 / 20MHz / Low CH / QPSK



Band66 / 20MHz / Low CH / 16QAM

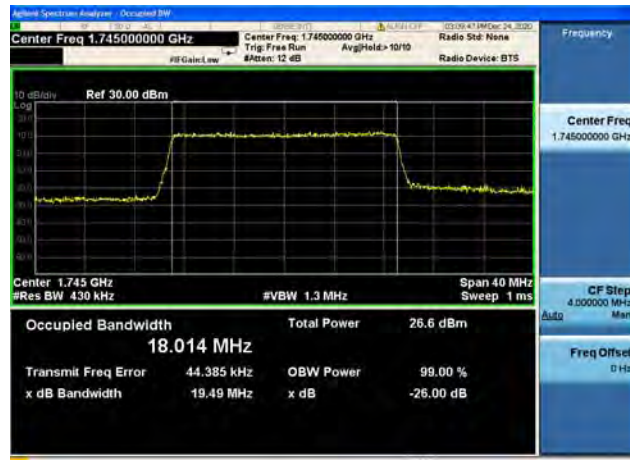


Band66 / 20MHz / Low CH / 64QAM





Band66 / 20MHz / Mid CH / QPSK



Band66 / 20MHz / Mid CH / 16QAM



Band66 / 20MHz / Mid CH / 64QAM



Band66 / 20MHz / High CH / QPSK



Band66 / 20MHz / High CH / 16QAM



Band66 / 20MHz / High CH / 64QAM



2.3. Frequency Stability

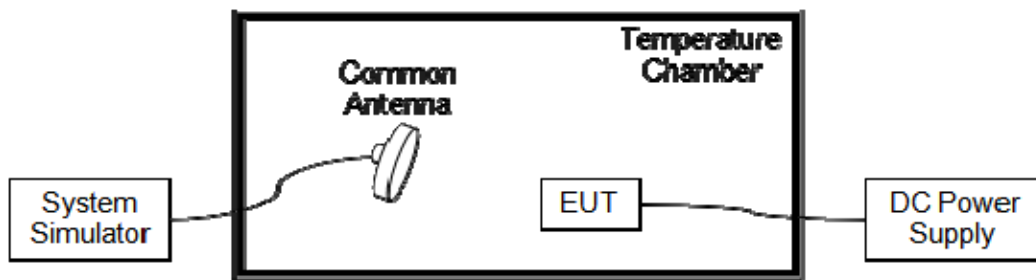
2.3.1. Requirement

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

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

Note: The operating temperature of EUT is from 0°C to 55°C , which are specified by the applicant.

2.3.2. Test Description



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

2.3.3. Test Procedure

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



2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.87V, 4.45V and 3.45V, which are specified by the applicant; the normal temperature here used is 20°C.

LTE Band 2, QPSK, Channel 18900, Frequency 1880.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
100	3.85	+20 (Ref)	17	0.009	PASS
100		0	-14	-0.007	
100		+10	28	0.015	
100		+20	-16	-0.009	
100		+30	50	0.027	
100		+40	-17	-0.009	
100		+50	47	0.025	
100		+55	15	0.008	
115	4.40	+20	41	0.022	
85	3.30	+20	26	0.014	

LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
100	3.85	+20 (Ref)	21	0.012	PASS
100		0	-11	-0.006	
100		+10	16	0.009	
100		+20	23	0.013	
100		+30	-25	-0.014	
100		+40	23	0.013	
100		+50	-29	-0.017	
100		+55	37	0.021	
115	4.40	+20	11	0.006	
85	3.30	+20	13	0.008	



LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
100	3.85	+20 (Ref)	14	0.017	PASS
100		0	10	0.012	
100		+10	25	0.030	
100		+20	29	0.035	
100		+30	-12	-0.014	
100		+40	29	0.035	
100		+50	-20	-0.024	
100		+55	13	0.016	
115	4.40	+20	12	0.014	
85	3.30	+20	19	0.023	

LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
100	3.85	+20 (Ref)	13	0.018	PASS
100		0	29	0.041	
100		+10	-19	-0.027	
100		+20	13	0.018	
100		+30	18	0.025	
100		+40	19	0.027	
100		+50	10	0.014	
100		+55	29	0.041	
115	4.40	+20	30	0.042	
85	3.30	+20	32	0.045	



LTE Band 13, QPSK, Channel 23230, Frequency 782MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
100	3.85	+20 (Ref)	15	0.019	PASS
100		0	12	0.015	
100		+10	11	0.014	
100		+20	-13	-0.017	
100		+30	30	0.038	
100		+40	18	0.023	
100		+50	11	0.014	
100		+55	20	0.026	
115	4.40	+20	-13	-0.017	
85	3.30	+20	12	0.015	

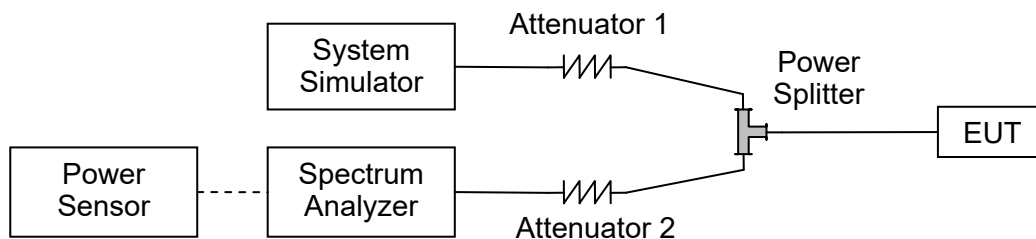
LTE Band 66, QPSK, Channel 132322, Frequency 1745MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
100	3.85	+20 (Ref)	16	0.009	PASS
100		0	-17	-0.010	
100		+10	41	0.023	
100		+20	-21	-0.012	
100		+30	-18	-0.010	
100		+40	78	0.045	
100		+50	-20	-0.011	
100		+55	44	0.025	
115	4.40	+20	18	0.010	
85	3.30	+20	17	0.010	

2.4. Peak to Average Ratio

2.4.1. Requirement

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

2.4.2. Test Description



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

2.4.3. Test Procedure

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

2.4.4. Test Result

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



LTE Band 2					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.63	<=13	PASS
	Low	16QAM	5.57	<=13	PASS
	Low	64QAM	5.73	<=13	PASS
	Mid	QPSK	5.61	<=13	PASS
	Mid	16QAM	6.08	<=13	PASS
	Mid	64QAM	6.04	<=13	PASS
	High	QPSK	5.54	<=13	PASS
	High	16QAM	6.00	<=13	PASS
	High	64QAM	5.98	<=13	PASS
3	Low	QPSK	4.68	<=13	PASS
	Low	16QAM	5.66	<=13	PASS
	Low	64QAM	5.66	<=13	PASS
	Mid	QPSK	5.26	<=13	PASS
	Mid	16QAM	6.14	<=13	PASS
	Mid	64QAM	6.07	<=13	PASS
	High	QPSK	5.27	<=13	PASS
	High	16QAM	6.09	<=13	PASS
	High	64QAM	5.99	<=13	PASS
5	Low	QPSK	4.84	<=13	PASS
	Low	16QAM	5.73	<=13	PASS
	Low	64QAM	5.72	<=13	PASS
	Mid	QPSK	5.34	<=13	PASS
	Mid	16QAM	6.02	<=13	PASS
	Mid	64QAM	6.00	<=13	PASS
	High	QPSK	5.36	<=13	PASS
	High	16QAM	5.97	<=13	PASS
	High	64QAM	5.95	<=13	PASS
10	Low	QPSK	4.86	<=13	PASS
	Low	16QAM	5.75	<=13	PASS
	Low	64QAM	5.74	<=13	PASS
	Mid	QPSK	5.37	<=13	PASS
	Mid	16QAM	6.07	<=13	PASS
	Mid	64QAM	6.06	<=13	PASS
	High	QPSK	5.37	<=13	PASS
	High	16QAM	6.05	<=13	PASS
	High	64QAM	6.05	<=13	PASS



15	Low	QPSK	4.72	<=13	PASS
	Low	16QAM	5.63	<=13	PASS
	Low	64QAM	5.61	<=13	PASS
	Mid	QPSK	5.45	<=13	PASS
	Mid	16QAM	6.07	<=13	PASS
	Mid	64QAM	6.06	<=13	PASS
	High	QPSK	5.37	<=13	PASS
	High	16QAM	6.10	<=13	PASS
	High	64QAM	6.09	<=13	PASS
20	Low	QPSK	4.99	<=13	PASS
	Low	16QAM	5.86	<=13	PASS
	Low	64QAM	6.00	<=13	PASS
	Mid	QPSK	5.27	<=13	PASS
	Mid	16QAM	6.03	<=13	PASS
	Mid	64QAM	6.03	<=13	PASS
	High	QPSK	5.26	<=13	PASS
	High	16QAM	6.04	<=13	PASS
	High	64QAM	6.00	<=13	PASS



LTE Band 4					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	5.51	<=13	PASS
	Low	16QAM	6.03	<=13	PASS
	Low	64QAM	6.03	<=13	PASS
	Mid	QPSK	5.55	<=13	PASS
	Mid	16QAM	6.06	<=13	PASS
	Mid	64QAM	6.02	<=13	PASS
	High	QPSK	5.53	<=13	PASS
	High	16QAM	6.05	<=13	PASS
	High	64QAM	6.06	<=13	PASS
3	Low	QPSK	5.24	<=13	PASS
	Low	16QAM	6.02	<=13	PASS
	Low	64QAM	5.96	<=13	PASS
	Mid	QPSK	5.36	<=13	PASS
	Mid	16QAM	6.05	<=13	PASS
	Mid	64QAM	5.98	<=13	PASS
	High	QPSK	5.27	<=13	PASS
	High	16QAM	6.06	<=13	PASS
	High	64QAM	5.97	<=13	PASS
5	Low	QPSK	5.29	<=13	PASS
	Low	16QAM	5.97	<=13	PASS
	Low	64QAM	5.97	<=13	PASS
	Mid	QPSK	5.41	<=13	PASS
	Mid	16QAM	6.00	<=13	PASS
	Mid	64QAM	5.98	<=13	PASS
	High	QPSK	5.35	<=13	PASS
	High	16QAM	6.01	<=13	PASS
	High	64QAM	5.97	<=13	PASS
10	Low	QPSK	5.36	<=13	PASS
	Low	16QAM	5.98	<=13	PASS
	Low	64QAM	6.01	<=13	PASS
	Mid	QPSK	5.33	<=13	PASS
	Mid	16QAM	6.00	<=13	PASS
	Mid	64QAM	6.00	<=13	PASS
	High	QPSK	5.36	<=13	PASS
	High	16QAM	6.06	<=13	PASS
	High	64QAM	6.06	<=13	PASS



15	Low	QPSK	5.29	<=13	PASS
	Low	16QAM	5.98	<=13	PASS
	Low	64QAM	5.99	<=13	PASS
	Mid	QPSK	5.33	<=13	PASS
	Mid	16QAM	6.01	<=13	PASS
	Mid	64QAM	6.01	<=13	PASS
	High	QPSK	5.40	<=13	PASS
	High	16QAM	6.08	<=13	PASS
	High	64QAM	6.08	<=13	PASS
20	Low	QPSK	5.22	<=13	PASS
	Low	16QAM	6.00	<=13	PASS
	Low	64QAM	5.98	<=13	PASS
	Mid	QPSK	5.37	<=13	PASS
	Mid	16QAM	5.98	<=13	PASS
	Mid	64QAM	5.98	<=13	PASS
	High	QPSK	5.23	<=13	PASS
	High	16QAM	6.01	<=13	PASS
	High	64QAM	5.98	<=13	PASS



LTE Band 66					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	7.08	<=13	PASS
	Low	16QAM	7.16	<=13	PASS
	Low	64QAM	7.24	<=13	PASS
	Mid	QPSK	5.23	<=13	PASS
	Mid	16QAM	5.73	<=13	PASS
	Mid	64QAM	6.27	<=13	PASS
	High	QPSK	6.94	<=13	PASS
	High	16QAM	7.06	<=13	PASS
	High	64QAM	7.14	<=13	PASS
3	Low	QPSK	7.17	<=13	PASS
	Low	16QAM	7.43	<=13	PASS
	Low	64QAM	7.13	<=13	PASS
	Mid	QPSK	5.10	<=13	PASS
	Mid	16QAM	6.13	<=13	PASS
	Mid	64QAM	6.47	<=13	PASS
	High	QPSK	6.72	<=13	PASS
	High	16QAM	6.93	<=13	PASS
	High	64QAM	6.96	<=13	PASS
5	Low	QPSK	6.98	<=13	PASS
	Low	16QAM	7.20	<=13	PASS
	Low	64QAM	7.34	<=13	PASS
	Mid	QPSK	5.13	<=13	PASS
	Mid	16QAM	5.67	<=13	PASS
	Mid	64QAM	7.09	<=13	PASS
	High	QPSK	6.91	<=13	PASS
	High	16QAM	7.09	<=13	PASS
	High	64QAM	7.05	<=13	PASS
10	Low	QPSK	7.34	<=13	PASS
	Low	16QAM	7.32	<=13	PASS
	Low	64QAM	7.13	<=13	PASS
	Mid	QPSK	7.01	<=13	PASS
	Mid	16QAM	7.20	<=13	PASS
	Mid	64QAM	7.19	<=13	PASS
	High	QPSK	6.96	<=13	PASS
	High	16QAM	7.28	<=13	PASS
	High	64QAM	7.13	<=13	PASS



15	Low	QPSK	6.97	≤ 13	PASS
	Low	16QAM	7.27	≤ 13	PASS
	Low	64QAM	6.91	≤ 13	PASS
	Mid	QPSK	7.08	≤ 13	PASS
	Mid	16QAM	7.13	≤ 13	PASS
	Mid	64QAM	7.16	≤ 13	PASS
	High	QPSK	7.10	≤ 13	PASS
	High	16QAM	7.07	≤ 13	PASS
	High	64QAM	7.08	≤ 13	PASS
20	Low	QPSK	6.92	≤ 13	PASS
	Low	16QAM	6.97	≤ 13	PASS
	Low	64QAM	7.10	≤ 13	PASS
	Mid	QPSK	7.33	≤ 13	PASS
	Mid	16QAM	7.23	≤ 13	PASS
	Mid	64QAM	7.30	≤ 13	PASS
	High	QPSK	7.19	≤ 13	PASS
	High	16QAM	7.49	≤ 13	PASS
	High	64QAM	7.19	≤ 13	PASS



Band2 / 1.4MHz / Low CH / QPSK



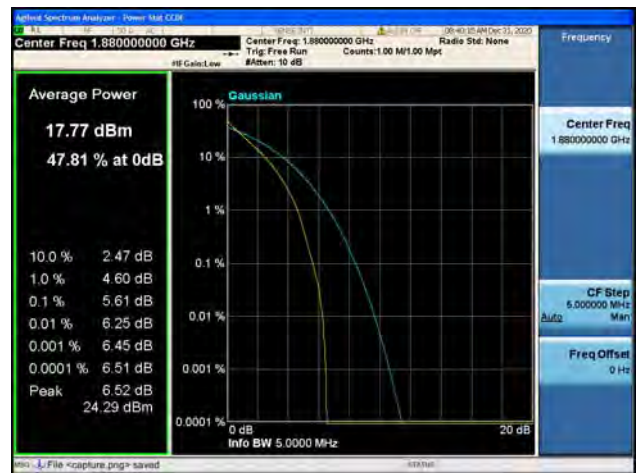
Band2 / 1.4MHz / Low CH / 16QAM



Band2 / 1.4MHz / Low CH / 64QAM



Band2 / 1.4MHz / Mid CH / QPSK



Band2 / 1.4MHz / Mid CH / 16QAM



Band2 / 1.4MHz / Mid CH / 64QAM





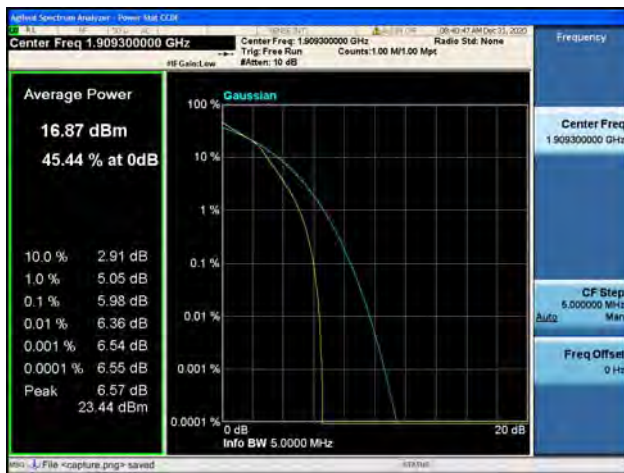
Band2 / 1.4MHz / High CH / QPSK



Band2 / 1.4MHz / High CH / 16QAM



Band2 / 1.4MHz / High CH / 64QAM



Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Low CH / 64QAM





Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / Mid CH / 64QAM



Band2 / 3MHz / High CH / QPSK



Band2 / 3MHz / High CH / 16QAM

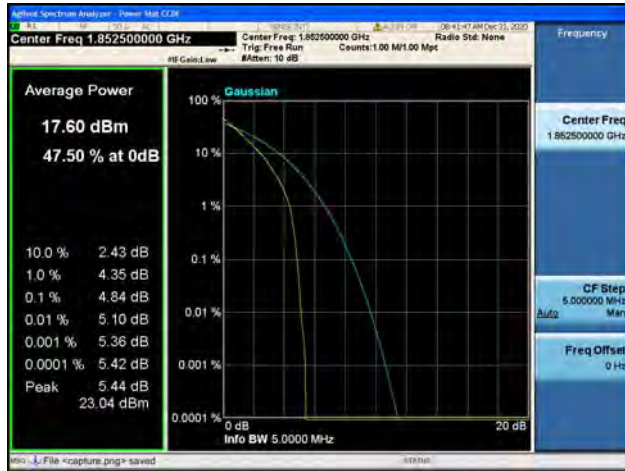


Band2 / 3MHz / High CH / 64QAM

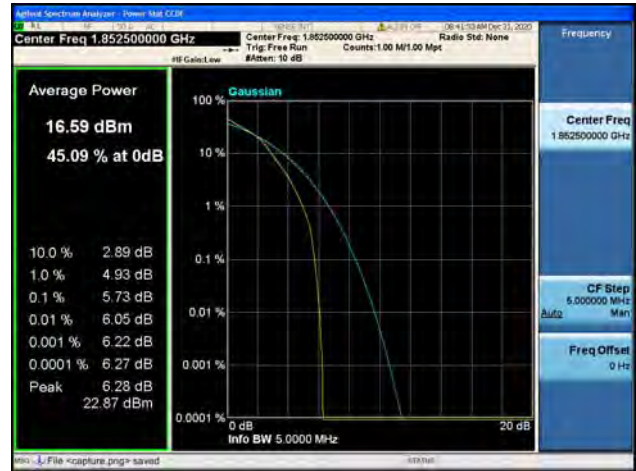




Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Low CH / 64QAM



Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / Mid CH / 64QAM





Band2 / 5MHz / High CH / QPSK



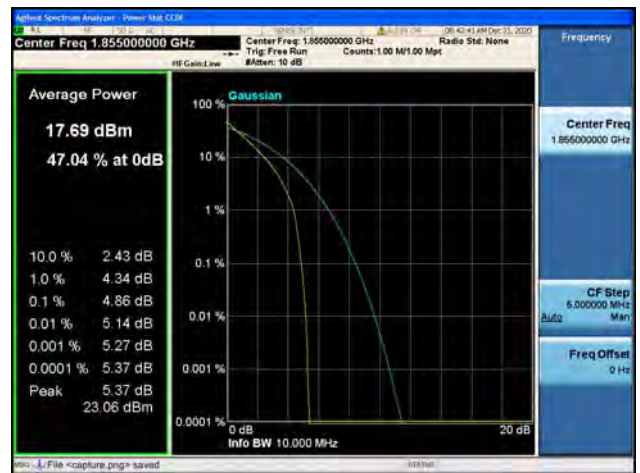
Band2 / 5MHz / High CH / 16QAM



Band2 / 5MHz / High CH / 64QAM



Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM

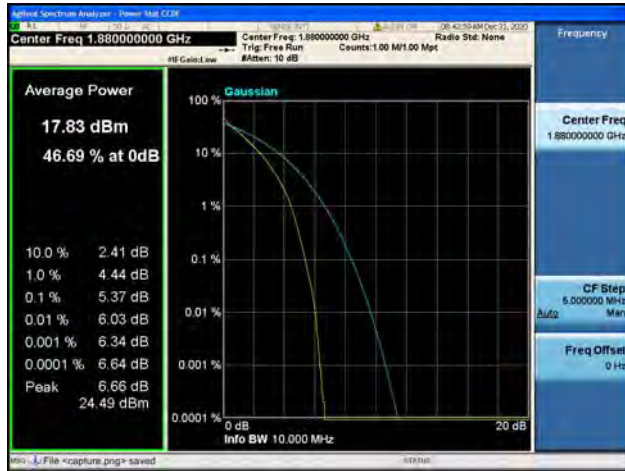


Band2 / 10MHz / Low CH / 64QAM





Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / Mid CH / 64QAM



Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM



Band2 / 10MHz / High CH / 64QAM





Band2 / 15MHz / Low CH / QPSK



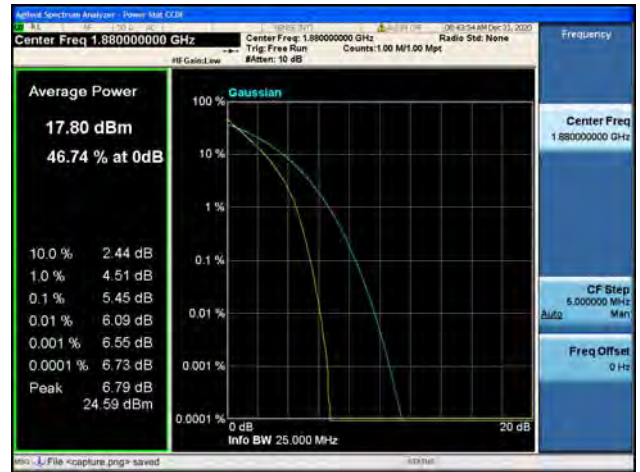
Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Low CH / 64QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / Mid CH / 64QAM





Band2 / 15MHz / High CH / QPSK



Band2 / 15MHz / High CH / 16QAM



Band2 / 15MHz / High CH / 64QAM



Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM



Band2 / 20MHz / Low CH / 64QAM

