



# TEST REPORT

**APPLICANT** : Foxx Development Inc.

**PRODUCT NAME** : FOXXD T8 Tablet

**MODEL NAME** : T8

**BRAND NAME** : FOXXD

**FCC ID** : 2AQRM2021008

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

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# DIRECTORY

- 1. Technical Information..... 3**
- 1.1. Applicant and Manufacturer Information ..... 3**
- 1.2. Equipment Under Test (EUT) Description ..... 3**
- 1.3. Maximum E.R.P./E.I.R.P. and Emission Designator..... 5**
- 1.4. Test Standards and Results..... 6**
- 1.5. Environmental Conditions..... 7**
- 2. 47 CFR Part 2, Part 22H, Part 24E, Part 27 H&L Requirements ..... 8**
- 2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P. .... 8**
- 2.2. Occupied Bandwidth ..... 62**
- 2.3. Frequency Stability ..... 94**
- 2.4. Peak to Average Ratio..... 98**
- 2.5. Conducted Spurious Emissions..... 120**
- 2.6. Band Edge ..... 147**
- 2.7. Radiated Spurious Emissions..... 175**
- Annex A Test Uncertainty ..... 193**
- Annex B Testing Laboratory Information ..... 194**

Change History		
Version	Date	Reason for change
1.0	2021-04-19	First edition



# 1. Technical Information

Note: Provide by applicant.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	Foxx Development Inc.
<b>Applicant Address:</b>	6689 Peachtree Industrial Blvd, STE B, Peachtree Corners, GA 30092
<b>Manufacturer:</b>	SHENZHEN JREN TECHNOLOGY CO.,LTD
<b>Manufacturer Address:</b>	3 Floor, C4 Building, Xingxing Industry Area 4, Xinhe, Fuhai town, Bao An district, Shenzhen, China

## 1.2. Equipment Under Test (EUT) Description

<b>Product Name:</b>	FOXXD T8 Tablet	
<b>Serial No.:</b>	(N/A, marked #1 by test site)	
<b>Hardware Version:</b>	V3.0	
<b>Software Version:</b>	T8V1	
<b>Modulation Type:</b>	QPSK, 16QAM	
<b>Carrier Aggregation:</b>	Not support	
<b>Operation Band:</b>	Band 2 / 4 / 5 / 12 / 66	
<b>Frequency Range:</b>	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 66	Tx: 1710MHz –1780MHz	
	Rx: 2110MHz –2200MHz	
<b>Channel Bandwidth:</b>	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 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz



<b>Antenna Type:</b>	FPC Antenna	
<b>Antenna Gain:</b>	LTE Band 2	3.48dBi
	LTE Band 4	2.63dBi
	LTE Band 5	-0.82dBi
	LTE Band 12	-3.82dBi
	LTE Band 66	2.63dBi
<b>Accessory Information:</b>	Battery	
	Brand Name:	JJY
	Model No.:	30100105
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	4000mAh
	Rated Voltage:	3.7V
	Charge Limit:	4.2V
	Manufacturer:	SHEN ZHEN JIAJINYUAN TECHNOLOGY CO,LTD

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



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

<b>LTE Band 2</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>		<b>Emission Designator (99%OBW)</b>	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
20		0.064	0.057	18M0G7D	18M0W7D
15		0.063	0.056	13M5G7D	13M5W7D
10		0.063	0.057	9M02G7D	9M00W7D
5		0.063	0.057	4M51G7D	4M51W7D
3		0.063	0.054	2M72G7D	2M72W7D
1.4		0.063	0.054	1M10G7D	1M10W7D
<b>LTE Band 4</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>		<b>Emission Designator (99%OBW)</b>	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
20		0.104	0.082	18M0G7D	18M0W7D
15		0.102	0.081	13M5G7D	13M5W7D
10		0.101	0.081	9M00G7D	8M97W7D
5		0.101	0.081	4M51G7D	4M50W7D
3		0.103	0.083	2M72G7D	2M72W7D
1.4		0.100	0.081	1M10G7D	1M10W7D
<b>LTE Band 5</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>		<b>Emission Designator (99%OBW)</b>	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
10		0.110	0.090	9M01G7D	8M97W7D
5		0.104	0.087	4M51G7D	4M50W7D
3		0.109	0.088	2M71G7D	2M72W7D
1.4		0.103	0.086	1M10G7D	1M10W7D
<b>LTE Band 12</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>		<b>Emission Designator (99%OBW)</b>	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
10		0.048	0.039	9M04G7D	9M01W7D
5		0.046	0.038	4M50G7D	4M51W7D
3		0.048	0.040	2M72G7D	2M72W7D
1.4		0.045	0.037	1M10G7D	1M10W7D
<b>LTE Band 66</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>		<b>Emission Designator (99%OBW)</b>	
BW(MHz)		QPSK	16QAM	QPSK	16QAM
20		0.082	0.065	18M0G7D	18M0W7D
15		0.079	0.070	13M5G7D	13M5W7D
10		0.080	0.065	9M01G7D	9M00W7D
5		0.080	0.065	4M50G7D	4M50W7D
3		0.076	0.064	2M72G7D	2M71W7D
1.4		0.076	0.061	1M10G7D	1M09W7D



## 1.4. Test Standards and Results

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

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

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

Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
2.1046 22.913(a)(2) 24.232(c) 27.50(c)(10) 27.50(d)(4)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Apr 07&08, 2021	Liang Yumei Ling Keye	PASS	No deviation
2.1049	Occupied Bandwidth	Mar 25, 2021	Ling Keye	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Mar 30, 2021	Ling Keye	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Radio	Mar 25, 2021	Ling Keye	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(g) 27.53(h)	Conducted Spurious Emissions	Mar 25, 2021	Ling Keye	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(g) 27.53(h)	Band Edge	Mar 25, 2021	Ling Keye	PASS	No deviation
2.1051	Radiated	Mar 29, 2021	Gao Jianrou	PASS	No



22.917(a)	Spurious Emissions				deviation
24.238(a)					
27.53(g)					
27.53(h)					

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

**Note 2:** The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 24.5dB contains two parts that cable loss 14.5dB and Attenuator 10dB.

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

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

## 1.5. Environmental Conditions

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

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



## **2. 47 CFR Part 2, Part 22H, Part 24E, Part 27 H&L 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.

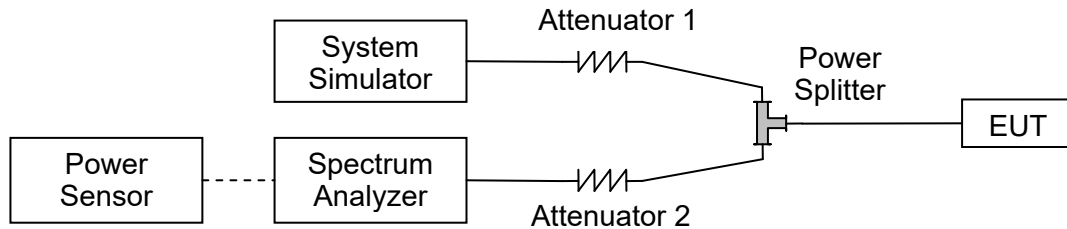
According to FCC section 27.50 (d)(4) for LTE Band 4/66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

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 (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:**

<b>LTE Band 2</b>						
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	14.55	14.35	14.40
20	QPSK	1	49	14.30	14.32	14.31
20	QPSK	1	99	14.35	14.33	14.23
20	QPSK	50	0	13.79	13.66	13.72
20	QPSK	50	24	13.71	13.76	13.76
20	QPSK	50	50	13.76	13.72	13.78
20	QPSK	100	0	13.69	13.78	13.74
20	16QAM	1	0	13.75	13.75	13.77
20	16QAM	1	49	13.59	13.89	13.85
20	16QAM	1	99	13.84	13.69	14.09
20	16QAM	50	0	13.77	13.74	13.72
20	16QAM	50	24	13.73	13.78	13.79
20	16QAM	50	50	13.81	13.78	13.85
20	16QAM	100	0	13.84	13.85	13.72



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	14.50	14.49	14.45
15	QPSK	1	37	14.35	14.42	14.40
15	QPSK	1	74	14.33	14.43	14.45
15	QPSK	36	0	13.68	13.77	13.76
15	QPSK	36	20	13.67	13.86	13.83
15	QPSK	36	39	13.79	13.80	13.77
15	QPSK	75	0	13.71	13.77	13.73
15	16QAM	1	0	13.80	13.88	13.82
15	16QAM	1	37	13.93	13.96	13.82
15	16QAM	1	74	13.88	14.00	14.00
15	16QAM	36	0	13.67	13.72	13.75
15	16QAM	36	20	13.76	13.69	13.82
15	16QAM	36	39	13.81	13.90	13.87
15	16QAM	75	0	13.68	13.70	13.79



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	14.41	14.40	14.50
10	QPSK	1	25	14.52	14.51	14.50
10	QPSK	1	49	14.41	14.49	14.41
10	QPSK	25	0	13.67	13.68	13.64
10	QPSK	25	12	13.63	13.75	13.68
10	QPSK	25	25	13.54	13.67	13.63
10	QPSK	50	0	13.60	13.69	13.67
10	16QAM	1	0	14.08	14.01	14.00
10	16QAM	1	25	13.77	13.73	13.80
10	16QAM	1	49	13.72	13.80	13.59
10	16QAM	25	0	13.62	13.61	13.16
10	16QAM	25	12	13.24	13.20	13.19
10	16QAM	25	25	13.19	13.15	13.14
10	16QAM	50	0	13.15	13.08	13.12



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	14.50	14.47	14.48
5	QPSK	1	12	14.45	14.41	14.43
5	QPSK	1	24	14.50	14.42	14.45
5	QPSK	12	0	13.66	13.57	13.64
5	QPSK	12	7	13.67	13.72	13.64
5	QPSK	12	13	13.66	13.65	13.68
5	QPSK	25	0	13.65	13.63	13.65
5	16QAM	1	0	13.78	13.68	14.06
5	16QAM	1	12	13.76	13.69	14.06
5	16QAM	1	24	13.79	13.66	14.05
5	16QAM	12	0	13.49	13.52	13.29
5	16QAM	12	7	13.21	13.23	13.17
5	16QAM	12	13	13.24	13.13	13.08
5	16QAM	25	0	13.16	13.14	13.12



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	14.51	14.38	14.50
3	QPSK	1	8	14.53	14.50	14.51
3	QPSK	1	14	14.49	14.48	14.44
3	QPSK	8	0	13.66	13.61	13.63
3	QPSK	8	4	13.72	13.66	13.67
3	QPSK	8	7	13.72	13.66	13.62
3	QPSK	15	0	13.64	13.72	13.65
3	16QAM	1	0	13.80	13.71	13.65
3	16QAM	1	8	13.84	13.78	13.74
3	16QAM	1	14	13.77	13.74	13.62
3	16QAM	8	0	13.20	13.33	13.25
3	16QAM	8	4	13.27	13.24	13.30
3	16QAM	8	7	13.17	13.22	13.25
3	16QAM	15	0	13.20	13.24	13.19



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	14.47	14.49	14.45
1.4	QPSK	1	3	14.46	14.48	14.42
1.4	QPSK	1	5	14.44	14.42	14.41
1.4	QPSK	3	0	14.43	14.43	14.49
1.4	QPSK	3	1	14.33	14.39	14.40
1.4	QPSK	3	3	14.47	14.41	14.52
1.4	QPSK	6	0	13.62	13.60	13.59
1.4	16QAM	1	0	13.65	13.65	13.59
1.4	16QAM	1	3	13.61	13.81	13.79
1.4	16QAM	1	5	13.49	13.69	13.37
1.4	16QAM	3	0	13.51	13.56	13.53
1.4	16QAM	3	1	13.69	13.51	13.56
1.4	16QAM	3	3	13.71	13.68	13.42
1.4	16QAM	6	0	13.72	13.65	13.60



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	17.44	17.56	17.51
20	QPSK	1	49	17.30	17.38	17.37
20	QPSK	1	99	17.22	17.35	17.47
20	QPSK	50	0	16.51	16.64	16.61
20	QPSK	50	24	16.51	16.59	16.59
20	QPSK	50	50	16.40	16.51	16.52
20	QPSK	100	0	16.50	16.54	16.61
20	16QAM	1	0	16.37	16.45	16.34
20	16QAM	1	49	16.52	16.29	16.43
20	16QAM	1	99	16.31	16.53	16.29
20	16QAM	50	0	16.18	16.23	16.33
20	16QAM	50	24	16.14	16.25	16.14
20	16QAM	50	50	16.10	16.11	16.11
20	16QAM	100	0	16.12	16.20	16.21





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	17.31	17.35	17.45
15	QPSK	1	37	17.35	17.44	17.36
15	QPSK	1	74	17.22	17.44	17.47
15	QPSK	36	0	16.45	16.52	16.55
15	QPSK	36	20	16.49	16.62	16.58
15	QPSK	36	39	16.54	16.53	16.62
15	QPSK	75	0	16.49	16.51	16.52
15	16QAM	1	0	16.19	16.41	16.13
15	16QAM	1	37	16.27	16.27	16.11
15	16QAM	1	74	16.13	16.43	16.22
15	16QAM	36	0	16.14	16.16	16.35
15	16QAM	36	20	16.09	16.16	16.22
15	16QAM	36	39	16.05	16.14	16.20
15	16QAM	75	0	16.16	16.17	16.26



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	17.23	17.42	17.25
10	QPSK	1	25	17.21	17.34	17.35
10	QPSK	1	49	17.29	17.12	17.35
10	QPSK	25	0	16.28	16.50	16.52
10	QPSK	25	12	16.40	16.46	16.50
10	QPSK	25	25	16.29	16.40	16.47
10	QPSK	50	0	16.35	16.45	16.37
10	16QAM	1	0	16.10	16.25	16.01
10	16QAM	1	25	16.37	16.11	16.43
10	16QAM	1	49	16.44	16.34	16.33
10	16QAM	25	0	16.10	16.09	16.08
10	16QAM	25	12	16.02	16.12	16.09
10	16QAM	25	25	16.36	16.27	16.36
10	16QAM	50	0	16.30	16.34	16.46



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	17.13	17.35	17.40
5	QPSK	1	12	17.19	17.34	17.31
5	QPSK	1	24	17.14	17.26	17.25
5	QPSK	12	0	16.36	16.36	16.40
5	QPSK	12	7	16.36	16.47	16.44
5	QPSK	12	13	16.31	16.48	16.40
5	QPSK	25	0	16.34	16.38	16.44
5	16QAM	1	0	16.00	16.41	16.09
5	16QAM	1	12	16.11	16.46	16.05
5	16QAM	1	24	16.05	16.40	16.00
5	16QAM	12	0	16.04	15.98	16.01
5	16QAM	12	7	16.07	16.11	16.09
5	16QAM	12	13	16.34	16.41	16.45
5	16QAM	25	0	16.35	16.46	16.39



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	17.25	17.26	17.38
3	QPSK	1	8	17.34	17.48	17.42
3	QPSK	1	14	17.14	17.33	17.33
3	QPSK	8	0	16.34	16.40	16.41
3	QPSK	8	4	16.40	16.48	16.50
3	QPSK	8	7	16.36	16.46	16.46
3	QPSK	15	0	16.36	16.42	16.36
3	16QAM	1	0	16.20	16.29	16.33
3	16QAM	1	8	16.42	16.42	16.16
3	16QAM	1	14	16.33	16.11	16.19
3	16QAM	8	0	16.12	16.13	16.22
3	16QAM	8	4	16.22	16.22	16.23
3	16QAM	8	7	16.44	16.52	16.56
3	16QAM	15	0	16.44	16.42	16.49



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	17.00	17.21	17.22
1.4	QPSK	1	3	17.34	17.34	17.38
1.4	QPSK	1	5	17.20	17.29	17.31
1.4	QPSK	3	0	17.28	17.25	17.24
1.4	QPSK	3	1	17.24	17.34	17.39
1.4	QPSK	3	3	17.23	17.30	17.29
1.4	QPSK	6	0	16.12	16.21	16.21
1.4	16QAM	1	0	16.09	16.56	16.22
1.4	16QAM	1	3	16.22	16.30	16.34
1.4	16QAM	1	5	16.28	16.44	16.24
1.4	16QAM	3	0	16.31	16.35	16.26
1.4	16QAM	3	1	16.32	16.35	16.37
1.4	16QAM	3	3	16.31	16.43	16.32
1.4	16QAM	6	0	16.22	16.23	16.14



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	22.50	22.84	22.72
10	QPSK	1	25	22.49	22.70	22.69
10	QPSK	1	49	22.47	22.58	22.73
10	QPSK	25	0	21.84	21.97	21.89
10	QPSK	25	12	21.31	21.46	21.37
10	QPSK	25	25	21.20	21.26	21.22
10	QPSK	50	0	21.08	21.21	21.17
10	16QAM	1	0	21.96	21.56	21.54
10	16QAM	1	25	21.79	21.88	21.71
10	16QAM	1	49	21.57	21.63	21.46
10	16QAM	25	0	20.82	20.84	20.92
10	16QAM	25	12	20.81	20.96	20.56
10	16QAM	25	25	20.64	20.77	20.69
10	16QAM	50	0	20.45	20.52	20.48



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	22.38	22.62	22.60
5	QPSK	1	12	22.37	22.58	22.57
5	QPSK	1	24	22.35	22.46	22.61
5	QPSK	12	0	21.72	21.85	21.77
5	QPSK	12	7	21.19	21.34	21.25
5	QPSK	12	13	21.08	21.14	21.10
5	QPSK	25	0	20.96	21.09	21.05
5	16QAM	1	0	21.84	21.44	21.42
5	16QAM	1	12	21.67	21.76	21.59
5	16QAM	1	24	21.45	21.51	21.34
5	16QAM	12	0	21.00	21.22	21.08
5	16QAM	12	7	20.69	20.84	20.44
5	16QAM	12	13	20.52	20.65	20.57
5	16QAM	25	0	20.33	20.40	20.36



LTE Band 5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.58	22.82	22.80
3	QPSK	1	8	22.57	22.78	22.77
3	QPSK	1	14	22.55	22.66	22.81
3	QPSK	8	0	21.92	22.05	21.97
3	QPSK	8	4	21.39	21.54	21.45
3	QPSK	8	7	21.28	21.34	21.30
3	QPSK	15	0	21.16	21.29	21.25
3	16QAM	1	0	21.74	21.64	21.62
3	16QAM	1	8	21.87	21.96	21.79
3	16QAM	1	14	21.65	21.71	21.54
3	16QAM	8	0	21.20	21.42	21.28
3	16QAM	8	4	20.89	20.84	20.64
3	16QAM	8	7	20.72	20.85	20.77
3	16QAM	15	0	20.53	20.60	20.56





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	22.32	22.56	22.54
1.4	QPSK	1	3	22.31	22.52	22.51
1.4	QPSK	1	5	22.29	22.40	22.55
1.4	QPSK	3	0	21.66	21.79	21.71
1.4	QPSK	3	1	21.13	21.28	21.19
1.4	QPSK	3	3	21.02	21.08	21.04
1.4	QPSK	6	0	20.90	21.03	20.99
1.4	16QAM	1	0	21.78	21.38	21.36
1.4	16QAM	1	3	21.61	21.70	21.53
1.4	16QAM	1	5	21.39	21.45	21.28
1.4	16QAM	3	0	20.94	21.16	21.02
1.4	16QAM	3	1	20.63	20.78	20.38
1.4	16QAM	3	3	20.46	20.59	20.51
1.4	16QAM	6	0	20.27	20.34	20.30



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				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	22.44	22.43	22.64
10	QPSK	1	25	22.39	22.37	22.65
10	QPSK	1	49	22.34	22.79	22.69
10	QPSK	25	0	21.51	21.61	21.49
10	QPSK	25	12	21.48	21.56	21.45
10	QPSK	25	25	21.46	21.50	21.42
10	QPSK	50	0	21.26	21.44	21.49
10	16QAM	1	0	21.68	21.47	21.54
10	16QAM	1	25	21.78	21.64	21.50
10	16QAM	1	49	21.88	21.85	21.53
10	16QAM	25	0	20.81	20.81	20.89
10	16QAM	25	12	20.39	20.90	20.86
10	16QAM	25	25	20.69	20.78	20.72
10	16QAM	50	0	20.40	20.82	20.79



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.32	22.31	22.52
5	QPSK	1	12	22.27	22.25	22.53
5	QPSK	1	24	22.22	22.58	22.57
5	QPSK	12	0	21.39	21.49	21.37
5	QPSK	12	7	21.36	21.44	21.33
5	QPSK	12	13	21.34	21.38	21.30
5	QPSK	25	0	21.14	21.32	21.37
5	16QAM	1	0	21.56	21.35	21.42
5	16QAM	1	12	21.66	21.52	21.38
5	16QAM	1	24	21.76	21.73	21.41
5	16QAM	12	0	20.68	20.69	20.67
5	16QAM	12	7	20.27	20.78	20.74
5	16QAM	12	13	20.57	20.66	20.60
5	16QAM	25	0	20.28	20.70	20.67



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.52	22.51	22.72
3	QPSK	1	8	22.47	22.45	22.73
3	QPSK	1	14	22.42	22.56	22.77
3	QPSK	8	0	21.59	21.69	21.57
3	QPSK	8	4	21.56	21.64	21.53
3	QPSK	8	7	21.54	21.58	21.50
3	QPSK	15	0	21.34	21.52	21.57
3	16QAM	1	0	21.76	21.55	21.62
3	16QAM	1	8	21.86	21.72	21.58
3	16QAM	1	14	21.96	21.93	21.61
3	16QAM	8	0	20.68	20.79	20.77
3	16QAM	8	4	20.47	20.98	20.94
3	16QAM	8	7	20.77	20.86	20.80
3	16QAM	15	0	20.48	20.90	20.87



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.26	22.25	22.46
1.4	QPSK	1	3	22.21	22.19	22.47
1.4	QPSK	1	5	22.16	22.52	22.51
1.4	QPSK	3	0	21.33	21.43	21.31
1.4	QPSK	3	1	21.30	21.38	21.27
1.4	QPSK	3	3	21.28	21.32	21.24
1.4	QPSK	6	0	21.08	21.26	21.31
1.4	16QAM	1	0	21.50	21.29	21.36
1.4	16QAM	1	3	21.60	21.46	21.32
1.4	16QAM	1	5	21.70	21.67	21.35
1.4	16QAM	3	0	20.92	21.03	21.01
1.4	16QAM	3	1	20.21	20.72	20.68
1.4	16QAM	3	3	20.51	20.60	20.54
1.4	16QAM	6	0	20.22	20.64	20.61



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	16.16	16.49	16.52
20	QPSK	1	49	16.18	16.15	16.23
20	QPSK	1	99	16.09	16.25	16.02
20	QPSK	50	0	15.51	15.63	15.65
20	QPSK	50	24	15.61	15.43	15.41
20	QPSK	50	50	15.51	15.37	15.37
20	QPSK	100	0	15.29	15.40	15.39
20	16QAM	1	0	15.49	15.52	15.51
20	16QAM	1	49	15.48	15.44	15.32
20	16QAM	1	99	15.44	15.74	15.38
20	16QAM	50	0	14.40	14.35	14.44
20	16QAM	50	24	14.63	14.50	14.71
20	16QAM	50	50	14.72	14.73	14.61
20	16QAM	100	0	14.61	14.55	14.73



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	16.25	16.37	16.37
15	QPSK	1	37	16.33	16.06	16.26
15	QPSK	1	74	16.09	16.27	16.30
15	QPSK	36	0	15.31	15.39	15.48
15	QPSK	36	20	15.38	15.37	15.46
15	QPSK	36	39	15.30	15.46	15.44
15	QPSK	75	0	15.37	15.34	15.44
15	16QAM	1	0	15.44	15.80	15.59
15	16QAM	1	37	15.33	15.65	15.53
15	16QAM	1	74	15.49	15.42	15.83
15	16QAM	36	0	14.34	14.46	14.51
15	16QAM	36	20	14.29	14.40	14.49
15	16QAM	36	39	14.39	14.51	14.41
15	16QAM	75	0	14.38	14.42	14.44



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	15.91	16.05	16.15
10	QPSK	1	25	16.21	16.15	16.40
10	QPSK	1	49	16.18	16.19	16.31
10	QPSK	25	0	15.10	15.21	15.21
10	QPSK	25	12	15.21	15.29	15.29
10	QPSK	25	25	15.28	15.35	15.38
10	QPSK	50	0	15.16	15.26	15.29
10	16QAM	1	0	15.12	15.35	15.47
10	16QAM	1	25	15.28	15.06	15.41
10	16QAM	1	49	15.38	15.22	15.11
10	16QAM	25	0	14.91	14.91	15.05
10	16QAM	25	12	14.92	14.73	14.82
10	16QAM	25	25	15.01	14.65	14.95
10	16QAM	50	0	14.91	14.72	14.51





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	15.91	16.05	16.15
5	QPSK	1	12	16.21	16.15	16.40
5	QPSK	1	24	16.18	16.19	16.31
5	QPSK	12	0	15.10	15.21	15.21
5	QPSK	12	7	15.21	15.29	15.29
5	QPSK	12	13	15.28	15.35	15.38
5	QPSK	25	0	15.16	15.26	15.29
5	16QAM	1	0	15.28	15.01	15.25
5	16QAM	1	12	15.34	15.27	15.41
5	16QAM	1	24	15.34	15.22	15.51
5	16QAM	12	0	14.94	14.51	14.61
5	16QAM	12	7	14.55	14.53	14.52
5	16QAM	12	13	14.51	14.58	14.62
5	16QAM	25	0	14.48	14.51	14.51



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	16.06	16.18	16.18
3	QPSK	1	8	16.14	15.87	16.07
3	QPSK	1	14	15.90	16.08	16.11
3	QPSK	8	0	15.12	15.20	15.29
3	QPSK	8	4	15.19	15.18	15.27
3	QPSK	8	7	15.11	15.27	15.25
3	QPSK	15	0	15.18	15.15	15.25
3	16QAM	1	0	15.25	15.03	15.40
3	16QAM	1	8	15.14	15.46	15.34
3	16QAM	1	14	15.02	15.23	15.05
3	16QAM	8	0	14.58	14.70	14.75
3	16QAM	8	4	14.53	14.64	14.73
3	16QAM	8	7	14.63	14.75	14.65
3	16QAM	15	0	14.62	14.66	14.68



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	15.68	15.82	15.92
1.4	QPSK	1	3	15.98	15.92	16.17
1.4	QPSK	1	5	15.95	15.96	16.08
1.4	QPSK	3	0	15.53	15.64	15.64
1.4	QPSK	3	1	15.64	15.72	15.72
1.4	QPSK	3	3	15.71	15.78	15.81
1.4	QPSK	6	0	14.93	15.03	15.06
1.4	16QAM	1	0	15.15	15.12	15.24
1.4	16QAM	1	3	15.05	15.06	15.18
1.4	16QAM	1	5	15.15	14.99	14.88
1.4	16QAM	3	0	14.68	14.68	14.82
1.4	16QAM	3	1	14.69	14.50	14.95
1.4	16QAM	3	3	14.78	14.92	14.72
1.4	16QAM	6	0	14.68	15.02	14.72



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

LTE Band 2				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18700		18900		19100	
Frequency (MHz)				1860		1880		1900	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	18.03	0.064	17.83	0.061	17.88	0.061
20	QPSK	1	49	17.78	0.060	17.80	0.060	17.79	0.060
20	QPSK	1	99	17.83	0.061	17.81	0.060	17.71	0.059
20	QPSK	50	0	17.27	0.053	17.14	0.052	17.20	0.052
20	QPSK	50	24	17.19	0.052	17.24	0.053	17.24	0.053
20	QPSK	50	50	17.24	0.053	17.20	0.052	17.26	0.053
20	QPSK	100	0	17.17	0.052	17.26	0.053	17.22	0.053
20	16QAM	1	0	17.23	0.053	17.23	0.053	17.25	0.053
20	16QAM	1	49	17.07	0.051	17.37	0.055	17.33	0.054
20	16QAM	1	99	17.32	0.054	17.17	0.052	17.57	0.057
20	16QAM	50	0	17.25	0.053	17.22	0.053	17.20	0.052
20	16QAM	50	24	17.21	0.053	17.26	0.053	17.27	0.053
20	16QAM	50	50	17.29	0.054	17.26	0.053	17.33	0.054
20	16QAM	100	0	17.32	0.054	17.33	0.054	17.20	0.052



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	17.98	0.063	17.97	0.063	17.93	0.062
15	QPSK	1	37	17.83	0.061	17.90	0.062	17.88	0.061
15	QPSK	1	74	17.81	0.060	17.91	0.062	17.93	0.062
15	QPSK	36	0	17.16	0.052	17.25	0.053	17.24	0.053
15	QPSK	36	20	17.15	0.052	17.34	0.054	17.31	0.054
15	QPSK	36	39	17.27	0.053	17.28	0.053	17.25	0.053
15	QPSK	75	0	17.19	0.052	17.25	0.053	17.21	0.053
15	16QAM	1	0	17.28	0.053	17.36	0.054	17.30	0.054
15	16QAM	1	37	17.41	0.055	17.44	0.055	17.30	0.054
15	16QAM	1	74	17.36	0.054	17.48	0.056	17.48	0.056
15	16QAM	36	0	17.15	0.052	17.20	0.052	17.23	0.053
15	16QAM	36	20	17.24	0.053	17.17	0.052	17.30	0.054
15	16QAM	36	39	17.29	0.054	17.38	0.055	17.35	0.054
15	16QAM	75	0	17.16	0.052	17.18	0.052	17.27	0.053



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	17.89	0.062	17.88	0.061	17.98	0.063
10	QPSK	1	25	18.00	0.063	17.99	0.063	17.98	0.063
10	QPSK	1	49	17.89	0.062	17.97	0.063	17.89	0.062
10	QPSK	25	0	17.15	0.052	17.16	0.052	17.12	0.052
10	QPSK	25	12	17.11	0.051	17.23	0.053	17.16	0.052
10	QPSK	25	25	17.02	0.050	17.15	0.052	17.11	0.051
10	QPSK	50	0	17.08	0.051	17.17	0.052	17.15	0.052
10	16QAM	1	0	17.56	0.057	17.49	0.056	17.48	0.056
10	16QAM	1	25	17.25	0.053	17.21	0.053	17.28	0.053
10	16QAM	1	49	17.20	0.052	17.28	0.053	17.07	0.051
10	16QAM	25	0	17.10	0.051	17.09	0.051	16.64	0.046
10	16QAM	25	12	16.72	0.047	16.68	0.047	16.67	0.046
10	16QAM	25	25	16.67	0.046	16.63	0.046	16.62	0.046
10	16QAM	50	0	16.63	0.046	16.56	0.045	16.60	0.046



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	17.98	0.063	17.95	0.062	17.96	0.063
5	QPSK	1	12	17.93	0.062	17.89	0.062	17.91	0.062
5	QPSK	1	24	17.98	0.063	17.90	0.062	17.93	0.062
5	QPSK	12	0	17.14	0.052	17.05	0.051	17.12	0.052
5	QPSK	12	7	17.15	0.052	17.20	0.052	17.12	0.052
5	QPSK	12	13	17.14	0.052	17.13	0.052	17.16	0.052
5	QPSK	25	0	17.13	0.052	17.11	0.051	17.13	0.052
5	16QAM	1	0	17.26	0.053	17.16	0.052	17.54	0.057
5	16QAM	1	12	17.24	0.053	17.17	0.052	17.54	0.057
5	16QAM	1	24	17.27	0.053	17.14	0.052	17.53	0.057
5	16QAM	12	0	16.97	0.050	17.00	0.050	16.77	0.048
5	16QAM	12	7	16.69	0.047	16.71	0.047	16.65	0.046
5	16QAM	12	13	16.72	0.047	16.61	0.046	16.56	0.045
5	16QAM	25	0	16.64	0.046	16.62	0.046	16.60	0.046



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	17.99	0.063	17.86	0.061	17.98	0.063
3	QPSK	1	8	18.01	0.063	17.98	0.063	17.99	0.063
3	QPSK	1	14	17.97	0.063	17.96	0.063	17.92	0.062
3	QPSK	8	0	17.14	0.052	17.09	0.051	17.11	0.051
3	QPSK	8	4	17.20	0.052	17.14	0.052	17.15	0.052
3	QPSK	8	7	17.20	0.052	17.14	0.052	17.10	0.051
3	QPSK	15	0	17.12	0.052	17.20	0.052	17.13	0.052
3	16QAM	1	0	17.28	0.053	17.19	0.052	17.13	0.052
3	16QAM	1	8	17.32	0.054	17.26	0.053	17.22	0.053
3	16QAM	1	14	17.25	0.053	17.22	0.053	17.10	0.051
3	16QAM	8	0	16.68	0.047	16.81	0.048	16.73	0.047
3	16QAM	8	4	16.75	0.047	16.72	0.047	16.78	0.048
3	16QAM	8	7	16.65	0.046	16.70	0.047	16.73	0.047
3	16QAM	15	0	16.68	0.047	16.72	0.047	16.67	0.046





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	17.95	0.062	17.97	0.063	17.93	0.062
1.4	QPSK	1	3	17.94	0.062	17.96	0.063	17.90	0.062
1.4	QPSK	1	5	17.92	0.062	17.90	0.062	17.89	0.062
1.4	QPSK	3	0	17.91	0.062	17.91	0.062	17.97	0.063
1.4	QPSK	3	1	17.81	0.060	17.87	0.061	17.88	0.061
1.4	QPSK	3	3	17.95	0.062	17.89	0.062	18.00	0.063
1.4	QPSK	6	0	17.10	0.051	17.08	0.051	17.07	0.051
1.4	16QAM	1	0	17.13	0.052	17.13	0.052	17.07	0.051
1.4	16QAM	1	3	17.09	0.051	17.29	0.054	17.27	0.053
1.4	16QAM	1	5	16.97	0.050	17.17	0.052	16.85	0.048
1.4	16QAM	3	0	16.99	0.050	17.04	0.051	17.01	0.050
1.4	16QAM	3	1	17.17	0.052	16.99	0.050	17.04	0.051
1.4	16QAM	3	3	17.19	0.052	17.16	0.052	16.90	0.049
1.4	16QAM	6	0	17.20	0.052	17.13	0.052	17.08	0.051



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	20.07	0.102	20.19	0.104	20.14	0.103
20	QPSK	1	49	19.93	0.098	20.01	0.100	20.00	0.100
20	QPSK	1	99	19.85	0.097	19.98	0.100	20.10	0.102
20	QPSK	50	0	19.14	0.082	19.27	0.085	19.24	0.084
20	QPSK	50	24	19.14	0.082	19.22	0.084	19.22	0.084
20	QPSK	50	50	19.03	0.080	19.14	0.082	19.15	0.082
20	QPSK	100	0	19.13	0.082	19.17	0.083	19.24	0.084
20	16QAM	1	0	19.00	0.079	19.08	0.081	18.97	0.079
20	16QAM	1	49	19.15	0.082	18.92	0.078	19.06	0.081
20	16QAM	1	99	18.94	0.078	19.16	0.082	18.92	0.078
20	16QAM	50	0	18.81	0.076	18.86	0.077	18.96	0.079
20	16QAM	50	24	18.77	0.075	18.88	0.077	18.77	0.075
20	16QAM	50	50	18.73	0.075	18.74	0.075	18.74	0.075
20	16QAM	100	0	18.75	0.075	18.83	0.076	18.84	0.077



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	19.94	0.099	19.98	0.100	20.08	0.102
15	QPSK	1	37	19.98	0.100	20.07	0.102	19.99	0.100
15	QPSK	1	74	19.85	0.097	20.07	0.102	20.10	0.102
15	QPSK	36	0	19.08	0.081	19.15	0.082	19.18	0.083
15	QPSK	36	20	19.12	0.082	19.25	0.084	19.21	0.083
15	QPSK	36	39	19.17	0.083	19.16	0.082	19.25	0.084
15	QPSK	75	0	19.12	0.082	19.14	0.082	19.15	0.082
15	16QAM	1	0	18.82	0.076	19.04	0.080	18.76	0.075
15	16QAM	1	37	18.90	0.078	18.90	0.078	18.74	0.075
15	16QAM	1	74	18.76	0.075	19.06	0.081	18.85	0.077
15	16QAM	36	0	18.77	0.075	18.79	0.076	18.98	0.079
15	16QAM	36	20	18.72	0.074	18.79	0.076	18.85	0.077
15	16QAM	36	39	18.68	0.074	18.77	0.075	18.83	0.076
15	16QAM	75	0	18.79	0.076	18.80	0.076	18.89	0.077



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	19.86	0.097	20.05	0.101	19.88	0.097
10	QPSK	1	25	19.84	0.096	19.97	0.099	19.98	0.100
10	QPSK	1	49	19.92	0.098	19.75	0.094	19.98	0.100
10	QPSK	25	0	18.91	0.078	19.13	0.082	19.15	0.082
10	QPSK	25	12	19.03	0.080	19.09	0.081	19.13	0.082
10	QPSK	25	25	18.92	0.078	19.03	0.080	19.10	0.081
10	QPSK	50	0	18.98	0.079	19.08	0.081	19.00	0.079
10	16QAM	1	0	18.73	0.075	18.88	0.077	18.64	0.073
10	16QAM	1	25	19.00	0.079	18.74	0.075	19.06	0.081
10	16QAM	1	49	19.07	0.081	18.97	0.079	18.96	0.079
10	16QAM	25	0	18.73	0.075	18.72	0.074	18.71	0.074
10	16QAM	25	12	18.65	0.073	18.75	0.075	18.72	0.074
10	16QAM	25	25	18.99	0.079	18.90	0.078	18.99	0.079
10	16QAM	50	0	18.93	0.078	18.97	0.079	19.09	0.081



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	19.76	0.095	19.98	0.100	20.03	0.101
5	QPSK	1	12	19.82	0.096	19.97	0.099	19.94	0.099
5	QPSK	1	24	19.77	0.095	19.89	0.097	19.88	0.097
5	QPSK	12	0	18.99	0.079	18.99	0.079	19.03	0.080
5	QPSK	12	7	18.99	0.079	19.10	0.081	19.07	0.081
5	QPSK	12	13	18.94	0.078	19.11	0.081	19.03	0.080
5	QPSK	25	0	18.97	0.079	19.01	0.080	19.07	0.081
5	16QAM	1	0	18.63	0.073	19.04	0.080	18.72	0.074
5	16QAM	1	12	18.74	0.075	19.09	0.081	18.68	0.074
5	16QAM	1	24	18.68	0.074	19.03	0.080	18.63	0.073
5	16QAM	12	0	18.67	0.074	18.61	0.073	18.64	0.073
5	16QAM	12	7	18.70	0.074	18.74	0.075	18.72	0.074
5	16QAM	12	13	18.97	0.079	19.04	0.080	19.08	0.081
5	16QAM	25	0	18.98	0.079	19.09	0.081	19.02	0.080



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	19.88	0.097	19.89	0.097	20.01	0.100
3	QPSK	1	8	19.97	0.099	20.11	0.103	20.05	0.101
3	QPSK	1	14	19.77	0.095	19.96	0.099	19.96	0.099
3	QPSK	8	0	18.97	0.079	19.03	0.080	19.04	0.080
3	QPSK	8	4	19.03	0.080	19.11	0.081	19.13	0.082
3	QPSK	8	7	18.99	0.079	19.09	0.081	19.09	0.081
3	QPSK	15	0	18.99	0.079	19.05	0.080	18.99	0.079
3	16QAM	1	0	18.83	0.076	18.92	0.078	18.96	0.079
3	16QAM	1	8	19.05	0.080	19.05	0.080	18.79	0.076
3	16QAM	1	14	18.96	0.079	18.74	0.075	18.82	0.076
3	16QAM	8	0	18.75	0.075	18.76	0.075	18.85	0.077
3	16QAM	8	4	18.85	0.077	18.85	0.077	18.86	0.077
3	16QAM	8	7	19.07	0.081	19.15	0.082	19.19	0.083
3	16QAM	15	0	19.07	0.081	19.05	0.080	19.12	0.082



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	19.63	0.092	19.84	0.096	19.85	0.097
1.4	QPSK	1	3	19.97	0.099	19.97	0.099	20.01	0.100
1.4	QPSK	1	5	19.83	0.096	19.92	0.098	19.94	0.099
1.4	QPSK	3	0	19.91	0.098	19.88	0.097	19.87	0.097
1.4	QPSK	3	1	19.87	0.097	19.97	0.099	20.02	0.100
1.4	QPSK	3	3	19.86	0.097	19.93	0.098	19.92	0.098
1.4	QPSK	6	0	18.75	0.075	18.84	0.077	18.84	0.077
1.4	16QAM	1	0	18.72	0.074	19.19	0.083	18.85	0.077
1.4	16QAM	1	3	18.85	0.077	18.93	0.078	18.97	0.079
1.4	16QAM	1	5	18.91	0.078	19.07	0.081	18.87	0.077
1.4	16QAM	3	0	18.94	0.078	18.98	0.079	18.89	0.077
1.4	16QAM	3	1	18.95	0.079	18.98	0.079	19.00	0.079
1.4	16QAM	3	3	18.94	0.078	19.06	0.081	18.95	0.079
1.4	16QAM	6	0	18.85	0.077	18.86	0.077	18.77	0.075



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	20.07	0.102	20.41	0.110	20.29	0.107
10	QPSK	1	25	20.06	0.101	20.27	0.106	20.26	0.106
10	QPSK	1	49	20.04	0.101	20.15	0.104	20.30	0.107
10	QPSK	25	0	19.41	0.087	19.54	0.090	19.46	0.088
10	QPSK	25	12	18.88	0.077	19.03	0.080	18.94	0.078
10	QPSK	25	25	18.77	0.075	18.83	0.076	18.79	0.076
10	QPSK	50	0	18.65	0.073	18.78	0.076	18.74	0.075
10	16QAM	1	0	19.53	0.090	19.13	0.082	19.11	0.081
10	16QAM	1	25	19.36	0.086	19.45	0.088	19.28	0.085
10	16QAM	1	49	19.14	0.082	19.20	0.083	19.03	0.080
10	16QAM	25	0	18.39	0.069	18.41	0.069	18.49	0.071
10	16QAM	25	12	18.38	0.069	18.53	0.071	18.13	0.065
10	16QAM	25	25	18.21	0.066	18.34	0.068	18.26	0.067
10	16QAM	50	0	18.02	0.063	18.09	0.064	18.05	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	19.95	0.099	20.19	0.104	20.17	0.104
5	QPSK	1	12	19.94	0.099	20.15	0.104	20.14	0.103
5	QPSK	1	24	19.92	0.098	20.03	0.101	20.18	0.104
5	QPSK	12	0	19.29	0.085	19.42	0.087	19.34	0.086
5	QPSK	12	7	18.76	0.075	18.91	0.078	18.82	0.076
5	QPSK	12	13	18.65	0.073	18.71	0.074	18.67	0.074
5	QPSK	25	0	18.53	0.071	18.66	0.073	18.62	0.073
5	16QAM	1	0	19.41	0.087	19.01	0.080	18.99	0.079
5	16QAM	1	12	19.24	0.084	19.33	0.086	19.16	0.082
5	16QAM	1	24	19.02	0.080	19.08	0.081	18.91	0.078
5	16QAM	12	0	18.57	0.072	18.79	0.076	18.65	0.073
5	16QAM	12	7	18.26	0.067	18.41	0.069	18.01	0.063
5	16QAM	12	13	18.09	0.064	18.22	0.066	18.14	0.065
5	16QAM	25	0	17.90	0.062	17.97	0.063	17.93	0.062



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	20.15	0.104	20.39	0.109	20.37	0.109
3	QPSK	1	8	20.14	0.103	20.35	0.108	20.34	0.108
3	QPSK	1	14	20.12	0.103	20.23	0.105	20.38	0.109
3	QPSK	8	0	19.49	0.089	19.62	0.092	19.54	0.090
3	QPSK	8	4	18.96	0.079	19.11	0.081	19.02	0.080
3	QPSK	8	7	18.85	0.077	18.91	0.078	18.87	0.077
3	QPSK	15	0	18.73	0.075	18.86	0.077	18.82	0.076
3	16QAM	1	0	19.31	0.085	19.21	0.083	19.19	0.083
3	16QAM	1	8	19.44	0.088	19.53	0.090	19.36	0.086
3	16QAM	1	14	19.22	0.084	19.28	0.085	19.11	0.081
3	16QAM	8	0	18.77	0.075	18.99	0.079	18.85	0.077
3	16QAM	8	4	18.46	0.070	18.41	0.069	18.21	0.066
3	16QAM	8	7	18.29	0.067	18.42	0.070	18.34	0.068
3	16QAM	15	0	18.10	0.065	18.17	0.066	18.13	0.065



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	20.13	0.103	20.11	0.103
1.4	QPSK	1	3	19.88	0.097	20.09	0.102	20.08	0.102
1.4	QPSK	1	5	19.86	0.097	19.97	0.099	20.12	0.103
1.4	QPSK	3	0	19.23	0.084	19.36	0.086	19.28	0.085
1.4	QPSK	3	1	18.70	0.074	18.85	0.077	18.76	0.075
1.4	QPSK	3	3	18.59	0.072	18.65	0.073	18.61	0.073
1.4	QPSK	6	0	18.47	0.070	18.60	0.072	18.56	0.072
1.4	16QAM	1	0	19.35	0.086	18.95	0.079	18.93	0.078
1.4	16QAM	1	3	19.18	0.083	19.27	0.085	19.10	0.081
1.4	16QAM	1	5	18.96	0.079	19.02	0.080	18.85	0.077
1.4	16QAM	3	0	18.51	0.071	18.73	0.075	18.59	0.072
1.4	16QAM	3	1	18.20	0.066	18.35	0.068	17.95	0.062
1.4	16QAM	3	3	18.03	0.064	18.16	0.065	18.08	0.064
1.4	16QAM	6	0	17.84	0.061	17.91	0.062	17.87	0.061



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23060		23095		23130	
Frequency (MHz)				704		707.5		711	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	16.47	0.044	16.46	0.044	16.67	0.046
10	QPSK	1	25	16.42	0.044	16.40	0.044	16.68	0.047
10	QPSK	1	49	16.37	0.043	16.82	0.048	16.72	0.047
10	QPSK	25	0	15.54	0.036	15.64	0.037	15.52	0.036
10	QPSK	25	12	15.51	0.036	15.59	0.036	15.48	0.035
10	QPSK	25	25	15.49	0.035	15.53	0.036	15.45	0.035
10	QPSK	50	0	15.29	0.034	15.47	0.035	15.52	0.036
10	16QAM	1	0	15.71	0.037	15.50	0.035	15.57	0.036
10	16QAM	1	25	15.81	0.038	15.67	0.037	15.53	0.036
10	16QAM	1	49	15.91	0.039	15.88	0.039	15.56	0.036
10	16QAM	25	0	14.84	0.030	14.84	0.030	14.92	0.031
10	16QAM	25	12	14.42	0.028	14.93	0.031	14.89	0.031
10	16QAM	25	25	14.72	0.030	14.81	0.030	14.75	0.030
10	16QAM	50	0	14.43	0.028	14.85	0.031	14.82	0.030



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23035		23095		23155	
Frequency (MHz)				701.5		707.5		713.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	16.35	0.043	16.34	0.043	16.55	0.045
5	QPSK	1	12	16.30	0.043	16.28	0.042	16.56	0.045
5	QPSK	1	24	16.25	0.042	16.61	0.046	16.60	0.046
5	QPSK	12	0	15.42	0.035	15.52	0.036	15.40	0.035
5	QPSK	12	7	15.39	0.035	15.47	0.035	15.36	0.034
5	QPSK	12	13	15.37	0.034	15.41	0.035	15.33	0.034
5	QPSK	25	0	15.17	0.033	15.35	0.034	15.40	0.035
5	16QAM	1	0	15.59	0.036	15.38	0.035	15.45	0.035
5	16QAM	1	12	15.69	0.037	15.55	0.036	15.41	0.035
5	16QAM	1	24	15.79	0.038	15.76	0.038	15.44	0.035
5	16QAM	12	0	14.71	0.030	14.72	0.030	14.70	0.030
5	16QAM	12	7	14.30	0.027	14.81	0.030	14.77	0.030
5	16QAM	12	13	14.60	0.029	14.69	0.029	14.63	0.029
5	16QAM	25	0	14.31	0.027	14.73	0.030	14.70	0.030



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23025		23095		23165	
Frequency (MHz)				700.5		707.5		714.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	16.55	0.045	16.54	0.045	16.75	0.047
3	QPSK	1	8	16.50	0.045	16.48	0.044	16.76	0.047
3	QPSK	1	14	16.45	0.044	16.59	0.046	16.80	0.048
3	QPSK	8	0	15.62	0.036	15.72	0.037	15.60	0.036
3	QPSK	8	4	15.59	0.036	15.67	0.037	15.56	0.036
3	QPSK	8	7	15.57	0.036	15.61	0.036	15.53	0.036
3	QPSK	15	0	15.37	0.034	15.55	0.036	15.60	0.036
3	16QAM	1	0	15.79	0.038	15.58	0.036	15.65	0.037
3	16QAM	1	8	15.89	0.039	15.75	0.038	15.61	0.036
3	16QAM	1	14	15.99	0.040	15.96	0.039	15.64	0.037
3	16QAM	8	0	14.71	0.030	14.82	0.030	14.80	0.030
3	16QAM	8	4	14.50	0.028	15.01	0.032	14.97	0.031
3	16QAM	8	7	14.80	0.030	14.89	0.031	14.83	0.030
3	16QAM	15	0	14.51	0.028	14.93	0.031	14.90	0.031



LTE Band 12				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23017		23095		23173	
Frequency (MHz)				699.7		707.5		715.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	16.29	0.043	16.28	0.042	16.49	0.045
1.4	QPSK	1	3	16.24	0.042	16.22	0.042	16.50	0.045
1.4	QPSK	1	5	16.19	0.042	16.55	0.045	16.54	0.045
1.4	QPSK	3	0	15.36	0.034	15.46	0.035	15.34	0.034
1.4	QPSK	3	1	15.33	0.034	15.41	0.035	15.30	0.034
1.4	QPSK	3	3	15.31	0.034	15.35	0.034	15.27	0.034
1.4	QPSK	6	0	15.11	0.032	15.29	0.034	15.34	0.034
1.4	16QAM	1	0	15.53	0.036	15.32	0.034	15.39	0.035
1.4	16QAM	1	3	15.63	0.037	15.49	0.035	15.35	0.034
1.4	16QAM	1	5	15.73	0.037	15.70	0.037	15.38	0.035
1.4	16QAM	3	0	14.95	0.031	15.06	0.032	15.04	0.032
1.4	16QAM	3	1	14.24	0.027	14.75	0.030	14.71	0.030
1.4	16QAM	3	3	14.54	0.028	14.63	0.029	14.57	0.029
1.4	16QAM	6	0	14.25	0.027	14.67	0.029	14.64	0.029



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	18.79	0.076	19.12	0.082	19.15	0.082
20	QPSK	1	49	18.81	0.076	18.78	0.076	18.86	0.077
20	QPSK	1	99	18.72	0.074	18.88	0.077	18.65	0.073
20	QPSK	50	0	18.14	0.065	18.26	0.067	18.28	0.067
20	QPSK	50	24	18.24	0.067	18.06	0.064	18.04	0.064
20	QPSK	50	50	18.14	0.065	18.00	0.063	18.00	0.063
20	QPSK	100	0	17.92	0.062	18.03	0.064	18.02	0.063
20	16QAM	1	0	18.12	0.065	18.15	0.065	18.14	0.065
20	16QAM	1	49	18.11	0.065	18.07	0.064	17.95	0.062
20	16QAM	1	99	18.07	0.064	18.37	0.069	18.01	0.063
20	16QAM	50	0	17.03	0.050	16.98	0.050	17.07	0.051
20	16QAM	50	24	17.26	0.053	17.13	0.052	17.34	0.054
20	16QAM	50	50	17.35	0.054	17.36	0.054	17.24	0.053
20	16QAM	100	0	17.24	0.053	17.18	0.052	17.36	0.054





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	18.88	0.077	19.00	0.079	19.00	0.079
15	QPSK	1	37	18.96	0.079	18.69	0.074	18.89	0.077
15	QPSK	1	74	18.72	0.074	18.90	0.078	18.93	0.078
15	QPSK	36	0	17.94	0.062	18.02	0.063	18.11	0.065
15	QPSK	36	20	18.01	0.063	18.00	0.063	18.09	0.064
15	QPSK	36	39	17.93	0.062	18.09	0.064	18.07	0.064
15	QPSK	75	0	18.00	0.063	17.97	0.063	18.07	0.064
15	16QAM	1	0	18.07	0.064	18.43	0.070	18.22	0.066
15	16QAM	1	37	17.96	0.063	18.28	0.067	18.16	0.065
15	16QAM	1	74	18.12	0.065	18.05	0.064	18.46	0.070
15	16QAM	36	0	16.97	0.050	17.09	0.051	17.14	0.052
15	16QAM	36	20	16.92	0.049	17.03	0.050	17.12	0.052
15	16QAM	36	39	17.02	0.050	17.14	0.052	17.04	0.051
15	16QAM	75	0	17.01	0.050	17.05	0.051	17.07	0.051



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	18.54	0.071	18.68	0.074	18.78	0.076
10	QPSK	1	25	18.84	0.077	18.78	0.076	19.03	0.080
10	QPSK	1	49	18.81	0.076	18.82	0.076	18.94	0.078
10	QPSK	25	0	17.73	0.059	17.84	0.061	17.84	0.061
10	QPSK	25	12	17.84	0.061	17.92	0.062	17.92	0.062
10	QPSK	25	25	17.91	0.062	17.98	0.063	18.01	0.063
10	QPSK	50	0	17.79	0.060	17.89	0.062	17.92	0.062
10	16QAM	1	0	17.75	0.060	17.98	0.063	18.10	0.065
10	16QAM	1	25	17.91	0.062	17.69	0.059	18.04	0.064
10	16QAM	1	49	18.01	0.063	17.85	0.061	17.74	0.059
10	16QAM	25	0	17.54	0.057	17.54	0.057	17.68	0.059
10	16QAM	25	12	17.55	0.057	17.36	0.054	17.45	0.056
10	16QAM	25	25	17.64	0.058	17.28	0.053	17.58	0.057
10	16QAM	50	0	17.54	0.057	17.35	0.054	17.14	0.052



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	18.54	0.071	18.68	0.074	18.78	0.076
5	QPSK	1	12	18.84	0.077	18.78	0.076	19.03	0.080
5	QPSK	1	24	18.81	0.076	18.82	0.076	18.94	0.078
5	QPSK	12	0	17.73	0.059	17.84	0.061	17.84	0.061
5	QPSK	12	7	17.84	0.061	17.92	0.062	17.92	0.062
5	QPSK	12	13	17.91	0.062	17.98	0.063	18.01	0.063
5	QPSK	25	0	17.79	0.060	17.89	0.062	17.92	0.062
5	16QAM	1	0	17.91	0.062	17.64	0.058	17.88	0.061
5	16QAM	1	12	17.97	0.063	17.90	0.062	18.04	0.064
5	16QAM	1	24	17.97	0.063	17.85	0.061	18.14	0.065
5	16QAM	12	0	17.57	0.057	17.14	0.052	17.24	0.053
5	16QAM	12	7	17.18	0.052	17.16	0.052	17.15	0.052
5	16QAM	12	13	17.14	0.052	17.21	0.053	17.25	0.053
5	16QAM	25	0	17.11	0.051	17.14	0.052	17.14	0.052



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	18.69	0.074	18.81	0.076	18.81	0.076
3	QPSK	1	8	18.77	0.075	18.50	0.071	18.70	0.074
3	QPSK	1	14	18.53	0.071	18.71	0.074	18.74	0.075
3	QPSK	8	0	17.75	0.060	17.83	0.061	17.92	0.062
3	QPSK	8	4	17.82	0.061	17.81	0.060	17.90	0.062
3	QPSK	8	7	17.74	0.059	17.90	0.062	17.88	0.061
3	QPSK	15	0	17.81	0.060	17.78	0.060	17.88	0.061
3	16QAM	1	0	17.88	0.061	17.66	0.058	18.03	0.064
3	16QAM	1	8	17.77	0.060	18.09	0.064	17.97	0.063
3	16QAM	1	14	17.65	0.058	17.86	0.061	17.68	0.059
3	16QAM	8	0	17.21	0.053	17.33	0.054	17.38	0.055
3	16QAM	8	4	17.16	0.052	17.27	0.053	17.36	0.054
3	16QAM	8	7	17.26	0.053	17.38	0.055	17.28	0.053
3	16QAM	15	0	17.25	0.053	17.29	0.054	17.31	0.054



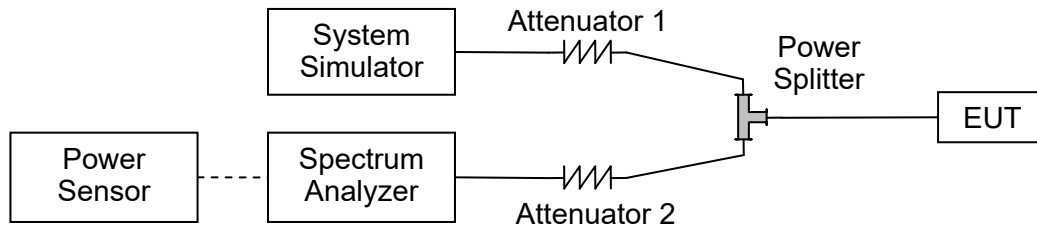
LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				131979		132322		132665	
Frequency (MHz)				1710.7		1745		1779.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	18.31	0.068	18.45	0.070	18.55	0.072
1.4	QPSK	1	3	18.61	0.073	18.55	0.072	18.80	0.076
1.4	QPSK	1	5	18.58	0.072	18.59	0.072	18.71	0.074
1.4	QPSK	3	0	18.16	0.065	18.27	0.067	18.27	0.067
1.4	QPSK	3	1	18.27	0.067	18.35	0.068	18.35	0.068
1.4	QPSK	3	3	18.34	0.068	18.41	0.069	18.44	0.070
1.4	QPSK	6	0	17.56	0.057	17.66	0.058	17.69	0.059
1.4	16QAM	1	0	17.78	0.060	17.75	0.060	17.87	0.061
1.4	16QAM	1	3	17.68	0.059	17.69	0.059	17.81	0.060
1.4	16QAM	1	5	17.78	0.060	17.62	0.058	17.51	0.056
1.4	16QAM	3	0	17.31	0.054	17.31	0.054	17.45	0.056
1.4	16QAM	3	1	17.32	0.054	17.13	0.052	17.58	0.057
1.4	16QAM	3	3	17.41	0.055	17.55	0.057	17.35	0.054
1.4	16QAM	6	0	17.31	0.054	17.65	0.058	17.35	0.054

## 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	1.22
	Low	16QAM	1.10	1.25
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.10	1.25
	High	QPSK	1.10	1.24
	High	16QAM	1.10	1.25
3	Low	QPSK	2.72	3.04
	Low	16QAM	2.72	3.06
	Mid	QPSK	2.71	3.06
	Mid	16QAM	2.72	3.04
	High	QPSK	2.71	3.05
	High	16QAM	2.72	3.05
5	Low	QPSK	4.50	4.95
	Low	16QAM	4.51	4.95
	Mid	QPSK	4.50	4.95
	Mid	16QAM	4.50	4.98
	High	QPSK	4.51	4.97
	High	16QAM	4.50	4.99
10	Low	QPSK	9.01	9.90
	Low	16QAM	8.98	9.86
	Mid	QPSK	9.00	9.84
	Mid	16QAM	8.98	9.84
	High	QPSK	9.02	9.91
	High	16QAM	9.00	9.84
15	Low	QPSK	13.48	14.95
	Low	16QAM	13.47	14.97
	Mid	QPSK	13.48	14.90
	Mid	16QAM	13.49	14.98
	High	QPSK	13.49	14.90
	High	16QAM	13.51	14.98
20	Low	QPSK	17.96	19.76
	Low	16QAM	18.01	19.82
	Mid	QPSK	18.00	19.74
	Mid	16QAM	18.02	19.81
	High	QPSK	18.02	19.88
	High	16QAM	18.04	19.87



LTE Band 4				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.24
	Low	16QAM	1.10	1.25
	Mid	QPSK	1.10	1.24
	Mid	16QAM	1.10	1.25
	High	QPSK	1.10	1.23
	High	16QAM	1.10	1.25
3	Low	QPSK	2.71	3.04
	Low	16QAM	2.71	3.06
	Mid	QPSK	2.72	3.06
	Mid	16QAM	2.71	3.06
	High	QPSK	2.71	3.07
	High	16QAM	2.72	3.06
5	Low	QPSK	4.49	4.96
	Low	16QAM	4.50	4.98
	Mid	QPSK	4.51	5.00
	Mid	16QAM	4.50	4.96
	High	QPSK	4.50	4.94
	High	16QAM	4.50	4.94
10	Low	QPSK	9.00	9.91
	Low	16QAM	8.97	9.85
	Mid	QPSK	9.00	9.90
	Mid	16QAM	8.97	9.80
	High	QPSK	9.00	9.80
	High	16QAM	8.97	9.86
15	Low	QPSK	13.51	14.90
	Low	16QAM	13.49	14.85
	Mid	QPSK	13.48	14.93
	Mid	16QAM	13.50	14.98
	High	QPSK	13.45	14.82
	High	16QAM	13.46	14.92
20	Low	QPSK	18.00	19.70
	Low	16QAM	18.00	19.71
	Mid	QPSK	18.00	19.68
	Mid	16QAM	18.04	19.76
	High	QPSK	17.94	19.75
	High	16QAM	18.00	19.74





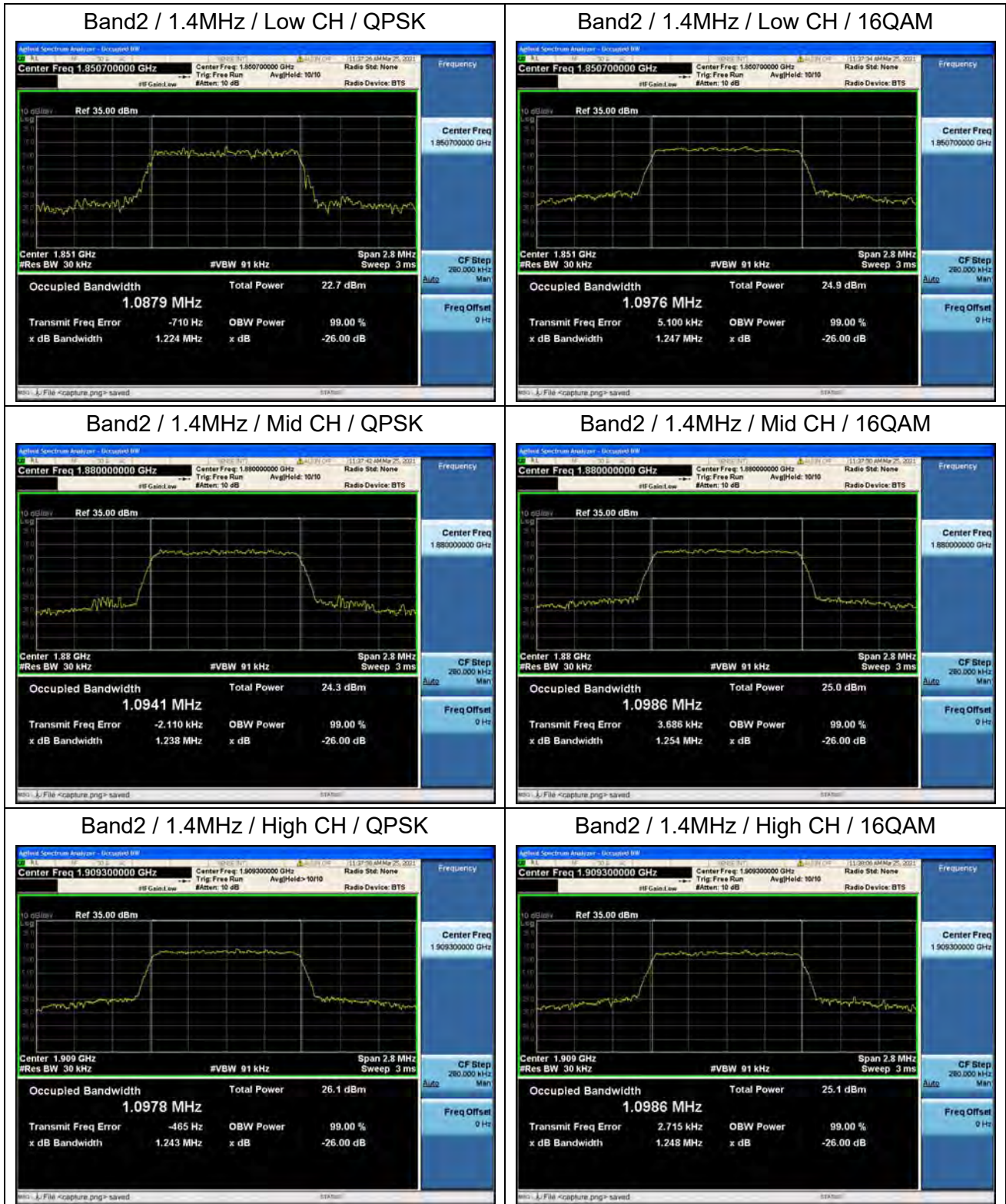
LTE Band 5				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.24
	Low	16QAM	1.10	1.25
	Mid	QPSK	1.10	1.24
	Mid	16QAM	1.10	1.25
	High	QPSK	1.09	1.25
	High	16QAM	1.10	1.25
3	Low	QPSK	2.71	3.03
	Low	16QAM	2.72	3.05
	Mid	QPSK	2.71	3.04
	Mid	16QAM	2.71	3.05
	High	QPSK	2.71	3.05
	High	16QAM	2.71	3.05
5	Low	QPSK	4.49	4.95
	Low	16QAM	4.49	4.95
	Mid	QPSK	4.51	4.96
	Mid	16QAM	4.50	4.96
	High	QPSK	4.50	4.98
	High	16QAM	4.50	4.95
10	Low	QPSK	8.99	9.87
	Low	16QAM	8.95	9.82
	Mid	QPSK	9.00	9.87
	Mid	16QAM	8.97	9.85
	High	QPSK	9.01	9.81
	High	16QAM	8.95	9.81



LTE Band 12				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.25
	Low	16QAM	1.10	1.25
	Mid	QPSK	1.10	1.24
	Mid	16QAM	1.10	1.24
	High	QPSK	1.09	1.23
	High	16QAM	1.10	1.25
3	Low	QPSK	2.72	3.04
	Low	16QAM	2.72	3.06
	Mid	QPSK	2.72	3.05
	Mid	16QAM	2.71	3.04
	High	QPSK	2.72	3.05
	High	16QAM	2.71	3.04
5	Low	QPSK	4.49	4.99
	Low	16QAM	4.51	5.00
	Mid	QPSK	4.50	4.93
	Mid	16QAM	4.50	4.98
	High	QPSK	4.49	4.96
	High	16QAM	4.51	5.01
10	Low	QPSK	8.98	9.82
	Low	16QAM	8.95	9.77
	Mid	QPSK	8.98	9.89
	Mid	16QAM	8.96	9.86
	High	QPSK	9.04	9.95
	High	16QAM	9.01	9.93

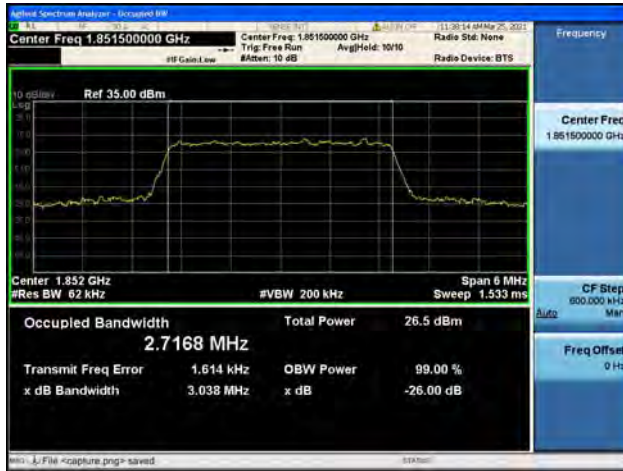


LTE Band 66				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.24
	Low	16QAM	1.09	1.24
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.09	1.24
	High	QPSK	1.10	1.24
	High	16QAM	1.09	1.24
3	Low	QPSK	2.72	3.02
	Low	16QAM	2.71	3.04
	Mid	QPSK	2.71	3.04
	Mid	16QAM	2.71	3.04
	High	QPSK	2.71	3.03
	High	16QAM	2.71	3.05
5	Low	QPSK	4.49	4.92
	Low	16QAM	4.49	4.98
	Mid	QPSK	4.49	4.98
	Mid	16QAM	4.50	4.95
	High	QPSK	4.50	4.97
	High	16QAM	4.48	4.97
10	Low	QPSK	8.98	9.93
	Low	16QAM	9.00	9.80
	Mid	QPSK	9.01	9.86
	Mid	16QAM	9.00	9.87
	High	QPSK	9.00	9.79
	High	16QAM	9.00	9.86
15	Low	QPSK	13.51	14.77
	Low	16QAM	13.48	14.79
	Mid	QPSK	13.47	14.84
	Mid	16QAM	13.47	14.69
	High	QPSK	13.53	14.81
	High	16QAM	13.50	14.86
20	Low	QPSK	18.00	19.73
	Low	16QAM	18.02	19.62
	Mid	QPSK	17.97	19.65
	Mid	16QAM	17.93	19.66
	High	QPSK	18.02	19.70
	High	16QAM	18.02	19.61

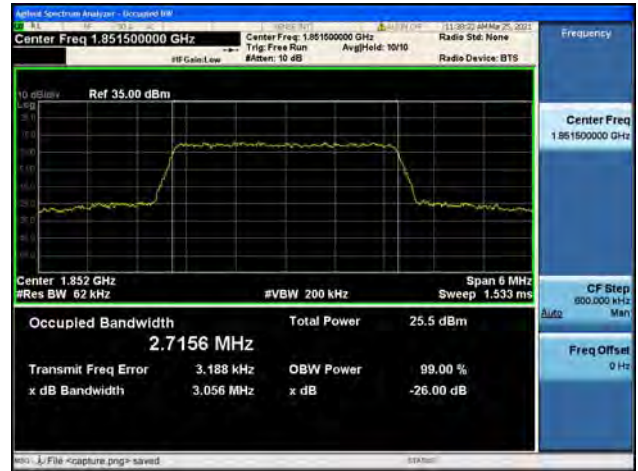




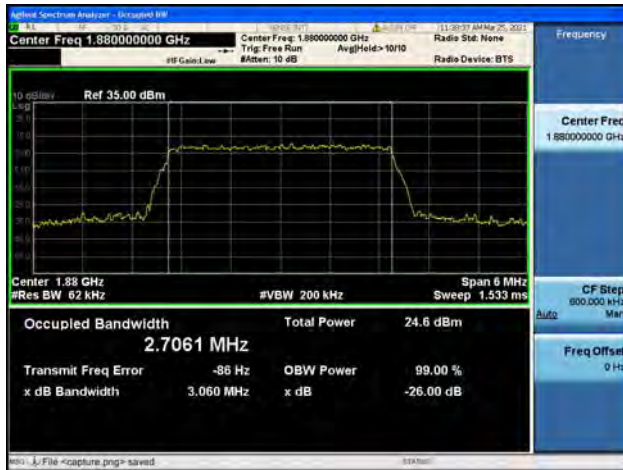
Band2 / 3MHz / Low CH / QPSK



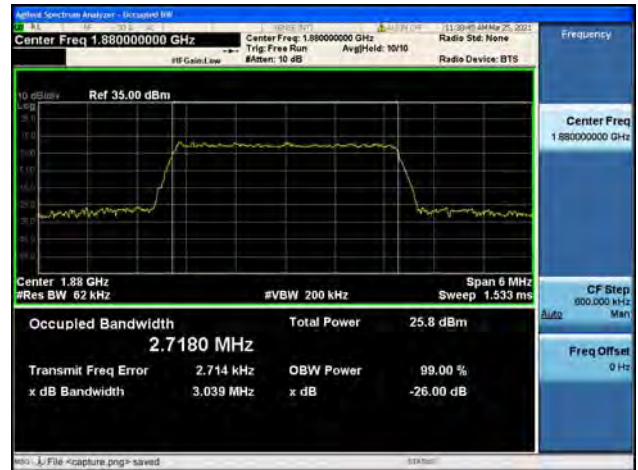
Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Mid CH / QPSK



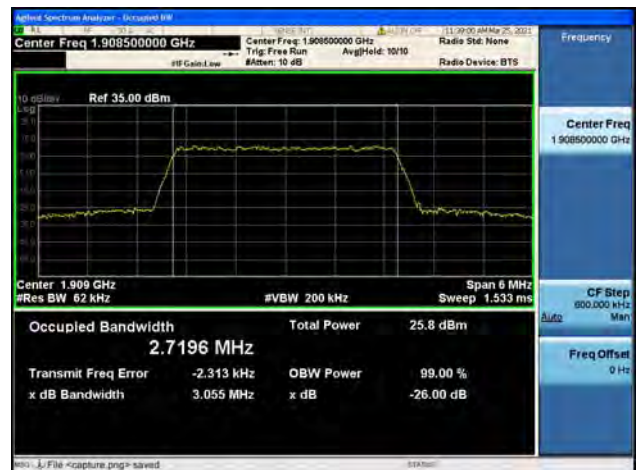
Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK

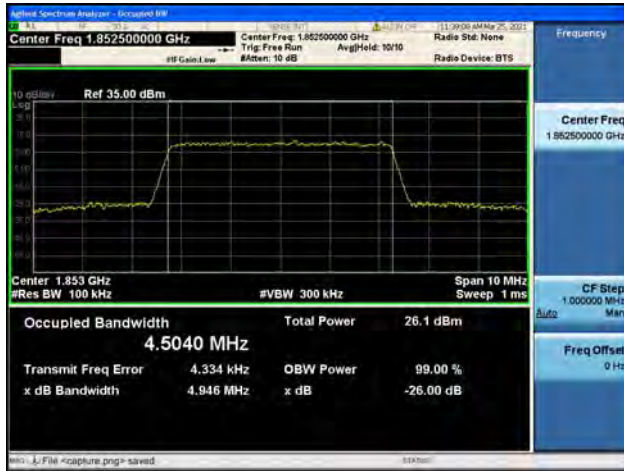


Band2 / 3MHz / High CH / 16QAM





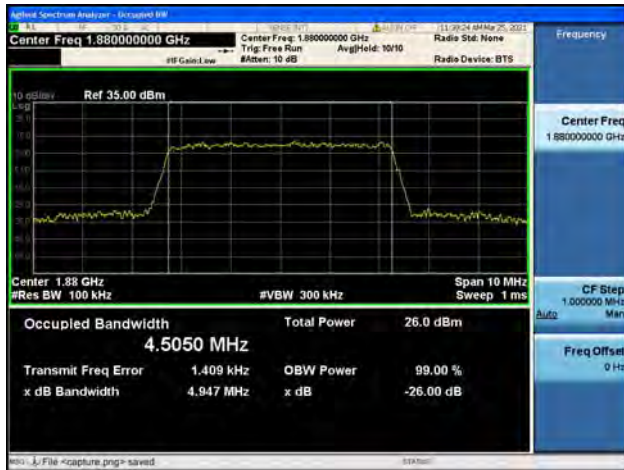
Band2 / 5MHz / Low CH / QPSK



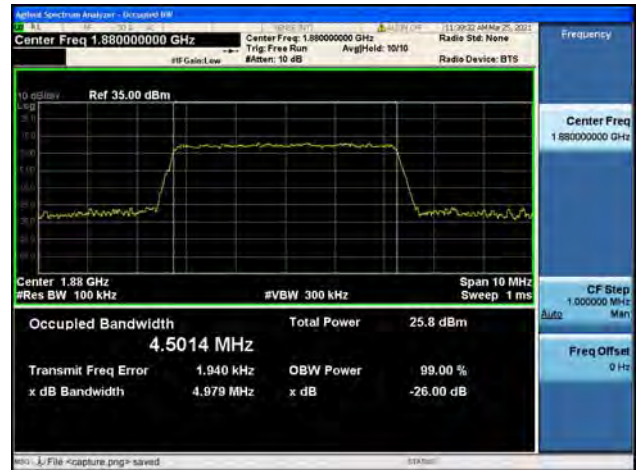
Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Mid CH / QPSK



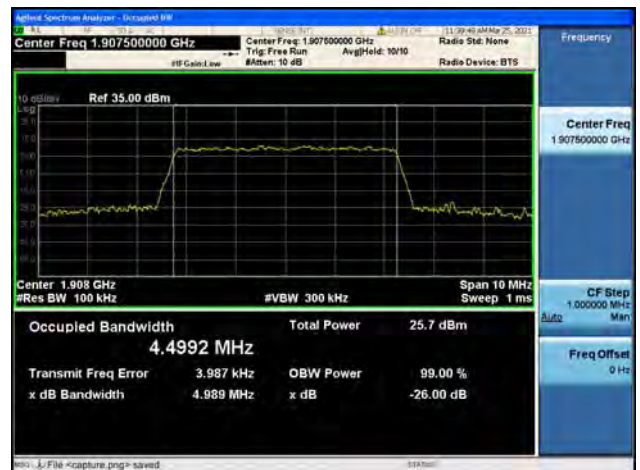
Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK

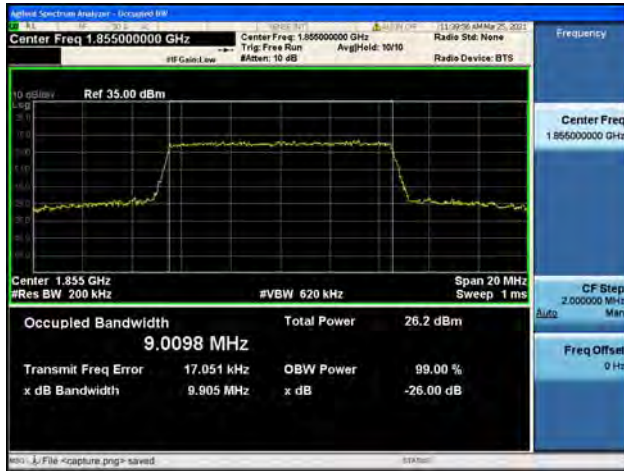


Band2 / 5MHz / High CH / 16QAM

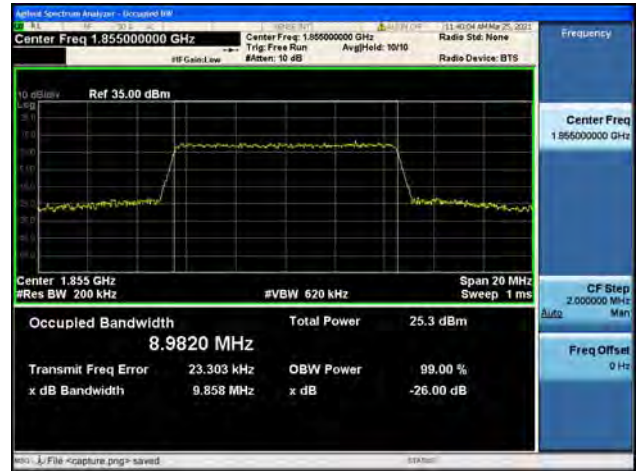




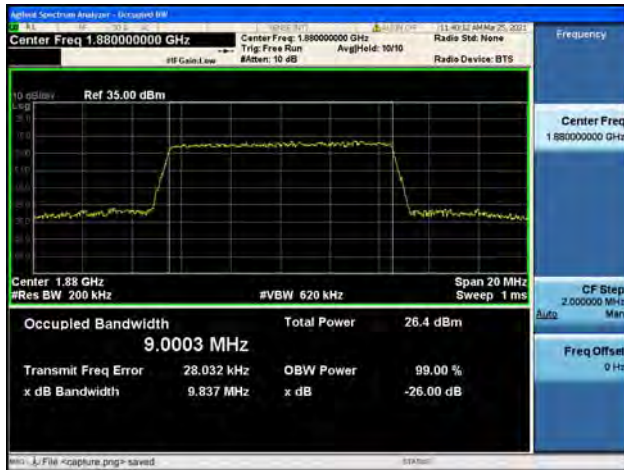
Band2 / 10MHz / Low CH / QPSK



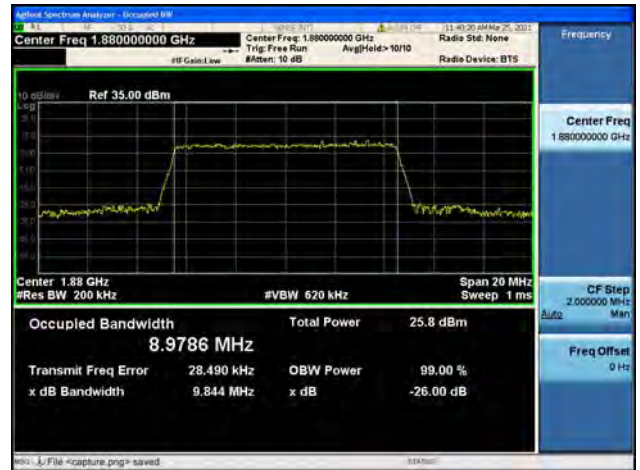
Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK

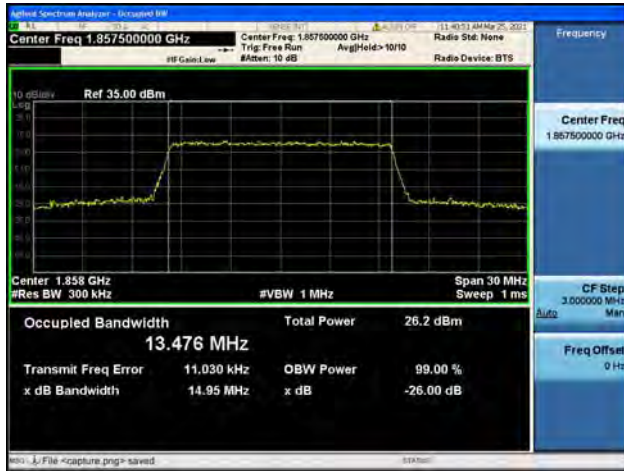


Band2 / 10MHz / High CH / 16QAM

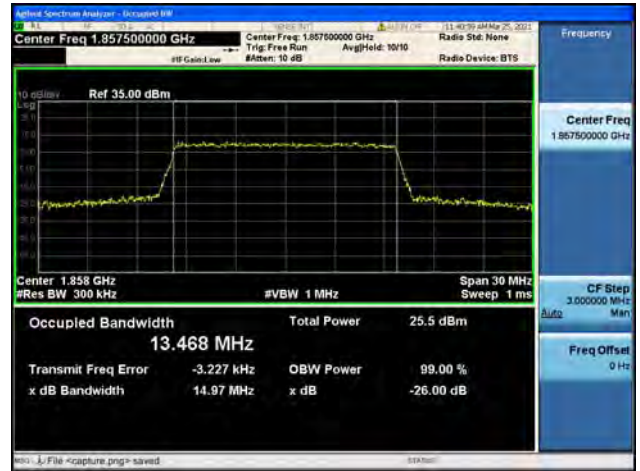




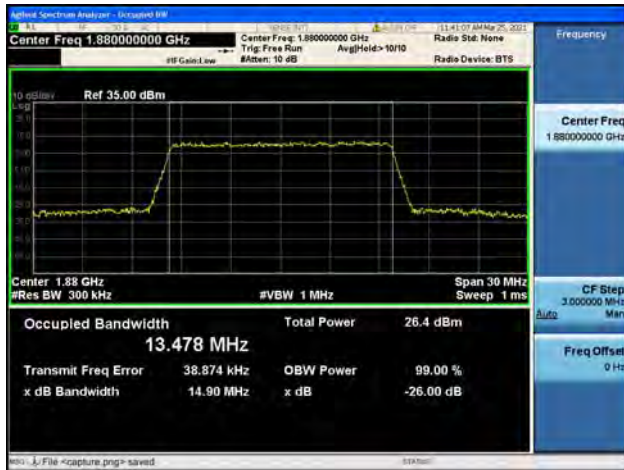
Band2 / 15MHz / Low CH / QPSK



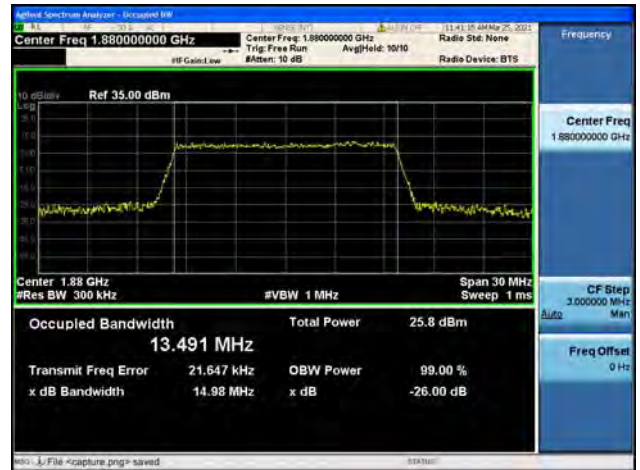
Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Mid CH / QPSK



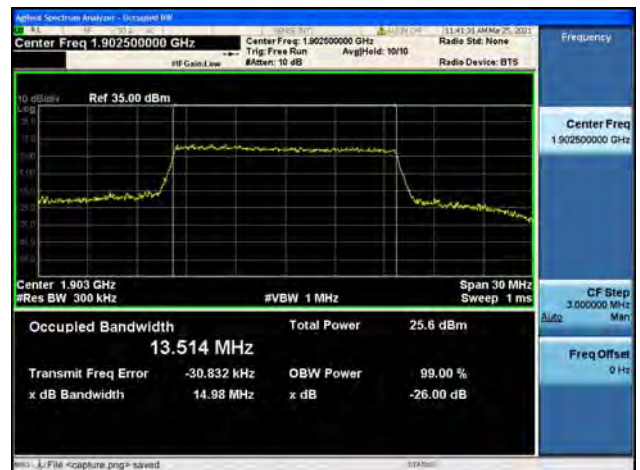
Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK



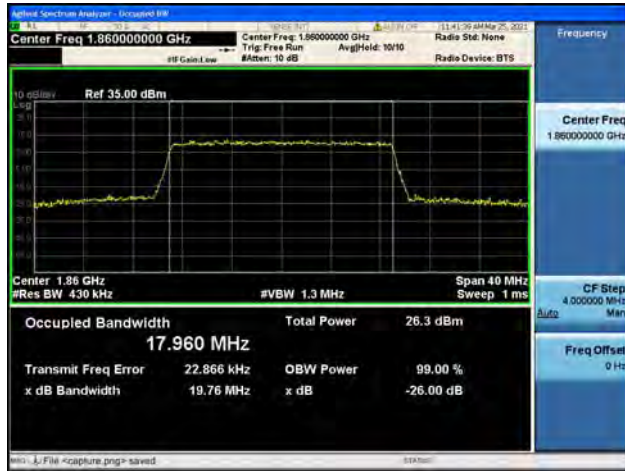
Band2 / 15MHz / High CH / 16QAM







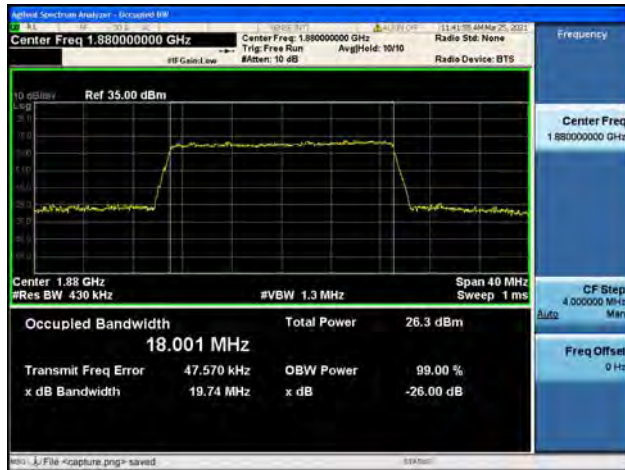
Band2 / 20MHz / Low CH / QPSK



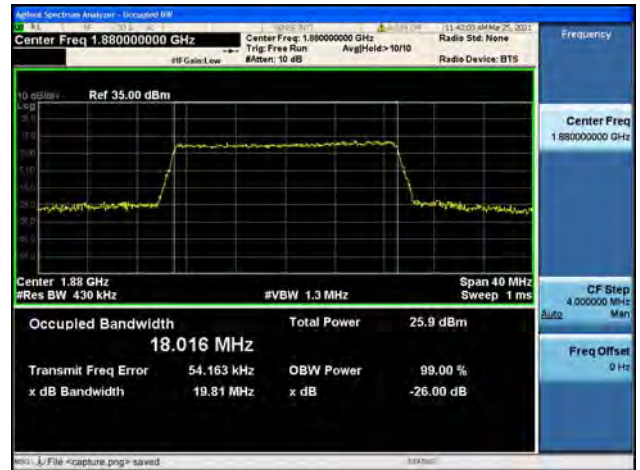
Band2 / 20MHz / Low CH / 16QAM



Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM

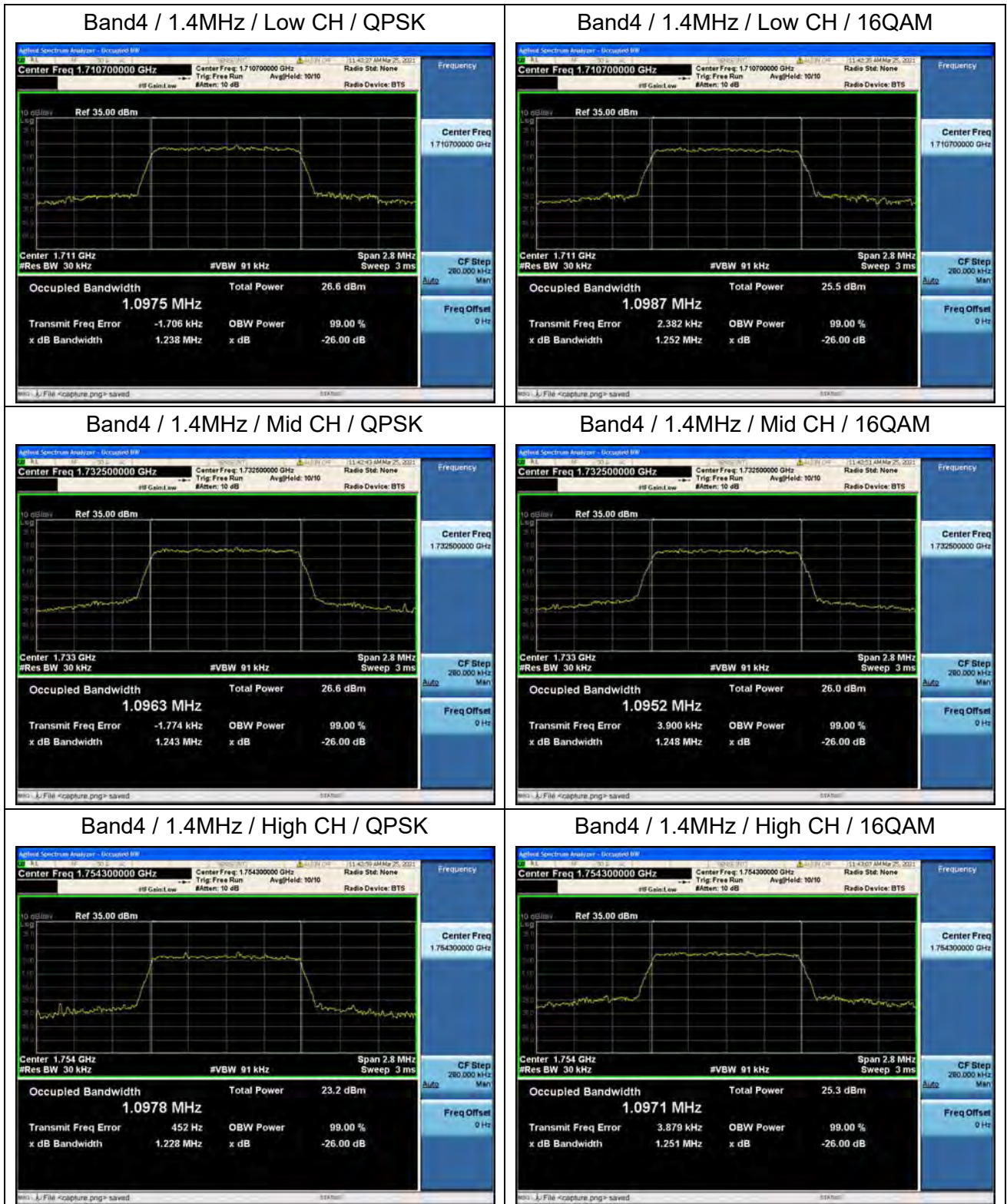


Band2 / 20MHz / High CH / QPSK



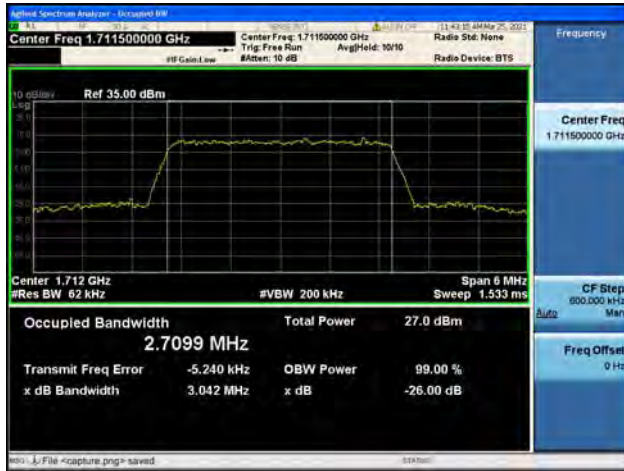
Band2 / 20MHz / High CH / 16QAM



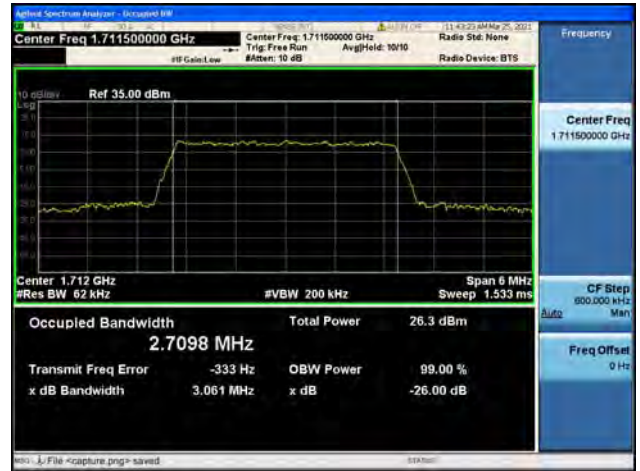




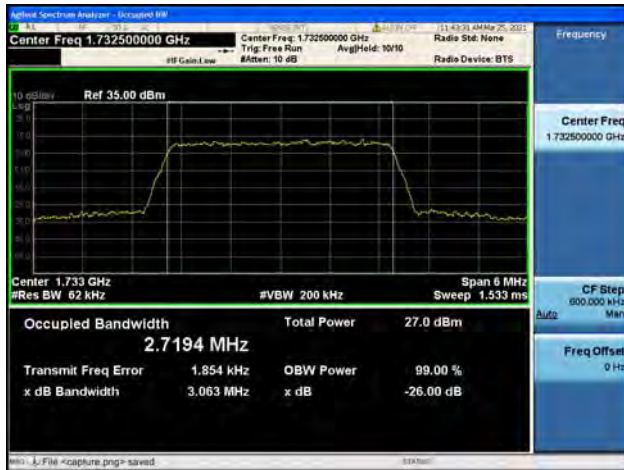
Band4 / 3MHz / Low CH / QPSK



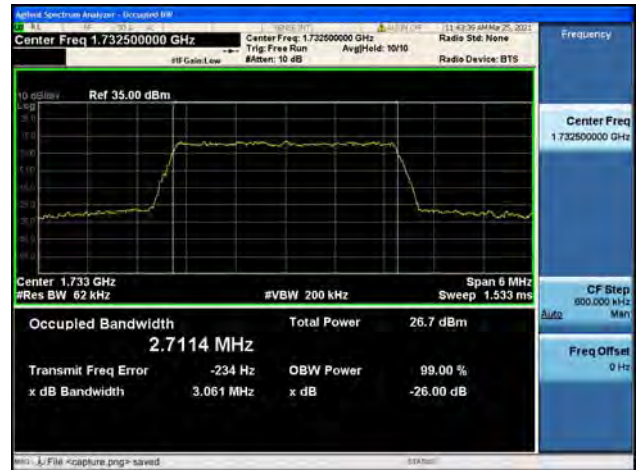
Band4 / 3MHz / Low CH / 16QAM



Band4 / 3MHz / Mid CH / QPSK



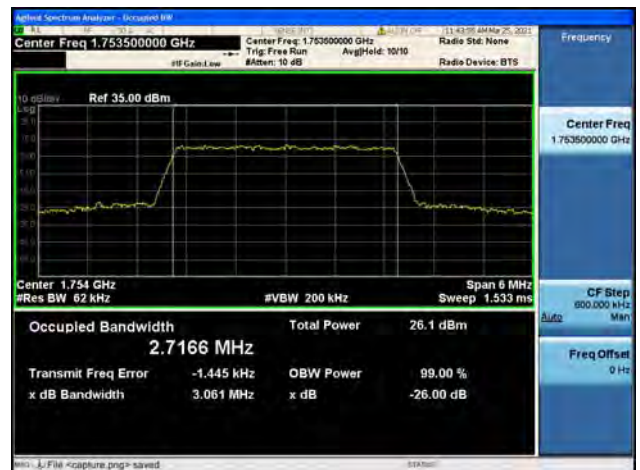
Band4 / 3MHz / Mid CH / 16QAM



Band4 / 3MHz / High CH / QPSK

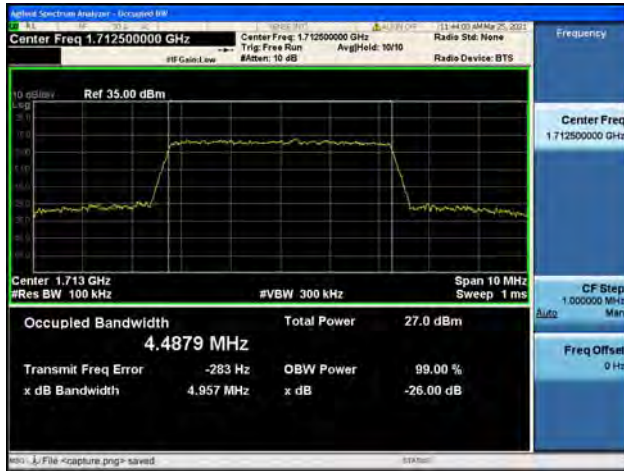


Band4 / 3MHz / High CH / 16QAM

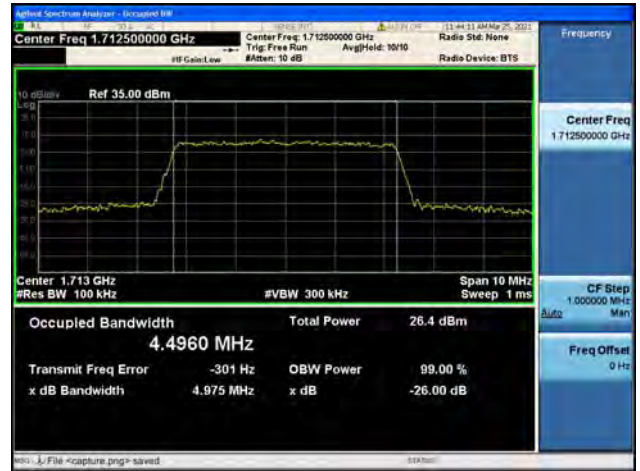




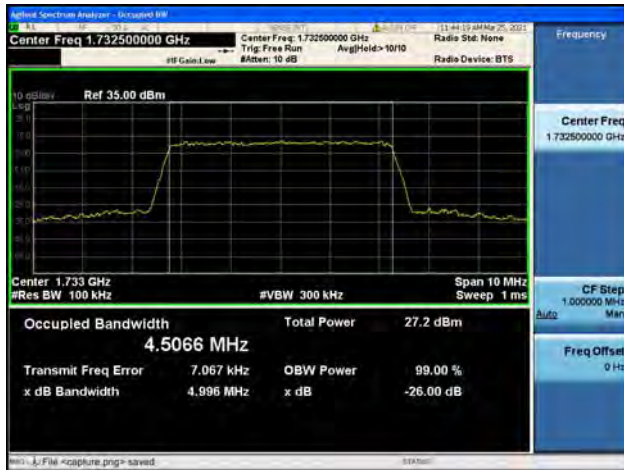
Band4 / 5MHz / Low CH / QPSK



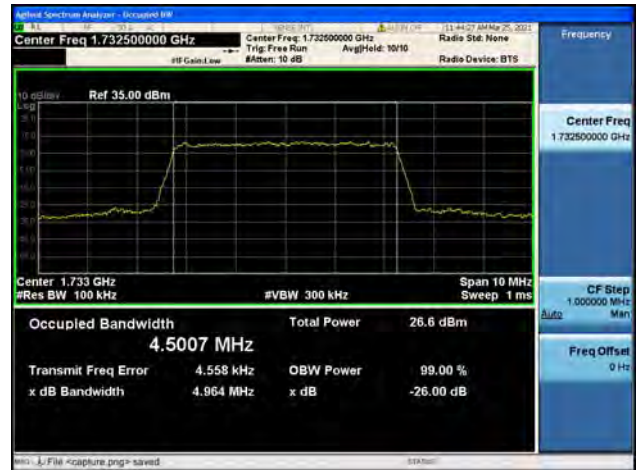
Band4 / 5MHz / Low CH / 16QAM



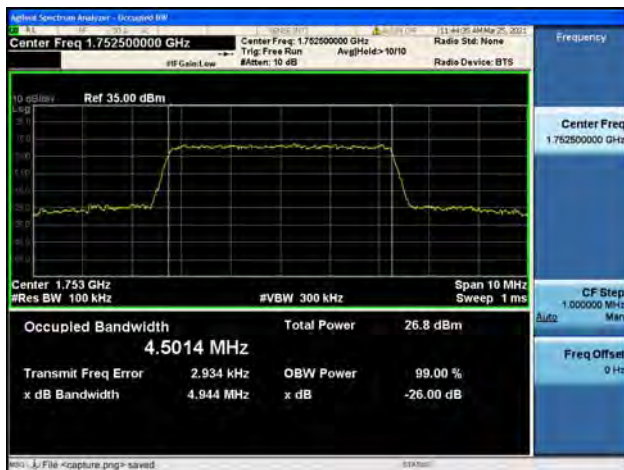
Band4 / 5MHz / Mid CH / QPSK



Band4 / 5MHz / Mid CH / 16QAM



Band4 / 5MHz / High CH / QPSK

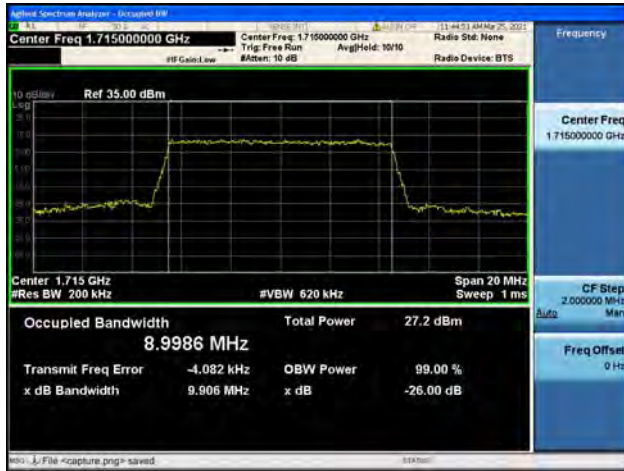


Band4 / 5MHz / High CH / 16QAM

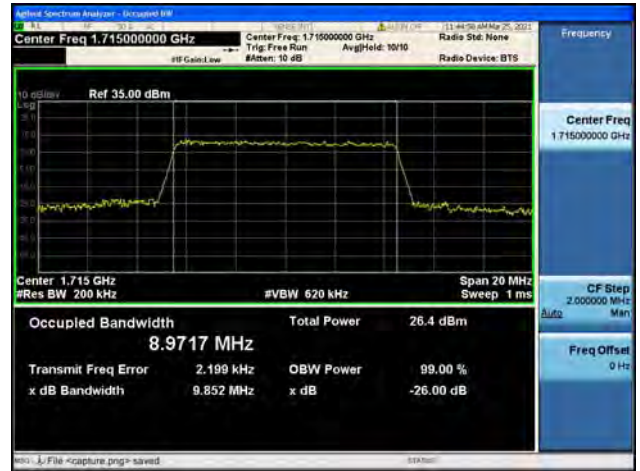




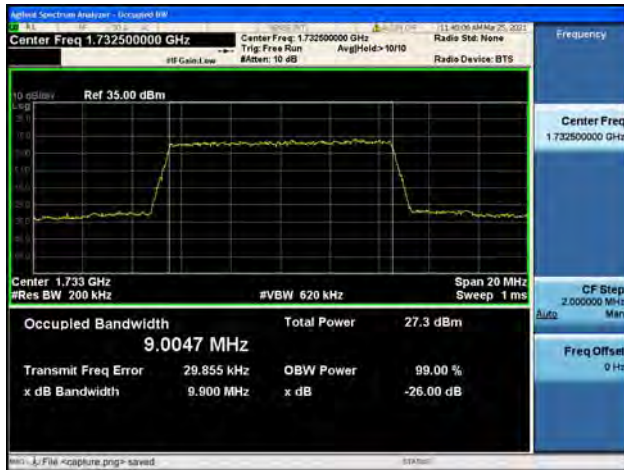
Band4 / 10MHz / Low CH / QPSK



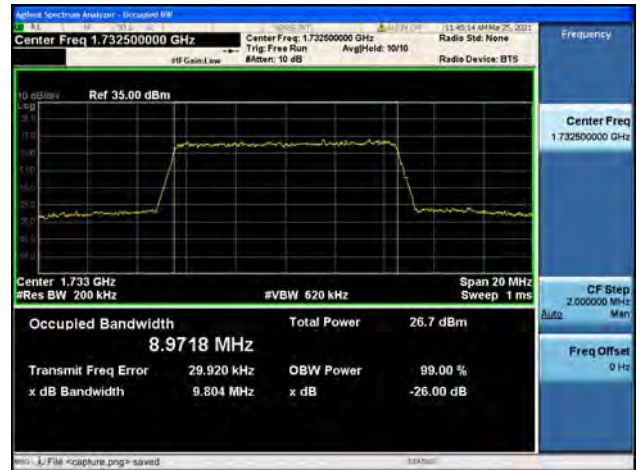
Band4 / 10MHz / Low CH / 16QAM



Band4 / 10MHz / Mid CH / QPSK



Band4 / 10MHz / Mid CH / 16QAM



Band4 / 10MHz / High CH / QPSK

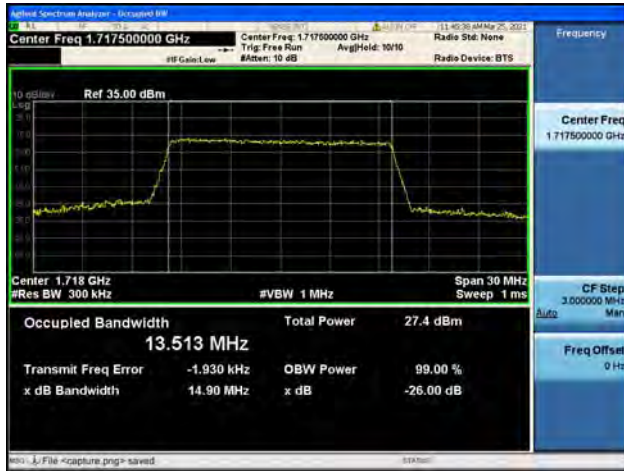


Band4 / 10MHz / High CH / 16QAM

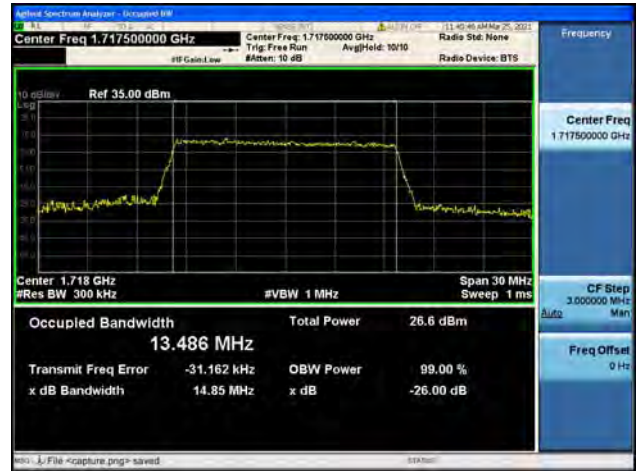




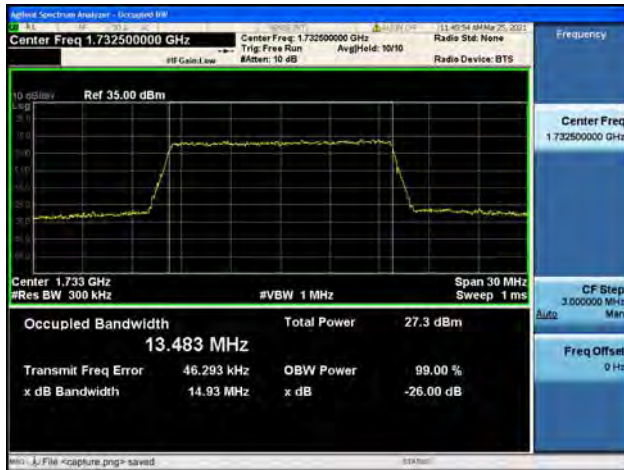
Band4 / 15MHz / Low CH / QPSK



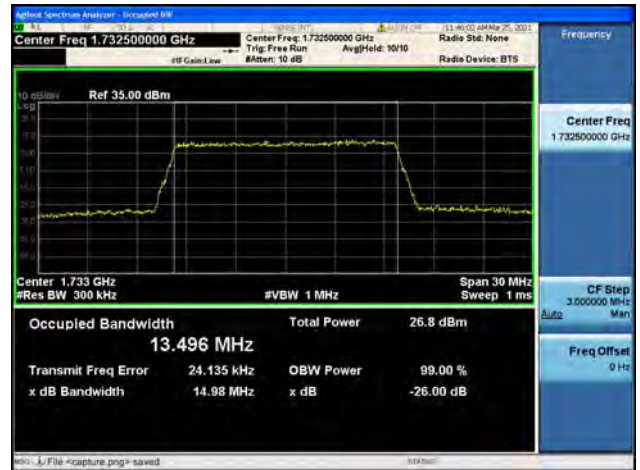
Band4 / 15MHz / Low CH / 16QAM



Band4 / 15MHz / Mid CH / QPSK



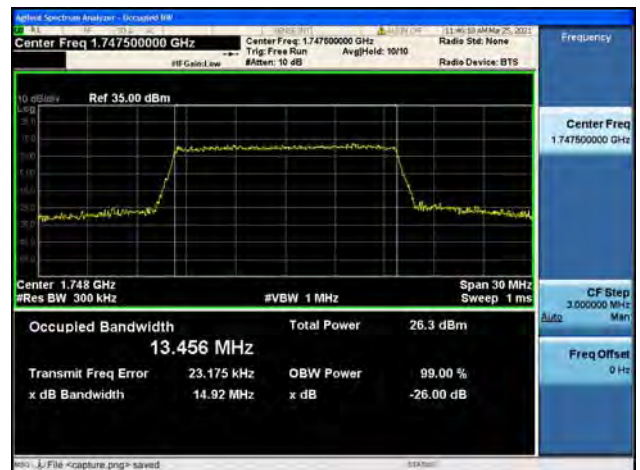
Band4 / 15MHz / Mid CH / 16QAM



Band4 / 15MHz / High CH / QPSK

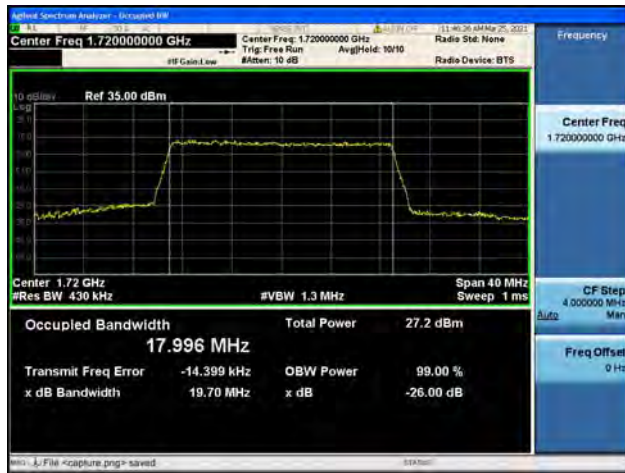


Band4 / 15MHz / High CH / 16QAM





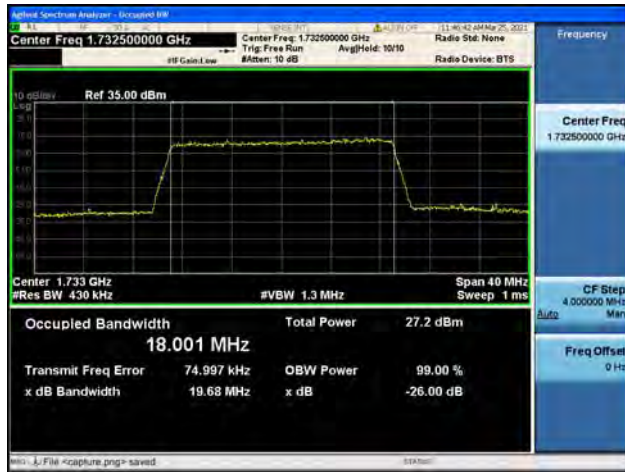
Band4 / 20MHz / Low CH / QPSK



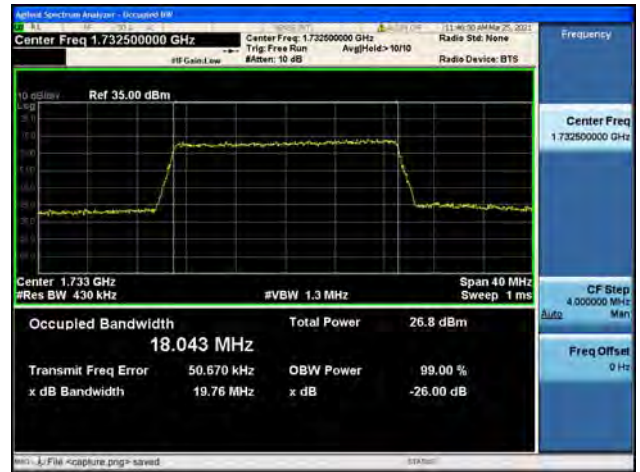
Band4 / 20MHz / Low CH / 16QAM



Band4 / 20MHz / Mid CH / QPSK



Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / High CH / QPSK

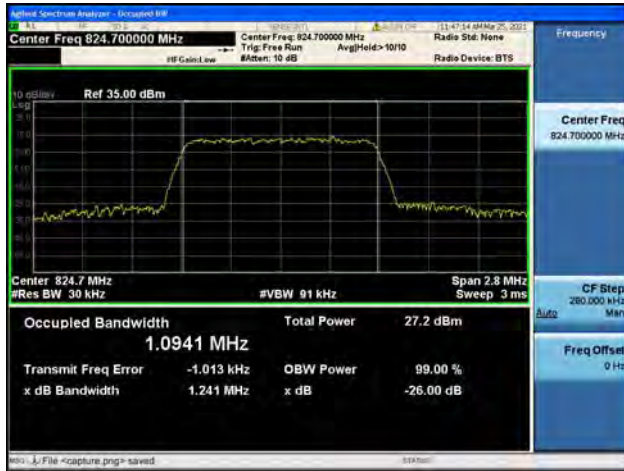


Band4 / 20MHz / High CH / 16QAM





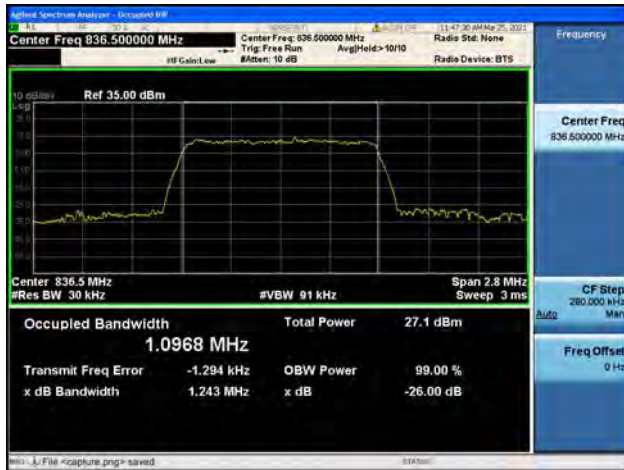
Band5 / 1.4MHz / Low CH / QPSK



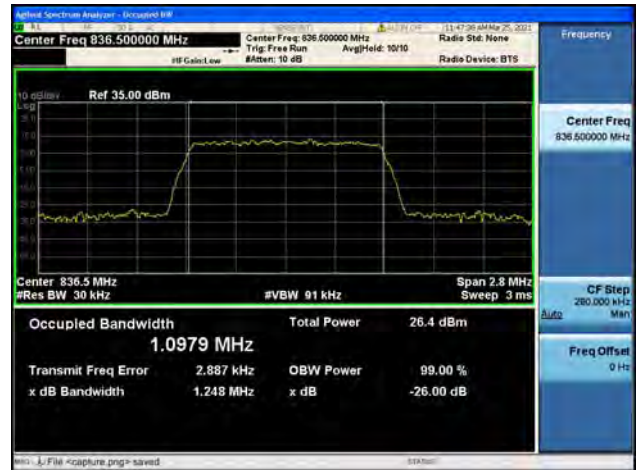
Band5 / 1.4MHz / Low CH / 16QAM



Band5 / 1.4MHz / Mid CH / QPSK



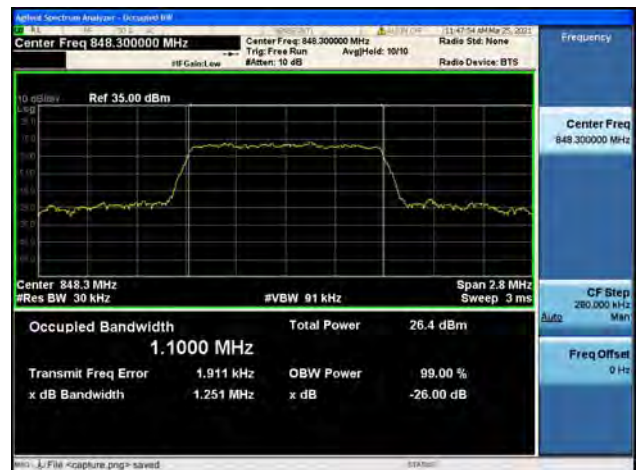
Band5 / 1.4MHz / Mid CH / 16QAM



Band5 / 1.4MHz / High CH / QPSK



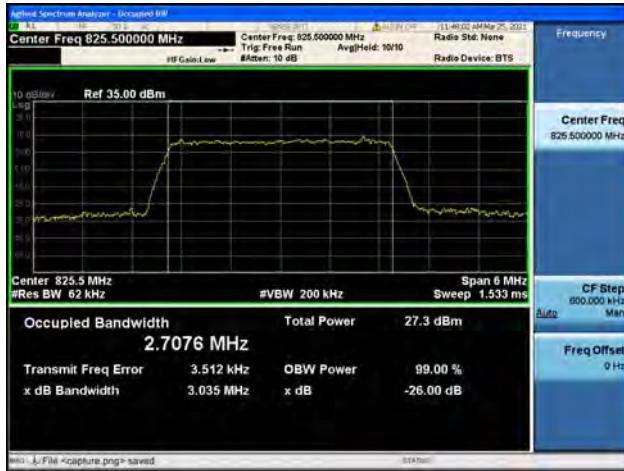
Band5 / 1.4MHz / High CH / 16QAM







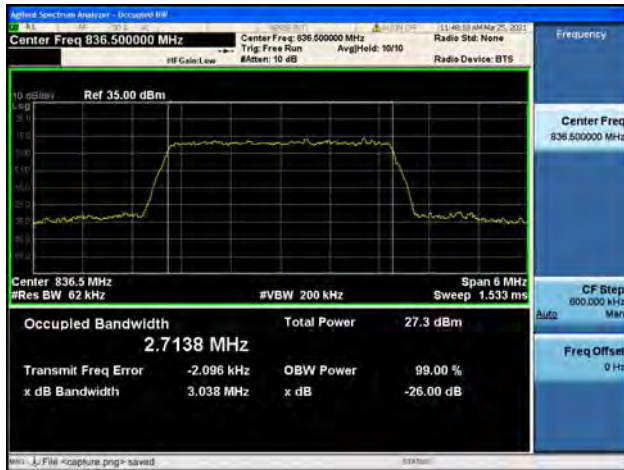
Band5 / 3MHz / Low CH / QPSK



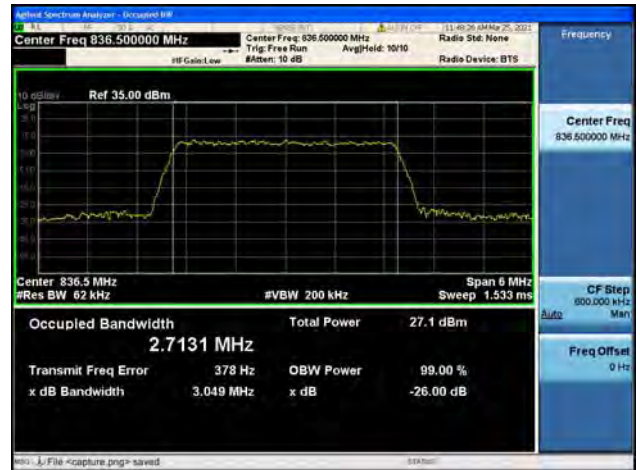
Band5 / 3MHz / Low CH / 16QAM



Band5 / 3MHz / Mid CH / QPSK



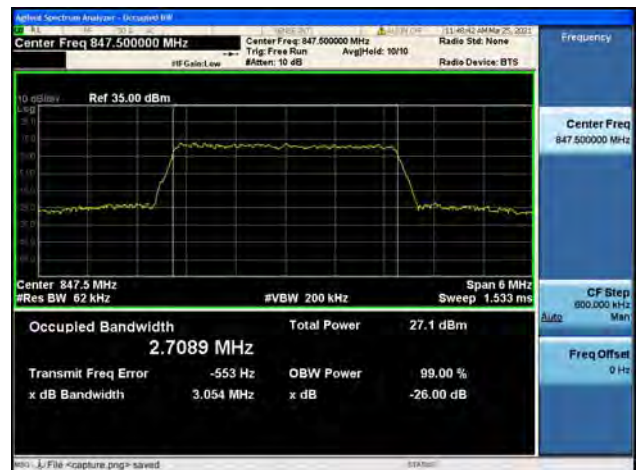
Band5 / 3MHz / Mid CH / 16QAM



Band5 / 3MHz / High CH / QPSK

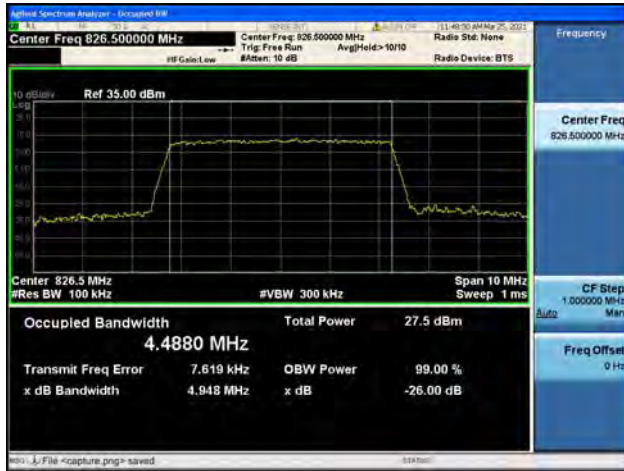


Band5 / 3MHz / High CH / 16QAM





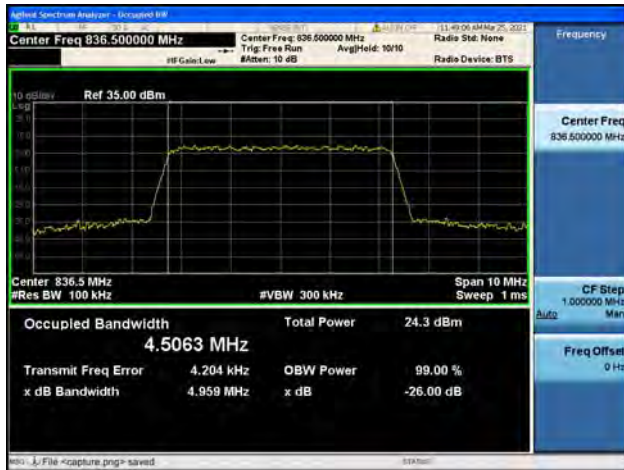
Band5 / 5MHz / Low CH / QPSK



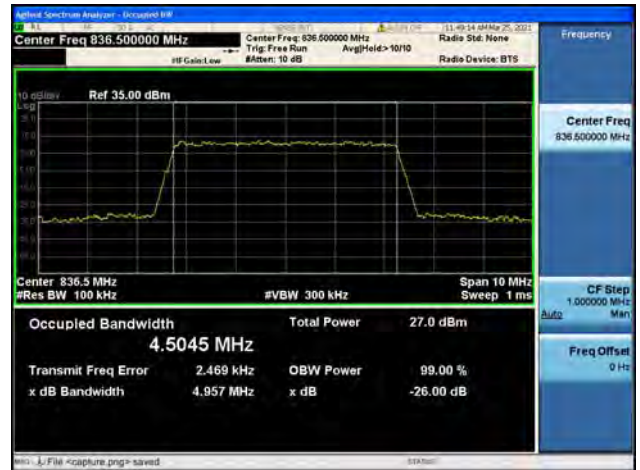
Band5 / 5MHz / Low CH / 16QAM



Band5 / 5MHz / Mid CH / QPSK



Band5 / 5MHz / Mid CH / 16QAM



Band5 / 5MHz / High CH / QPSK

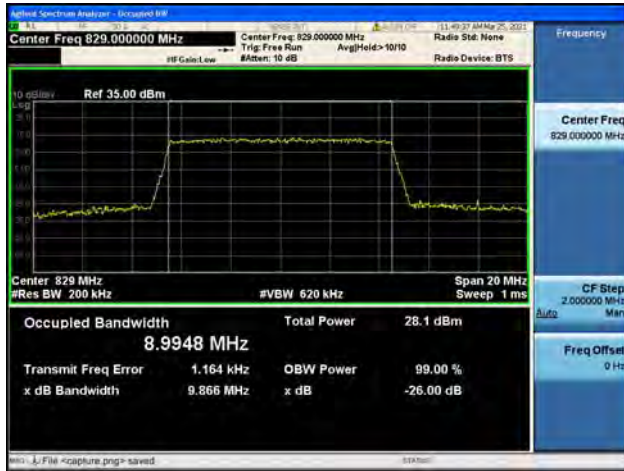


Band5 / 5MHz / High CH / 16QAM

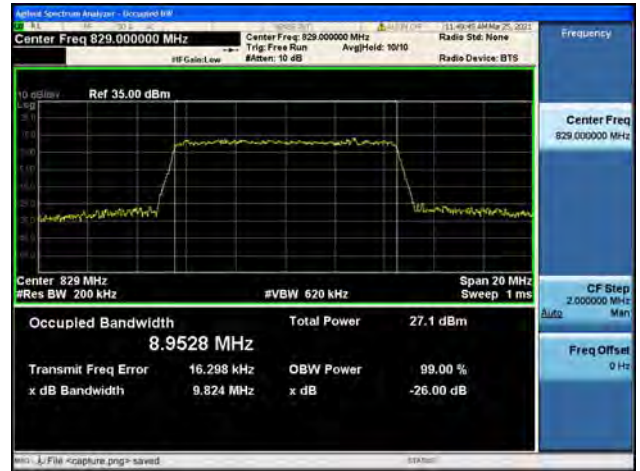




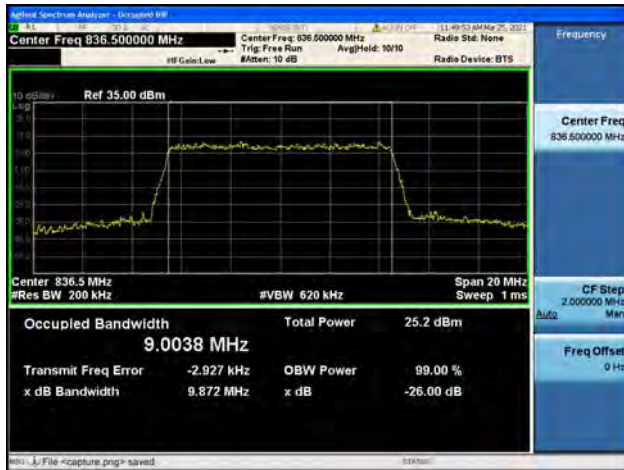
Band5 / 10MHz / Low CH / QPSK



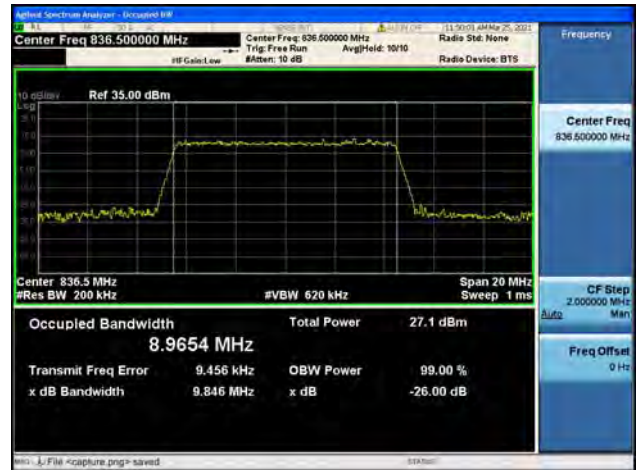
Band5 / 10MHz / Low CH / 16QAM



Band5 / 10MHz / Mid CH / QPSK



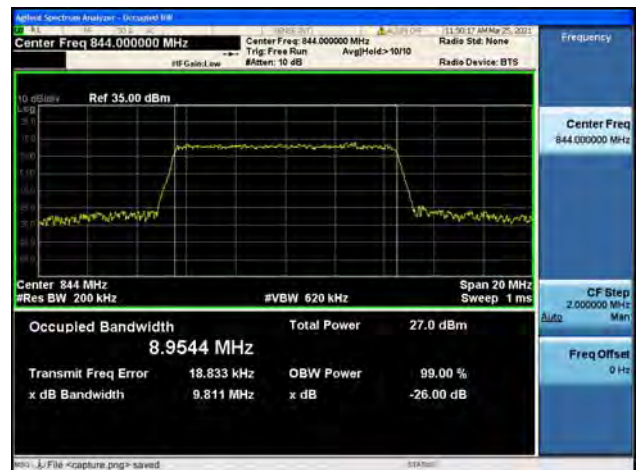
Band5 / 10MHz / Mid CH / 16QAM



Band5 / 10MHz / High CH / QPSK

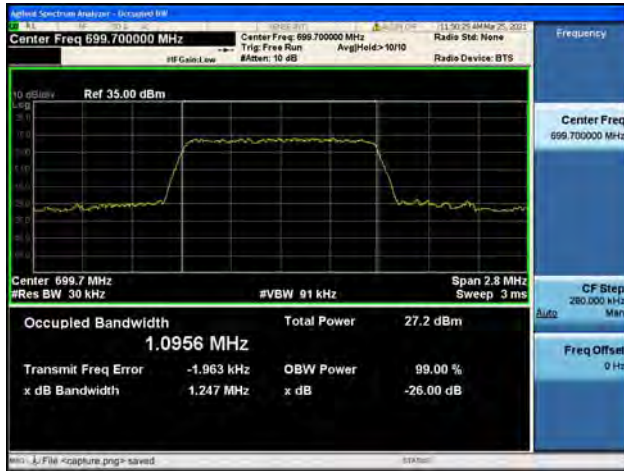


Band5 / 10MHz / High CH / 16QAM





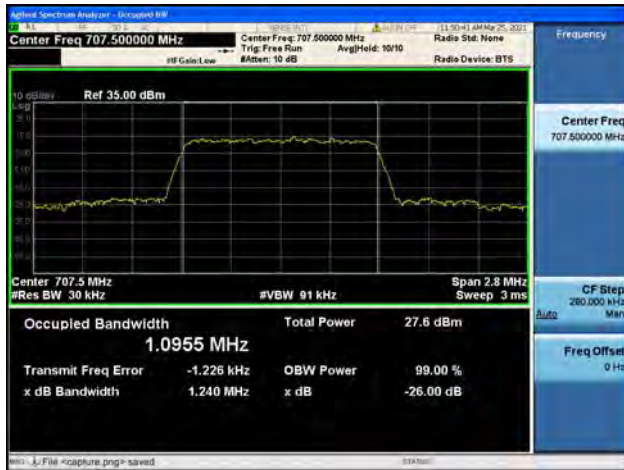
Band12 / 1.4MHz / Low CH / QPSK



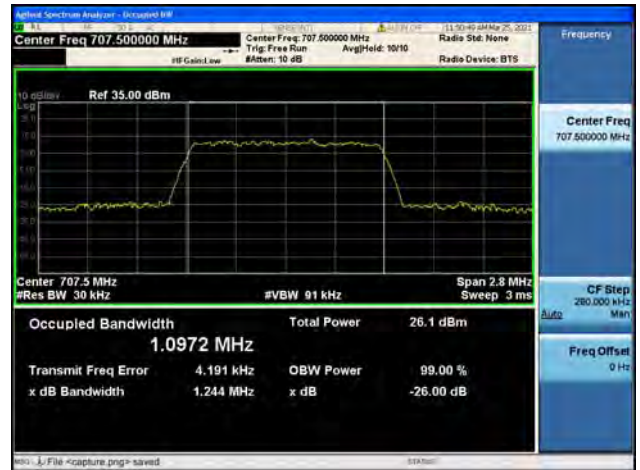
Band12 / 1.4MHz / Low CH / 16QAM



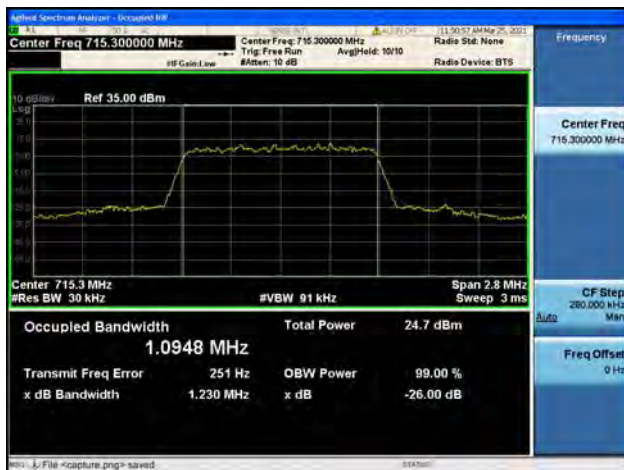
Band12 / 1.4MHz / Mid CH / QPSK



Band12 / 1.4MHz / Mid CH / 16QAM



Band12 / 1.4MHz / High CH / QPSK

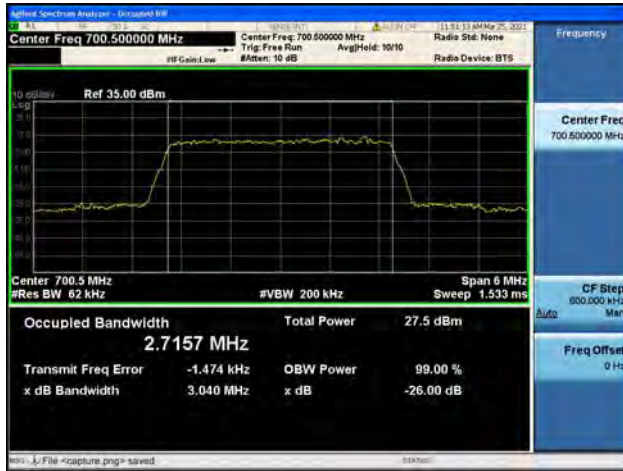


Band12 / 1.4MHz / High CH / 16QAM





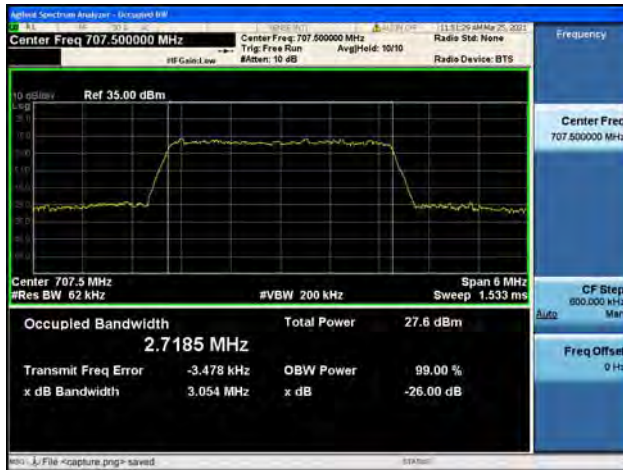
Band12 / 3MHz / Low CH / QPSK



Band12 / 3MHz / Low CH / 16QAM



Band12 / 3MHz / Mid CH / QPSK



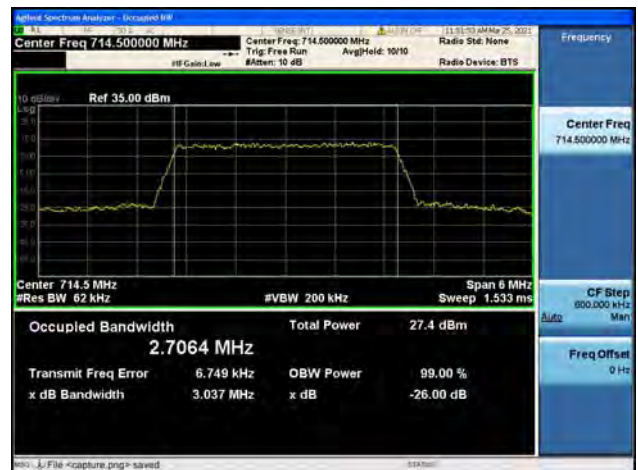
Band12 / 3MHz / Mid CH / 16QAM



Band12 / 3MHz / High CH / QPSK

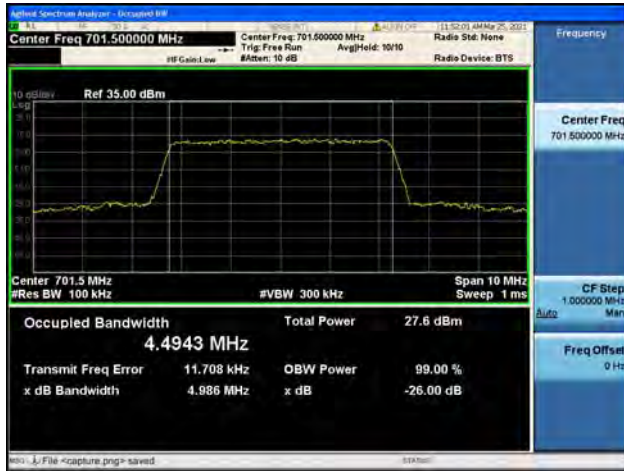


Band12 / 3MHz / High CH / 16QAM

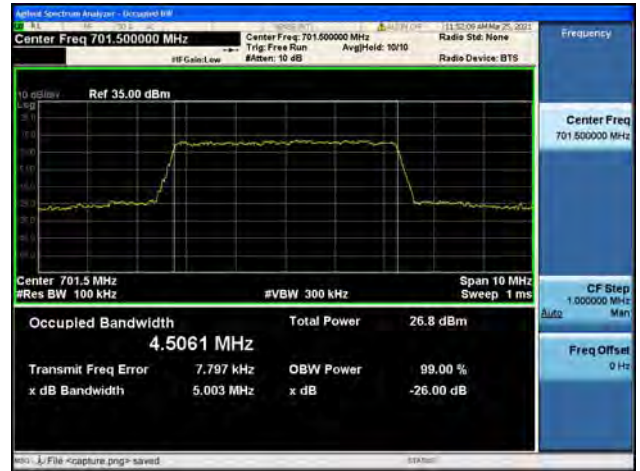




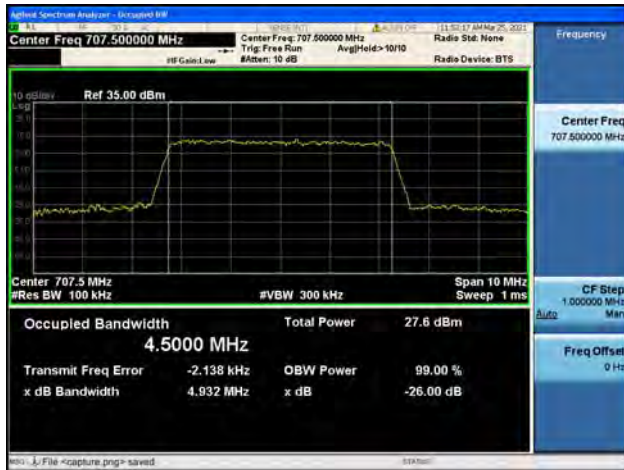
Band12 / 5MHz / Low CH / QPSK



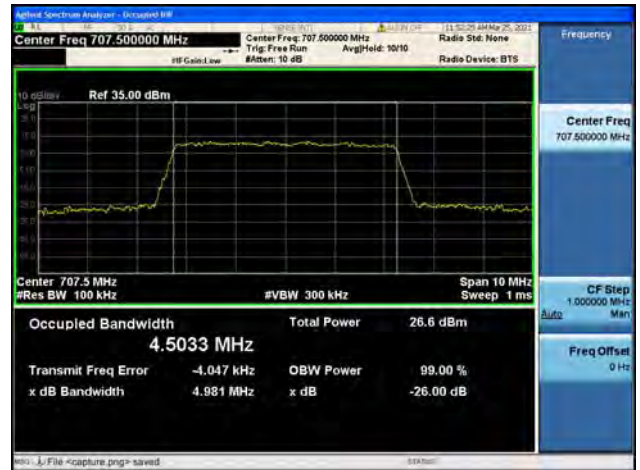
Band12 / 5MHz / Low CH / 16QAM



Band12 / 5MHz / Mid CH / QPSK



Band12 / 5MHz / Mid CH / 16QAM



Band12 / 5MHz / High CH / QPSK

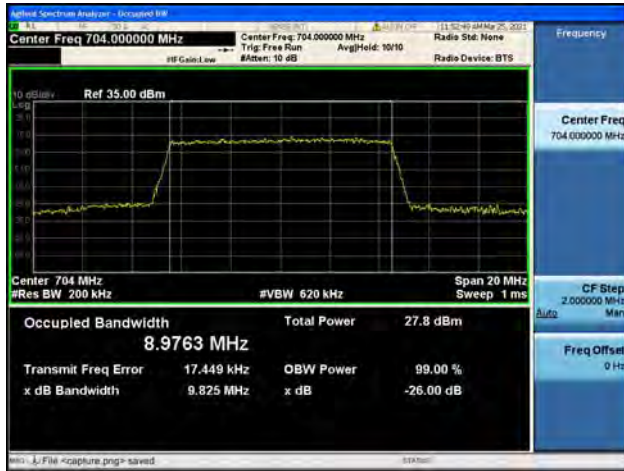


Band12 / 5MHz / High CH / 16QAM

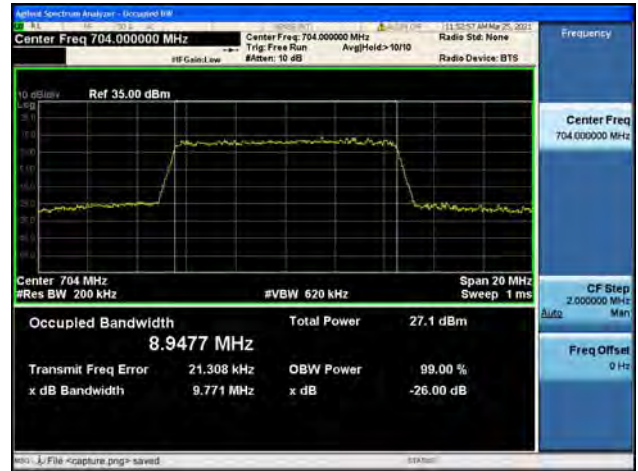




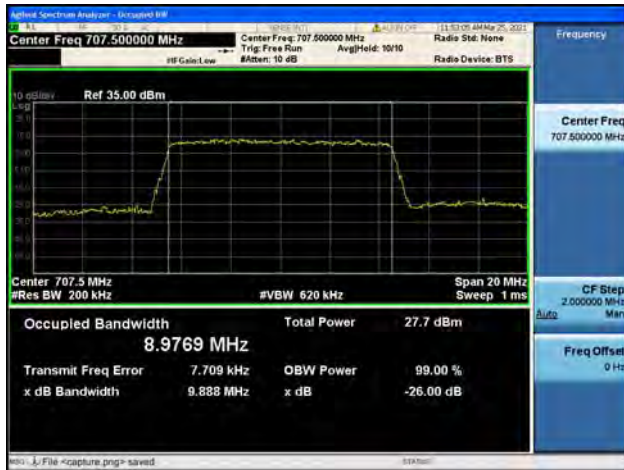
Band12 / 10MHz / Low CH / QPSK



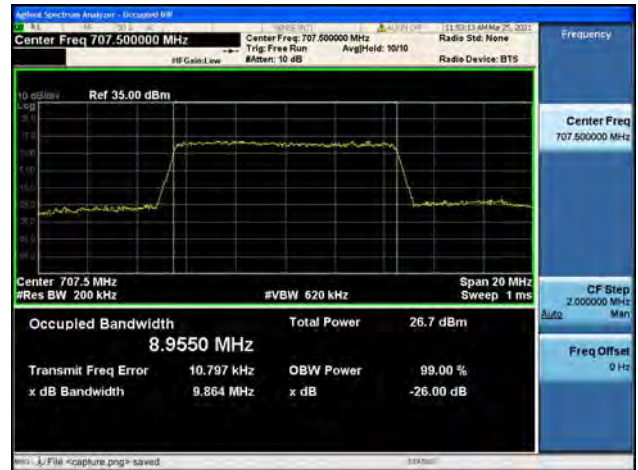
Band12 / 10MHz / Low CH / 16QAM



Band12 / 10MHz / Mid CH / QPSK



Band12 / 10MHz / Mid CH / 16QAM



Band12 / 10MHz / High CH / QPSK



Band12 / 10MHz / High CH / 16QAM





Band66 / 1.4MHz / Low CH / QPSK



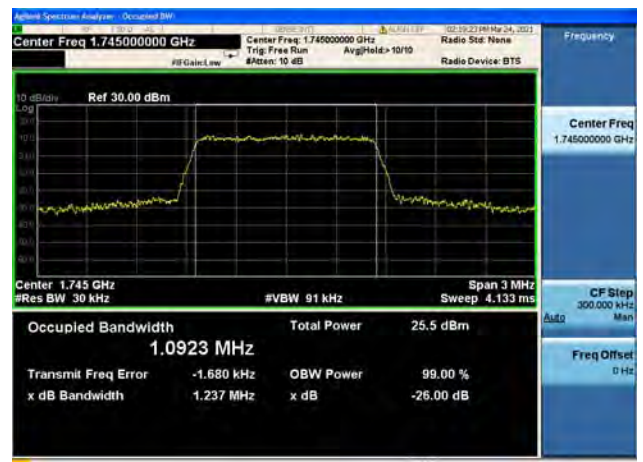
Band66 / 1.4MHz / Low CH / 16QAM



Band66 / 1.4MHz / Mid CH / QPSK



Band66 / 1.4MHz / Mid CH / 16QAM



Band66 / 1.4MHz / High CH / QPSK



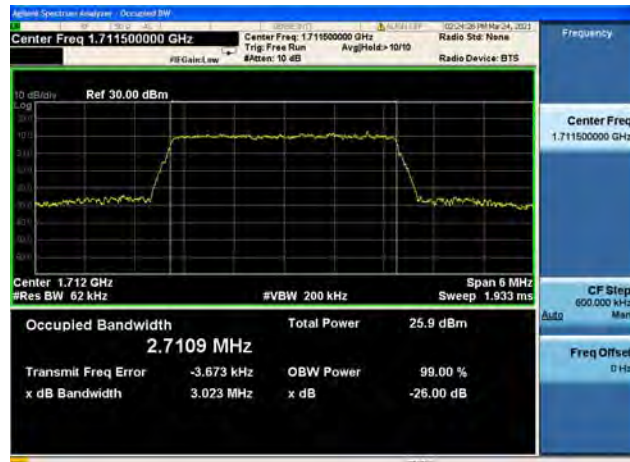
Band66 / 1.4MHz / High CH / 16QAM



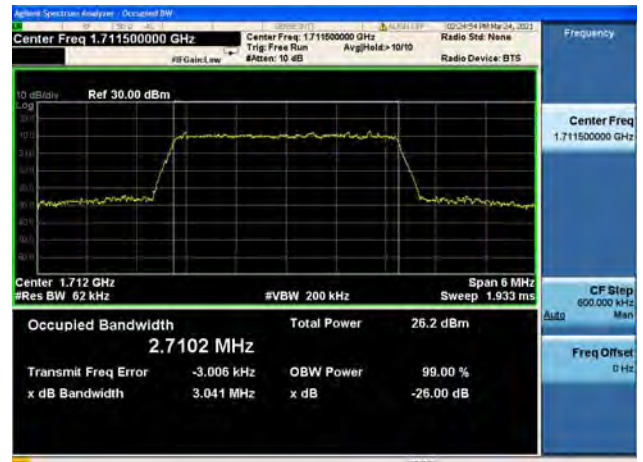




Band66 / 3MHz / Low CH / QPSK



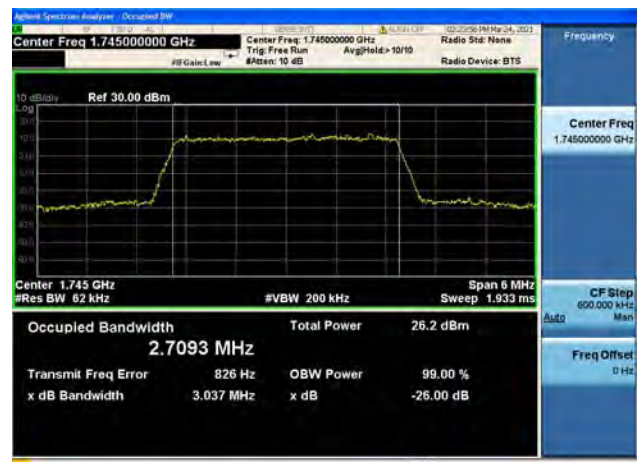
Band66 / 3MHz / Low CH / 16QAM



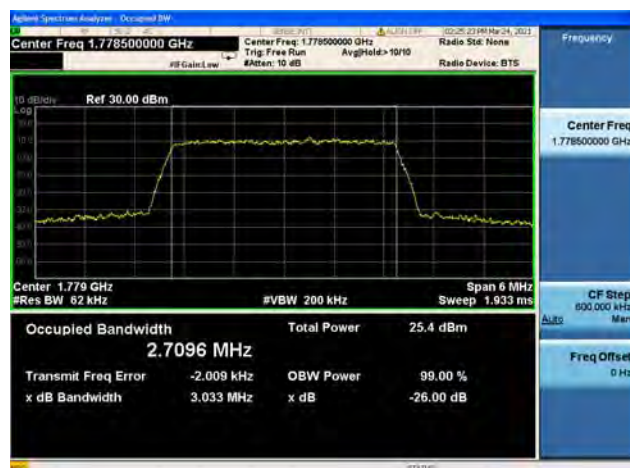
Band66 / 3MHz / Mid CH / QPSK



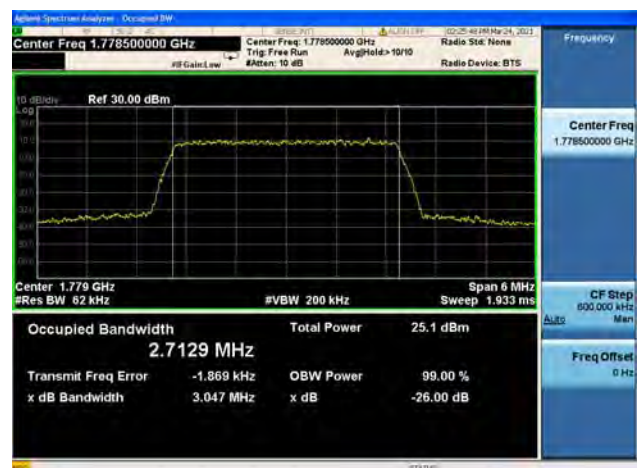
Band66 / 3MHz / Mid CH / 16QAM



Band66 / 3MHz / High CH / QPSK

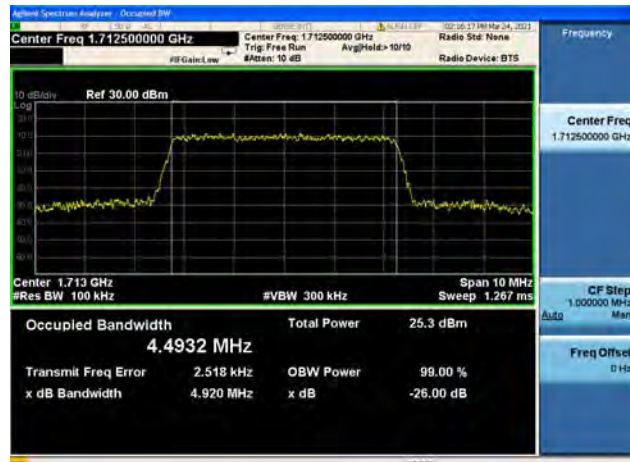


Band66 / 3MHz / High CH / 16QAM





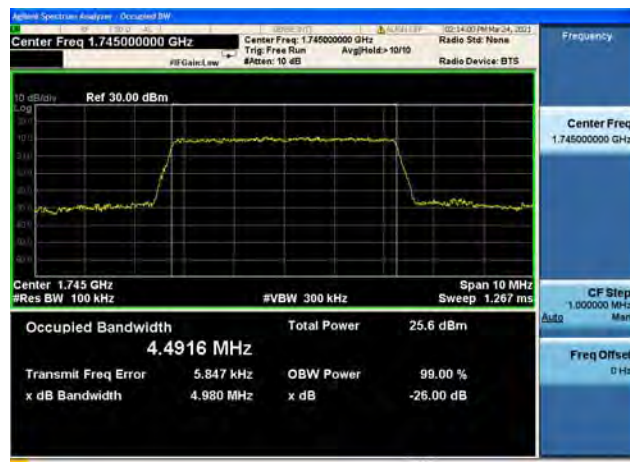
Band66 / 5MHz / Low CH / QPSK



Band66 / 5MHz / Low CH / 16QAM



Band66 / 5MHz / Mid CH / QPSK



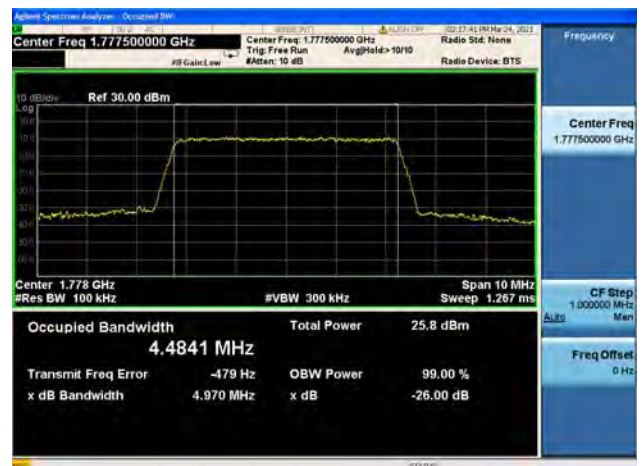
Band66 / 5MHz / Mid CH / 16QAM



Band66 / 5MHz / High CH / QPSK

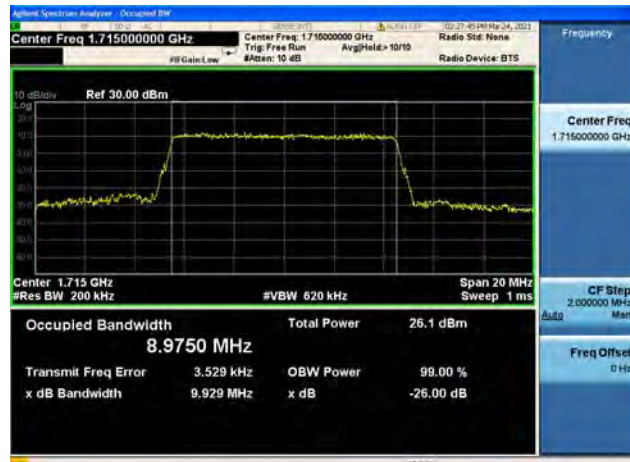


Band66 / 5MHz / High CH / 16QAM





Band66 / 10MHz / Low CH / QPSK



Band66 / 10MHz / Low CH / 16QAM



Band66 / 10MHz / Mid CH / QPSK



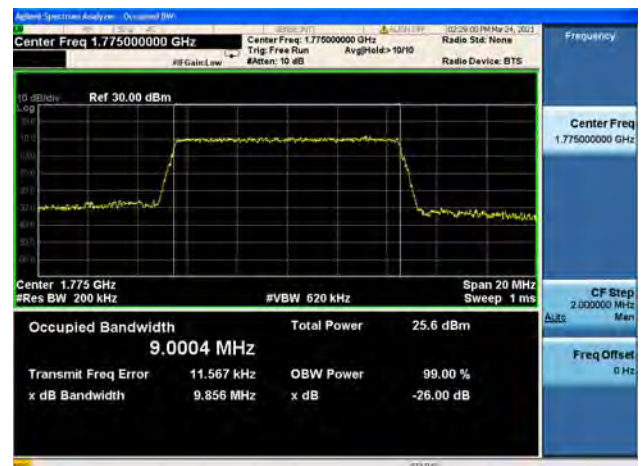
Band66 / 10MHz / Mid CH / 16QAM



Band66 / 10MHz / High CH / QPSK

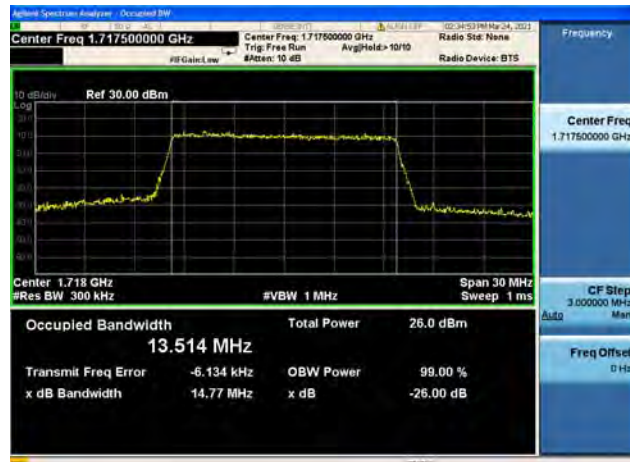


Band66 / 10MHz / High CH / 16QAM





Band66 / 15MHz / Low CH / QPSK



Band66 / 15MHz / Low CH / 16QAM



Band66 / 15MHz / Mid CH / QPSK



Band66 / 15MHz / Mid CH / 16QAM



Band66 / 15MHz / High CH / QPSK



Band66 / 15MHz / High CH / 16QAM





Band66 / 20MHz / Low CH / QPSK



Band66 / 20MHz / Low CH / 16QAM



Band66 / 20MHz / Mid CH / QPSK



Band66 / 20MHz / Mid CH / 16QAM



Band66 / 20MHz / High CH / QPSK



Band66 / 20MHz / High CH / 16QAM



## 2.3. Frequency Stability

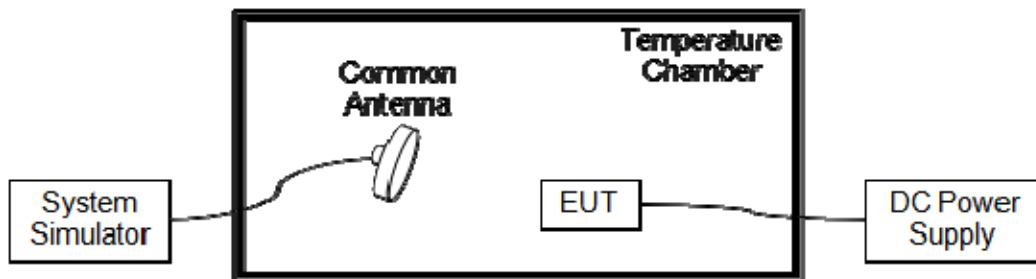
### 2.3.1. Requirement

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

- (a) The temperature is varied from  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  at intervals of not more than  $10^{\circ}\text{C}$ .
- (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  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ , 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 3.80V, 4.20V and 3.50V, which are specified by the applicant; the normal temperature here used is 20°C.

<b>LTE Band 2, QPSK, Channel 18900, Frequency 1880.0MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage(%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
100	3.80	+20(Ref)	35	0.019	PASS
100		-20	-31	-0.016	
100		-10	23	0.012	
100		0	-33	-0.018	
100		+10	-54	-0.029	
100		+20	-61	-0.032	
100		+30	37	0.020	
100		+40	50	0.027	
100		+50	-53	-0.028	
100		+60	40	0.021	
115	4.20	+20	23	0.012	
85	3.50	+20	34	0.018	

<b>LTE Band 4, QPSK, Channel 20175, Frequency 1732.5MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage(%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
100	3.80	+20(Ref)	-35	-0.020	PASS
100		-20	35	0.020	
100		-10	-80	-0.046	
100		0	37	0.021	
100		+10	-44	-0.025	
100		+20	-37	-0.021	
100		+30	48	0.028	
100		+40	42	0.024	
100		+50	38	0.022	
100		+60	31	0.018	
115	4.20	+20	45	0.026	
85	3.50	+20	24	0.014	



LTE Band 5, QPSK, Channel 20525, Frequency 836.5MHz					
Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.80	+20(Ref)	27	0.032	PASS
100		-20	30	0.036	
100		-10	56	0.067	
100		0	-62	-0.074	
100		+10	39	0.047	
100		+20	44	0.053	
100		+30	21	0.025	
100		+40	37	0.044	
100		+50	-40	-0.048	
100		+60	-57	-0.068	
115	4.20	+20	44	0.053	
85	3.50	+20	34	0.041	

LTE Band 12, QPSK, Channel 23095, Frequency 707.5MHz					
Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.80	+20(Ref)	7	0.010	PASS
100		-20	29	0.041	
100		-10	-8	-0.011	
100		0	-10	-0.014	
100		+10	7	0.010	
100		+20	31	0.044	
100		+30	-8	-0.011	
100		+40	64	0.090	
100		+50	8	0.011	
100		+60	77	0.109	
115	4.20	+20	68	0.096	
85	3.50	+20	-55	-0.078	





LTE Band 66, QPSK, Channel 132322, Frequency 1745.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	3.80	+20(Ref)	21	0.012	PASS
100		-20	43	0.025	
100		-10	25	0.014	
100		0	-36	-0.021	
100		+10	42	0.024	
100		+20	-63	-0.036	
100		+30	23	0.013	
100		+40	81	0.046	
100		+50	-48	-0.028	
100		+60	38	0.022	
115		4.20	+20	-53	
85	3.50	+20	-38	-0.022	

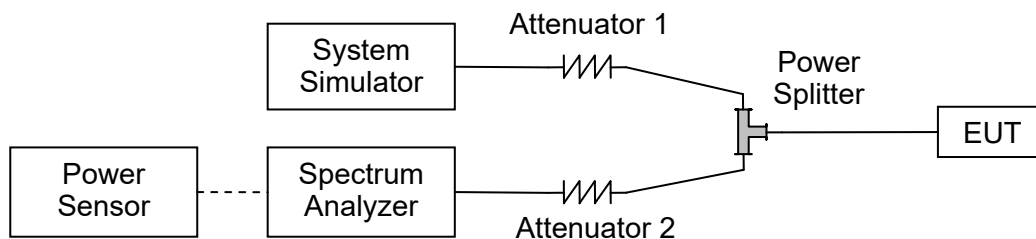
## 2.4. Peak to Average Ratio

### 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

#### Test Set:



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%.



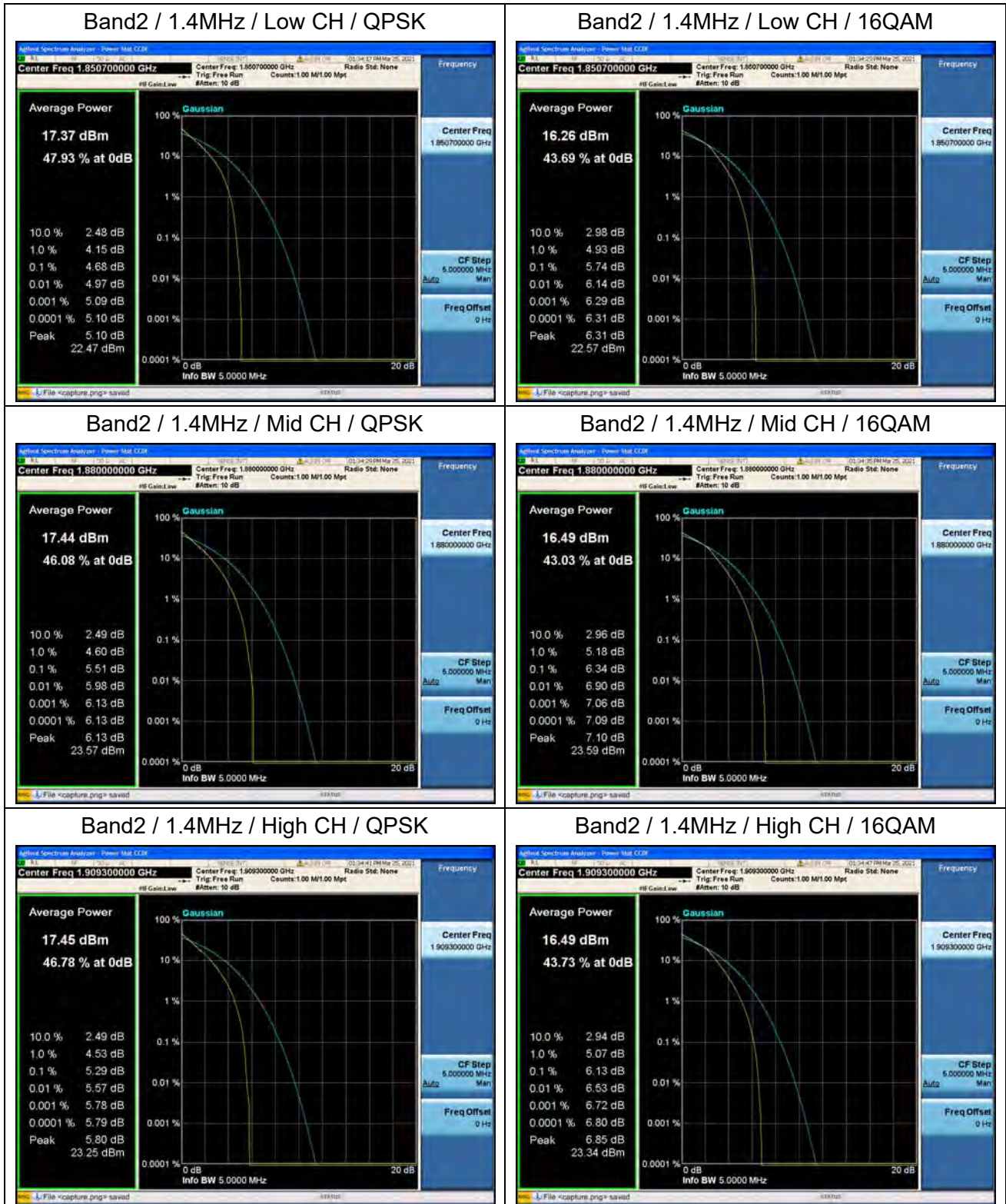
LTE Band 2					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.68	<=13	PASS
	Low	16QAM	5.74	<=13	PASS
	Mid	QPSK	5.51	<=13	PASS
	Mid	16QAM	6.34	<=13	PASS
	High	QPSK	5.29	<=13	PASS
	High	16QAM	6.13	<=13	PASS
3	Low	QPSK	4.87	<=13	PASS
	Low	16QAM	5.66	<=13	PASS
	Mid	QPSK	5.57	<=13	PASS
	Mid	16QAM	6.28	<=13	PASS
	High	QPSK	5.31	<=13	PASS
	High	16QAM	6.02	<=13	PASS
5	Low	QPSK	5.09	<=13	PASS
	Low	16QAM	5.69	<=13	PASS
	Mid	QPSK	5.61	<=13	PASS
	Mid	16QAM	6.17	<=13	PASS
	High	QPSK	5.25	<=13	PASS
	High	16QAM	6.00	<=13	PASS
10	Low	QPSK	5.06	<=13	PASS
	Low	16QAM	5.77	<=13	PASS
	Mid	QPSK	5.69	<=13	PASS
	Mid	16QAM	6.26	<=13	PASS
	High	QPSK	5.15	<=13	PASS
	High	16QAM	5.62	<=13	PASS
15	Low	QPSK	4.67	<=13	PASS
	Low	16QAM	5.34	<=13	PASS
	Mid	QPSK	5.50	<=13	PASS
	Mid	16QAM	6.12	<=13	PASS
	High	QPSK	4.57	<=13	PASS
	High	16QAM	5.36	<=13	PASS
20	Low	QPSK	4.87	<=13	PASS
	Low	16QAM	5.58	<=13	PASS
	Mid	QPSK	5.47	<=13	PASS
	Mid	16QAM	6.20	<=13	PASS
	High	QPSK	4.91	<=13	PASS
	High	16QAM	5.50	<=13	PASS



LTE Band 4					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	5.26	<=13	PASS
	Low	16QAM	6.12	<=13	PASS
	Mid	QPSK	7.13	<=13	PASS
	Mid	16QAM	6.91	<=13	PASS
	High	QPSK	6.35	<=13	PASS
	High	16QAM	5.43	<=13	PASS
3	Low	QPSK	5.36	<=13	PASS
	Low	16QAM	6.12	<=13	PASS
	Mid	QPSK	6.08	<=13	PASS
	Mid	16QAM	6.82	<=13	PASS
	High	QPSK	4.80	<=13	PASS
	High	16QAM	5.44	<=13	PASS
5	Low	QPSK	5.49	<=13	PASS
	Low	16QAM	6.11	<=13	PASS
	Mid	QPSK	5.94	<=13	PASS
	Mid	16QAM	6.60	<=13	PASS
	High	QPSK	5.07	<=13	PASS
	High	16QAM	5.65	<=13	PASS
10	Low	QPSK	5.64	<=13	PASS
	Low	16QAM	6.26	<=13	PASS
	Mid	QPSK	5.97	<=13	PASS
	Mid	16QAM	6.58	<=13	PASS
	High	QPSK	5.23	<=13	PASS
	High	16QAM	5.95	<=13	PASS
15	Low	QPSK	5.60	<=13	PASS
	Low	16QAM	6.30	<=13	PASS
	Mid	QPSK	5.94	<=13	PASS
	Mid	16QAM	6.57	<=13	PASS
	High	QPSK	5.29	<=13	PASS
	High	16QAM	6.03	<=13	PASS
20	Low	QPSK	5.79	<=13	PASS
	Low	16QAM	6.52	<=13	PASS
	Mid	QPSK	5.83	<=13	PASS
	Mid	16QAM	6.58	<=13	PASS
	High	QPSK	5.49	<=13	PASS
	High	16QAM	6.25	<=13	PASS

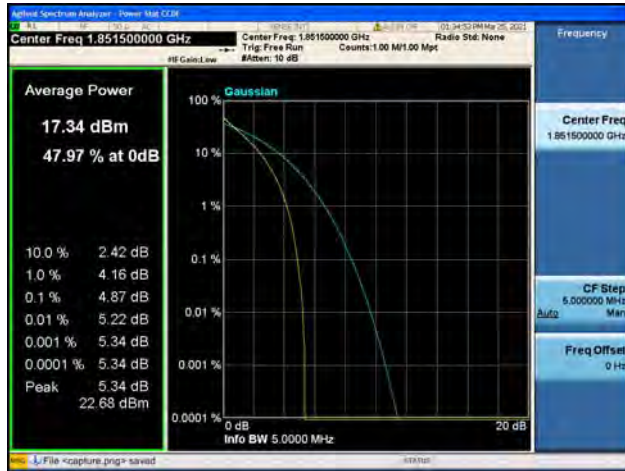


LTE Band 66					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	5.19	<=13	PASS
	Low	16QAM	5.66	<=13	PASS
	Mid	QPSK	5.41	<=13	PASS
	Mid	16QAM	6.36	<=13	PASS
	High	QPSK	6.00	<=13	PASS
	High	16QAM	6.80	<=13	PASS
3	Low	QPSK	5.34	<=13	PASS
	Low	16QAM	6.07	<=13	PASS
	Mid	QPSK	5.47	<=13	PASS
	Mid	16QAM	6.25	<=13	PASS
	High	QPSK	5.91	<=13	PASS
	High	16QAM	6.70	<=13	PASS
5	Low	QPSK	5.45	<=13	PASS
	Low	16QAM	6.05	<=13	PASS
	Mid	QPSK	5.53	<=13	PASS
	Mid	16QAM	6.21	<=13	PASS
	High	QPSK	5.82	<=13	PASS
	High	16QAM	6.47	<=13	PASS
10	Low	QPSK	5.72	<=13	PASS
	Low	16QAM	6.36	<=13	PASS
	Mid	QPSK	5.53	<=13	PASS
	Mid	16QAM	5.79	<=13	PASS
	High	QPSK	5.84	<=13	PASS
	High	16QAM	6.43	<=13	PASS
15	Low	QPSK	5.64	<=13	PASS
	Low	16QAM	6.30	<=13	PASS
	Mid	QPSK	5.60	<=13	PASS
	Mid	16QAM	6.07	<=13	PASS
	High	QPSK	5.55	<=13	PASS
	High	16QAM	6.21	<=13	PASS
20	Low	QPSK	5.79	<=13	PASS
	Low	16QAM	6.47	<=13	PASS
	Mid	QPSK	5.36	<=13	PASS
	Mid	16QAM	5.87	<=13	PASS
	High	QPSK	5.45	<=13	PASS
	High	16QAM	6.13	<=13	PASS





Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK



Band2 / 3MHz / High CH / 16QAM

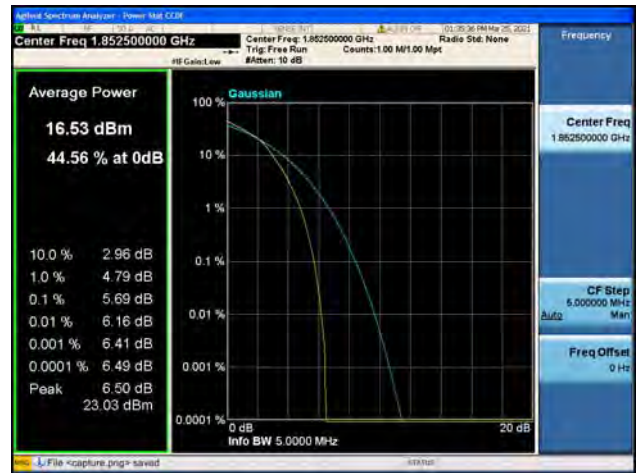




Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK



Band2 / 5MHz / High CH / 16QAM







Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK

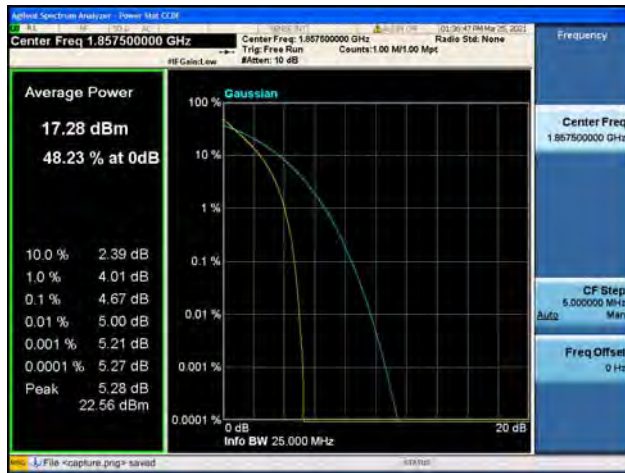


Band2 / 10MHz / High CH / 16QAM





Band2 / 15MHz / Low CH / QPSK



Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK

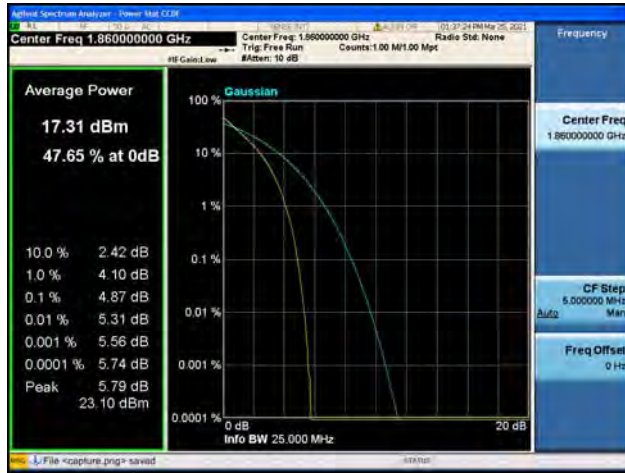


Band2 / 15MHz / High CH / 16QAM





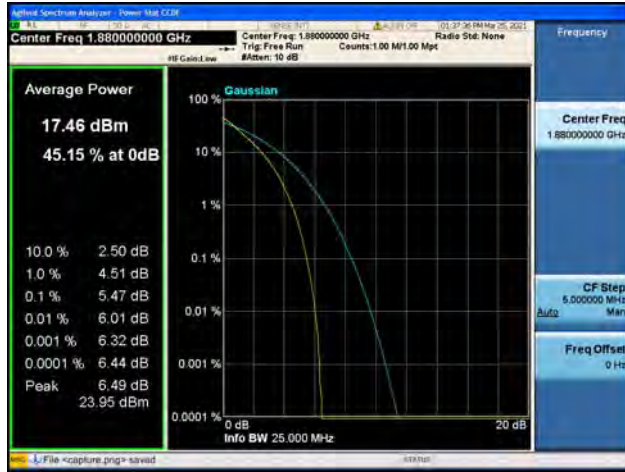
Band2 / 20MHz / Low CH / QPSK



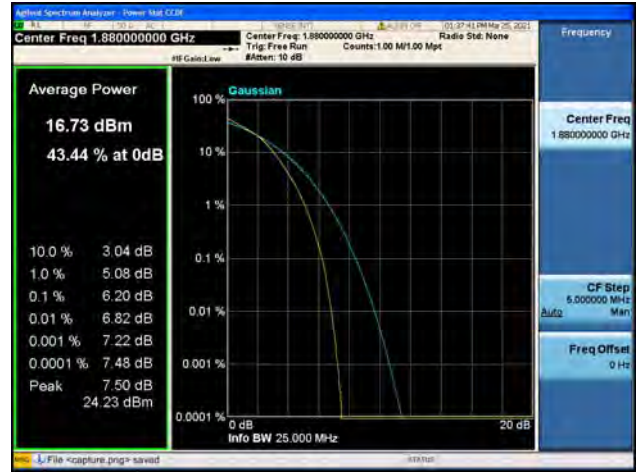
Band2 / 20MHz / Low CH / 16QAM



Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM





Band4 / 1.4MHz / Low CH / QPSK



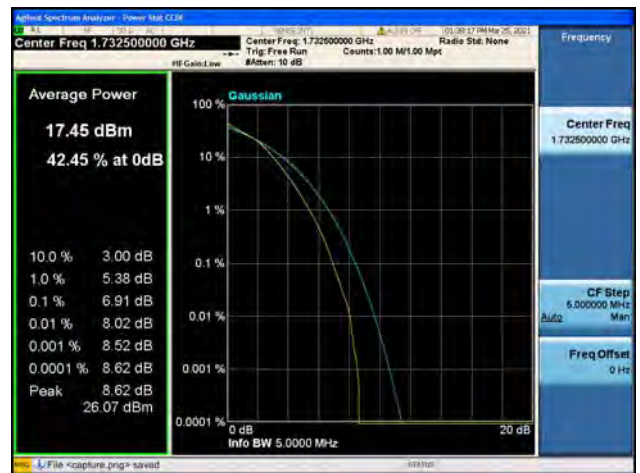
Band4 / 1.4MHz / Low CH / 16QAM



Band4 / 1.4MHz / Mid CH / QPSK



Band4 / 1.4MHz / Mid CH / 16QAM



Band4 / 1.4MHz / High CH / QPSK



Band4 / 1.4MHz / High CH / 16QAM





Band4 / 3MHz / Low CH / QPSK



Band4 / 3MHz / Low CH / 16QAM



Band4 / 3MHz / Mid CH / QPSK



Band4 / 3MHz / Mid CH / 16QAM



Band4 / 3MHz / High CH / QPSK

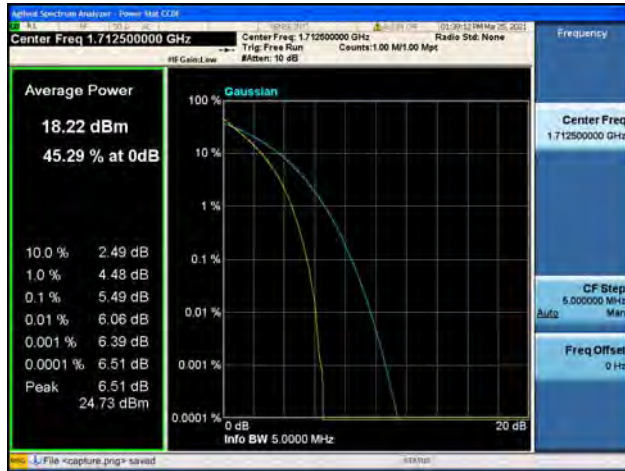


Band4 / 3MHz / High CH / 16QAM





Band4 / 5MHz / Low CH / QPSK



Band4 / 5MHz / Low CH / 16QAM



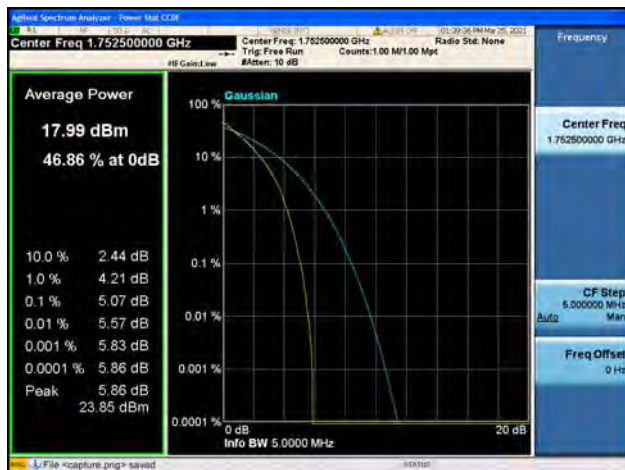
Band4 / 5MHz / Mid CH / QPSK



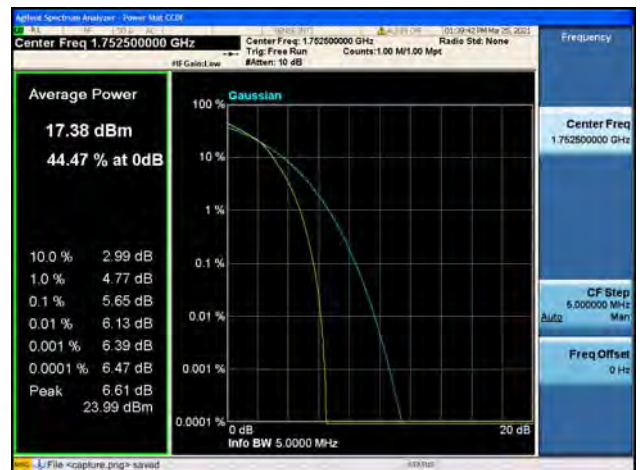
Band4 / 5MHz / Mid CH / 16QAM



Band4 / 5MHz / High CH / QPSK

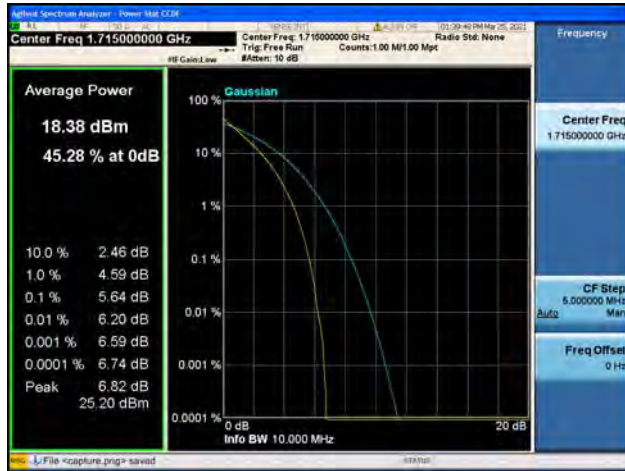


Band4 / 5MHz / High CH / 16QAM





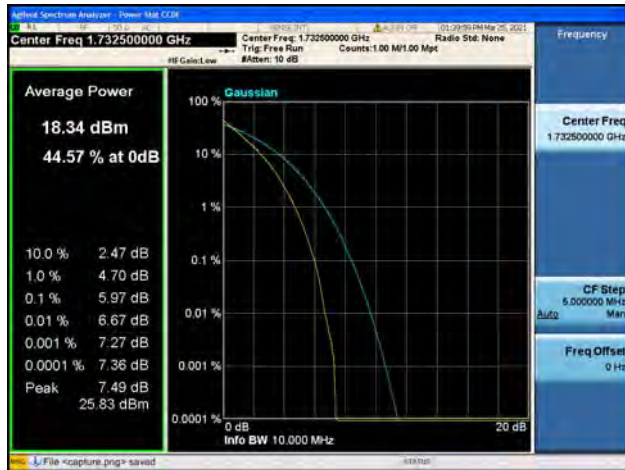
Band4 / 10MHz / Low CH / QPSK



Band4 / 10MHz / Low CH / 16QAM



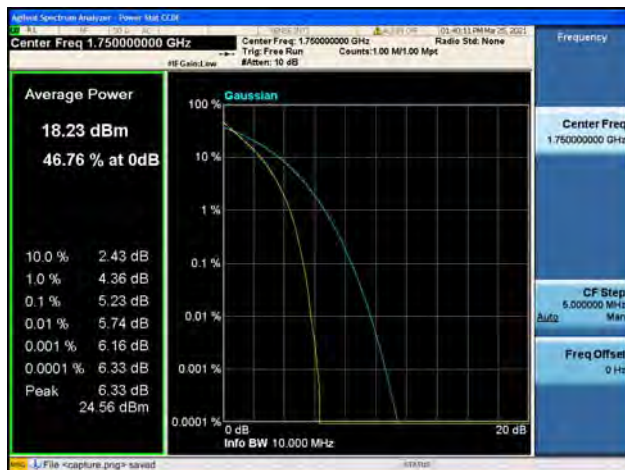
Band4 / 10MHz / Mid CH / QPSK



Band4 / 10MHz / Mid CH / 16QAM



Band4 / 10MHz / High CH / QPSK

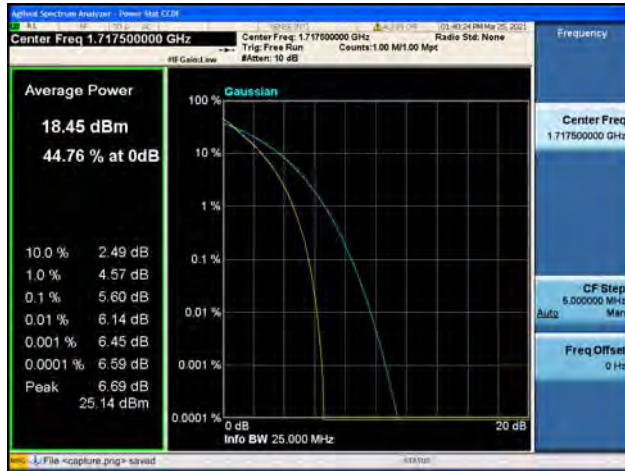


Band4 / 10MHz / High CH / 16QAM





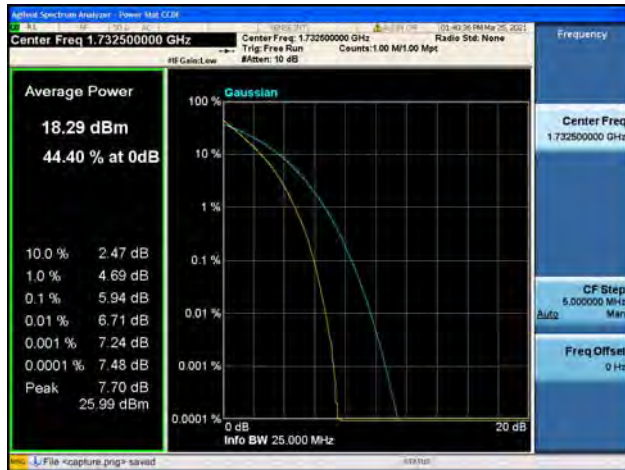
Band4 / 15MHz / Low CH / QPSK



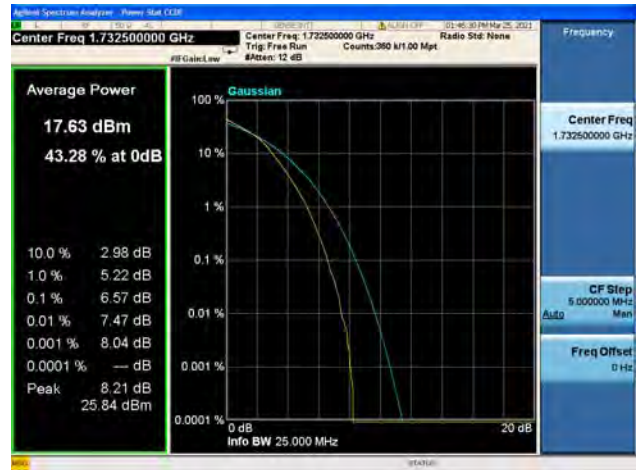
Band4 / 15MHz / Low CH / 16QAM



Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM



Band4 / 15MHz / High CH / QPSK



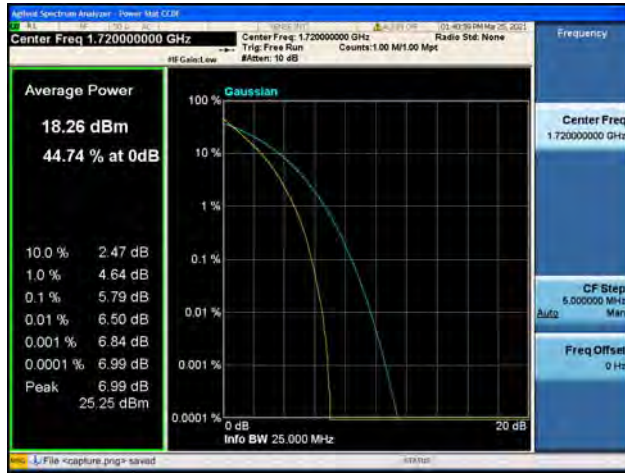
Band4 / 15MHz / High CH / 16QAM







Band4 / 20MHz / Low CH / QPSK



Band4 / 20MHz / Low CH / 16QAM



Band4 / 20MHz / Mid CH / QPSK



Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / High CH / QPSK



Band4 / 20MHz / High CH / 16QAM

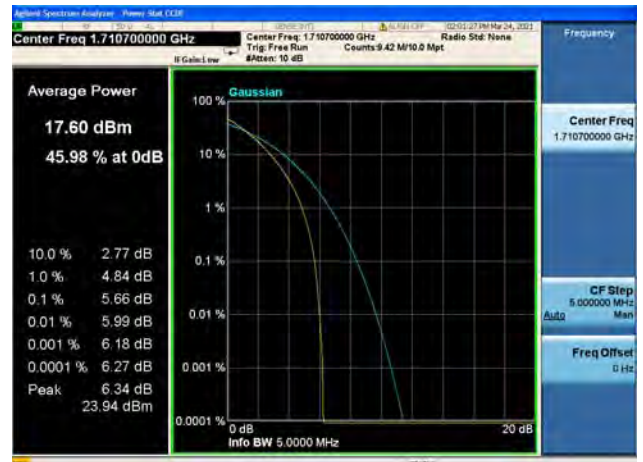




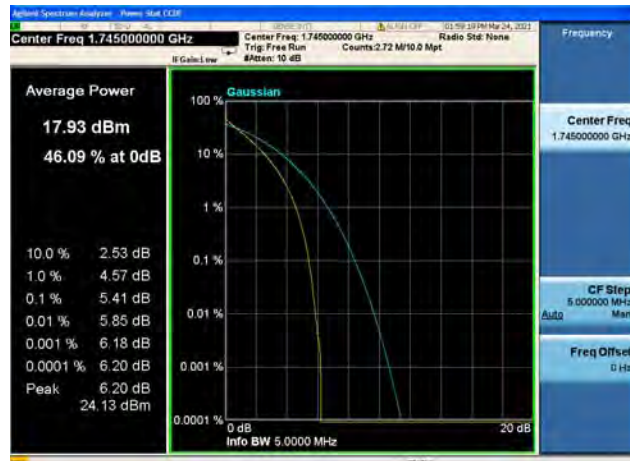
Band66 / 1.4MHz / Low CH / QPSK



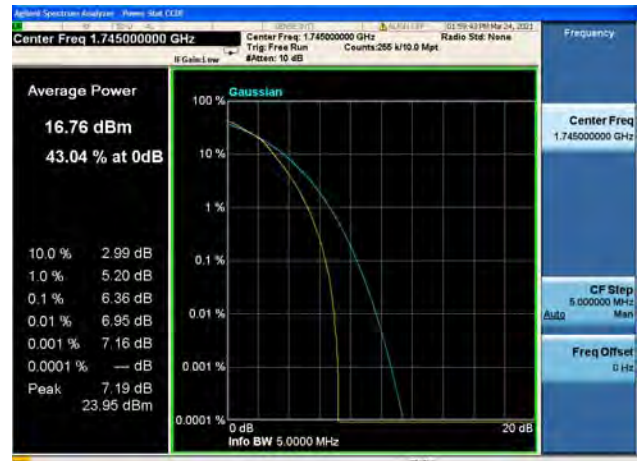
Band66 / 1.4MHz / Low CH / 16QAM



Band66 / 1.4MHz / Mid CH / QPSK



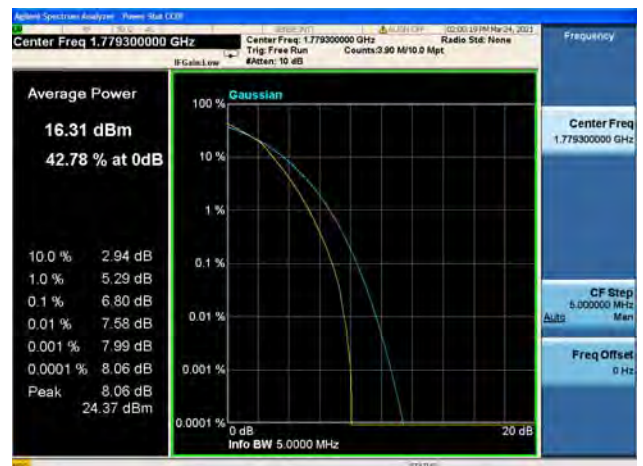
Band66 / 1.4MHz / Mid CH / 16QAM

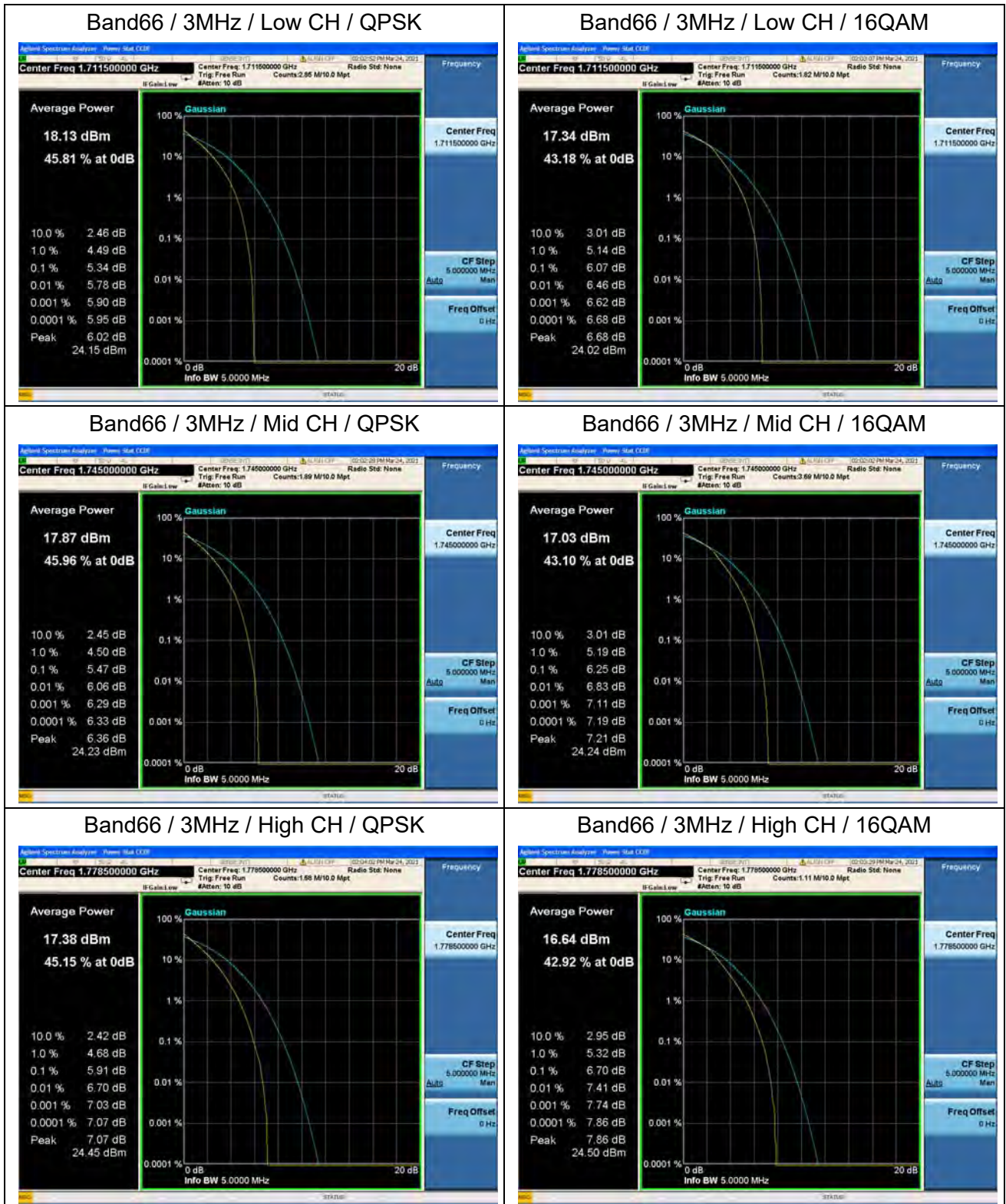


Band66 / 1.4MHz / High CH / QPSK



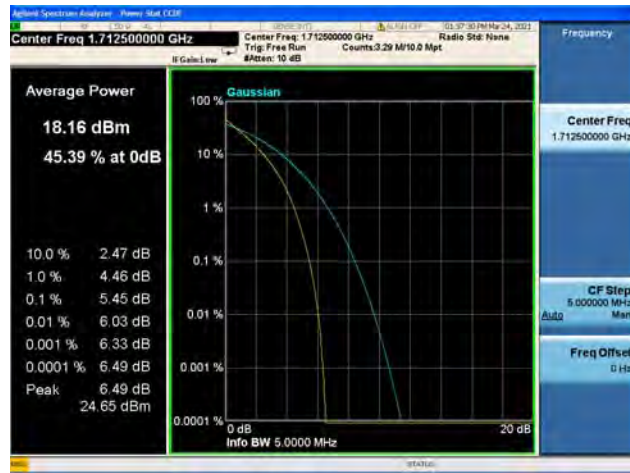
Band66 / 1.4MHz / High CH / 16QAM







Band66 / 5MHz / Low CH / QPSK



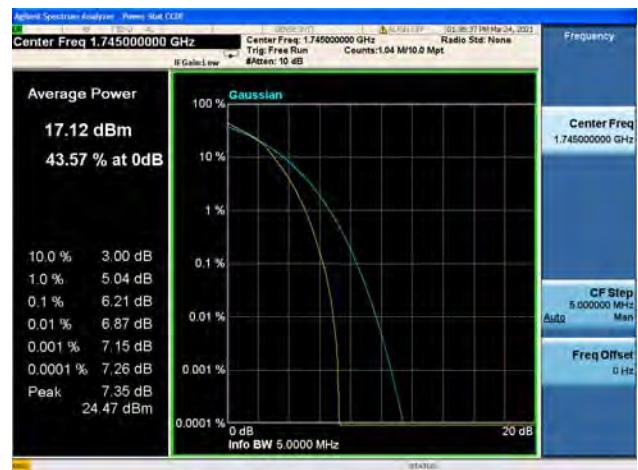
Band66 / 5MHz / Low CH / 16QAM



Band66 / 5MHz / Mid CH / QPSK



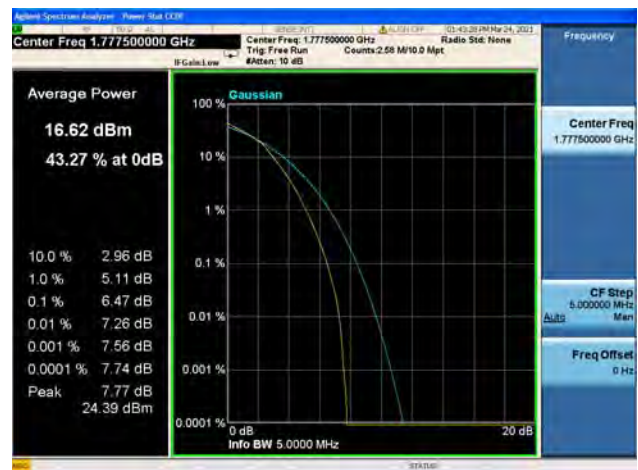
Band66 / 5MHz / Mid CH / 16QAM



Band66 / 5MHz / High CH / QPSK



Band66 / 5MHz / High CH / 16QAM

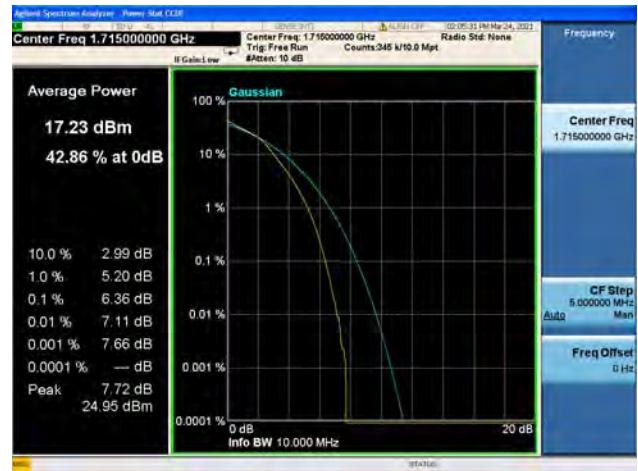




Band66 / 10MHz / Low CH / QPSK



Band66 / 10MHz / Low CH / 16QAM



Band66 / 10MHz / Mid CH / QPSK



Band66 / 10MHz / Mid CH / 16QAM



Band66 / 10MHz / High CH / QPSK



Band66 / 10MHz / High CH / 16QAM

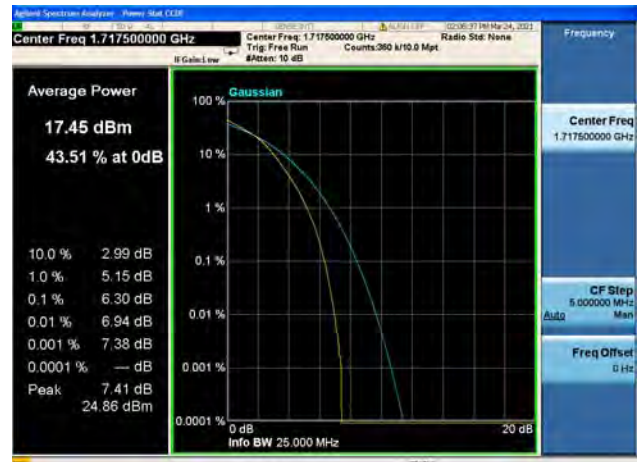




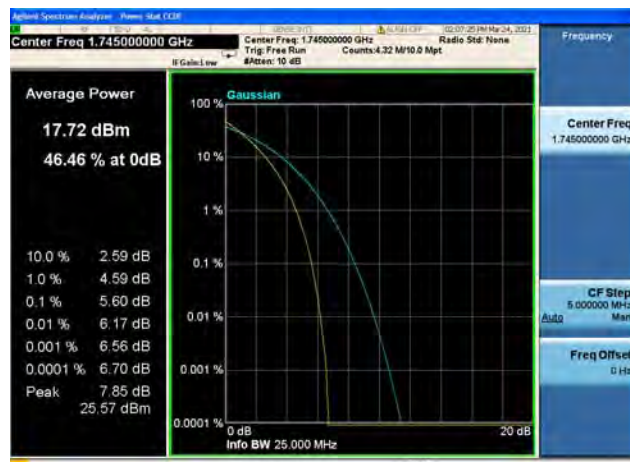
Band66 / 15MHz / Low CH / QPSK



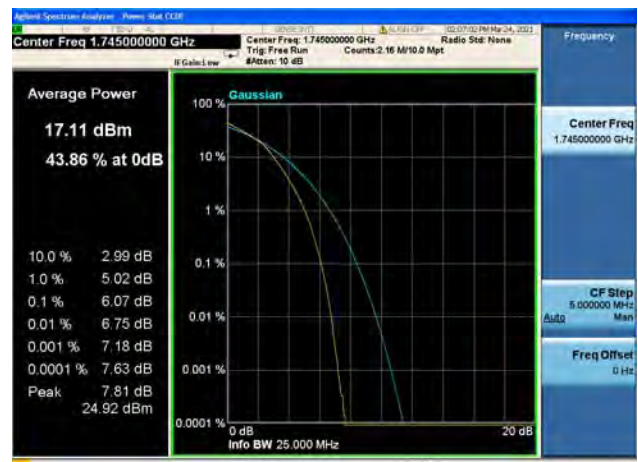
Band66 / 15MHz / Low CH / 16QAM



Band66 / 15MHz / Mid CH / QPSK



Band66 / 15MHz / Mid CH / 16QAM



Band66 / 15MHz / High CH / QPSK



Band66 / 15MHz / High CH / 16QAM





Band66 / 20MHz / Low CH / QPSK



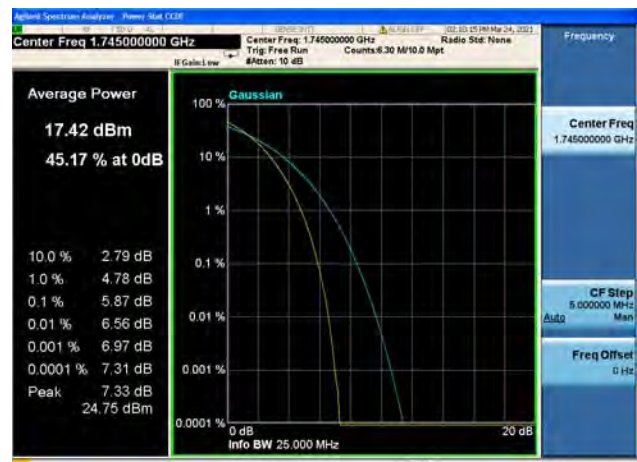
Band66 / 20MHz / Low CH / 16QAM



Band66 / 20MHz / Mid CH / QPSK



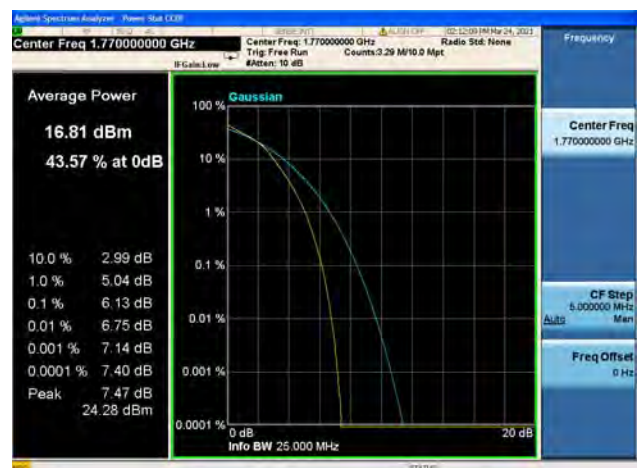
Band66 / 20MHz / Mid CH / 16QAM



Band66 / 20MHz / High CH / QPSK



Band66 / 20MHz / High CH / 16QAM

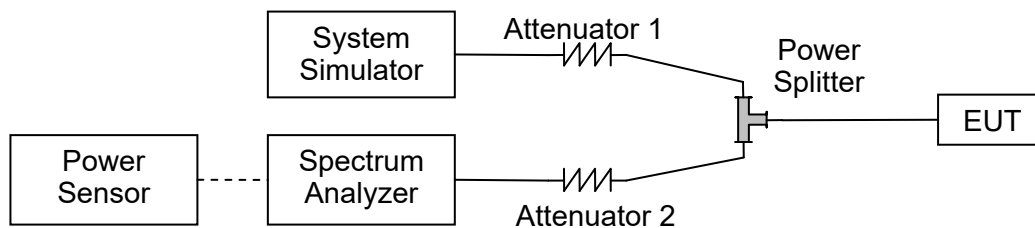


## 2.5. Conducted Spurious Emissions

### 2.5.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43+10*\log(P)$ dB. This calculated to be -13dBm.

### 2.5.2. 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.

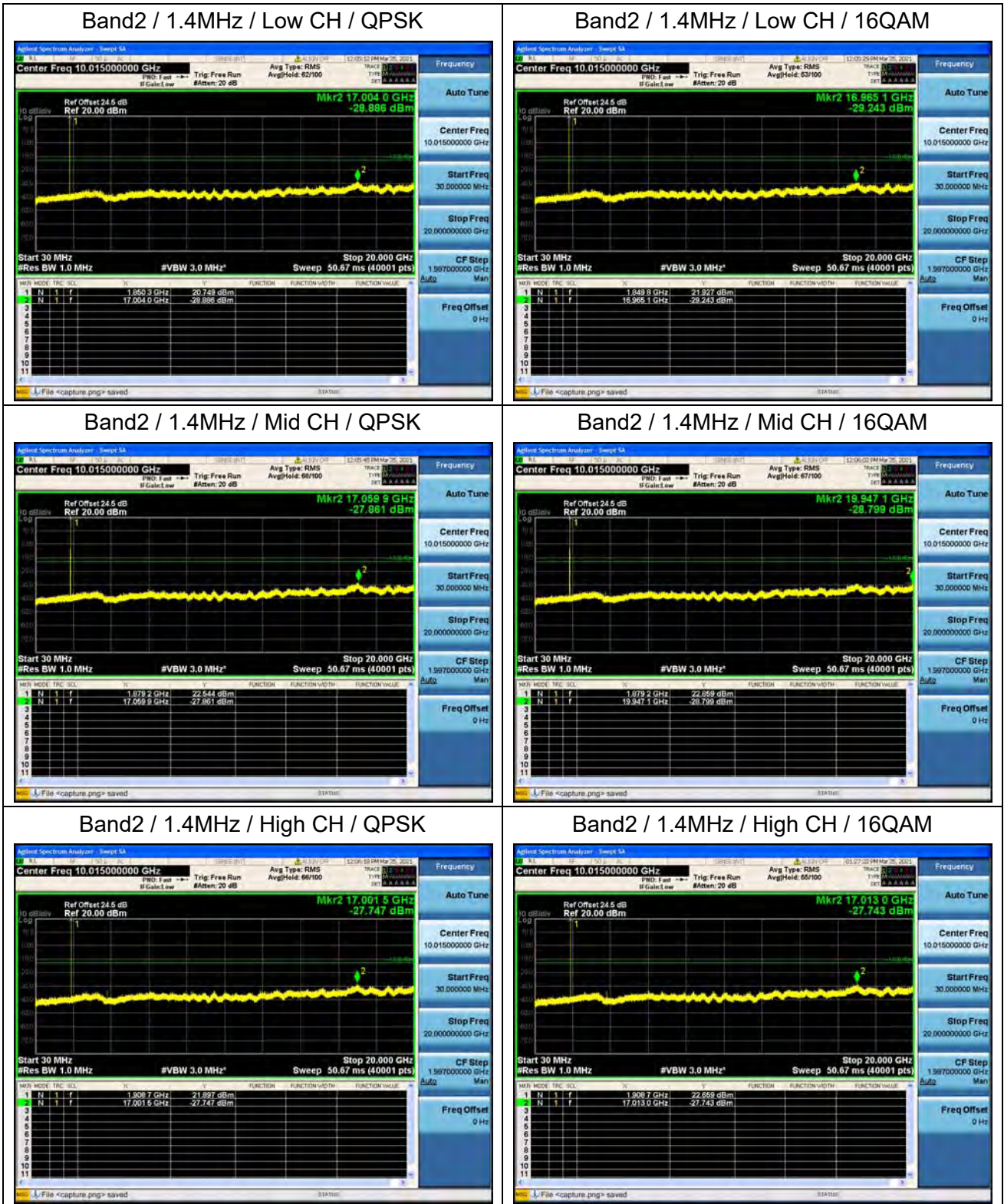
### 2.5.3. Test Procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.



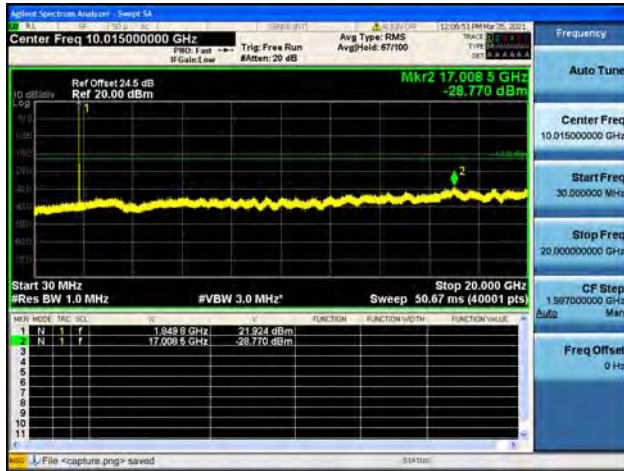


2.5.4. Test Result





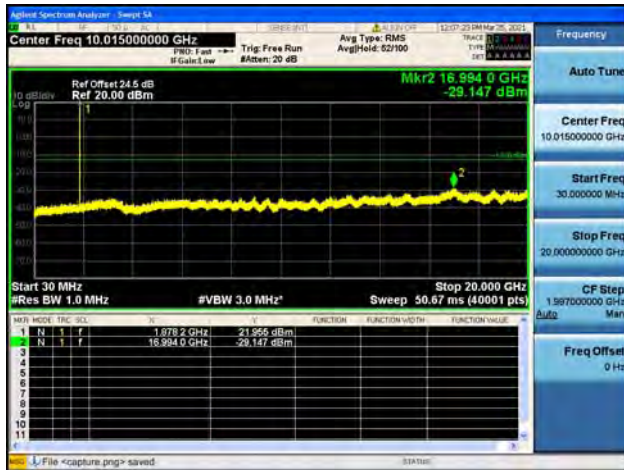
Band2 / 3MHz / Low CH / QPSK



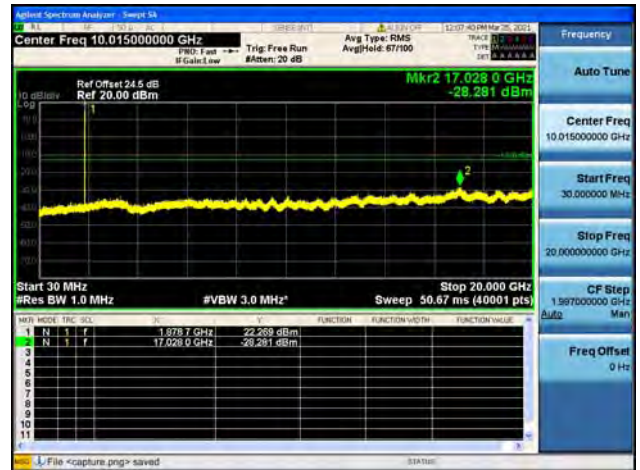
Band2 / 3MHz / Low CH / 16QAM



Band2 / 3MHz / Mid CH / QPSK



Band2 / 3MHz / Mid CH / 16QAM



Band2 / 3MHz / High CH / QPSK

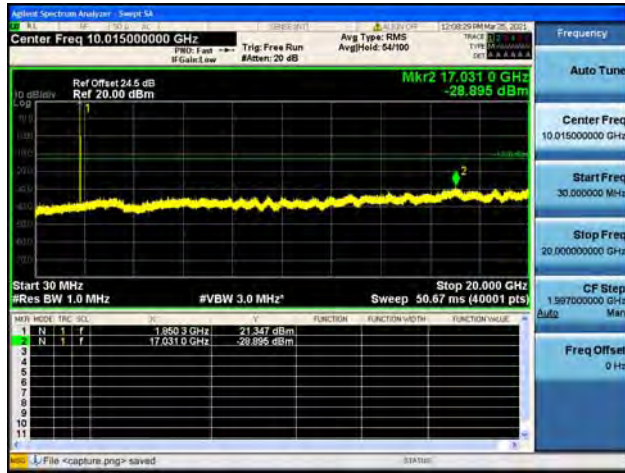


Band2 / 3MHz / High CH / 16QAM

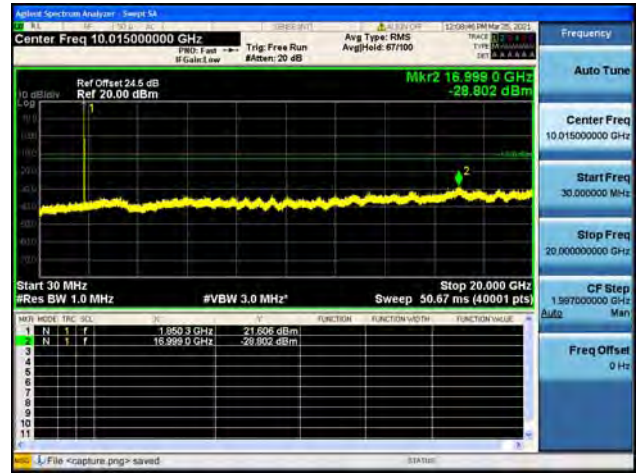




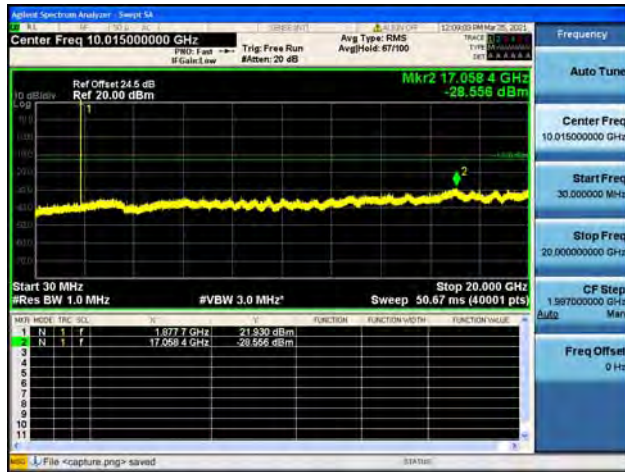
Band2 / 5MHz / Low CH / QPSK



Band2 / 5MHz / Low CH / 16QAM



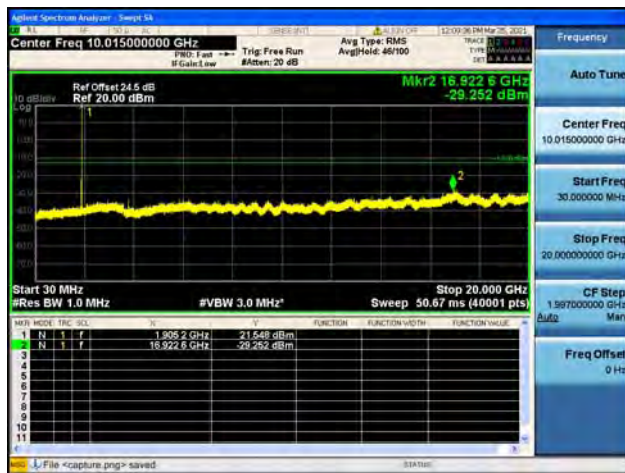
Band2 / 5MHz / Mid CH / QPSK



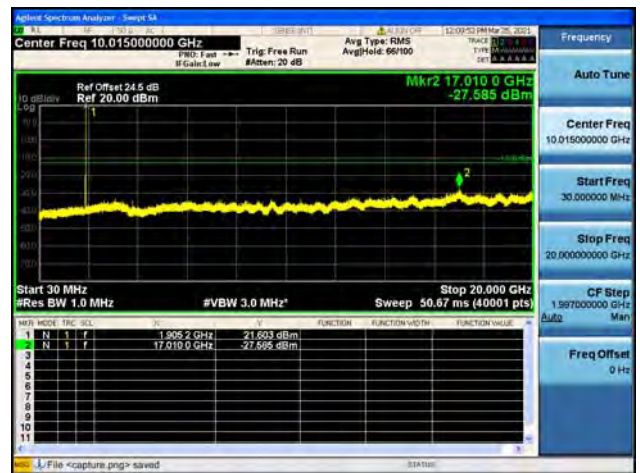
Band2 / 5MHz / Mid CH / 16QAM



Band2 / 5MHz / High CH / QPSK

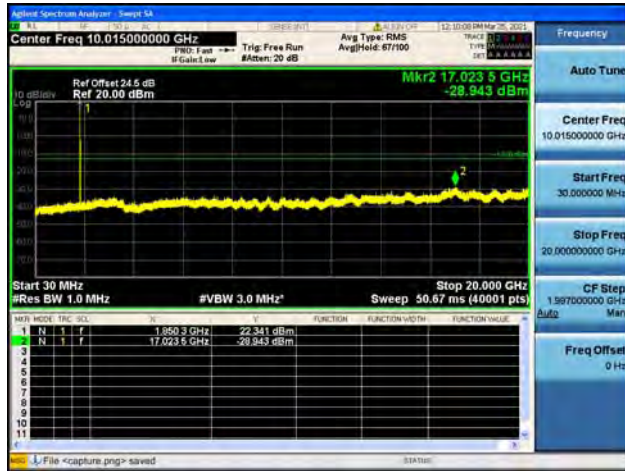


Band2 / 5MHz / High CH / 16QAM





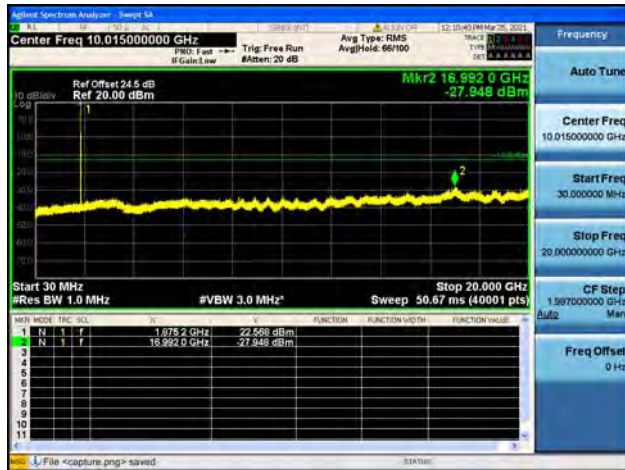
Band2 / 10MHz / Low CH / QPSK



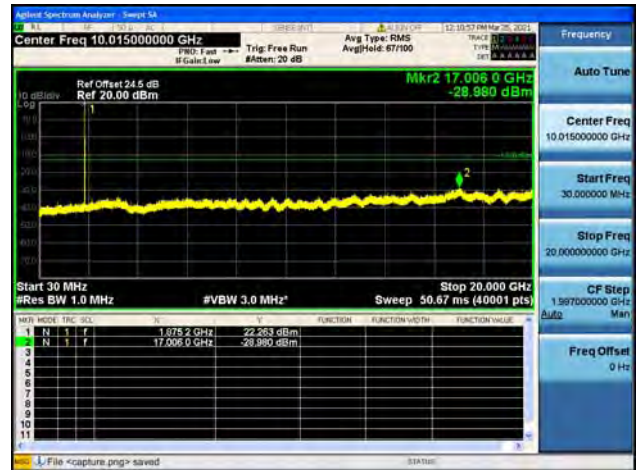
Band2 / 10MHz / Low CH / 16QAM



Band2 / 10MHz / Mid CH / QPSK



Band2 / 10MHz / Mid CH / 16QAM



Band2 / 10MHz / High CH / QPSK

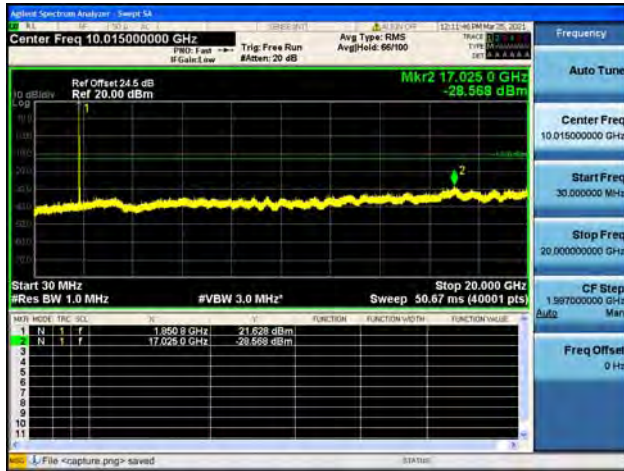


Band2 / 10MHz / High CH / 16QAM





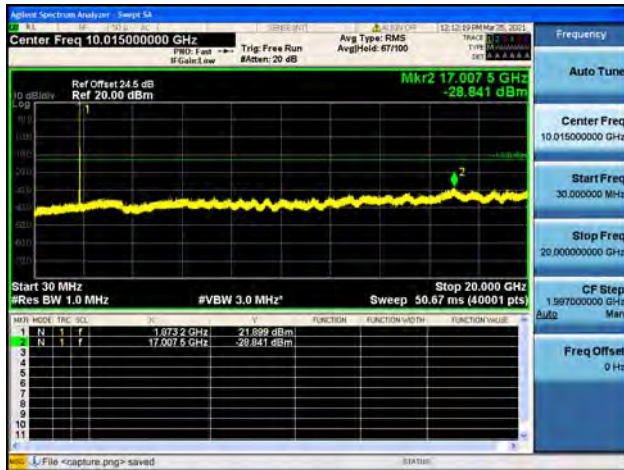
Band2 / 15MHz / Low CH / QPSK



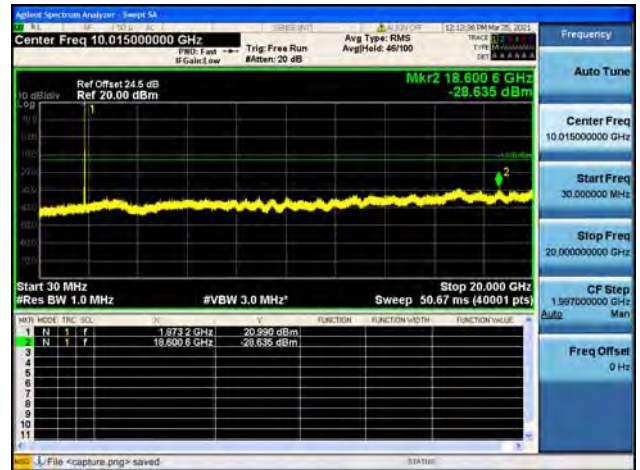
Band2 / 15MHz / Low CH / 16QAM



Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK

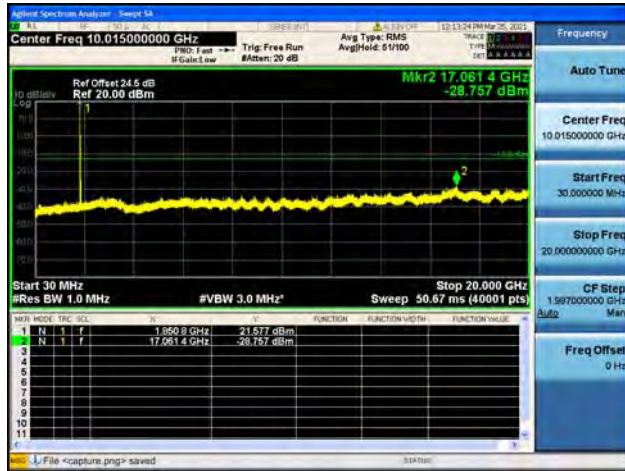


Band2 / 15MHz / High CH / 16QAM

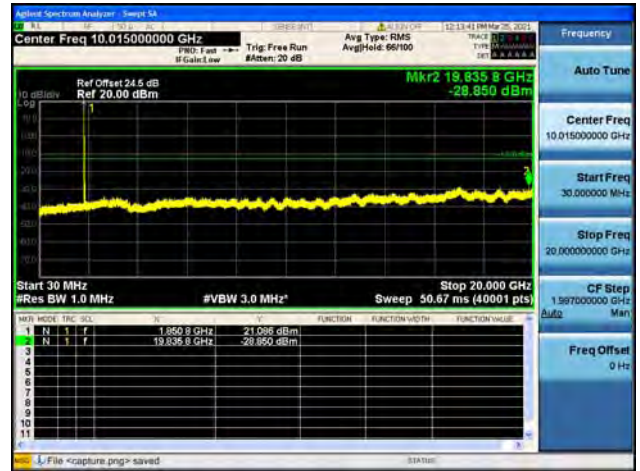




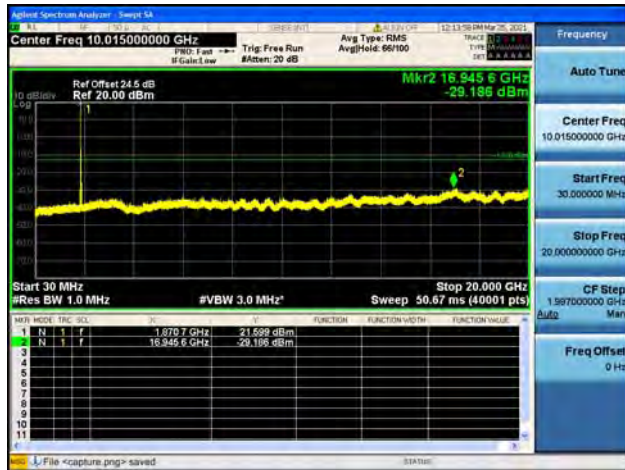
Band2 / 20MHz / Low CH / QPSK



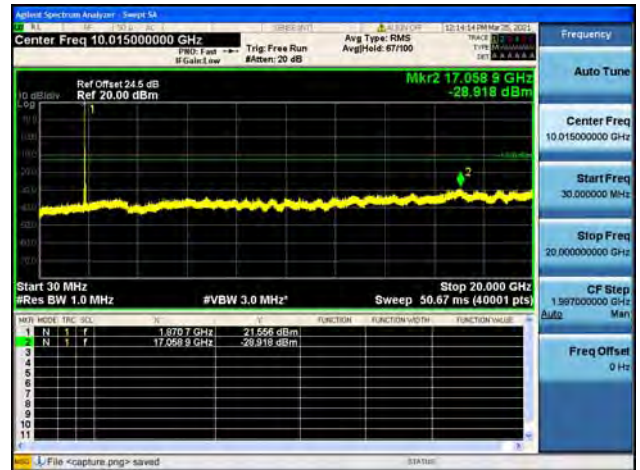
Band2 / 20MHz / Low CH / 16QAM



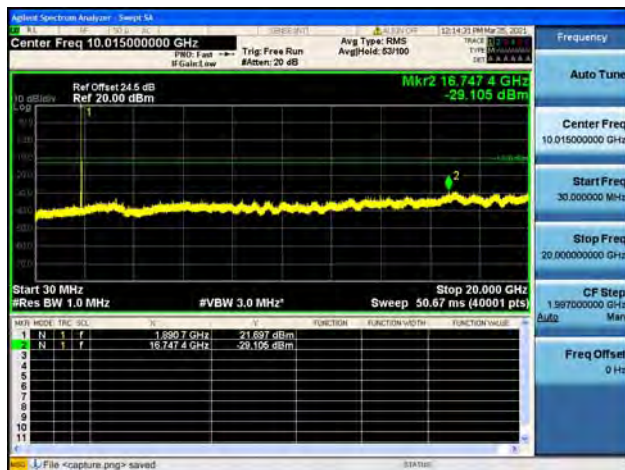
Band2 / 20MHz / Mid CH / QPSK



Band2 / 20MHz / Mid CH / 16QAM



Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM

