TEST REPORT

MANUFACTURER	:	mMax Communications, Inc.
PRODUCT NAME	:	Mobile Hotspot
MODEL NAME	:	HPP-M14
BRAND NAME	:	Hot Pepper
FCC ID	:	2AWVS-M14
STANDARD(S)	:	47 CFR Part 22, Subpart H 47 CFR Part 24, Subpart E 47 CFR Part 27, Subpart F&H&L&M 47 CFR Part 90, Subpart S
RECEIPT DATE	:	2020-07-15
TEST DATE	:	2020-07-16 to 2020-08-05
ISSUE DATE	:	2020-08-19

Edited by : Bowers Zeng

Bowers Zeng(Test engineer)

Review by: Elvis Wang

Elvis Wang(Auditor)

Approved by: Anne Liu

Anne Liu (Supervisor)

NOTE: 1.The report is invalid when there is no the approver signature and the special stamp for test report. 2.The test report shall not be reproduced except in full without prior written permission of the company. 3.The report copy is invalid when there is no the special stamp for test repor. 4.The altered report is invalid. 5.The entrust test is responsibility for the received sample only.

Kehu-Morlab Test Laboratory

XIAMEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
Unit 101, No.1732 Gangzhong Road, Xiamen Area, Pilot Free Trade Zone (Fujian) , P. R. China

Tel: +86 592 5612050
Fax: +86 592 5612095

DIRECTORY

1. Technical Information....3
1.1. Applicant and Manufacturer Information....3
1.2. Equipment Under Test (EUT) Description....3
1.3. Test Channel....5
1.4. Emission Designator....7
1.5. Test Standards and Results....9
1.6. Environmental Conditions....10
2. 47 CFR Part 2, Part 22H, Part 24E,Part 90S and 27 F&H&L&M Requirements....11
2.1. Transmitter Conducted Output Power....11
2.2. Occupied Bandwidth....42
2.3. Frequency Stability....126
2.4. Peak to Average Radio....132
2.5. Conducted Spurious Emissions....207
2.6. Band Edge....348
2.7. Transmitter Radiated Power (EIRP/ERP)....437
2.8. Radiated Spurious Emissions....471
Annex A Test Uncertainty....592
Annex B Testing Laboratory Information....593

Change History		
Version	Date	Reason for change
1.0	2020-08-19	First edition

1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	mMax Communications, Inc.
Applicant Address:	5151 California Ave., Suite 100, Irvine 92617, USA
Manufacturer:	mMax Communications, Inc.
Manufacturer Address:	5151 California Ave., Suite 100, Irvine 92617, USA

1.2. Equipment Under Test (EUT) Description

Product Name:	Mobile Hotspot	
Serial No:	(N/A, marked #1 by test site)	
Hardware Version:	SD305T_V1.0	
Software Version:	Fresno_V1.0.2_RLK	
Modulation Type:	QPSK 16QAM 64QAM	
Operation Band:	Band 2 /4 /5 /12 /13 /25 /26 /41 /66 /71	
Frequency Range:	LTE Band 2	Tx: 1850.7MHz - 1909.3MHz
		Rx: 1930.7MHz - 1989.3MHz
	LTE Band 4	Tx: 1710.7MHz - 1754.3MHz
		Rx: 2110.7MHz - 2154.3MHz
	LTE Band 5	Tx: 824.7MHz - 848.3MHz
		Rx: 869.7MHz - 893.3MHz
	LTE Band 12	Tx: 699.7MHz - 715.3MHz
		Rx: 729.7MHz - 745.3MHz
	LTE Band 13	Tx: 779.5MHz - 784.5MHz
		Rx: 748.5MHz - 753.5MHz
	LTE Band 25	Tx:1850.7MHz - 1914.3MHz
		Rx:1930.7MHz - 1994.3MHz
	LTE Band 26	Tx:814.7MHz-848.3MHz

		Rx:859.7MHz-893.3MHz
	LTE Band 41	Tx:2498.5MHz - 2687.5MHz
		Rx:2498.5MHz - 2687.5MHz
	LTE Band 66	Tx: 1710.7MHz - 1779.3MHz
		Rx: 2110.7MHz - 2199.3MHz
	LTE Band 71	Tx: 665.5MHz - 695.5MHz
		Rx: 619.5MHz - 645.5MHz
Antenna Type:	Fixed Internal	
Antenna Gain:	LTE Band2:1.2dBi; LTE Band4:1.2dBi LTE Band5:0.8dBi LTE Band12:-0.5dBi LTE Band13:-0.3dBi LTE Band25:1.2dBi LTE Band26:0.1 dBi LTE Band41:1.5dBi LTE Band66:1.2dBi LTE Band71:-0.8dBi	
Accessory Information::	Battery	
	Manufacturer:	Shenzhen Chaonengtong Technology Co.,LTD.
	Brand Name:	Hot Pepper
	Model No.:	C2020M14
	Capacity:	3000mAh
	Rated Voltage:	3.70V
	Charge Limit:	4.20V
	AC Adapter	
	Manufacturer:	Shenzhen King Fu Lin Technology Co.,Ltd
	Brand Name:	Hot Pepper
	Model No.:	KFL-C060500100
	Rated Input:	100-240V ~ 50/60Hz 0.2A
	Rated Output:	5V⎓1.0A

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

1.3. Test Channel

Band	Bandwidth (MHz)	Low Channel		Middle Channel		High Channel	
		Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
2	1.4	18607	1850.7	18900	1880	19193	1909.3
	3	18615	1851.5	18900	1880	19185	1908.5
	5	18625	1852.5	18900	1880	19175	1907.5
	10	18650	1855	18900	1880	19150	1905
	15	18675	1857.5	18900	1880	19125	1902.5
	20	18700	1860	18900	1880	19100	1900
4	1.4	19957	1710.7	20175	1732.5	20393	1754.3
	3	19965	1711.5	20175	1732.5	20385	1753.5
	5	19975	1712.5	20175	1732.5	20375	1752.5
	10	20000	1715	20175	1732.5	20350	1750
	15	20025	1717.5	20175	1732.5	20325	1747.5
	20	20050	1720	20175	1732.5	20300	1745
5	1.4	20407	824.7	20525	836.5	20643	848.3
	3	20415	825.5	20525	836.5	20635	847.5
	5	20425	826.5	20525	836.5	20625	846.5
	10	20450	829	20525	836.5	20600	844
12	1.4	23017	699.7	23095	707.5	23173	715.3
	3	23025	700.5	23095	707.5	23165	714.5
	5	23035	701.5	23095	707.5	23155	713.5
	10	23060	704	23095	707.5	23130	711
13	5	23205	779.5	23230	782	23255	784.5
	10	/	/	23230	782	/	/
25	1.4	26047	1850.7	26365	1882.5	26683	1914.3
	3	26055	1851.5	26365	1882.5	26675	1913.5
	5	26065	1852.5	26365	1882.5	26665	1912.5
	10	26090	1855	26365	1882.5	26640	1910
	15	26115	1857.5	26365	1882.5	26615	1907.5

	20	26140	1860	26365	1882.5	26590	1905
26	1.4	26697	814.7	26865	836.5	27033	848.3
	3	26705	815.5	26865	836.5	27025	847.5
	5	26715	816.5	26865	836.5	27015	846.5
	10	26740	819	26865	836.5	26990	844
	15	26765	821.5	26865	836.5	26965	841.5
41	5	39675	2498.5	40620	2593	41565	2687.5
	10	39700	2501	40620	2593	41540	2685
	15	39725	2503.5	40620	2593	41515	2682.5
	20	39750	2506	40620	2593	41490	2680
66	1.4	131979	1710.7	132322	1745	132665	1779.3
	3	131987	1711.5	132322	1745	132657	1778.5
	5	131997	1712.5	132322	1745	132647	1777.5
	10	132022	1715	132322	1745	132622	1775
	15	132047	1717.5	132322	1745	132597	1772.5
	20	132072	1720	132322	1745	132572	1770
71	5	133147	665.5	133297	680.5	133447	695.5
	10	133172	668	133297	680.5	133422	693
	15	133197	670.5	133297	680.5	133397	690.5
	20	133222	673	133322	683	133372	688

1.4. Emission Designator

LTE B2	Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M09W7D	1M10W7D
3	2M70G7D	2M71W7D	2M70W7D
5	4M50G7D	4M51W7D	4M52W7D
10	8M95G7D	8M97W7D	8M97W7D
15	13M4G7D	13M4W7D	13M4W7D
20	17M8G7D	17M9W7D	17M8W7D
LTE B4	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M09G7D	1M10W7D	1M09W7D
3	2M71G7D	2M70W7D	2M70W7D
5	4M51G7D	4M52W7D	4M52W7D
10	8M99G7D	8M96W7D	8M96W7D
15	13M4G7D	13M4W7D	13M4W7D
20	17M9G7D	17M9W7D	17M9W7D
LTE B5	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M09G7D	1M10W7D	1M09W7D
3	2M70G7D	2M71W7D	2M70W7D
5	4M51G7D	4M52W7D	4M51W7D
10	8M96G7D	8M96W7D	8M95W7D
LTE B12	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M09W7D	1M09W7D
3	2M70G7D	2M70W7D	2M70W7D
5	4M52G7D	4M51W7D	4M51W7D
10	8M98G7D	8M99W7D	8M96W7D
LTE B13	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M51G7D	4M52W7D	4M51W7D
10	8M95G7D	8M95W7D	8M96W7D
LTE B25	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M09G7D	1M09W7D	1M09W7D
3	2M71G7D	2M70W7D	2M70W7D

5	4M51G7D	4M51W7D	4M52W7D
10	8M98G7D	8M96W7D	8M94W7D
15	13M3G7D	13M4W7D	13M4W7D
20	17M9G7D	17M8W7D	17M9W7D
LTE B26	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M10W7D	1M09W7D
3	2M70G7D	2M70W7D	2M70W7D
5	4M51G7D	4M52W7D	4M51W7D
10	8M99G7D	8M97W7D	8M99W7D
15	13M4G7D	13M4W7D	13M4W7D
LTE B41	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M50G7D	4M50W7D	4M50W7D
10	9M00G7D	8M95W7D	8M98W7D
15	13M4G7D	13M4W7D	13M4W7D
20	17M9G7D	17M9W7D	17M9W7D
LTE B66	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M09W7D	1M09W7D
3	2M71G7D	2M70W7D	2M70W7D
5	4M51G7D	4M51W7D	4M51W7D
10	8M98G7D	8M97W7D	8M98W7D
15	13M4G7D	13M4W7D	13M4W7D
20	17M9G7D	17M9W7D	17M9W7D
LTE B71	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M47G7D	4M48W7D	4M47W7D
10	8M92G7D	8M91W7D	8M92W7D
15	13M3G7D	13M3W7D	13M4W7D
20	17M9G7D	17M9W7D	17M9W7D

1.5. Test Standards and Results

The objective of the report is to perform testing according to Part 2 and 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
5	47 CFR Part 90	Miscellaneous Wireless Communications Services

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

Section	Description	Test Date	Test Engineer	Result
2.1046,	Transmitter Conducted Output Power	Jul 16, 2020	Stefan Sun	PASS
2.1049,90.209	Occupied Bandwidth	Aug 05, 2020 Aug 06, 2020	Stefan Sun	PASS
2.1055, 22.355, 24.235, 27.54,90.213	Frequency Stability	Aug 05, 2020	Stefan Sun	PASS
22.913(d),24.232(d), 27.50(d)(5)	Peak to Average Radio	Aug 04, 2020 Aug 05, 2020	Stefan Sun	PASS
2.1051, 22.917(a), 24.238, 27.53(c), 27.53(g), 27.53 (h) 27.53(m),90.691	Conducted Spurious Emissions	Aug 04, 2020 Aug 05, 2020	Stefan Sun	PASS
2.1051, 22.917(a), 24.238, 27.53(c), 27.53(g), 27.53 (h) 27.53(m),90.691	Band Edge	Aug 04, 2020 Aug 05, 2020	Stefan Sun	PASS
22.913(a)(2), 24.232(c), 27.50(a)(3),27.50(b)(10),27.50(c)(10),27.50(d)(4), 27.50(h)(2), 90.635(b)	Transmitter Radiated Power (EIPR/ERP)	Jul 24,2020 Jul 28,2020	Yaming Luo	PASS
2.1051, 22.917(a), 24.238, 27.53(c), 27.53(g), 27.53 (h) 27.53(m).90.691	Radiated Spurious Emissions	Jul 24,2020 Jul 28,2020	Yaming Luo	PASS

Note1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03r01 and ANSI/TIA-603-E-2016. **Note2:** The path loss has been calibrated by the system.

1.6. 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

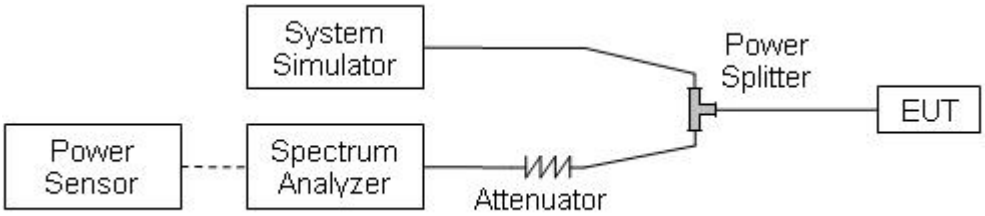
2. 47 CFR Part 2, Part 22H, Part 24E,Part 90S and 27 F&H&L&M Requirements

2.1. Transmitter Conducted Output Power

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).

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 D01 v03r01 Section 5.2 and ANSI/TIA-603-E-2016.

2.1.4. Result

<FDD LTE Band 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	21.51	21.90	21.79
20	QPSK	1	49	21.75	22.08	21.86
20	QPSK	1	99	21.46	21.66	21.43
20	QPSK	50	0	20.61	20.84	20.91
20	QPSK	50	24	20.91	20.68	20.71
20	QPSK	50	50	20.73	20.79	20.73
20	QPSK	100	0	20.57	20.81	20.84
20	16QAM	1	0	20.65	20.26	20.62
20	16QAM	1	49	21.04	20.40	21.24
20	16QAM	1	99	20.77	20.22	20.48
20	16QAM	50	0	19.63	19.81	19.73
20	16QAM	50	24	19.70	19.76	19.66
20	16QAM	50	50	19.74	19.86	19.57
20	16QAM	100	0	19.65	19.83	19.83
20	64QAM	1	0	19.86	21.12	21.20
20	64QAM	1	49	20.59	21.47	21.46
20	64QAM	1	99	20.29	21.15	21.09
20	64QAM	50	0	19.93	20.13	20.27
20	64QAM	50	24	20.23	20.17	20.11
20	64QAM	50	50	20.11	20.22	20.36
20	64QAM	100	0	20.02	20.19	20.32
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	21.57	21.68	21.58
15	QPSK	1	37	21.43	21.75	21.56
15	QPSK	1	74	21.44	21.51	21.47
15	QPSK	36	0	20.55	20.90	20.92
15	QPSK	36	20	20.91	20.70	20.66
15	QPSK	36	39	20.65	20.88	20.76
15	QPSK	75	0	20.49	20.79	20.80

15	16QAM	1	0	20.79	21.52	20.65
15	16QAM	1	37	20.64	21.70	20.36
15	16QAM	1	74	20.44	21.17	20.06
15	16QAM	36	0	19.48	19.67	19.94
15	16QAM	36	20	19.95	19.67	19.51
15	16QAM	36	39	19.67	19.99	19.66
15	16QAM	75	0	19.53	19.67	19.79
15	64QAM	1	0	19.66	21.20	21.12
15	64QAM	1	37	20.17	21.28	21.30
15	64QAM	1	74	19.96	21.12	21.13
15	64QAM	36	0	19.81	20.20	20.33
15	64QAM	36	20	20.14	20.07	19.89
15	64QAM	36	39	20.04	20.39	20.28
15	64QAM	75	0	19.94	20.23	20.28
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	21.58	21.84	21.77
10	QPSK	1	25	21.56	21.96	21.72
10	QPSK	1	49	21.57	21.57	21.71
10	QPSK	25	0	20.64	20.77	20.83
10	QPSK	25	12	20.80	20.70	20.80
10	QPSK	25	25	20.68	20.80	20.73
10	QPSK	50	0	20.60	20.78	20.83
10	16QAM	1	0	20.62	21.36	20.84
10	16QAM	1	25	21.17	21.86	20.62
10	16QAM	1	49	20.55	21.52	20.23
10	16QAM	25	0	19.80	19.89	19.97
10	16QAM	25	12	19.87	19.86	20.04
10	16QAM	25	25	19.76	20.04	19.92
10	16QAM	50	0	19.55	19.70	19.78
10	64QAM	1	0	19.83	21.25	21.65
10	64QAM	1	25	20.36	21.61	21.62
10	64QAM	1	49	20.01	21.29	21.17
10	64QAM	25	0	20.13	20.17	20.38
10	64QAM	25	12	20.15	20.23	20.28
10	64QAM	25	25	20.14	20.38	20.23
10	64QAM	50	0	20.12	20.28	20.35
Channel				18625	18900	19175

Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	21.56	21.82	21.77
5	QPSK	1	12	21.53	21.76	21.75
5	QPSK	1	24	21.46	21.55	21.68
5	QPSK	12	0	20.72	20.91	20.85
5	QPSK	12	7	20.75	20.90	20.89
5	QPSK	12	13	20.69	20.92	20.75
5	QPSK	25	0	20.77	20.89	20.88
5	16QAM	1	0	20.62	21.06	20.61
5	16QAM	1	12	20.42	21.03	20.85
5	16QAM	1	24	20.27	21.25	20.61
5	16QAM	12	0	19.73	19.67	19.81
5	16QAM	12	7	19.73	19.77	19.60
5	16QAM	12	13	19.71	19.69	19.59
5	16QAM	25	0	19.86	19.75	19.69
5	64QAM	1	0	21.08	21.09	21.40
5	64QAM	1	12	21.10	21.12	21.30
5	64QAM	1	24	20.97	21.18	21.25
5	64QAM	12	0	20.05	20.27	20.44
5	64QAM	12	7	20.18	20.27	20.25
5	64QAM	12	13	20.09	20.37	20.14
5	64QAM	25	0	20.07	20.32	20.38
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	21.54	21.83	22.00
3	QPSK	1	8	21.58	21.84	21.73
3	QPSK	1	14	21.61	21.64	21.78
3	QPSK	8	0	20.75	20.94	20.92
3	QPSK	8	4	20.84	20.85	20.82
3	QPSK	8	7	20.81	20.84	20.83
3	QPSK	15	0	20.69	20.82	20.94
3	16QAM	1	0	20.71	21.32	20.45
3	16QAM	1	8	20.63	21.48	20.26
3	16QAM	1	14	20.52	21.54	20.34
3	16QAM	8	0	19.84	20.00	19.93
3	16QAM	8	4	19.83	19.96	19.81
3	16QAM	8	7	19.84	19.85	19.72
3	16QAM	15	0	19.67	19.73	19.78

3	64QAM	1	0	20.94	21.47	21.68
3	64QAM	1	8	20.98	21.43	21.16
3	64QAM	1	14	20.98	21.53	21.29
3	64QAM	8	0	20.95	21.13	21.58
3	64QAM	8	4	21.57	21.21	21.15
3	64QAM	8	7	21.05	21.44	21.26
3	64QAM	15	0	20.07	20.24	20.38
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	21.56	21.79	21.84
1.4	QPSK	1	3	21.69	21.73	22.15
1.4	QPSK	1	5	21.59	21.62	21.93
1.4	QPSK	3	0	21.62	21.73	21.67
1.4	QPSK	3	1	21.72	21.72	21.72
1.4	QPSK	3	3	21.72	21.68	21.70
1.4	QPSK	6	0	20.61	20.76	20.86
1.4	16QAM	1	0	21.02	20.84	20.99
1.4	16QAM	1	3	21.16	20.69	21.22
1.4	16QAM	1	5	21.09	20.42	21.11
1.4	16QAM	3	0	20.52	20.80	20.69
1.4	16QAM	3	1	20.68	20.61	20.62
1.4	16QAM	3	3	20.77	20.69	20.65
1.4	16QAM	6	0	19.67	19.75	19.99
1.4	64QAM	1	0	21.36	21.07	21.77
1.4	64QAM	1	3	21.29	21.14	21.64
1.4	64QAM	1	5	21.22	21.16	21.39
1.4	64QAM	3	0	20.97	21.41	21.52
1.4	64QAM	3	1	21.20	21.26	21.21
1.4	64QAM	3	3	21.03	21.36	21.30
1.4	64QAM	6	0	19.99	20.29	20.31

<FDD LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	21.07	21.54	21.56
20	QPSK	1	49	21.39	21.50	21.30

20	QPSK	1	99	21.19	21.20	21.48
20	QPSK	50	0	20.30	20.40	20.44
20	QPSK	50	24	20.40	20.16	20.14
20	QPSK	50	50	20.41	20.33	20.08
20	QPSK	100	0	20.47	20.35	20.28
20	16QAM	1	0	20.68	20.03	20.40
20	16QAM	1	49	20.82	20.06	20.71
20	16QAM	1	99	19.99	19.65	20.19
20	16QAM	50	0	19.31	19.29	19.28
20	16QAM	50	24	19.30	19.25	19.20
20	16QAM	50	50	19.32	19.32	19.13
20	16QAM	100	0	19.36	19.39	19.20
20	64QAM	1	0	20.46	21.00	20.81
20	64QAM	1	49	20.96	21.19	20.91
20	64QAM	1	99	20.71	20.94	20.46
20	64QAM	50	0	19.73	19.87	19.78
20	64QAM	50	24	19.71	19.74	19.77
20	64QAM	50	50	19.85	19.95	19.70
20	64QAM	100	0	19.82	19.95	19.76
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	21.22	21.50	21.29
15	QPSK	1	37	21.38	21.46	21.27
15	QPSK	1	74	21.30	21.19	21.02
15	QPSK	36	0	20.20	20.52	20.27
15	QPSK	36	20	20.50	20.35	20.45
15	QPSK	36	39	20.32	20.37	20.29
15	QPSK	75	0	20.27	20.50	20.13
15	16QAM	1	0	20.33	21.06	20.17
15	16QAM	1	37	20.33	21.61	19.86
15	16QAM	1	74	20.38	20.72	18.91
15	16QAM	36	0	19.22	19.39	19.16
15	16QAM	36	20	19.46	19.42	19.27
15	16QAM	36	39	19.22	19.51	19.13
15	16QAM	75	0	19.38	19.47	19.16
15	64QAM	1	0	20.75	20.86	20.74
15	64QAM	1	37	20.76	20.97	20.59
15	64QAM	1	74	20.91	20.74	20.50

15	64QAM	36	0	19.75	19.88	19.67
15	64QAM	36	20	19.66	19.65	19.75
15	64QAM	36	39	19.79	19.93	19.59
15	64QAM	75	0	19.74	19.91	19.68
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	21.11	21.58	21.19
10	QPSK	1	25	21.34	21.74	21.65
10	QPSK	1	49	21.22	21.35	21.14
10	QPSK	25	0	20.36	20.49	20.28
10	QPSK	25	12	20.45	20.39	20.42
10	QPSK	25	25	20.37	20.41	20.20
10	QPSK	50	0	20.31	20.51	20.13
10	16QAM	1	0	20.37	21.16	19.87
10	16QAM	1	25	21.04	21.56	19.99
10	16QAM	1	49	20.19	20.82	19.67
10	16QAM	25	0	19.53	19.53	19.29
10	16QAM	25	12	19.40	19.43	19.32
10	16QAM	25	25	19.35	19.51	19.23
10	16QAM	50	0	19.31	19.38	19.06
10	64QAM	1	0	20.64	20.92	20.65
10	64QAM	1	25	20.91	21.00	21.04
10	64QAM	1	49	20.62	20.70	20.60
10	64QAM	25	0	19.68	19.95	19.64
10	64QAM	25	12	19.80	19.60	19.85
10	64QAM	25	25	19.74	19.96	19.56
10	64QAM	50	0	19.64	19.91	19.63
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	21.07	21.48	21.11
5	QPSK	1	12	21.06	21.17	21.16
5	QPSK	1	24	21.16	21.06	21.04
5	QPSK	12	0	20.14	20.56	20.18
5	QPSK	12	7	20.28	20.55	20.52
5	QPSK	12	13	20.25	20.45	20.19
5	QPSK	25	0	20.28	20.49	20.14
5	16QAM	1	0	19.89	20.68	19.99
5	16QAM	1	12	19.89	20.79	19.90

5	16QAM	1	24	19.81	20.81	20.15
5	16QAM	12	0	19.14	19.23	19.03
5	16QAM	12	7	19.32	19.22	19.31
5	16QAM	12	13	19.15	19.34	19.04
5	16QAM	25	0	19.21	19.59	19.09
5	64QAM	1	0	20.52	20.85	20.85
5	64QAM	1	12	20.50	20.77	20.80
5	64QAM	1	24	20.61	20.71	20.71
5	64QAM	12	0	19.76	19.85	19.73
5	64QAM	12	7	19.89	19.76	19.63
5	64QAM	12	13	19.61	19.90	19.59
5	64QAM	25	0	19.61	20.06	19.70
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	21.14	21.76	21.21
3	QPSK	1	8	21.06	21.35	21.35
3	QPSK	1	14	21.21	21.31	21.44
3	QPSK	8	0	20.21	20.54	20.14
3	QPSK	8	4	20.33	20.22	20.23
3	QPSK	8	7	20.19	20.48	20.16
3	QPSK	15	0	20.16	20.49	20.19
3	16QAM	1	0	20.54	20.62	19.62
3	16QAM	1	8	20.55	20.74	19.66
3	16QAM	1	14	20.63	20.59	19.62
3	16QAM	8	0	19.24	19.35	19.06
3	16QAM	8	4	18.96	19.02	19.00
3	16QAM	8	7	19.30	19.30	18.95
3	16QAM	15	0	19.12	19.30	18.99
3	64QAM	1	0	20.73	20.97	20.54
3	64QAM	1	8	20.65	20.90	19.61
3	64QAM	1	14	20.61	20.79	20.54
3	64QAM	8	0	20.69	20.94	19.61
3	64QAM	8	4	20.80	20.54	20.12
3	64QAM	8	7	20.59	21.11	20.54
3	64QAM	15	0	19.57	20.01	19.61
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	21.43	21.54	21.22

1.4	QPSK	1	3	21.50	21.59	21.19
1.4	QPSK	1	5	21.41	21.48	21.15
1.4	QPSK	3	0	21.22	21.41	21.19
1.4	QPSK	3	1	21.28	21.24	21.39
1.4	QPSK	3	3	21.22	21.37	21.19
1.4	QPSK	6	0	20.22	20.39	20.12
1.4	16QAM	1	0	20.35	20.91	19.92
1.4	16QAM	1	3	20.56	20.87	20.02
1.4	16QAM	1	5	20.27	21.04	19.95
1.4	16QAM	3	0	20.37	20.55	20.17
1.4	16QAM	3	1	20.29	20.50	20.26
1.4	16QAM	3	3	20.40	20.64	20.11
1.4	16QAM	6	0	19.06	19.57	18.99
1.4	64QAM	1	0	20.87	20.98	20.71
1.4	64QAM	1	3	20.86	21.04	20.74
1.4	64QAM	1	5	20.87	20.74	20.53
1.4	64QAM	3	0	20.73	20.86	20.59
1.4	64QAM	3	1	20.73	20.80	20.81
1.4	64QAM	3	3	20.75	20.83	20.60
1.4	64QAM	6	0	19.73	20.08	19.61

<FDD LTE Band 5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	22.20	22.31	22.02
10	QPSK	1	25	22.20	22.40	22.49
10	QPSK	1	49	22.02	21.94	22.12
10	QPSK	25	0	21.27	21.23	21.33
10	QPSK	25	12	21.32	21.14	21.25
10	QPSK	25	25	21.18	21.16	21.11
10	QPSK	50	0	21.26	21.24	21.14
10	16QAM	1	0	21.21	21.87	20.81
10	16QAM	1	25	21.80	22.27	20.80
10	16QAM	1	49	21.00	21.60	20.53
10	16QAM	25	0	20.36	20.37	20.22
10	16QAM	25	12	20.32	20.21	20.30

10	16QAM	25	25	20.28	20.20	20.15
10	16QAM	50	0	20.21	20.07	20.12
10	64QAM	1	0	21.66	21.79	21.75
10	64QAM	1	25	22.05	21.99	22.12
10	64QAM	1	49	21.64	21.68	21.59
10	64QAM	25	0	20.87	20.84	20.84
10	64QAM	25	12	20.78	20.66	20.78
10	64QAM	25	25	20.88	20.82	20.59
10	64QAM	50	0	20.88	20.79	20.76
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.01	22.12	21.90
5	QPSK	1	12	21.93	22.13	21.97
5	QPSK	1	24	21.96	21.92	22.02
5	QPSK	12	0	21.23	21.15	21.10
5	QPSK	12	7	21.14	21.17	21.09
5	QPSK	12	13	21.09	21.16	21.24
5	QPSK	25	0	21.15	21.08	21.12
5	16QAM	1	0	21.22	21.30	20.99
5	16QAM	1	12	20.97	21.22	21.02
5	16QAM	1	24	20.72	21.15	21.12
5	16QAM	12	0	20.07	19.95	20.01
5	16QAM	12	7	19.98	20.11	19.95
5	16QAM	12	13	20.00	19.86	20.15
5	16QAM	25	0	20.02	19.90	20.00
5	64QAM	1	0	21.60	21.55	21.75
5	64QAM	1	12	21.72	21.62	21.79
5	64QAM	1	24	21.69	21.50	21.78
5	64QAM	12	0	20.87	20.80	20.58
5	64QAM	12	7	20.60	20.61	20.82
5	64QAM	12	13	20.89	20.74	20.78
5	64QAM	25	0	20.87	20.78	20.62
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.14	22.00	21.75
3	QPSK	1	8	22.03	22.06	22.00
3	QPSK	1	14	21.93	21.91	21.99
3	QPSK	8	0	21.24	21.20	21.02

3	QPSK	8	4	21.05	21.19	21.06
3	QPSK	8	7	21.18	21.25	21.10
3	QPSK	15	0	21.16	21.16	21.11
3	16QAM	1	0	21.28	21.65	20.85
3	16QAM	1	8	21.07	21.70	20.98
3	16QAM	1	14	20.98	21.43	20.73
3	16QAM	8	0	20.02	19.94	20.16
3	16QAM	8	4	19.99	20.08	20.01
3	16QAM	8	7	20.15	20.09	20.25
3	16QAM	15	0	20.01	19.92	20.16
3	64QAM	1	0	21.73	21.74	21.54
3	64QAM	1	8	21.74	21.81	21.85
3	64QAM	1	14	21.67	21.67	21.85
3	64QAM	8	0	21.78	21.72	21.73
3	64QAM	8	4	21.84	21.67	21.74
3	64QAM	8	7	21.77	21.67	21.91
3	64QAM	15	0	20.90	20.76	20.72
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.14	22.17	22.37
1.4	QPSK	1	3	22.27	22.19	22.55
1.4	QPSK	1	5	22.00	22.07	22.49
1.4	QPSK	3	0	22.18	22.11	22.09
1.4	QPSK	3	1	22.09	22.06	22.14
1.4	QPSK	3	3	22.11	22.05	22.05
1.4	QPSK	6	0	21.26	21.18	21.15
1.4	16QAM	1	0	21.64	20.99	21.26
1.4	16QAM	1	3	21.77	20.86	21.39
1.4	16QAM	1	5	21.63	20.71	21.30
1.4	16QAM	3	0	21.34	21.12	21.28
1.4	16QAM	3	1	21.19	21.26	21.35
1.4	16QAM	3	3	21.38	21.08	21.28
1.4	16QAM	6	0	20.26	20.25	20.05
1.4	64QAM	1	0	22.01	21.76	21.70
1.4	64QAM	1	3	22.14	21.83	21.83
1.4	64QAM	1	5	22.05	21.62	21.75
1.4	64QAM	3	0	21.88	21.84	21.64
1.4	64QAM	3	1	21.74	21.73	21.81

1.4	64QAM	3	3	21.78	21.73	21.73
1.4	64QAM	6	0	20.80	20.79	20.81

<FDD LTE Band 12>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	21.98	22.20	22.03
10	QPSK	1	25	22.32	22.57	22.75
10	QPSK	1	49	21.98	22.04	21.94
10	QPSK	25	0	21.24	21.29	21.43
10	QPSK	25	12	21.31	21.42	21.28
10	QPSK	25	25	21.21	21.32	21.26
10	QPSK	50	0	21.31	21.31	21.31
10	16QAM	1	0	21.31	21.85	20.77
10	16QAM	1	25	21.99	22.34	21.05
10	16QAM	1	49	21.27	21.88	20.52
10	16QAM	25	0	20.43	20.42	20.43
10	16QAM	25	12	20.39	20.31	20.37
10	16QAM	25	25	20.39	20.34	20.29
10	16QAM	50	0	20.31	20.27	20.32
10	64QAM	1	0	21.17	21.35	21.51
10	64QAM	1	25	21.53	21.85	21.87
10	64QAM	1	49	21.39	21.32	21.26
10	64QAM	25	0	20.50	20.65	20.70
10	64QAM	25	12	20.57	20.64	20.59
10	64QAM	25	25	20.59	20.58	20.58
10	64QAM	50	0	20.48	20.57	20.66
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	21.86	22.21	22.13
5	QPSK	1	12	21.95	21.99	22.33
5	QPSK	1	24	22.00	21.86	21.96
5	QPSK	12	0	21.37	21.26	21.16
5	QPSK	12	7	21.24	21.28	21.30
5	QPSK	12	13	21.23	21.33	21.17
5	QPSK	25	0	21.30	21.27	21.20

5	16QAM	1	0	21.13	21.38	21.29
5	16QAM	1	12	21.07	21.50	21.25
5	16QAM	1	24	20.91	21.27	21.12
5	16QAM	12	0	20.27	20.12	20.21
5	16QAM	12	7	20.05	20.05	20.18
5	16QAM	12	13	20.23	20.03	20.31
5	16QAM	25	0	20.32	20.27	20.34
5	64QAM	1	0	21.30	21.49	21.53
5	64QAM	1	12	21.44	21.59	21.54
5	64QAM	1	24	21.37	21.33	21.12
5	64QAM	12	0	20.55	20.64	20.45
5	64QAM	12	7	20.63	20.49	20.53
5	64QAM	12	13	20.51	20.62	20.51
5	64QAM	25	0	20.50	20.58	20.53
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	21.87	22.29	22.17
3	QPSK	1	8	22.13	22.17	21.99
3	QPSK	1	14	21.88	22.05	22.05
3	QPSK	8	0	21.22	21.25	21.29
3	QPSK	8	4	21.32	21.30	21.23
3	QPSK	8	7	21.23	21.32	21.23
3	QPSK	15	0	21.18	21.27	21.29
3	16QAM	1	0	21.22	21.93	20.84
3	16QAM	1	8	21.20	21.90	20.94
3	16QAM	1	14	20.90	21.92	20.87
3	16QAM	8	0	20.13	20.44	20.30
3	16QAM	8	4	20.36	20.30	20.16
3	16QAM	8	7	20.42	20.31	20.34
3	16QAM	15	0	20.15	20.16	20.32
3	64QAM	1	0	21.42	21.62	21.39
3	64QAM	1	8	21.49	21.59	21.43
3	64QAM	1	14	21.37	21.41	21.33
3	64QAM	8	0	21.40	21.39	21.38
3	64QAM	8	4	21.46	21.45	21.46
3	64QAM	8	7	21.36	21.51	21.43
3	64QAM	15	0	20.52	20.74	20.55
Channel				23017	23095	23173

Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	21.92	22.29	22.32
1.4	QPSK	1	3	22.01	22.55	22.44
1.4	QPSK	1	5	21.96	22.46	22.23
1.4	QPSK	3	0	22.14	22.21	22.03
1.4	QPSK	3	1	22.01	22.05	22.15
1.4	QPSK	3	3	22.10	22.18	22.01
1.4	QPSK	6	0	21.29	21.19	21.17
1.4	16QAM	1	0	21.56	20.91	21.27
1.4	16QAM	1	3	21.74	21.09	21.52
1.4	16QAM	1	5	21.62	20.85	21.32
1.4	16QAM	3	0	21.44	21.26	21.29
1.4	16QAM	3	1	21.35	21.38	21.46
1.4	16QAM	3	3	21.54	21.39	21.31
1.4	16QAM	6	0	20.50	20.48	20.33
1.4	64QAM	1	0	21.64	21.59	21.55
1.4	64QAM	1	3	21.68	21.53	21.67
1.4	64QAM	1	5	21.61	21.45	21.51
1.4	64QAM	3	0	21.56	21.69	21.54
1.4	64QAM	3	1	21.47	21.56	21.55
1.4	64QAM	3	3	21.46	21.63	21.40
1.4	64QAM	6	0	20.35	20.62	20.52

<FDD LTE Band 13>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23230		
Frequency (MHz)				782		
10	QPSK	1	0	22.37		
10	QPSK	1	25	22.55		
10	QPSK	1	49	22.09		
10	QPSK	25	0	21.47		
10	QPSK	25	12	21.41		
10	QPSK	25	25	21.38		
10	QPSK	50	0	21.42		
10	16QAM	1	0	21.40		
10	16QAM	1	25	21.83		
10	16QAM	1	49	21.20		

10	16QAM	25	0	20.57		
10	16QAM	25	12	20.57		
10	16QAM	25	25	20.57		
10	16QAM	50	0	20.44		
10	64QAM	1	0	21.39		
10	64QAM	1	25	21.91		
10	64QAM	1	49	21.65		
10	64QAM	25	0	20.73		
10	64QAM	25	12	20.76		
10	64QAM	25	25	20.78		
10	64QAM	50	0	20.80		
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	22.43	22.05	22.11
5	QPSK	1	12	22.15	22.15	22.12
5	QPSK	1	24	22.22	21.95	22.11
5	QPSK	12	0	21.46	21.30	21.42
5	QPSK	12	7	21.43	21.36	21.43
5	QPSK	12	13	21.41	21.42	21.29
5	QPSK	25	0	21.46	21.35	21.43
5	16QAM	1	0	21.50	21.19	21.25
5	16QAM	1	12	21.62	21.24	21.25
5	16QAM	1	24	21.54	21.15	20.99
5	16QAM	12	0	20.30	20.36	20.32
5	16QAM	12	7	20.29	20.24	20.27
5	16QAM	12	13	20.30	20.37	20.19
5	16QAM	25	0	20.34	20.27	20.49
5	64QAM	1	0	21.41	21.66	21.62
5	64QAM	1	12	21.57	21.79	21.61
5	64QAM	1	24	21.51	21.48	21.64
5	64QAM	12	0	20.72	20.74	20.92
5	64QAM	12	7	20.83	20.89	20.84
5	64QAM	12	13	20.76	20.80	20.81
5	64QAM	25	0	20.70	20.72	20.87

<FDD LTE Band 25>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26140	26340	26590
Frequency (MHz)				1860	1880	1905
20	QPSK	1	0	21.56	21.68	21.98
20	QPSK	1	49	21.77	22.28	21.44
20	QPSK	1	99	21.23	21.96	21.29
20	QPSK	50	0	20.42	20.62	20.56
20	QPSK	50	24	20.64	20.46	20.47
20	QPSK	50	50	20.66	20.66	20.34
20	QPSK	100	0	20.50	20.46	20.60
20	16QAM	1	0	20.56	20.46	20.73
20	16QAM	1	49	21.25	20.52	20.42
20	16QAM	1	99	20.14	19.63	19.92
20	16QAM	50	0	19.55	19.69	19.72
20	16QAM	50	24	19.59	19.48	19.67
20	16QAM	50	50	19.73	19.66	19.31
20	16QAM	100	0	19.41	19.58	19.62
20	64QAM	1	0	20.14	20.56	21.00
20	64QAM	1	49	20.68	21.08	20.38
20	64QAM	1	99	20.18	20.72	20.90
20	64QAM	50	0	19.35	19.56	19.75
20	64QAM	50	24	19.46	19.37	19.74
20	64QAM	50	50	19.36	19.73	19.58
20	64QAM	100	0	19.33	19.72	19.60
Channel				26115	26340	26615
Frequency (MHz)				1857.5	1880	1907.5
15	QPSK	1	0	21.55	21.54	21.62
15	QPSK	1	37	21.47	21.97	21.65
15	QPSK	1	74	21.41	21.39	21.33
15	QPSK	36	0	20.43	20.70	20.75
15	QPSK	36	20	20.59	20.53	20.63
15	QPSK	36	39	20.41	20.54	20.46
15	QPSK	75	0	20.36	20.58	20.60
15	16QAM	1	0	20.66	21.10	20.39
15	16QAM	1	37	21.23	21.93	20.29

15	16QAM	1	74	20.44	21.01	19.46
15	16QAM	36	0	19.39	19.62	19.50
15	16QAM	36	20	19.43	19.52	19.44
15	16QAM	36	39	19.46	19.58	19.41
15	16QAM	75	0	19.42	19.61	19.62
15	64QAM	1	0	20.26	20.31	20.75
15	64QAM	1	37	20.37	20.78	20.65
15	64QAM	1	74	20.31	20.44	20.75
15	64QAM	36	0	19.24	19.67	19.79
15	64QAM	36	20	19.38	19.58	19.27
15	64QAM	36	39	19.22	19.74	19.62
15	64QAM	75	0	19.24	19.68	19.81
Channel				26090	26340	26640
Frequency (MHz)				1855	1880	1910
10	QPSK	1	0	21.77	21.67	21.81
10	QPSK	1	25	21.54	22.12	21.76
10	QPSK	1	49	21.39	21.48	21.82
10	QPSK	25	0	20.57	20.65	20.60
10	QPSK	25	12	20.80	20.62	20.64
10	QPSK	25	25	20.54	20.82	20.44
10	QPSK	50	0	20.41	20.78	20.56
10	16QAM	1	0	20.65	20.75	20.63
10	16QAM	1	25	21.01	21.88	20.29
10	16QAM	1	49	20.53	20.97	19.84
10	16QAM	25	0	19.47	19.70	19.65
10	16QAM	25	12	19.59	19.78	19.57
10	16QAM	25	25	19.61	19.87	19.47
10	16QAM	50	0	19.34	19.62	19.68
10	64QAM	1	0	20.32	20.34	20.79
10	64QAM	1	25	20.59	20.86	20.74
10	64QAM	1	49	20.18	20.63	21.22
10	64QAM	25	0	19.23	19.60	19.59
10	64QAM	25	12	19.29	19.47	19.26
10	64QAM	25	25	19.33	19.78	19.64
10	64QAM	50	0	19.15	19.71	19.78
Channel				26065	26340	26665
Frequency (MHz)				1852.5	1880	1912.5
5	QPSK	1	0	21.42	21.97	21.38

5	QPSK	1	12	21.55	21.67	21.52
5	QPSK	1	24	21.39	21.48	21.58
5	QPSK	12	0	20.46	20.77	20.53
5	QPSK	12	7	20.42	20.49	20.70
5	QPSK	12	13	20.59	20.90	20.36
5	QPSK	25	0	20.39	20.81	20.53
5	16QAM	1	0	20.43	21.05	20.39
5	16QAM	1	12	20.41	20.89	20.41
5	16QAM	1	24	20.24	21.10	20.22
5	16QAM	12	0	19.30	19.47	19.59
5	16QAM	12	7	19.31	19.24	19.24
5	16QAM	12	13	19.45	19.62	19.22
5	16QAM	25	0	19.45	19.61	19.45
5	64QAM	1	0	20.16	20.49	20.62
5	64QAM	1	12	20.26	20.74	20.57
5	64QAM	1	24	20.51	20.44	20.59
5	64QAM	12	0	19.18	19.62	19.74
5	64QAM	12	7	19.39	19.20	19.23
5	64QAM	12	13	19.41	19.67	19.84
5	64QAM	25	0	19.22	19.69	19.69
Channel				26055	26340	26675
Frequency (MHz)				1851.5	1880	1913.5
3	QPSK	1	0	21.56	21.86	21.56
3	QPSK	1	8	21.53	21.63	21.50
3	QPSK	1	14	21.62	21.52	21.52
3	QPSK	8	0	20.46	20.77	20.65
3	QPSK	8	4	20.47	20.80	20.41
3	QPSK	8	7	20.58	20.83	20.37
3	QPSK	15	0	20.49	20.83	20.49
3	16QAM	1	0	20.48	21.49	20.59
3	16QAM	1	8	20.40	21.72	20.08
3	16QAM	1	14	20.29	21.60	19.92
3	16QAM	8	0	19.32	19.98	19.48
3	16QAM	8	4	19.77	19.53	19.70
3	16QAM	8	7	19.54	20.06	19.30
3	16QAM	15	0	19.41	19.96	19.42
3	64QAM	1	0	20.48	20.58	21.08
3	64QAM	1	8	20.35	20.82	20.88

3	64QAM	1	14	20.27	20.56	20.65
3	64QAM	8	0	20.37	20.58	20.92
3	64QAM	8	4	20.30	20.62	20.56
3	64QAM	8	7	20.18	20.65	20.73
3	64QAM	15	0	19.37	19.70	19.91
Channel				26047	26340	26683
Frequency (MHz)				1850.7	1880	1914.3
1.4	QPSK	1	0	21.83	22.00	21.54
1.4	QPSK	1	3	21.91	22.05	21.43
1.4	QPSK	1	5	21.80	21.95	21.32
1.4	QPSK	3	0	21.57	21.83	21.47
1.4	QPSK	3	1	21.29	21.34	21.88
1.4	QPSK	3	3	21.67	21.94	21.28
1.4	QPSK	6	0	20.51	20.72	20.21
1.4	16QAM	1	0	20.66	21.19	20.36
1.4	16QAM	1	3	20.80	21.37	20.06
1.4	16QAM	1	5	20.69	21.29	19.93
1.4	16QAM	3	0	20.55	21.04	20.26
1.4	16QAM	3	1	20.92	20.58	20.49
1.4	16QAM	3	3	20.69	21.02	20.11
1.4	16QAM	6	0	19.46	19.71	19.20
1.4	64QAM	1	0	20.73	20.46	21.03
1.4	64QAM	1	3	20.78	20.75	21.05
1.4	64QAM	1	5	20.73	20.62	21.03
1.4	64QAM	3	0	20.22	20.63	20.60
1.4	64QAM	3	1	20.24	20.60	20.32
1.4	64QAM	3	3	20.28	20.64	20.53
1.4	64QAM	6	0	19.34	19.70	19.56

<FDD LTE Band 26>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26765	26865	26965
Frequency (MHz)				821.5	831.5	841.5
15	QPSK	1	0	22.28	22.25	22.19
15	QPSK	1	37	22.28	22.32	22.35
15	QPSK	1	74	22.12	22.04	22.09
15	QPSK	36	0	21.49	21.37	21.41

15	QPSK	36	20	21.37	21.33	21.12
15	QPSK	36	39	21.37	21.46	21.11
15	QPSK	75	0	21.28	21.40	21.26
15	16QAM	1	0	21.55	21.72	21.09
15	16QAM	1	37	22.15	22.38	20.87
15	16QAM	1	74	21.25	21.76	20.26
15	16QAM	36	0	20.46	20.32	20.30
15	16QAM	36	20	20.20	20.41	20.17
15	16QAM	36	39	20.35	20.30	20.08
15	16QAM	75	0	20.34	20.37	20.22
15	64QAM	1	0	21.56	21.35	21.40
15	64QAM	1	37	21.79	21.84	21.64
15	64QAM	1	74	21.47	21.44	21.45
15	64QAM	36	0	20.67	20.76	20.78
15	64QAM	36	20	20.72	20.70	20.74
15	64QAM	36	39	20.74	20.84	20.71
15	64QAM	75	0	20.66	20.81	20.73
Channel				26740	26865	26990
Frequency (MHz)				819	831.5	844
10	QPSK	1	0	22.28	22.33	22.10
10	QPSK	1	25	22.49	22.38	22.69
10	QPSK	1	49	22.17	22.22	22.28
10	QPSK	25	0	21.46	21.38	21.50
10	QPSK	25	12	21.29	21.38	21.32
10	QPSK	25	25	21.41	21.40	21.27
10	QPSK	50	0	21.52	21.29	21.41
10	16QAM	1	0	21.46	21.92	21.18
10	16QAM	1	25	22.09	22.36	21.83
10	16QAM	1	49	21.28	21.88	20.89
10	16QAM	25	0	20.54	20.43	20.43
10	16QAM	25	12	20.20	20.54	20.17
10	16QAM	25	25	20.51	20.45	20.16
10	16QAM	50	0	20.34	20.31	20.37
10	64QAM	1	0	21.55	21.54	21.48
10	64QAM	1	25	21.83	21.91	21.90
10	64QAM	1	49	21.56	21.56	21.60
10	64QAM	25	0	20.81	20.73	20.86
10	64QAM	25	12	20.89	20.84	20.75

10	64QAM	25	25	20.89	20.73	20.67
10	64QAM	50	0	20.83	20.74	20.77
Channel				26715	26865	27015
Frequency (MHz)				816.5	831.5	846.5
5	QPSK	1	0	22.24	22.07	22.18
5	QPSK	1	12	22.39	22.25	22.13
5	QPSK	1	24	22.36	22.05	21.99
5	QPSK	12	0	21.48	21.27	21.40
5	QPSK	12	7	21.48	21.45	21.40
5	QPSK	12	13	21.43	21.35	21.19
5	QPSK	25	0	21.44	21.24	21.36
5	16QAM	1	0	21.27	21.36	21.10
5	16QAM	1	12	21.32	21.46	21.09
5	16QAM	1	24	20.99	21.39	21.06
5	16QAM	12	0	20.39	20.08	20.40
5	16QAM	12	7	20.10	20.29	20.29
5	16QAM	12	13	20.24	20.17	20.06
5	16QAM	25	0	20.50	20.17	20.33
5	64QAM	1	0	21.49	21.51	21.56
5	64QAM	1	12	21.59	21.53	21.48
5	64QAM	1	24	21.57	21.39	21.41
5	64QAM	12	0	20.78	20.75	20.79
5	64QAM	12	7	20.76	20.81	20.74
5	64QAM	12	13	20.84	20.78	20.64
5	64QAM	25	0	20.85	20.80	20.74
Channel				26705	26865	27025
Frequency (MHz)				815.5	831.5	847.5
3	QPSK	1	0	22.17	22.13	22.10
3	QPSK	1	8	22.34	22.23	22.02
3	QPSK	1	14	22.25	22.15	22.13
3	QPSK	8	0	21.44	21.39	21.39
3	QPSK	8	4	21.37	21.34	21.31
3	QPSK	8	7	21.40	21.36	21.26
3	QPSK	15	0	21.41	21.32	21.35
3	16QAM	1	0	21.45	21.72	21.10
3	16QAM	1	8	21.35	21.83	20.77
3	16QAM	1	14	21.29	21.93	20.75
3	16QAM	8	0	20.50	20.50	20.23

3	16QAM	8	4	20.39	20.28	20.33
3	16QAM	8	7	20.46	20.48	20.21
3	16QAM	15	0	20.35	20.27	20.34
3	64QAM	1	0	21.59	21.73	21.69
3	64QAM	1	8	21.70	21.83	21.54
3	64QAM	1	14	21.52	21.78	21.52
3	64QAM	8	0	21.58	21.71	21.80
3	64QAM	8	4	21.80	21.52	21.55
3	64QAM	8	7	21.76	21.64	21.47
3	64QAM	15	0	20.83	20.76	20.73
Channel				26697	26865	27033
Frequency (MHz)				814.7	831.5	848.3
1.4	QPSK	1	0	22.42	22.27	21.99
1.4	QPSK	1	3	22.48	22.38	22.11
1.4	QPSK	1	5	22.37	22.34	22.02
1.4	QPSK	3	0	22.46	22.18	22.12
1.4	QPSK	3	1	22.35	22.25	22.30
1.4	QPSK	3	3	22.33	22.20	22.19
1.4	QPSK	6	0	21.38	21.15	21.30
1.4	16QAM	1	0	21.50	21.44	21.77
1.4	16QAM	1	3	21.16	21.68	22.00
1.4	16QAM	1	5	21.01	21.55	21.94
1.4	16QAM	3	0	21.40	21.37	21.27
1.4	16QAM	3	1	21.37	21.33	21.30
1.4	16QAM	3	3	21.38	21.42	21.27
1.4	16QAM	6	0	20.23	20.04	20.41
1.4	64QAM	1	0	21.89	21.59	21.73
1.4	64QAM	1	3	21.98	21.62	21.84
1.4	64QAM	1	5	21.87	21.48	21.76
1.4	64QAM	3	0	21.70	21.57	21.64
1.4	64QAM	3	1	21.66	21.58	21.59
1.4	64QAM	3	3	21.70	21.59	21.61
1.4	64QAM	6	0	20.80	20.80	20.71

<FDD LTE Band 41>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40620	41490
Frequency (MHz)				2506	2593	2680
20	QPSK	1	0	21.26	21.89	21.49
20	QPSK	1	49	21.64	21.90	21.84
20	QPSK	1	99	21.42	21.89	21.68
20	QPSK	50	0	20.68	20.95	20.98
20	QPSK	50	24	20.63	20.74	20.88
20	QPSK	50	50	20.78	20.84	20.53
20	QPSK	100	0	20.61	20.89	20.50
20	16QAM	1	0	20.95	20.64	20.47
20	16QAM	1	49	21.18	20.65	20.62
20	16QAM	1	99	20.71	20.57	20.32
20	16QAM	50	0	19.96	19.93	19.56
20	16QAM	50	24	19.87	19.74	19.84
20	16QAM	50	50	19.82	19.73	19.50
20	16QAM	100	0	19.82	19.82	19.56
20	64QAM	1	0	20.33	21.32	21.83
20	64QAM	1	49	20.99	21.76	21.65
20	64QAM	1	99	20.47	21.11	21.56
20	64QAM	50	0	19.63	20.41	20.43
20	64QAM	50	24	19.54	20.31	20.40
20	64QAM	50	50	19.82	20.33	20.49
20	64QAM	100	0	19.67	20.35	20.46
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	21.56	22.05	21.66
15	QPSK	1	37	21.78	21.86	21.71
15	QPSK	1	74	21.63	21.72	21.34
15	QPSK	36	0	20.69	20.92	20.65
15	QPSK	36	20	20.56	20.87	20.55
15	QPSK	36	39	20.77	20.73	20.59
15	QPSK	75	0	20.61	20.83	20.54
15	16QAM	1	0	20.66	21.08	20.55
15	16QAM	1	37	20.62	20.93	20.34

15	16QAM	1	74	20.61	21.50	20.34
15	16QAM	36	0	19.61	19.93	19.48
15	16QAM	36	20	19.54	19.90	19.32
15	16QAM	36	39	19.71	19.86	19.62
15	16QAM	75	0	19.65	19.85	19.67
15	64QAM	1	0	20.46	21.40	21.41
15	64QAM	1	37	20.79	21.39	21.30
15	64QAM	1	74	20.73	21.02	21.52
15	64QAM	36	0	19.58	20.45	20.39
15	64QAM	36	20	19.47	20.34	20.39
15	64QAM	36	39	19.74	20.32	20.43
15	64QAM	75	0	19.70	20.39	20.40
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	21.74	21.95	21.65
10	QPSK	1	25	21.86	22.00	21.51
10	QPSK	1	49	21.68	21.79	21.41
10	QPSK	25	0	20.88	20.97	20.60
10	QPSK	25	12	20.77	20.90	20.50
10	QPSK	25	25	20.83	20.83	20.70
10	QPSK	50	0	20.96	20.85	20.57
10	16QAM	1	0	20.63	21.38	20.78
10	16QAM	1	25	21.15	21.69	21.03
10	16QAM	1	49	20.90	21.35	20.75
10	16QAM	25	0	19.69	20.00	19.82
10	16QAM	25	12	19.54	19.97	19.76
10	16QAM	25	25	19.79	19.86	19.73
10	16QAM	50	0	19.72	19.74	19.59
10	64QAM	1	0	20.68	21.35	21.57
10	64QAM	1	25	20.86	21.52	21.47
10	64QAM	1	49	20.93	21.19	21.49
10	64QAM	25	0	19.75	20.38	20.44
10	64QAM	25	12	19.64	20.28	20.37
10	64QAM	25	25	19.93	20.33	20.69
10	64QAM	50	0	19.82	20.43	20.50
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	21.50	21.78	21.49

5	QPSK	1	12	21.68	21.78	21.52
5	QPSK	1	24	21.68	21.53	21.49
5	QPSK	12	0	20.72	20.91	20.94
5	QPSK	12	7	20.71	20.83	20.87
5	QPSK	12	13	20.88	20.70	20.79
5	QPSK	25	0	20.80	20.85	20.56
5	16QAM	1	0	20.97	21.12	20.53
5	16QAM	1	12	21.07	21.16	20.48
5	16QAM	1	24	21.08	20.79	20.30
5	16QAM	12	0	19.57	19.67	19.79
5	16QAM	12	7	19.46	19.57	19.64
5	16QAM	12	13	19.65	19.56	19.35
5	16QAM	25	0	19.63	19.81	19.52
5	64QAM	1	0	20.67	21.16	21.35
5	64QAM	1	12	20.62	21.17	21.46
5	64QAM	1	24	20.52	20.99	21.38
5	64QAM	12	0	20.49	21.16	21.23
5	64QAM	12	7	20.39	21.07	21.19
5	64QAM	12	13	20.55	21.05	21.54
5	64QAM	25	0	19.75	20.36	20.37

<FDD LTE Band 66>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				132072	132322	132572
Frequency (MHz)				1720	1745	1770
20	QPSK	1	0	20.90	21.49	21.31
20	QPSK	1	49	21.57	21.57	21.38
20	QPSK	1	99	20.95	21.42	20.90
20	QPSK	50	0	20.23	20.33	20.21
20	QPSK	50	24	20.13	20.33	20.32
20	QPSK	50	50	20.40	20.23	20.12
20	QPSK	100	0	20.27	20.39	20.09
20	16QAM	1	0	20.49	20.06	20.12
20	16QAM	1	49	20.92	19.89	20.67
20	16QAM	1	99	20.46	19.69	19.86
20	16QAM	50	0	19.34	19.48	19.20

20	16QAM	50	24	19.41	19.40	19.35
20	16QAM	50	50	19.45	19.21	19.14
20	16QAM	100	0	19.27	19.42	19.10
20	64QAM	1	0	20.44	20.29	20.28
20	64QAM	1	49	20.74	20.58	20.46
20	64QAM	1	99	20.29	20.23	20.21
20	64QAM	50	0	19.49	19.57	19.68
20	64QAM	50	24	19.63	19.53	19.58
20	64QAM	50	50	19.56	19.63	19.52
20	64QAM	100	0	19.48	19.62	19.55
Channel				132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5
15	QPSK	1	0	21.20	21.41	21.07
15	QPSK	1	37	21.26	21.38	21.04
15	QPSK	1	74	21.27	21.14	20.89
15	QPSK	36	0	20.23	20.36	20.13
15	QPSK	36	20	20.40	20.29	20.16
15	QPSK	36	39	20.42	20.21	20.15
15	QPSK	75	0	20.20	20.37	20.08
15	16QAM	1	0	20.48	20.96	20.01
15	16QAM	1	37	21.15	20.76	19.90
15	16QAM	1	74	20.46	20.77	19.34
15	16QAM	36	0	19.22	19.42	19.11
15	16QAM	36	20	19.39	19.26	19.32
15	16QAM	36	39	19.33	19.01	19.13
15	16QAM	75	0	19.18	19.29	19.18
15	64QAM	1	0	20.34	20.19	20.18
15	64QAM	1	37	20.64	20.48	20.36
15	64QAM	1	74	20.19	20.13	20.11
15	64QAM	36	0	19.39	19.47	19.58
15	64QAM	36	20	19.56	19.56	19.44
15	64QAM	36	39	19.46	19.53	19.42
15	64QAM	75	0	19.38	19.52	19.45
Channel				132022	132322	132622
Frequency (MHz)				1715	1745	1775
10	QPSK	1	0	21.20	21.43	21.15
10	QPSK	1	25	21.34	21.44	21.51
10	QPSK	1	49	21.20	21.20	21.08

10	QPSK	25	0	20.18	20.39	20.10
10	QPSK	25	12	20.31	20.12	20.23
10	QPSK	25	25	20.33	20.18	20.11
10	QPSK	50	0	20.24	20.34	20.05
10	16QAM	1	0	20.35	20.91	19.73
10	16QAM	1	25	20.93	21.45	20.34
10	16QAM	1	49	20.40	20.92	19.90
10	16QAM	25	0	19.24	19.53	19.17
10	16QAM	25	12	19.24	19.22	19.34
10	16QAM	25	25	19.50	19.22	19.30
10	16QAM	50	0	19.33	19.33	19.13
10	64QAM	1	0	20.29	20.36	20.21
10	64QAM	1	25	20.53	20.74	20.69
10	64QAM	1	49	20.27	20.24	20.38
10	64QAM	25	0	19.50	19.47	19.50
10	64QAM	25	12	19.59	19.57	19.44
10	64QAM	25	25	19.61	19.45	19.35
10	64QAM	50	0	19.55	19.56	19.47
Channel				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	21.11	21.33	20.99
5	QPSK	1	12	21.07	21.27	21.12
5	QPSK	1	24	21.08	21.09	21.12
5	QPSK	12	0	20.20	20.36	19.95
5	QPSK	12	7	19.97	20.33	20.21
5	QPSK	12	13	20.31	20.21	20.05
5	QPSK	25	0	20.24	20.27	20.04
5	16QAM	1	0	19.77	20.39	19.99
5	16QAM	1	12	19.83	20.40	19.95
5	16QAM	1	24	19.83	20.32	20.00
5	16QAM	12	0	19.21	19.17	19.09
5	16QAM	12	7	19.20	19.23	19.10
5	16QAM	12	13	19.31	19.01	19.20
5	16QAM	25	0	19.15	19.21	19.04
5	64QAM	1	0	20.28	20.16	20.29
5	64QAM	1	12	20.33	20.34	20.20
5	64QAM	1	24	20.32	20.18	20.15
5	64QAM	12	0	19.46	19.49	19.51

5	64QAM	12	7	19.52	19.51	19.35
5	64QAM	12	13	19.53	19.47	19.34
5	64QAM	25	0	19.53	19.49	19.43
Channel				131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5
3	QPSK	1	0	21.07	21.30	20.89
3	QPSK	1	8	21.17	21.25	21.15
3	QPSK	1	14	21.12	21.19	20.98
3	QPSK	8	0	20.19	20.36	20.00
3	QPSK	8	4	20.19	20.24	20.15
3	QPSK	8	7	20.24	20.27	20.15
3	QPSK	15	0	20.21	20.29	20.06
3	16QAM	1	0	20.33	20.68	19.86
3	16QAM	1	8	20.14	20.65	19.87
3	16QAM	1	14	20.11	20.66	19.94
3	16QAM	8	0	19.01	19.58	19.12
3	16QAM	8	4	19.12	19.46	19.29
3	16QAM	8	7	19.32	19.42	19.15
3	16QAM	15	0	19.18	19.11	19.06
3	64QAM	1	0	20.34	20.41	20.49
3	64QAM	1	8	20.36	20.42	20.21
3	64QAM	1	14	20.26	20.36	20.31
3	64QAM	8	0	20.33	20.31	20.50
3	64QAM	8	4	20.34	20.43	20.24
3	64QAM	8	7	20.28	20.23	20.23
3	64QAM	15	0	19.50	19.43	19.50
Channel				131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3
1.4	QPSK	1	0	21.52	21.13	21.02
1.4	QPSK	1	3	21.59	21.10	21.00
1.4	QPSK	1	5	21.48	21.06	20.96
1.4	QPSK	3	0	21.20	21.12	21.04
1.4	QPSK	3	1	21.06	21.15	21.18
1.4	QPSK	3	3	21.20	21.26	21.06
1.4	QPSK	6	0	20.26	20.27	20.05
1.4	16QAM	1	0	20.12	20.90	19.94
1.4	16QAM	1	3	20.34	20.95	19.93
1.4	16QAM	1	5	20.26	20.83	19.64

1.4	16QAM	3	0	20.36	20.54	20.22
1.4	16QAM	3	1	20.04	20.46	20.35
1.4	16QAM	3	3	20.39	20.51	19.96
1.4	16QAM	6	0	19.11	19.43	18.80
1.4	64QAM	1	0	20.59	20.32	20.46
1.4	64QAM	1	3	20.68	20.44	20.55
1.4	64QAM	1	5	20.67	20.31	20.51
1.4	64QAM	3	0	20.44	20.42	20.48
1.4	64QAM	3	1	20.47	20.46	20.43
1.4	64QAM	3	3	20.42	20.42	20.38
1.4	64QAM	6	0	19.51	19.54	19.45

<FDD LTE Band 71>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				133222	133322	133372
Frequency (MHz)				673	683	688
20	QPSK	1	0	21.54	21.65	21.58
20	QPSK	1	49	21.93	22.01	21.83
20	QPSK	1	99	21.35	21.46	21.62
20	QPSK	50	0	20.74	20.81	20.74
20	QPSK	50	24	20.79	20.65	20.67
20	QPSK	50	50	20.79	20.84	20.52
20	QPSK	100	0	20.76	20.85	20.88
20	16QAM	1	0	21.44	21.50	21.46
20	16QAM	1	49	21.15	21.05	20.93
20	16QAM	1	99	20.86	20.65	20.54
20	16QAM	50	0	19.84	19.92	19.93
20	16QAM	50	24	19.82	19.83	19.87
20	16QAM	50	50	19.73	19.88	19.76
20	16QAM	100	0	19.82	19.85	19.80
20	64QAM	1	0	21.11	21.24	20.80
20	64QAM	1	49	21.29	20.25	20.76
20	64QAM	1	99	20.90	20.43	20.51
20	64QAM	50	0	19.77	19.91	19.92
20	64QAM	50	24	19.76	19.76	19.75
20	64QAM	50	50	19.80	19.80	19.91

20	64QAM	100	0	19.81	19.88	19.91
Channel				133197	133297	133397
Frequency (MHz)				670.5	680.5	690.5
15	QPSK	1	0	21.53	21.65	21.06
15	QPSK	1	37	21.48	21.79	21.18
15	QPSK	1	74	21.61	21.57	21.09
15	QPSK	36	0	20.85	20.96	20.85
15	QPSK	36	20	20.80	20.90	20.96
15	QPSK	36	39	20.72	20.77	20.74
15	QPSK	75	0	20.77	20.86	20.93
15	16QAM	1	0	20.96	21.50	20.91
15	16QAM	1	37	20.83	21.54	20.95
15	16QAM	1	74	20.85	21.73	20.97
15	16QAM	36	0	20.44	21.03	20.52
15	16QAM	36	20	20.78	20.57	20.86
15	16QAM	36	39	20.39	20.62	20.54
15	16QAM	75	0	20.69	20.74	20.22
15	64QAM	1	0	21.40	21.54	21.24
15	64QAM	1	37	21.10	21.09	21.67
15	64QAM	1	74	21.04	20.91	21.10
15	64QAM	36	0	20.82	20.97	20.34
15	64QAM	36	20	20.93	20.26	20.26
15	64QAM	36	39	20.62	20.97	20.53
15	64QAM	75	0	20.38	21.01	20.51
Channel				133172	133297	133422
Frequency (MHz)				668	680.5	693
10	QPSK	1	0	22.01	22.03	21.94
10	QPSK	1	25	21.94	21.95	21.88
10	QPSK	1	49	21.53	21.66	21.85
10	QPSK	25	0	20.83	20.92	20.96
10	QPSK	25	12	20.98	20.96	21.01
10	QPSK	25	25	20.84	20.75	21.04
10	QPSK	50	0	20.43	20.92	20.91
10	16QAM	1	0	21.54	21.92	21.83
10	16QAM	1	25	21.63	21.86	21.80
10	16QAM	1	49	20.92	21.72	21.76
10	16QAM	25	0	20.30	20.89	20.85
10	16QAM	25	12	20.64	20.49	20.60

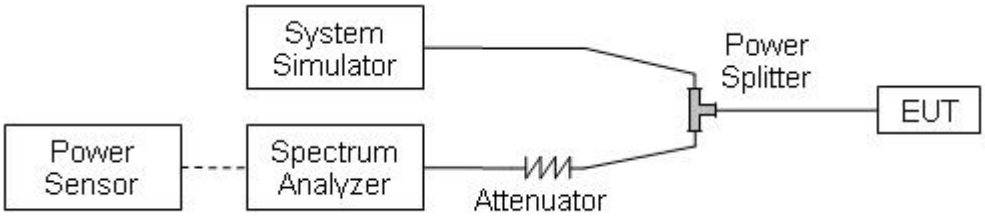
10	16QAM	25	25	20.46	20.86	20.88
10	16QAM	50	0	20.72	20.93	20.96
10	64QAM	1	0	20.94	21.12	20.85
10	64QAM	1	25	21.29	21.67	21.32
10	64QAM	1	49	21.42	21.61	21.28
10	64QAM	25	0	20.32	20.88	20.66
10	64QAM	25	12	20.27	20.33	20.24
10	64QAM	25	25	20.29	20.39	20.94
10	64QAM	50	0	20.64	20.61	20.72
Channel				133147	133297	133447
Frequency (MHz)				665.5	680.5	695.5
5	QPSK	1	0	21.75	21.82	21.69
5	QPSK	1	12	21.79	21.80	21.77
5	QPSK	1	24	21.53	21.59	21.67
5	QPSK	12	0	20.64	20.75	20.71
5	QPSK	12	7	20.76	20.70	20.69
5	QPSK	12	13	20.68	20.80	20.72
5	QPSK	25	0	20.52	20.76	20.70
5	16QAM	1	0	21.62	21.73	21.60
5	16QAM	1	12	21.59	21.64	21.54
5	16QAM	1	24	21.40	21.43	21.48
5	16QAM	12	0	20.60	20.72	20.63
5	16QAM	12	7	20.66	20.65	20.67
5	16QAM	12	13	20.68	20.70	20.62
5	16QAM	25	0	20.53	20.62	20.41
5	64QAM	1	0	21.22	21.45	21.49
5	64QAM	1	12	21.13	21.37	21.48
5	64QAM	1	24	20.98	21.39	21.48
5	64QAM	12	0	20.25	20.81	20.61
5	64QAM	12	7	20.45	20.26	20.76
5	64QAM	12	13	20.62	20.64	20.57
5	64QAM	25	0	20.48	20.36	20.96

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 D01 v03r01r01 Section 4.1 and ANSI/TIA-603-E-2016.

2.2.4. Test Result

LTE Band 2							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
1.4	QPSK	1.102	1.287	1.095	1.288	1.092	1.301
	16QAM	1.097	1.291	1.099	1.281	1.091	1.276
	64QAM	1.102	1.290	1.096	1.271	1.089	1.277
3	QPSK	2.706	3.003	2.704	2.986	2.706	2.980
	16QAM	2.711	2.974	2.705	2.987	2.688	2.920
	64QAM	2.699	2.987	2.706	2.990	2.691	2.926
5	QPSK	4.503	5.018	4.501	4.995	4.496	4.988
	16QAM	4.507	4.954	4.516	5.026	4.512	4.994
	64QAM	4.497	4.972	4.521	5.016	4.511	5.019
10	QPSK	8.954	9.681	8.932	9.759	8.925	9.696
	16QAM	8.977	9.812	8.957	9.651	8.950	9.738
	64QAM	8.975	9.805	8.931	9.784	8.930	9.664
15	QPSK	13.401	14.632	13.409	14.517	13.391	14.436
	16QAM	13.422	14.595	13.381	14.598	13.365	14.450
	64QAM	13.422	14.599	13.421	14.558	13.363	14.357
20	QPSK	17.887	19.139	17.828	19.289	17.856	19.263
	16QAM	17.935	19.359	17.835	19.280	17.918	19.394
	64QAM	17.860	19.309	17.835	19.135	17.852	19.111

LTE Band 4							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
1.4	QPSK	1.093	1.308	1.093	1.273	1.096	1.270
	16QAM	1.091	1.281	1.100	1.283	1.096	1.296
	64QAM	1.093	1.257	1.096	1.282	1.099	1.295
3	QPSK	2.712	2.968	2.713	2.978	2.711	2.988
	16QAM	2.703	2.975	2.706	2.987	2.703	2.982
	64QAM	2.698	2.973	2.705	2.980	2.707	2.998

5	QPSK	4.517	5.002	4.505	5.010	4.500	4.990
	16QAM	4.501	5.001	4.529	5.020	4.513	5.023
	64QAM	4.499	4.955	4.521	5.018	4.515	5.039
10	QPSK	8.990	9.836	8.940	9.819	8.956	9.819
	16QAM	8.949	9.772	8.954	9.585	8.962	9.793
	64QAM	8.960	9.733	8.945	9.876	8.952	9.716
15	QPSK	13.412	14.592	13.383	14.501	13.461	14.536
	16QAM	13.479	14.652	13.423	14.619	13.439	14.547
	64QAM	13.434	14.539	13.408	14.611	13.447	14.546
20	QPSK	17.932	19.401	17.868	19.327	17.887	19.571
	16QAM	17.847	19.260	17.914	19.259	17.885	19.275
	64QAM	17.833	19.294	17.869	19.319	17.945	19.200

LTE Band 5							
BW	**Modulation**	**Low Channel**		**Middle Channel**		**High Channel**	
		OBW	**26dB BW**	**OBW**	**26dB BW**	**OBW**	**26dB BW**
MHz		**MHz**	**MHz**	**MHz**	**MHz**	**MHz**	**MHz**
1.4	QPSK	1.096	1.308	1.097	1.289	1.092	1.291
	16QAM	1.091	1.266	1.095	1.290	1.100	1.291
	64QAM	1.088	1.269	1.092	1.284	1.098	1.306
3	QPSK	2.708	2.985	2.709	2.991	2.709	3.000
	16QAM	2.718	2.969	2.706	3.002	2.709	2.991
	64QAM	2.699	2.979	2.705	2.995	2.704	2.986
5	QPSK	4.517	5.020	4.501	5.006	4.499	4.994
	16QAM	4.496	4.982	4.517	5.026	4.523	5.032
	64QAM	4.502	4.968	4.511	5.018	4.518	5.049
10	QPSK	8.969	9.828	8.959	9.832	8.942	9.720
	16QAM	8.961	9.748	8.950	9.784	8.962	9.804
	64QAM	8.940	9.810	8.944	9.766	8.951	9.788

LTE Band 12							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
1.4	QPSK	1.096	1.284	1.089	1.276	1.100	1.288
	16QAM	1.090	1.286	1.095	1.278	1.088	1.273
	64QAM	1.095	1.282	1.099	1.290	1.090	1.262
3	QPSK	2.708	2.990	2.705	2.969	2.708	2.987
	16QAM	2.706	2.991	2.702	2.992	2.700	2.992
	64QAM	2.703	2.992	2.703	2.993	2.704	2.990
5	QPSK	4.522	4.991	4.507	5.008	4.498	4.981
	16QAM	4.497	4.956	4.516	5.029	4.514	5.040
	64QAM	4.494	4.980	4.510	5.011	4.509	5.034
10	QPSK	8.962	9.876	8.962	9.821	8.981	9.758
	16QAM	8.991	9.866	8.933	9.753	8.949	9.687
	64QAM	8.962	9.775	8.965	9.812	8.968	9.689

LTE Band 13							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
5	QPSK	4.493	4.974	4.516	5.017	4.501	5.010
	16QAM	4.522	5.028	4.502	4.983	4.509	4.998
	64QAM	4.516	5.034	4.501	5.007	4.519	5.013
10	QPSK	/	/	8.959	9.895	/	/
	16QAM	/	/	8.950	9.726	/	/
	64QAM	/	/	8.968	9.635	/	/

LTE Band 25							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
1.4	QPSK	1.098	1.289	1.089	1.288	1.091	1.314
	16QAM	1.098	1.284	1.096	1.297	1.090	1.264
	64QAM	1.096	1.290	1.099	1.305	1.092	1.282

3	QPSK	2.712	2.980	2.707	2.993	2.703	2.978
	16QAM	2.699	3.005	2.701	2.993	2.706	2.989
	64QAM	2.704	2.965	2.707	2.981	2.699	2.989
5	QPSK	4.511	4.997	4.503	5.020	4.506	4.980
	16QAM	4.496	5.007	4.514	5.000	4.518	5.034
	64QAM	4.496	4.990	4.524	5.007	4.524	5.019
10	QPSK	8.954	9.798	8.954	9.707	8.981	9.720
	16QAM	8.961	9.832	8.947	9.765	8.947	9.735
	64QAM	8.940	9.761	8.948	9.670	8.946	9.836
15	QPSK	13.394	14.631	13.378	14.462	13.356	14.556
	16QAM	13.418	14.555	13.406	14.397	13.312	14.364
	64QAM	13.474	14.525	13.359	14.466	13.375	14.476
20	QPSK	17.992	19.300	17.837	19.462	17.754	19.302
	16QAM	17.859	19.233	17.809	19.203	17.772	19.304
	64QAM	17.908	19.310	17.794	19.394	17.760	18.878

LTE Band 26							
BW	**Modulation**	**Low Channel**		**Middle Channel**		**High Channel**	
		OBW	**26dB BW**	**OBW**	**26dB BW**	**OBW**	**26dB BW**
MHz		**MHz**	**MHz**	**MHz**	**MHz**	**MHz**	**MHz**
1.4	QPSK	1.105	1.294	1.089	1.287	1.097	1.289
	16QAM	1.098	1.300	1.102	1.282	1.093	1.272
	64QAM	1.098	1.288	1.095	1.322	1.092	1.268
3	QPSK	2.705	3.008	2.705	2.963	2.707	3.005
	16QAM	2.699	2.969	2.703	3.002	2.703	2.993
	64QAM	2.702	2.965	2.706	3.001	2.706	2.996
5	QPSK	4.512	5.007	4.502	5.016	4.502	4.986
	16QAM	4.503	5.012	4.511	5.000	4.527	5.033
	64QAM	4.503	4.972	4.511	5.025	4.517	5.031
10	QPSK	8.993	9.884	8.958	9.757	8.945	9.753
	16QAM	8.979	9.778	8.956	9.700	8.928	9.718
	64QAM	8.996	9.741	8.984	9.742	8.917	9.748
15	QPSK	13.437	14.598	13.425	14.585	13.399	14.570
	16QAM	13.433	14.660	13.462	14.680	13.420	14.519
	64QAM	13.445	14.491	13.435	14.615	13.405	14.574

LTE Band 41							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
5	QPSK	4.501	4.962	4.505	4.954	4.491	4.955
	16QAM	4.504	5.753	4.502	5.372	4.499	4.978
	64QAM	4.507	5.529	4.499	5.312	4.495	4.979
10	QPSK	9.003	10.193	8.961	11.749	8.956	9.718
	16QAM	8.949	12.853	8.949	9.616	8.953	9.730
	64QAM	8.989	11.653	8.984	9.633	8.975	9.862
15	QPSK	13.421	15.245	13.444	19.972	13.363	14.753
	16QAM	13.446	24.845	13.425	15.403	13.473	14.392
	64QAM	13.422	16.354	13.499	17.126	13.424	14.624
20	QPSK	17.854	25.158	17.904	20.356	17.876	19.095
	16QAM	17.901	19.983	17.877	20.129	17.914	19.508
	64QAM	17.897	19.226	17.899	19.943	17.941	19.798

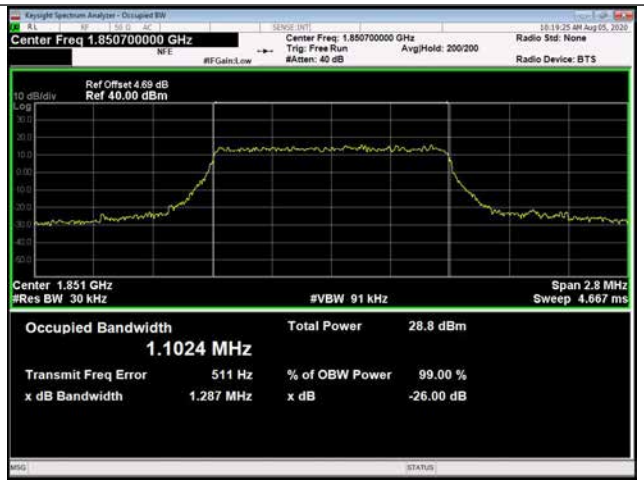
LTE Band 66							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
1.4	QPSK	1.093	1.266	1.097	1.318	1.103	1.272
	16QAM	1.098	1.307	1.091	1.279	1.091	1.287
	64QAM	1.098	1.312	1.091	1.275	1.093	1.290
3	QPSK	2.706	2.972	2.705	2.990	2.710	2.994
	16QAM	2.708	2.997	2.701	2.988	2.705	2.996
	64QAM	2.702	2.996	2.702	2.999	2.701	2.980
5	QPSK	4.511	5.009	4.504	5.015	4.503	4.990
	16QAM	4.500	4.983	4.509	4.978	4.515	5.017
	64QAM	4.507	4.986	4.513	4.998	4.519	5.030
10	QPSK	8.978	9.824	8.950	9.823	8.987	9.942
	16QAM	8.975	9.885	8.973	9.813	8.948	9.790
	64QAM	8.968	9.781	8.961	9.693	8.987	9.853
15	QPSK	13.428	14.662	13.392	14.648	13.407	14.606
	16QAM	13.457	14.600	13.424	14.709	13.441	14.601

	64QAM	13.435	14.567	13.435	14.656	13.408	14.611
20	QPSK	17.936	19.323	17.874	19.149	17.936	19.301
	16QAM	17.858	19.251	17.875	19.239	17.931	19.370
	64QAM	17.981	19.130	17.935	19.221	17.935	19.320

LTE Band 71							
BW	**Modulation**	**Low Channel**		**Middle Channel**		**High Channel**	
		OBW	**26dB BW**	**OBW**	**26dB BW**	**OBW**	**26dB BW**
MHz		**MHz**	**MHz**	**MHz**	**MHz**	**MHz**	**MHz**
5	QPSK	4.436	4.763	4.469	4.741	4.474	4.779
	16QAM	4.470	4.740	4.482	4.837	4.481	4.752
	64QAM	4.450	4.746	4.486	4.735	4.472	4.763
10	QPSK	8.892	9.440	8.924	9.450	8.925	9.443
	16QAM	8.904	9.441	8.913	9.412	8.898	9.407
	64QAM	8.910	9.410	8.890	9.468	8.924	9.462
15	QPSK	13.350	13.930	13.300	14.060	13.379	13.970
	16QAM	13.381	13.930	13.333	13.920	13.378	14.100
	64QAM	13.390	13.950	13.292	13.910	13.428	13.970
20	QPSK	17.799	18.850	17.814	18.850	17.958	18.980
	16QAM	17.832	18.990	17.792	18.850	17.933	18.870
	64QAM	17.809	18.820	17.828	18.830	17.907	18.870

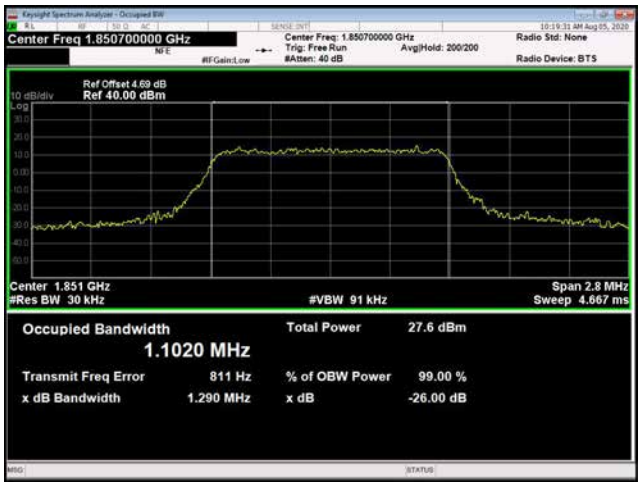
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth

1.4MHz / QPSK / Low Channel

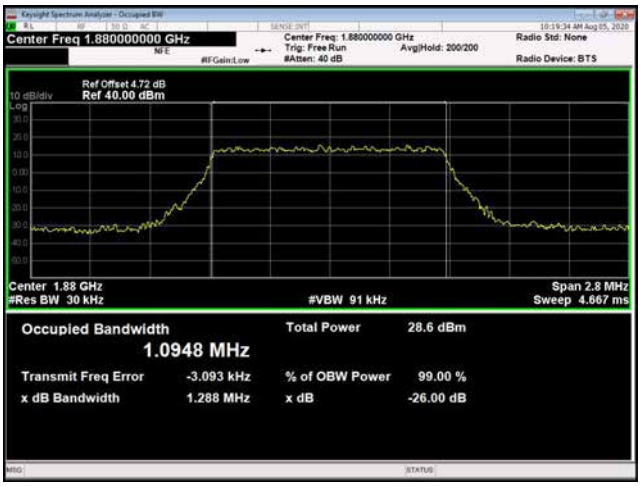


1.4MHz / 16QAM / Low Channel

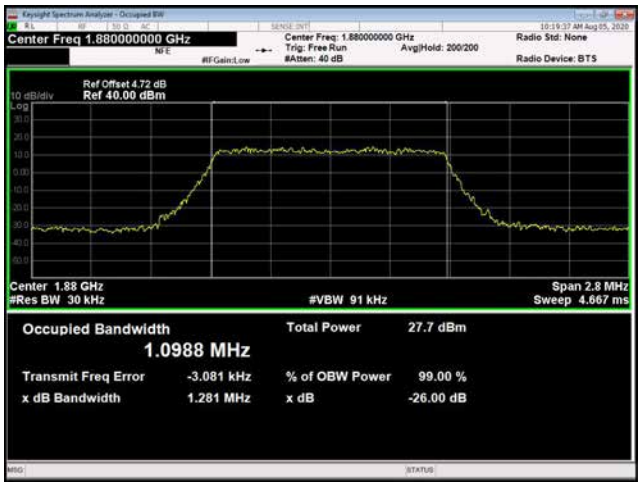
1.4MHz / 64QAM / Low Channel



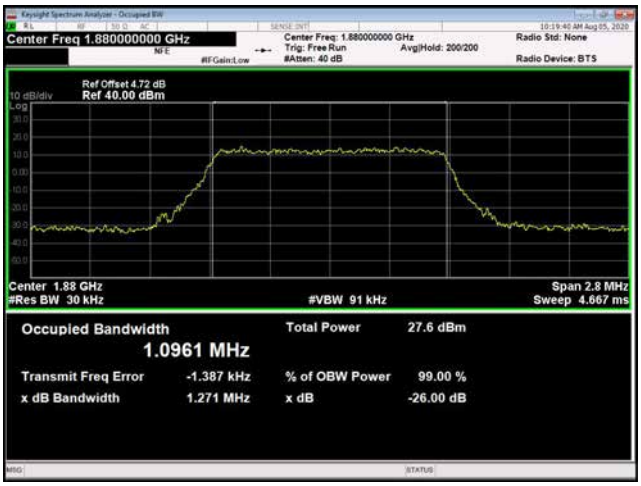
1.4MHz / QPSK / Middle Channel

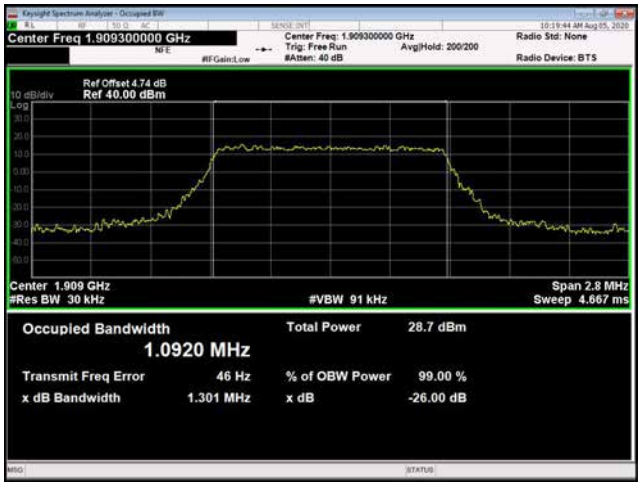
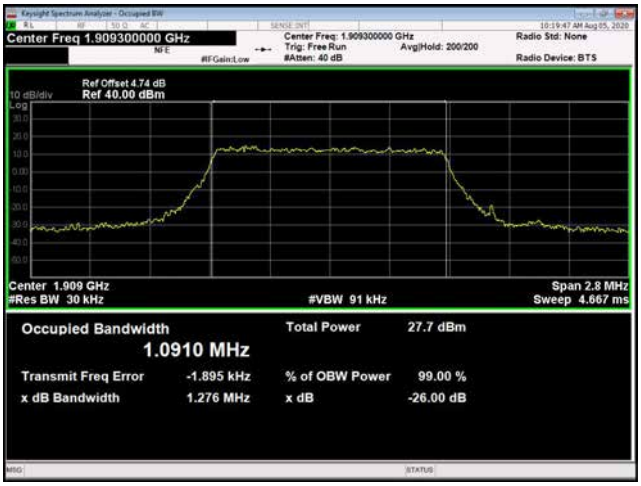
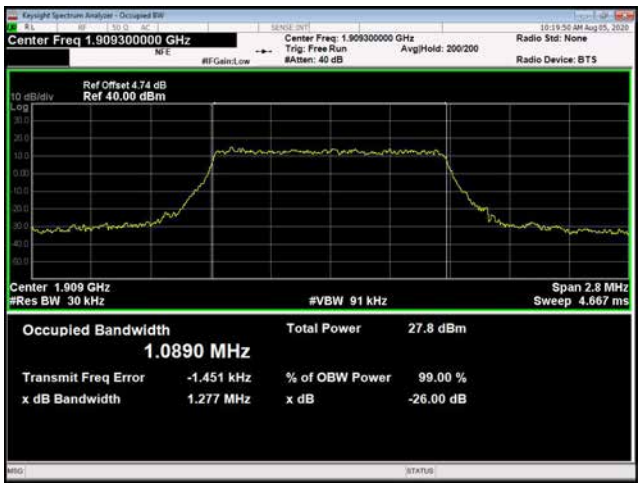
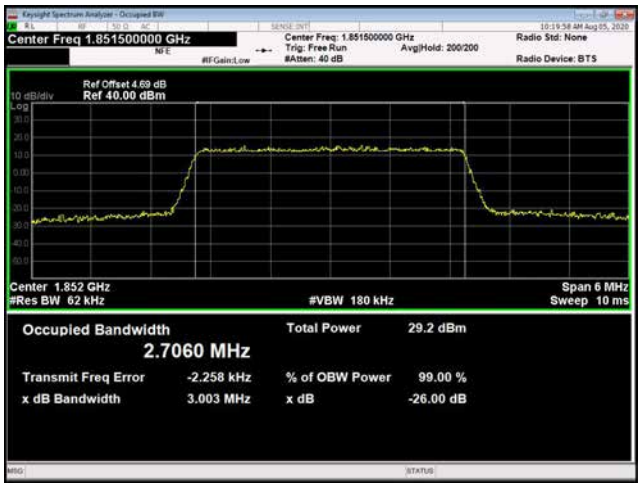
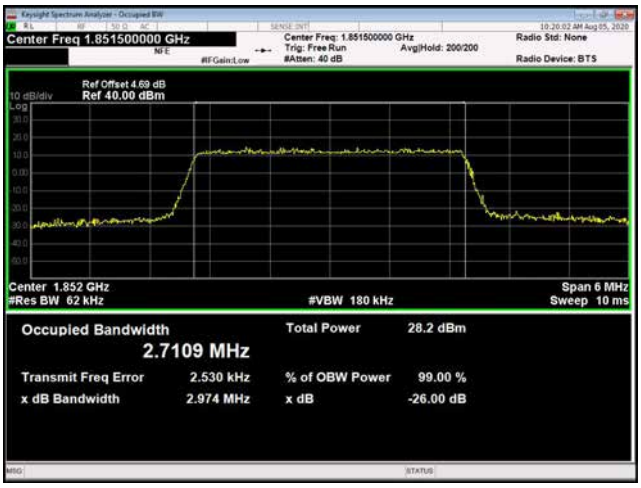


1.4MHz / 16QAM / Middle Channel



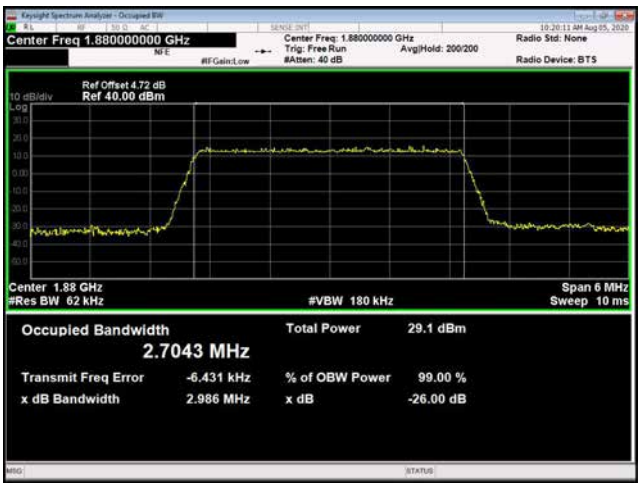
1.4MHz / 64QAM / Middle Channel



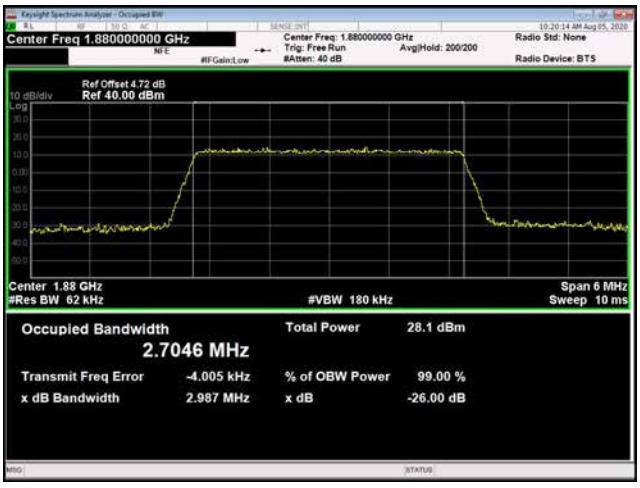
1.4MHz / QPSK / High Channel	1.4MHz / 16QAM / High Channel
	
1.4MHz / 64QAM / High Channel	\
	\
3MHz / QPSK / Low Channel	**3MHz / 16QAM / Low Channel**
	

3MHz / 64QAM / Low Channel

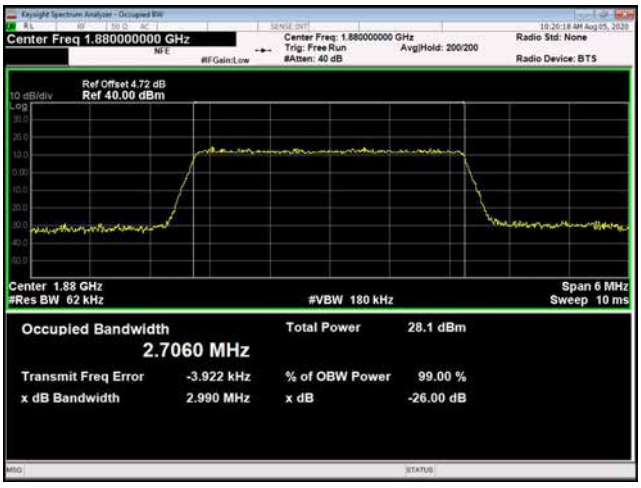
3MHz / QPSK / Middle Channel



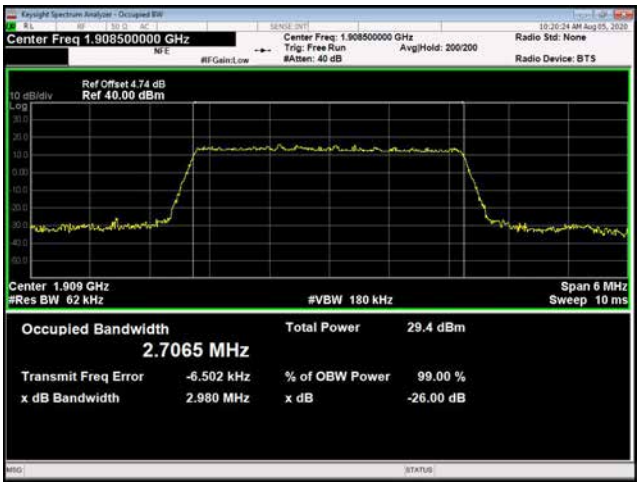
3MHz / 16QAM / Middle Channel



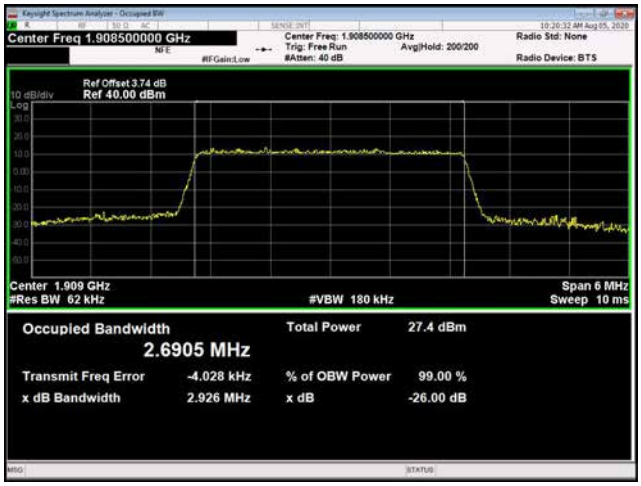
3MHz / 64QAM / Middle Channel

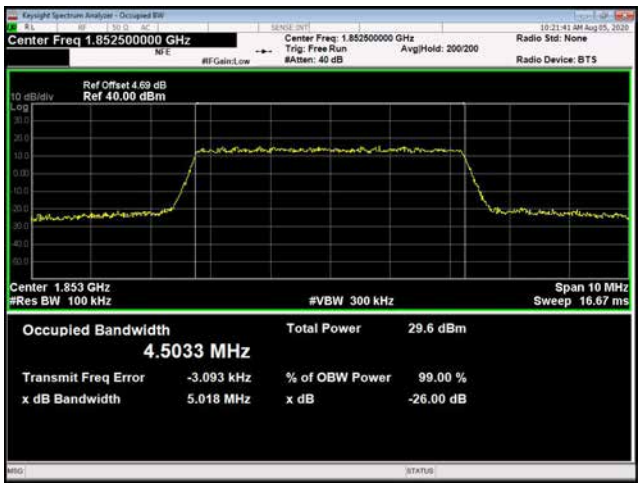


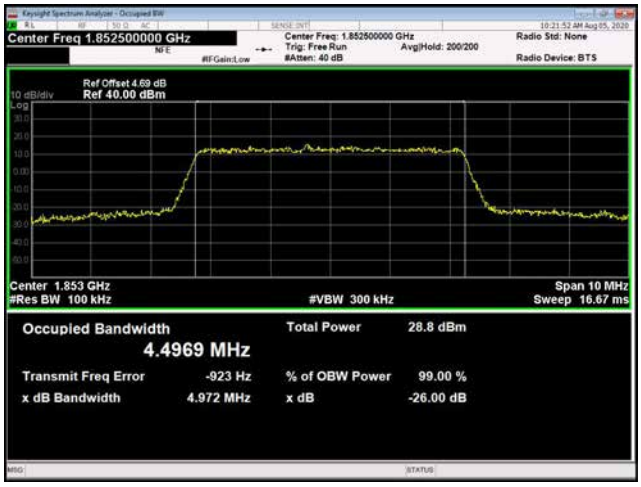
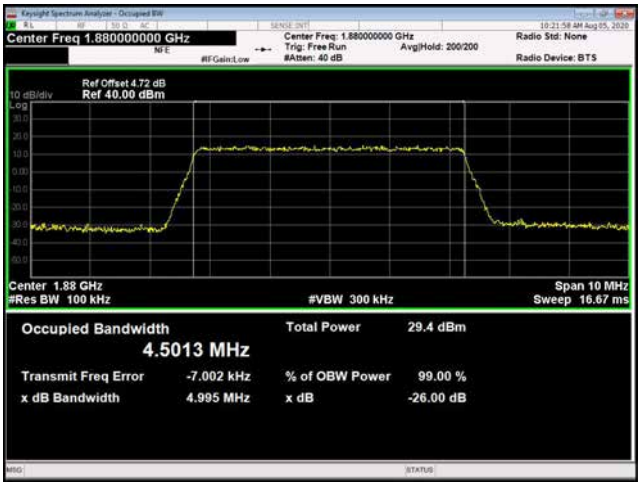
3MHz / QPSK / High Channel

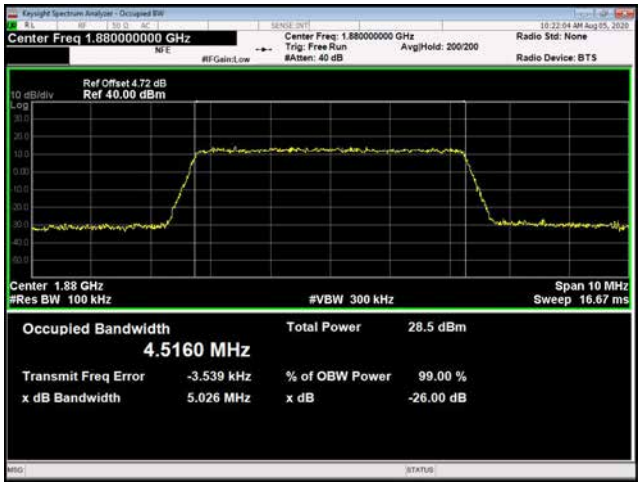
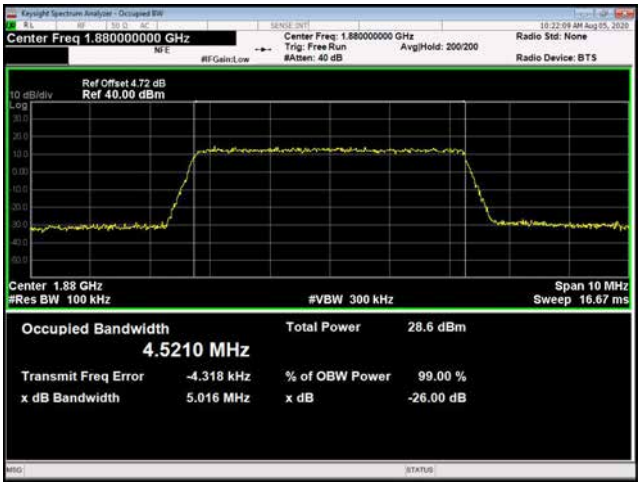
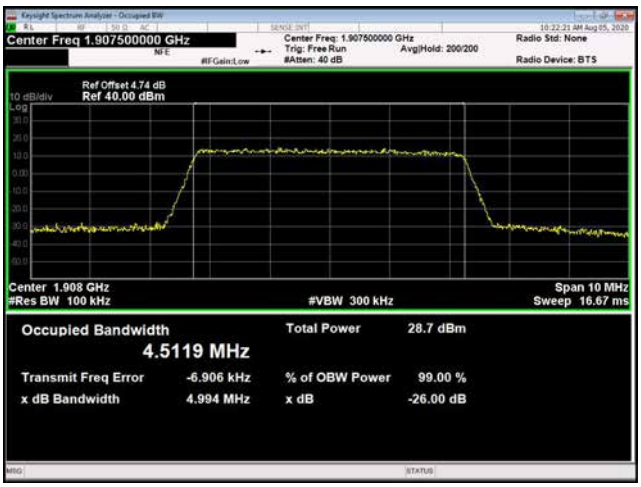


3MHz / 16QAM / High Channel

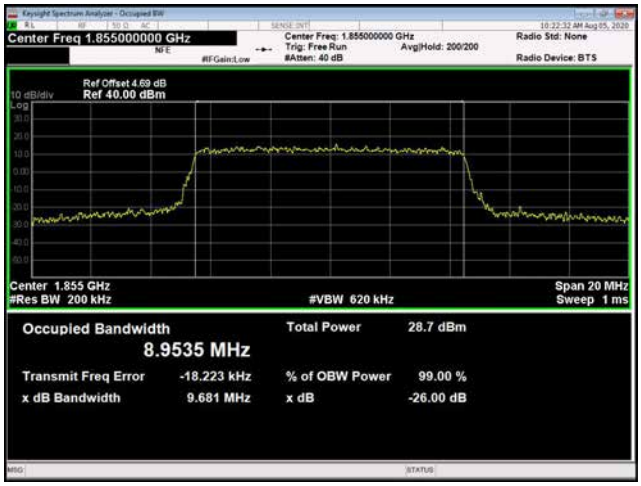
3MHz / 64QAM / High Channel	\
	\

5MHz / QPSK / Low Channel	5MHz / 16QAM / Low Channel
	

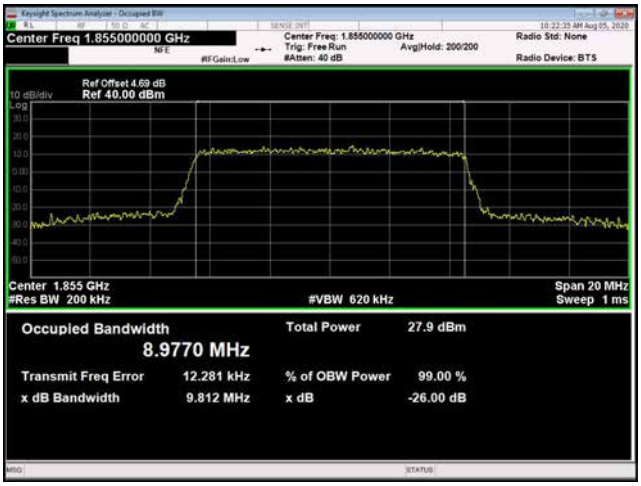
5MHz / 64QAM / Low Channel	5MHz / QPSK / Middle Channel
	

5MHz / 16QAM / Middle Channel	5MHz / 64QAM / Middle Channel
	
5MHz / QPSK / High Channel	**5MHz / 16QAM / High Channel**
	
5MHz / 64QAM / High Channel	\
	\

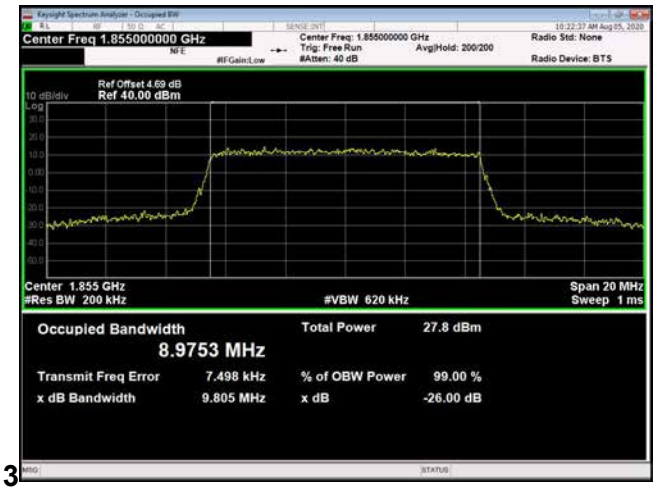
10MHz / QPSK / Low Channel



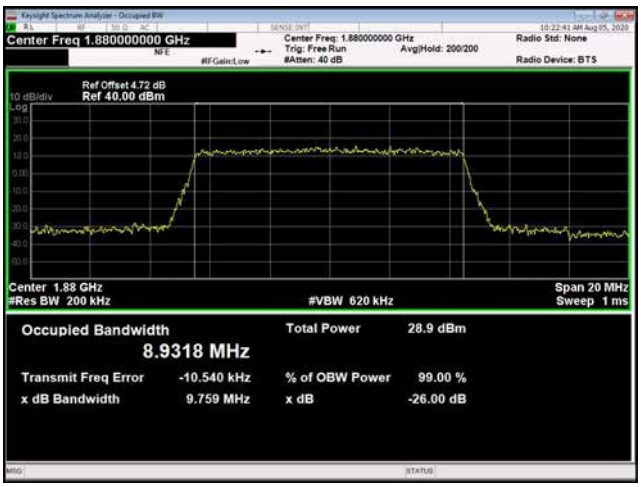
10MHz / 16QAM / Low Channel



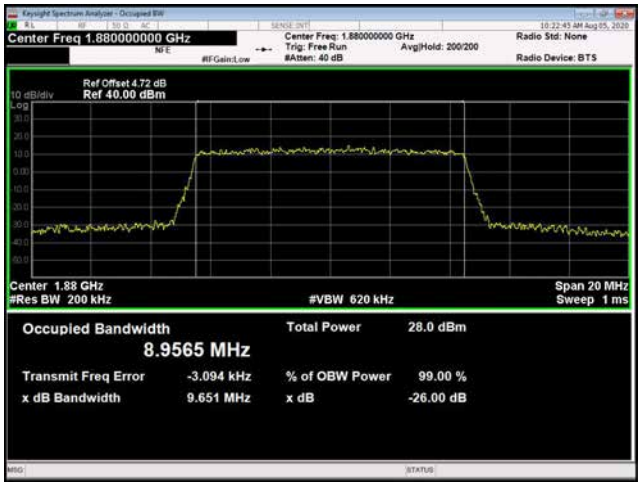
10MHz / 64QAM / Low Channel



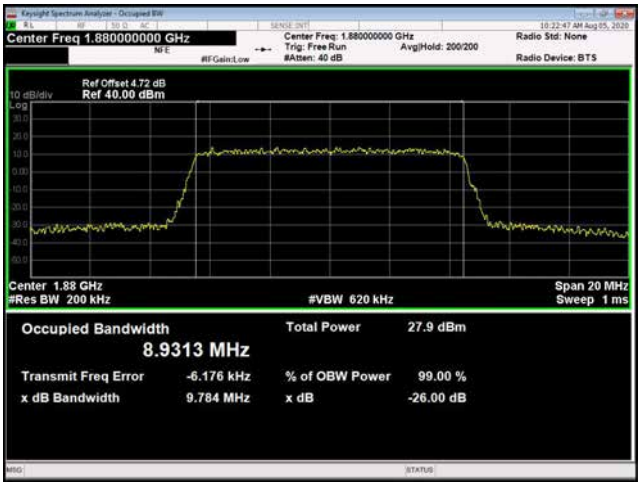
10MHz / QPSK / Middle Channel

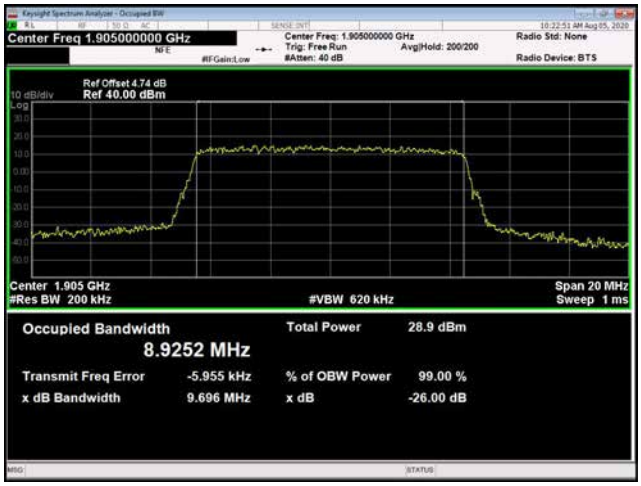
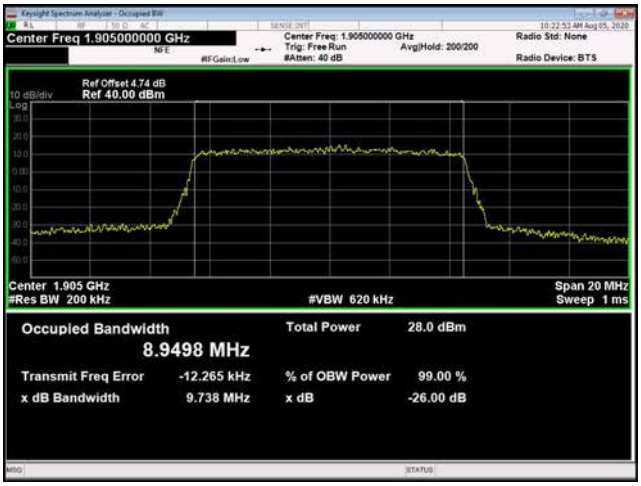
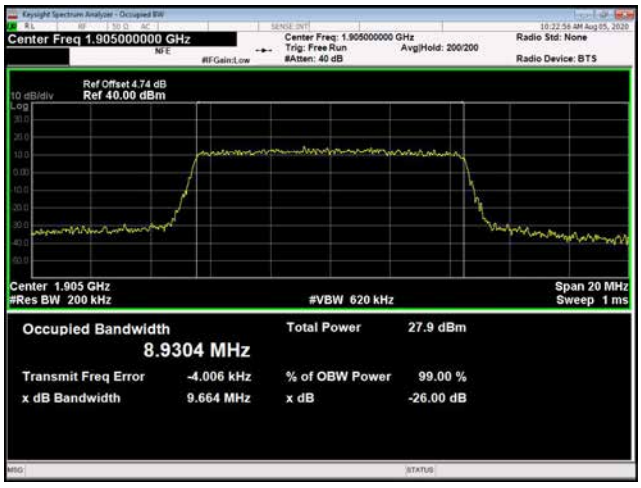
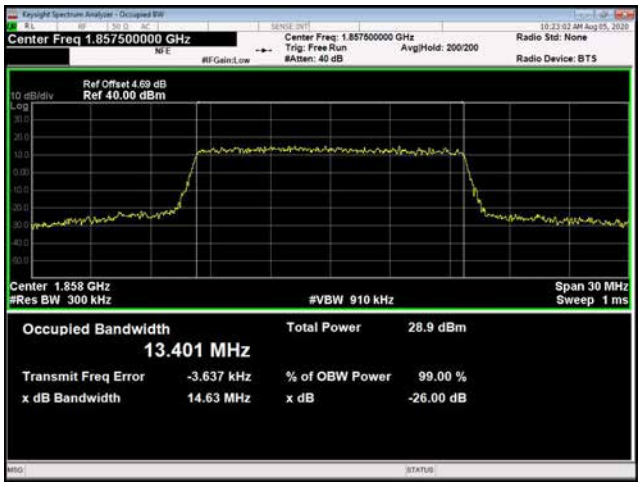
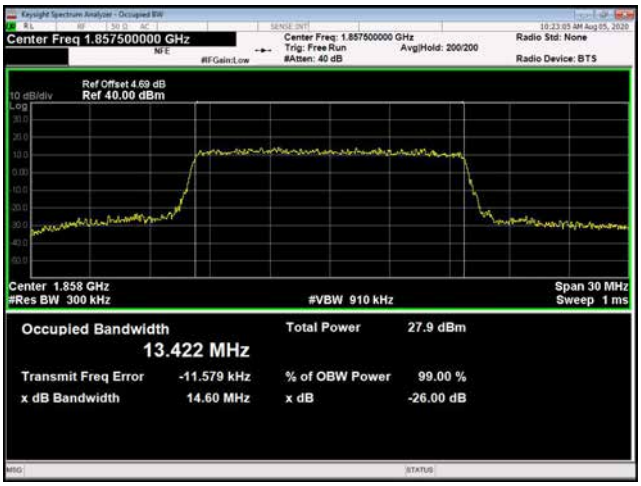


10MHz / 16QAM / Middle Channel

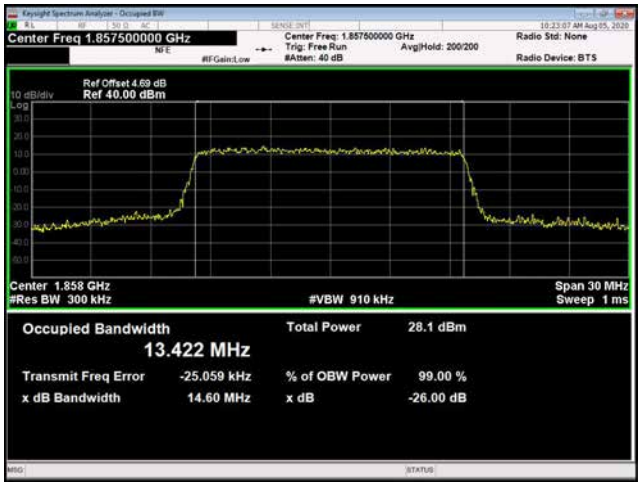


10MHz / 64QAM / Middle Channel

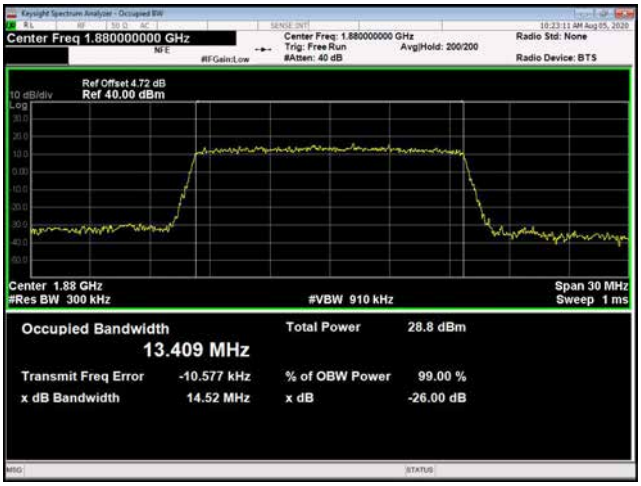


10MHz / QPSK / High Channel	10MHz / 16QAM / High Channel
	
10MHz / 64QAM / High Channel	****
	\
15MHz / QPSK / Low Channel	**15MHz / 16QAM / Low Channel**
	

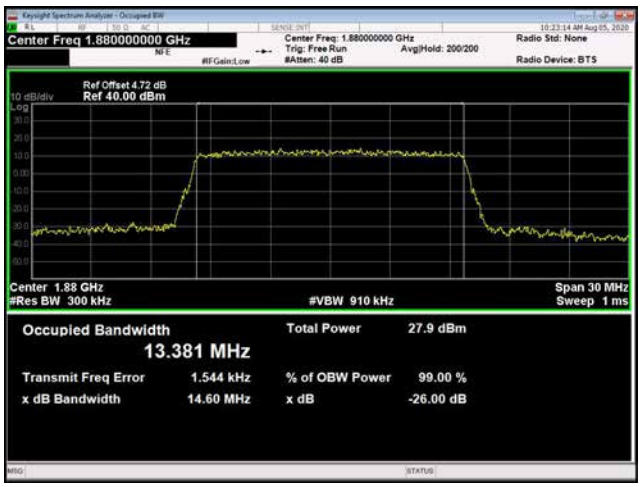
15MHz / 64QAM / Low Channel



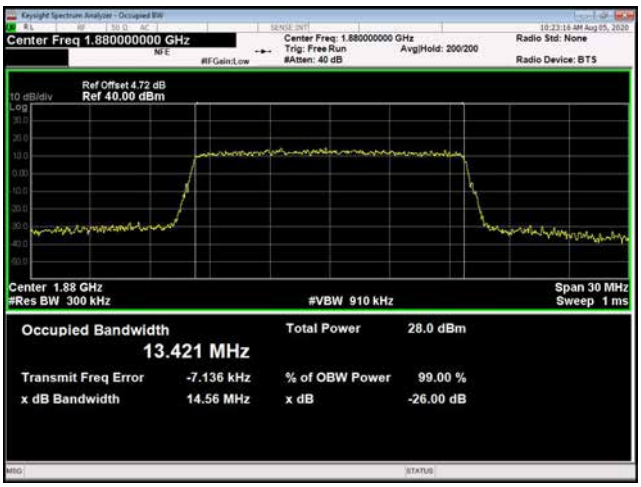
15MHz / QPSK / Middle Channel



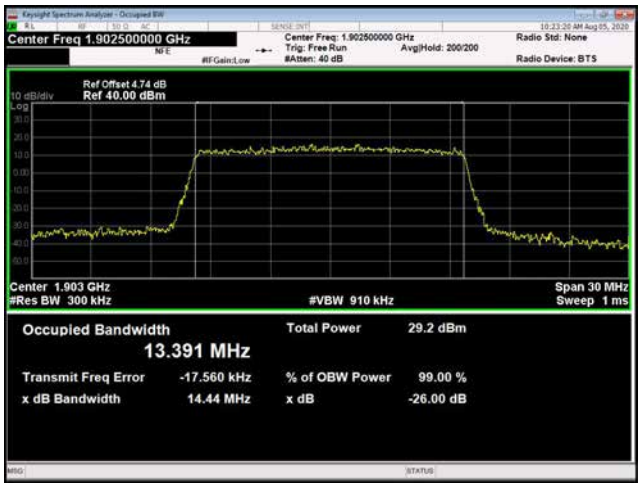
15MHz / 16QAM / Middle Channel



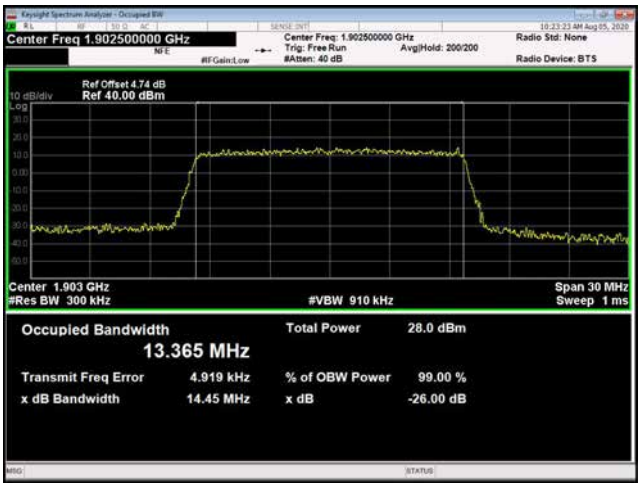
15MHz / 64QAM / Middle Channel

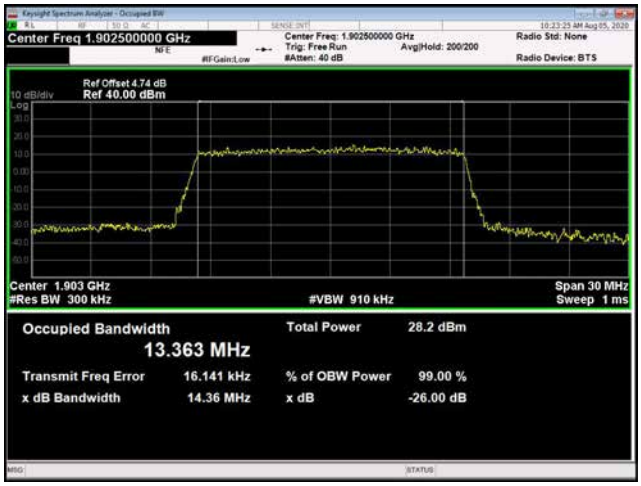
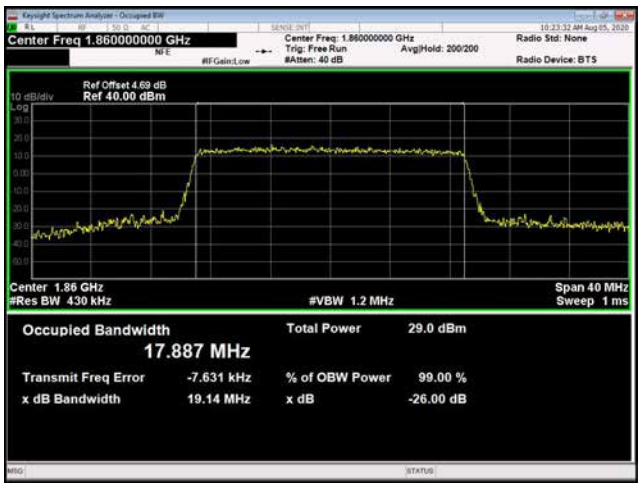
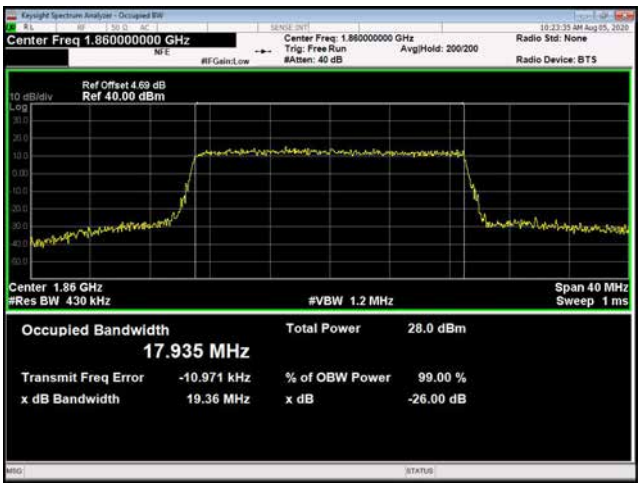
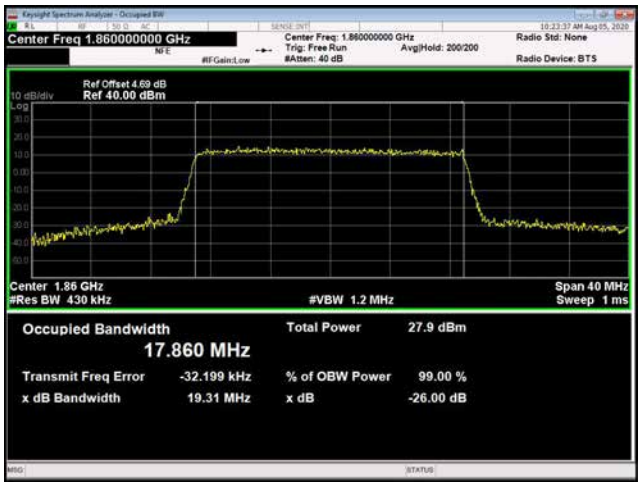
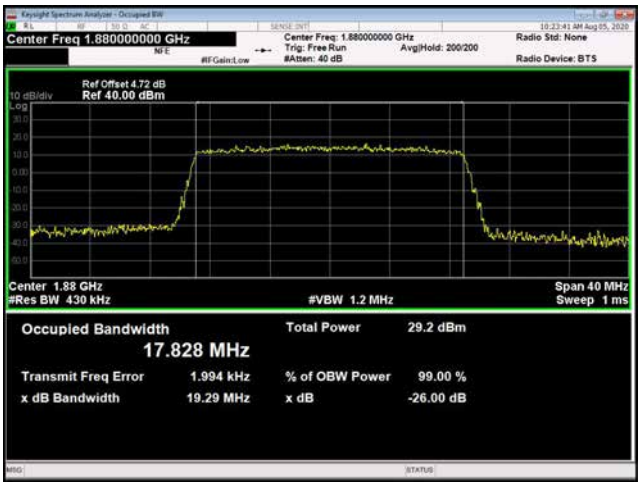


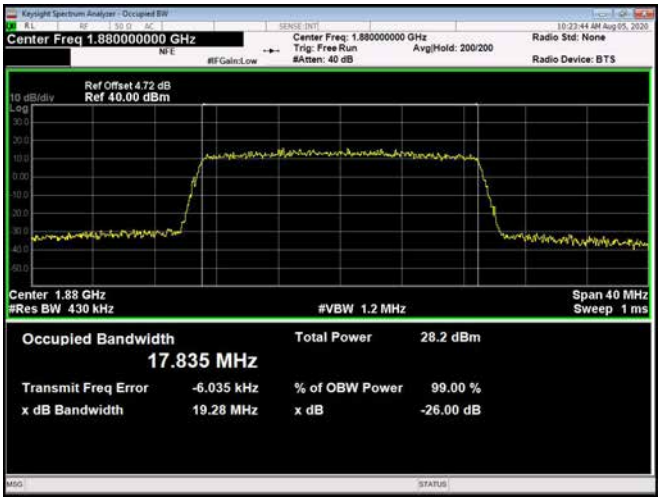
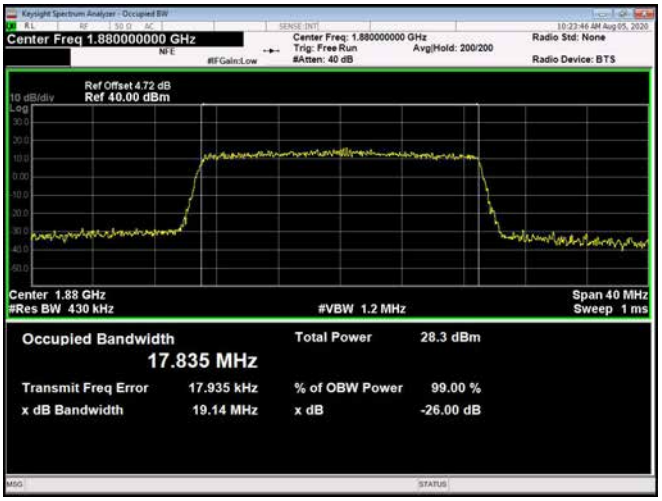
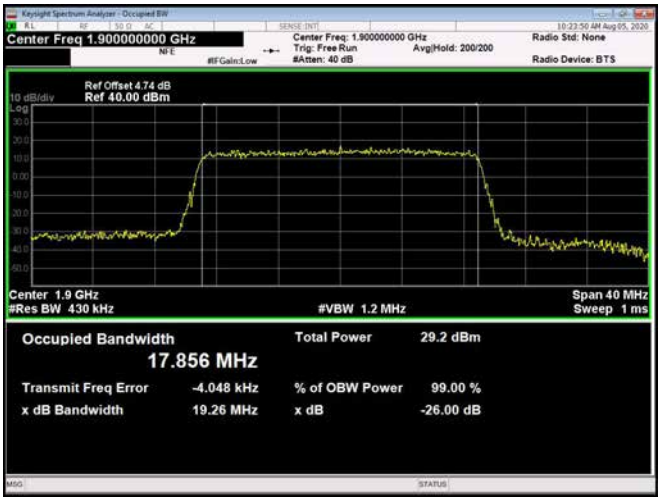
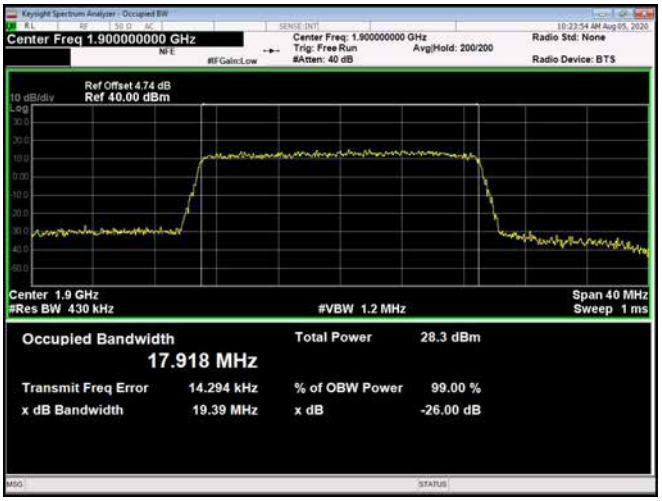
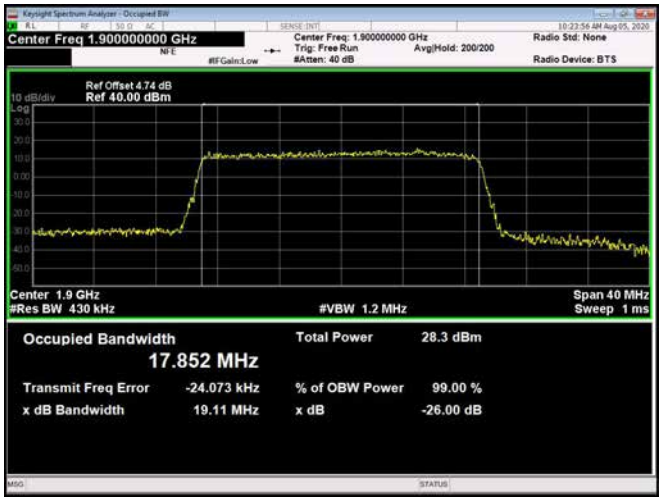
15MHz / QPSK / High Channel



15MHz / 16QAM / High Channel

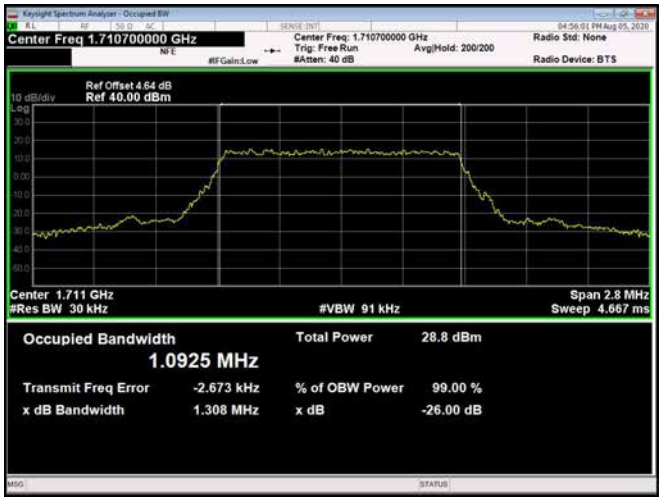


15MHz / 64QAM / High Channel	\
	\
20MHz / QPSK / Low Channel	**20MHz / 16QAM / Low Channel**
	
20MHz / 64QAM / Low Channel	**20MHz / QPSK / Middle Channel**
	

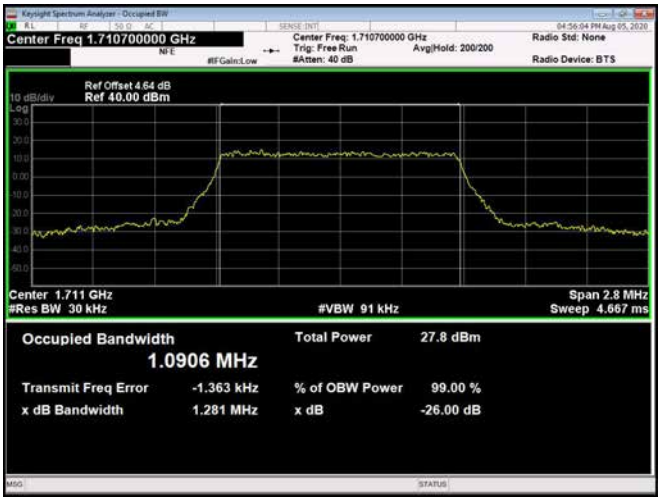
20MHz / 16QAM / Middle Channel	20MHz / 64QAM / Middle Channel
	
20MHz / QPSK / High Channel	**20MHz / 16QAM / High Channel**
	
20MHz / 64QAM / High Channel	\
	\

LTE Band 4 _ 99% Bandwidth & 26dB Bandwidth

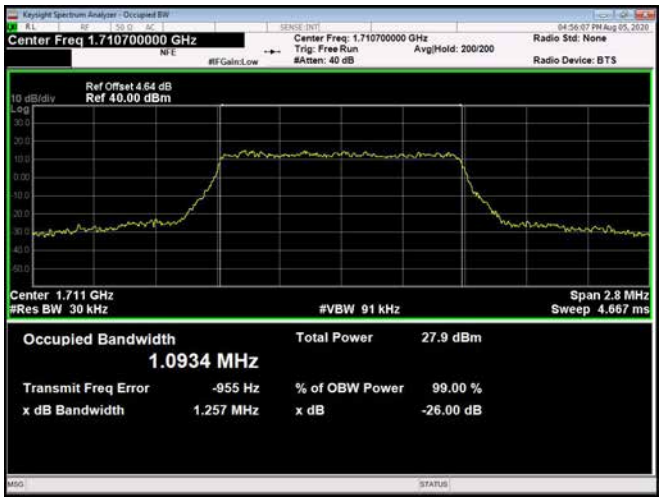
1.4MHz / QPSK / Low Channel



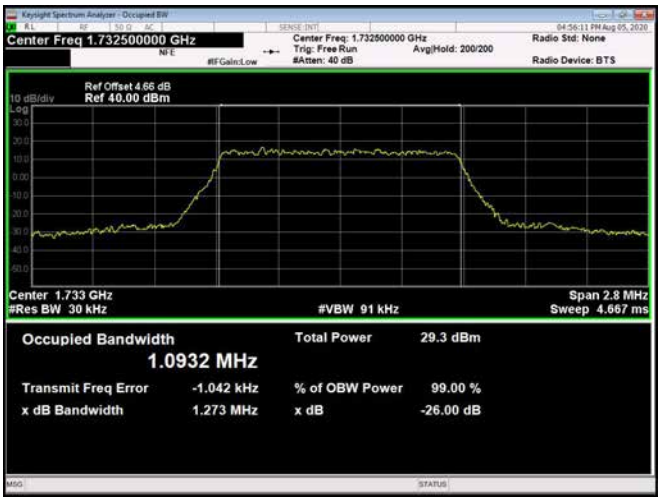
1.4MHz / 16QAM / Low Channel



1.4MHz / 64QAM / Low Channel

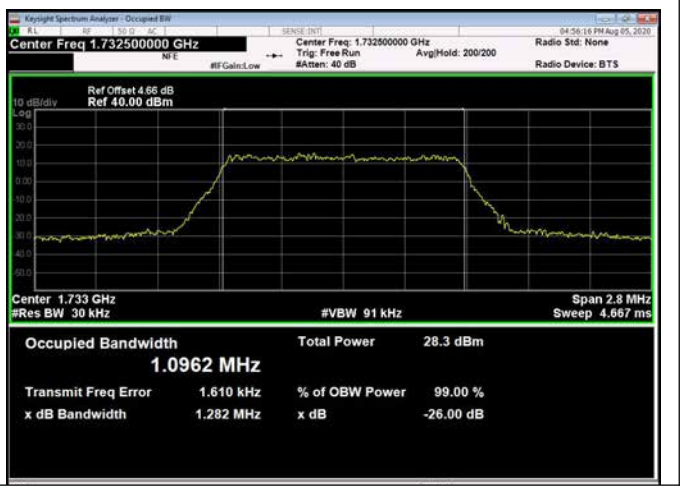


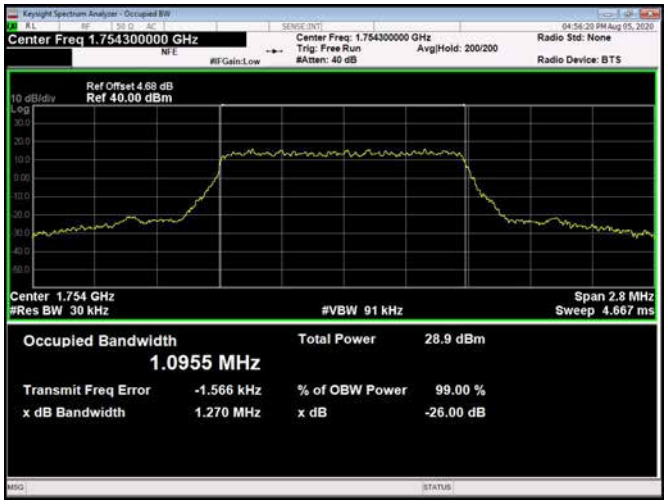
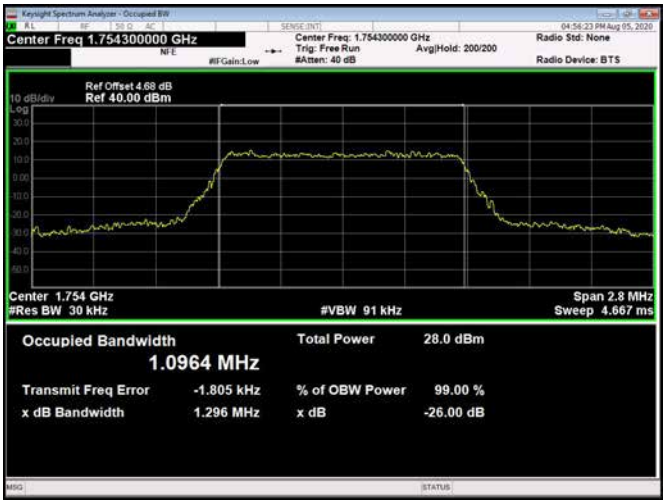
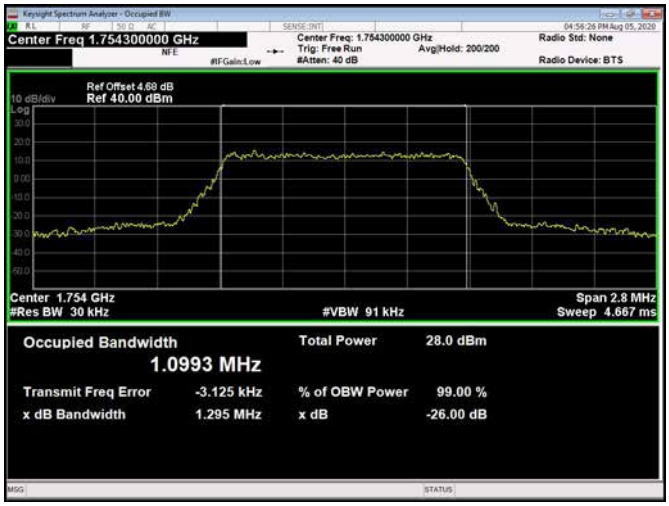
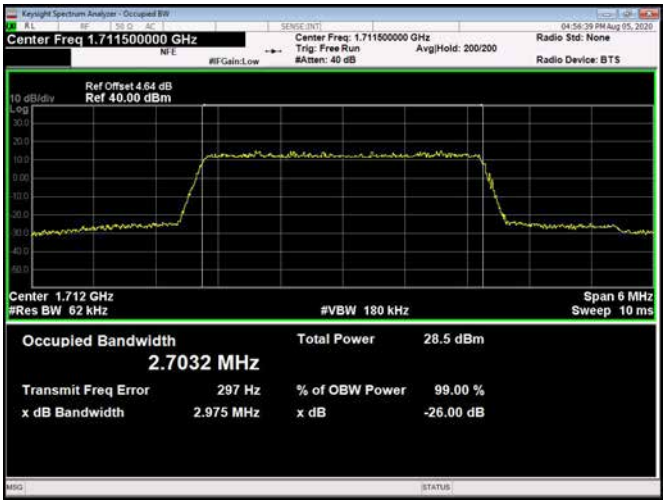
1.4MHz / QPSK / Middle Channel



1.4MHz / 16QAM / Middle Channel

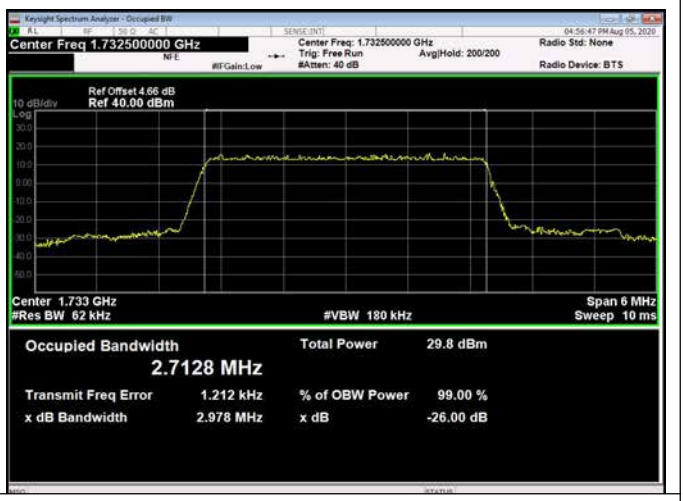
1.4MHz / 64QAM / Middle Channel



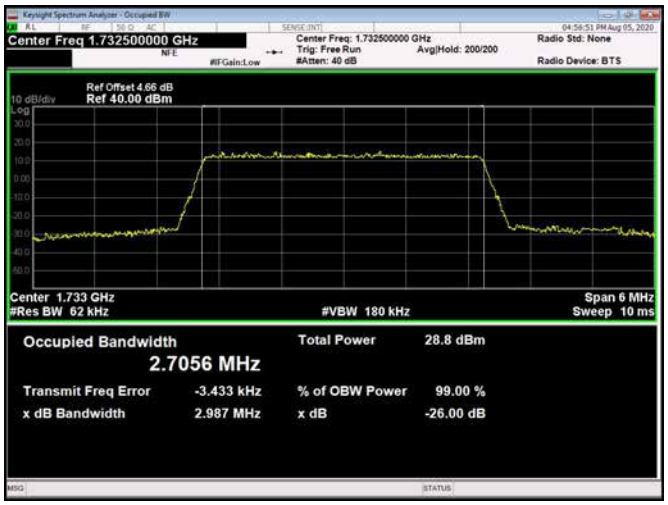
1.4MHz / QPSK / High Channel	1.4MHz / 16QAM / High Channel
	
1.4MHz / 64QAM / High Channel	\
	\
3MHz / QPSK / Low Channel	**3MHz / 16QAM / Low Channel**
	

3MHz / 64QAM / Low Channel

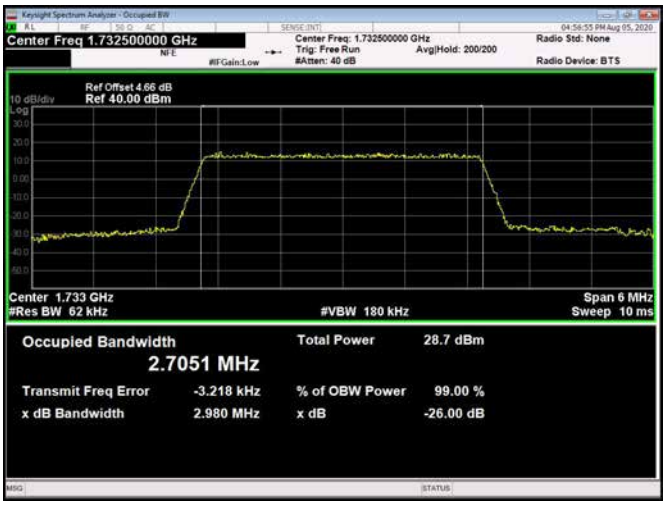
3MHz / QPSK / Middle Channel



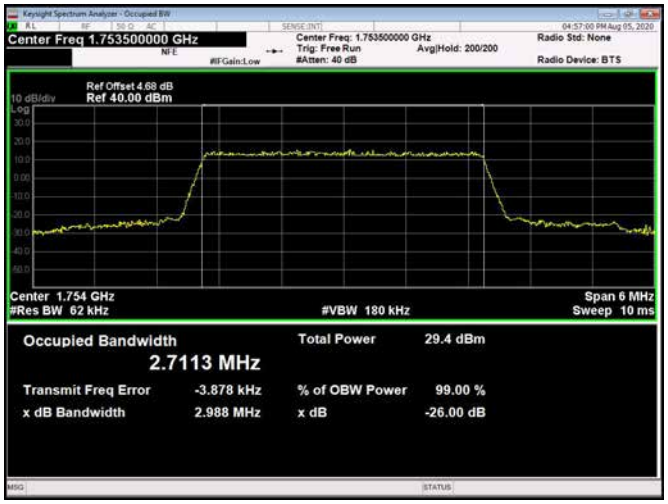
3MHz / 16QAM / Middle Channel



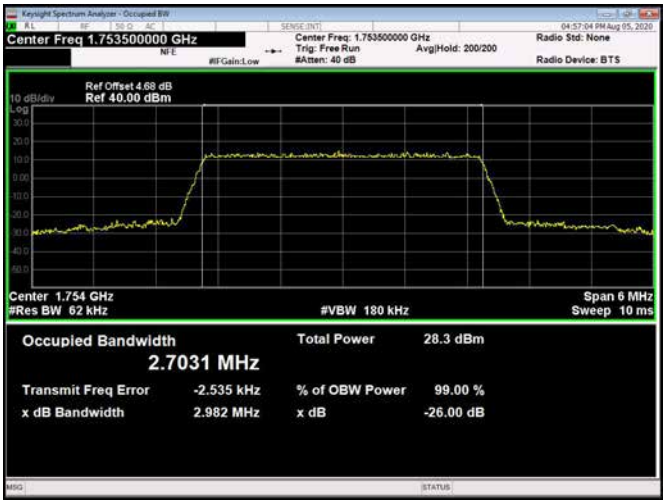
3MHz / 64QAM / Middle Channel

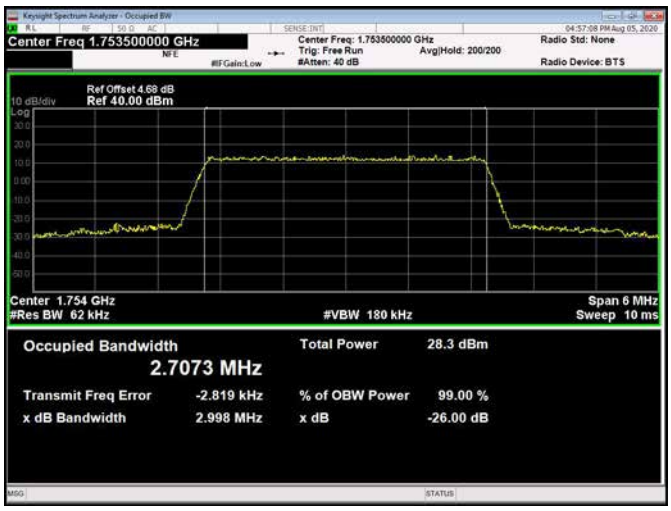


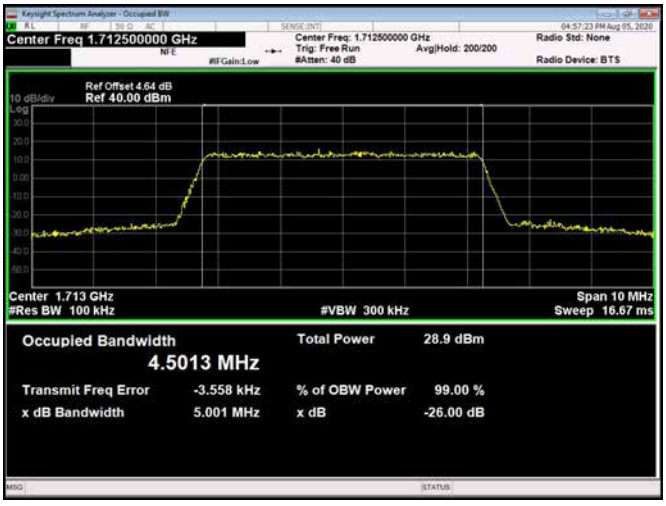
3MHz / QPSK / High Channel

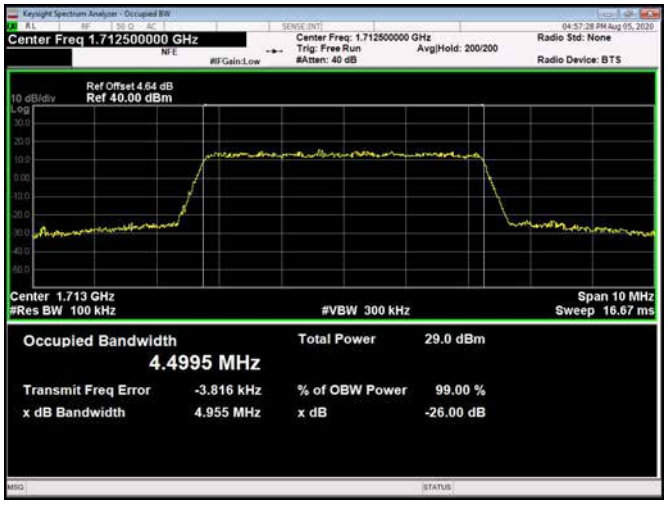


3MHz / 16QAM / High Channel



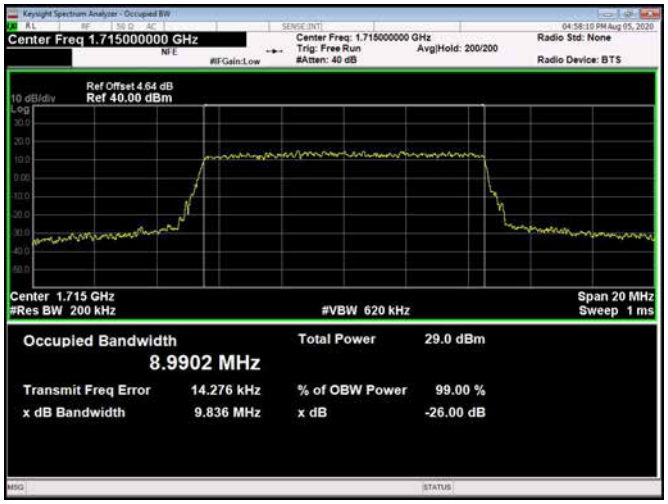
3MHz / 64QAM / High Channel	\
	\

5MHz / QPSK / Low Channel	5MHz / 16QAM / Low Channel
	

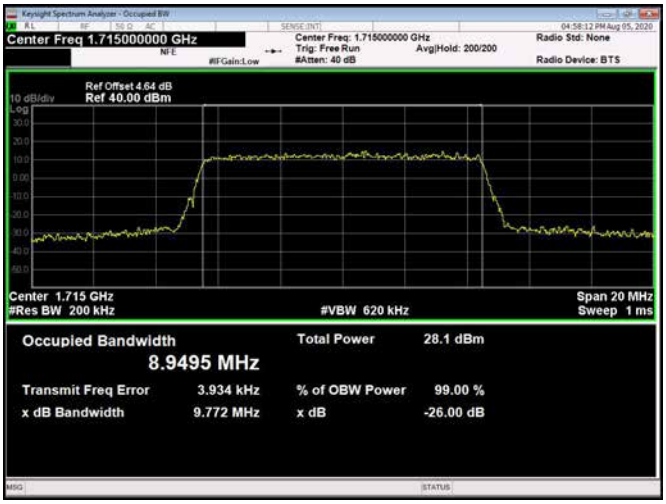
5MHz / 64QAM / Low Channel	5MHz / QPSK / Middle Channel
	

5MHz / 16QAM / Middle Channel	5MHz / 64QAM / Middle Channel
5MHz / QPSK / High Channel	**5MHz / 16QAM / High Channel**
5MHz / 16QAM / High Channel	\
	\

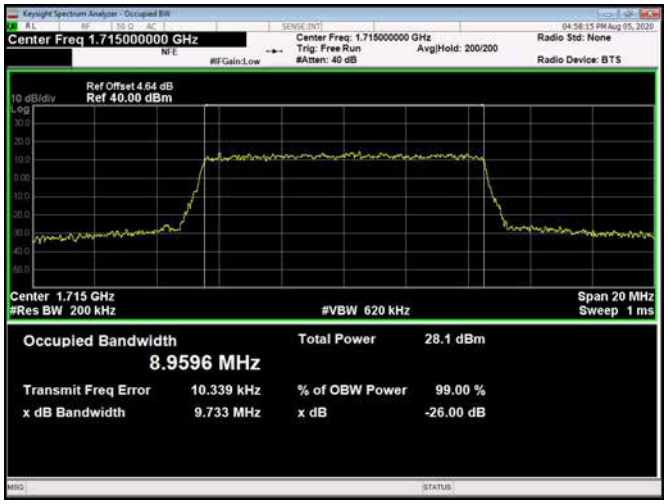
10MHz / QPSK / Low Channel



10MHz / 16QAM / Low Channel



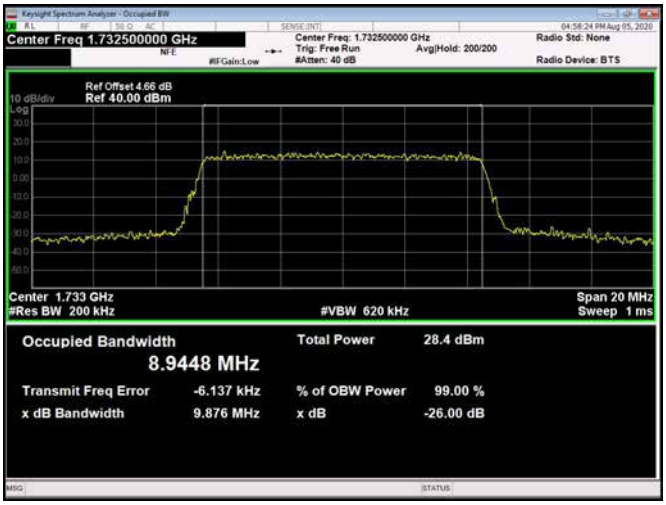
10MHz / 64QAM / Low Channel

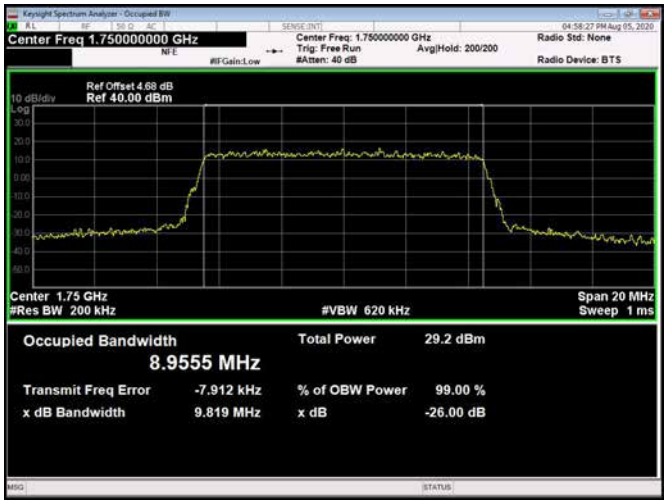
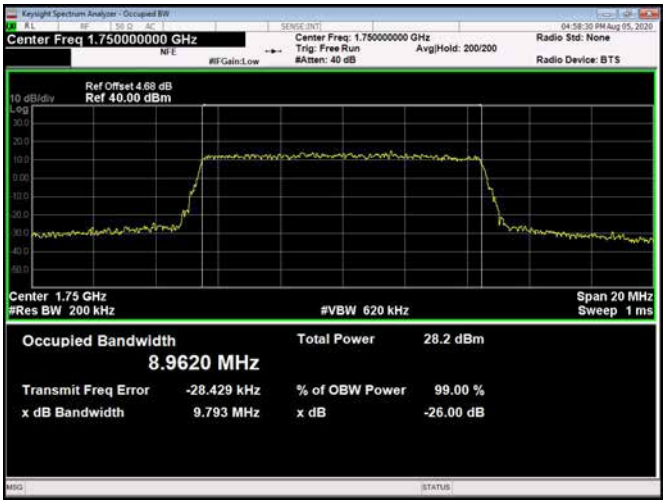
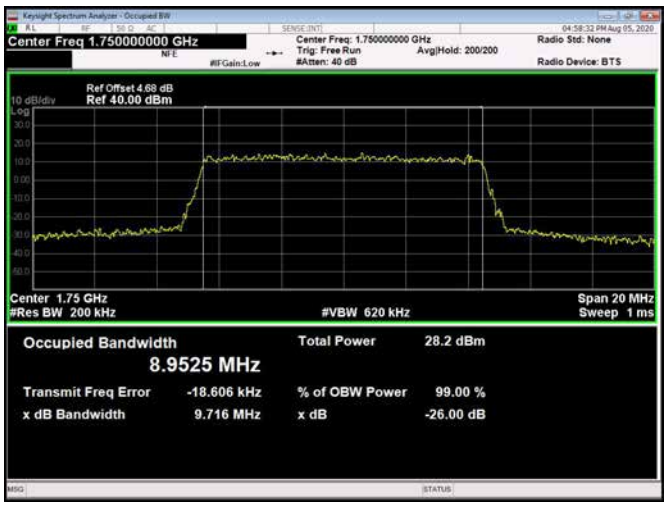
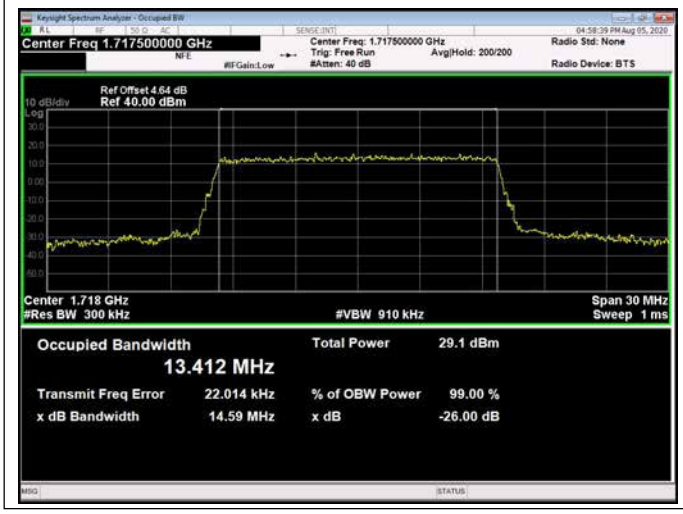
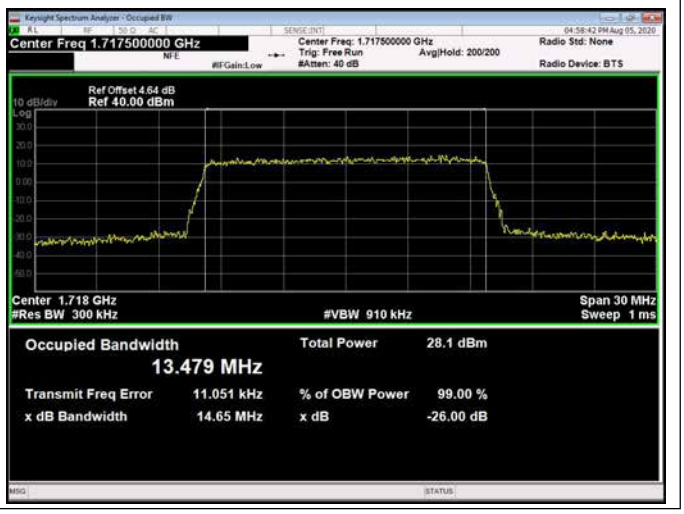


10MHz / QPSK / Middle Channel

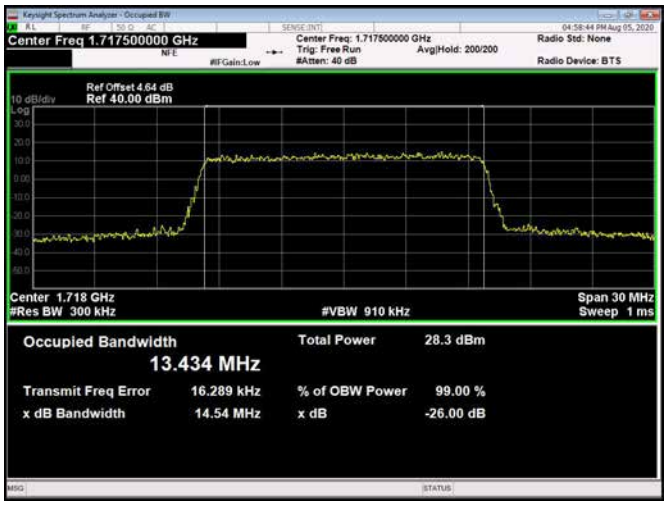
10MHz / 16QAM / Middle Channel

10MHz / 64QAM / Middle Channel

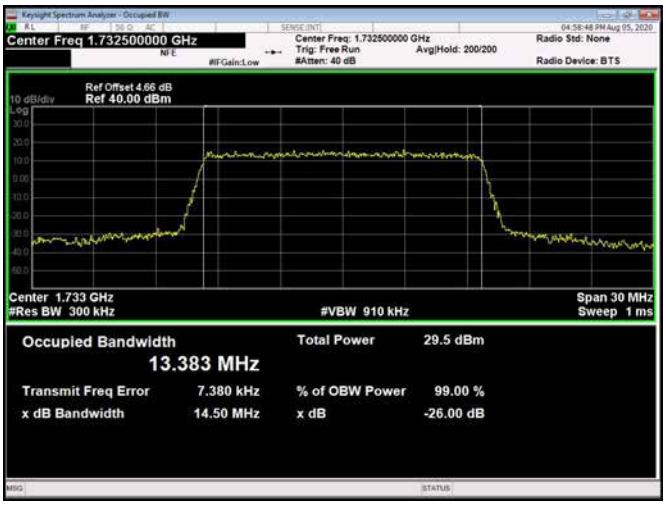


10MHz / QPSK / High Channel	10MHz / 16QAM / High Channel
	
10MHz / 64QAM / High Channel	\
	\
15MHz / QPSK / Low Channel	**15MHz / 16QAM / Low Channel**
	

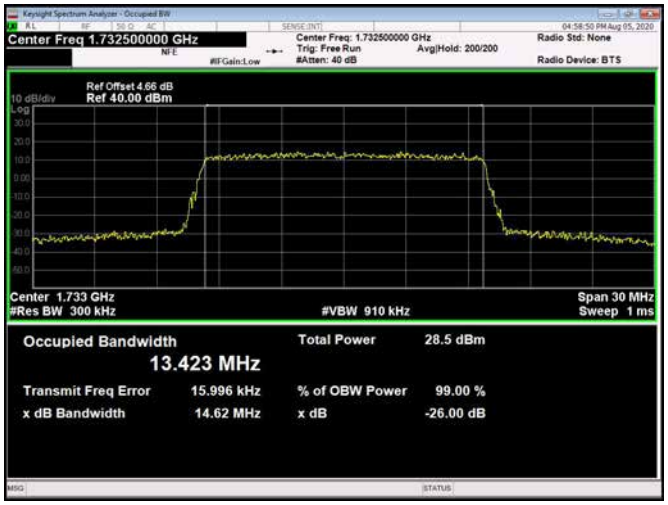
15MHz / 64QAM / Low Channel



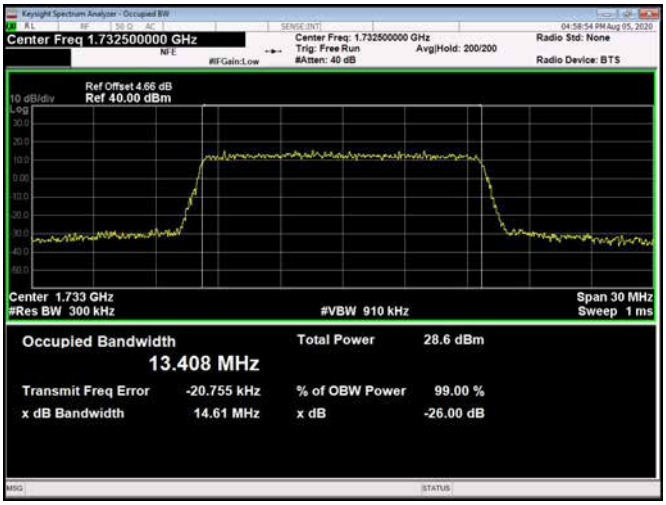
15MHz / QPSK / Middle Channel



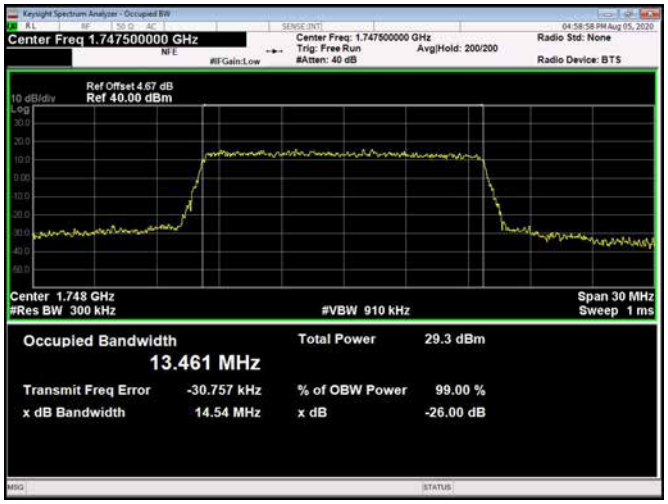
15MHz / 16QAM / Middle Channel



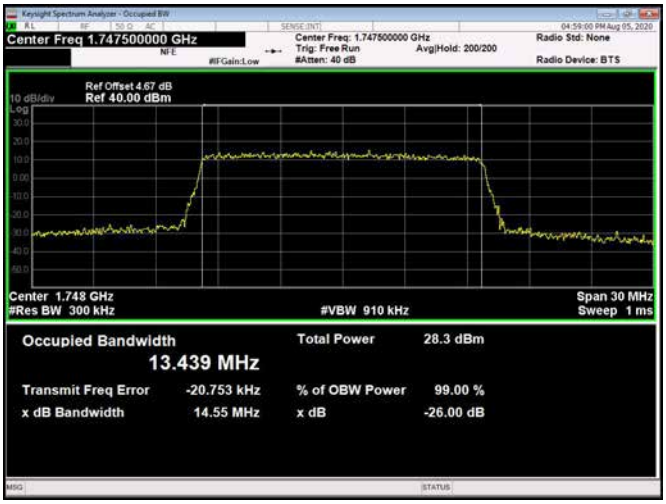
15MHz / 64QAM / Middle Channel

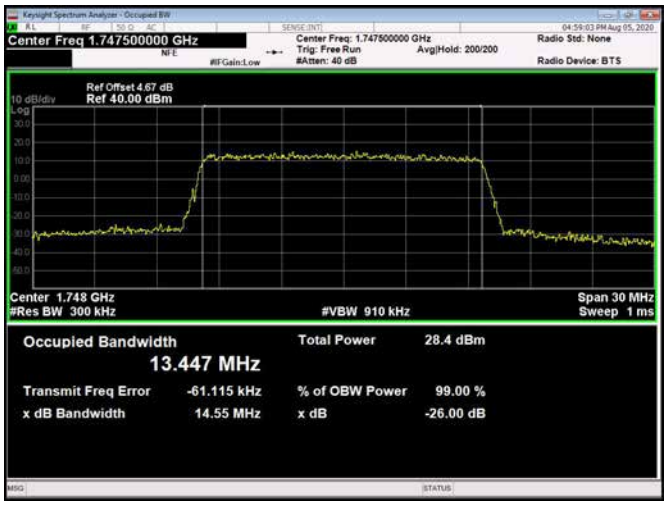


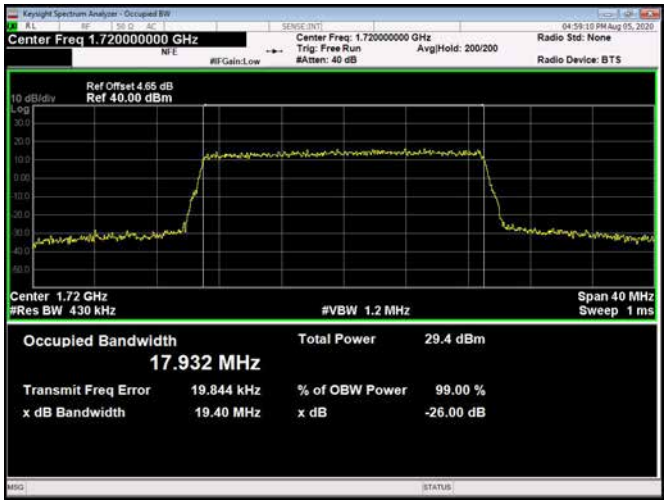
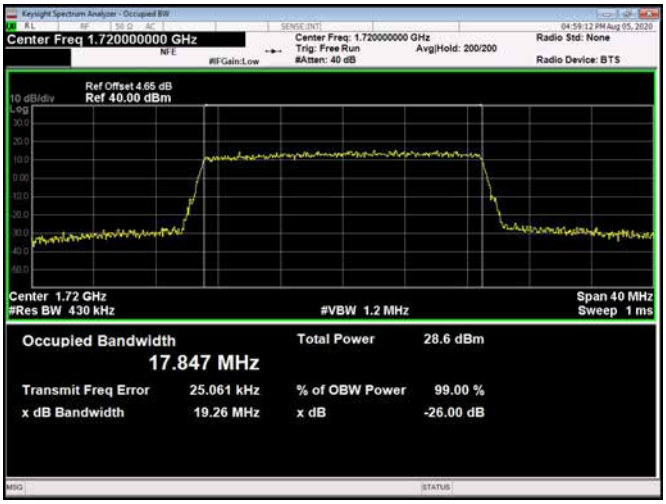
15MHz / QPSK / High Channel

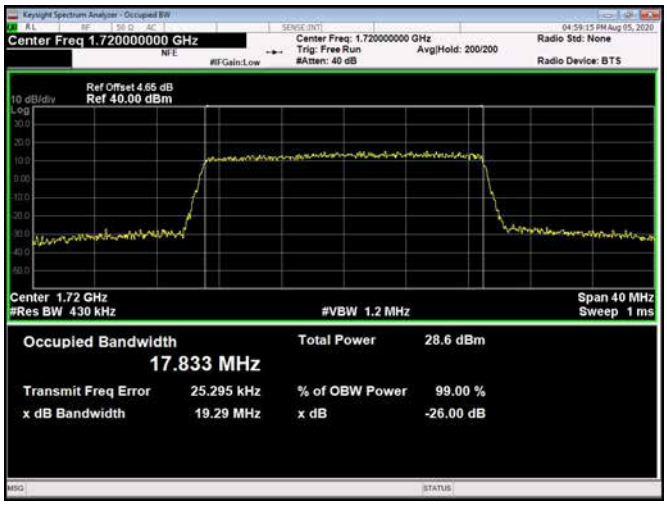


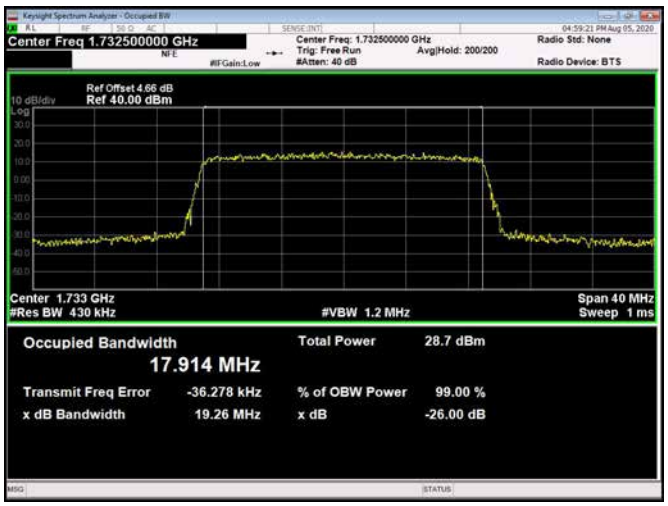
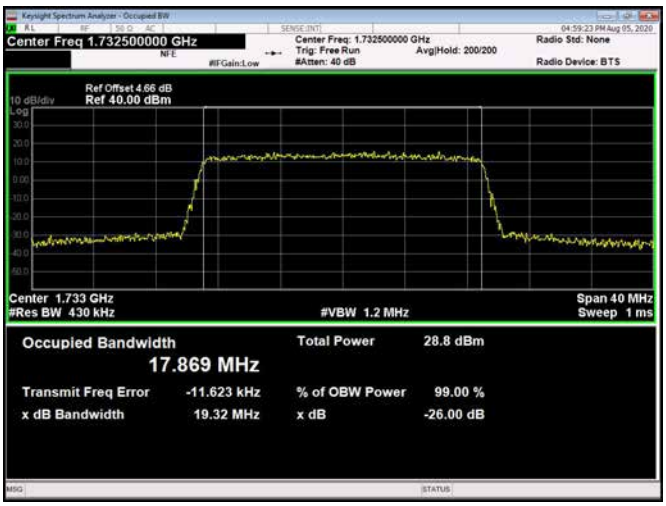
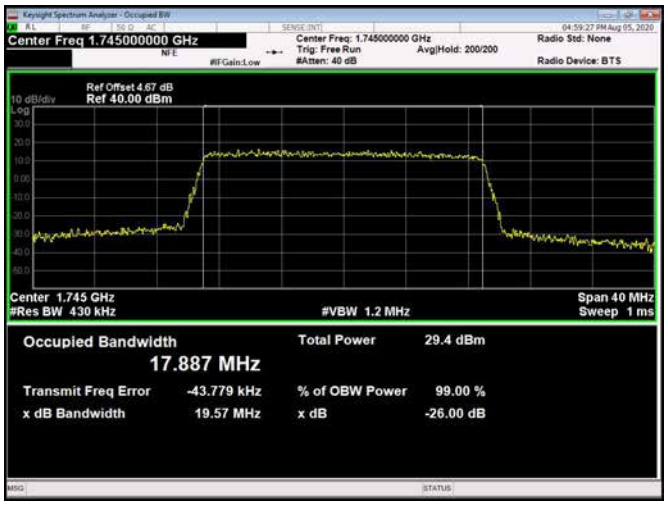
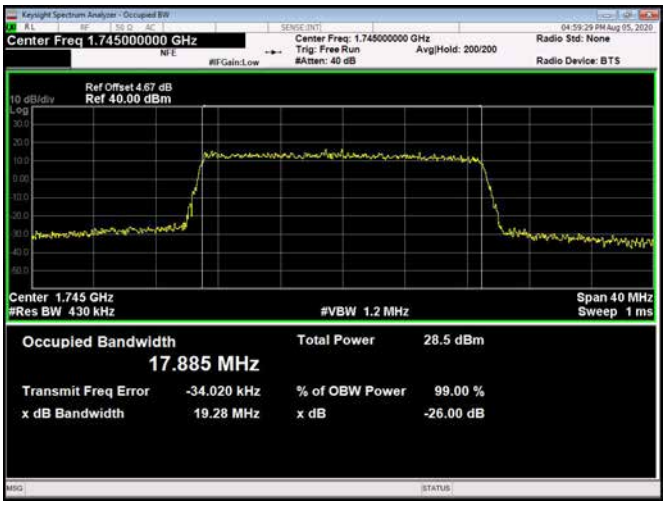
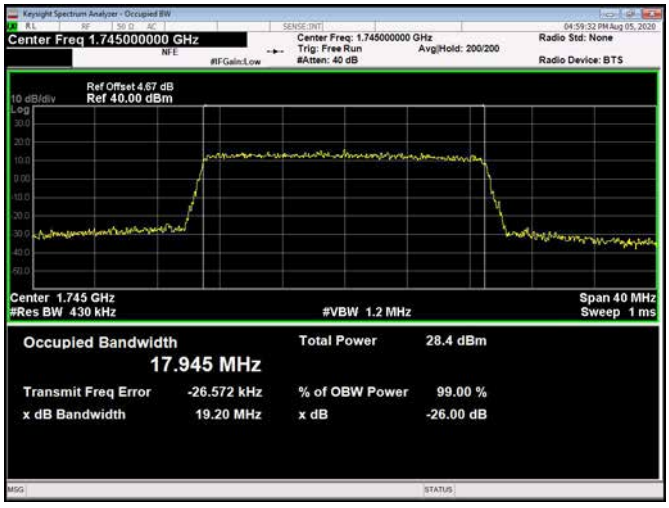
15MHz / 16QAM / High Channel



15MHz / 64QAM / High Channel	\
	\

20MHz / QPSK / Low Channel	20MHz / 16QAM / Low Channel
	

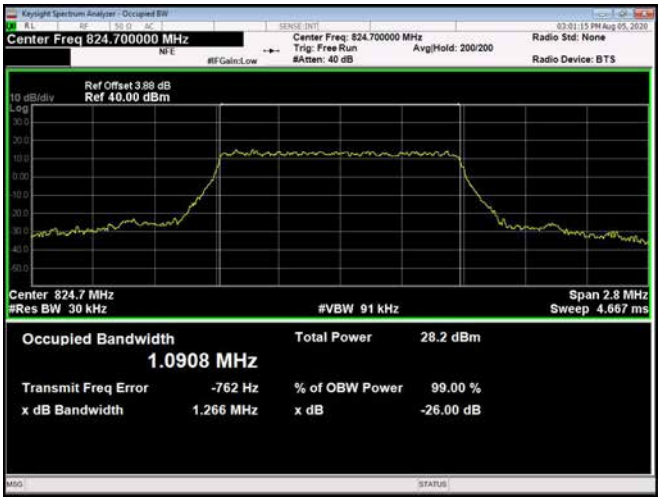
20MHz / 64QAM / Low Channel	20MHz / QPSK / Middle Channel
	

20MHz / 16QAM / Middle Channel	20MHz / 64QAM / Middle Channel
	
20MHz / QPSK / High Channel	**20MHz / 16QAM / High Channel**
	
20MHz / 64QAM / High Channel	\
	\

LTE Band 5 _ 99% Bandwidth & 26dB Bandwidth

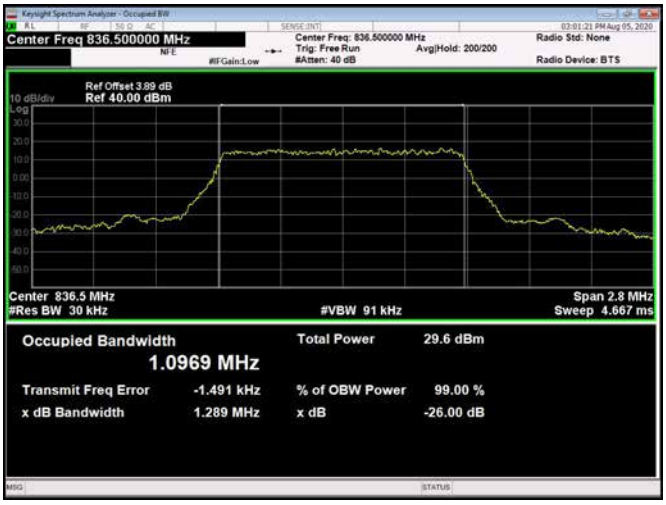
1.4MHz / QPSK / Low Channel

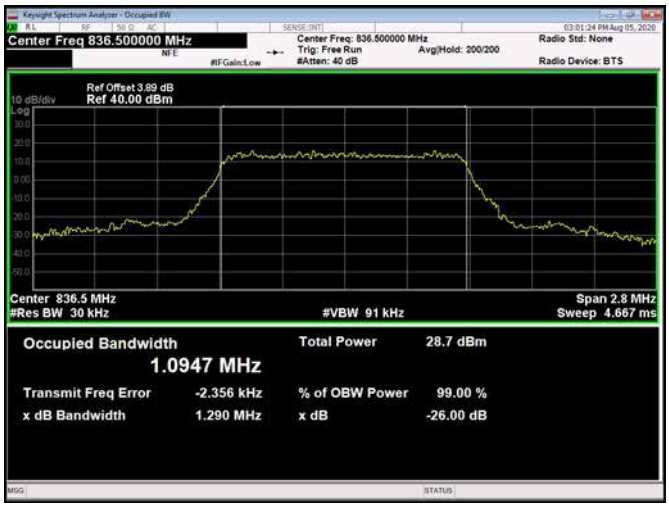
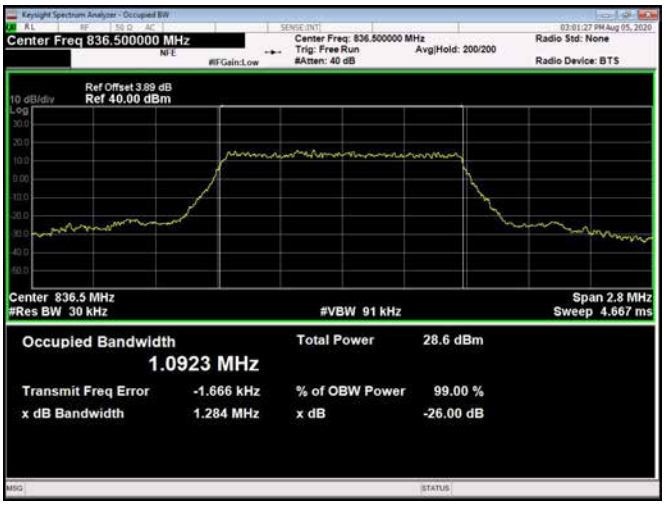
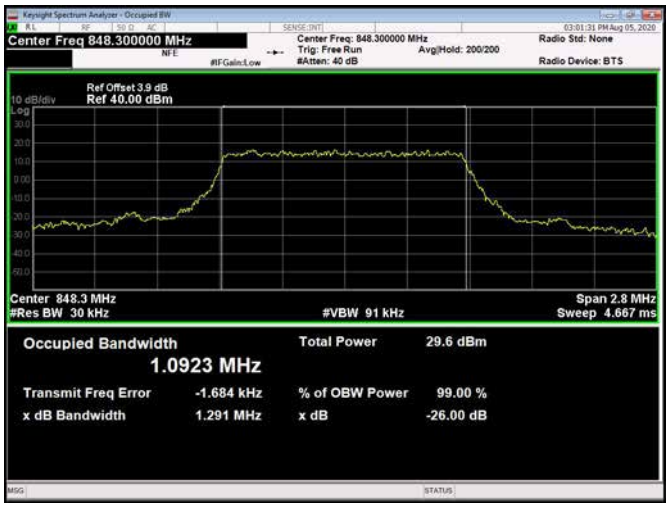
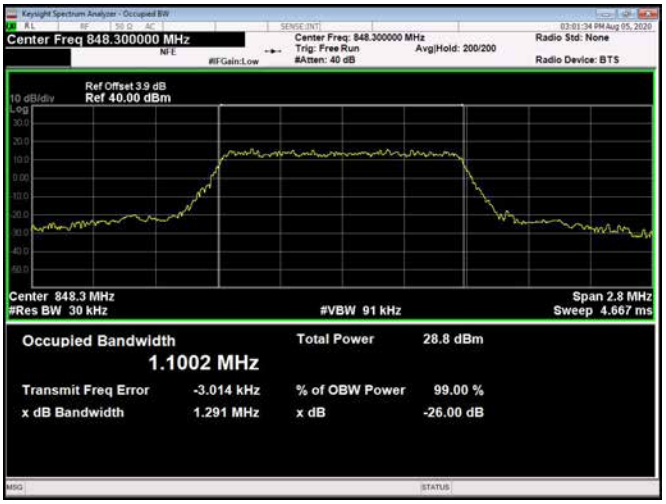
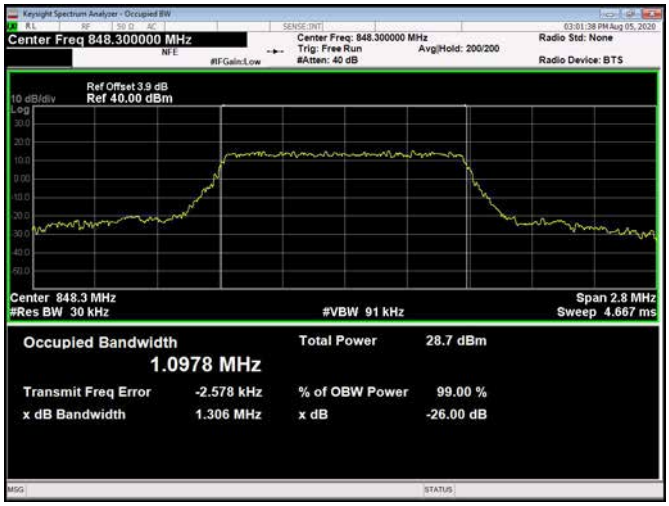
1.4MHz / 16QAM / Low Channel



1.4MHz / 64QAM / Low Channel

1.4MHz / QPSK / Middle Channel



1.4MHz / 16QAM / Middle Channel	1.4MHz / 64QAM / Middle Channel
	
1.4MHz / QPSK / High Channel	**1.4MHz / 16QAM / High Channel**
	
1.4MHz / 64QAM / High Channel	\
	\

3MHz / QPSK / Low Channel

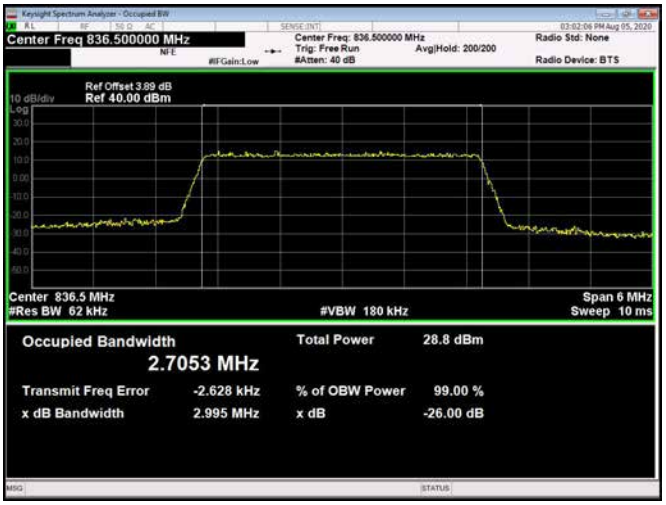
3MHz / 16QAM / Low Channel

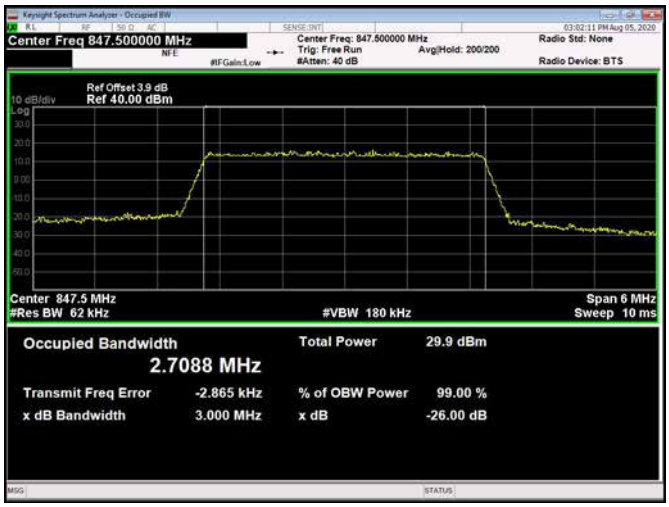
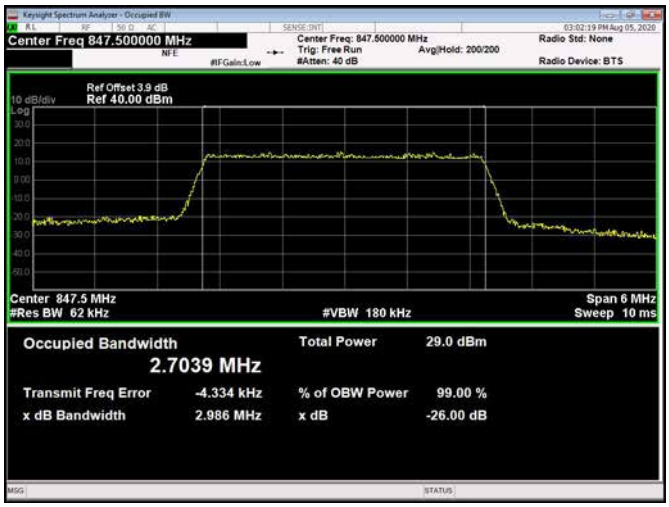
3MHz / 64QAM / Low Channel

3MHz / QPSK / Middle Channel

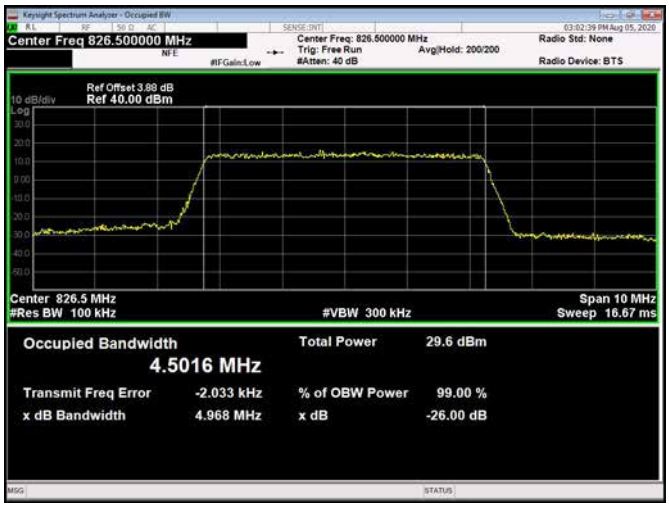
3MHz / 16QAM / Middle Channel

3MHz / 64QAM / Middle Channel



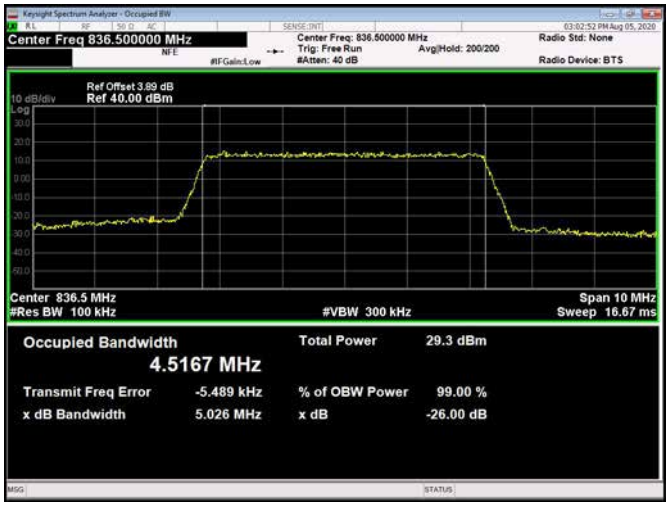
3MHz / QPSK / High Channel	3MHz / 16QAM / High Channel
	
3MHz / 64QAM / High Channel	\
	\
5MHz / QPSK / Low Channel	**5MHz / 16QAM / Low Channel**

5MHz / 64QAM / Low Channel

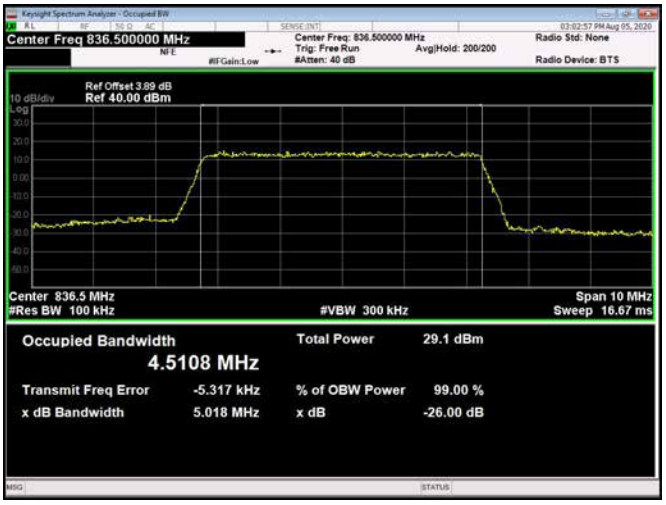


5MHz / QPSK / Middle Channel

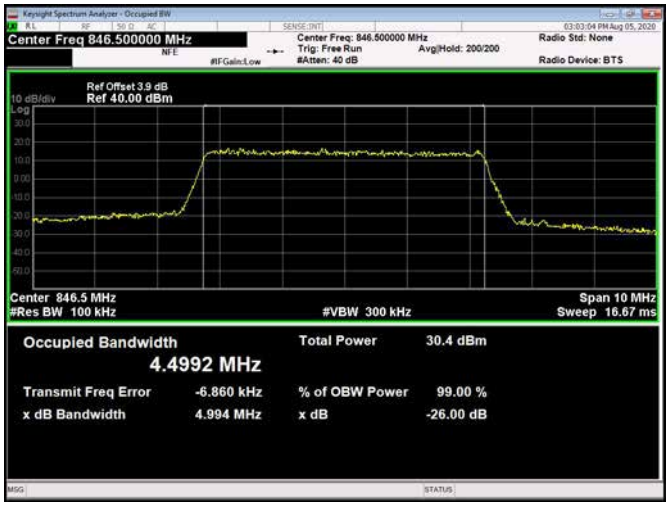
5MHz / 16QAM / Middle Channel



5MHz / 64QAM / Middle Channel

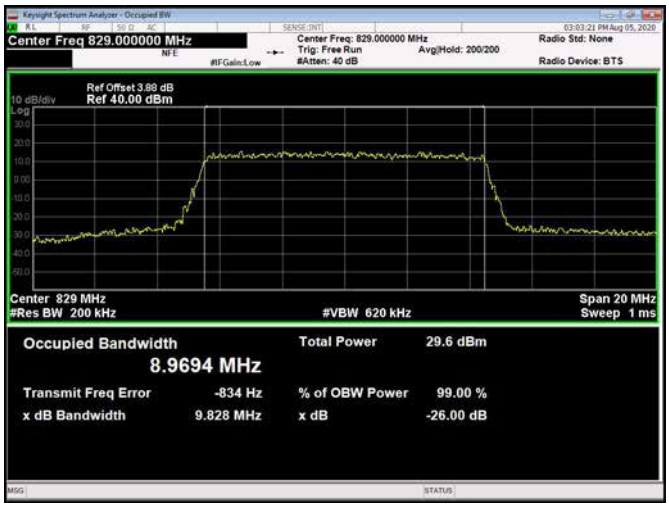
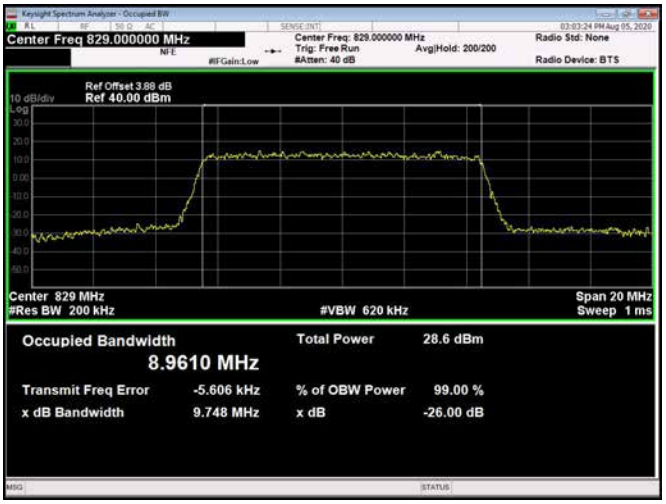


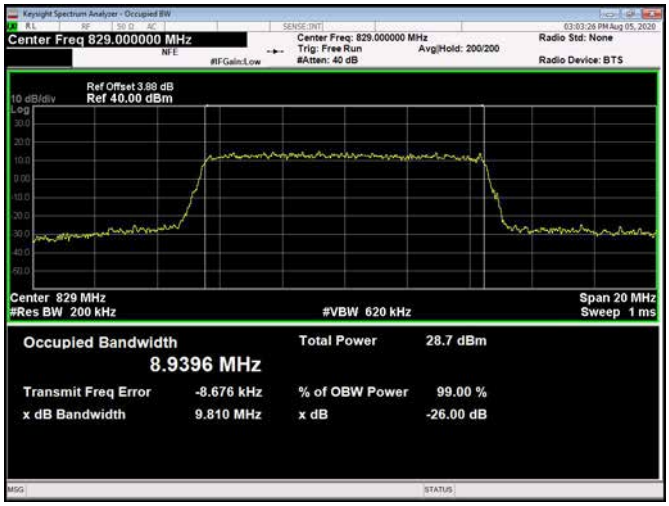
5MHz / QPSK / High Channel

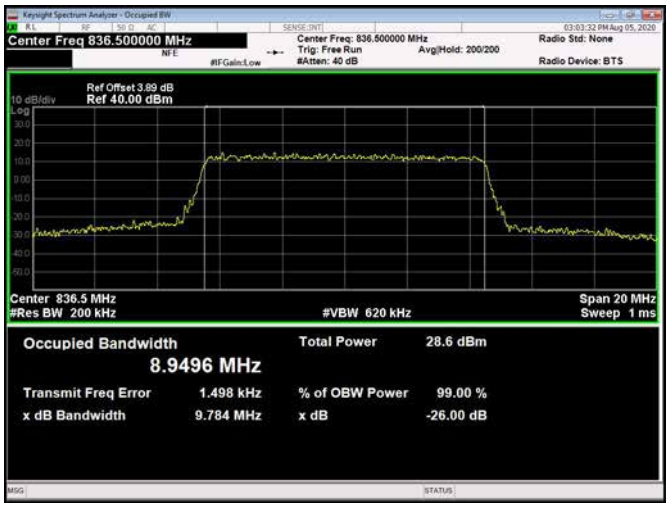
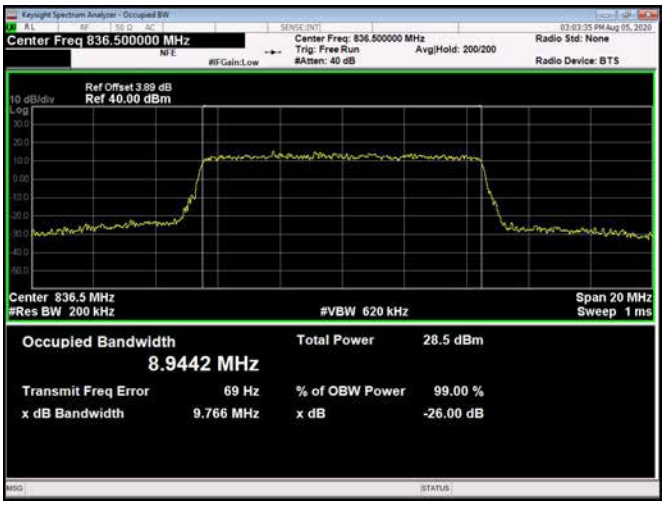
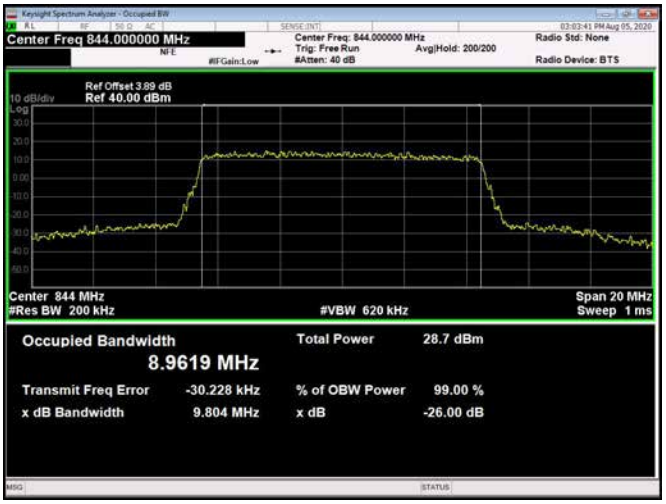
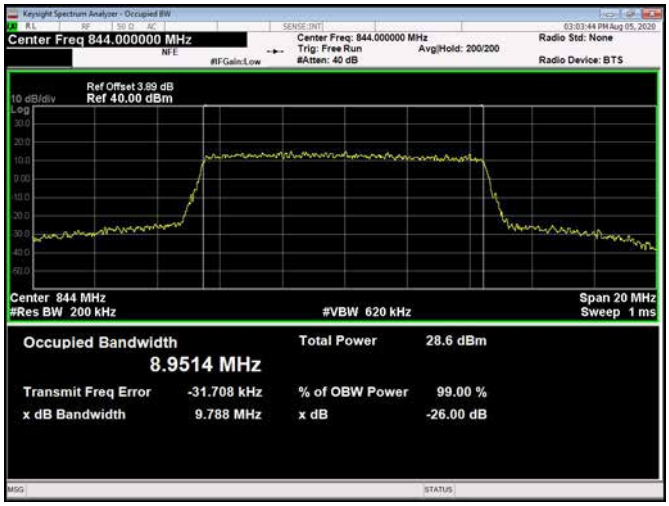


5MHz / 16QAM / High Channel

5MHz / 64QAM / High Channel	\
	\

10MHz / QPSK / Low Channel	10MHz / 16QAM / Low Channel
	

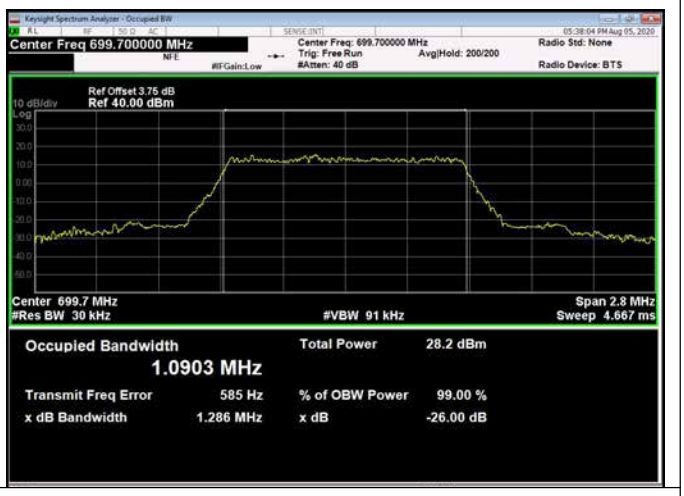
10MHz / 64QAM / Low Channel	10MHz / QPSK / Middle Channel
	

10MHz / 16QAM / Middle Channel	10MHz / 64QAM / Middle Channel
	
10MHz / QPSK / High Channel	**10MHz / 16QAM / High Channel**
	
10MHz / 64QAM / High Channel	\
	\

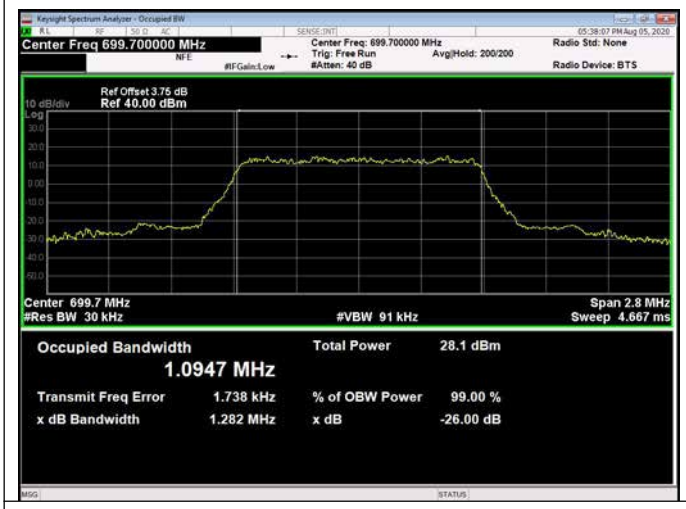
LTE Band 12 _ 99% Bandwidth & 26dB Bandwidth

1.4MHz / QPSK / Low Channel

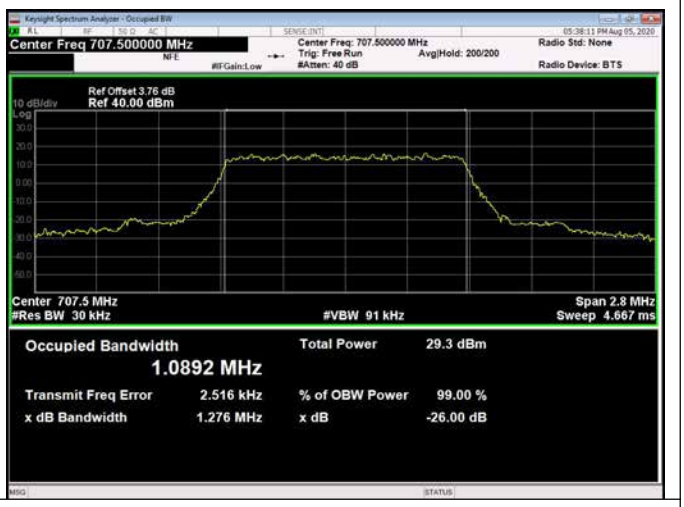
1.4MHz / 16QAM / Low Channel



1.4MHz / 64QAM / Low Channel

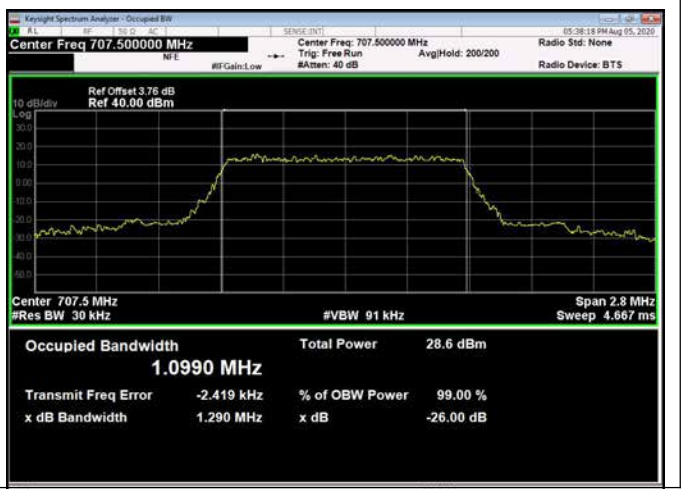


1.4MHz / QPSK / Middle Channel



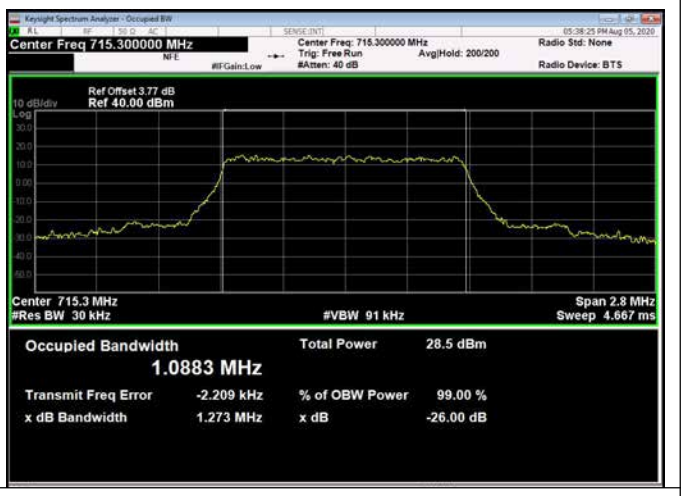
1.4MHz / 16QAM / Middle Channel

1.4MHz / 64QAM / Middle Channel



1.4MHz / QPSK / High Channel

1.4MHz / 16QAM / High Channel



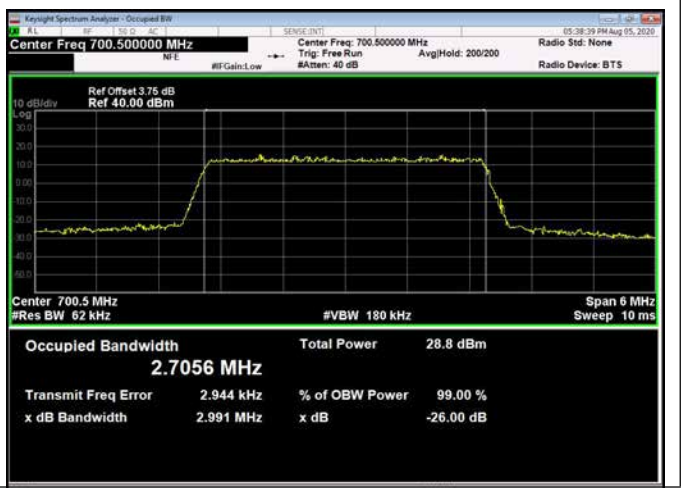
1.4MHz / 64QAM / High Channel

\

\

3MHz / QPSK / Low Channel

3MHz / 16QAM / Low Channel

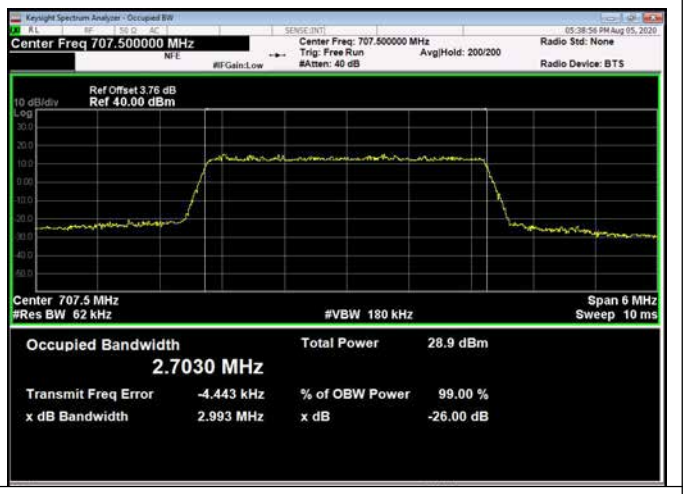


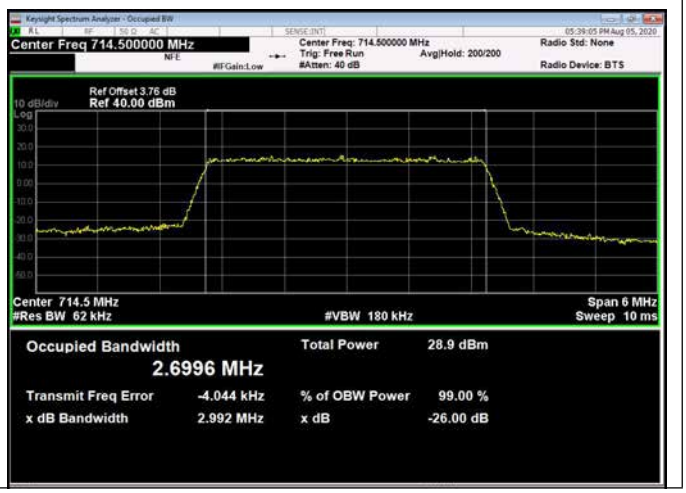
3MHz / 64QAM / Low Channel

3MHz / QPSK / Middle Channel

3MHz / 16QAM / Middle Channel

3MHz / 64QAM / Middle Channel



3MHz / QPSK / High Channel

3MHz / 16QAM / High Channel