TEST REPORT

APPLICANT	:	Hot Pepper, Inc.
PRODUCT NAME	:	4G Smart Phone
MODEL NAME	:	HPP-GS1
BRAND NAME	:	Hot Pepper
FCC ID	:	2APD4-A81C
STANDARD(S)	:	47 CFR Part 22, Subpart H 47 CFR Part 24, Subpart E 47 CFR Part 27, Subpart F&H&L&M
TEST DATE	:	2019-03-14 to 2019-04-19
ISSUE DATE	:	2019-05-22

Edited by: Lion Xiao

Lion Xiao (Project Engineer)

Approved by:

Anne Liu(Supervisor)

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DIRECTORY

Change History		
Version	Date	Reason for change
1.0	2019-05-22	First edition

1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Hot Pepper, Inc.
Applicant Address:	5151 California Ave., Suite 100, Irvine 92617, USA
Manufacturer:	Hot Pepper, Inc.
Manufacturer Address:	5151 California Ave., Suite 100, Irvine 92617, USA

1.2. Equipment Under Test (EUT) Description

Product Name:	4G Smart Phone	
Serial No:	(N/A, marked #1 by test site)	
Hardware Version:	A81C_MAINBOARD_P1	
Software Version:	HPP- GS1-V1.0.4-190121	
Modulation Type:	QPSK 16QAM 64QAM	
Operation Band:	Band 2 / 4 / 5 / 7 / 12 / 13 / 17 / 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 7	Tx: 2502.5MHz - 2567.5MHz
		Rx: 2622.5MHz – 2687.5MHz
	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 17	Tx: 706.5MHz - 713.5MHz

		Rx: 736.5MHz – 743.5MHz
	LTE Band 25	Tx:1850.7MHz-1914.3MHz
		Rx:1930.7MHz-1994.3MHz
	LTE Band 26	Tx:824.7MHz-848.3MHz
		Rx:869.7MHz-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:	PIFA Antenna	
Antenna Gain:	-3 dBi	
Accessory Information::	Battery	
	Manufacturer:	Shenzhen HUATIANTONG TECHNOLOGY CO.LTD
	Brand Name:	Hot Pepper
	Model No.:	H2019GS1
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	3850mAh
	Rated Voltage:	3.8V
	Charge Limit:	4.4V
	Manufacturer:	Shenzhen Nine Liyuan Electronic Technology Co.,Ltd
	Model No.:	H2019GS1A
Accessory Information:	AC Adapter	
	Manufacturer:	Shenzhen Tianyin Electronics Co.,Ltd.
	Brand Name:	Hot Pepper
	Model No.:	TPA-23A050200UU01
	Serial No.:	(N/A, marked #1 by test site)
	Rated Input:	100-240V ～ 50/60Hz 0.3A
	Rated Output:	5V⎓2.0A

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	1851.7	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	1910.7	20175	1932.5	20393	1754.3
	3	19965	1911.5	20175	1932.5	20385	1753.5
	5	19975	1912.5	20175	1932.5	20375	1752.5
	10	20000	1715	20175	1932.5	20350	1750
	15	20025	1717.5	20175	1932.5	20325	1747.5
	20	20050	1720	20175	1932.5	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
7	5	20775	2502.5	21100	2535	21425	2567.5
	10	20800	2505	21100	2535	21400	2565
	15	20825	2507.5	21100	2535	21375	2562.5
	20	20850	2510	21100	2535	21350	2560
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	/	/
17	5	23755	706.5	23790	710	23825	713.5
	10	23780	709	23790	710	23800	711
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	26155	1857.5	26365	1882.5	26615	1907.5
	20	26140	1860	26365	1882.5	26590	1905
26	1.4	26797	824.7	26915	836.5	27033	848.3
	3	26805	825.5	26915	836.5	27025	847.5
	5	26815	826.5	26915	836.5	27015	846.5
	10	26840	829	26915	836.5	26990	844
	15	26865	831.5	26915	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	133297	680.5	133372	688

1.4. Emission Designator

LTE B2	Emission Designator (99%OBW)		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M09G7D	1M10W7D	1M10W7D
3	2M71G7D	2M70W7D	2M70 W7D
5	4M51G7D	4M52W7D	4M51W7D
10	9M00G7D	8M99W7D	9M01W7D
15	13M5G7D	13M5W7D	13M5W7D
20	18M0G7D	18M0W7D	18M0W7D
LTE B4	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M10W7D	1M10W7D
3	2M69G7D	2M69W7D	2M69W7D
5	4M50G7D	4M50W7D	4M50W7D
10	8M99G7D	8M99W7D	8M99W7D
15	13M5G7D	13M5W7D	13M5W7D
20	17M9G7D	18M0W7D	18M0W7D
LTE B5	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M09G7D	1M10W7D	1M10W7D
3	2M70G7D	2M70W7D	2M70W7D
5	4M51G7D	4M51W7D	4M51W7D
10	9M00G7D	8M98W7D	8M98W7D
LTE B7	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M51G7D	4M51W7D	4M51W7D
10	8M99G7D	8M99W7D	8M97W7D
15	13M5G7D	13M5W7D	13M5W7D
20	17M9G7D	17M9W7D	17M9W7D
LTE B12	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M10W7D	1M10W7D

3	2M71G7D	2M71W7D	2M71W7D
5	4M52G7D	4M52W7D	4M52W7D
10	9M03G7D	9M03W7D	9M03W7D
LTE B13	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M53G7D	4M52W7D	4M52W7D
10	8M98G7D	8M90W7D	8M90W7D
LTE B17	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M53G7D	4M53W7D	4M53W7D
10	8M98G7D	8M98W7D	8M98W7D
LTE B25	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M10W7D	1M10W7D
3	2M71G7D	2M70W7D	2M70W7D
5	4M50G7D	4M51W7D	4M50W7D
10	9M02G7D	9M02W7D	9M01W7D
15	13M5G7D	13M5W7D	13M5W7D
20	18M0G7D	18M0W7D	17M9W7D
LTE B26	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M10G7D	1M10W7D	1M10W7D
3	2M69G7D	2M69W7D	2M69W7D
5	4M51G7D	4M51W7D	4M52W7D
10	9M00G7D	8M99W7D	8M99W7D
15	13M5G7D	13M5W7D	13M5W7D
LTE B41	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M51G7D	4M50W7D	4M51W7D
10	9M02G7D	9M03W7D	9M03W7D
15	13M5G7D	13M5W7D	13M5W7D
20	18M0G7D	18M0W7D	18M0W7D
LTE B66	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
1.4	1M09G7D	1M09W7D	1M09W7D
3	2M70G7D	2M70W7D	2M70W7D
5	4M53G7D	4M53W7D	4M53W7D
10	9M00G7D	9M00W7D	9M00W7D

15	13M5G7D	13M5W7D	13M5W7D
20	17M9G7D	18M0W7D	17M9W7D
LTE B71	**Emission Designator (99%OBW)**		
BW(MHz)	QPSK	16QAM	64QAM
5	4M53G7D	4M53W7D	4M53W7D
10	9M00G7D	9M00W7D	9M00W7D
15	13M5G7D	13M5W7D	13M5W7D
20	18M0G7D	18M0W7D	18M0W7D

1.5. Test Standards and Results

The objective of the report is to perform testing according to Part 2 and Part 22& Part24 &Part27 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
2.1046	Transmitter Conducted Output Power and ERP/EIRP	Mar 14, 2019 Apr 18, 2019	Lion Xiao	PASS
2.1049	Occupied Bandwidth	Mar 14, 2019 Mar 19, 2019	Lion Xiao	PASS
2.1055, 22.355, 24.235, 27.54	Frequency Stability	Mar 26, 2019 Apr 09, 2019	Lion Xiao	PASS
22.913(d),24.232(d), 27.50(d)(5)	Peak to Average Radio	Mar 14, 2019 Mar 19, 2019	Lion Xiao	PASS
2.1051, 22.917(a), 24.238, 27.53(c), 27.53(g), 27.53 (h) 27.53(m)	Conducted Spurious Emissions	Mar 14, 2019 Apr 19, 2019	Lion Xiao	PASS
2.1051, 22.917(a), 24.238, 27.53(c), 27.53(g), 27.53 (h) 27.53(m)	Band Edge	Apr 10, 2019 Apr 18, 2019	Lion Xiao	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)	Transmitter Radiated Power (EIPR/ERP)	Apr 10, 2019 Apr 18, 2019	Lion Xiao	PASS
2.1051, 22.917(a), 24.238, 27.53(c), 27.53(g), 27.53 (h) 27.53(m)	Radiated Spurious Emissions	Mar 26, 2019 Apr 18, 2019	Lion Xiao	PASS
Note: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03r01 and ANSI/TIA-603-E-2016.				

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

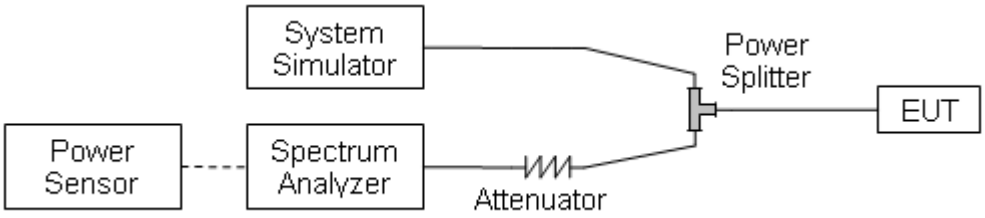
2. 47 CFR Part 2, Part 22H, Part 24E and 27 F&H&L&M Requirements

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 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

2.1.4. Result

LTE Band 2						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
1.4	QPSK	1	0	23.55	23.56	23.51
		1	3	23.58	23.53	23.52
		1	5	23.48	23.55	23.54
		3	0	23.54	23.40	23.54
		3	1	23.55	23.54	23.57
		3	3	23.52	23.56	23.55
		6	0	22.59	22.63	22.60
	16-QAM	1	0	22.60	22.46	22.55
		1	3	22.58	22.48	22.49
		1	5	22.59	22.53	22.44
		3	0	22.56	22.60	22.72
		3	1	22.50	22.46	22.45
		3	3	22.59	22.54	22.45
		6	0	21.64	21.58	21.61
	64-QAM	1	0	22.28	22.35	22.22
		1	3	22.17	22.33	22.29
		1	5	22.21	22.38	22.25
		3	0	22.10	22.25	22.30
		3	1	22.09	22.37	22.19
		3	3	22.15	22.35	22.27
		6	0	21.33	21.43	21.31
3	QPSK	1	0	23.54	23.54	23.54
		1	8	23.50	23.41	23.51
		1	14	23.53	23.50	23.39
		8	0	23.58	23.31	23.55
		8	4	23.56	23.57	23.56
		8	7	23.49	23.55	23.41

		15	0	22.52	22.58	22.55
	16-QAM	1	0	22.98	22.71	22.84
		1	8	22.83	22.95	22.97
		1	14	22.57	22.98	22.90
		8	0	22.87	22.60	21.58
		8	4	23.00	22.99	22.96
		8	7	22.69	22.97	22.94
		15	0	21.59	21.61	21.62
	64-QAM	1	0	22.38	22.49	22.52
		1	8	22.44	22.43	22.47
		1	14	22.48	22.28	22.35
		8	0	21.40	22.33	22.32
		8	4	22.42	22.18	22.44
		8	7	22.47	22.41	22.36
		15	0	21.31	21.44	21.39
5	QPSK	1	0	23.45	23.55	23.45
		1	12	23.44	23.57	23.43
		1	24	23.54	23.50	23.38
		12	0	23.44	23.53	23.46
		12	7	23.48	23.51	23.40
		12	13	23.52	23.50	23.36
		50	0	22.50	22.52	22.57
	16-QAM	1	0	22.42	22.54	22.34
		1	12	22.35	22.47	22.29
		1	24	22.29	22.49	22.27
		12	0	22.57	22.67	22.48
		12	7	22.29	22.50	22.28
		12	13	22.35	22.48	22.33
		50	0	21.61	21.63	21.64
	64-QAM	1	0	22.48	22.15	22.10
		1	12	22.35	22.08	21.99
		1	24	22.51	22.01	22.01
		12	0	22.40	22.27	22.05
		12	7	22.50	22.11	22.13
		12	13	22.52	22.08	22.00
		50	0	21.35	21.40	21.38
10	QPSK	1	0	23.53	23.44	23.54
		1	24	23.52	23.55	23.50

		1	49	23.40	23.46	23.49
		25	0	23.57	23.52	23.54
		25	12	23.51	23.40	23.56
		25	25	23.50	23.29	23.33
		50	0	22.61	22.60	22.57
	16-QAM	1	0	22.95	22.75	22.82
		1	24	22.90	22.70	22.96
		1	49	22.98	22.68	22.95
		25	0	22.69	22.59	22.60
		25	12	22.94	22.77	22.77
		25	25	23.00	22.69	22.90
		50	0	21.64	21.67	21.59
	64-QAM	1	0	22.47	22.40	22.41
		1	24	22.41	22.57	22.38
		1	49	22.46	22.41	22.32
		25	0	22.42	22.42	22.35
		25	12	22.49	22.38	22.27
		25	25	22.43	22.25	22.43
		50	0	21.46	21.40	21.33
15	QPSK	1	0	23.49	23.37	23.43
		1	37	23.42	23.43	23.51
		1	74	23.48	23.35	23.43
		36	0	23.27	23.47	23.48
		36	20	23.51	23.40	23.50
		36	39	23.42	22.34	23.41
		75	0	22.65	22.53	22.63
	16-QAM	1	0	22.85	22.78	22.75
		1	37	22.90	22.86	22.89
		1	74	22.93	22.93	22.91
		36	0	22.61	22.55	22.59
		36	20	22.95	22.91	22.91
		36	39	22.79	22.86	22.91
		75	0	21.65	21.59	21.60
	64-QAM	1	0	22.53	22.52	22.57
		1	37	22.69	22.46	22.45
		1	74	22.77	22.55	22.53
		36	0	22.62	22.38	22.51
		36	20	22.80	22.33	22.62

		36	39	22.72	22.26	22.49
		75	0	21.47	21.44	21.37
20	QPSK	1	0	23.45	23.37	23.43
		1	49	23.48	23.41	23.43
		1	99	23.59	23.35	23.35
		50	0	23.46	23.48	23.44
		50	24	23.42	23.40	23.40
		50	50	23.55	23.49	23.36
		100	0	22.60	22.62	22.51
	16-QAM	1	0	22.87	22.75	22.63
		1	49	22.65	22.70	22.67
		1	99	22.71	22.53	22.68
		50	0	22.58	22.47	22.43
		50	24	22.71	22.56	22.63
		50	50	22.60	22.51	22.65
		100	0	21.65	21.60	21.54
	64-QAM	1	0	22.39	22.39	22.30
		1	49	22.30	22.33	22.24
		1	99	22.43	22.41	22.39
		50	0	22.36	22.28	22.17
		50	24	22.41	22.09	22.36
		50	50	22.37	22.30	22.20
		100	0	21.44	21.34	21.28

LTE Band 4						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
1.4	QPSK	1	0	23.49	23.47	23.39
		1	3	23.53	23.53	23.40
		1	5	23.50	23.50	23.43
		3	0	23.50	23.53	23.50
		3	1	23.53	23.50	23.41
		3	3	23.50	23.50	23.43
		6	0	22.64	22.61	22.59
	16-QAM	1	0	22.67	22.89	22.53
		1	3	22.60	22.95	22.46
		1	5	22.66	22.84	22.42
		3	0	22.60	22.81	22.65
		3	1	22.63	22.76	22.46
		3	3	22.68	22.87	22.49
		6	0	21.66	22.57	21.50
	64-QAM	1	0	22.29	22.23	22.30
		1	3	22.26	22.29	22.29
		1	5	22.30	22.30	22.31
		3	0	22.25	22.26	22.21
		3	1	22.22	22.29	22.27
		3	3	22.29	22.21	22.23
		6	0	21.30	21.26	21.31
3	QPSK	1	0	23.51	23.50	23.46
		1	8	23.47	23.52	23.49
		1	14	23.50	23.50	23.51
		8	0	23.50	23.49	23.47
		8	4	23.51	23.50	23.50
		8	7	23.52	23.50	23.52
		15	0	22.60	22.54	22.55

	16-QAM	1	0	22.69	22.57	22.58
		1	8	22.56	22.61	22.52
		1	14	22.64	22.56	22.60
		8	0	22.85	22.62	22.48
		8	4	22.53	22.67	22.61
		8	7	22.54	22.63	22.52
		15	0	21.65	21.56	21.64
	64-QAM	1	0	22.21	22.14	22.29
		1	8	22.26	22.12	22.17
		1	14	22.13	22.28	22.32
		8	0	22.19	22.25	22.30
		8	4	22.27	22.19	22.28
		8	7	22.30	22.01	22.16
		15	0	21.33	21.33	21.38
5	QPSK	1	0	23.48	23.50	23.43
		1	12	23.42	23.41	23.36
		1	24	23.46	23.43	23.44
		12	0	22.59	23.47	23.50
		12	7	23.43	23.44	23.37
		12	13	23.41	23.40	23.41
		50	0	22.56	22.51	22.56
	16-QAM	1	0	22.48	22.61	22.48
		1	12	22.32	22.67	22.31
		1	24	22.41	22.68	22.35
		12	0	22.63	22.54	22.43
		12	7	22.40	22.69	22.37
		12	13	22.37	22.63	22.39
		50	0	21.69	21.56	21.64
	64-QAM	1	0	22.07	22.18	22.10
		1	12	21.99	22.00	22.04
		1	24	22.05	22.02	22.07
		12	0	22.25	22.15	22.15
		12	7	22.07	22.08	22.07
		12	13	22.00	22.03	22.09
		50	0	21.30	21.35	21.36
10	QPSK	1	0	23.50	23.50	23.37
		1	24	23.49	23.42	23.42
		1	49	23.51	23.47	23.43

		25	0	23.46	22.56	23.35
		25	12	23.49	23.48	23.40
		25	25	23.52	23.40	23.44
		50	0	22.60	22.58	22.64
	16-QAM	1	0	22.75	22.74	22.50
		1	24	22.63	22.60	22.63
		1	49	22.51	22.68	22.56
		25	0	22.76	22.61	22.68
		25	12	22.43	22.69	22.72
		25	25	22.56	22.63	22.65
		50	0	21.68	21.65	21.68
	64-QAM	1	0	22.24	22.21	22.25
		1	24	22.12	22.33	22.32
		1	49	22.15	22.29	22.18
		25	0	22.20	22.34	22.26
		25	12	22.04	22.26	22.07
		25	25	22.17	22.13	22.29
		50	0	21.34	21.38	21.34
15	QPSK	1	0	23.53	23.41	23.39
		1	37	23.42	23.35	23.35
		1	74	23.51	23.50	23.36
		36	0	23.53	23.50	23.42
		36	20	23.49	23.43	23.38
		36	39	23.40	23.37	23.34
		75	0	22.68	22.61	22.63
	16-QAM	1	0	22.53	22.58	22.68
		1	37	22.66	22.53	22.63
		1	74	22.47	22.62	22.70
		36	0	22.67	22.60	22.57
		36	20	22.87	22.66	22.53
		36	39	22.51	22.51	22.65
		75	0	21.70	21.46	21.50
	64-QAM	1	0	22.19	22.19	22.39
		1	37	22.24	22.37	22.26
		1	74	22.16	22.25	22.33
		36	0	22.27	22.27	22.31
		36	20	22.04	22.10	22.18
		36	39	22.23	22.33	22.25

		75	0	21.29	21.35	21.32
20	QPSK	1	0	23.53	23.35	23.43
		1	49	23.36	23.28	23.31
		1	99	23.45	23.41	23.35
		50	0	23.48	23.43	23.47
		50	24	23.45	23.40	23.35
		50	50	23.40	23.33	23.31
		100	0	22.59	22.51	22.57
	16-QAM	1	0	22.72	22.65	22.69
		1	49	22.74	22.68	22.57
		1	99	22.58	22.76	22.62
		50	0	22.59	22.47	22.55
		50	24	22.64	22.74	22.36
		50	50	22.57	22.71	22.43
		100	0	21.65	21.56	21.59
	64-QAM	1	0	22.37	22.31	22.36
		1	49	22.41	22.28	22.43
		1	99	22.45	22.15	22.48
		50	0	22.22	22.19	22.27
		50	24	22.40	22.27	22.24
		50	50	22.43	22.21	22.40
		100	0	21.27	21.27	21.31

LTE Band 5						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
1.4	QPSK	1	0	24.22	23.41	23.36
		1	3	24.29	23.50	23.37
		1	5	24.29	23.45	23.33
		3	0	24.37	23.58	23.39
		3	1	24.33	23.53	23.14
		3	3	24.28	23.45	23.31
		6	0	23.42	22.63	22.25
	16-QAM	1	0	23.39	22.57	22.41
		1	3	23.44	22.55	22.35
		1	5	23.45	22.58	22.32
		3	0	23.37	22.80	22.46
		3	1	23.43	22.65	22.48
		3	3	23.37	22.52	22.38
		6	0	22.45	21.66	21.40
	64-QAM	1	0	23.03	22.31	21.99
		1	3	23.19	22.37	21.87
		1	5	23.10	22.35	22.01
		3	0	23.00	22.27	21.98
		3	1	23.12	22.38	22.15
		3	3	23.03	22.33	22.08
		6	0	22.08	21.34	20.82
3	QPSK	1	0	24.10	23.45	23.44
		1	8	24.03	23.52	23.78
		1	14	24.28	23.42	23.67
		8	0	24.12	23.47	23.71
		8	4	24.32	23.56	23.59
		8	7	24.06	23.51	23.37
		15	0	23.24	22.56	22.45

	16-QAM	1	0	23.59	22.66	22.53
		1	8	23.62	22.72	22.47
		1	14	23.86	22.47	22.66
		8	0	23.21	22.54	22.51
		8	4	23.87	22.41	22.68
		8	7	23.64	22.53	22.52
		15	0	22.33	21.60	21.17
	64-QAM	1	0	23.05	22.45	22.04
		1	8	22.89	22.31	22.17
		1	14	23.07	22.43	22.36
		8	0	22.85	22.20	22.11
		8	4	23.11	22.35	22.17
		8	7	22.94	22.41	22.14
		15	0	21.88	21.32	20.89
5	QPSK	1	0	23.98	23.32	23.65
		1	12	23.84	23.54	23.44
		1	24	24.15	23.52	23.31
		12	0	24.07	23.56	23.39
		12	7	24.13	23.33	23.51
		12	13	23.89	23.49	23.34
		50	0	23.17	22.61	22.60
	16-QAM	1	0	22.99	22.47	22.48
		1	12	22.81	22.69	22.54
		1	24	23.13	22.52	22.41
		12	0	22.85	22.45	22.46
		12	7	23.10	22.61	22.33
		12	13	22.81	22.56	22.60
		50	0	22.27	21.48	21.45
	64-QAM	1	0	22.85	22.05	22.15
		1	12	22.72	21.99	22.18
		1	24	22.78	22.17	21.94
		12	0	22.68	22.12	22.08
		12	7	22.84	22.19	21.93
		12	13	22.90	21.95	22.01
		50	0	21.93	21.29	20.90
10	QPSK	1	0	23.87	23.34	22.95
		1	24	23.65	23.40	23.00
		1	49	24.05	23.37	23.14

		25	0	23.92	23.34	22.91
		25	12	24.02	23.39	23.34
		25	25	23.67	23.41	23.01
		50	0	23.09	22.68	22.31
	16-QAM	1	0	23.16	22.38	22.54
		1	24	23.13	22.45	22.57
		1	49	23.18	22.59	22.49
		25	0	23.02	22.61	22.46
		25	12	23.17	22.36	22.38
		25	25	23.11	22.34	22.50
		50	0	22.09	21.70	21.32
	64-QAM	1	0	23.01	22.45	22.05
		1	24	22.94	22.59	22.18
		1	49	23.18	22.43	22.01
		25	0	23.04	22.39	21.84
		25	12	23.07	22.53	22.18
		25	25	22.91	22.56	21.91
		50	0	21.76	21.34	21.00

LTE Band 7						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
5	QPSK	1	0	22.72	22.86	22.86
		1	12	22.78	22.78	22.81
		1	24	22.80	22.75	22.79
		12	0	22.61	22.81	22.64
		12	7	22.63	22.74	22.77
		12	13	22.80	22.77	22.83
		50	0	21.91	21.81	21.91
	16-QAM	1	0	21.72	22.09	21.98
		1	12	21.68	22.01	21.92
		1	24	21.71	22.05	21.88
		12	0	21.82	21.84	21.93
		12	7	21.70	22.04	21.91
		12	13	21.73	22.02	21.90
		50	0	21.05	21.12	21.13
	64-QAM	1	0	21.15	21.29	21.33
		1	12	21.08	21.34	21.37
		1	24	21.10	21.44	21.31
		12	0	21.27	21.18	21.19
		12	7	21.09	21.43	21.35
		12	13	21.05	21.37	21.41
		50	0	21.33	21.18	21.21
10	QPSK	1	0	22.90	22.92	22.89
		1	24	22.84	22.75	22.91
		1	49	22.86	22.82	22.88
		25	0	22.90	22.90	22.90
		25	12	22.87	22.83	22.88
		25	25	22.89	22.80	22.94
		50	0	21.92	21.83	21.93

	16-QAM	1	0	21.89	21.99	22.18
		1	24	21.86	21.91	22.10
		1	49	22.02	21.93	22.03
		25	0	21.87	21.96	21.03
		25	12	21.71	21.97	22.05
		25	25	21.74	21.90	21.82
		50	0	21.98	21.84	21.78
	64-QAM	1	0	21.23	21.49	21.31
		1	24	21.18	21.38	21.44
		1	49	21.06	21.43	21.37
		25	0	21.13	21.34	21.30
		25	12	21.16	21.38	21.22
		25	25	21.11	21.41	21.38
		50	0	21.32	21.30	21.25
15	QPSK	1	0	22.74	22.83	22.83
		1	37	22.77	22.67	22.76
		1	74	22.82	22.75	22.80
		36	0	22.90	22.81	22.90
		36	20	22.83	22.74	22.80
		36	39	22.78	22.76	22.80
		75	0	21.87	21.82	21.86
	16-QAM	1	0	22.13	22.07	22.15
		1	37	22.07	22.19	22.03
		1	74	22.04	22.04	22.11
		36	0	21.95	21.87	21.94
		36	20	22.02	22.19	21.87
		36	39	21.89	22.13	21.49
		75	0	21.56	21.85	21.92
	64-QAM	1	0	21.24	21.40	21.09
		1	37	21.29	21.33	21.24
		1	74	21.17	21.31	21.18
		36	0	21.22	21.17	21.14
		36	20	21.26	21.28	21.07
		36	39	21.07	21.26	21.21
		75	0	21.33	21.22	21.14
20	QPSK	1	0	22.79	22.69	22.95
		1	49	22.73	22.63	22.81
		1	99	22.82	22.69	22.77

		50	0	22.79	22.81	22.82
		50	24	22.58	22.63	22.79
		50	50	22.72	22.69	22.82
		100	0	21.85	21.79	21.90
	16-QAM	1	0	22.14	22.18	22.10
		1	49	21.95	22.06	22.03
		1	99	22.01	22.12	22.02
		50	0	21.89	21.85	21.88
		50	24	22.01	22.10	22.00
		50	50	21.93	22.07	22.04
		100	0	21.86	21.85	21.93
	64-QAM	1	0	21.19	21.32	21.21
		1	49	21.15	21.29	21.26
		1	99	21.07	21.48	21.35
		50	0	21.22	21.14	21.09
		50	24	21.05	21.48	21.35
		50	50	21.12	21.30	21.27
		100	0	21.26	21.18	21.23

LTE Band 12						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
1.4	QPSK	1	0	23.71	23.69	23.69
		1	3	23.73	23.64	23.72
		1	5	23.77	23.60	23.67
		3	0	23.85	23.85	23.70
		3	1	23.70	23.67	23.69
		3	3	23.72	23.66	23.73
		6	0	22.78	22.71	22.75
	16-QAM	1	0	22.85	22.73	22.70
		1	3	22.82	22.74	22.73
		1	5	22.84	22.70	22.71
		3	0	22.81	22.89	22.98
		3	1	22.86	22.77	22.75
		3	3	22.88	22.73	22.68
		6	0	21.87	21.76	21.85
	64-QAM	1	0	22.49	22.44	22.51
		1	3	22.54	22.36	22.56
		1	5	22.50	22.42	22.50
		3	0	22.52	22.63	22.46
		3	1	22.47	22.44	22.51
		3	3	22.39	22.42	22.49
		6	0	21.56	21.50	21.56
3	QPSK	1	0	23.65	23.79	23.75
		1	8	23.73	23.75	23.67
		1	14	23.76	23.73	23.59
		8	0	23.69	23.66	23.73
		8	4	23.78	23.76	23.80
		8	7	23.72	23.70	23.72
		15	0	22.77	22.78	22.77

	16-QAM	1	0	22.73	22.82	22.94
		1	8	22.78	22.94	23.12
		1	14	22.81	22.89	23.08
		8	0	22.70	22.82	21.83
		8	4	22.82	22.79	23.09
		8	7	22.75	22.90	23.16
		15	0	21.85	21.79	21.93
	64-QAM	1	0	22.48	22.61	22.50
		1	8	22.55	22.58	22.67
		1	14	22.41	22.62	22.59
		8	0	22.45	22.49	22.45
		8	4	22.39	22.64	22.61
		8	7	22.30	22.60	22.42
		15	0	21.55	21.48	21.65
5	QPSK	1	0	23.78	22.72	23.75
		1	12	23.73	23.66	23.67
		1	24	23.66	23.64	23.60
		12	0	23.76	23.51	23.71
		12	7	23.66	23.63	23.62
		12	13	23.73	23.69	23.64
		50	0	22.75	22.83	22.76
	16-QAM	1	0	22.91	22.67	22.85
		1	12	23.05	22.62	22.91
		1	24	22.96	22.61	22.97
		12	0	22.79	22.79	22.79
		12	7	22.95	22.61	22.83
		12	13	23.03	22.65	22.90
		50	0	21.87	21.92	21.85
	64-QAM	1	0	22.53	22.49	22.39
		1	12	22.69	22.31	22.25
		1	24	22.64	22.29	22.26
		12	0	22.50	22.57	22.19
		12	7	22.62	22.30	22.27
		12	13	22.69	22.29	22.24
		50	0	21.53	21.65	21.61
10	QPSK	1	0	23.72	23.73	23.78
		1	24	23.68	23.71	23.71
		1	49	23.66	23.76	23.67

		25	0	23.84	23.85	23.70
		25	12	23.62	23.80	23.68
		25	25	23.70	23.67	23.75
		50	0	22.88	22.84	22.72
	16-QAM	1	0	23.13	22.69	22.99
		1	24	23.27	22.73	23.07
		1	49	23.28	22.81	23.11
		25	0	22.98	22.70	22.83
		25	12	23.29	22.78	23.14
		25	25	23.27	22.74	23.08
		50	0	21.95	21.92	21.81
	64-QAM	1	0	22.57	22.50	22.53
		1	24	22.50	22.57	22.45
		1	49	22.56	22.49	22.32
		25	0	22.60	22.61	22.49
		25	12	22.51	22.48	22.51
		25	25	22.54	22.35	22.37
		50	0	21.63	21.64	21.54

LTE Band 13						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
5	QPSK	1	0	23.72	23.93	22.81
		1	12	23.79	23.90	23.83
		1	24	23.85	23.99	23.75
		12	0	22.75	23.94	23.78
		12	7	23.86	23.89	23.74
		12	13	23.84	23.95	23.85
		50	0	22.72	22.85	22.79
	16-QAM	1	0	22.94	22.84	22.80
		1	12	22.97	22.78	22.88
		1	24	22.95	22.79	22.89
		12	0	22.83	22.82	22.97
		12	7	22.96	22.75	22.90
		12	13	22.91	22.71	22.87
		50	0	21.73	21.87	21.90
	64-QAM	1	0	22.44	22.39	22.62
		1	12	22.46	22.31	22.59
		1	24	22.39	22.33	22.65
		12	0	22.45	22.52	22.41
		12	7	22.47	22.30	22.68
		12	13	22.33	22.32	22.63
		50	0	21.41	21.59	21.45
10	QPSK	1	0	/	23.90	/
		1	24	/	23.99	/
		1	49	/	23.94	/
		25	0	/	22.91	/
		25	12	/	23.98	/
		25	25	/	23.96	/
		50	0	/	22.84	/

	16-QAM	1	0	/	22.67	/
		1	24	/	22.52	/
		1	49	/	22.58	/
		25	0	/	22.61	/
		25	12	/	22.59	/
		25	25	/	22.55	/
		50	0	/	21.82	/
	64-QAM	1	0	/	22.53	/
		1	24	/	22.45	/
		1	49	/	22.51	/
		25	0	/	22.39	/
		25	12	/	22.48	/
		25	25	/	22.45	/
		50	0	/	21.58	/

LTE Band 17						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
5	QPSK	1	0	23.72	23.79	23.79
		1	12	23.77	23.75	23.71
		1	24	23.79	23.77	23.74
		12	0	23.71	23.82	23.80
		12	7	23.76	23.71	23.70
		12	13	23.81	23.78	23.75
		50	0	22.90	22.77	22.86
	16-QAM	1	0	22.94	22.72	22.60
		1	12	22.85	22.65	22.62
		1	24	22.98	22.70	22.65
		12	0	22.98	22.81	22.72
		12	7	22.97	22.69	22.67
		12	13	22.94	22.67	22.59
		50	0	21.99	21.93	21.98
	64-QAM	1	0	22.47	22.73	22.35
		1	12	22.40	22.76	22.47
		1	24	22.42	22.80	22.39
		12	0	22.64	22.55	22.30
		12	7	22.39	22.81	22.45
		12	13	22.44	22.77	22.28
		50	0	21.70	21.56	21.61
10	QPSK	1	0	23.72	23.78	23.84
		1	24	23.76	23.85	23.79
		1	49	23.79	23.81	23.71
		25	0	22.80	23.79	23.77
		25	12	23.79	23.84	23.81
		25	25	23.77	23.82	23.83
		50	0	22.87	22.83	22.87

	16-QAM	1	0	23.04	22.80	22.99
		1	24	23.07	22.84	23.03
		1	49	23.11	22.85	23.05
		25	0	22.94	22.93	22.91
		25	12	23.02	22.80	23.08
		25	25	23.09	22.83	23.02
		50	0	21.91	21.91	21.91
	64-QAM	1	0	22.52	22.53	22.44
		1	24	22.68	22.64	22.49
		1	49	22.65	22.50	22.37
		25	0	22.55	22.61	22.58
		25	12	22.70	22.48	22.31
		25	25	22.65	22.41	22.25
		50	0	21.63	21.56	21.59

LTE Band 25						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
1.4	QPSK	1	0	23.34	23.28	23.27
		1	3	23.35	23.34	23.28
		1	5	23.36	23.30	23.21
		3	0	23.33	23.35	23.29
		3	1	23.37	23.30	23.25
		3	3	23.38	23.33	23.33
		6	0	22.46	22.40	22.36
	16-QAM	1	0	22.42	22.22	22.18
		1	3	22.46	22.25	22.22
		1	5	22.41	22.27	22.20
		3	0	22.45	22.47	22.41
		3	1	22.47	22.25	22.28
		3	3	22.49	22.30	22.24
		6	0	21.52	21.59	21.55
	64-QAM	1	0	22.34	22.35	22.19
		1	3	22.38	22.20	22.16
		1	5	22.29	22.23	22.13
		3	0	22.23	22.15	22.04
		3	1	22.40	22.26	22.17
		3	3	22.36	22.24	22.15
		6	0	22.41	22.49	22.20
3	QPSK	1	0	23.39	23.31	23.39
		1	8	23.32	23.34	23.36
		1	14	23.44	23.40	23.40
		8	0	22.33	22.28	23.28
		8	4	23.41	23.38	23.32
		8	7	23.30	23.32	23.37
		15	0	22.34	22.28	22.31

	16-QAM	1	0	22.85	22.29	22.34
		1	8	22.80	22.23	22.22
		1	14	22.89	22.37	22.37
		8	0	22.92	22.24	22.25
		8	4	22.87	22.31	22.29
		8	7	22.85	22.30	22.26
		15	0	22.46	22.38	22.36
	64-QAM	1	0	22.30	22.68	22.28
		1	8	22.37	22.71	22.25
		1	14	22.43	22.65	22.21
		8	0	22.29	22.25	22.12
		8	4	22.41	22.68	22.29
		8	7	22.36	22.60	22.10
		15	0	22.23	22.22	22.05
5	QPSK	1	0	23.31	23.36	23.27
		1	12	23.25	23.22	23.20
		1	24	23.34	23.27	23.21
		12	0	23.35	23.35	23.19
		12	7	23.33	23.28	23.22
		12	13	23.26	23.25	23.23
		50	0	22.32	22.32	22.27
	16-QAM	1	0	22.65	22.41	22.18
		1	12	22.51	22.45	22.05
		1	24	22.54	22.49	22.06
		12	0	22.37	22.33	22.21
		12	7	22.58	22.48	22.05
		12	13	22.53	22.46	22.06
		50	0	22.31	22.31	22.35
	64-QAM	1	0	22.39	22.47	22.15
		1	12	22.42	22.55	22.22
		1	24	22.46	22.48	22.20
		12	0	22.28	22.41	21.99
		12	7	22.34	22.38	22.27
		12	13	22.40	22.50	22.24
		50	0	22.22	22.27	22.06
10	QPSK	1	0	23.39	23.20	23.31
		1	24	23.28	23.23	23.27
		1	49	23.33	23.29	23.23

		25	0	23.37	23.35	23.20
		25	12	23.34	23.31	23.24
		25	25	23.31	23.22	23.28
		50	0	22.36	22.37	22.22
	16-QAM	1	0	22.72	22.78	22.68
		1	24	22.79	22.72	22.65
		1	49	22.85	22.74	22.70
		25	0	22.48	22.69	22.57
		25	12	22.83	22.75	22.74
		25	25	22.81	22.73	22.68
		50	0	22.41	22.44	22.44
	64-QAM	1	0	22.60	22.49	22.39
		1	24	22.67	22.54	22.43
		1	49	22.76	22.60	22.36
		25	0	22.37	22.29	22.10
		25	12	22.75	22.66	22.25
		25	25	22.66	22.57	22.33
		50	0	22.38	22.28	22.18
15	QPSK	1	0	23.30	23.38	23.19
		1	37	23.24	23.20	23.22
		1	74	23.37	23.31	23.27
		36	0	23.49	23.42	23.33
		36	20	23.36	23.32	23.28
		36	39	23.29	23.29	23.26
		75	0	22.44	22.47	22.42
	16-QAM	1	0	22.52	22.43	22.35
		1	37	22.36	22.39	22.30
		1	74	22.47	22.40	22.37
		36	0	22.44	22.36	22.29
		36	20	22.48	22.41	22.37
		36	39	22.35	22.32	22.33
		75	0	22.43	22.46	22.42
	64-QAM	1	0	22.30	22.50	22.19
		1	37	22.24	22.52	22.06
		1	74	22.31	22.66	22.25
		36	0	22.34	22.24	22.09
		36	20	22.39	22.69	22.21
		36	39	22.27	22.51	22.06

		75	0	22.37	22.33	22.24
20	QPSK	1	0	23.48	23.31	23.26
		1	49	23.25	23.16	23.18
		1	99	23.32	23.25	23.22
		50	0	23.42	23.24	23.13
		50	24	23.30	23.24	23.29
		50	50	23.25	23.20	23.22
		100	0	22.40	22.36	22.31
	16-QAM	1	0	22.57	22.38	22.44
		1	49	22.49	22.35	22.40
		1	99	22.53	22.40	22.48
		50	0	22.44	22.29	22.18
		50	24	22.58	22.42	22.47
		50	50	22.49	22.35	22.43
		100	0	22.46	22.41	22.36
	64-QAM	1	0	22.39	22.32	22.10
		1	49	22.35	22.27	22.07
		1	99	22.47	22.43	22.22
		50	0	22.20	22.14	21.93
		50	24	22.47	22.39	22.18
		50	50	22.32	22.21	22.07
		100	0	21.52	21.56	21.65

LTE Band 26						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
1.4	QPSK	1	0	24.75	24.05	23.30
		1	3	24.70	24.14	23.34
		1	5	24.62	24.16	23.31
		3	0	24.76	24.21	23.43
		3	1	24.65	24.13	23.35
		3	3	24.78	24.05	23.28
		6	0	23.89	23.23	22.41
	16-QAM	1	0	23.62	23.28	22.36
		1	3	23.71	23.31	22.42
		1	5	23.67	23.23	22.40
		3	0	23.82	23.21	22.47
		3	1	23.70	23.35	22.38
		3	3	23.60	23.22	22.40
		6	0	22.85	22.28	21.36
	64-QAM	1	0	23.93	22.93	22.13
		1	3	24.04	22.97	22.15
		1	5	24.02	23.03	22.10
		3	0	23.84	22.86	22.07
		3	1	24.01	23.02	22.20
		3	3	23.94	22.94	22.12
		6	0	23.07	21.95	21.13
3	QPSK	1	0	24.67	24.16	23.32
		1	8	24.65	24.00	23.27
		1	14	24.55	24.20	23.45
		8	0	24.62	23.13	23.30
		8	4	24.75	24.21	23.43
		8	7	24.66	24.01	23.34
		15	0	23.72	23.23	22.40

	16-QAM	1	0	24.06	23.67	22.78
		1	8	24.00	23.59	22.83
		1	14	24.19	23.79	23.00
		8	0	23.70	23.13	22.56
		8	4	24.23	23.46	23.01
		8	7	24.02	23.58	22.64
		15	0	22.78	22.27	21.49
	64-QAM	1	0	23.90	23.21	22.23
		1	8	23.87	23.26	22.15
		1	14	24.07	23.29	22.32
		8	0	23.85	23.13	22.05
		8	4	24.10	23.06	22.27
		8	7	23.80	23.30	22.15
		15	0	22.85	21.98	21.04
5	QPSK	1	0	24.65	24.08	23.29
		1	12	24.39	23.94	23.21
		1	24	24.77	24.17	23.38
		12	0	24.51	24.11	23.35
		12	7	24.74	24.18	23.40
		12	13	24.37	23.95	23.24
		50	0	23.59	23.20	22.45
	16-QAM	1	0	23.46	23.34	22.49
		1	12	23.24	23.25	22.42
		1	24	23.51	23.37	22.36
		12	0	23.52	23.13	22.31
		12	7	23.49	23.43	22.34
		12	13	23.21	23.26	22.16
		50	0	22.72	22.22	21.53
	64-QAM	1	0	23.90	22.89	22.15
		1	12	23.96	22.72	22.22
		1	24	23.68	22.96	22.47
		12	0	23.87	22.74	22.21
		12	7	23.70	22.98	22.48
		12	13	23.57	22.73	22.25
		50	0	22.84	21.89	21.12
10	QPSK	1	0	24.49	23.96	23.54
		1	24	24.46	23.90	23.33
		1	49	24.77	24.35	23.57

		25	0	24.36	24.10	23.41
		25	12	24.80	24.34	23.63
		25	25	24.42	23.87	23.30
		50	0	23.41	23.27	22.61
	16-QAM	1	0	23.60	23.19	22.80
		1	24	23.66	23.07	22.52
		1	49	23.73	23.12	22.89
		25	0	23.39	23.14	22.75
		25	12	23.64	23.06	22.88
		25	25	23.70	23.09	22.76
		50	0	22.49	22.26	21.64
	64-QAM	1	0	23.92	22.93	22.32
		1	24	23.79	23.10	22.49
		1	49	24.26	23.16	22.27
		25	0	24.01	22.83	22.30
		25	12	24.08	23.08	22.36
		25	25	23.76	23.12	22.21
		50	0	22.64	21.98	21.34
15	QPSK	1	0	24.79	23.84	23.37
		1	37	24.73	23.68	23.30
		1	74	24.71	24.11	23.63
		36	0	24.32	24.04	22.52
		36	20	24.61	24.15	23.68
		36	39	24.62	23.87	23.53
		75	0	23.36	23.31	22.80
	16-QAM	1	0	23.32	23.05	22.74
		1	37	23.28	23.10	22.68
		1	74	23.77	23.27	22.50
		36	0	22.46	22.98	22.48
		36	20	23.73	23.28	23.35
		36	39	23.29	23.14	22.70
		75	0	22.38	22.26	21.75
	64-QAM	1	0	23.92	22.74	22.29
		1	37	23.85	22.92	22.04
		1	74	24.18	23.17	22.28
		36	0	24.03	22.66	21.13
		36	20	24.08	22.78	22.21
		36	39	23.85	22.93	22.08

		75	0	22.52	21.96	21.42

LTE Band 41						
Bandwidth	**Modulation**	**RB**	**RB**	**Low Channel**	**Middle Channel**	**High Channel**
MHz		**Size**	**Offset**	**dBm**	**dBm**	**dBm**
5	QPSK	1	0	26.75	26.75	26.71
		1	12	26.91	26.98	26.89
		1	24	26.76	26.79	26.71
		12	0	25.77	25.83	25.87
		12	7	25.89	25.82	25.86
		12	13	25.81	25.86	25.83
		50	0	25.82	25.84	25.87
	16-QAM	1	0	25.92	25.77	25.74
		1	12	26.07	25.93	25.92
		1	24	25.94	25.70	25.72
		12	0	24.78	24.88	24.83
		12	7	24.80	24.87	24.87
		12	13	24.82	24.85	24.80
		50	0	24.79	24.97	24.90
	64-QAM	1	0	25.26	24.34	24.49
		1	12	25.42	25.67	25.49
		1	24	25.26	25.50	25.32
		12	0	24.31	24.32	24.42
		12	7	24.37	24.41	24.45
		12	13	24.35	24.38	24.42
		50	0	24.39	24.37	24.49
10	QPSK	1	0	26.93	26.90	26.83
		1	24	27.19	27.19	27.16
		1	49	26.80	26.89	26.83
		25	0	25.85	25.93	25.96
		25	12	25.86	25.98	25.97
		25	25	25.87	25.92	25.86
		50	0	25.81	25.86	25.91

	16-QAM	1	0	25.89	25.77	26.00
		1	24	26.17	26.08	26.29
		1	49	25.84	25.72	25.98
		25	0	24.87	24.95	24.97
		25	12	24.88	24.99	24.90
		25	25	24.89	24.94	24.85
		50	0	24.85	24.89	24.92
	64-QAM	1	0	25.44	24.35	24.46
		1	24	25.70	25.56	25.81
		1	49	25.37	25.29	25.51
		25	0	24.42	24.46	24.52
		25	12	24.43	24.41	24.51
		25	25	24.45	24.44	24.41
		50	0	24.32	24.39	24.45
15	QPSK	1	0	26.80	26.90	26.87
		1	37	26.82	26.99	26.90
		1	74	26.70	26.87	26.82
		36	0	25.94	26.04	25.78
		36	20	25.98	26.12	25.82
		36	39	25.88	26.06	25.73
		75	0	25.95	26.08	26.03
	16-QAM	1	0	25.93	26.02	25.76
		1	37	25.98	26.13	25.81
		1	74	25.86	25.98	25.72
		36	0	25.97	26.06	25.81
		36	20	25.96	26.12	25.81
		36	39	25.90	25.99	25.71
		75	0	24.84	24.95	24.98
	64-QAM	1	0	25.51	24.44	24.44
		1	37	25.57	25.33	25.52
		1	74	25.41	25.21	25.45
		36	0	25.53	25.27	25.55
		36	20	25.56	25.35	25.56
		36	39	25.45	25.23	25.46
		75	0	24.42	24.46	24.44
20	QPSK	1	0	26.90	26.78	26.84
		1	49	27.15	27.10	27.19
		1	99	26.97	26.74	26.77

		50	0	25.74	25.88	25.94
		50	24	25.77	25.86	25.95
		50	50	25.81	25.89	25.78
		100	0	25.75	25.85	25.86
	16-QAM	1	0	26.05	25.76	25.85
		1	49	26.31	26.12	26.14
		1	99	25.89	25.71	25.79
		50	0	24.75	24.90	24.93
		50	24	24.78	24.97	24.93
		50	50	24.83	24.92	24.82
		100	0	24.80	24.86	24.85
	64-QAM	1	0	25.57	25.25	25.36
		1	49	25.84	25.59	25.66
		1	99	25.45	25.20	25.29
		50	0	24.29	24.41	24.45
		50	24	24.28	24.42	24.43
		50	50	24.37	24.45	24.33
		100	0	24.30	24.37	24.41

LTE Band 66						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
1.4	QPSK	1	0	23.14	23.07	23.20
		1	3	23.29	23.19	23.33
		1	5	23.16	23.09	23.17
		3	0	23.34	23.25	23.30
		3	1	23.37	23.25	23.15
		3	3	23.34	23.26	23.03
		6	0	22.26	22.18	22.28
	16-QAM	1	0	22.38	22.27	22.31
		1	3	22.56	22.41	22.45
		1	5	22.33	22.29	22.30
		3	0	22.29	22.22	22.28
		3	1	22.31	22.24	22.22
		3	3	22.26	22.16	22.19
		6	0	21.33	21.24	21.33
	64-QAM	1	0	21.86	21.81	21.90
		1	3	22.04	22.06	22.01
		1	5	21.88	21.85	21.91
		3	0	21.81	21.72	21.77
		3	1	21.80	21.75	21.78
		3	3	21.79	21.66	21.77
		6	0	20.86	20.81	20.71
3	QPSK	1	0	23.18	23.21	23.30
		1	8	23.22	23.27	23.28
		1	14	23.20	23.23	23.31
		8	0	23.13	23.20	22.99
		8	4	23.28	23.28	22.85
		8	7	23.30	23.24	22.90
		15	0	22.43	22.22	22.33

	16-QAM	1	0	22.57	22.50	22.24
		1	8	22.49	22.45	22.25
		1	14	22.47	22.36	22.27
		8	0	22.42	22.33	21.98
		8	4	22.45	22.29	21.94
		8	7	22.39	22.29	21.89
		15	0	21.40	21.22	21.25
	64-QAM	1	0	21.95	22.00	21.81
		1	8	22.00	21.94	21.70
		1	14	22.00	21.90	21.78
		8	0	21.93	21.83	21.91
		8	4	21.92	21.85	20.86
		8	7	21.92	21.81	20.88
		15	0	20.89	20.75	20.78
5	QPSK	1	0	23.26	23.15	23.21
		1	12	23.39	23.30	23.35
		1	24	23.17	23.13	23.19
		12	0	23.32	23.24	22.31
		12	7	23.37	23.26	22.34
		12	13	23.36	23.26	22.28
		50	0	22.37	22.30	22.35
	16-QAM	1	0	22.32	22.30	22.45
		1	12	22.41	22.36	22.57
		1	24	22.30	22.24	22.40
		12	0	22.36	22.31	21.38
		12	7	22.35	22.29	21.39
		12	13	22.40	22.26	21.32
		50	0	21.46	21.38	21.34
	64-QAM	1	0	21.80	21.78	21.94
		1	12	21.93	21.84	22.07
		1	24	21.79	21.75	21.96
		12	0	21.86	21.80	21.86
		12	7	21.86	21.78	21.88
		12	13	21.93	21.71	20.83
		50	0	20.94	20.83	20.83
10	QPSK	1	0	23.22	23.17	23.19
		1	24	23.30	23.20	23.35
		1	49	23.22	23.15	23.15

		25	0	22.41	22.83	22.91
		25	12	22.98	22.90	22.84
		25	25	23.13	22.93	22.90
		50	0	22.42	22.29	22.38
	16-QAM	1	0	22.57	22.44	22.47
		1	24	22.63	22.57	22.52
		1	49	22.48	22.44	22.38
		25	0	22.44	22.33	21.97
		25	12	22.42	22.36	21.80
		25	25	22.49	22.30	21.92
		50	0	21.44	21.28	21.41
	64-QAM	1	0	22.02	21.93	21.96
		1	24	22.16	22.07	22.06
		1	49	21.97	21.86	21.95
		25	0	21.92	21.86	21.81
		25	12	21.99	21.84	21.97
		25	25	21.95	21.88	21.93
		50	0	20.97	20.83	20.88
15	QPSK	1	0	23.18	23.10	23.22
		1	37	23.21	23.23	23.29
		1	74	23.08	23.07	23.17
		36	0	22.95	22.87	22.51
		36	20	22.91	22.96	22.60
		36	39	22.85	22.82	22.44
		75	0	22.39	22.34	22.47
	16-QAM	1	0	22.50	22.42	22.53
		1	37	22.46	22.46	22.59
		1	74	22.38	22.35	22.40
		36	0	22.47	22.39	22.43
		36	20	22.49	22.45	22.42
		36	39	22.38	22.36	22.49
		75	0	21.34	21.30	21.41
	64-QAM	1	0	21.97	21.94	22.05
		1	37	22.00	21.96	22.12
		1	74	21.90	21.85	21.95
		36	0	21.97	21.96	21.56
		36	20	21.97	21.98	21.85
		36	39	21.88	21.84	21.93

		75	0	20.83	20.85	20.89
20	QPSK	1	0	23.24	23.19	23.17
		1	49	23.39	23.39	23.37
		1	99	23.17	23.14	23.19
		50	0	23.26	22.83	22.83
		50	24	23.28	22.95	22.91
		50	50	23.31	22.93	22.89
		100	0	22.28	22.88	22.36
	16-QAM	1	0	22.35	22.36	22.27
		1	49	22.47	22.47	22.41
		1	99	22.28	22.22	22.22
		50	0	22.32	21.84	21.95
		50	24	22.32	21.90	21.87
		50	50	22.30	21.93	21.90
		100	0	21.30	21.29	21.37
	64-QAM	1	0	21.86	21.78	21.88
		1	49	21.95	21.97	22.11
		1	99	21.83	21.69	21.88
		50	0	21.79	21.83	21.96
		50	24	21.79	21.84	21.90
		50	50	21.82	21.82	21.82
		100	0	20.77	20.79	20.85

LTE Band 71						
Bandwidth	Modulation	RB	RB	Low Channel	Middle Channel	High Channel
MHz		Size	Offset	dBm	dBm	dBm
5	QPSK	1	0	24.03	24.00	23.94
		1	12	24.10	24.04	24.06
		1	24	24.06	24.00	24.02
		12	0	23.90	24.01	23.96
		12	7	23.87	24.01	23.91
		12	13	24.05	23.97	24.00
		50	0	23.03	23.02	23.10
	16-QAM	1	0	23.01	22.98	23.14
		1	12	23.10	23.06	23.30

		1	24	23.05	23.03	23.25
		12	0	23.06	23.04	23.15
		12	7	23.06	23.06	23.16
		12	13	23.13	23.04	23.04
		50	0	22.17	22.13	22.08
	64-QAM	1	0	22.57	22.53	22.60
		1	12	22.66	22.59	22.80
		1	24	22.50	22.52	22.74
		12	0	22.58	22.56	22.65
		12	7	22.57	22.59	22.63
		12	13	22.64	22.57	22.55
		50	0	21.65	21.63	21.60
10	QPSK	1	0	24.00	23.94	23.94
		1	24	24.09	24.11	24.16
		1	49	23.96	24.02	24.04
		25	0	24.06	23.93	23.92
		25	12	24.06	23.88	23.89
		25	25	24.27	23.94	22.91
		50	0	23.16	23.09	23.08
	16-QAM	1	0	23.20	23.11	23.15
		1	24	23.36	23.31	23.31
		1	49	23.19	23.23	23.24
		25	0	23.09	23.21	23.18
		25	12	23.10	23.16	23.18
		25	25	23.31	23.21	23.11
		50	0	22.21	22.14	22.15
	64-QAM	1	0	22.68	22.61	22.64
		1	24	22.82	22.79	22.78
		1	49	22.66	22.70	22.73
		25	0	22.58	22.71	22.73
		25	12	22.61	22.67	22.71
		25	25	22.43	22.72	22.61
		50	0	21.71	21.64	21.63
15	QPSK	1	0	23.90	23.88	23.89
		1	37	23.99	23.97	23.98
		1	74	23.80	23.86	24.00
		36	0	23.77	23.71	23.92
		36	20	23.70	23.77	23.77

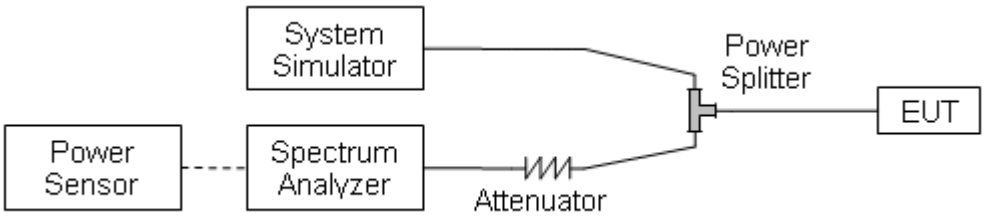
		36	39	23.85	23.83	23.79
		75	0	23.11	23.18	23.05
	16-QAM	1	0	23.14	23.10	23.20
		1	37	23.17	23.19	23.25
		1	74	23.14	23.05	23.27
		36	0	23.14	23.10	23.22
		36	20	23.24	23.21	23.20
		36	39	23.10	23.06	23.25
		75	0	22.07	22.07	22.05
	64-QAM	1	0	22.65	22.57	22.76
		1	37	22.71	22.68	22.78
		1	74	22.64	22.60	22.71
		36	0	22.65	22.64	22.75
		36	20	22.70	22.69	22.77
		36	39	22.60	22.60	22.79
		75	0	21.62	21.66	21.53
20	QPSK	1	0	23.98	23.85	23.76
		1	49	24.21	24.16	23.94
		1	99	24.02	23.93	23.86
		50	0	23.76	23.90	23.92
		50	24	23.74	24.05	23.88
		50	50	23.95	23.97	23.80
		100	0	22.87	23.09	22.86
	16-QAM	1	0	23.00	23.07	22.89
		1	49	23.17	23.35	23.14
		1	99	23.03	23.10	22.95
		50	0	22.77	22.83	22.98
		50	24	22.81	23.09	22.94
		50	50	22.75	22.78	22.90
		100	0	21.91	22.13	21.90
	64-QAM	1	0	22.45	22.42	22.59
		1	49	22.69	22.72	22.79
		1	99	22.49	22.49	22.67
		50	0	22.36	22.32	22.47
		50	24	22.37	22.38	22.48
		50	50	22.53	22.47	22.45
		100	0	21.39	21.60	21.38

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	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	1.099	1.300	1.100	1.325	1.099	1.310
	16QAM	1.101	1.304	1.103	1.313	1.095	1.284
	64QAM	1.097	1.278	1.103	1.313	1.093	1.275
3	QPSK	2.702	2.938	2.705	2.940	2.697	2.918
	16QAM	2.694	2.930	2.698	2.938	2.691	2.943
	64QAM	2.693	2.937	2.700	2.948	2.698	2.921
5	QPSK	4.500	4.943	4.507	4.950	4.509	4.923
	16QAM	4.522	4.956	4.498	4.931	4.522	4.912
	64QAM	4.509	4.960	4.497	4.932	4.507	4.959
10	QPSK	8.996	9.733	9.007	9.783	9.010	9.827
	16QAM	8.981	9.652	8.984	9.769	8.985	9.727
	64QAM	8.978	9.762	9.015	9.773	8.989	9.731
15	QPSK	13.472	14.680	13.468	14.610	13.482	14.620
	16QAM	13.480	14.600	13.495	14.540	13.493	14.610
	64QAM	13.475	14.640	13.466	14.630	13.470	14.530
20	QPSK	17.984	19.290	17.972	19.420	17.994	19.280
	16QAM	17.973	19.460	17.954	19.390	18.042	19.380
	64QAM	17.986	19.460	17.956	19.320	18.042	19.340

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	1.094	1.295	1.090	1.283	1.103	1.280
	16QAM	1.092	1.281	1.100	1.302	1.093	1.282
	64QAM	1.094	1.279	1.098	1.302	1.094	1.278
3	QPSK	2.691	2.920	2.696	2.931	2.697	2.925
	16QAM	2.690	2.931	2.688	2.917	2.683	2.926
	64QAM	2.690	3.005	2.690	2.905	2.687	2.914
5	QPSK	4.492	4.931	4.502	4.931	4.491	4.923
	16QAM	4.499	4.953	4.498	4.914	4.494	4.908
	64QAM	4.498	4.966	4.511	4.920	4.486	4.896
10	QPSK	8.971	9.706	8.998	9.762	8.999	9.878
	16QAM	8.982	9.824	8.975	9.725	8.992	9.737
	64QAM	8.988	9.746	8.982	9.760	8.988	9.738
15	QPSK	13.472	14.530	13.476	14.660	13.439	14.530
	16QAM	13.457	14.480	13.479	14.510	13.479	14.500
	64QAM	13.471	14.530	13.492	14.590	13.481	14.620
20	QPSK	17.977	19.210	17.991	19.230	17.980	19.410
	16QAM	17.993	19.160	17.983	19.410	17.978	19.350
	64QAM	17.959	19.240	17.987	19.290	17.994	19.380

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	1.093	1.294	1.096	1.276	1.090	1.285
	16QAM	1.088	1.264	1.093	1.284	1.099	1.288
	64QAM	1.089	1.269	1.093	1.286	1.096	1.311
3	QPSK	2.687	2.917	2.690	2.925	2.696	2.904
	16QAM	2.685	2.936	2.686	2.894	2.683	2.924
	64QAM	2.686	2.924	2.685	2.890	2.679	2.913
5	QPSK	4.514	4.923	4.508	4.929	4.493	4.893
	16QAM	4.492	4.913	4.506	4.936	4.491	4.927
	64QAM	4.497	4.913	4.505	4.931	4.497	4.952
10	QPSK	8.986	9.726	8.999	9.779	8.957	9.776

	16QAM	8.975	9.687	8.976	9.725	8.970	9.680
	64QAM	8.992	9.710	8.979	9.689	8.977	9.753

LTE Band 7							
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	4.505	4.934	4.497	4.906	4.517	4.955
	16QAM	4.506	4.937	4.496	4.943	4.486	4.931
	64QAM	4.504	4.907	4.502	4.923	4.495	4.904
10	QPSK	8.967	9.694	8.989	9.781	8.969	9.672
	16QAM	8.970	9.628	8.980	9.691	8.986	9.787
	64QAM	8.956	9.742	8.958	9.715	8.968	9.757
15	QPSK	13.445	14.540	13.477	14.510	13.497	14.610
	16QAM	13.462	14.560	13.442	14.500	13.494	14.520
	64QAM	13.427	14.600	13.456	14.540	13.454	14.540
20	QPSK	17.955	19.300	17.950	19.330	18.006	19.370
	16QAM	17.989	19.430	17.961	19.390	18.010	19.350
	64QAM	17.981	19.300	17.942	19.220	17.988	19.430

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	1.092	1.274	1.093	1.284	1.104	1.279
	16QAM	1.097	1.288	1.086	1.276	1.092	1.299
	64QAM	1.096	1.298	1.089	1.279	1.094	1.292
3	QPSK	2.695	2.931	2.694	2.917	2.691	2.915
	16QAM	2.686	2.919	2.694	2.915	2.690	2.921
	64QAM	2.688	2.909	2.691	2.926	2.690	2.907
5	QPSK	4.519	5.206	4.522	5.218	4.514	5.158
	16QAM	4.517	5.130	4.540	5.230	4.542	5.189
	64QAM	4.520	5.126	4.532	5.201	4.549	5.229
10	QPSK	9.034	10.140	9.021	10.070	8.974	10.040

	16QAM	9.005	9.562	8.979	10.110	8.993	10.170
	64QAM	9.028	10.110	8.985	10.140	8.984	10.080

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	4.5079	5.132	4.5421	5.254	4.5058	5.076
	16QAM	4.5140	5.118	4.5352	5.148	4.5340	5.233
	64QAM	4.5150	5.104	4.5207	5.152	4.5289	5.207
10	QPSK	/	/	8.9832	10.07	/	/
	16QAM	/	/	8.9748	10.10	/	/
	64QAM	/	/	8.9778	10.06	/	/

LTE Band 17							
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	4.511	5.146	4.506	5.087	4.526	5.181
	16QAM	4.537	5.233	4.526	5.175	4.520	5.212
	64QAM	4.531	5.224	4.524	5.191	4.513	5.144
10	QPSK	8.977	10.100	8.983	10.040	8.988	10.020
	16QAM	8.995	9.872	8.985	10.020	8.984	9.991
	64QAM	8.998	10.040	8.981	10.020	8.984	10.100

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	1.093	1.297	1.094	1.304	1.103	1.284
	16QAM	1.099	1.299	1.093	1.276	1.094	1.281
	64QAM	1.097	1.298	1.092	1.274	1.095	1.275
3	QPSK	2.690	2.920	2.697	2.928	2.699	2.926
	16QAM	2.686	2.917	2.687	2.925	2.691	2.913

	64QAM	2.687	2.915	2.684	2.925	2.693	2.918
5	QPSK	4.523	5.170	4.503	5.176	4.525	5.201
	16QAM	4.524	5.167	4.548	5.231	4.510	5.171
	64QAM	4.514	5.085	4.545	5.228	4.526	5.153
10	QPSK	9.018	10.180	9.008	10.090	8.974	9.950
	16QAM	8.998	10.090	9.015	10.100	8.997	10.020
	64QAM	8.993	10.080	9.014	10.080	8.995	10.070
15	QPSK	13.505	15.030	13.466	14.820	13.460	15.010
	16QAM	13.496	14.910	13.512	15.000	13.477	14.870
	64QAM	13.490	14.840	13.519	15.060	13.499	14.930
20	QPSK	18.009	19.550	18.002	19.750	17.949	19.480
	16QAM	17.986	19.420	17.987	19.570	17.984	19.720
	64QAM	17.951	19.600	17.972	19.760	17.978	19.710

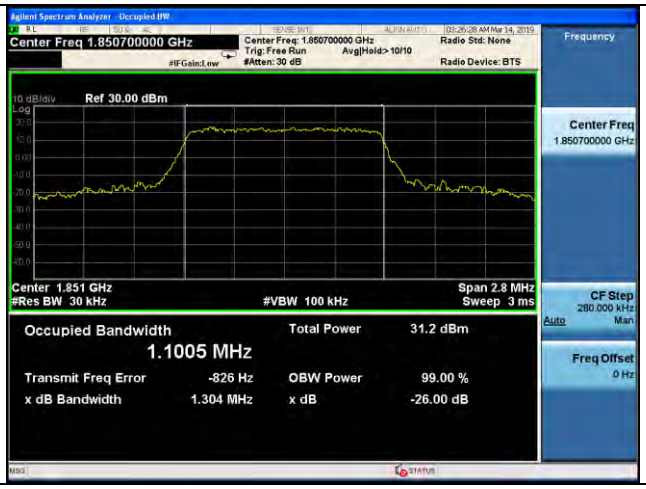
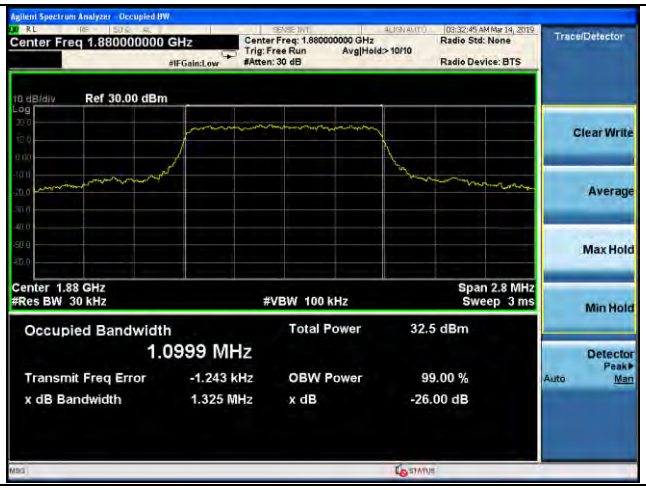
LTE Band 26							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
1.4	QPSK	1.090	1.279	1.093	1.285	1.090	1.291
	16QAM	1.094	1.273	1.094	1.268	1.092	1.275
	64QAM	1.093	1.293	1.097	1.302	1.091	1.271
3	QPSK	2.692	2.926	2.697	2.915	2.683	2.908
	16QAM	2.686	2.937	2.693	2.920	2.679	2.904
	64QAM	2.691	2.924	2.687	2.934	2.676	2.924
5	QPSK	4.518	4.921	4.489	4.901	4.499	4.923
	16QAM	4.488	4.926	4.505	4.951	4.502	4.914
	64QAM	4.490	4.904	4.506	4.929	4.515	4.910
10	QPSK	8.993	9.766	8.984	9.834	8.965	9.752
	16QAM	8.986	9.761	8.979	9.687	8.970	9.805
	64QAM	8.987	9.786	8.990	9.719	8.988	9.749
15	QPSK	13.484	14.580	13.442	14.550	13.458	14.560
	16QAM	13.480	14.550	13.467	14.590	13.454	14.450
	64QAM	13.484	14.540	13.479	14.550	13.435	14.430

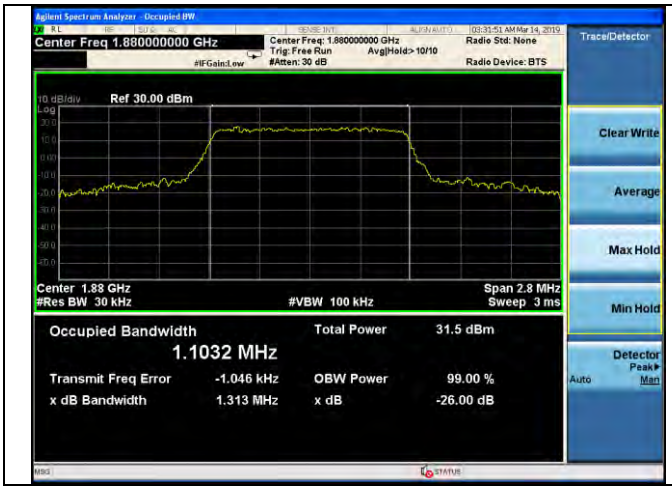
LTE Band 41							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
5	QPSK	4.506	4.864	4.500	4.900	4.496	4.901
	16QAM	4.496	4.990	4.492	4.990	4.486	4.992
	64QAM	4.518	5.066	4.496	4.957	4.493	4.919
10	QPSK	9.009	9.926	8.986	9.834	8.979	9.749
	16QAM	8.985	10.430	8.966	10.080	9.009	9.860
	64QAM	9.008	10.380	8.969	9.982	8.980	10.080
15	QPSK	13.506	14.860	13.470	14.550	13.441	14.950
	16QAM	13.505	14.570	13.485	14.970	13.505	14.930
	64QAM	13.480	14.800	13.456	14.830	13.449	14.330
20	QPSK	18.010	19.440	17.980	19.850	17.990	19.670
	16QAM	17.959	19.360	17.941	19.770	17.950	19.520
	64QAM	17.989	20.350	17.998	19.190	17.951	19.340

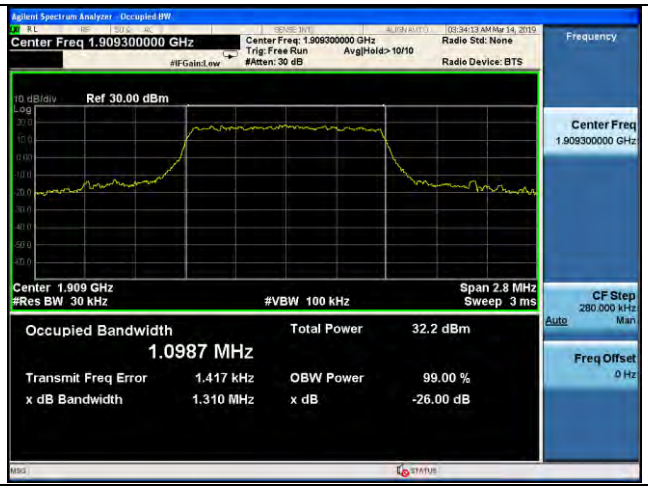
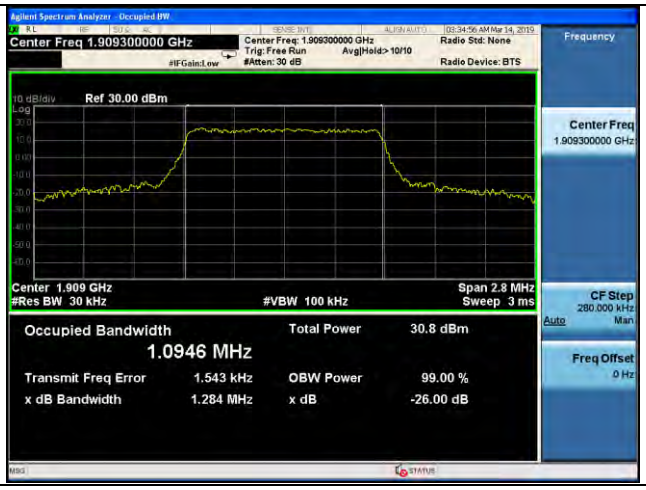
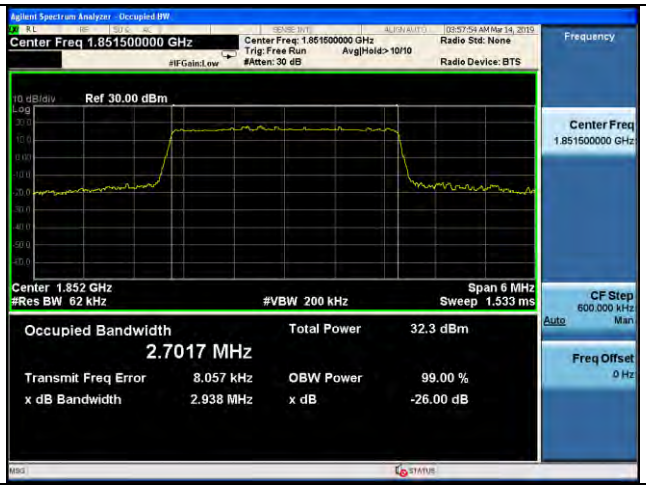
LTE Band 66							
BW	Modulation	Low Channel		Middle Channel		High Channel	
		OBW	26dB BW	OBW	26dB BW	OBW	26dB BW
MHz		MHz	MHz	MHz	MHz	MHz	MHz
1.4	QPSK	1.097	1.305	1.091	1.301	1.102	1.282
	16QAM	1.093	1.280	1.089	1.274	1.095	1.274
	64QAM	1.093	1.270	1.092	1.270	1.094	1.281
3	QPSK	2.698	2.932	2.691	2.913	2.696	2.923
	16QAM	2.693	2.917	2.684	2.912	2.687	2.912
	64QAM	2.690	2.915	2.689	2.926	2.684	2.932
5	QPSK	4.520	5.154	4.515	5.151	4.533	5.200
	16QAM	4.532	5.214	4.542	5.217	4.517	5.098
	64QAM	4.536	5.202	4.526	5.222	4.513	5.127
10	QPSK	9.001	10.100	9.008	10.190	9.015	10.080
	16QAM	9.006	10.110	9.023	10.030	8.993	10.140
	64QAM	8.994	10.000	8.992	9.968	9.003	10.100
15	QPSK	13.519	14.940	13.463	14.970	13.498	15.120

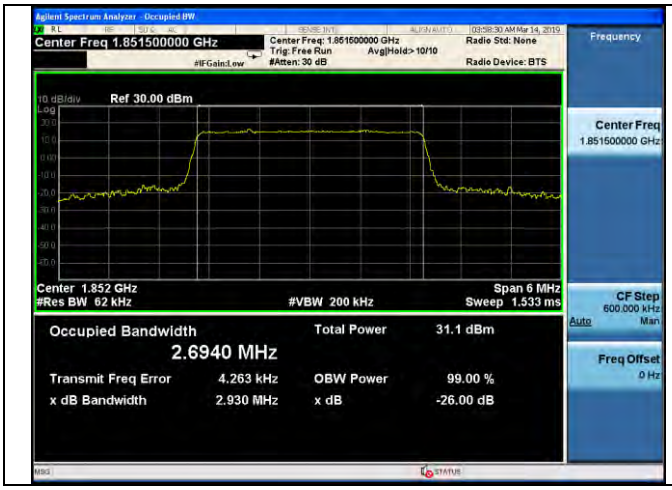
	16QAM	13.487	14.920	13.488	15.010	13.476	14.890
	64QAM	13.482	14.990	13.496	14.960	13.515	14.980
20	QPSK	17.987	19.620	18.015	19.650	17.971	19.680
	16QAM	18.026	19.710	18.023	19.670	18.001	19.750
	64QAM	18.002	19.690	17.994	19.560	18.028	19.690

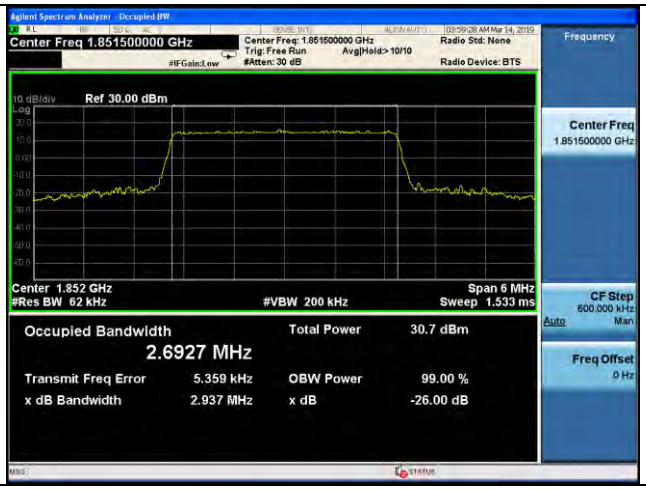
LTE BAND 71							
BW	**Modulation**	**Low Channel**		**Middle Channel**		**High Channel**	
		OBW	**26dB BW**	**OBW**	**26dB BW**	**OBW**	**26dB BW**
MHz		**MHz**	**MHz**	**MHz**	**MHz**	**MHz**	**MHz**
5	QPSK	4.5063	5.126	4.5366	5.157	4.5242	5.185
	16QAM	4.5423	5.252	4.517	5.158	4.5162	5.116
	64QAM	4.5121	5.155	4.5182	5.169	4.5269	5.181
10	QPSK	9.0277	10.09	8.9997	10.02	9.0237	10.11
	16QAM	8.9961	10.01	9.0213	10.16	9.0018	10.07
	64QAM	9.0139	10.02	8.9851	10.04	9.0000	10.10
15	QPSK	13.476	14.84	13.493	14.91	13.455	14.78
	16QAM	13.461	14.88	13.501	15.02	13.467	14.90
	64QAM	13.456	14.72	13.489	15.04	13.486	15.01
20	QPSK	17.938	19.79	18.012	19.64	17.973	19.39
	16QAM	17.979	19.59	17.985	19.68	18.020	19.48
	64QAM	17.939	19.70	17.997	19.66	17.933	19.61

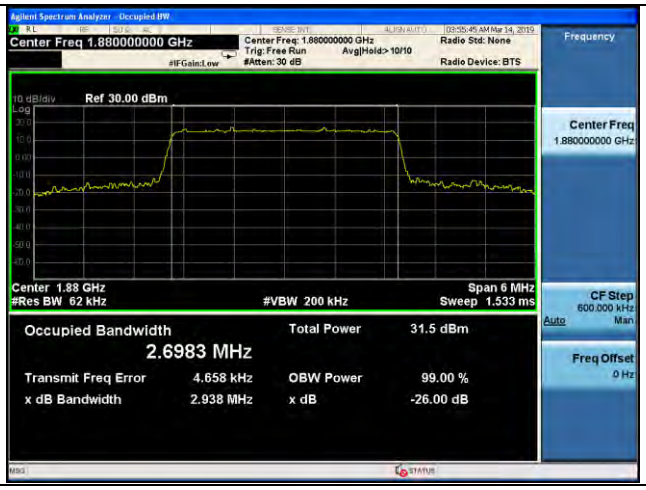
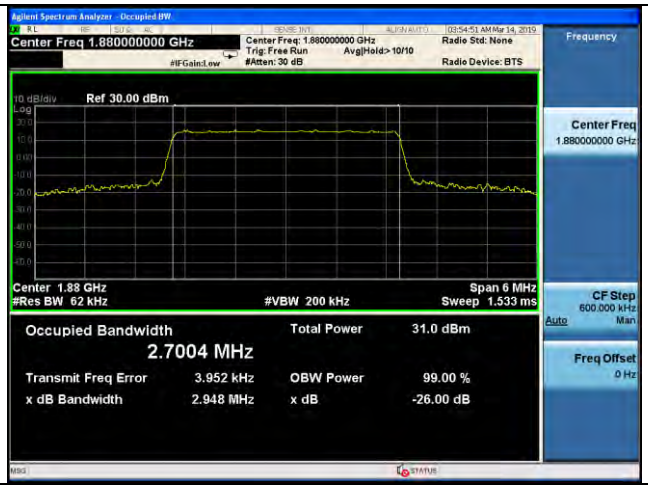
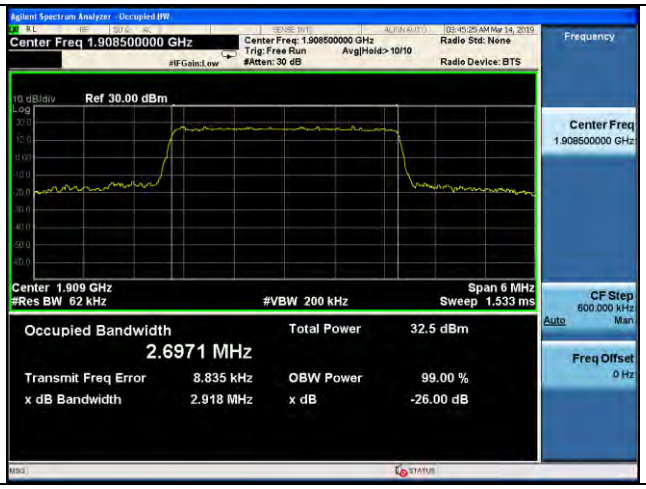
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
1.4MHz / QPSK / Low Channel	**1.4MHz / 16QAM / Low Channel**
	
1.4MHz / 64QAM / Low Channel	**1.4MHz / QPSK / Middle Channel**
	
1.4MHz / 16QAM / Middle Channel	**1.4MHz / 64QAM / Middle Channel**

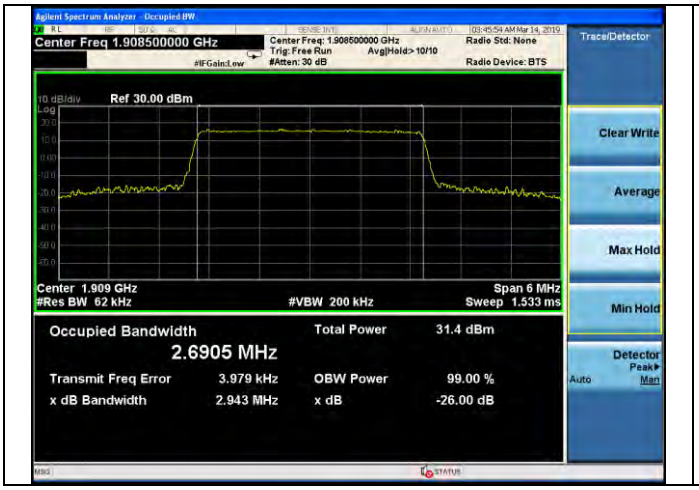


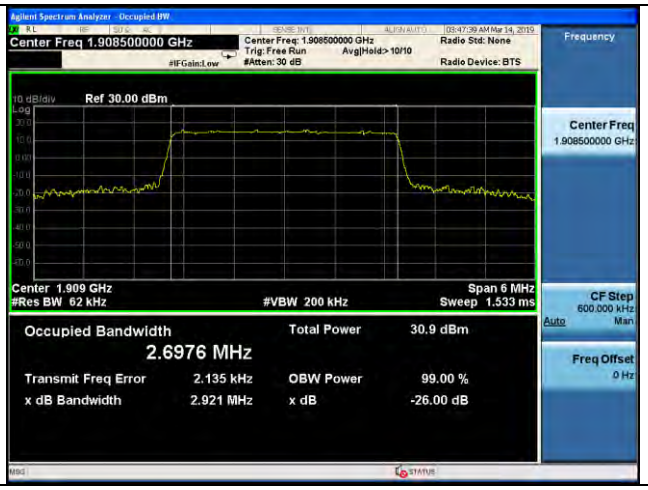
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
1.4MHz / QPSK / High Channel	**1.4MHz / 16QAM / High Channel**
	
1.4MHz / 64QAM / High Channel	**3MHz / QPSK / Low Channel**
	
3MHz / 16QAM / Low Channel	**3MHz / 64QAM / Low Channel**

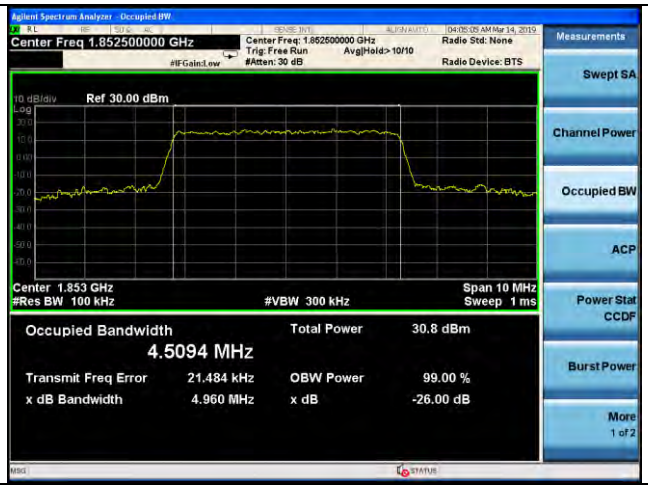
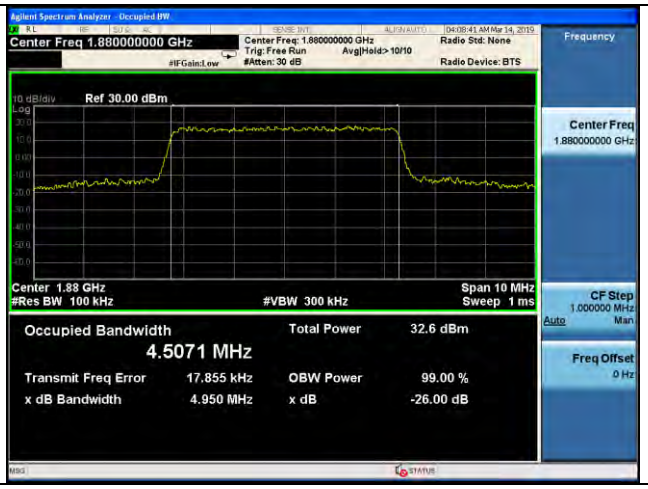


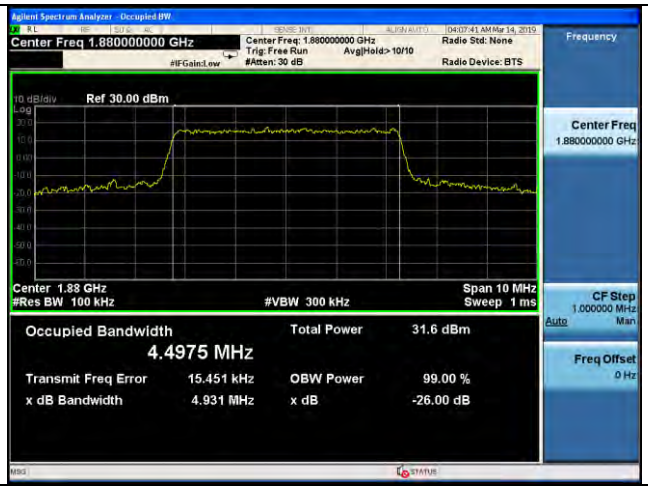


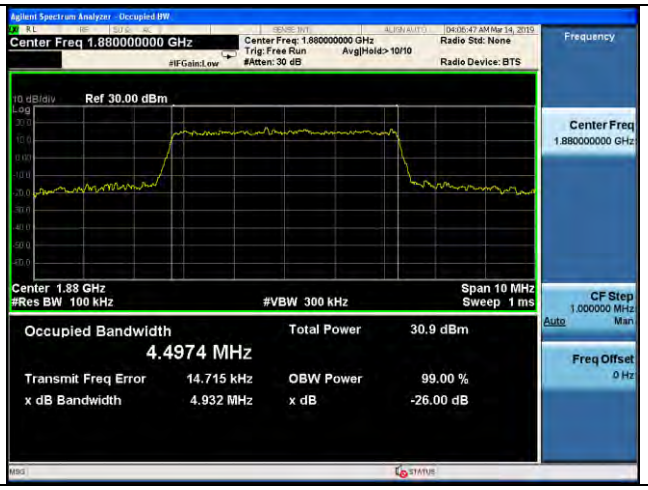
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
3MHz / QPSK / Middle Channel	**3MHz / 16QAM / Middle Channel**
	
3MHz / 64QAM / Middle Channel	**3MHz / QPSK / High Channel**
	
3MHz / 16QAM / High Channel	**3MHz / 64QAM / High Channel**

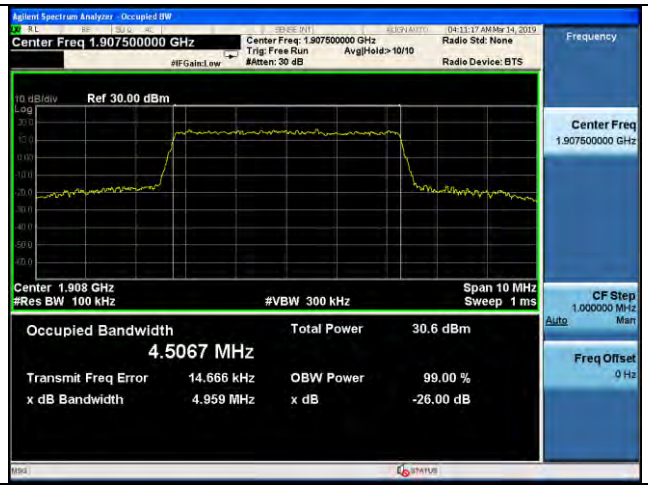
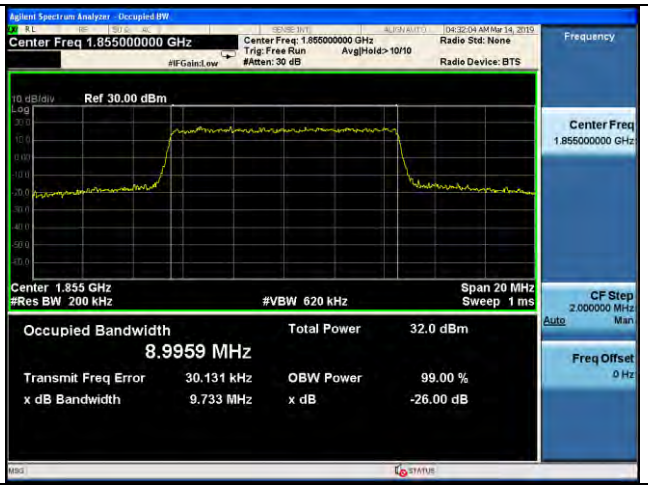


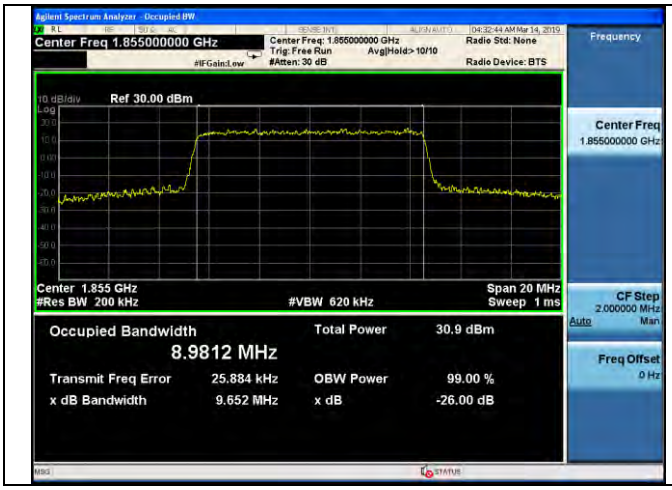


LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
5MHz / QPSK / Low Channel	**5MHz / 16QAM / Low Channel**
	
5MHz / 64QAM / Low Channel	**5MHz / QPSK / Middle Channel**
	
5MHz / 16QAM / Middle Channel	**5MHz / 64QAM / Middle Channel**

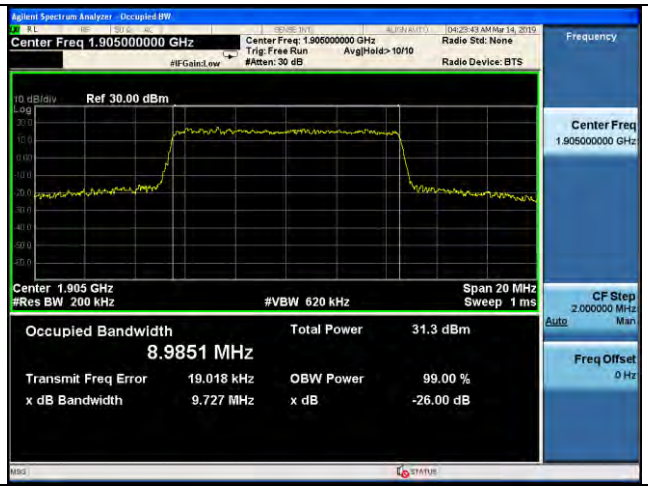


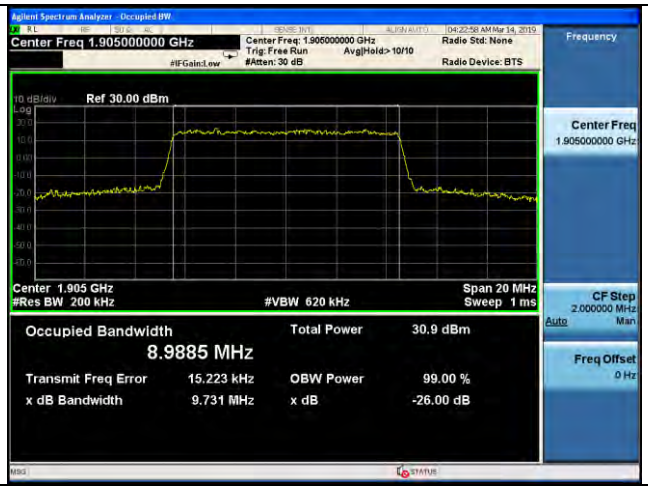


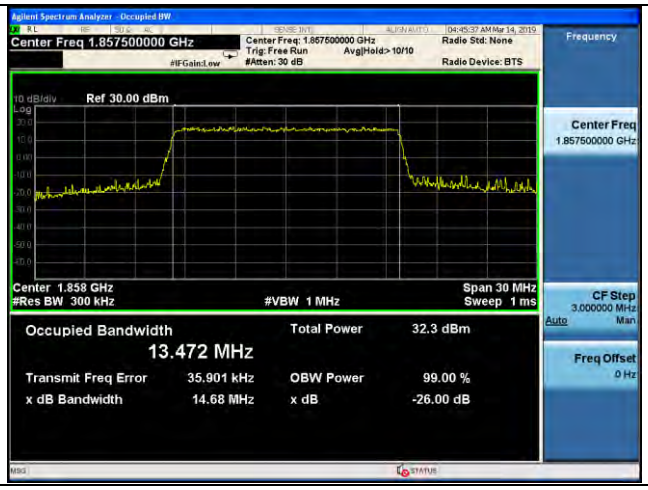
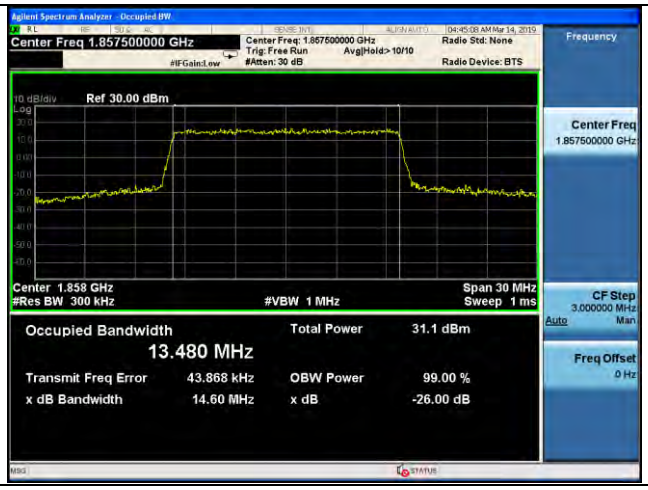
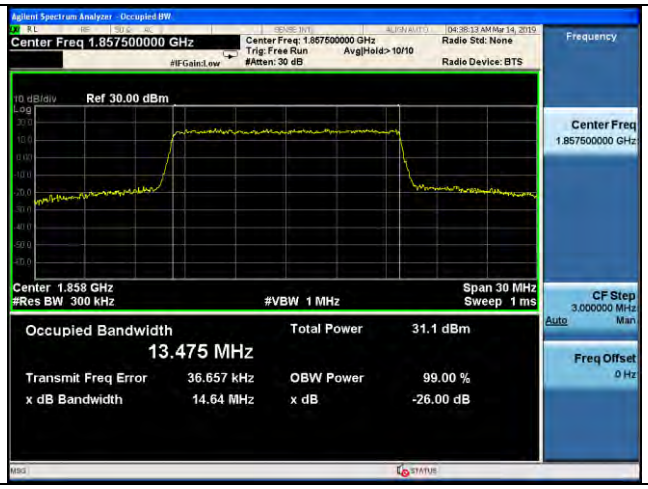
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
5MHz / QPSK / High Channel	**5MHz / 16QAM / High Channel**
	
5MHz / 64QAM / High Channel	**10MHz / QPSK / Low Channel**
	
10MHz / 16QAM / Low Channel	**10MHz / 64QAM / Low Channel**

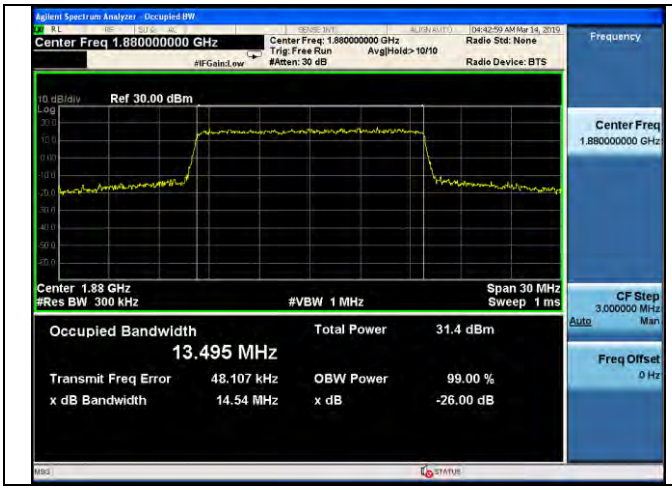


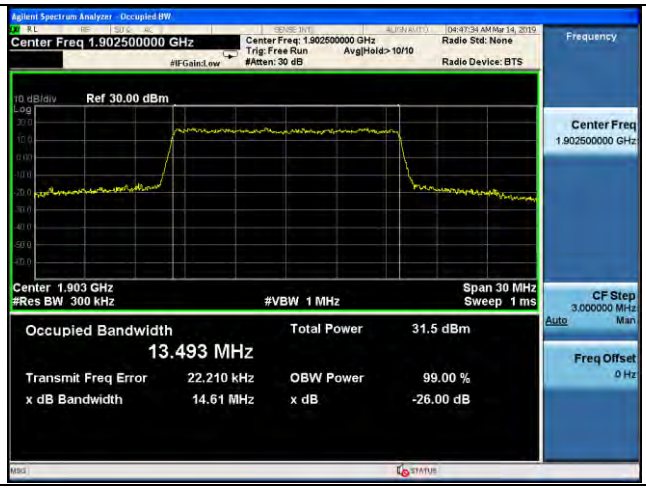
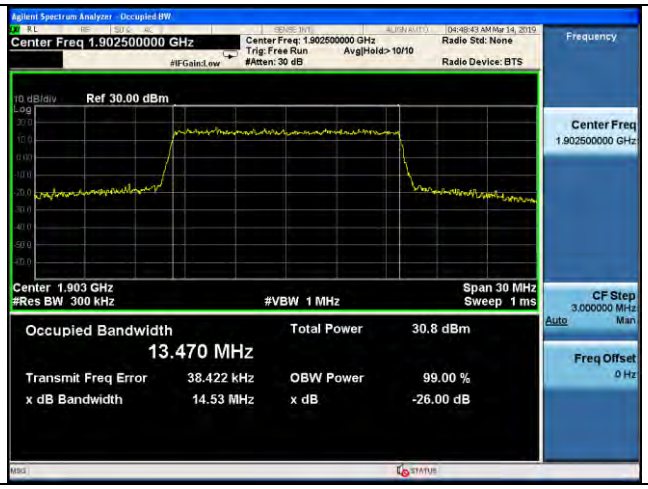
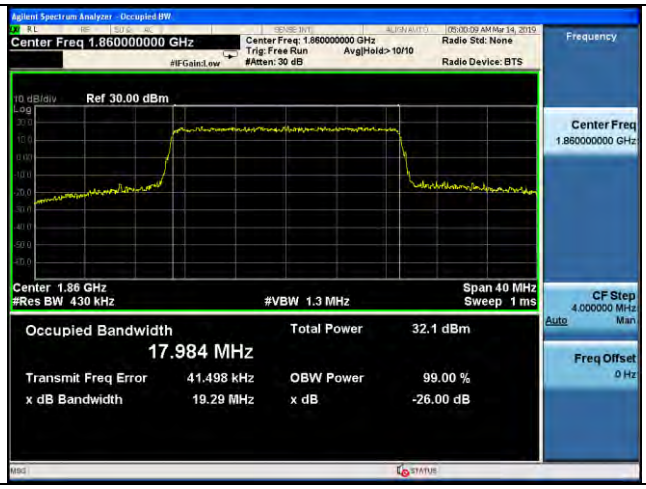
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
10MHz / QPSK / Middle Channel	**10MHz / 16QAM / Middle Channel**
	
10MHz / 64QAM / Middle Channel	**10MHz / QPSK / High Channel**
	
10MHz / 16QAM / High Channel	**10MHz / 64QAM / High Channel**

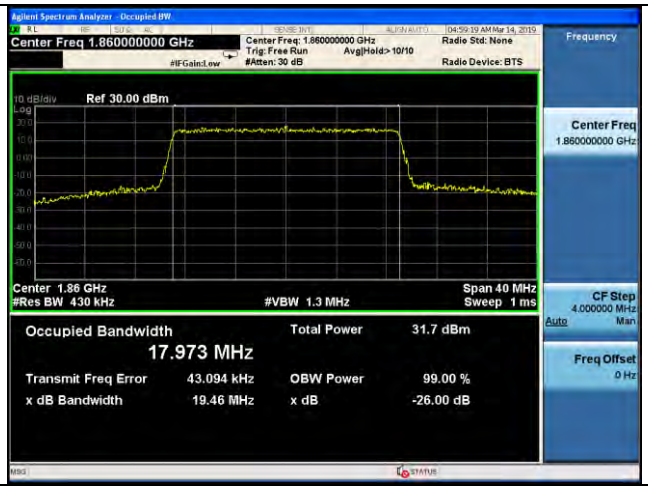


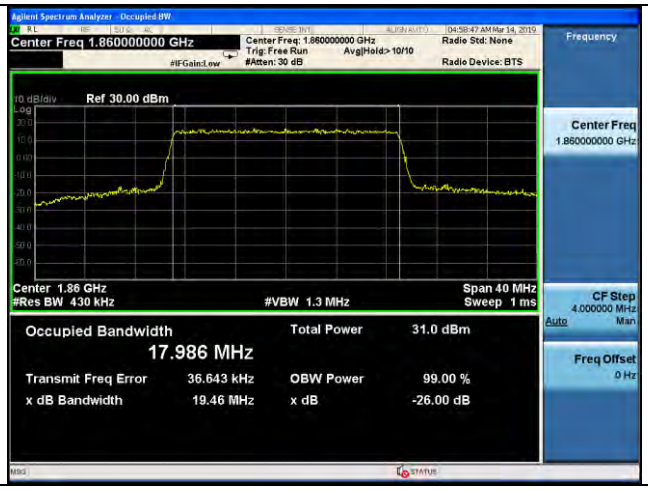


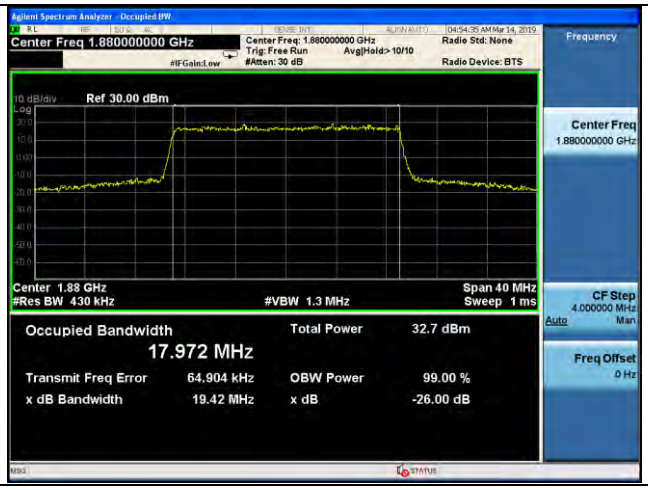
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
15MHz / QPSK / Low Channel	**15MHz / 16QAM / Low Channel**
	
15MHz / 64QAM / Low Channel	**15MHz / QPSK / Middle Channel**
	
15MHz / 16QAM / Middle Channel	**15MHz / 64QAM / Middle Channel**

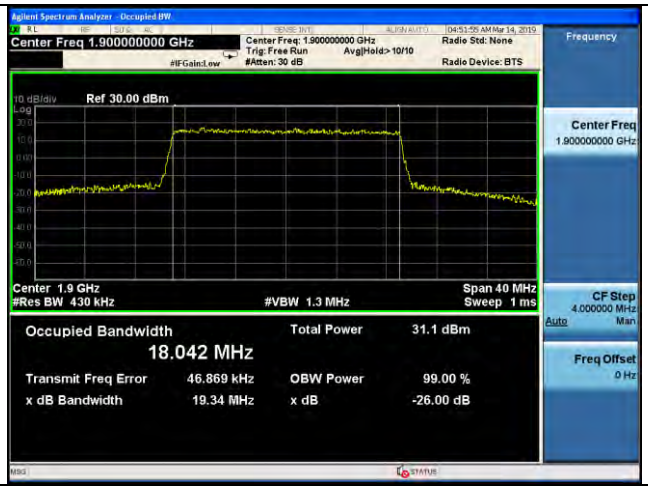


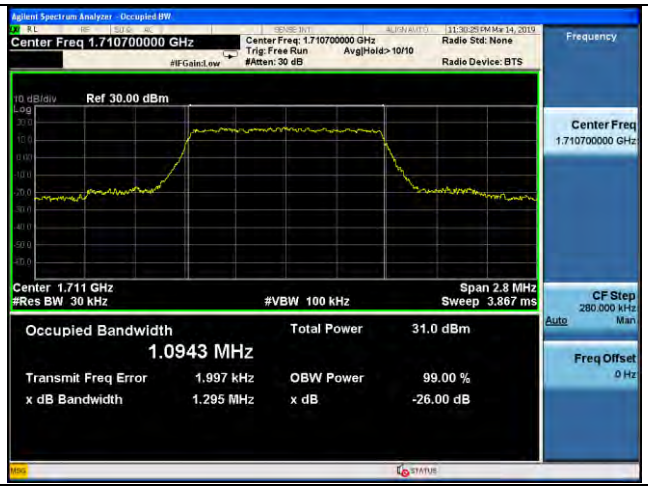
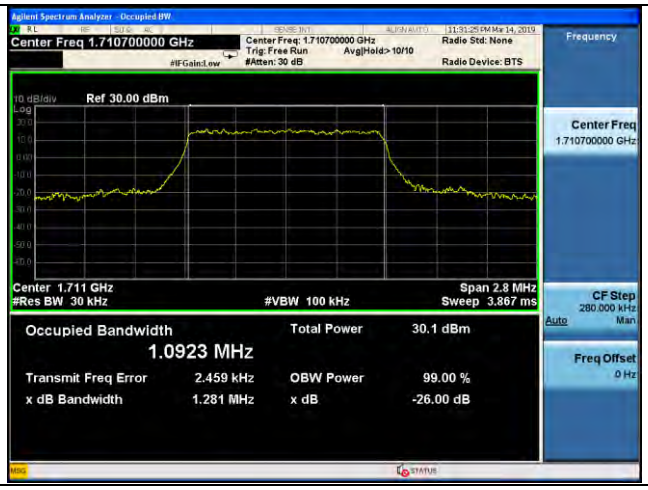
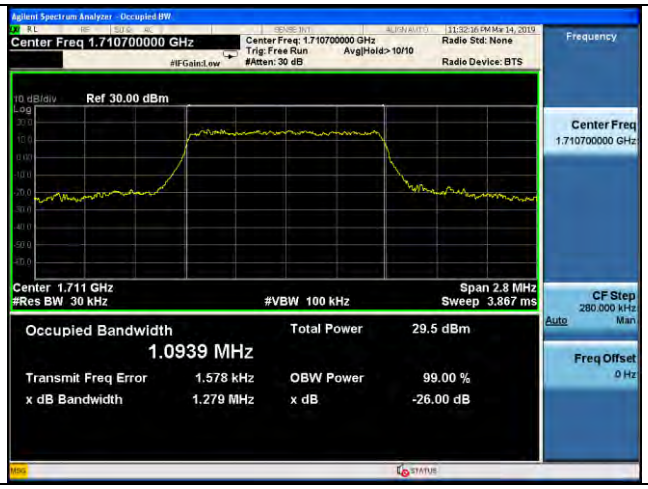
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
15MHz / QPSK / High Channel	**15MHz / 16QAM / High Channel**
	
15MHz / 64QAM / High Channel	**20MHz / QPSK / Low Channel**
	
20MHz / 16QAM / Low Channel	**20MHz / 64QAM / Low Channel**

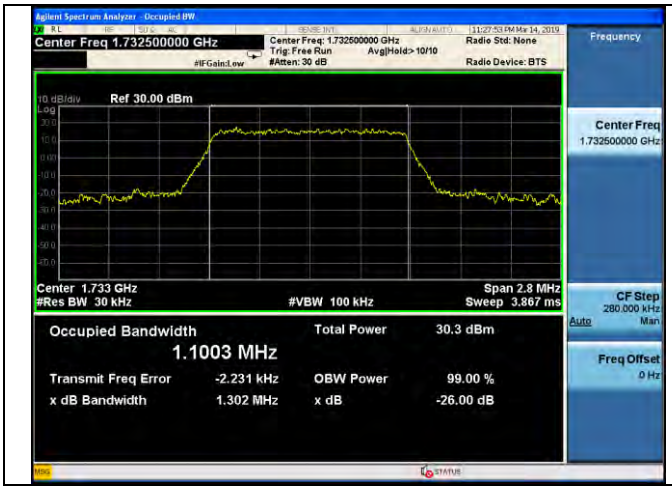


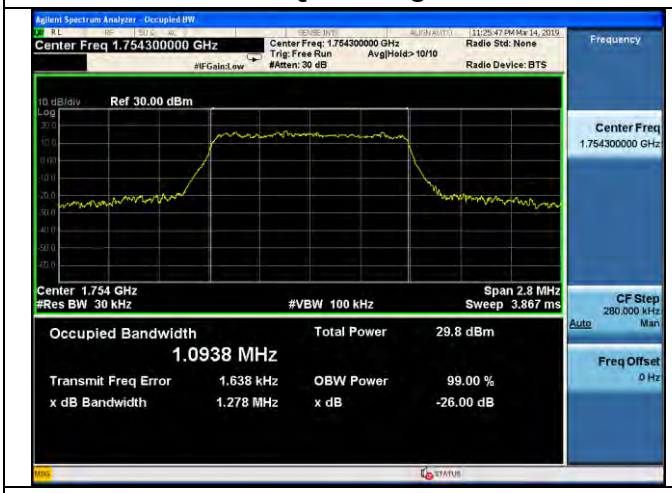


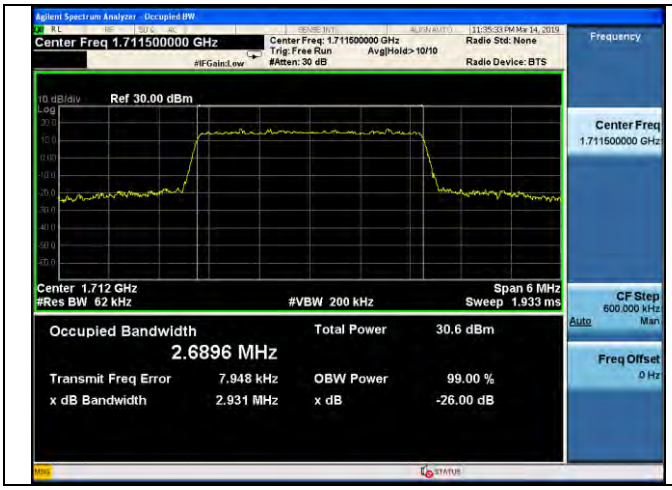
LTE Band 2 _ 99% Bandwidth & 26dB Bandwidth	
20MHz / QPSK / Middle Channel	**20MHz / 16QAM / Middle Channel**
	
20MHz / 64QAM / Middle Channel	**20MHz / QPSK / High Channel**
	
20MHz / 16QAM / High Channel	**20MHz / 64QAM / High Channel**

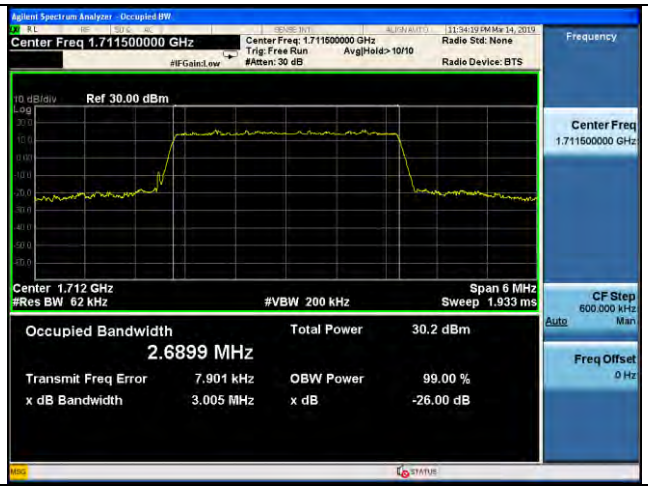


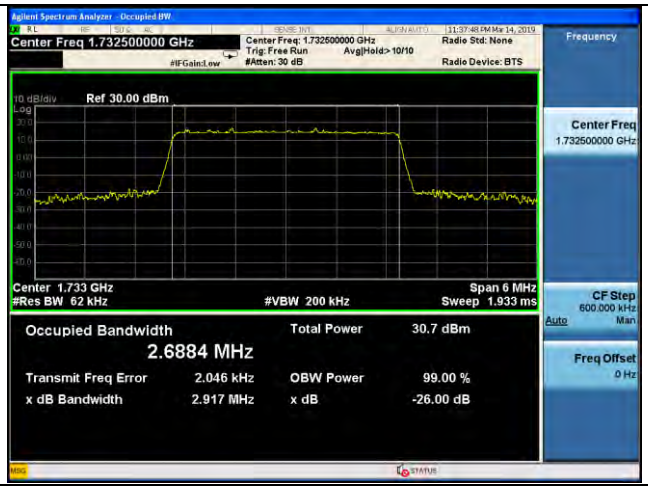
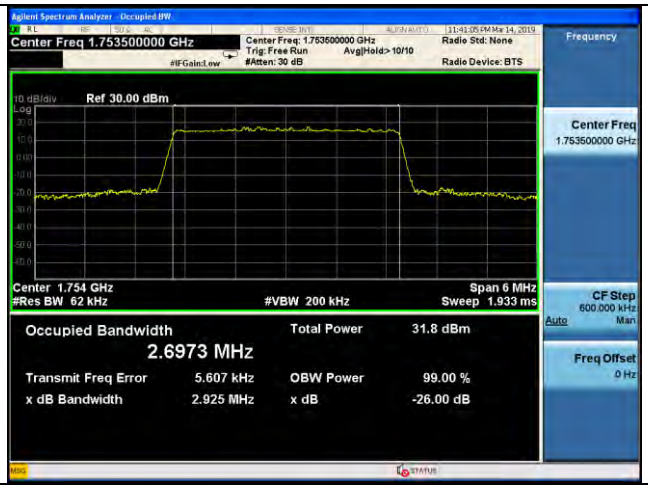
LTE Band 4 _ 99% Bandwidth & 26dB Bandwidth	
1.4MHz / QPSK / Low Channel	**1.4MHz / 16QAM / Low Channel**
	
1.4MHz / 64QAM / Low Channel	**1.4MHz / QPSK / Middle Channel**
	
1.4MHz / 16QAM / Middle Channel	**1.4MHz / 64QAM / Middle Channel**

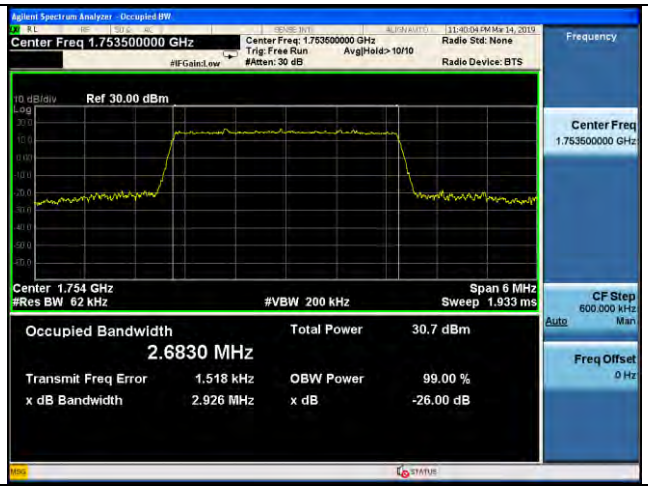


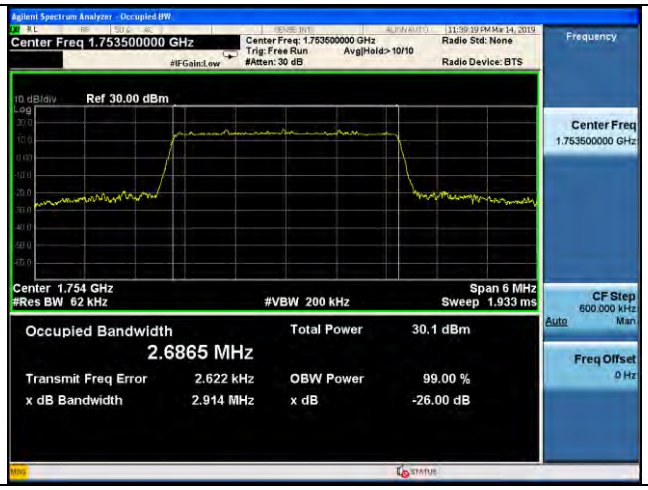
LTE Band 4 _ 99% Bandwidth & 26dB Bandwidth	
1.4MHz / QPSK / High Channel	**1.4MHz / 16QAM / High Channel**
	
1.4MHz / 64QAM / High Channel	**3MHz / QPSK / Low Channel**
	
3MHz / 16QAM / Low Channel	**3MHz / 64QAM / Low Channel**

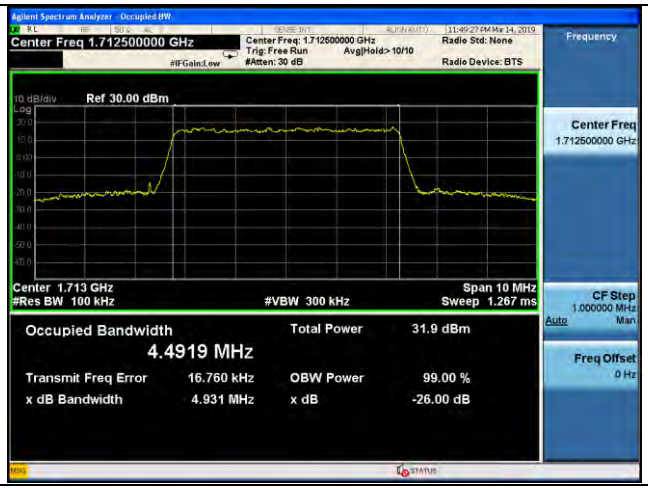
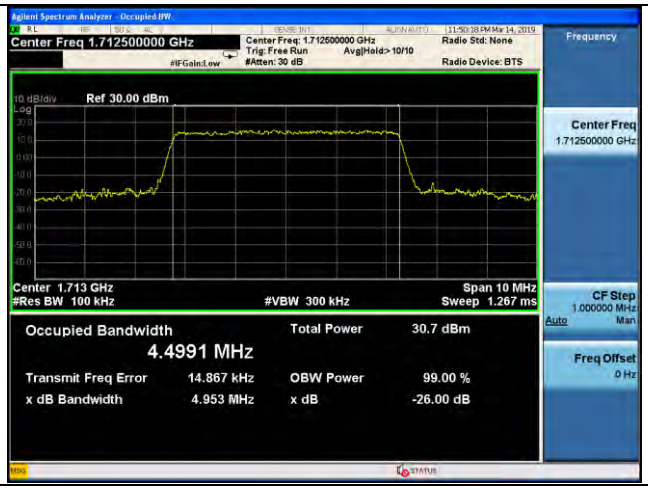
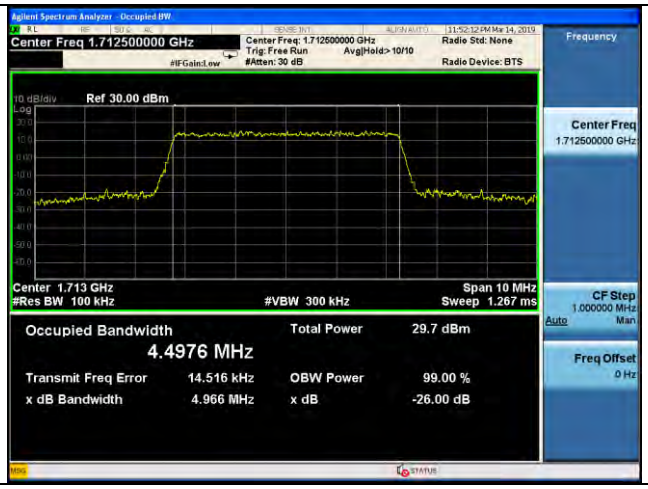
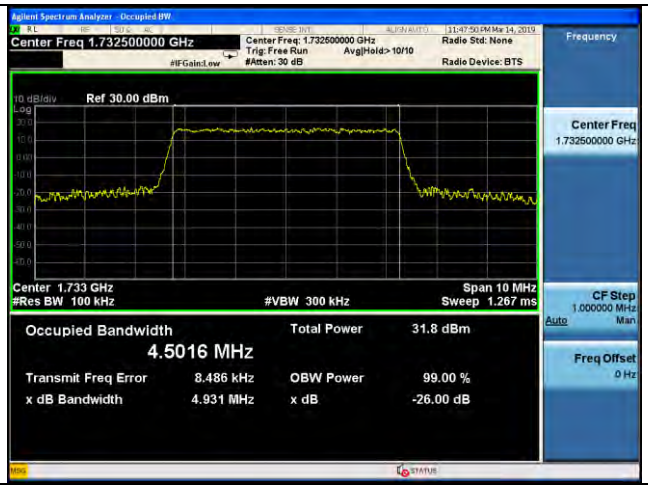


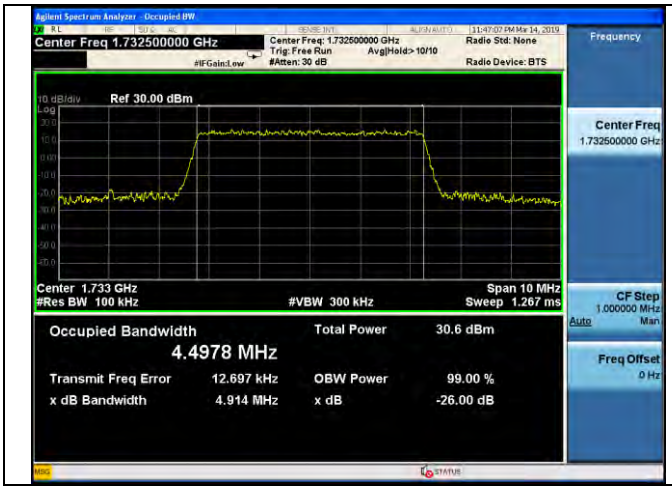


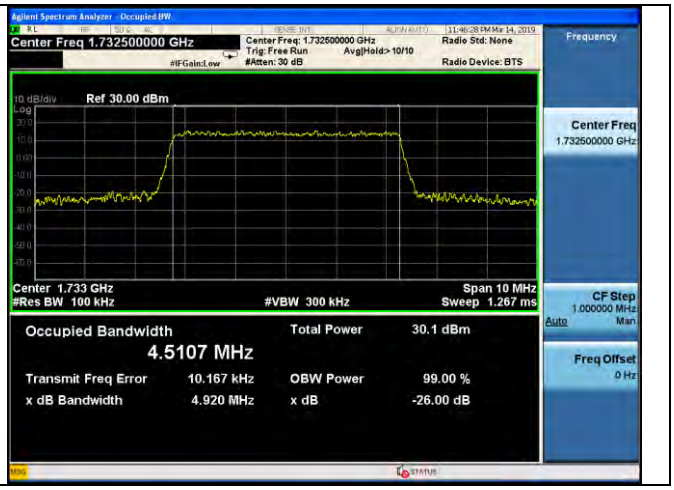
LTE Band 4 _ 99% Bandwidth & 26dB Bandwidth	
3MHz / QPSK / Middle Channel	**3MHz / 16QAM / Middle Channel**
	
3MHz / 64QAM / Middle Channel	**3MHz / QPSK / High Channel**
	
3MHz / 16QAM / High Channel	**3MHz / 64QAM / High Channel**

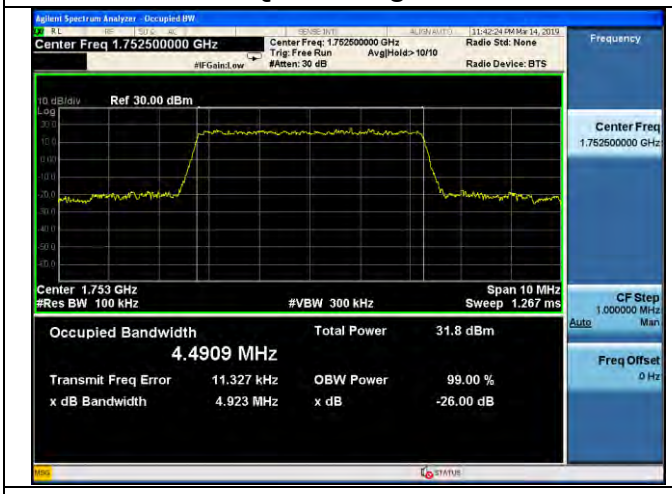
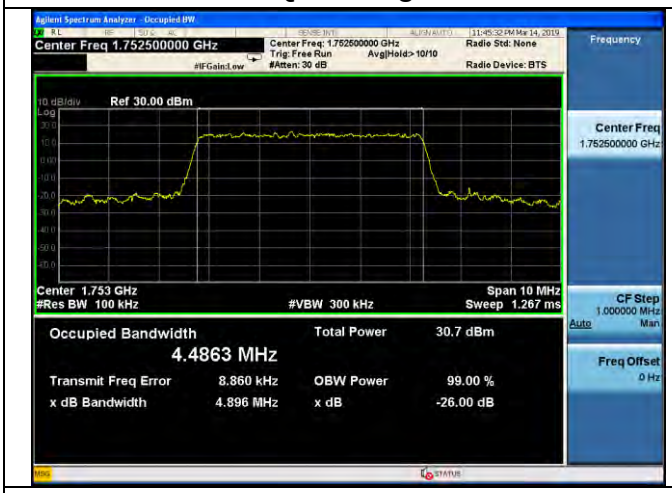




LTE Band 4 _ 99% Bandwidth & 26dB Bandwidth	
5MHz / QPSK / Low Channel	**5MHz / 16QAM / Low Channel**
	
5MHz / 64QAM / Low Channel	**5MHz / QPSK / Middle Channel**
	
5MHz / 16QAM / Middle Channel	**5MHz / 64QAM / Middle Channel**





LTE Band 4 _ 99% Bandwidth & 26dB Bandwidth	
5MHz / QPSK / High Channel	5MHz / 16QAM / High Channel
	
5MHz / 64QAM / High Channel	10MHz / QPSK / Low Channel
	
10MHz / 16QAM / Low Channel	10MHz / 64QAM / Low Channel