REPORT No.: SZ18030244W07

TEST REPORT

APPLICANT	:	Hot Pepper, Inc.
PRODUCT NAME	:	4G Smart Phone
MODEL NAME	:	H5
BRAND NAME	:	Hot Pepper
FCC ID	:	2APD4-P26A
STANDARD(S)	:	47 CFR Part 22, Subpart H 47 CFR Part 24, Subpart E 47 CFR Part 27, Subpart L
TEST DATE	:	2018-03-30 to 2018-05-23
ISSUE DATE	:	2018-05-23

Tested by: Tu Ya'nan

Tu Ya'nan (Test Engineer)

Approved by: Andy Yeh

Andy Yeh (Technical Director)

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DIRECTORY

Change History		
Issue	**Date**	**Reason for change**
1.0	2018-05-23	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:	T169-LK-V1.2	
Software Version:	HOTPEPPER_SW01_20180320	
Modulation Type:	QPSK, 16QAM	
Operation Band:	Band 2 / 4 / 12 / 17	
Frequency Range:	LTE Band 2	Tx: 1850MHz -1910MHz
		Rx: 1930MHz -1990MHz
	LTE Band 4	Tx: 1710MHz -1755MHz
		Rx: 2110MHz - 2155MHz
	LTE Band 12	Tx: 699MHz - 716MHz
		Rx: 729MHz - 746MHz
	LTE Band 17	Tx: 704MHz - 716MHz
		Rx: 734MHz- 746MHz
Channel Bandwidth	LTE Band 2	1.4MHz, 3 MHz, 5 MHz, 10MHz, 15 MHz, 20 MHz
	LTE Band 4	1.4MHz, 3 MHz, 5 MHz, 10MHz, 15 MHz, 20 MHz
	LTE Band 12	1.4MHz, 3 MHz, 5 MHz, 10MHz
	LTE Band 17	5 MHz, 10MHz
Emission Designator:	1M10G7D (LTE Band 2, QPSK, BW 1.4MHz) 1M10W7D (LTE Band 2, 16QAM, BW 1.4MHz) 2M72G7D (LTE Band 2, QPSK, BW 3MHz) 2M72 W7D (LTE Band 2, 16QAM, BW 3MHz) 4M52G7D (LTE Band 2, QPSK, BW 5MHz) 4M53W7D (LTE Band 2, 16QAM, BW 5MHz)	

	9M01G7D (LTE Band 2, QPSK, BW 10MHz) 9M00W7D (LTE Band 2, 16QAM, BW 10MHz) 13M52G7D (LTE Band 2, QPSK, BW 15MHz) 13M52W7D (LTE Band 2, 16QAM, BW 15MHz) 18M00G7D (LTE Band 2, QPSK, BW 20MHz) 17M98W7D (LTE Band 2, 16QAM, BW 20MHz) 1M10G7D (LTE Band 4, QPSK, BW 1.4MHz) 1M10W7D (LTE Band 4, 16QAM, BW 1.4MHz) 2M71G7D (LTE Band 4, QPSK, BW 3MHz) 2M71W7D (LTE Band 4, 16QAM, BW 3MHz) 4M52G7D (LTE Band 4, QPSK, BW 5MHz) 4M52W7D (LTE Band 4, 16QAM, BW 5MHz) 9M00G7D (LTE Band 4, QPSK, BW 10MHz) 9M00W7D (LTE Band 4, 16QAM, BW 10MHz) 13M48G7D (LTE Band 4, QPSK, BW 15MHz) 13M49W7D (LTE Band 4, 16QAM, BW 15MHz) 18M03G7D (LTE Band 4, QPSK, BW 20MHz) 18M07W7D (LTE Band 4, 16QAM, BW 20MHz) 1M10G7D (LTE Band 12, QPSK, BW 1.4MHz) 1M11W7D (LTE Band 12, 16QAM, BW 1.4MHz) 2M71G7D (LTE Band 12, QPSK, BW 3MHz) 2M71W7D (LTE Band 12, 16QAM, BW 3MHz) 4M52G7D (LTE Band 12, QPSK, BW 5MHz) 4M52W7D (LTE Band 12, 16QAM, BW 5MHz) 9M01G7D (LTE Band 12, QPSK, BW 10MHz) 9M01W7D (LTE Band 12, 16QAM, BW 10MHz) 4M53G7D (LTE Band 17, QPSK, BW 5MHz) 4M53W7D (LTE Band 17, 16QAM, BW 5MHz) 9M02G7D (LTE Band 17, QPSK, BW 10MHz) 9M02W7D (LTE Band 17, 16QAM, BW 10MHz)	
Antenna Type:	PIFA Antenna	
Antenna Gain:	1.51 dBi	
Operating voltage:	Normal(NV):	3.8V
	Lowest(LV):	3.5V
	Highest(HV):	4.4V

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 Standards and Results

The objective of the report is to perform testing according to Part 2, Part 24 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 24	Personal Communications Services
3	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	May 22, 2018	Tu Ya'nan	PASS
2.1049	Occupied Bandwidth	Apr 24, 2018	Tu Ya'nan	PASS
2.1055, 24.235, 27.54	Frequency Stability	Apr 24, 2018	Tu Ya'nan	PASS
24.232(d), 27.50(d)(5)	Peak to Average Radio	Apr 24, 2018	Tu Ya'nan	PASS
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Conducted Spurious Emissions	Apr 26, 2018	Tu Ya'nan	PASS
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Band Edge	May 10, 2018	Tu Ya'nan	PASS
24.232(c), 27.50(c)(10) 27.50(d)(4), 27.50(h)(2)	Equivalent Isotropic Radiated Power	May 11, 2018	Wu Junke	PASS
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Radiated Spurious Emissions	Mar 30, 2018 Apr 16, 2018 May 23, 2018	Wu Junke	PASS
Note: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 (Oct 27, 2017) and ANSI/TIA-603-E-2016.				

1.4. 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

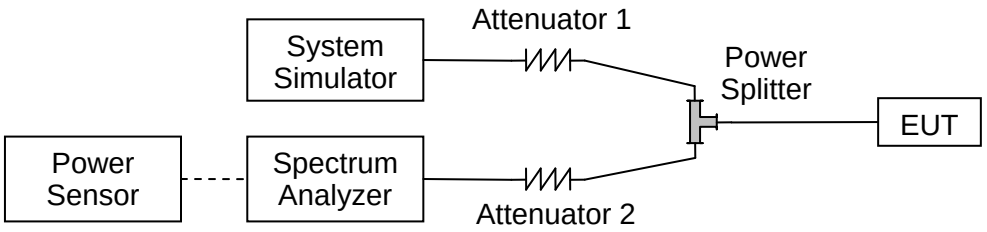
2. 47 CFR Part 2, Part 24E & 27 Requirements

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

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	20MHz	L 18700	1860	QPSK	1	0	23.47
					1	49	23.46
					1	99	23.41
					50	0	23.17
					50	25	23.02
					50	49	22.67
					100	0	22.32
				16-QAM	1	0	22.54
					1	49	22.35
					1	99	22.31
					50	0	21.4
					50	25	21.33
					50	49	21.29
					100	0	21.05
		M 18900	1880	QPSK	1	0	23.47
					1	49	23.41
					1	99	23.38
					50	0	22.43
					50	25	22.35
					50	49	22.4
					100	0	21.6
				16-QAM	1	0	22.35
					1	49	22.26
					1	99	22.4
					50	0	21.44
					50	25	21.32
					50	49	21.36
					100	0	21.27
		H 19100	1900	QPSK	1	0	22.57
					1	49	22.39
					1	99	22.24
					50	0	21.99
					50	25	21.76
					50	49	21.72
					100	0	21.55
				16-QAM	1	0	21.71
					1	49	21.86
					1	99	21.82
					50	0	20.65
					50	25	20.62
					50	49	20.64
					100	0	20.64

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	15MHz	L 18675	1857.5	QPSK	1	0	22.70
					1	37	22.91
					1	74	23.39
					36	0	23.01
					36	18	22.81
					36	35	22.90
					75	0	22.87
				16-QAM	1	0	21.42
					1	37	22.32
					1	74	21.87
					36	0	20.83
					36	18	20.83
					36	35	20.89
					75	0	20.92
		M 18900	1880	QPSK	1	0	22.90
					1	37	23.10
					1	74	23.05
					36	0	22.33
					36	18	22.26
					36	35	22.19
					75	0	22.50
				16-QAM	1	0	21.83
					1	37	22.70
					1	74	22.27
					36	0	20.93
					36	18	20.91
					36	35	21.72
					75	0	21.07
		H 19125	1902.5	QPSK	1	0	23.40
					1	37	23.46
					1	74	23.20
					36	0	22.60
					36	18	22.18
					36	35	22.50
					75	0	22.15
				16-QAM	1	0	22.28
					1	37	21.78
					1	74	21.91
					36	0	20.97
					36	18	20.85
					36	35	20.86
					75	0	20.95

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	10MHz	L 18650	1855	QPSK	1	0	22.45
					1	24	22.89
					1	49	22.82
					25	0	21.77
					25	12	21.52
					25	24	21.04
					50	0	21.46
				16-QAM	1	0	21.46
					1	24	21.94
					1	49	21.84
					25	0	20.56
					25	12	20.44
					25	24	20.5
					50	0	20.59
		M 18900	1880	QPSK	1	0	23.44
					1	24	23.17
					1	49	23.03
					25	0	23.15
					25	12	22.98
					25	24	22.83
					50	0	22.81
				16-QAM	1	0	22.28
					1	24	22.27
					1	49	21.87
					25	0	20.21
					25	12	20.17
					25	24	20.90
					50	0	20.92
		H 19150	1905	QPSK	1	0	23.26
					1	24	23.12
					1	49	22.96
					25	0	22.96
					25	12	22.78
					25	24	22.66
					50	0	22.73
				16-QAM	1	0	22.47
					1	24	22.5
					1	49	22.34
					25	0	20.20
					25	12	21.04
					25	24	21.30
					50	0	21.04

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	5MHz	L 18625	1852.5	QPSK	1	0	22.47
					1	12	22.30
					1	24	22.35
					12	0	21.11
					12	6	21.32
					12	11	21.36
					25	0	21.04
				16-QAM	1	0	21.36
					1	12	21.79
					1	24	21.43
					12	0	20.63
					12	6	20.53
					12	11	20.54
					25	0	20.48
		M 18900	1880	QPSK	1	0	22.81
					1	12	22.20
					1	24	22.23
					12	0	22.92
					12	6	22.45
					12	11	22.80
					25	0	22.41
				16-QAM	1	0	21.65
					1	12	22.08
					1	24	21.87
					12	0	20.83
					12	6	20.82
					12	11	20.87
					25	0	20.60
		H 19175	1907.5	QPSK	1	0	22.19
					1	12	22.79
					1	24	22.80
					12	0	22.21
					12	6	22.04
					12	11	22.04
					25	0	22.01
				16-QAM	1	0	21.94
					1	12	22.31
					1	24	21.48
					12	0	21.04
					12	6	20.96
					12	11	21.10
					25	0	20.99

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	3MHz	L 18615	1851.5	QPSK	1	0	23.23
					1	7	23.32
					1	14	23.05
					8	0	22.65
					8	4	22.27
					8	7	22.59
					15	0	22.14
				16-QAM	1	0	21.84
					1	7	21.54
					1	14	21.53
					8	0	20.46
					8	4	20.43
					8	7	20.56
					15	0	20.52
		M 18900	1880	QPSK	1	0	23.43
					1	7	23.42
					1	14	23.12
					8	0	22.66
					8	4	22.38
					8	7	22.5
					15	0	22.15
				16-QAM	1	0	22.28
					1	7	21.73
					1	14	21.93
					8	0	20.74
					8	4	20.65
					8	7	20.82
					15	0	20.93
		H 19185	1908.5	QPSK	1	0	23.41
					1	7	23.07
					1	14	23.96
					8	0	22.43
					8	4	22.52
					8	7	22.33
					15	0	21.90
				16-QAM	1	0	22.28
					1	7	22.15
					1	14	22.60
					8	0	20.90
					8	4	21.10
					8	7	21.09
					15	0	20.90

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	1.4MHz	L 18607	1850.7	QPSK	1	0	22.78
					1	2	22.54
					1	5	22.60
					3	0	21.46
					3	1	21.33
					3	2	21.28
					6	0	20.46
				16-QAM	1	0	20.65
					1	2	20.40
					1	5	20.32
					3	0	19.48
					3	1	19.76
					3	2	19.55
					6	0	18.60
		M 18900	1880	QPSK	1	0	23.03
					1	2	23.05
					1	5	22.89
					3	0	22.25
					3	1	22.08
					3	2	22.12
					6	0	21.63
				16-QAM	1	0	22.15
					1	2	22.08
					1	5	22.21
					3	0	21.32
					3	2	21.25
					3	5	21.3
					6	0	20.79
		H 19193	1909.3	QPSK	1	0	22.91
					1	2	22.87
					1	5	22.69
					3	0	22.05
					3	1	22.01
					3	2	22.13
					6	0	21.80
				16-QAM	1	0	21.65
					1	2	21.54
					1	5	21.38
					3	0	20.67
					3	1	20.50
					3	2	20.44
					6	0	20.03

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	20MHz	L 20050	1720.0	QPSK	1	0	23.37
					1	49	23.33
					1	99	23.41
					50	0	23.32
					50	25	22.78
					50	49	22.75
					100	0	22.66
				16-QAM	1	0	22.62
					1	49	22.53
					1	99	22.41
					50	0	21.80
					50	25	21.17
					50	49	21.06
					100	0	21.14
		M 20175	1732.5	QPSK	1	0	23.36
					1	49	23.52
					1	99	23.34
					50	0	23.14
					50	25	23.38
					50	49	23.09
					100	0	22.96
				16-QAM	1	0	22.32
					1	49	22.99
					1	99	22.44
					50	0	21.25
					50	25	21.07
					50	49	21.20
					100	0	21.13
		H 20300	1745.0	QPSK	1	0	23.92
					1	49	23.80
					1	99	23.99
					50	0	23.34
					50	25	23.81
					50	49	23.86
					100	0	23.48
				16-QAM	1	0	22.62
					1	49	22.56
					1	99	22.74
					50	0	21.49
					50	25	21.41
					50	49	21.74
					100	0	21.54

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	15MHz	L 20025	1717.5	QPSK	1	0	22.97
					1	37	22.88
					1	74	22.63
					36	0	22.43
					36	18	22.57
					36	35	22.51
					75	0	22.48
				16-QAM	1	0	22.49
					1	37	22.41
					1	74	22.12
					36	0	21.18
					36	18	21.11
					36	35	21.02
					75	0	21.11
		M 20175	1732.5	QPSK	1	0	23.15
					1	37	23.02
					1	74	22.81
					36	0	22.65
					36	18	22.39
					36	35	22.54
					75	0	22.90
				16-QAM	1	0	22.38
					1	37	22.11
					1	74	22.18
					36	0	21.13
					36	18	21.03
					36	35	21.09
					75	0	21.14
		H 20325	1747.5	QPSK	1	0	23.66
					1	37	23.62
					1	74	23.58
					36	0	23.02
					36	18	23.16
					36	35	22.96
					75	0	22.92
				16-QAM	1	0	22.11
					1	37	22.96
					1	74	22.99
					36	0	21.45
					36	18	21.61
					36	35	21.78
					75	0	21.61

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	10MHz	L 20000	1715.0	QPSK	1	0	23.09
					1	24	22.99
					1	49	22.78
					25	0	23.21
					25	12	22.92
					25	24	22.21
					50	0	22.83
				16-QAM	1	0	21.46
					1	24	22.29
					1	49	22.26
					25	0	21.01
					25	12	21.01
					25	24	21.05
					50	0	21.43
		M 20175	1732.5	QPSK	1	0	23.02
					1	24	22.95
					1	49	22.84
					25	0	23.26
					25	12	22.88
					25	24	22.61
					50	0	22.54
				16-QAM	1	0	22.22
					1	24	22.33
					1	49	22.38
					25	0	21.58
					25	12	20.77
					25	24	21.06
					50	0	21.13
		H 20350	1750.0	QPSK	1	0	23.46
					1	24	23.40
					1	49	23.90
					25	0	23.6
					25	12	23.83
					25	24	23.69
					50	0	23.37
				16-QAM	1	0	22.46
					1	24	22.84
					1	49	23.16
					25	0	21.53
					25	12	21.60
					25	24	21.20
					50	0	21.69

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	5MHz	L 19975	1712.5	QPSK	1	0	23.09
					1	12	22.98
					1	24	22.2
					12	0	23.15
					12	6	22.77
					12	11	22.81
					25	0	22.72
				16-QAM	1	0	22.19
					1	12	22.44
					1	24	21.92
					12	0	21.02
					12	6	21.64
					12	11	21.11
					25	0	21.01
		M 20175	1732.5	QPSK	1	0	22.99
					1	12	23.18
					1	24	23.01
					12	0	23.14
					12	6	22.94
					12	11	22.98
					25	0	22.76
				16-QAM	1	0	21.86
					1	12	22.15
					1	24	21.68
					12	0	21.18
					12	6	20.94
					12	11	21.03
					25	0	20.92
		H 20375	1752.5	QPSK	1	0	23.78
					1	12	23.43
					1	24	23.50
					12	0	22.90
					12	6	22.47
					12	11	23.60
					25	0	22.51
				16-QAM	1	0	22.68
					1	12	23.092
					1	24	22.41
					12	0	21.73
					12	6	21.68
					12	11	21.60
					25	0	21.52

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	3MHz	L 19965	1711.5	QPSK	1	0	23.55
					1	7	23.48
					1	14	23.29
					8	0	23.22
					8	4	23.19
					8	7	23.03
					15	0	22.81
				16-QAM	1	0	22.15
					1	7	22.03
					1	14	22.43
					8	0	20.92
					8	4	21.72
					8	7	21.06
					15	0	21.30
		M 20175	1732.5	QPSK	1	0	23.10
					1	7	23.15
					1	14	23.34
					8	0	22.49
					8	4	22.20
					8	7	22.55
					15	0	22.44
				16-QAM	1	0	22.18
					1	7	22.37
					1	14	22.40
					8	0	21.18
					8	4	21.02
					8	7	20.96
					15	0	21.14
		H 20385	1753.5	QPSK	1	0	23.86
					1	7	23.43
					1	14	23.35
					8	0	23.56
					8	4	22.99
					8	7	23.18
					15	0	23.33
				16-QAM	1	0	23.04
					1	7	22.87
					1	14	23.08
					8	0	21.55
					8	4	21.95
					8	7	21.81
					15	0	21.74

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	1.4MHz	L 19957	1710.7	QPSK	1	0	22.69
					1	2	22.51
					1	5	22.32
					3	0	22.5
					3	1	21.98
					3	2	22.21
					6	0	23.13
				16-QAM	1	0	21.92
					1	2	22.24
					1	5	21.93
					3	0	22.34
					3	1	22.18
					3	2	21.92
					6	0	21.05
		M 20175	1732.5	QPSK	1	0	22.73
					1	2	22.56
					1	5	22.43
					3	0	22.41
					3	1	22.08
					3	2	22.32
					6	0	23.17
				16-QAM	1	0	21.72
					1	2	22.43
					1	5	21.80
					3	0	22.50
					3	2	22.40
					3	5	22.09
					6	0	20.97
		H 20393	1754.3	QPSK	1	0	23.71
					1	2	23.31
					1	5	23.56
					3	0	23.13
					3	1	23.00
					3	2	23.23
					6	0	23.82
				16-QAM	1	0	22.59
					1	2	22.73
					1	5	22.51
					3	0	22.83
					3	1	22.74
					3	2	22.69
					6	0	21.71

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	10MHz	L 23060	704	QPSK	1	0	22.24
					1	24	22.29
					1	49	22.22
					25	0	21.84
					25	12	21.86
					25	24	21.71
					50	0	21.58
				16-QAM	1	0	21.67
					1	24	21.57
					1	49	21.6
					25	0	20.23
					25	12	20.15
					25	24	20.07
					50	0	20.22
		M 23095	707.5	QPSK	1	0	22.16
					1	24	21.12
					1	49	22.11
					25	0	22.26
					25	12	22.36
					25	24	21.90
					50	0	22.01
				16-QAM	1	0	21.48
					1	24	21.59
					1	49	21.02
					25	0	20.16
					25	12	20.06
					25	24	20.02
					50	0	20.13
		H 23130	711	QPSK	1	0	21.91
					1	24	21.52
					1	49	21.84
					25	0	21.25
					25	12	21.61
					25	24	21.39
					50	0	21.2
				16-QAM	1	0	20.92
					1	24	21.04
					1	49	20.87
					25	0	19.92
					25	12	19.89
					25	24	19.73
					50	0	19.92

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	5MHz	L 23035	701.5	QPSK	1	0	22.27
					1	12	21.83
					1	24	21.99
					12	0	21.85
					12	6	21.66
					12	11	21.58
					25	0	21.61
				16-QAM	1	0	21.36
					1	12	21.89
					1	24	21.14
					12	0	20.43
					12	6	20.16
					12	11	20.23
					25	0	20.29
		M 23095	707.5	QPSK	1	0	22.13
					1	12	22.15
					1	24	21.78
					12	0	22.2
					12	6	22.15
					12	11	21.94
					25	0	22.01
				16-QAM	1	0	21.10
					1	12	21.25
					1	24	21.01
					12	0	20.17
					12	6	20.02
					12	11	20.02
					25	0	20.01
		H 23155	713.5	QPSK	1	0	21.62
					1	12	21.35
					1	24	21.25
					12	0	21.61
					12	6	21.45
					12	11	21.42
					25	0	21.13
				16-QAM	1	0	20.74
					1	12	21.22
					1	24	20.38
					12	0	19.84
					12	6	19.61
					12	11	19.44
					25	0	19.59

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	3MHz	L 23025	700.5	QPSK	1	0	23.49
					1	7	23.25
					1	14	23.41
					8	0	22.96
					8	4	22.79
					8	7	22.64
					15	0	22.30
				16-QAM	1	0	21.92
					1	7	21.73
					1	14	21.55
					8	0	20.45
					8	4	20.34
					8	7	20.46
					15	0	20.25
		M 23095	707.5	QPSK	1	0	22.58
					1	7	22.31
					1	14	22.14
					8	0	22.11
					8	4	21.99
					8	7	21.97
					15	0	21.84
				16-QAM	1	0	21.44
					1	7	21.35
					1	14	21.45
					8	0	20.07
					8	4	20.17
					8	7	19.94
					15	0	20.14
		H 23165	714.5	QPSK	1	0	22.34
					1	7	22.41
					1	14	22.31
					8	0	21.89
					8	4	21.82
					8	7	21.76
					15	0	21.46
				16-QAM	1	0	20.95
					1	7	20.44
					1	14	20.54
					8	0	19.44
					8	4	19.28
					8	7	19.26
					15	0	19.57

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	1.4MHz	L 23017	699.7	QPSK	1	0	22.13
					1	2	22.11
					1	5	22.28
					3	0	21.88
					3	1	21.73
					3	2	21.38
					6	0	21.54
				16-QAM	1	0	21.07
					1	2	21.99
					1	5	21.24
					3	0	21.51
					3	1	21.79
					3	2	21.41
					6	0	20.31
		M 23095	707.5	QPSK	1	0	21.74
					1	2	21.63
					1	5	21.35
					3	0	21.20
					3	1	21.06
					3	2	20.94
					6	0	22.14
				16-QAM	1	0	21.07
					1	2	21.46
					1	5	21.01
					3	0	21.49
					3	2	21.22
					3	5	21.09
					6	0	20.15
		H 23173	715.3	QPSK	1	0	21.24
					1	2	21.43
					1	5	21.58
					3	0	21.01
					3	1	20.79
					3	2	20.82
					6	0	20.63
				16-QAM	1	0	20.39
					1	2	20.71
					1	5	20.10
					3	0	20.52
					3	1	20.61
					3	2	20.49
					6	0	19.41

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 17	10MHz	L 23780	709	QPSK	1	0	22.26
					1	24	22.13
					1	49	22.01
					25	0	22.40
					25	12	22.27
					25	24	22.12
					50	0	21.89
				16-QAM	1	0	21.46
					1	24	21.37
					1	49	21.37
					25	0	20.22
					25	12	20.21
					25	24	20.11
					50	0	20.15
		M 23790	710	QPSK	1	0	22.24
					1	24	22.37
					1	49	22.43
					25	0	22.37
					25	12	22.11
					25	24	21.92
					50	0	21.93
				16-QAM	1	0	21.15
					1	24	21.57
					1	49	21.29
					25	0	20.37
					25	12	20.11
					25	24	19.93
					50	0	20.14
		H 23800	711	QPSK	1	0	21.98
					1	24	21.49
					1	49	21.91
					25	0	21.95
					25	12	21.65
					25	24	21.6
					50	0	21.57
				16-QAM	1	0	21.46
					1	24	21.23
					1	49	20.93
					25	0	20.07
					25	12	19.96
					25	24	19.79
					50	0	19.95

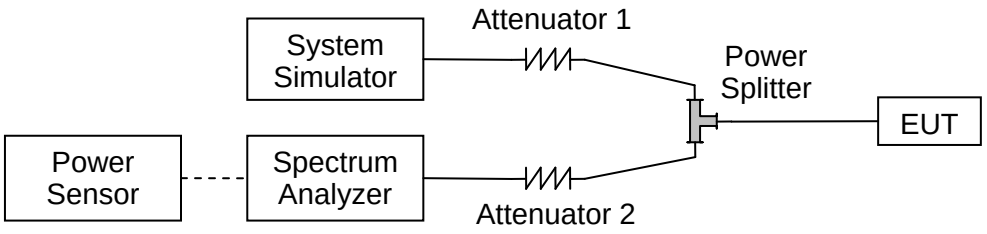
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 17	5MHz	L 23755	706.5	QPSK	1	0	22.15
					1	12	22.13
					1	24	22.13
					12	0	22.31
					12	6	21.86
					12	11	21.95
					25	0	21.92
				16-QAM	1	0	21.01
					1	12	21.52
					1	24	20.9
					12	0	20.38
					12	6	20.21
					12	11	20.23
					25	0	20.27
		M 23790	710	QPSK	1	0	22.16
					1	12	22.06
					1	24	22.95
					12	0	22.23
					12	6	22.20
					12	11	21.90
					25	0	21.40
				16-QAM	1	0	21.37
					1	12	21.58
					1	24	21.24
					12	0	20.37
					12	6	20.06
					12	11	20.16
					25	0	20.05
		H 23825	713.5	QPSK	1	0	21.64
					1	12	21.52
					1	24	21.35
					12	0	21.54
					12	6	21.36
					12	11	21.23
					25	0	21.27
				16-QAM	1	0	20.95
					1	12	20.87
					1	24	20.53
					12	0	19.83
					12	6	19.72
					12	11	19.51
					25	0	19.74

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.

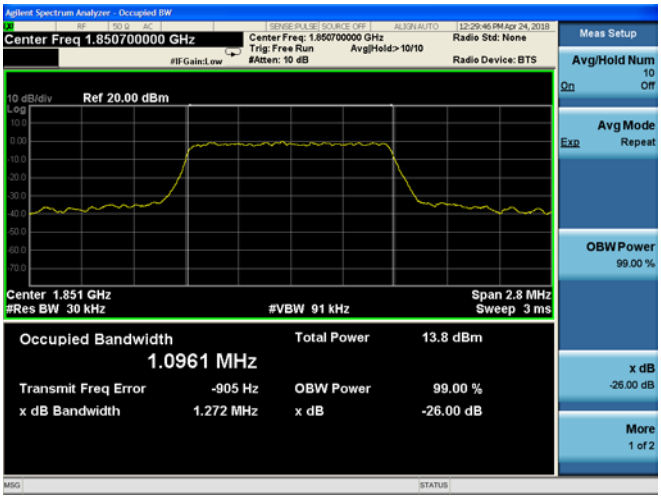
2.2.4. Test Result

LTE Band 2, BW: 1.4MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0961	1.272	1.1023	1.273
18900	1880.0	1.0967	1.281	1.0967	1.267
19192	1909.2	1.1009	1.255	1.0957	1.275

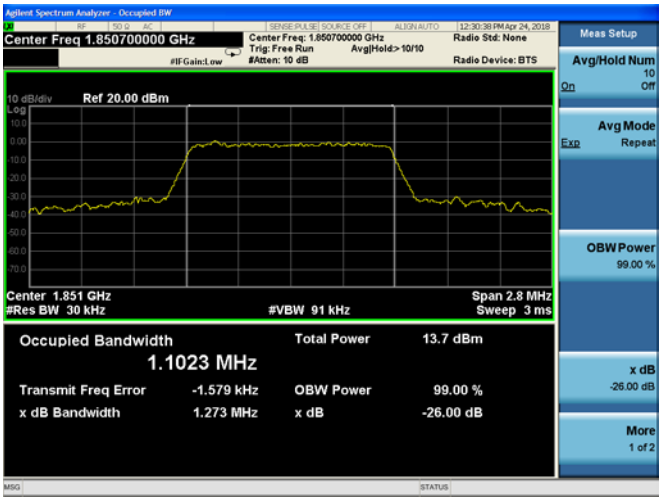
LTE Band 2, BW: 3MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.7072	2.986	2.7056	2.998
18900	1880.0	2.7063	2.966	2.7189	2.999
19184	1908.4	2.7155	2.990	2.7043	2.984
LTE Band 2, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.5092	5.062	4.5317	5.096
18900	1880.0	4.5114	5.033	4.5145	5.051
19175	1907.5	4.5248	5.099	4.5207	5.068
LTE Band 2, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18650	1855.0	8.9912	9.962	9.0057	9.966
18900	1880.0	8.9948	9.915	8.9885	10.00
19150	1905.0	9.0165	10.01	9.0040	9.902
LTE Band 2, BW: 15MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.520	14.92	13.515	14.96
18900	1880.0	13.500	14.89	13.485	14.81
19125	1902.5	13.448	14.76	13.487	14.74
LTE Band 2, BW: 20MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18700	1860.0	17.962	19.61	17.975	19.77
18900	1880.0	17.995	19.75	17.976	19.54
19100	1900.0	17.982	19.64	17.943	19.61

LTE Band 2 99%&26dB Bandwidth

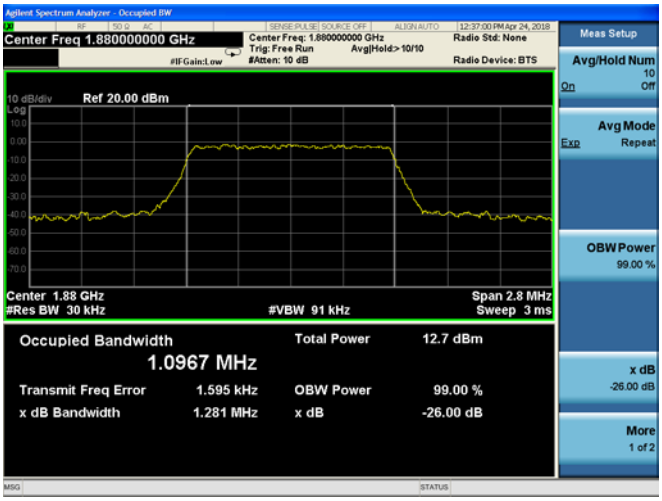
1.4MHz/QPSK/Low CH



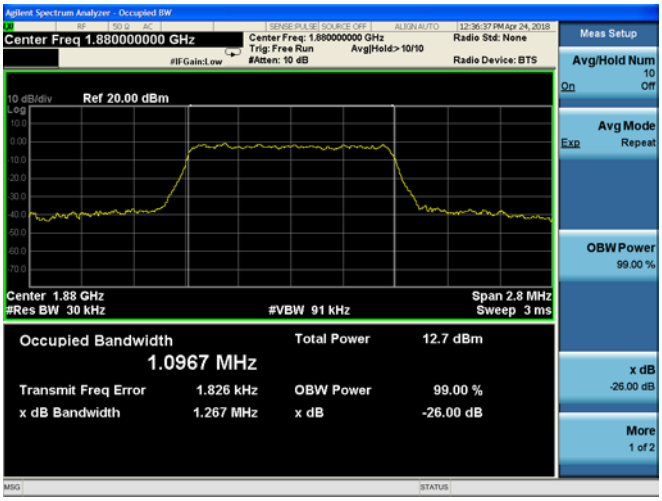
1.4MHz/16QAM/Low CH



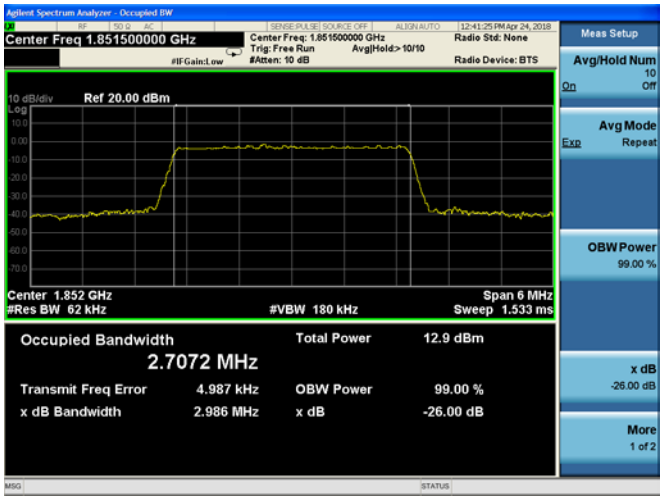
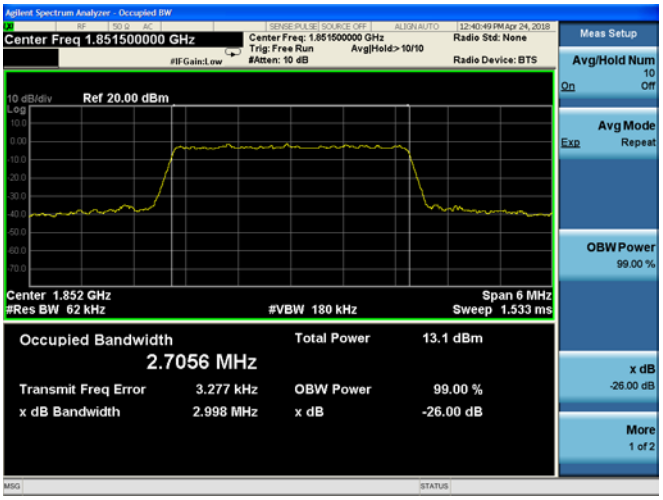
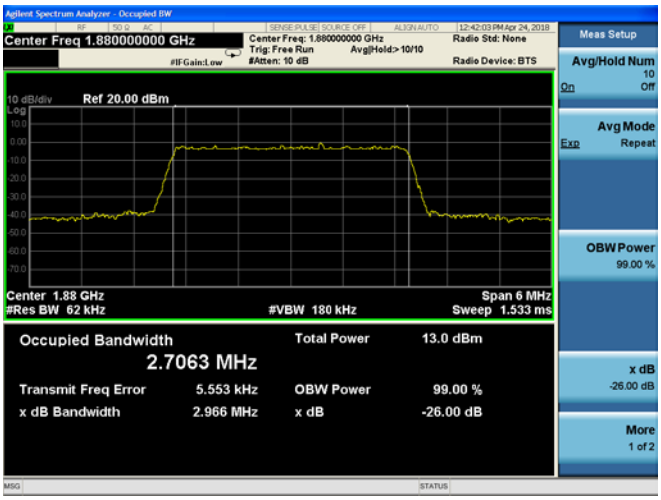
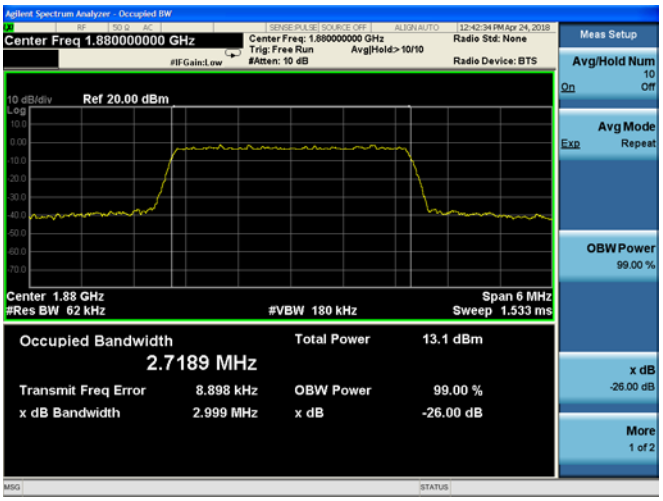
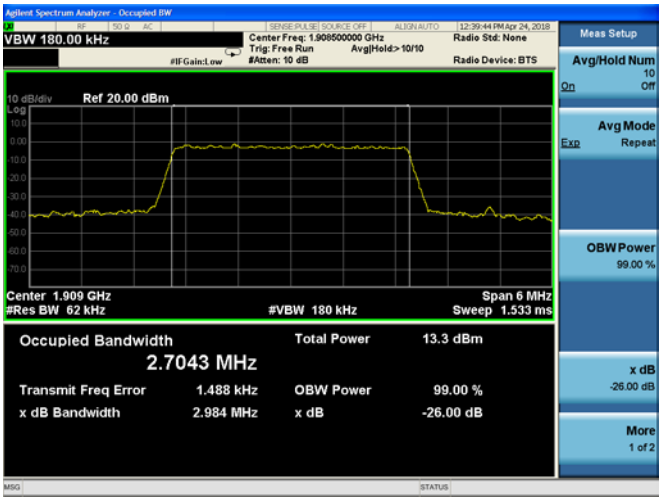
1.4MHz/QPSK/Mid CH

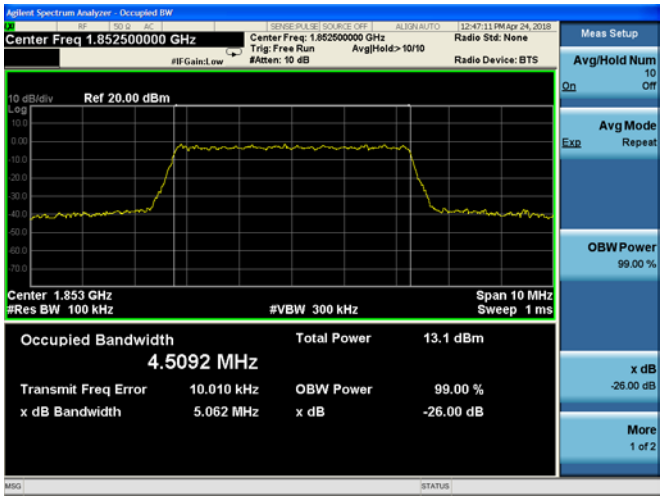
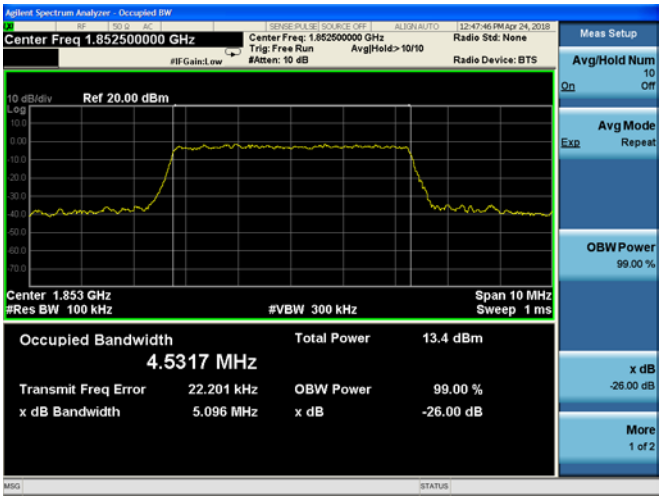
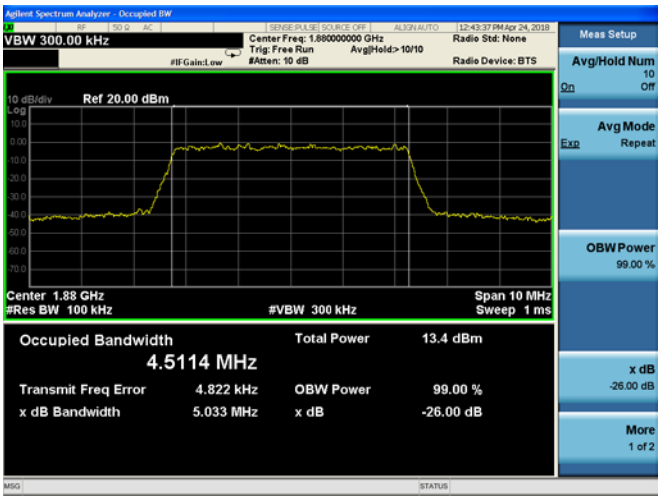
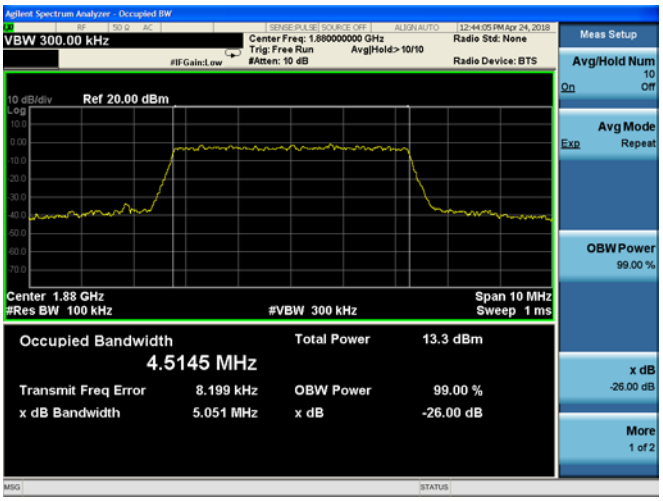
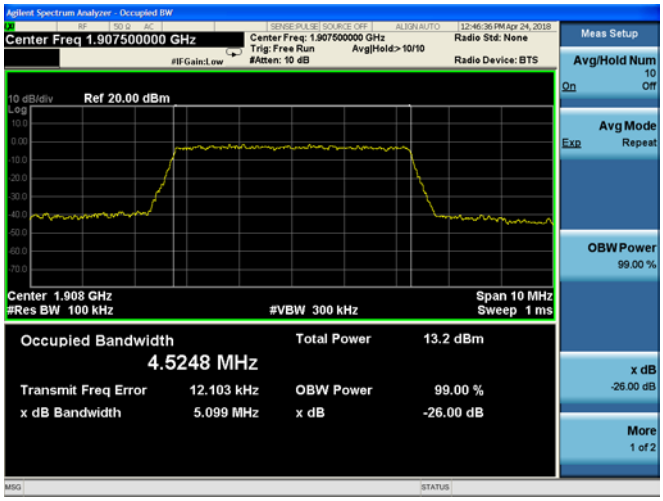
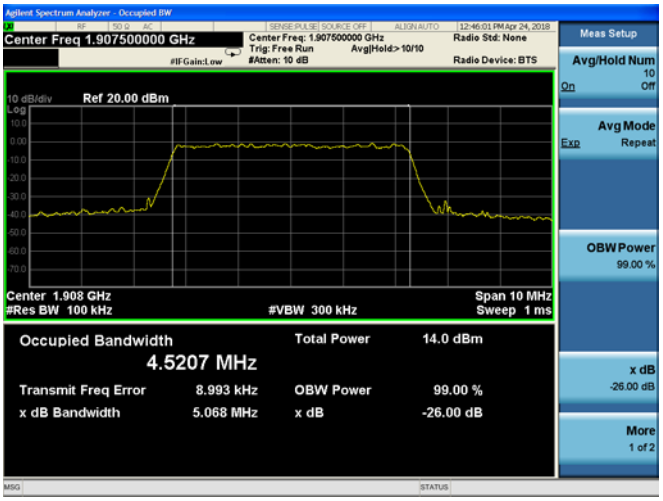


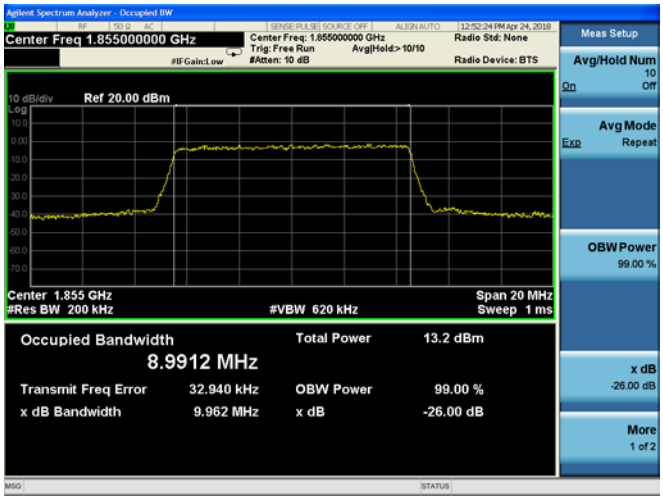
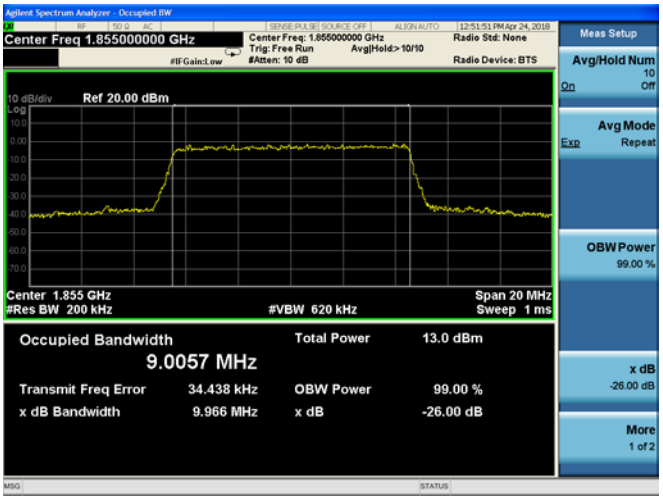
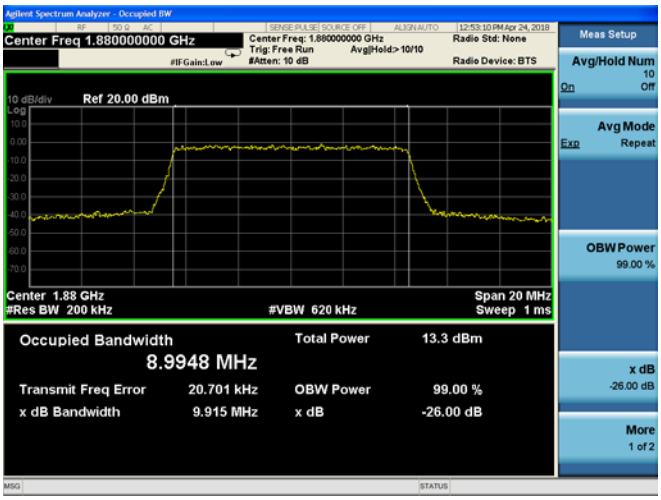
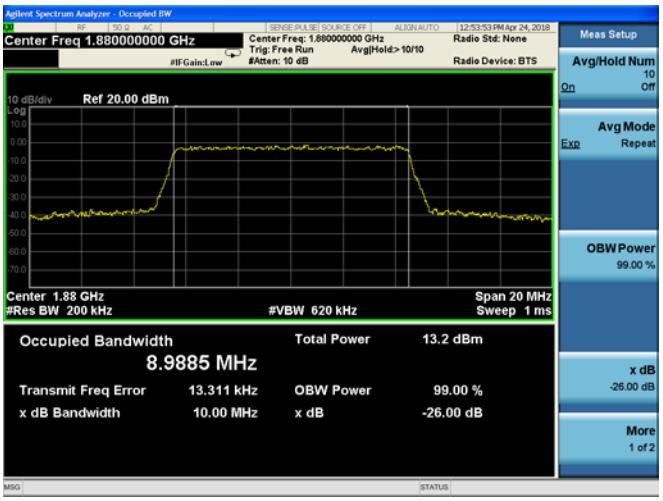
1.4MHz/16QAM/Mid CH

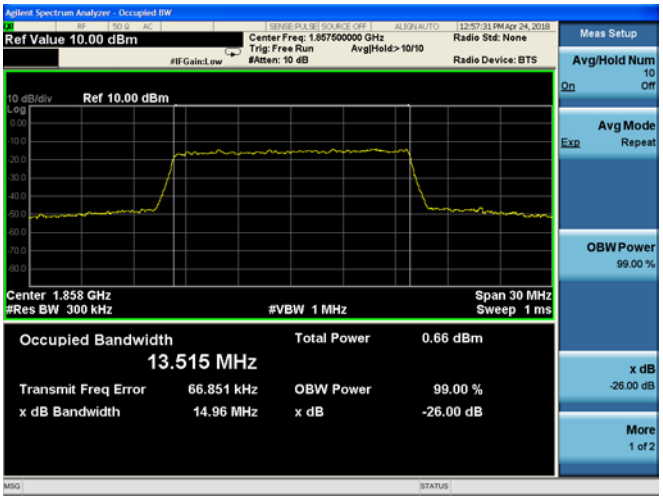
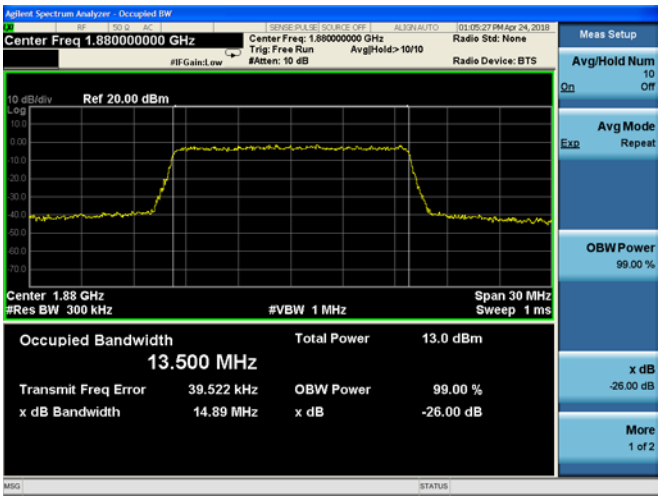
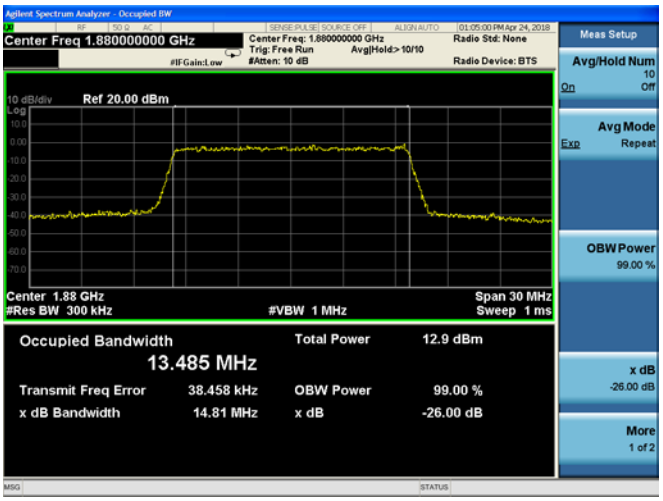


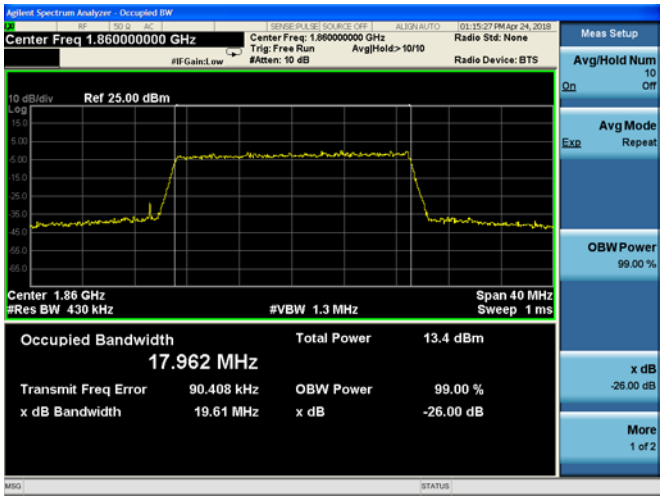
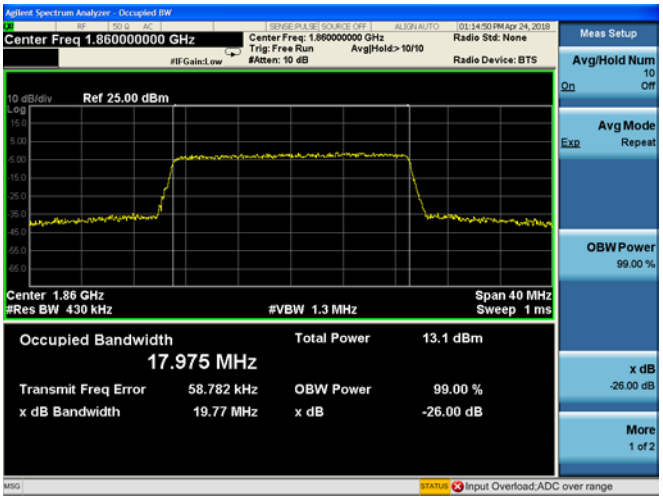
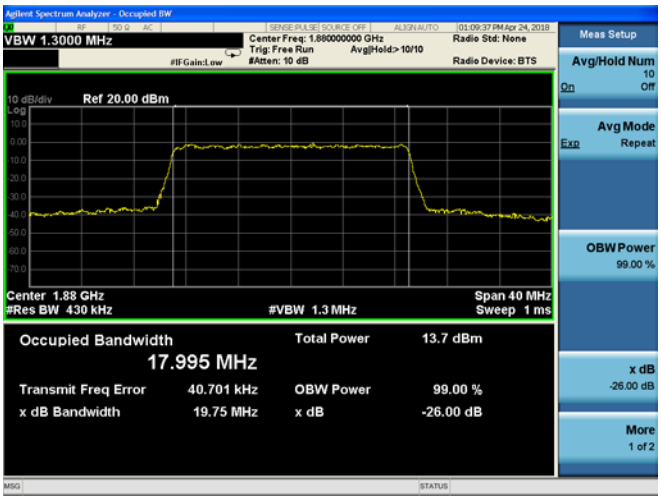
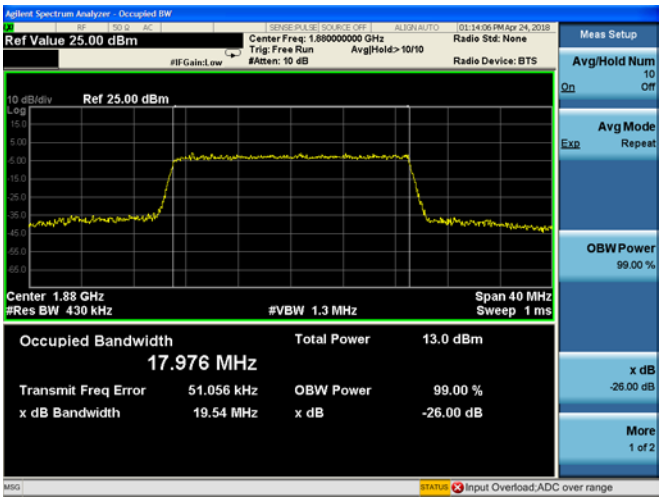
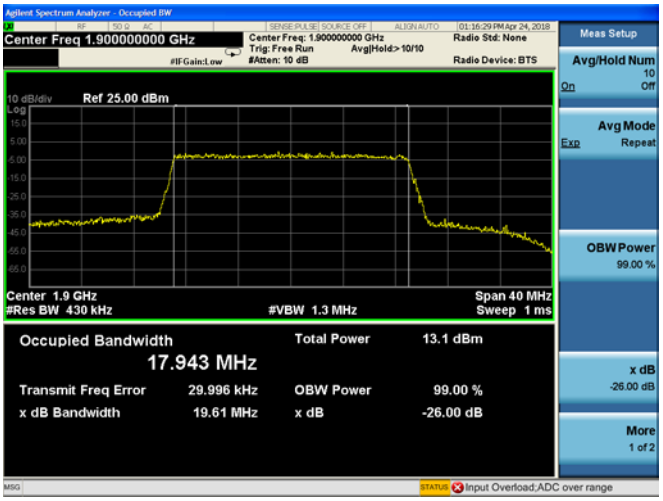
1.4MHz/QPSK/High CH	1.4MHz/16QAM/High CH
	

3MHz/QPSK/Low CH	3MHz/16QAM/Low CH
	
3MHz/QPSK/Mid CH	**3MHz/16QAM/Mid CH**
	
3MHz/QPSK/High CH	**3MHz/16QAM/High CH**
	

5MHz/QPSK/Low CH	5MHz/16QAM/Low CH
	
5MHz/QPSK/Mid CH	**5MHz/16QAM/Mid CH**
	
5MHz/QPSK/High CH	**5MHz/16QAM/High CH**
	

10MHz/QPSK/Low CH	10MHz/16QAM/Low CH
	
10MHz/QPSK/Mid CH	**10MHz/16QAM/Mid CH**
	
10MHz/QPSK/High CH	**10MHz/16QAM/High CH**
	

15MHz/QPSK/Low CH	15MHz/16QAM/Low CH
	
15MHz/QPSK/Mid CH	**15MHz/16QAM/Mid CH**
	
15MHz/QPSK/High CH	**15MHz/16QAM/High CH**
	

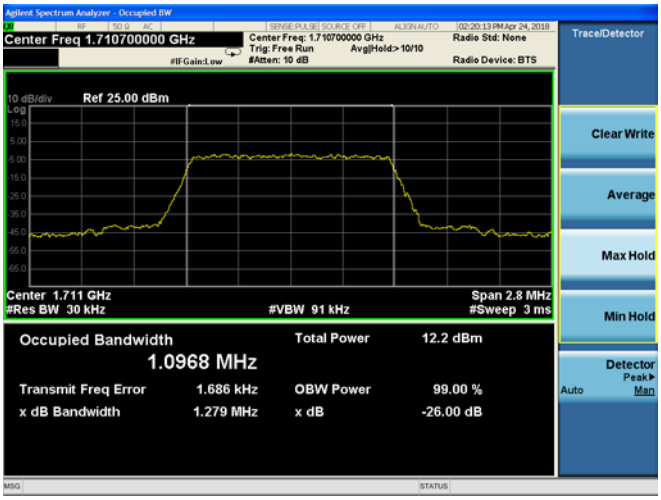
20MHz/QPSK/Low CH	20MHz/16QAM/Low CH
	
20MHz/QPSK/Mid CH	**20MHz/16QAM/Mid CH**
	
20MHz/QPSK/High CH	**20MHz/16QAM/High CH**
	

LTE Band 4, BW: 1.4MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
19957	1710.7	1.0968	1.279	1.0942	1.262
20175	1732.5	1.0939	1.268	1.0989	1.280
20392	1754.2	1.1043	1.262	1.0956	1.269
LTE Band 4, BW: 3MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
19965	1711.5	2.7022	2.972	2.7006	2.971
20175	1732.5	2.7037	2.960	2.7106	2.964
20384	1753.4	2.7067	2.975	2.7006	2.971
LTE Band 4, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
19975	1712.5	4.5176	5.085	4.5108	5.026
20175	1732.5	4.5221	5.047	4.5113	5.078
20375	1752.5	4.5067	5.055	4.5171	5.063
LTE Band 4, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20000	1715.0	8.9940	9.883	8.9967	9.935
20175	1732.5	8.9778	9.956	8.9996	9.918
20350	1750.0	9.0038	10.01	8.9891	9.929
LTE Band 4, BW: 15MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20025	1717.5	13.458	14.74	13.458	14.72
20175	1732.5	13.483	14.91	13.485	14.91
20325	1747.5	13.475	14.74	13.478	14.80

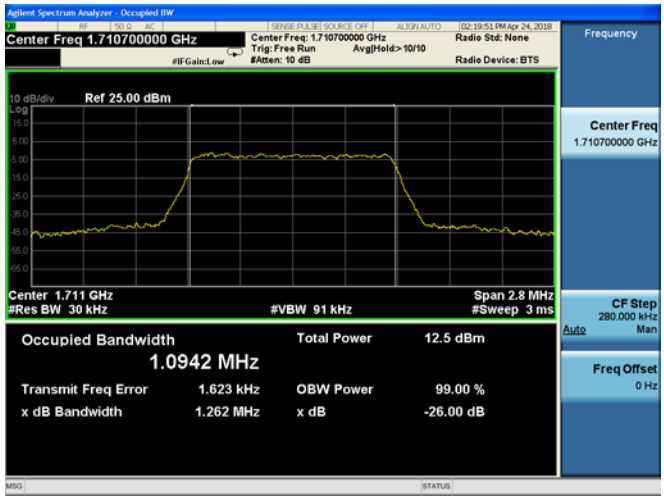
LTE Band 4, BW: 20MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20050	1720.0	18.028	19.75	17.968	19.53
20175	1732.5	18.022	19.55	18.066	19.80
20300	1745.0	17.927	19.57	17.968	19.68

LTE Band 4 99%&26dB Bandwidth

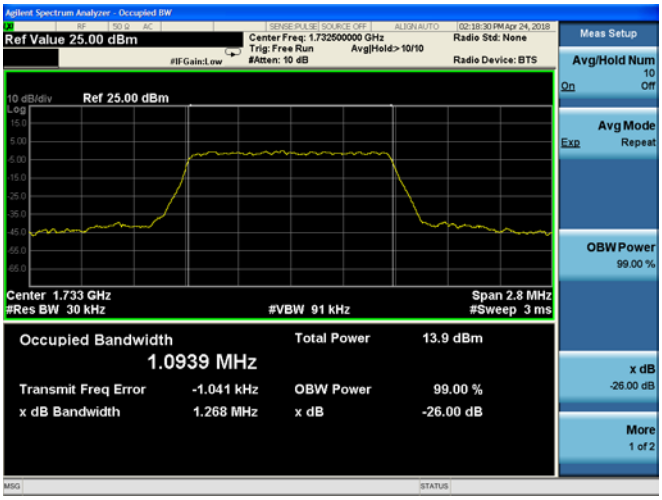
1.4MHz/QPSK/Low CH



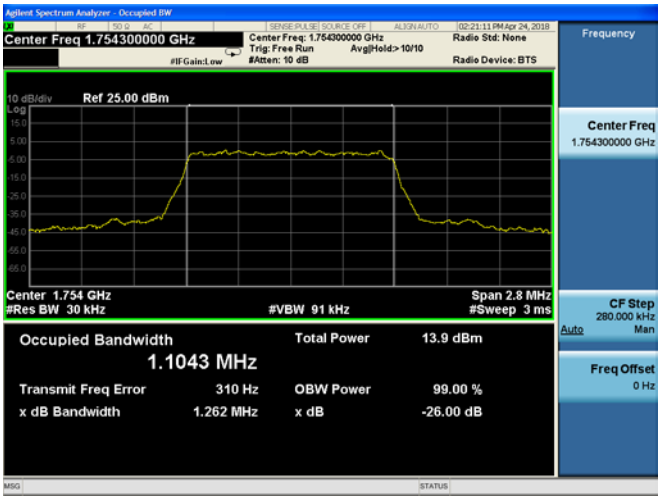
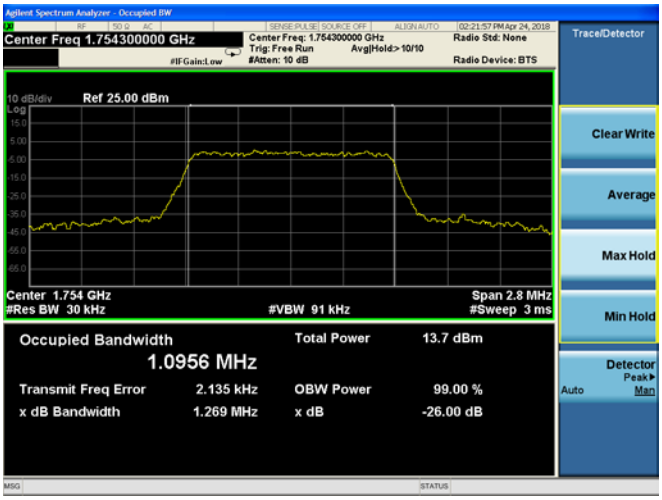
1.4MHz/16QAM/Low CH

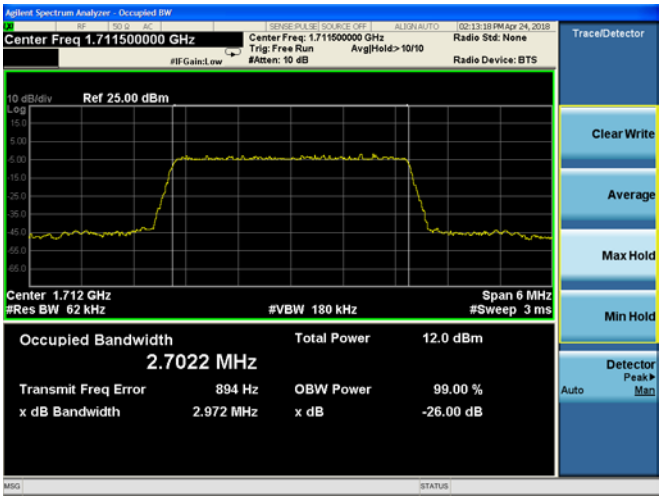
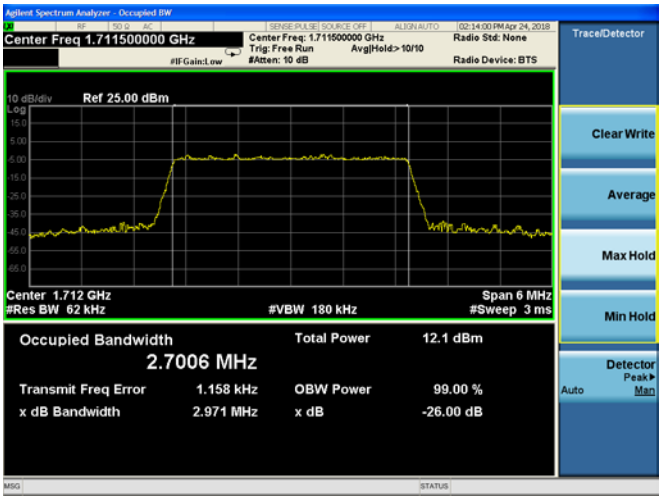
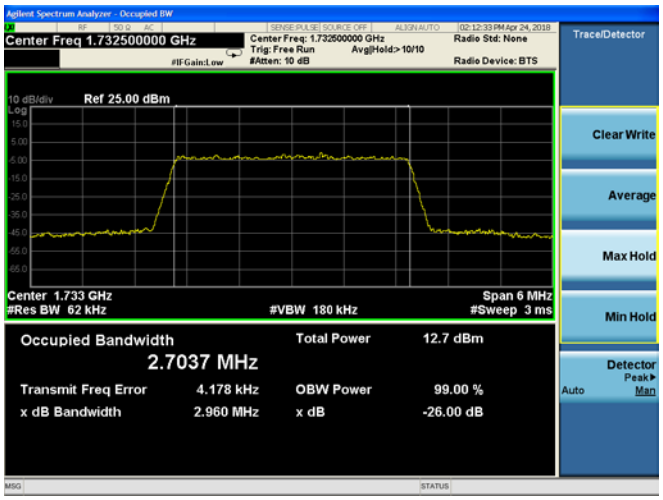
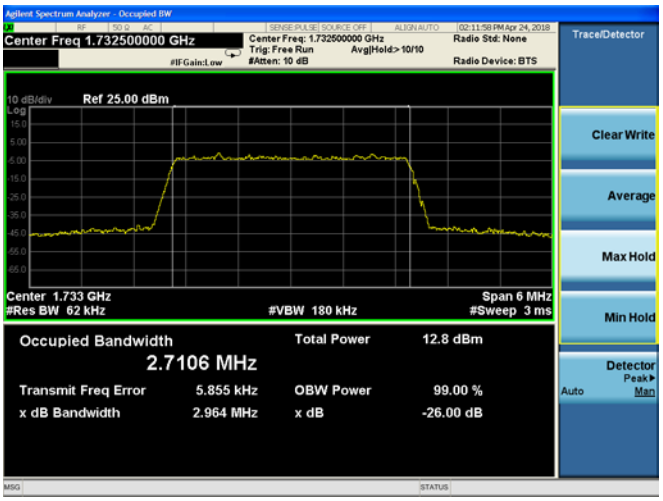
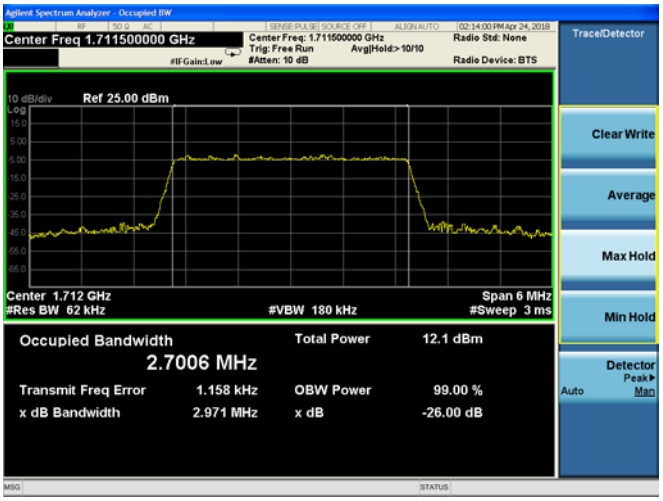


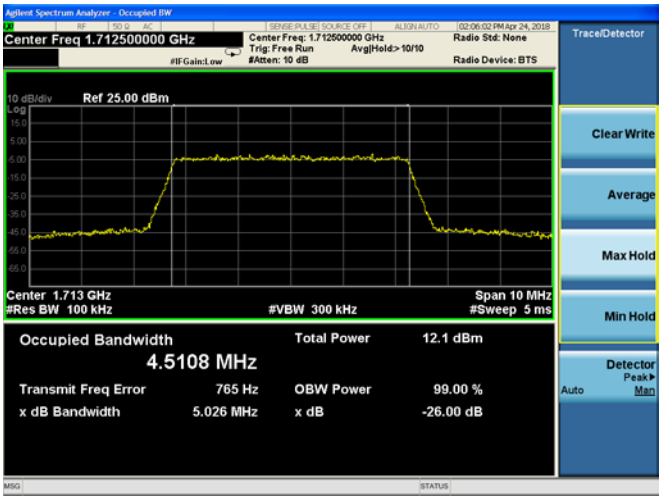
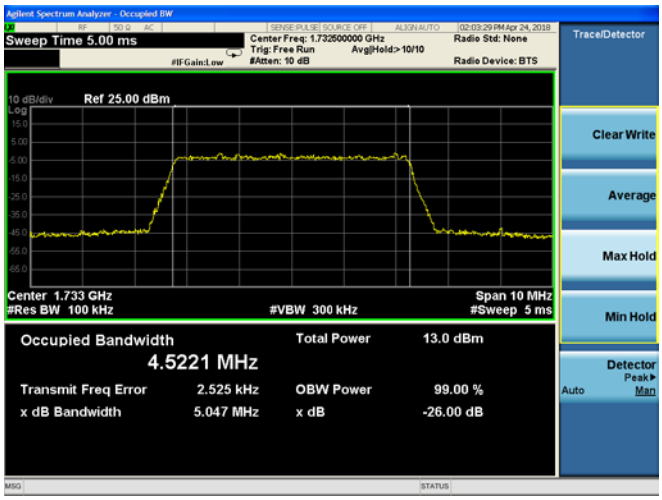
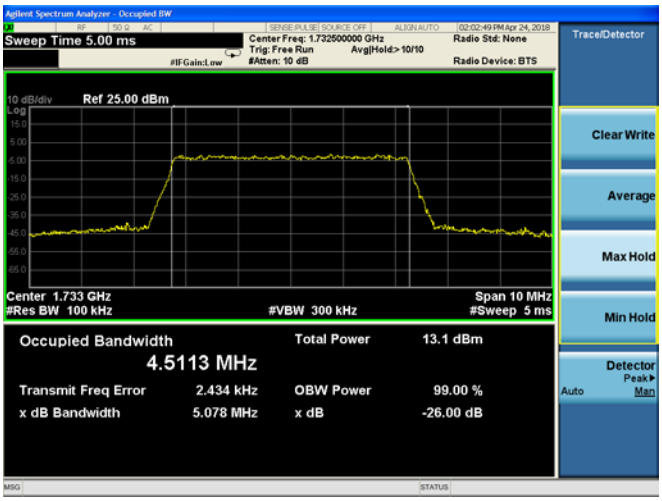
1.4MHz/QPSK/Mid CH

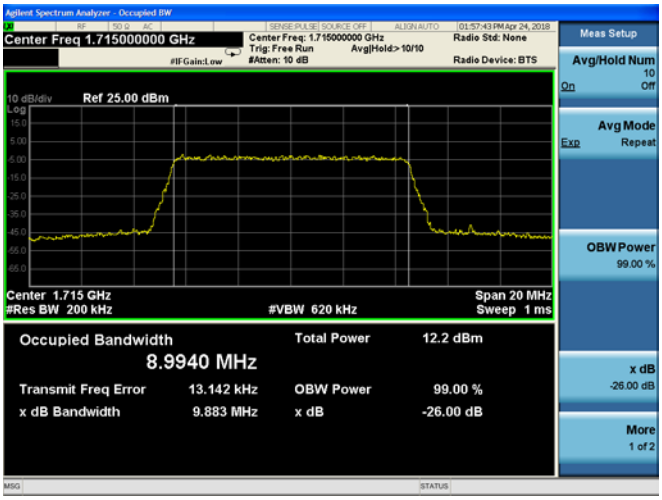
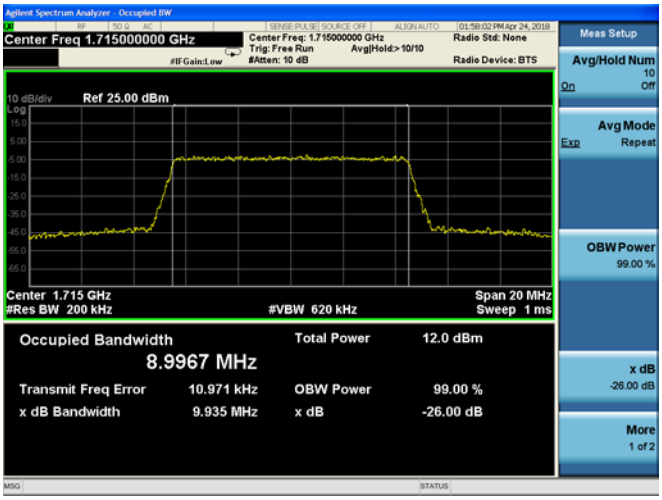
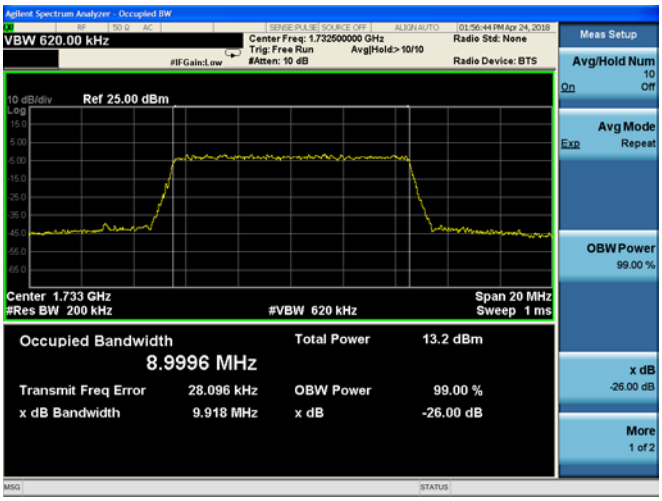
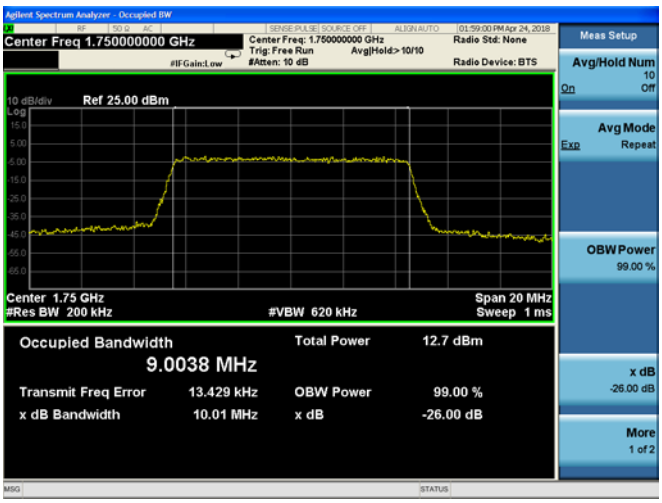
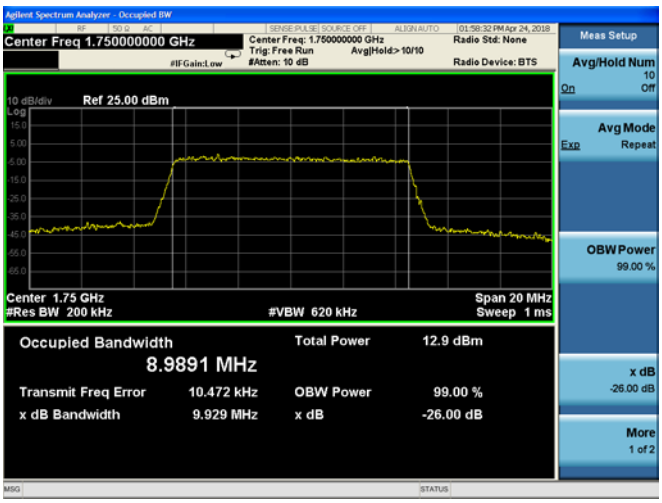


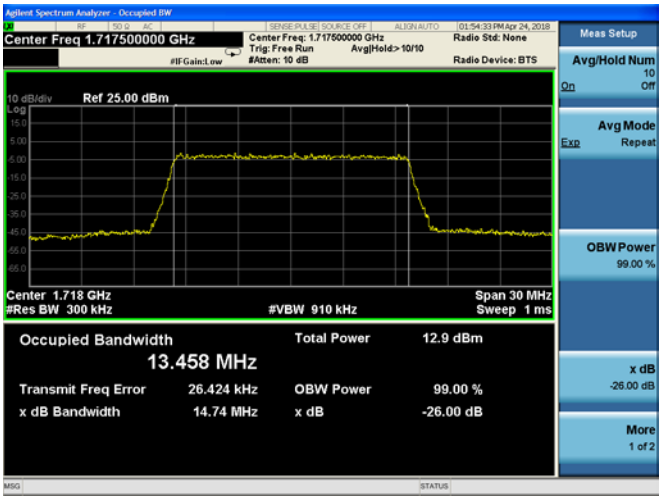
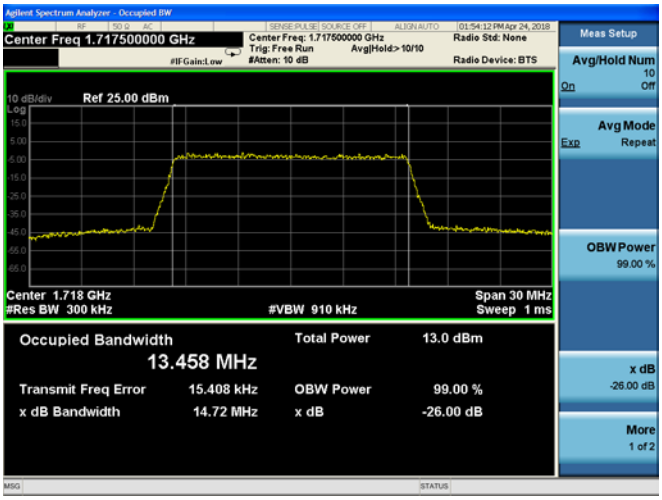
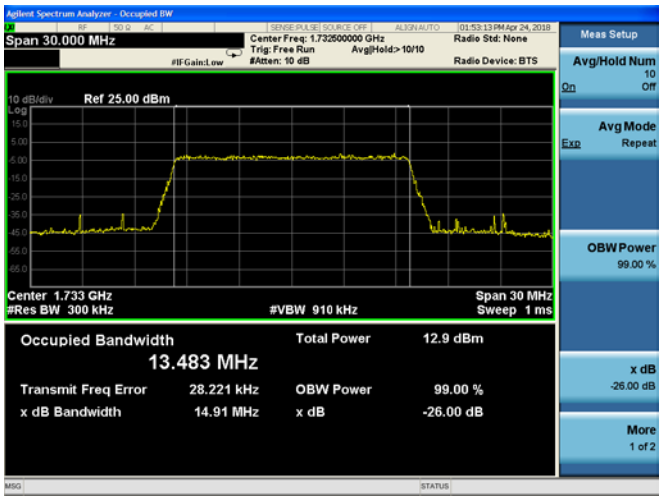
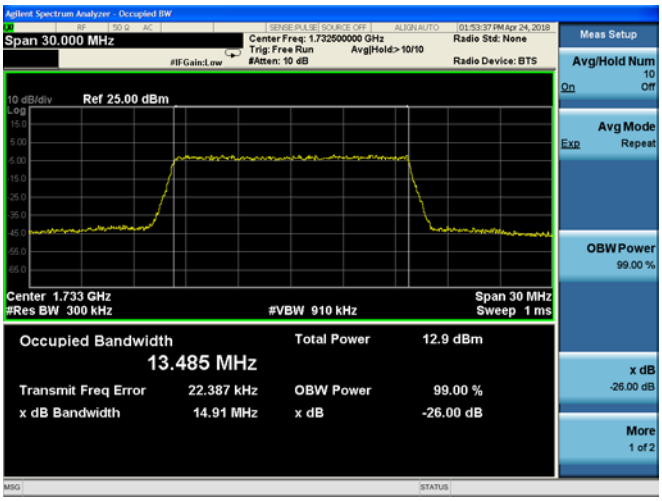
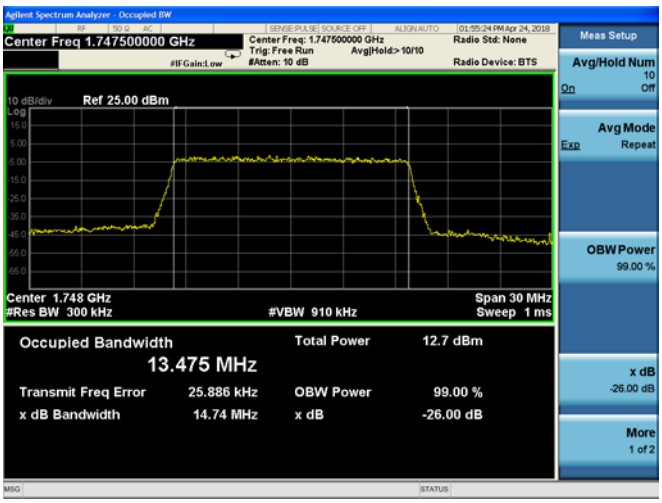
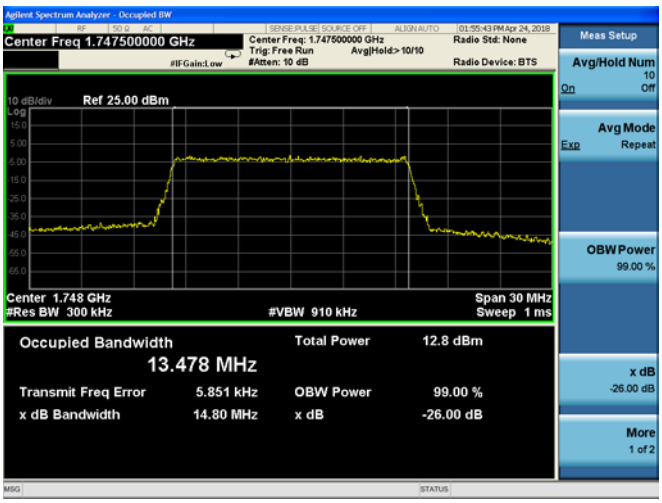
1.4MHz/16QAM/Mid CH

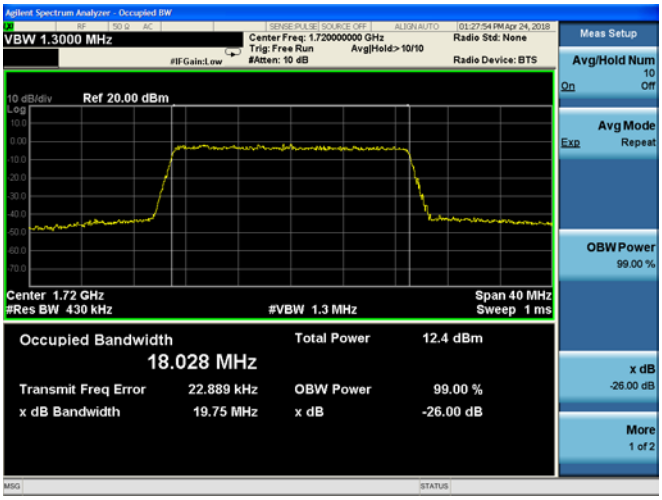
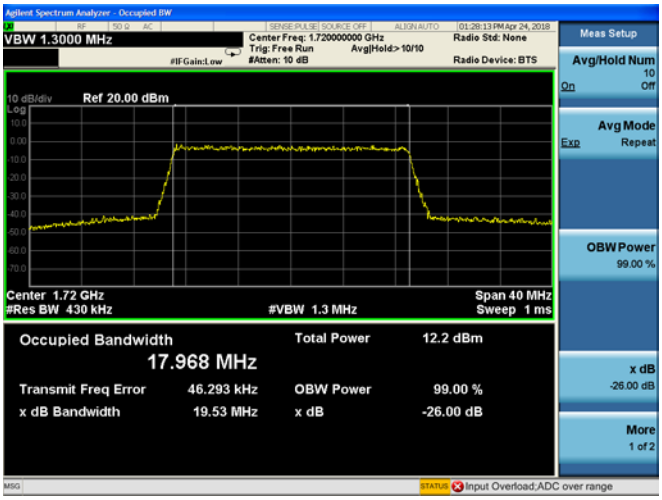
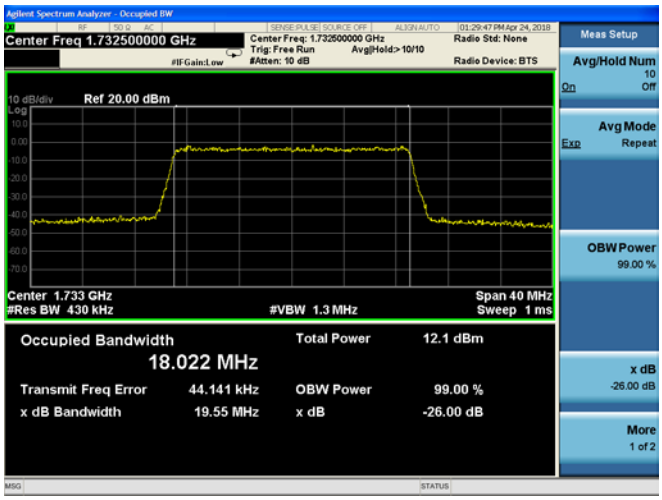
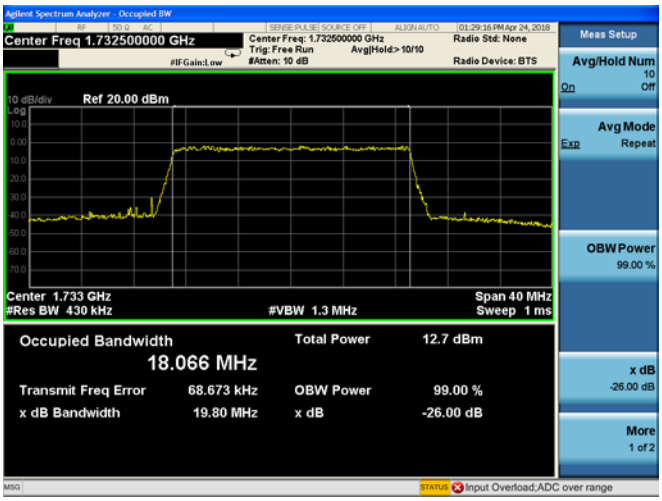
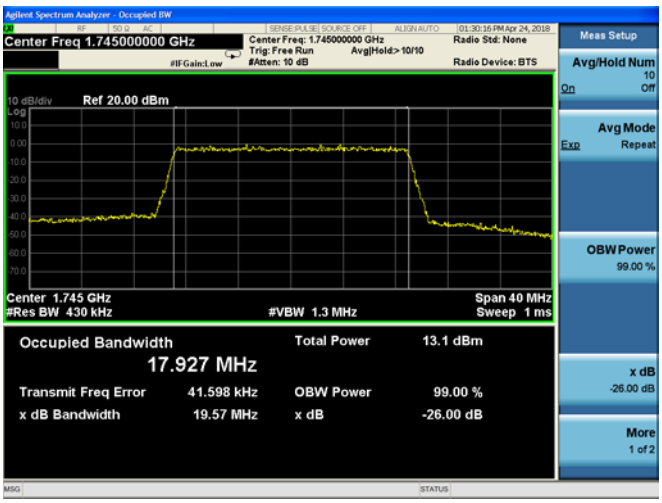
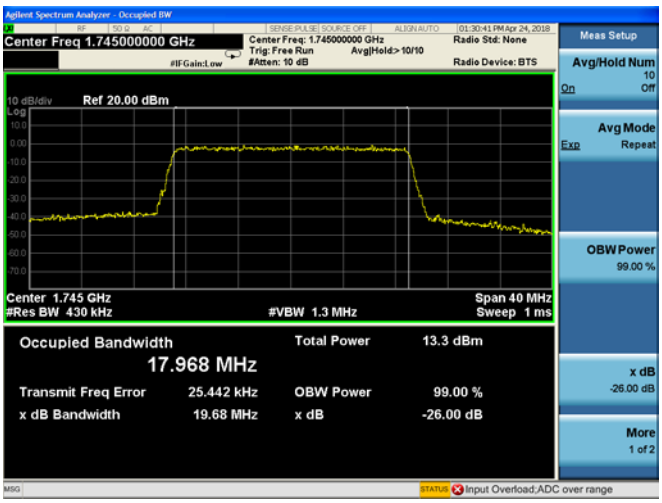
1.4MHz/QPSK/High CH	1.4MHz/16QAM/High CH
	

3MHz/QPSK/Low CH	3MHz/16QAM/Low CH
	
3MHz/QPSK/Mid CH	**3MHz/16QAM/Mid CH**
	
3MHz/QPSK/High CH	**3MHz/16QAM/High CH**
	

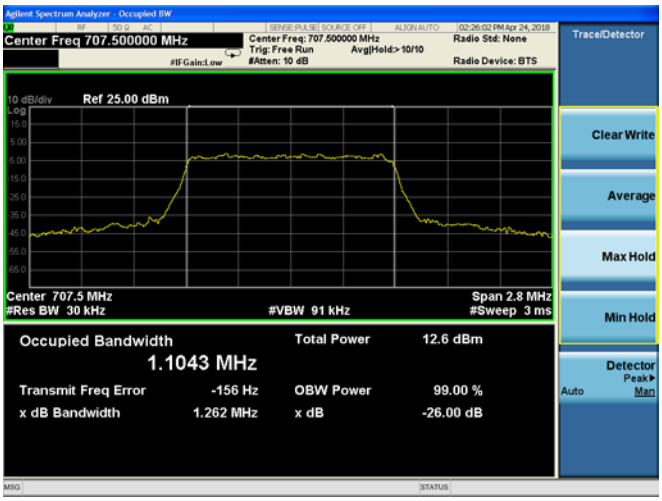
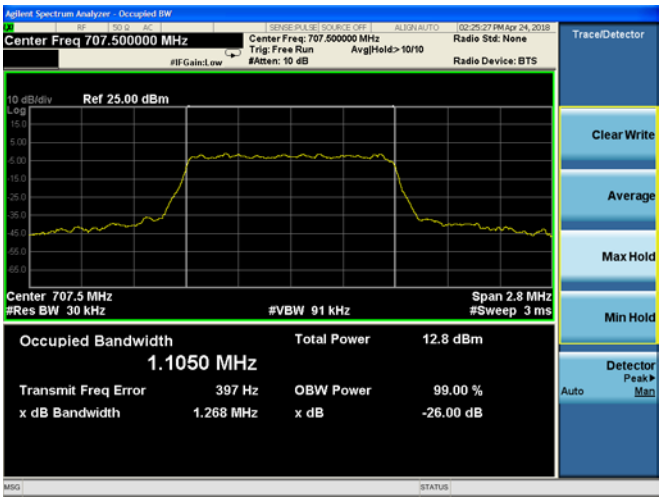
5MHz/QPSK/Low CH	5MHz/16QAM/Low CH
	
5MHz/QPSK/Mid CH	**5MHz/16QAM/Mid CH**
	
5MHz/QPSK/High CH	**5MHz/16QAM/High CH**
	

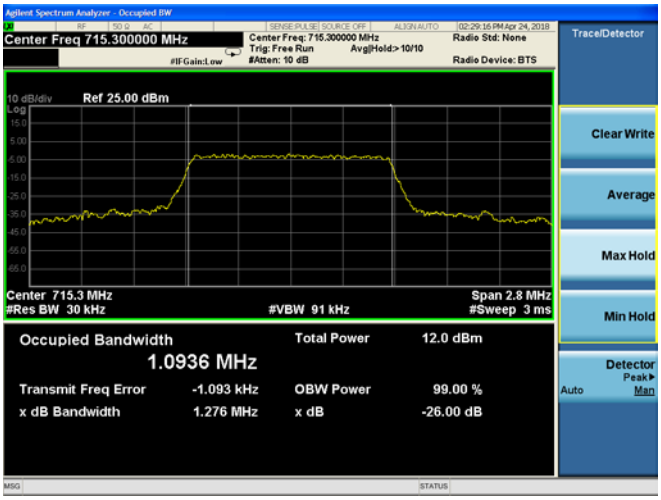
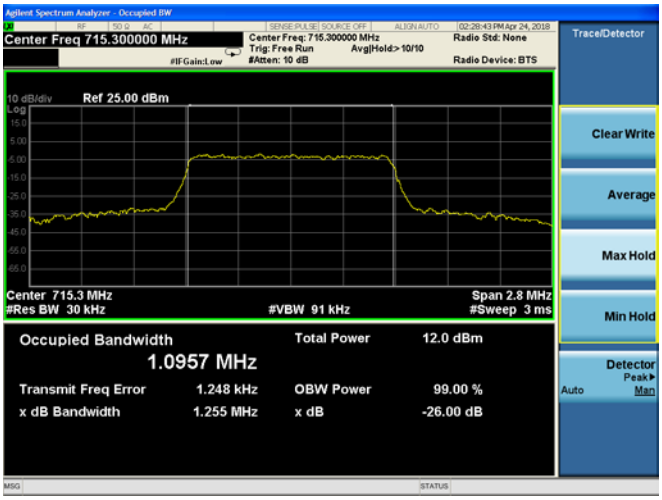
10MHz/QPSK/Low CH	10MHz/16QAM/Low CH
	
10MHz/QPSK/Mid CH	**10MHz/16QAM/Mid CH**
	
10MHz/QPSK/High CH	**10MHz/16QAM/High CH**
	

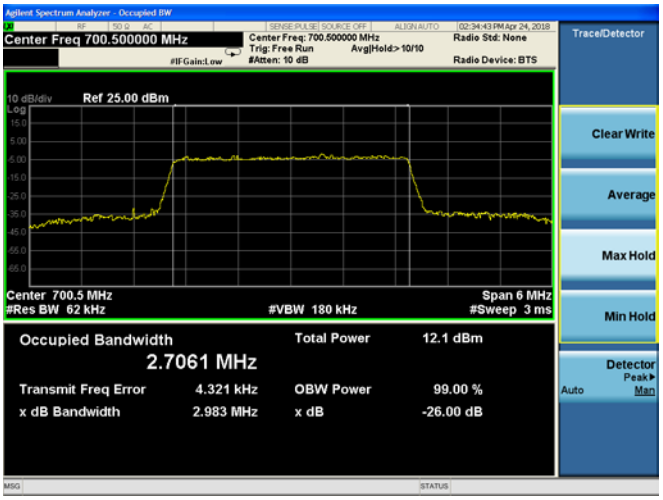
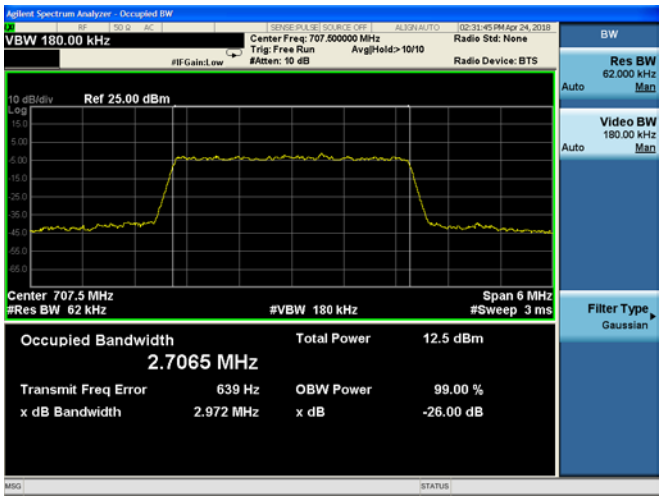
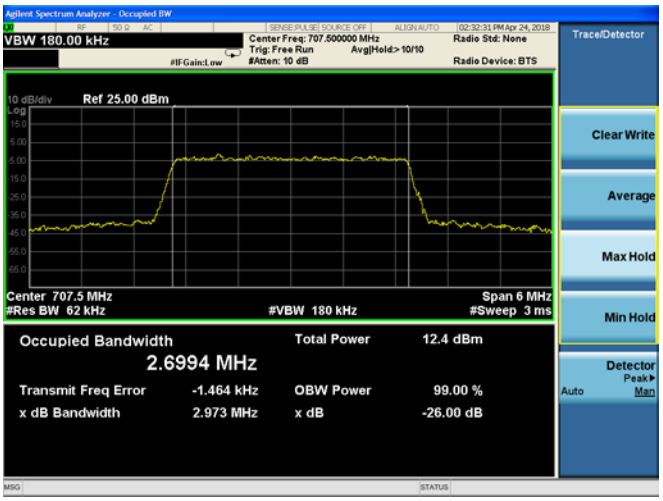
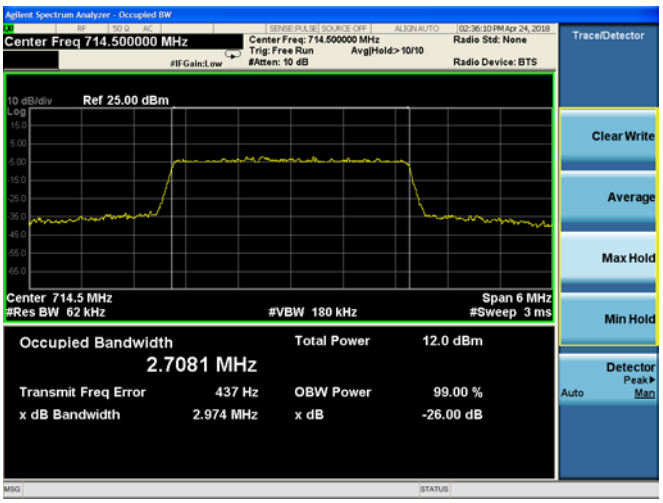
15MHz/QPSK/Low CH	15MHz/16QAM/Low CH
	
15MHz/QPSK/Mid CH	**15MHz/16QAM/Mid CH**
	
15MHz/QPSK/High CH	**15MHz/16QAM/High CH**
	

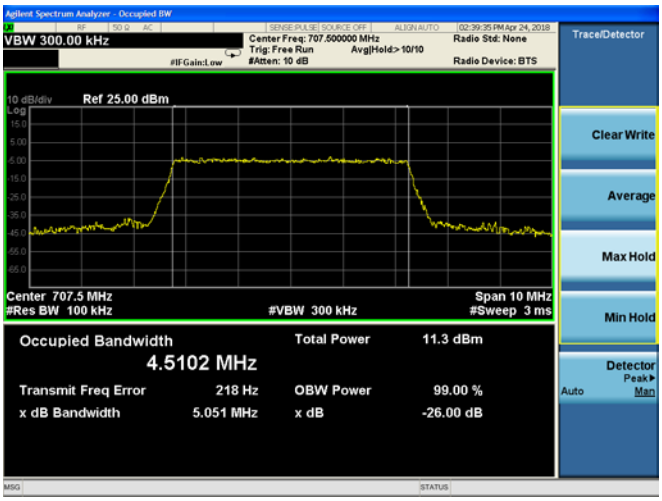
20MHz/QPSK/Low CH	20MHz/16QAM/Low CH
	
20MHz/QPSK/Mid CH	**20MHz/16QAM/Mid CH**
	
20MHz/QPSK/High CH	**20MHz/16QAM/High CH**
	

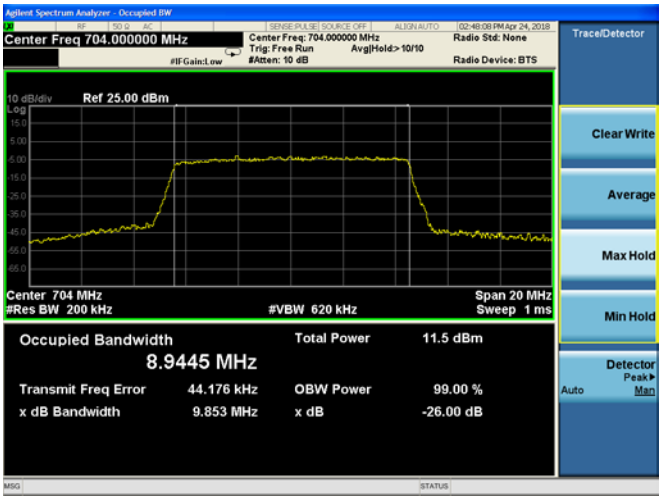
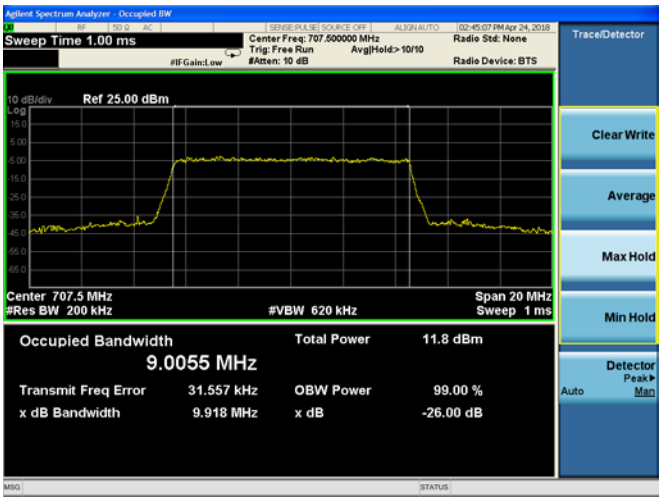
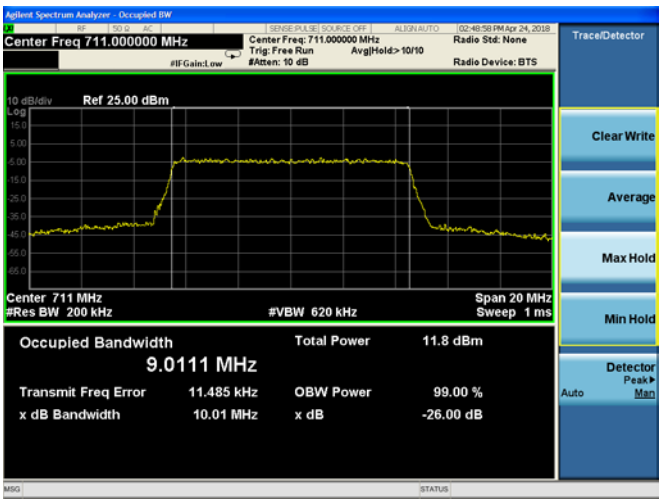
LTE Band 12, BW: 1.4MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.0958	1.270	1.1006	1.291
23095	707.5	1.1043	1.262	1.1050	1.268
23173	715.3	1.0936	1.276	1.0657	1.255
LTE Band 12, BW: 3MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.7107	2.964	2.7061	2.983
23095	707.5	2.7065	2.972	2.6994	2.973
23165	714.5	2.7081	2.974	2.7023	2.971
LTE Band 12, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5128	5.048	4.5116	5.032
23095	707.5	4.5201	5.037	4.5102	5.051
23165	714.5	4.5069	5.057	4.5214	5.083
LTE Band 12, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9445	9.853	8.9755	9.898
23095	707.5	9.0076	10.03	9.0055	9.918
23130	711.0	9.0111	10.01	8.9981	10.00

LTE Band 12 99%&26dB Bandwidth	
1.4MHz/QPSK/Low CH	**1.4MHz/16QAM/Low CH**
	
1.4MHz/QPSK/Mid CH	**1.4MHz/16QAM/Mid CH**
	

1.4MHz/QPSK/High CH	1.4MHz/16QAM/High CH
	

3MHz/QPSK/Low CH	3MHz/16QAM/Low CH
	
3MHz/QPSK/Mid CH	**3MHz/16QAM/Mid CH**
	
3MHz/QPSK/High CH	**3MHz/16QAM/High CH**
	

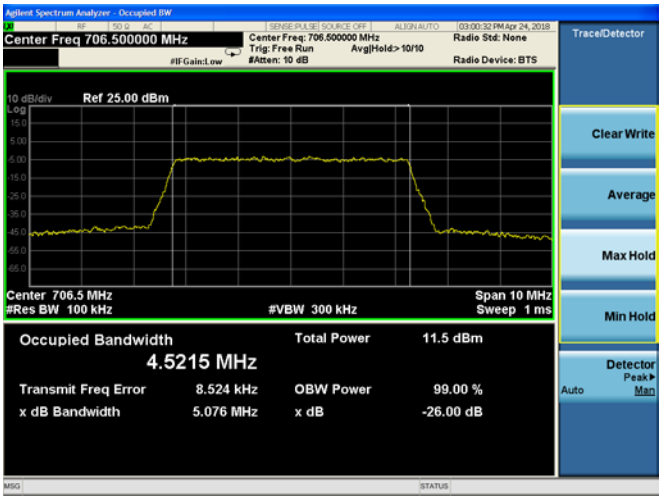
5MHz/QPSK/Low CH	5MHz/16QAM/Low CH
	
5MHz/QPSK/Mid CH	**5MHz/16QAM/Mid CH**
	
5MHz/QPSK/High CH	**5MHz/16QAM/High CH**
	

10MHz/QPSK/Low CH	10MHz/16QAM/Low CH
	
10MHz/QPSK/Mid CH	**10MHz/16QAM/Mid CH**
	
10MHz/QPSK/High CH	**10MHz/16QAM/High CH**
	

LTE Band 17, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.5215	5.076	4.5246	5.026
23790	710.0	4.5322	5.029	4.5243	5.088
23825	713.5	4.5211	5.078	4.5317	5.057
LTE Band 17, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23780	709.0	9.0189	10.01	9.0160	9.952
23790	710.0	9.0189	9.915	9.0100	9.945
23800	711.0	8.9921	9.924	9.0096	9.953

LTE Band 17 99%&26dB Bandwidth

5MHz/QPSK/Low CH



5MHz/16QAM/Low CH