FCC CFR47 PART 22 SUBPART H
FCC CFR47 PART 24 SUBPART E
FCC CFR47 PART 27 SUBPART F
FCC CFR47 PART 27 SUBPART L
FCC CFR47 PART 27 SUBPART M
FCC CFR47 PART 90 SUBPART S

CERTIFICATION TEST REPORT

FOR

CDMA/LTE PHABLET + BLUETOOTH, & DTS/UNII a/b/g/n

MODEL NUMBER: LG-LS770, LS770, LGLS770
FCC ID: ZNFLS770

REPORT NUMBER: 15I19834-E1

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Revision History

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	LG ELECTRONICS MOBILECOMM U.S.A., INC
EUT DESCRIPTION:	CDMA/LTE PHONE + BLUETOOTH, & 2.4GHz & 5GHz DTS/UNII
MODEL:	LG-LS770, LS770, LGLS770
SERIAL NUMBER:	80794BEF, 80A61FF5
DATE TESTED:	JANUARY 27-30 & FEBRUARY 2, 13, 2015

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 22H, 24E, 27F, 27L, 27M, and 90S	PASS

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-C, FCC CFR 47 Part 22, FCC CFR Part 24, FCC CFR 47 Part 27, and FCC CFR 47 Part 90.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
☐ Chamber A(IC: 2324B-1)	☐ Chamber D(IC: 2324B-4)
☒ Chamber B(IC: 2324B-2)	☐ Chamber E(IC: 2324B-5)
☒ Chamber C(IC: 2324B-3)	☒ Chamber F(IC: 2324B-6)
	☐ Chamber G(IC: 2324B-7)
	☐ Chamber H(IC: 2324B-8)

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://ts.nist.gov/standards/scopes/2000650.htm

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4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

EIRP = PSA reading with EUT worst orientation (dBm) + Path loss (dB) – cable loss(between the SG and substitution antenna) + Substitution Antenna Factor (dBi)

ERP = PSA reading with EUT worst orientation (dBm) + Path loss (dB) – cable loss(between the SG and substitution antenna)

(Path loss = Signal generator output – PSA reading with substitution antenna)

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB
Radiated Disturbance, 1GHz to 40GHz	

Uncertainty figures are valid to a confidence level of 95%.

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a CDMA/LTE PHABLET + BLUETOOTH, & DTS/UNII a/b/g/n

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted and radiated ERP / EIRP output powers as follows:

FCC Part 22/24/27						
Band	Frequency Range(MHz)	Modulation mW	Conducted		Radiated	
			AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
BC10	816~824	1xRTT	24.70	295.12	20.60	114.84
	816~824	EVDO REL. 0	25.00	316.23	20.62	115.35
BC0	824~849	1xRTT	24.60	288.40	21.80	151.39
	824~849	EVDO REL. 0	24.60	288.40	21.59	144.21
BC1	1850~1910	1xRTT	24.20	263.03	25.60	363.08
	1850~1910	EVDO REL. 0	24.20	263.03	25.06	320.63

The transmitter has a maximum peak conducted and radiated ERP / EIRP output powers as follows:

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5.3. MAXIMUM OUTPUT POWER (LTE)

LTE Band 2

FCC Part 24							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation mW	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE2	1850~1910	20MHz	QPSK	23.70	234.42	25.94	392.88
			16QAM	22.70	186.21	24.86	306.38
		15MHz	QPSK	23.70	234.42	25.84	384.09
			16QAM	22.70	186.21	24.77	300.22
		10MHz	QPSK	23.70	234.42	25.79	378.97
			16QAM	22.70	186.21	24.76	299.14
		5MHz	QPSK	23.70	234.42	25.30	338.67
			16QAM	22.70	186.21	24.39	274.65
		3MHz	QPSK	23.60	229.09	25.49	353.87
			16QAM	22.70	186.21	24.69	294.34
		1.4MHz	QPSK	23.51	224.39	24.92	310.37
			16QAM	22.70	186.21	24.49	281.13

The transmitter has a maximum peak conducted and radiated ERP/EIRP output powers as follows:

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LTE Band 4

FCC Part 27							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation mW	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE4	1710~1755	20MHz	QPSK	23.70	234.42	24.72	296.55
			16QAM	22.70	186.21	23.47	222.38
		15MHz	QPSK	23.70	234.42	24.48	280.29
			16QAM	22.70	186.21	23.57	227.31
		10MHz	QPSK	23.70	234.42	24.49	281.26
			16QAM	22.70	186.21	23.57	227.56
		5MHz	QPSK	23.70	234.42	24.47	279.76
			16QAM	22.70	186.21	23.37	217.32
		3MHz	QPSK	23.70	234.42	24.56	286.03
			16QAM	22.70	186.21	23.43	220.51
		1.4MHz	QPSK	23.70	234.42	24.33	271.08
			16QAM	22.70	186.21	24.32	270.47

The transmitter has a maximum peak conducted and radiated ERP/EIRP output powers as follows:

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LTE Band 5

FCC Part 22							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation mW	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE5	824~849	10MHz	QPSK	23.95	248.31	20.70	117.49
			16QAM	22.70	186.21	19.80	95.5
		5MHz	QPSK	23.92	246.60	20.80	120.23
			16QAM	22.95	197.24	20.10	102.33
		3MHz	QPSK	24.00	251.19	20.90	123.03
			16QAM	22.93	196.34	20.00	100
		1.4MHz	QPSK	23.97	249.46	20.50	112.2
			16QAM	23.00	199.53	19.40	87.1

The transmitter has a maximum peak conducted and radiated ERP/EIRP output powers as follows:

LTE Band 12

FCC Part 27							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation mW	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE12	699~716	10MHz	QPSK	24.00	251.19	21.05	127.35
			16QAM	23.00	199.53	20.10	102.33
		5MHz	QPSK	24.00	251.19	21.20	131.83
			16QAM	23.00	199.53	20.10	102.33
		3MHz	QPSK	24.00	251.19	20.86	121.9
			16QAM	23.00	199.53	20.00	100
		1.4MHz	QPSK	24.00	251.19	20.87	122.18
			16QAM	23.00	199.53	20.00	100

The transmitter has a maximum peak conducted and radiated ERP/EIRP output powers as follows:

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LTE Band 25

FCC Part 24							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation mW	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE25	1850~1915	20MHz	QPSK	23.70	234.42	25.94	392.88
			16QAM	22.70	186.21	24.86	306.38
		15MHz	QPSK	23.70	234.42	25.84	384.09
			16QAM	22.70	186.21	24.77	300.22
		10MHz	QPSK	23.70	234.42	25.79	378.97
			16QAM	22.70	186.21	24.76	299.14
		5MHz	QPSK	23.70	234.42	25.30	338.67
			16QAM	22.70	186.21	24.39	274.65
		3MHz	QPSK	23.70	234.42	25.49	353.87
			16QAM	22.70	186.21	24.69	294.34
		1.4MHz	QPSK	23.70	234.42	25.50	354.81
			16QAM	22.70	186.21	24.49	281.19

The transmitter has a maximum peak conducted and radiated ERP/EIRP output powers as follows:

LTE Band 26

FCC Part 90							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation mW	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE26	814~849	15MHz	QPSK	24.00	251.19	20.55	113.5
			16QAM	23.00	199.53	19.70	93.33
		10MHz	QPSK	23.99	250.61	20.70	117.49
			16QAM	23.00	199.53	19.80	95.5
		5MHz	QPSK	24.00	251.19	20.80	120.23
			16QAM	23.00	199.53	20.10	102.33
		3MHz	QPSK	24.00	251.19	20.90	123.03
			16QAM	23.00	199.53	20.00	100
		1.4MHz	QPSK	24.00	251.19	20.50	112.2
			16QAM	23.00	199.53	19.40	87.1

The transmitter has a maximum peak conducted and radiated ERP/EIRP output powers as follows:

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LTE Band 41

FCC Part 22/24/27							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation mW	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE41	2496~2690	20MHz	QPSK	24.40	275.42	26.55	451.43
			16QAM	23.40	218.78	25.41	347.21
		15MHz	QPSK	24.40	275.42	25.61	363.57
			16QAM	23.40	218.78	26.47	443.19
		10MHz	QPSK	24.40	275.42	26.31	427.16
			16QAM	23.40	218.78	25.41	347.21
		5MHz	QPSK	24.40	275.42	25.67	368.63
			16QAM	23.40	218.78	24.75	298.26

The transmitter has a maximum peak conducted and radiated ERP/EIRP output powers as follows:

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5.4. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PIFA antenna for the [List the bands supported] with a maximum peak gain as follow:

Frequency (MHz)	Peak Gain (dBi)
CDMA BC1 / LTE2, 1850~1910MHz	0.7
LTE4, 1710~1755MHz	0.7
CDMA BC0 / LTE5, 824~849MHz	-2.3
LTE12, 699~716MHz	-2.3
LTE25, 1850~1915MHz	0.7
CDMA BC10 / LTE26, 814~849MHz	-2.3
LTE41, 2496~2690MHz	-0.3

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5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-02WR	RA4Y1031433	N/A
Earphone	LG	N/A	N/A	N/A

I/O CABLES (CONDUCTED SETUP)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	RF Out	1	Spectrum Analyzer	Shielded	None	NA
2	Antenna Port	1	EUT	Shielded	0.1m	NA
3	RF In/Out	1	Communication Test Set	Shielded	1m	NA

I/O CABLES (RADIATED SETUP)

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	USB	1	AC Adapter	Un-shielded	1.2m	NA
2	Jack	1	Headset	Shielded	1m	NA
3	RF In/out	1	Communication Test Set	Un-shielded	2m	NA

TEST SETUP

The EUT is continuously communicated to the call box during the tests.

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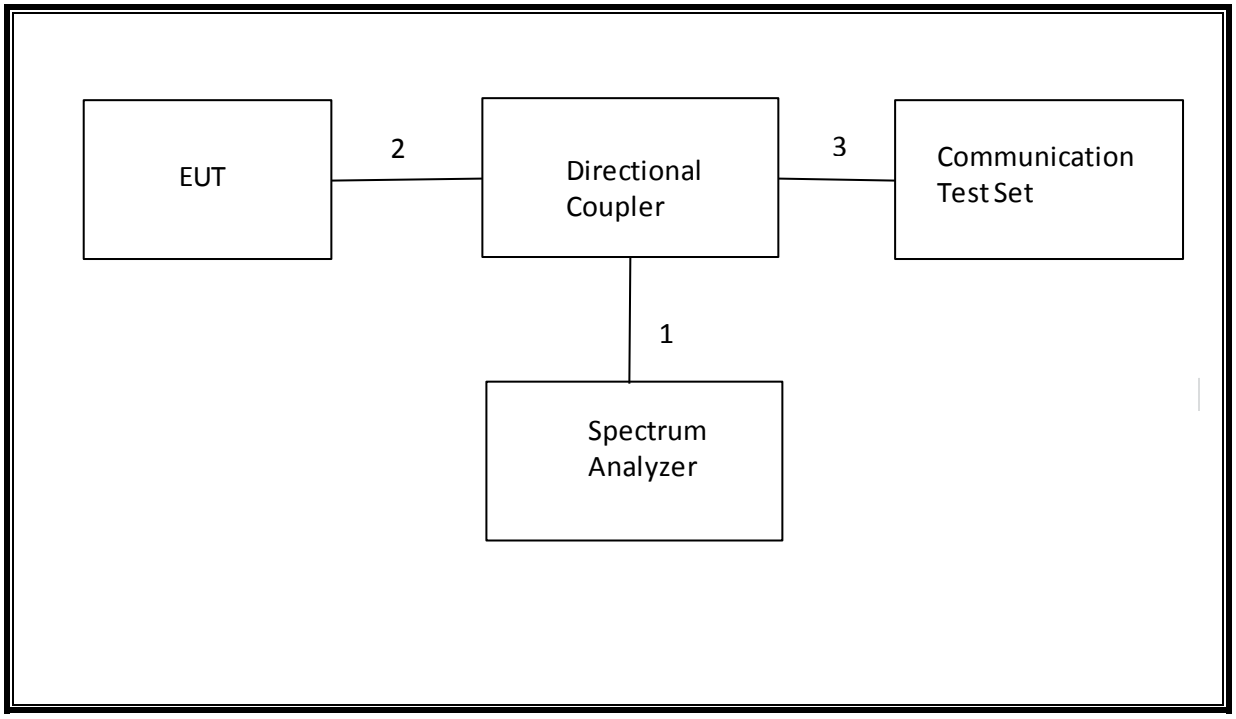
SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



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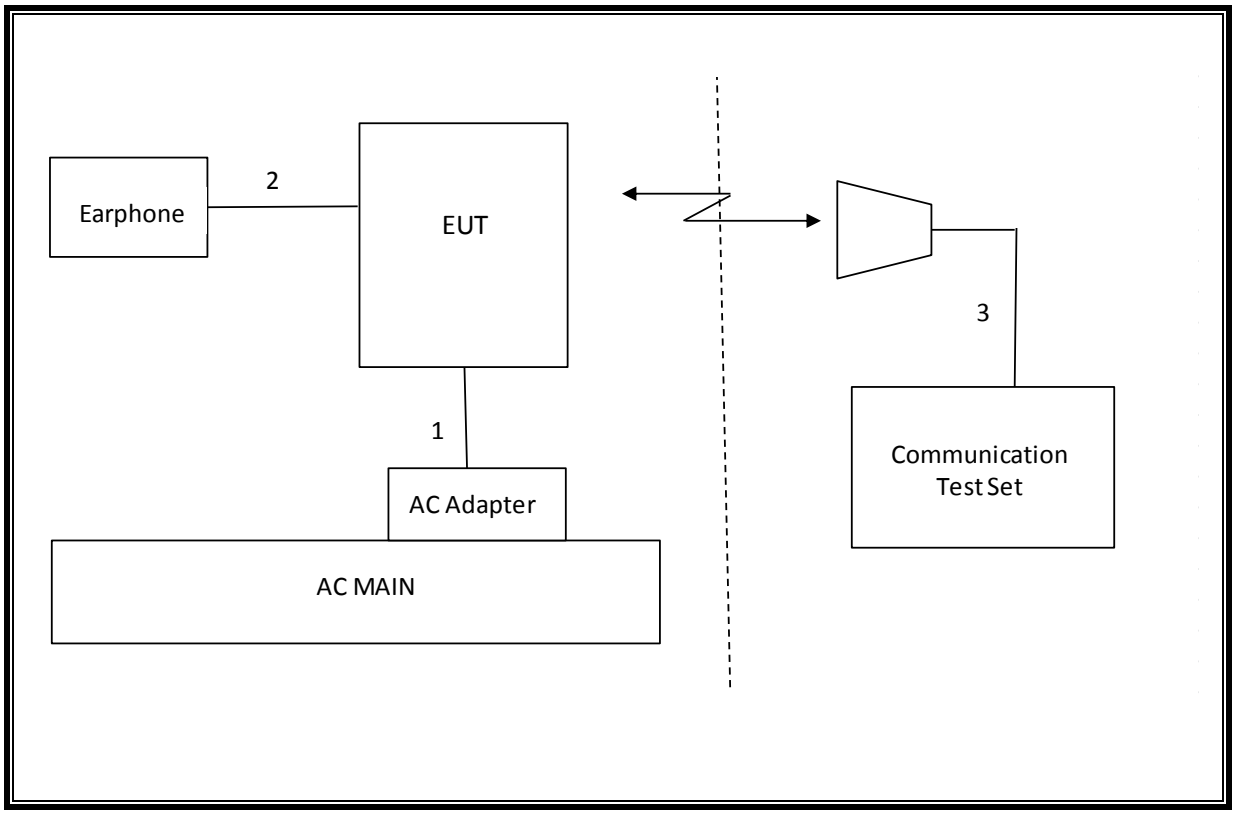
SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



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6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01179	02/26/15
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	04/22/15
Antenna, Horn, 18 GHz	EMCO	3115	C00783	10/25/15
Antenna, Horn, 18 GHz	EMCO	3115	C00784	10/25/15
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02688	CNR
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	C00930	01/09/15
Communications Test Set	R&S	CMW500	T159	07/02/15
DC power supply, 8 V @ 3 A or 15 V	Agilent / HP	E3610A	None	CNR
Vector signal generator, 6 GHz	Agilent / HP	E4438C	None	06/18/15
Antenna, Tuned Dipole 400~1000	ETS	3121C DB4	C00993	02/14/15
Directional Coupler	RF-Lambda	RFDC5M06G15	None	CNR
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00589	12/17/15

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Version 9.5, 07/22/14
Conducted Software	UL	UL EMC	Version 9.5, 05/17/14
CLT Software	UL	UL RF	Version 1.0, 02/02/15
Antenna Port Software	UL	UL RF	Version 2.1.1.1, 1/20/15

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7. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Note
2.1049	N/A	Occupied Band width (99%)	N/A	Conducted	Pass	17.94 MHz
22.917(a) 24.238(a) 27.53(g) 90.691	RSS-132(4.5.1) RSS-133(6.5.1) RSS-139(6.5.1)	Band Edge / Conducted Spurious Emission	-13dBm		Pass	-14.98 dBm
27.53(m)	RSS-199(4.5)		-25dBm		Pass	-29.3 dBm
2.1046	N/A	Conducted output power	N/A		Pass	25 dBm
27.53(m) 90.691	RSS-199(4.5)	Emission Mask			Pass	-22.3 dBm
22.355 24.235 27.54 90.213	RSS-132(4.3) RSS-133(6.3) RSS-139(6.3) RSS-199(4.3)	Frequency Stability	2.5PPM		Pass	0.003 PPM
22.913(a)(2)	RSS-132(4.4)	Effective Radiated Power	38 dBm	Radiated	Pass	20.9 dBm
27.50(c)(10)	N/A		34.77 dBm		Pass	21.2 dBm
90.635	N/A		50dBm		Pass	20.9 dBm
24.232(c) 27.50(h)(2)	RSS-133(6.4) RSS-199(4.4)	Equivalent Isotropic Radiated Power	33dBm		Pass	26.6 dBm
27.50(d)(4)	RSS-139(6.4)		30dBm		Pass	24.7 dBm
22.917(a) 24.238(a) 27.53(g)	RSS-132(4.5.1) RSS-133(6.5.1) RSS-139(6.5.1)	Radiated Spurious Emission	-13dBm		Pass	-26.6 dBm
27.53(m)	RSS-199(4.5)		-25dBm		Pass	-38.2 dBm

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8. RF CONDUCTED POWER VERIFICATION

8.1. CDMA2000

8.1.1. 1xRTT

TEST PROCEDURE

This procedure assumes the Agilest 8960 Test Set has the following applications installed and with valid license.

Application	Rev, License
CDMA2000 Mobile Test	B.13.08, L

- Call Setup > Shift & Preset
- Cell Info > Cell Parameters > System ID (SID) > 7
  > Network ID (NID) > 1
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > Please see following table or details
- FCH Service Option (SO) Setup > Please see following table or details
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
  > R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Rvs Power Ctrl > Active bits
  - Rvs Power Ctrl > All Up bits (Maximum TxPout)

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CDMA2000 OUTPUT POWER RESULT

Band	Mode	Ch	Freq. (MHz)	Avg Pwr (dBm)
BC10	RC1, SO55 (Loopback)	476	817.90	24.7
		580	820.50	24.7
		684	823.10	24.7
	RC3, SO55 (Loopback)	476	817.90	24.7
		580	820.50	24.7
		684	823.10	24.7
	RC3, SO32 (+F-SCH)	476	817.90	24.7
		580	820.50	24.7
		684	823.10	24.7

Band	Mode	Ch	Freq. (MHz)	Avg Pwr (dBm)
BC0	RC1, SO55 (Loopback)	1013	824.70	24.6
		384	836.52	24.6
		777	848.31	24.6
	RC3, SO55 (Loopback)	1013	824.70	24.6
		384	836.52	24.6
		777	848.31	24.6
	RC3, SO32 (+F-SCH)	1013	824.70	24.6
		384	836.52	24.6
		777	848.31	24.6

Band	Mode	Ch	Freq. (MHz)	Avg Pwr (dBm)
BC1	RC1, SO55 (Loopback)	25	1851.25	24.2
		600	1880.00	24.2
		1175	1908.75	24.2
	RC3, SO55 (Loopback)	25	1851.25	24.2
		600	1880.00	24.2
		1175	1908.75	24.2
	RC3, SO32 (+F-SCH)	25	1851.25	24.2
		600	1880.00	24.2
		1175	1908.75	24.2

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8.1.2. 1xEV-DO Release 0

TEST PROCEDURE

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

Application	Rev, License
1xEV-DO Terminal Test	A.09.13

EVDO Release 0 - RTAP

- Call Setup > Shift & Preset
- Call Control:
  - Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
  - Generator Info > Termination Parameters > Max Forward Packet Duration > 16 Slots
- Call Parms:
  - Cell Power > -105.5 dBm/1.23 MHz
  - Cell Band > (Select US Cellular or US PCS)
  - Channel > (Enter channel number)
  - Application Config > Enhanced Test Application Protocol > RTAP
  - RTAP Rate > 153.6 kbps
  - Rvs Power Ctrl > Active bits
  - Protocol Rel > 0 (1xEV-DO)
- Press “Start Data Connection” when “Session Open” appear in “Active Cell”
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

EVDO Release 0 - FTAP

- Call Setup > Shift & Preset
- Call Control:
  - Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
  - Generator Info > Termination Parameters > Max Forward Packet Duration > 16 Slots
- Call Parms:
  - Cell Power > -105.5 dBm/1.23 MHz
  - Cell Band > (Select US Cellular or US PCS)
  - Channel > (Enter channel number)
  - Application Config > Enhanced Test Application Protocol > FTAP (default)
  - FTAP Rate > 307.2 kbps (2 Slot, QPSK)
  - Rvs Power Ctrl > Active bits
  - Protocol Rel > 0 (1xEV-DO)
- Press “Start Data Connection” when “Session Open” appear in “Active Cell”
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

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1XEVDO REL 0 OUTPUT POWER RESULT

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC10	307.2 kbps (2 slot, QPSK)	476	817.90	25.0
		580	820.50	24.9
		684	823.10	25.0

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC0	307.2 kbps (2 slot, QPSK)	1013	824.70	24.5
		384	836.52	24.6
		777	848.31	24.4

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC1	307.2 kbps (2 slot, QPSK)	25	1851.25	24.2
		600	1880.00	24.2
		1175	1908.75	24.2

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8.1.3. 1xEV-DO Rev. A

TEST PROCEDURE

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

Application	Rev, License
1xEV-DO Terminal Test	A.09.13

EVDO Release A – RETAP

- Call Setup > Shift & Preset
- Cell Power > -60 dBm/1.23 MHz
- Protocol Rev > A (1xEV-DO-A)
- Application Config > Enhanced Test Application Protocol > RETAP
- R-Data Pkt Size > 4096
- Protocol Subtype Config > Release A Physical Layer Subtype > Subtype 2

> PL Subtype 2 Access Channel MAC Subtype > Default (Subtype 0)

- Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
- Generator Info > Termination Parameters > Max Forward Packet Duration >16 Slots > ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl > All Up bits (to get the maximum power)

EVDO Release A - FETAP

- Call Setup > Shift & Preset
- Cell Power > -60 dBm/1.23 MHz
- Protocol Rev > A (1xEV-DO-A)
- Application Config > Enhanced Test Application Protocol > FETAP
- F-Traffic Format > 4 (1024, 2,128) Canonical (307.2k, QPSK)
- Protocol Subtype Config > Release A Physical Layer Subtype > Subtype 2

> PL Subtype 2 Access Channel MAC Subtype > Default (Subtype 0)

- Access Network Info > Cell Parameters > Sector ID > 00000000 > Subnet Mask > 0
- Generator Info > Termination Parameters > Max Forward Packet Duration >16 Slots > ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl > All Up bits (to get the maximum power)

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1xEVDO REV A OUTPUT RESULT

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC10	307.2 kbps (2 slot, QPSK)	476	817.90	25.0
		580	820.50	24.9
		684	823.10	25.0

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC0	307.2 kbps (2 slot, QPSK)	1013	824.70	24.5
		384	836.52	24.6
		777	848.31	24.4

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC1	307.2 kbps (2 slot, QPSK)	25	1851.25	24.2
		600	1880.00	24.2
		1175	1908.75	24.2

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8.2. LTE OUTPUT VERIFICATION

8.2.1. LTE OUTPUT RESULT

LTE Band 2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18700	18900	19100
						1860 MHz	1880 MHz	1900 MHz
LTE Band 2	20	QPSK	1	0	0	23.70	23.62	23.70
			1	49	0	23.70	23.40	23.70
			1	99	0	23.62	23.34	23.70
			50	0	1	22.57	22.68	22.70
			50	24	1	22.50	22.52	22.59
			50	50	1	22.47	22.49	22.54
			100	0	1	22.64	22.49	22.57
		16QAM	1	0	1	22.55	22.70	22.70
			1	49	1	22.70	22.70	22.70
			1	99	1	22.70	22.70	22.21
			50	0	2	21.54	21.67	21.62
			50	24	2	21.44	21.47	21.55
			50	50	2	21.56	21.51	21.55
			100	0	2	21.65	21.44	21.55
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18675	18900	19125
						1857.5 MHz	1880 MHz	1902.5 MHz
LTE Band 2	15	QPSK	1	0	0	23.41	23.55	23.34
			1	37	0	23.41	23.69	23.43
			1	74	0	23.53	23.29	23.41
			36	0	1	22.54	22.62	22.70
			36	20	1	22.54	22.47	22.59
			36	39	1	22.51	22.42	22.66
			75	0	1	22.59	22.44	22.61
		16QAM	1	0	1	22.70	22.70	22.70
			1	37	1	22.70	22.70	22.70
			1	74	1	22.49	22.70	22.70
			36	0	2	21.62	21.61	21.70
			36	20	2	21.51	21.53	21.63
			36	39	2	21.33	21.47	21.56
			75	0	2	21.50	21.46	21.58

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18650	18900	19150
						1855 MHz	1880 MHz	1905 MHz
LTE Band 2	10	QPSK	1	0	0	23.52	23.70	23.59
			1	25	0	23.51	23.48	23.52
			1	49	0	23.29	23.35	23.47
			25	0	1	22.49	22.60	22.64
			25	12	1	22.48	22.52	22.60
			25	25	1	22.51	22.50	22.52
			50	0	1	22.53	22.46	22.67
		16QAM	1	0	1	22.70	22.70	22.70
			1	25	1	22.23	22.70	22.48
			1	49	1	22.51	22.69	22.36
			25	0	2	21.45	21.56	21.70
			25	12	2	21.52	21.48	21.65
			25	25	2	21.36	21.51	21.58
			50	0	2	21.42	21.44	21.60
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18625	18900	19175
						1852.5 MHz	1880 MHz	1907.5 MHz
LTE Band 2	5	QPSK	1	0	0	23.31	23.48	23.63
			1	12	0	23.57	23.70	23.70
			1	24	0	23.26	23.41	23.53
			12	0	1	22.48	22.44	22.66
			12	7	1	22.49	22.43	22.52
			12	13	1	22.49	22.40	22.51
			25	0	1	22.48	22.46	22.58
		16QAM	1	0	1	22.33	22.66	22.70
			1	12	1	22.60	22.68	22.70
			1	24	1	22.26	22.44	22.70
			12	0	2	21.42	21.48	21.67
			12	7	2	21.51	21.63	21.57
			12	13	2	21.53	21.49	21.61
			25	0	2	21.62	21.42	21.32

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18615	18900	19185
						1851.5 MHz	1880 MHz	1908.5 MHz
LTE Band 2	3	QPSK	1	0	0	23.42	23.44	23.39
			1	8	0	23.70	23.44	23.61
			1	14	0	23.44	23.45	23.37
			8	0	1	22.50	22.43	22.51
			8	4	1	22.58	22.44	22.50
			8	7	1	22.49	22.44	22.49
			15	0	1	22.49	22.46	22.57
		16QAM	1	0	1	22.50	22.70	22.70
			1	8	1	22.57	22.70	22.70
			1	14	1	22.70	22.47	22.70
			8	0	2	21.46	21.30	21.20
			8	4	2	21.51	21.46	21.50
			8	7	2	21.59	21.26	21.68
			15	0	2	21.55	21.45	21.54
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18607	18900	19193
						1850.7 MHz	1880 MHz	1909.3 MHz
LTE Band 2	1.4	QPSK	1	0	0	23.43	23.22	23.47
			1	3	0	23.48	23.51	23.29
			1	5	0	23.45	23.36	23.39
			3	0	0	23.37	23.36	23.45
			3	1	0	23.40	23.36	23.55
			3	3	0	23.42	23.40	23.51
			6	0	1	22.47	22.36	22.54
		16QAM	1	0	1	22.70	22.43	22.70
			1	3	1	22.70	21.97	22.70
			1	5	1	22.70	22.70	22.70
			3	0	1	22.34	22.61	22.51
			3	1	1	22.56	22.12	22.54
			3	3	1	22.65	22.12	21.70
			6	0	2	21.66	21.70	21.70

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LTE Band 4

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20050	20175	20300
						1720 MHz	1732.5 MHz	1745 MHz
LTE Band 4	20	QPSK	1	0	0	23.70	23.70	23.70
			1	49	0	23.70	23.70	23.70
			1	99	0	23.70	23.47	23.70
			50	0	1	22.70	22.70	22.70
			50	24	1	22.70	22.70	22.70
			50	50	1	22.70	22.69	22.69
			100	0	1	22.70	22.70	22.70
		16QAM	1	0	1	22.70	22.64	22.70
			1	49	1	22.70	22.62	22.70
			1	99	1	22.70	22.35	22.70
			50	0	2	21.70	21.70	21.70
			50	24	2	21.70	21.70	21.70
			50	50	2	21.70	21.70	21.70
			100	0	2	21.70	21.70	21.70
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20025	20175	20325
						1717.5 MHz	1732.5 MHz	1747.5 MHz
LTE Band 4	15	QPSK	1	0	0	23.62	23.63	23.67
			1	37	0	23.69	23.62	23.70
			1	74	0	23.70	23.50	23.38
			36	0	1	22.70	22.70	22.70
			36	20	1	22.70	22.70	22.70
			36	39	1	22.70	22.70	22.69
			75	0	1	22.70	22.70	22.70
		16QAM	1	0	1	22.70	22.70	22.70
			1	37	1	22.70	22.70	22.70
			1	74	1	22.60	22.70	22.70
			36	0	2	21.70	21.70	21.70
			36	20	2	21.70	21.70	21.58
			36	39	2	21.70	21.70	21.70
			75	0	2	21.65	21.70	21.70

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20000	20175	20350
						1715 MHz	1732.5 MHz	1750 MHz
LTE Band 4	10	QPSK	1	0	0	23.62	23.57	23.56
			1	25	0	23.56	23.70	23.70
			1	49	0	23.51	23.44	23.55
			25	0	1	22.70	22.70	22.70
			25	12	1	22.70	22.70	22.70
			25	25	1	22.68	22.70	22.70
			50	0	1	22.70	22.68	22.70
		16QAM	1	0	1	22.70	22.70	22.70
			1	25	1	22.70	22.70	22.70
			1	49	1	22.70	22.70	22.70
			25	0	2	21.70	21.70	21.70
			25	12	2	21.68	21.70	21.70
			25	25	2	21.70	21.70	21.70
			50	0	2	21.65	21.70	21.70
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						19975	20175	20375
						1712.5 MHz	1732.5 MHz	1752.5 MHz
LTE Band 4	5	QPSK	1	0	0	23.33	23.70	23.70
			1	12	0	23.41	23.70	23.70
			1	24	0	23.38	23.70	23.70
			12	0	1	22.62	22.70	22.70
			12	7	1	22.62	22.70	22.70
			12	13	1	22.64	22.70	22.70
			25	0	1	22.68	22.68	22.67
		16QAM	1	0	1	22.28	22.70	22.70
			1	12	1	22.70	22.70	22.70
			1	24	1	22.70	22.62	22.70
			12	0	2	21.64	21.70	21.70
			12	7	2	21.70	21.70	21.70
			12	13	2	21.70	21.70	21.70
			25	0	2	21.70	21.70	21.68

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						19965	20175	20385
						1711.5 MHz	1732.5 MHz	1753.5 MHz
LTE Band 4	3	QPSK	1	0	0	23.52	23.59	23.48
			1	8	0	23.54	23.70	23.70
			1	14	0	23.48	23.53	23.57
			8	0	1	22.62	22.70	22.70
			8	4	1	22.62	22.70	22.70
			8	7	1	22.61	22.70	22.66
			15	0	1	22.63	22.70	22.70
		16QAM	1	0	1	22.70	22.70	22.37
			1	8	1	22.70	22.70	22.70
			1	14	1	22.70	22.70	22.70
			8	0	2	21.70	21.49	21.70
			8	4	2	21.70	21.46	21.69
			8	7	2	21.69	21.29	21.70
			15	0	2	21.70	21.70	21.65
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						19957	20175	20393
						1710.7 MHz	1732.5 MHz	1754.3 MHz
LTE Band 4	1.4	QPSK	1	0	0	23.44	23.62	23.50
			1	3	0	23.41	23.58	23.68
			1	5	0	23.48	23.70	23.47
			3	0	0	23.59	23.61	23.54
			3	1	0	23.64	23.59	22.70
			3	3	0	23.52	23.62	22.70
			6	0	1	22.50	22.63	22.70
		16QAM	1	0	1	22.70	22.70	22.70
			1	3	1	22.70	22.70	22.70
			1	5	1	22.70	22.70	22.68
			3	0	1	22.46	22.68	22.25
			3	1	1	22.65	21.70	22.68
			3	3	1	22.63	21.70	21.70
			6	0	2	21.47	21.70	21.50

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LTE Band 5

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20450	20525	20600
						829 MHz	836.5 MHz	844 MHz
LTE Band 5	10	QPSK	1	0	0	23.92	23.92	23.86
			1	25	0	23.92	23.94	23.95
			1	49	0	23.93	23.77	23.91
			25	0	1	22.95	22.91	22.70
			25	12	1	22.94	22.93	22.98
			25	25	1	22.95	22.97	22.88
			50	0	1	22.94	22.93	22.98
		16QAM	1	0	1	22.70	22.70	22.70
			1	25	1	22.70	22.70	22.70
			1	49	1	22.70	22.70	22.70
			25	0	2	21.88	22.00	22.00
			25	12	2	21.99	21.98	22.00
			25	25	2	21.90	22.00	21.91
			50	0	2	21.88	21.99	22.00

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20425	20525	20625
						826.5 MHz	836.5 MHz	846.5 MHz
LTE Band 5	5	QPSK	1	0	0	23.69	23.83	23.92
			1	12	0	23.92	23.70	23.70
			1	24	0	23.78	23.91	23.82
			12	0	1	22.84	22.82	22.87
			12	7	1	22.87	22.90	22.88
			12	13	1	22.92	22.90	22.97
			25	0	1	22.88	22.89	22.82
		16QAM	1	0	1	22.59	22.95	22.72
			1	12	1	22.70	22.70	22.70
			1	24	1	22.70	22.85	22.70
			12	0	2	21.92	21.94	21.84
			12	7	2	21.81	22.00	21.99
			12	13	2	21.94	22.00	21.89
			25	0	2	21.95	21.91	21.92

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20415	20525	20635
						825.5 MHz	836.5 MHz	847.5 MHz
LTE Band 5	3	QPSK	1	0	0	23.76	24.00	23.82
			1	8	0	23.81	24.00	23.89
			1	14	0	23.81	23.86	23.88
			8	0	1	22.90	22.84	22.85
			8	4	1	22.88	22.85	22.85
			8	7	1	22.83	22.86	22.94
			15	0	1	22.89	22.96	22.89
		16QAM	1	0	1	22.70	22.70	22.70
			1	8	1	22.70	22.70	22.93
			1	14	1	22.70	22.70	22.95
			8	0	2	21.74	21.47	22.00
			8	4	2	21.64	21.73	21.98
			8	7	2	21.96	21.82	22.00
			15	0	2	22.00	22.00	21.90
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20407	20525	20643
						824.7 MHz	836.5 MHz	848.3 MHz
LTE Band 5	1.4	QPSK	1	0	0	23.72	23.87	23.90
			1	3	0	23.99	23.97	23.86
			1	5	0	23.94	23.92	23.76
			3	0	0	23.89	23.94	24.00
			3	1	0	23.95	23.85	23.90
			3	3	0	23.91	23.94	23.70
			6	0	1	22.89	22.89	22.70
		16QAM	1	0	1	22.70	22.70	22.70
			1	3	1	22.70	23.00	22.86
			1	5	1	22.70	22.70	22.70
			3	0	1	22.60	22.70	22.70
			3	1	1	22.76	22.70	22.70
			3	3	1	22.89	22.70	22.70
			6	0	2	21.80	21.72	22.00

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LTE Band 12

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23060	23095	23130
						704 MHz	707.5 MHz	711 MHz
LTE Band 12	10	QPSK	1	0	0	23.98	24.00	24.00
			1	25	0	24.00	24.00	23.97
			1	49	0	24.00	23.97	24.00
			25	0	1	22.94	22.99	23.00
			25	12	1	22.99	22.95	22.99
			25	25	1	23.00	22.92	23.00
			50	0	1	22.92	22.96	23.00
		16QAM	1	0	1	23.00	23.00	23.00
			1	25	1	23.00	22.96	23.00
			1	49	1	23.00	23.00	23.00
			25	0	2	21.91	22.00	22.00
			25	12	2	22.00	22.00	22.00
			25	25	2	22.00	21.93	22.00
			50	0	2	21.89	21.98	22.00
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23035	23095	23155
						701.5 MHz	707.5 MHz	713.5 MHz
LTE Band 12	5	QPSK	1	0	0	24.00	23.94	24.00
			1	12	0	24.00	23.92	24.00
			1	24	0	23.99	23.92	24.00
			12	0	1	23.00	23.00	22.98
			12	7	1	23.00	23.00	23.00
			12	13	1	23.00	23.00	23.00
			25	0	1	23.00	23.00	23.00
		16QAM	1	0	1	23.00	23.00	22.91
			1	12	1	23.00	23.00	23.00
			1	24	1	23.00	22.68	23.00
			12	0	2	22.00	21.94	21.69
			12	7	2	22.00	22.00	21.86
			12	13	2	21.94	22.00	22.00
			25	0	2	21.98	22.00	22.00

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23025	23095	23165
						700.5 MHz	707.5 MHz	714.5 MHz
LTE Band 12	3	QPSK	1	0	0	23.87	24.00	24.00
			1	8	0	24.00	23.92	24.00
			1	14	0	23.90	24.00	24.00
			8	0	1	23.00	23.00	23.00
			8	4	1	23.00	23.00	23.00
			8	7	1	22.98	23.00	23.00
			15	0	1	22.97	23.00	23.00
		16QAM	1	0	1	23.00	23.00	22.92
			1	8	1	23.00	23.00	23.00
			1	14	1	22.60	23.00	22.66
			8	0	2	22.00	21.91	22.00
			8	4	2	22.00	21.84	22.00
			8	7	2	22.00	21.93	22.00
			15	0	2	21.96	22.00	22.00
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23017	23095	23173
						699.7 MHz	707.5 MHz	715.3 MHz
LTE Band 12	1.4	QPSK	1	0	0	23.88	23.86	23.98
			1	3	0	24.00	23.91	24.00
			1	5	0	24.00	24.00	24.00
			3	0	0	24.00	24.00	24.00
			3	1	0	24.00	24.00	24.00
			3	3	0	24.00	24.00	24.00
			6	0	1	23.00	23.00	23.00
		16QAM	1	0	1	23.00	22.68	23.00
			1	3	1	23.00	23.00	23.00
			1	5	1	23.00	23.00	23.00
			3	0	1	22.68	22.98	23.00
			3	1	1	22.72	22.75	23.00
			3	3	1	22.86	22.86	23.00
			6	0	2	22.00	21.88	22.00

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LTE Band 25

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26140	26365	26590
						1860 MHz	1882.5 MHz	1905 MHz
LTE Band 25	20	QPSK	1	0	0	23.70	23.60	23.70
			1	49	0	23.70	23.61	23.46
			1	99	0	23.70	23.55	23.35
			50	0	1	22.64	22.70	22.70
			50	25	1	22.68	22.68	22.68
			50	49	1	22.57	22.61	22.60
			100	0	1	22.66	22.66	22.69
		16QAM	1	0	1	22.48	22.69	22.70
			1	49	1	22.35	22.50	22.53
			1	99	1	22.30	22.70	22.64
			50	0	2	21.70	21.70	21.66
			50	25	2	21.70	21.70	21.59
			50	49	2	21.70	21.70	21.48
			100	0	2	21.60	21.61	21.70
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26115	26365	26615
						1857.5 MHz	1882.5 MHz	1907.5 MHz
LTE Band 25	15	QPSK	1	0	0	23.70	23.70	23.70
			1	37	0	23.70	23.70	23.62
			1	74	0	23.50	23.54	23.24
			36	0	1	22.62	22.67	22.68
			36	18	1	22.57	22.64	22.62
			36	35	1	22.61	22.65	22.67
			75	0	1	22.61	22.66	22.59
		16QAM	1	0	1	22.48	22.69	22.70
			1	37	1	22.35	22.50	22.53
			1	74	1	22.30	22.70	22.64
			36	0	2	21.45	21.70	21.65
			36	18	2	21.60	21.70	21.61
			36	35	2	21.63	21.63	21.65
			75	0	2	21.54	21.60	21.62

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26090	26365	26640
						1855 MHz	1882.5 MHz	1910 MHz
LTE Band 25	10	QPSK	1	0	0	23.65	23.70	23.45
			1	24	0	23.47	23.46	23.47
			1	49	0	23.48	23.58	23.35
			25	0	1	22.48	22.63	22.51
			25	12	1	22.54	22.59	22.53
			25	24	1	22.51	22.63	22.47
			50	0	1	22.54	22.55	22.59
		16QAM	1	0	1	22.49	22.70	22.70
			1	24	1	22.40	22.56	22.63
			1	49	1	22.32	22.69	22.63
			25	0	2	21.46	21.70	21.70
			25	12	2	21.49	21.62	21.70
			25	24	2	21.48	21.45	21.58
			50	0	2	21.45	21.56	21.57
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26065	26365	26665
						1852.5 MHz	1882.5 MHz	1912.5 MHz
LTE Band 25	5	QPSK	1	0	0	23.35	23.68	23.55
			1	12	0	23.37	23.70	23.70
			1	24	0	23.07	23.49	23.45
			12	0	1	22.56	22.52	22.63
			12	6	1	22.42	22.55	22.60
			12	11	1	22.48	22.56	22.54
			25	0	1	22.47	22.61	22.56
		16QAM	1	0	1	22.50	22.70	22.70
			1	12	1	22.40	22.56	22.63
			1	24	1	22.32	22.69	22.63
			12	0	2	21.37	21.70	21.66
			12	6	2	21.54	21.61	21.61
			12	11	2	21.47	21.50	21.64
			25	0	2	21.56	21.61	21.55

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26055	26365	26675
						1851.5 MHz	1882.5 MHz	1913.5 MHz
LTE Band 25	3	QPSK	1	0	0	23.58	23.39	23.30
			1	7	0	23.53	23.70	23.42
			1	14	0	23.48	23.58	23.19
			6	0	1	22.62	22.48	22.44
			6	3	1	22.60	22.67	22.39
			6	5	1	22.52	22.58	22.47
			15	0	1	22.60	22.66	22.39
		16QAM	1	0	1	22.69	22.70	22.70
			1	7	1	22.69	22.67	22.63
			1	14	1	22.70	22.69	22.63
			6	0	2	21.70	21.13	21.63
			6	3	2	21.54	21.39	21.57
			6	5	2	21.64	21.54	21.57
			15	0	2	21.59	21.60	21.47
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26047	26365	26683
						1850.7 MHz	1882.5 MHz	1914.3 MHz
LTE Band 25	1.4	QPSK	1	0	0	23.60	23.35	23.19
			1	2	0	23.70	23.39	23.29
			1	5	0	23.65	23.52	23.43
			3	0	0	23.69	23.46	23.38
			3	1	0	23.57	23.55	23.51
			3	2	0	23.68	23.64	23.47
			6	0	1	22.66	22.70	22.44
		16QAM	1	0	1	22.69	22.70	22.70
			1	2	1	22.69	22.67	22.63
			1	5	1	22.70	22.69	22.63
			3	0	1	22.46	22.70	22.12
			3	1	1	22.62	22.40	22.55
			3	2	1	22.63	22.70	22.56
			6	0	2	21.45	21.70	21.32

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LTE Band 26

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26765	26865	26965
						821.5 MHz	831.5 MHz	841.5 MHz
LTE Band 26	15	QPSK	1	0	0	24.00	23.91	23.85
			1	37	0	24.00	24.00	24.00
			1	74	0	24.00	23.75	23.82
			36	0	1	22.87	22.93	22.79
			36	20	1	22.83	22.82	22.73
			36	39	1	22.76	22.75	22.80
			75	0	1	22.76	22.86	22.78
		16QAM	1	0	1	23.00	23.00	23.00
			1	37	1	23.00	23.00	23.00
			1	74	1	23.00	23.00	23.00
			36	0	2	21.81	21.98	21.65
			36	20	2	21.73	21.92	21.60
			36	39	2	21.71	21.86	21.69
			75	0	2	21.84	21.95	21.77
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26740	26865	26990
						819 MHz	831.5 MHz	844 MHz
LTE Band 26	10	QPSK	1	0	0	23.71	23.99	23.82
			1	25	0	23.90	23.86	23.81
			1	49	0	23.71	23.87	23.75
			25	0	1	22.84	22.90	22.92
			25	12	1	22.82	22.84	22.89
			25	25	1	22.78	22.80	22.82
			50	0	1	22.89	22.87	22.89
		16QAM	1	0	1	23.00	23.00	22.98
			1	25	1	23.00	23.00	23.00
			1	49	1	23.00	23.00	22.77
			25	0	2	21.80	21.98	22.00
			25	12	2	21.84	21.85	22.00
			25	25	2	21.74	21.90	21.98
			50	0	2	21.76	21.91	21.91

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26715	26865	27015
						816.5 MHz	831.5 MHz	846.5 MHz
LTE Band 26	5	QPSK	1	0	0	23.70	24.00	24.00
			1	12	0	24.00	24.00	24.00
			1	24	0	23.78	23.88	23.84
			12	0	1	22.82	22.89	22.84
			12	7	1	22.87	22.85	22.89
			12	13	1	22.83	22.82	22.84
			25	0	1	22.84	22.82	22.85
		16QAM	1	0	1	23.00	22.92	23.00
			1	12	1	23.00	23.00	23.00
			1	24	1	22.95	22.85	23.00
			12	0	2	21.79	21.97	22.00
			12	7	2	21.82	21.98	21.97
			12	13	2	21.73	21.93	21.95
			25	0	2	22.00	21.81	21.80
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26705	26865	27025
						815.5 MHz	831.5 MHz	847.5 MHz
LTE Band 26	3	QPSK	1	0	0	23.81	23.91	23.79
			1	8	0	24.00	24.00	24.00
			1	14	0	23.87	23.80	23.83
			8	0	1	22.74	22.88	22.76
			8	4	1	22.82	22.85	22.86
			8	7	1	22.79	22.87	22.81
			15	0	1	22.85	22.86	22.91
		16QAM	1	0	1	23.00	23.00	22.27
			1	8	1	23.00	23.00	23.00
			1	14	1	23.00	22.95	22.14
			8	0	2	21.80	21.55	22.00
			8	4	2	21.71	21.56	21.99
			8	7	2	21.79	21.47	21.97
			15	0	2	21.88	21.87	21.77

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26697	26865	27033
						814.7 MHz	831.5 MHz	848.3 MHz
LTE Band 26	1.4	QPSK	1	0	0	23.75	24.00	23.78
			1	3	0	23.72	23.87	23.84
			1	5	0	23.89	23.77	23.78
			3	0	0	23.82	23.87	23.90
			3	1	0	23.79	23.86	23.90
			3	3	0	23.89	23.92	23.93
			6	0	1	22.86	22.78	22.91
		16QAM	1	0	1	23.00	23.00	22.71
			1	3	1	23.00	23.00	23.00
			1	5	1	23.00	23.00	22.70
			3	0	1	22.96	23.00	22.92
			3	1	1	22.69	22.89	22.67
			3	3	1	22.85	23.00	23.00
			6	0	2	21.68	21.61	21.91

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LTE Band 41

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39750	40620	41490
						2506 MHz	2593 MHz	2680 MHz
LTE Band 41	20	QPSK	1	0	0	24.40	24.40	24.40
			1	49	0	24.37	24.40	24.40
			1	99	0	24.40	24.40	24.40
			50	0	1	23.40	23.40	23.40
			50	24	1	23.40	23.40	23.40
			50	50	1	23.39	23.40	23.40
			100	0	1	23.35	23.38	23.40
		16QAM	1	0	1	23.40	23.40	23.40
			1	49	1	23.28	22.60	23.40
			1	99	1	23.03	22.57	23.40
			50	0	2	22.40	22.38	22.40
			50	24	2	22.39	22.40	22.40
			50	50	2	22.37	22.40	22.40
			100	0	2	22.40	22.40	22.40
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39725	40620	41515
						2503.5 MHz	2593 MHz	2682.5 MHz
LTE Band 41	15	QPSK	1	0	0	24.40	24.40	24.40
			1	37	0	24.40	24.40	24.40
			1	74	0	24.40	24.40	24.40
			36	0	1	23.21	23.40	23.40
			36	20	1	23.30	23.39	23.40
			36	39	1	23.24	23.35	23.40
			75	0	1	23.31	23.33	23.40
		16QAM	1	0	1	23.40	23.08	23.40
			1	37	1	23.40	23.27	23.40
			1	74	1	23.40	22.86	23.40
			36	0	2	22.33	22.21	22.40
			36	20	2	22.40	22.11	22.40
			36	39	2	22.32	22.25	22.39
			75	0	2	22.40	22.34	22.40

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Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39700	40620	41540
						2501 MHz	2593 MHz	2685 MHz
LTE Band 41	10	QPSK	1	0	0	24.28	24.40	24.40
			1	25	0	24.07	24.28	24.31
			1	49	0	24.34	24.40	24.40
			25	0	1	23.23	23.40	23.40
			25	12	1	23.27	23.34	23.40
			25	25	1	23.36	23.32	23.40
			50	0	1	23.33	23.24	23.40
		16QAM	1	0	1	23.40	23.18	23.40
			1	25	1	23.40	23.17	23.40
			1	49	1	23.40	23.02	23.40
			25	0	2	22.40	22.39	22.40
			25	12	2	22.40	22.33	22.40
			25	25	2	22.38	22.34	22.40
			50	0	2	22.29	22.40	22.40
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39675	40620	41565
						2498.5 MHz	2593 MHz	2687.5 MHz
LTE Band 41	5	QPSK	1	0	0	24.12	24.18	24.40
			1	12	0	24.40	24.40	24.40
			1	24	0	24.25	24.15	24.22
			12	0	1	23.27	23.20	23.40
			12	7	1	23.27	23.30	23.40
			12	13	1	23.32	23.40	23.40
			25	0	1	23.33	23.21	23.40
		16QAM	1	0	1	23.40	22.63	23.25
			1	12	1	22.99	22.85	22.86
			1	24	1	23.40	22.66	23.33
			12	0	2	22.15	22.40	22.40
			12	7	2	22.40	22.31	22.40
			12	13	2	22.40	22.40	22.40
			25	0	2	22.35	22.40	22.40

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9. PEAK TO AVERAGE RATIO

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

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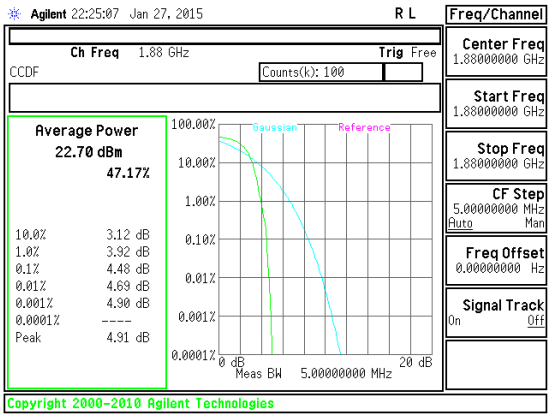
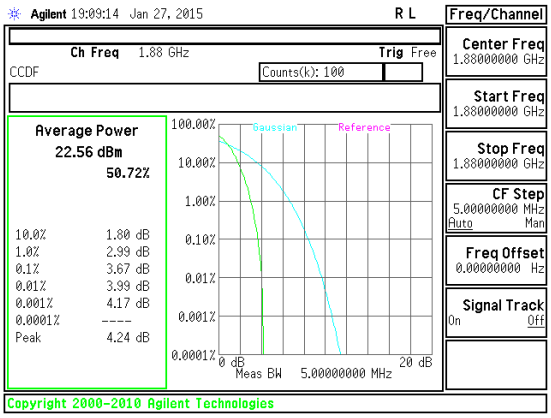
9.1. CONDUCTED PEAK TO AVERAGE RESULT

CDMA

Band		
BC1 EVDO REL. 0	 Band BC1 EVDO Rel. 0 Mid channel	 Band BC1 1xRTT Mid channel

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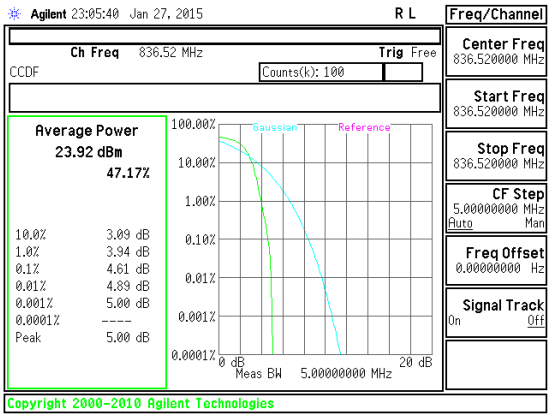
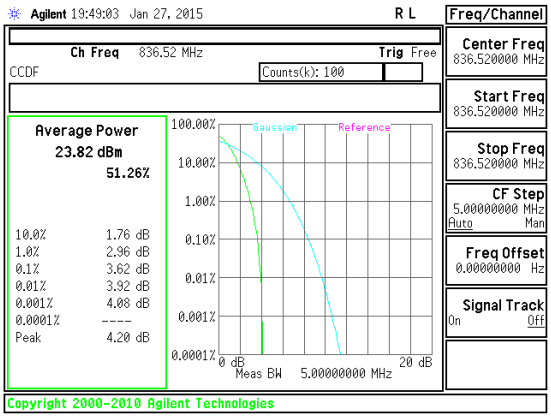
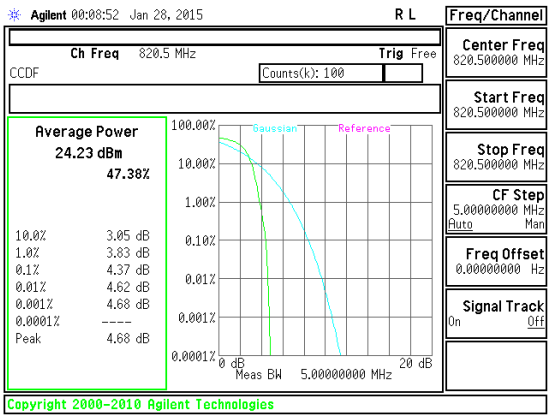
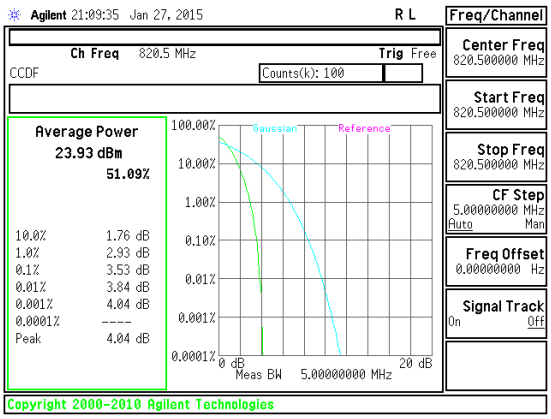
Band BC0 EVDO REL. 0	 Band BC0 EVDO Rel. 0 Mid channel	 Band BC0 1xRTT Mid channel

Band BC10 EVDO REL. 0	 Band BC10 EVDO Rel. 0 Mid channel	 Band BC10 1xRTT Mid channel

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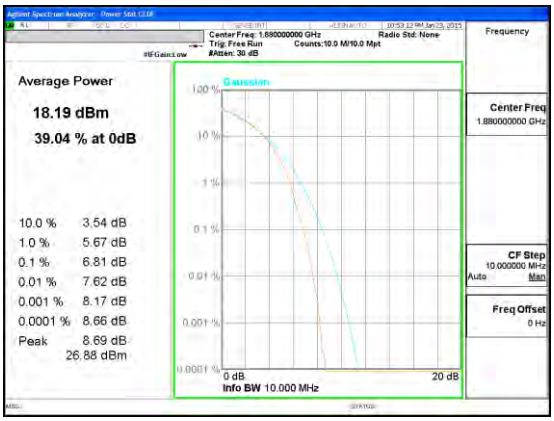
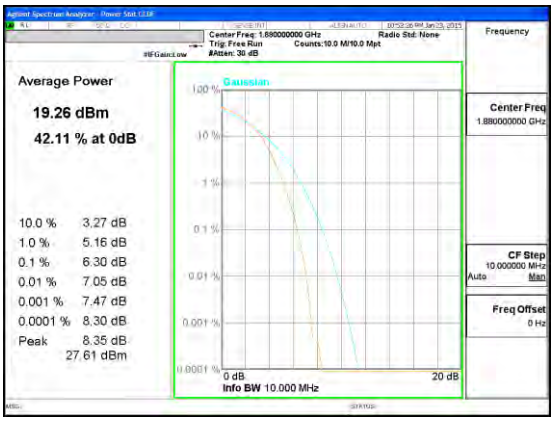
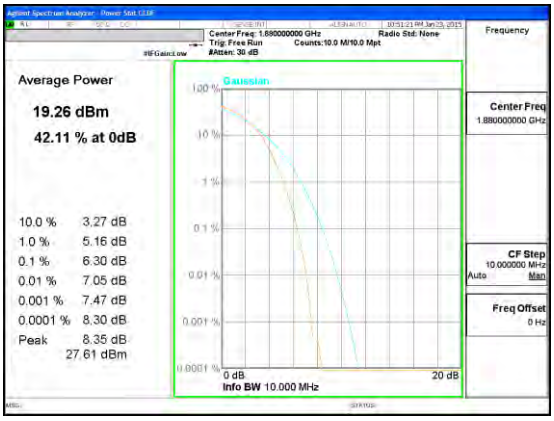
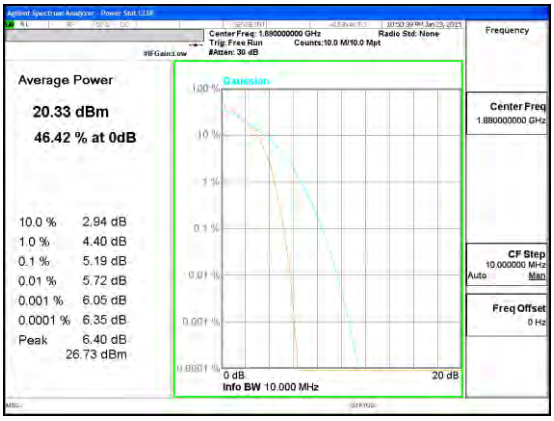
LTE Band 2

Band LTE2 20MHz 16QAM	 Band LTE2 20MHz 16QAM Mid channel	 Band LTE2 20MHz QPSK Mid channel

Band LTE2 15MHz 16QAM	 Band LTE2 15MHz 16QAM Mid channel	 Band LTE2 15MHz QPSK Mid channel

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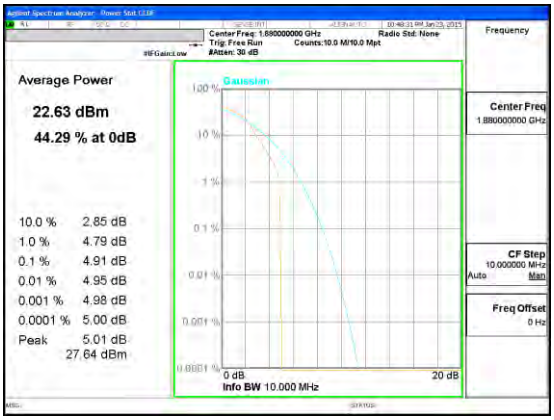
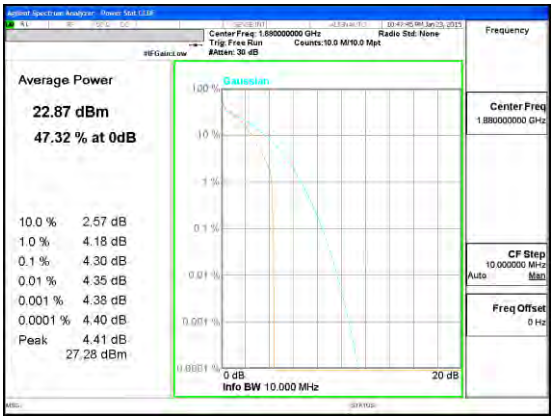
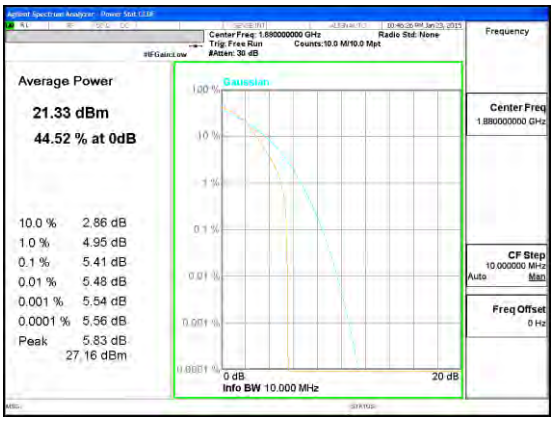
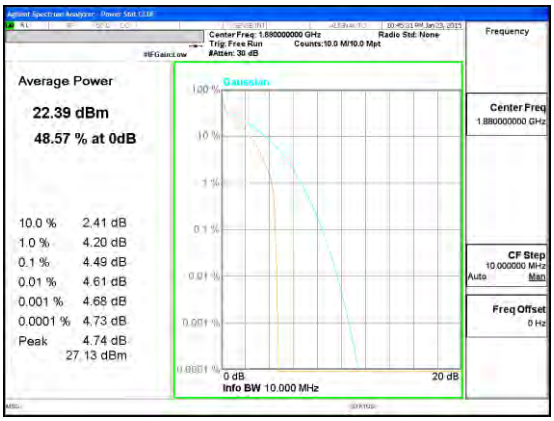
Band LTE2 10MHz 16QAM	 Band LTE2 10MHz 16QAM Mid channel	 Band LTE2 10MHz QPSK Mid channel

Band LTE2 5MHz 16QAM	 Band LTE2 5MHz 16QAM Mid channel	 Band LTE2 5MHz QPSK Mid channel

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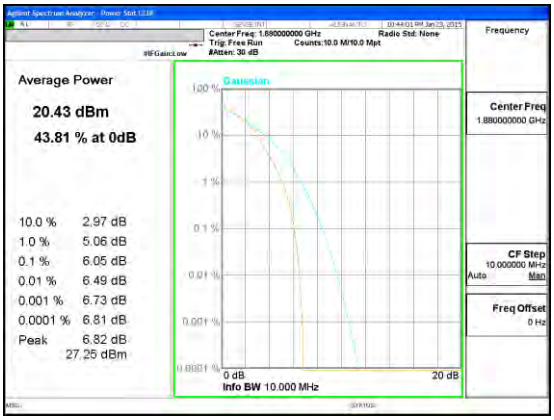
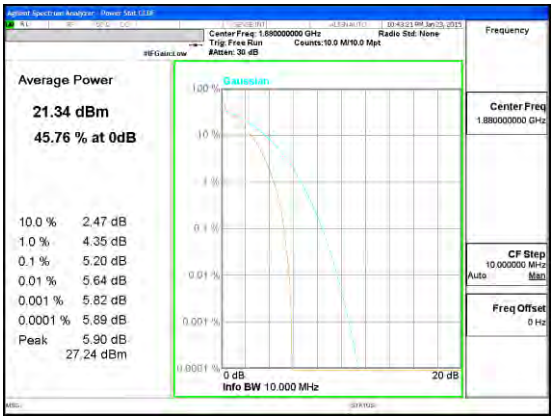
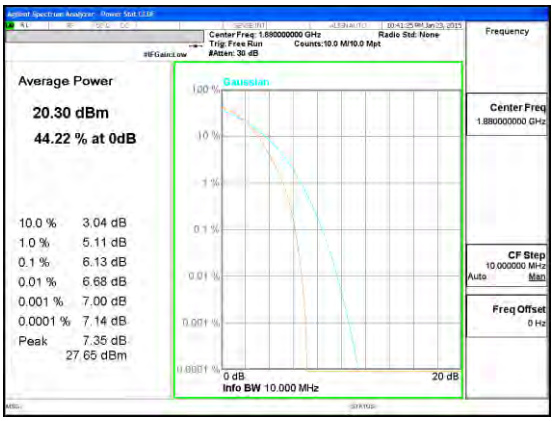
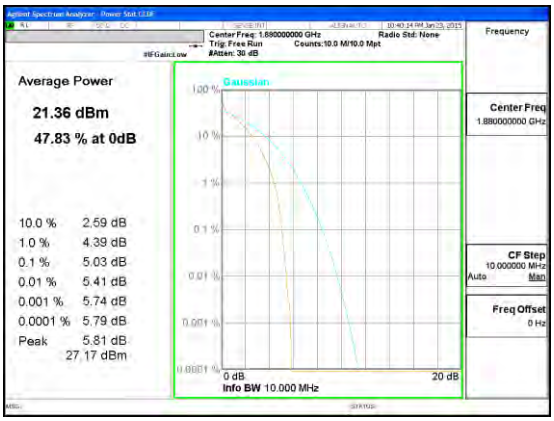
Band LTE2 3MHz 16QAM	 Band LTE2 3MHz 16QAM Mid channel	 Band LTE2 3MHz QPSK Mid channel

Band LTE2 1.4MHz 16QAM	 Band LTE2 1.4MHz 16QAM Mid channel	 Band LTE2 1.4MHz QPSK Mid channel

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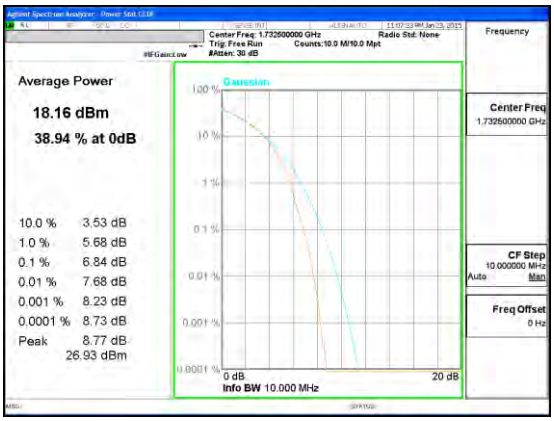
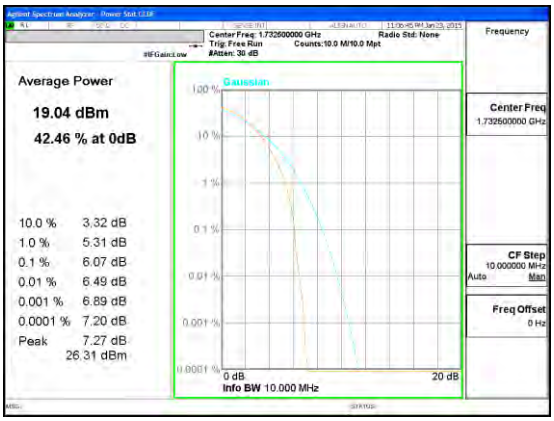
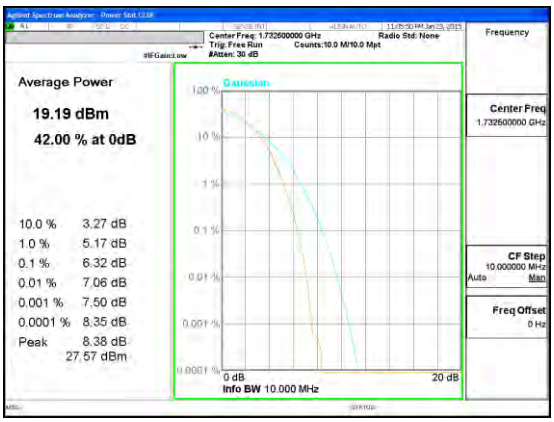
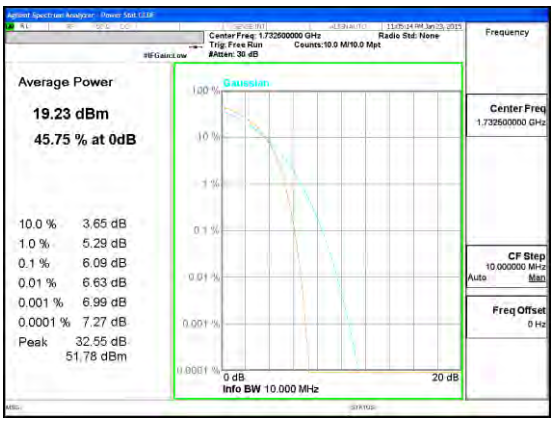
LTE Band 4

Band LTE4 20MHz 16QAM	 Band LTE4 20MHz 16QAM Mid channel	 Band LTE4 20MHz QPSK Mid channel
Band LTE4 15MHz 16QAM	 Band LTE4 15MHz 16QAM Mid channel	 Band LTE4 15MHz QPSK Mid channel

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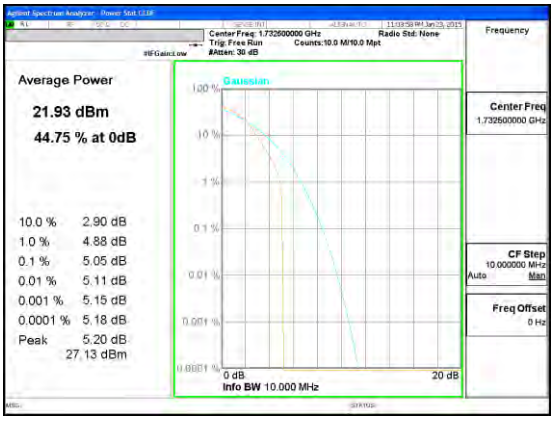
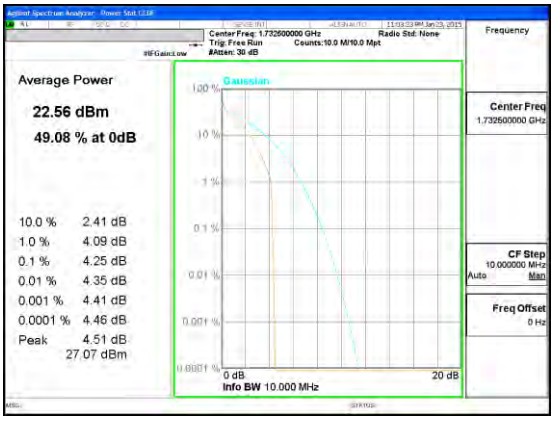
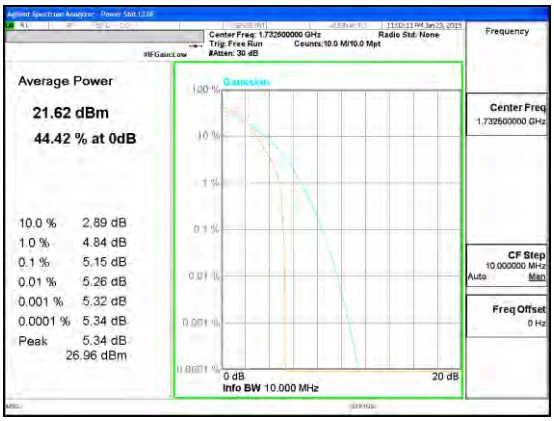
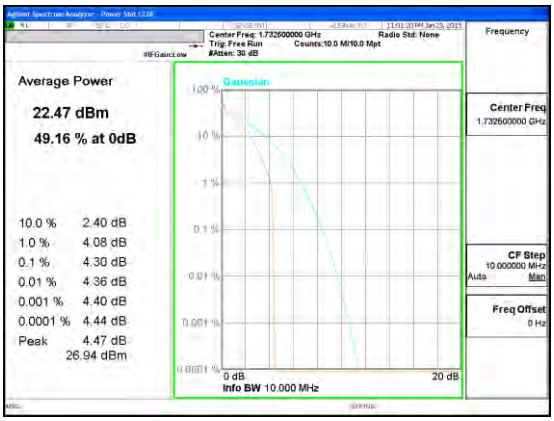
Band LTE4 10MHz 16QAM	 Band LTE4 10MHz 16QAM Mid channel	 Band LTE4 10MHz QPSK Mid channel
Band LTE4 5MHz 16QAM	 Band LTE4 5MHz 16QAM Mid channel	 Band LTE4 5MHz QPSK Mid channel

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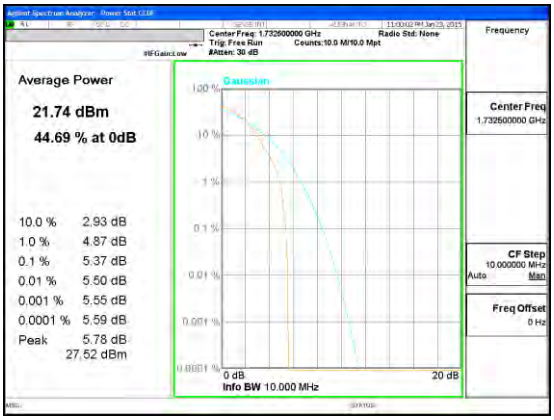
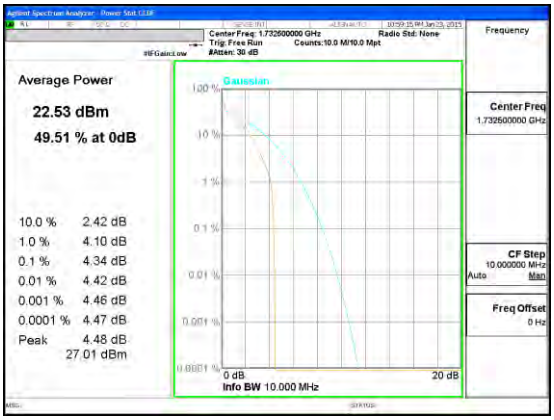
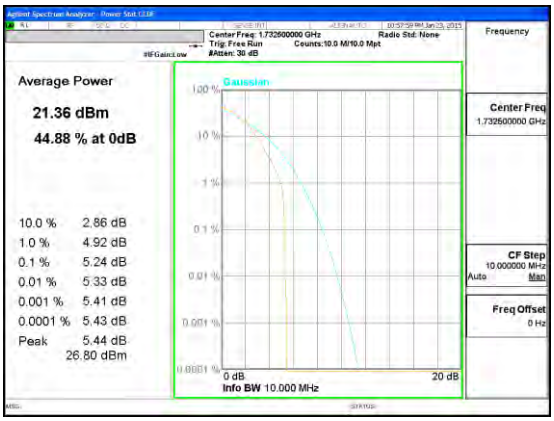
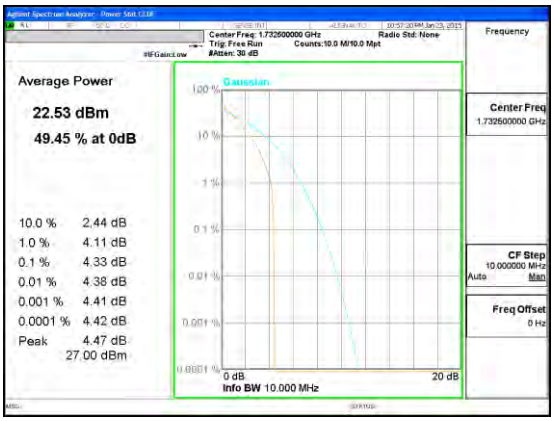
Band LTE4 3MHz 16QAM	 Band LTE4 3MHz 16QAM Mid channel	 Band LTE4 3MHz QPSK Mid channel
Band LTE4 1.4MHz 16QAM	 Band LTE4 1.4MHz 16QAM Mid channel	 Band LTE4 1.4MHz QPSK Mid channel

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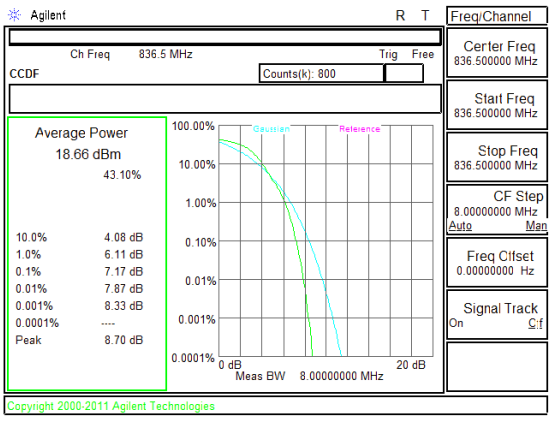
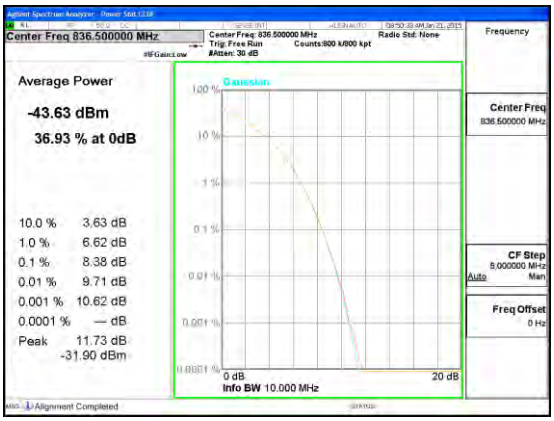
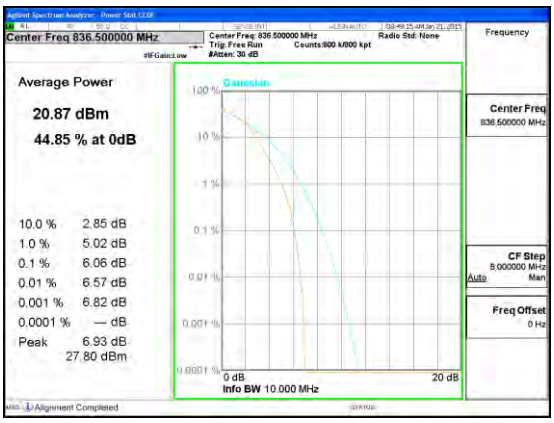
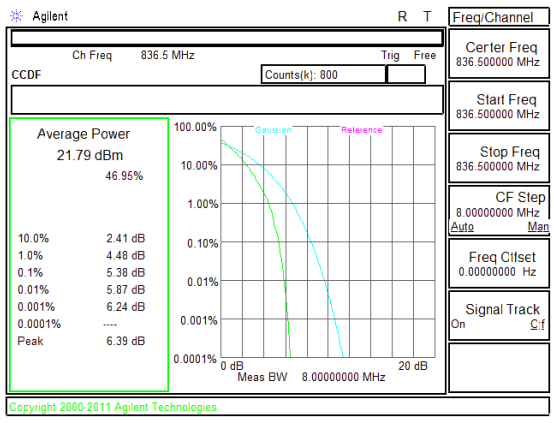
LTE Band 5

Band LTE5 10MHz 16QAM	 Band LTE5 10MHz 16QAM Mid channel	 Band LTE5 10MHz QPSK Mid channel
Band LTE5 5MHz 16QAM	 Band LTE5 5MHz 16QAM Mid channel	 Band LTE5 5MHz QPSK Mid channel

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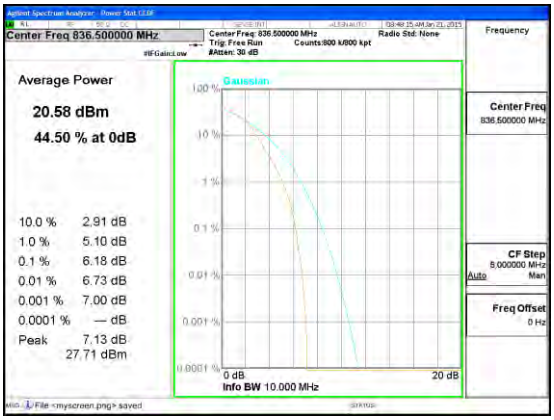
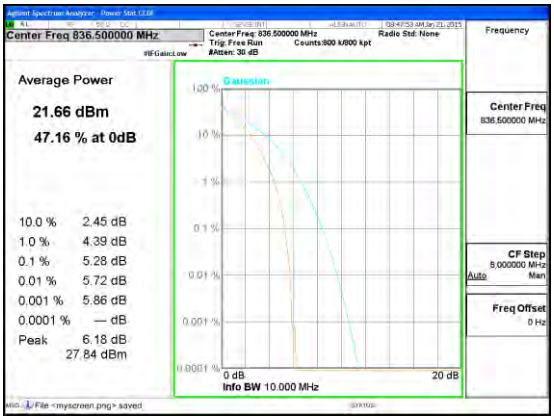
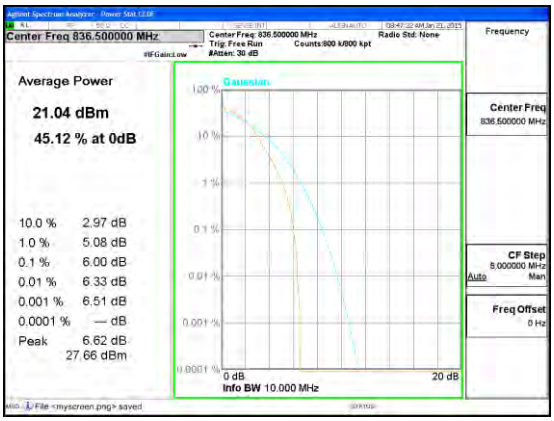
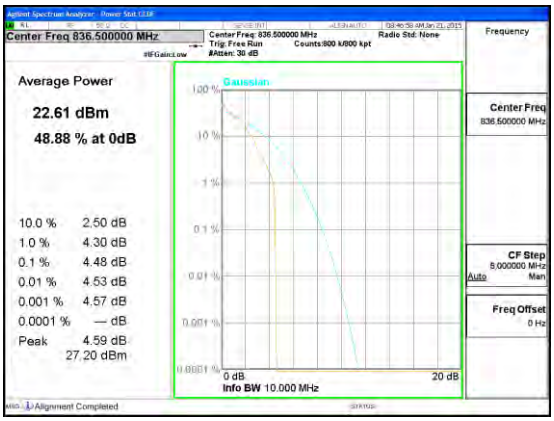
Band LTE5 3MHz 16QAM	 Band LTE5 3MHz 16QAM Mid channel	 Band LTE5 3MHz QPSK Mid channel
Band LTE5 1.4MHz 16QAM	 Band LTE5 1.4MHz 16QAM Mid channel	 Band LTE5 1.4MHz QPSK Mid channel

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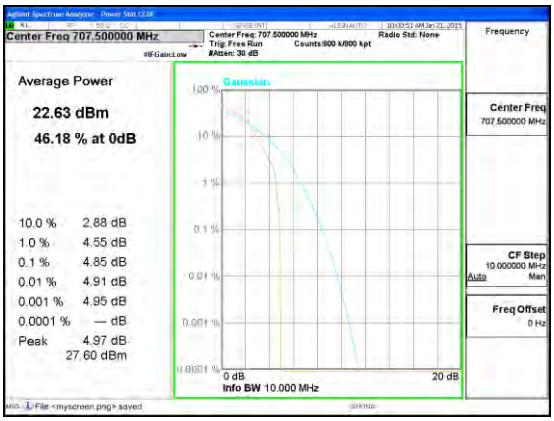
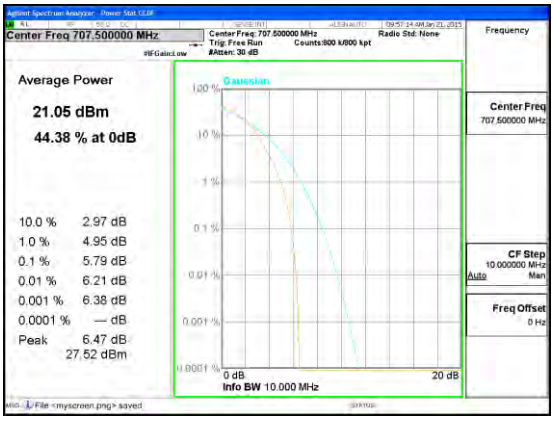
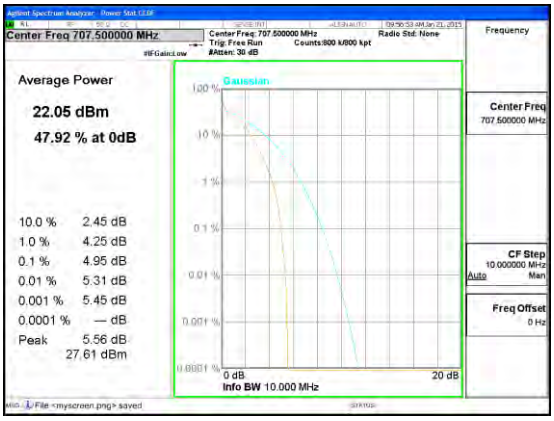
LTE Band 12

Band LTE12 10MHz 16QAM	 Band LTE12 10MHz 16QAM Mid channel	 Band LTE12 10MHz QPSK Mid channel

Band LTE12 5MHz 16QAM	 Band LTE12 5MHz 16QAM Mid channel	 Band LTE12 5MHz QPSK Mid channel

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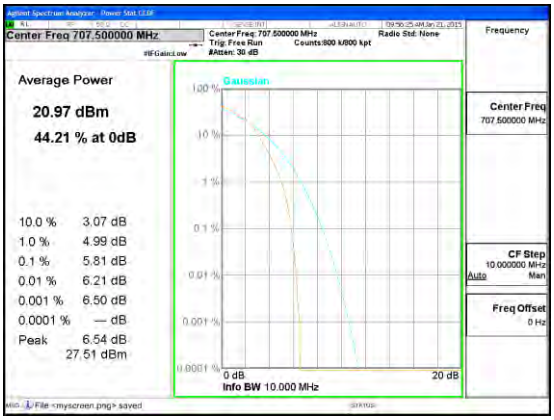
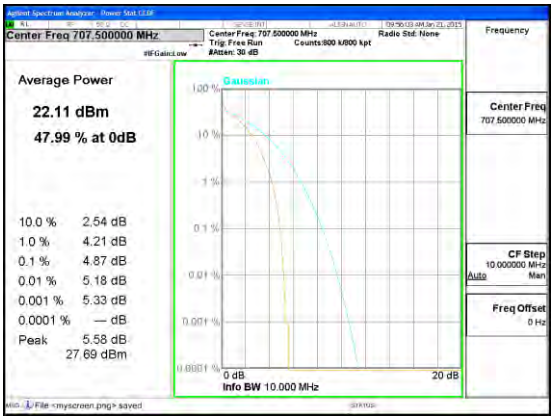
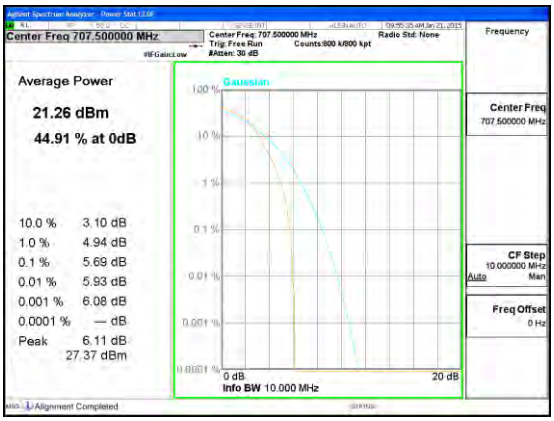
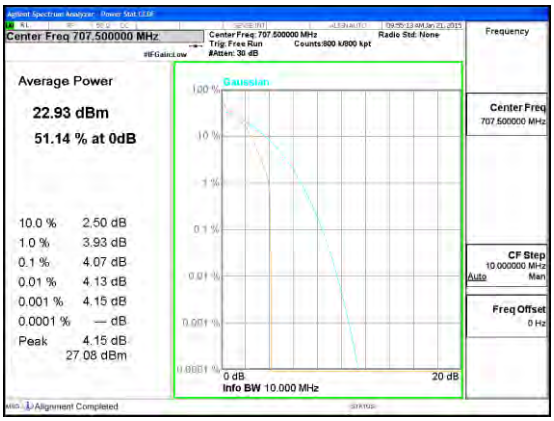
Band LTE12 3MHz 16QAM	 Band LTE12 3MHz 16QAM Mid channel	 Band LTE12 3MHz QPSK Mid channel
Band LTE12 1.4MHz 16QAM	 Band LTE12 1.4MHz 16QAM Mid channel	 Band LTE12 1.4MHz QPSK Mid channel

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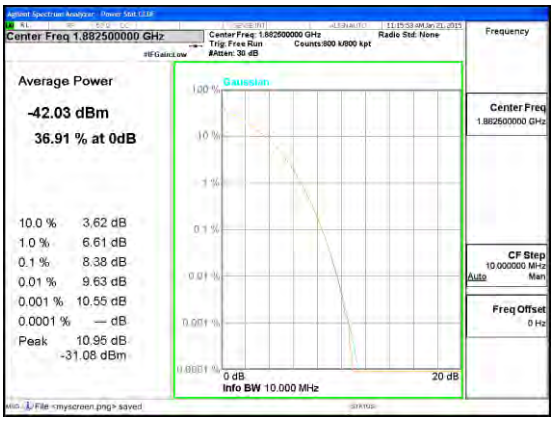
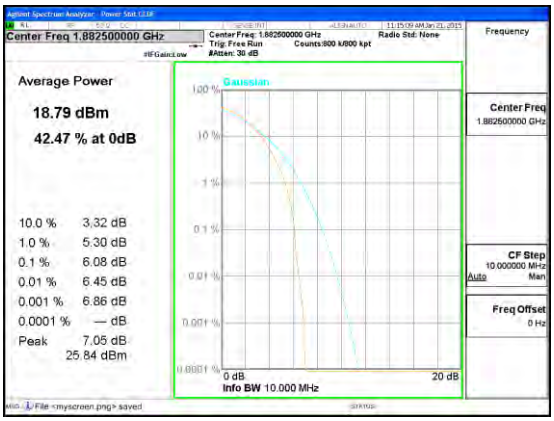
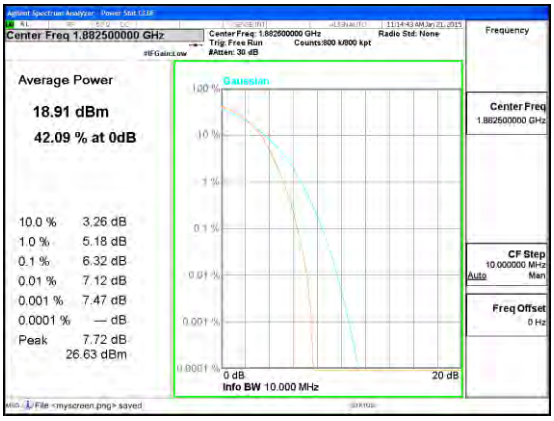
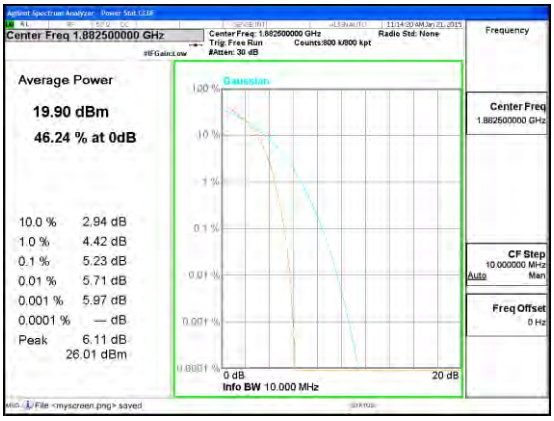
LTE Band 25

Band LTE25 20MHz 16QAM	 Band LTE25 20MHz 16QAM Mid channel	 Band LTE25 20MHz QPSK Mid channel

Band LTE25 15MHz 16QAM	 Band LTE25 15MHz 16QAM Mid channel	 Band LTE25 15MHz QPSK Mid channel

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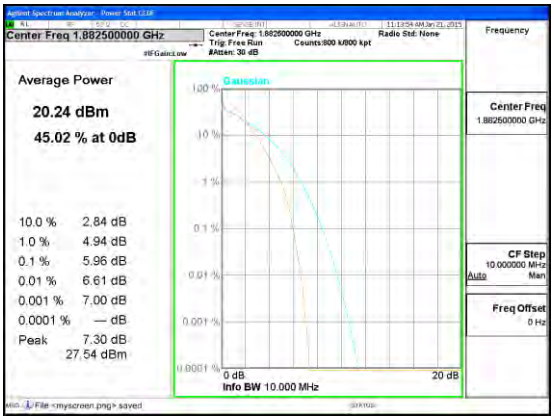
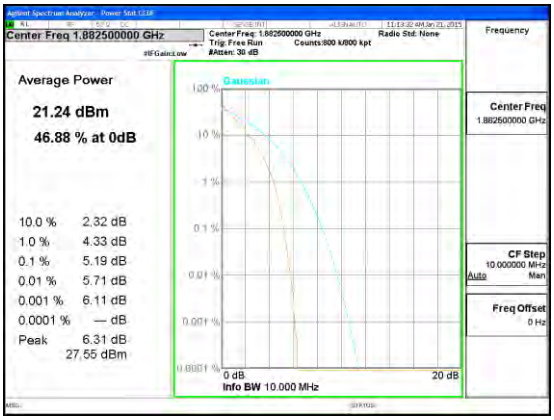
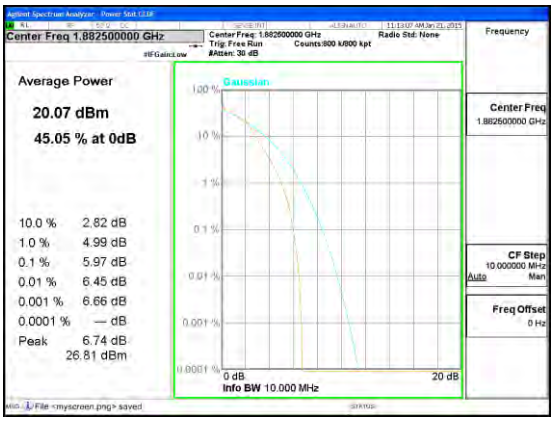
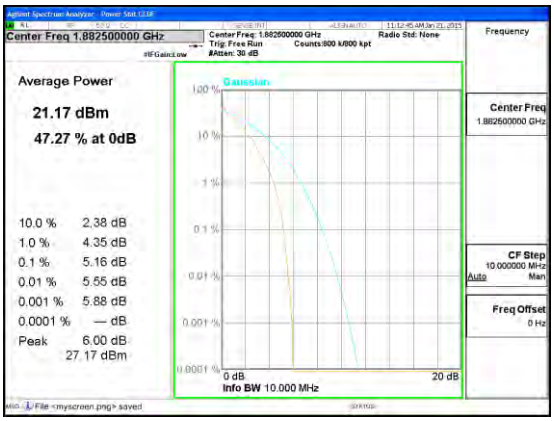
Band LTE25 10MHz 16QAM	 Band LTE25 10MHz 16QAM Mid channel	 Band LTE25 10MHz QPSK Mid channel
Band LTE25 5MHz 16QAM	 Band LTE25 5MHz 16QAM Mid channel	 Band LTE25 5MHz QPSK Mid channel

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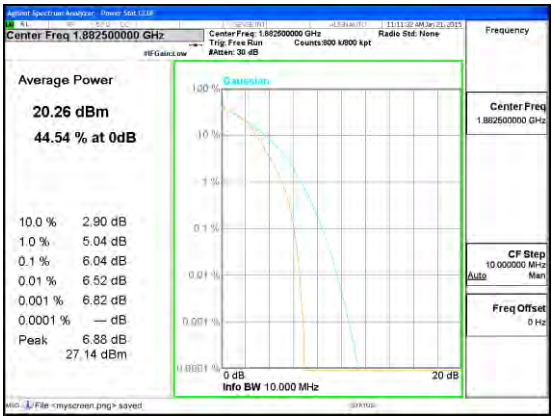
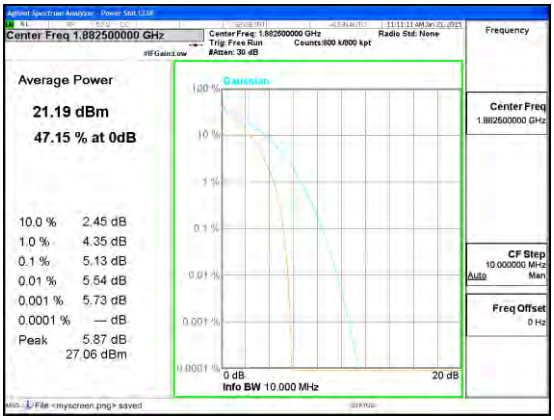
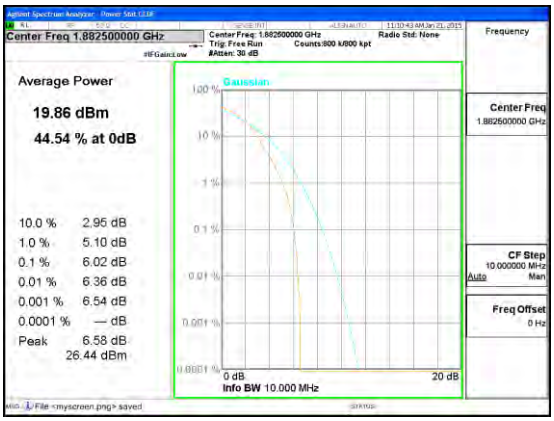
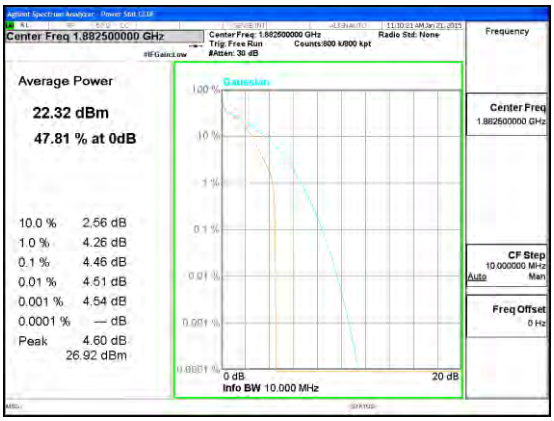
Band LTE25 3MHz 16QAM	 Band LTE25 3MHz 16QAM Mid channel	 Band LTE25 3MHz QPSK Mid channel
Band LTE25 1.4MHz 16QAM	 Band LTE25 1.4MHz 16QAM Mid channel	 Band LTE25 1.4MHz QPSK Mid channel

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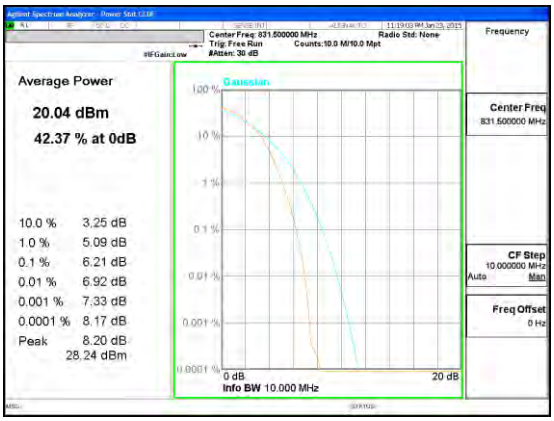
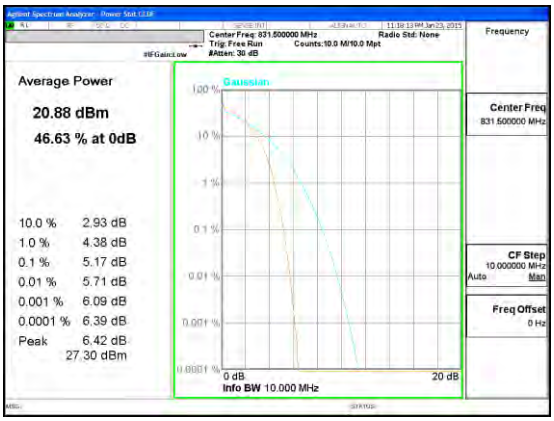
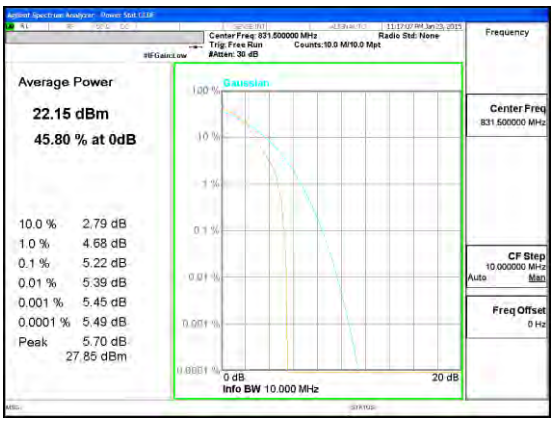
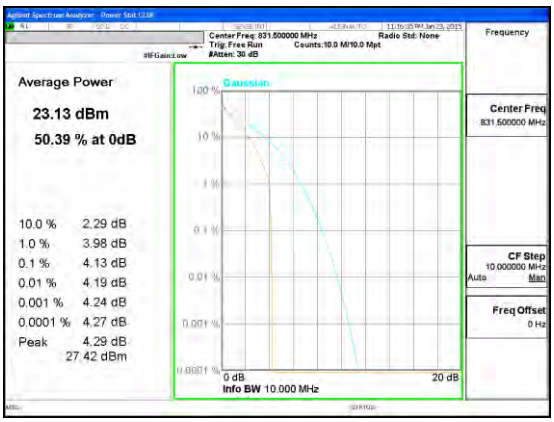
LTE Band 26

Band LTE26 15MHz 16QAM	 Band LTE26 15MHz 16QAM Mid channel	 Band LTE26 15MHz QPSK Mid channel

Band LTE26 10MHz 16QAM	 Band LTE26 10MHz 16QAM Mid channel	 Band LTE26 10MHz QPSK Mid channel

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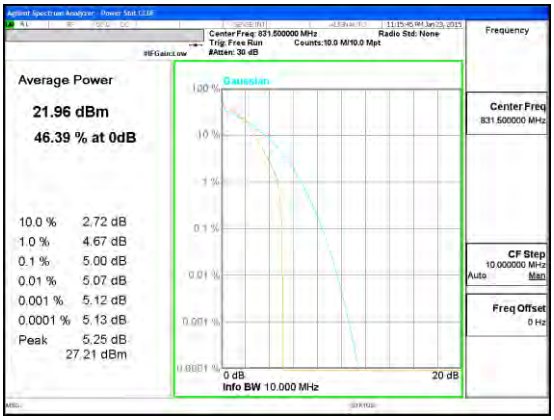
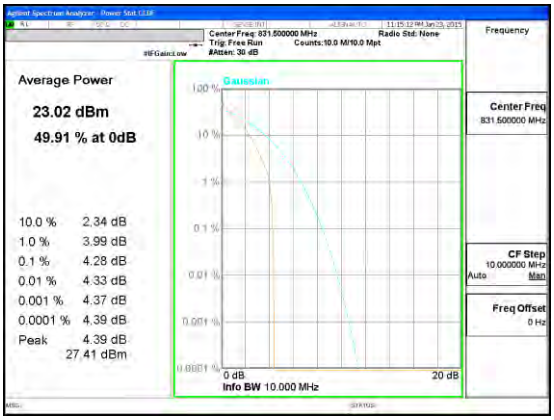
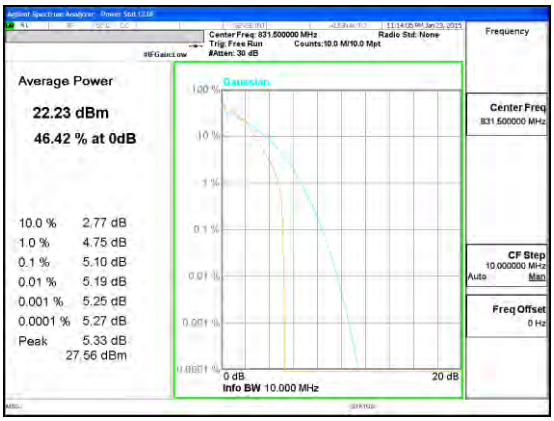
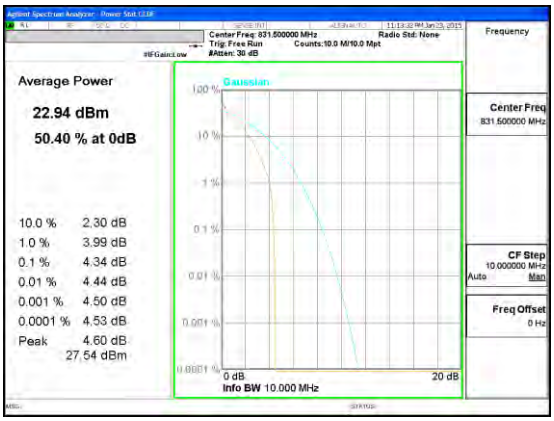
Band LTE26 5MHz 16QAM	 Band LTE26 5MHz 16QAM Mid channel	 Band LTE26 5MHz QPSK Mid channel

Band LTE26 3MHz 16QAM	 Band LTE26 3MHz 16QAM Mid channel	 Band LTE26 3MHz QPSK Mid channel

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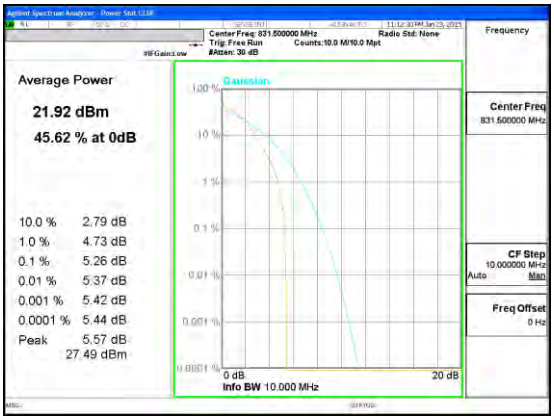
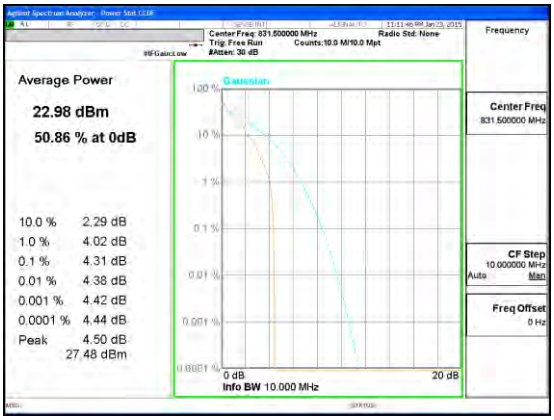
Band LTE26 1.4MHz 16QAM	 Band LTE26 1.4MHz 16QAM Mid channel	 Band LTE26 1.4MHz QPSK Mid channel

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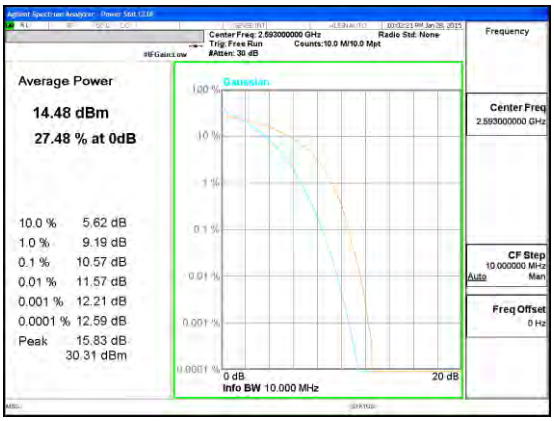
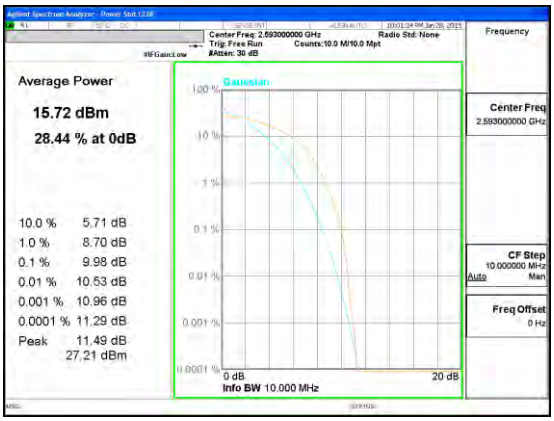
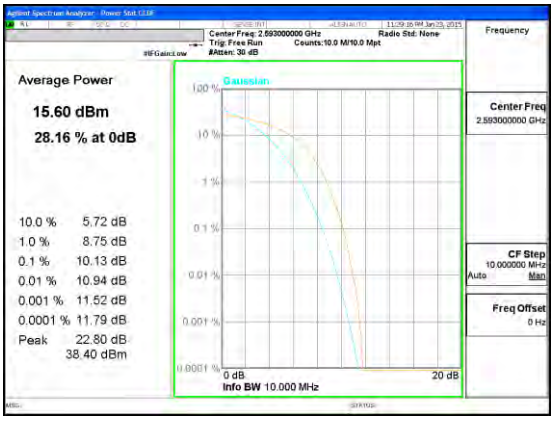
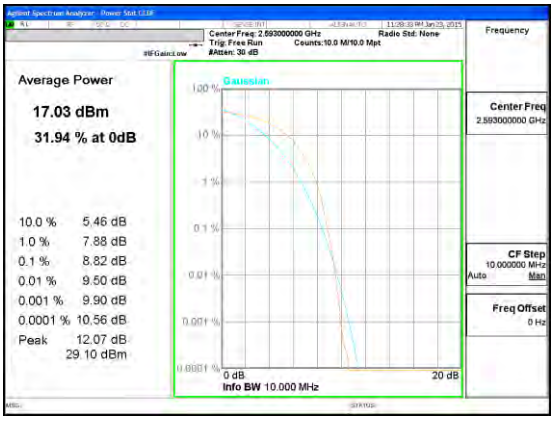
LTE Band 41

Band LTE41 20MHz 16QAM	 Band LTE41 20MHz 16QAM Mid channel	 Band LTE41 20MHz QPSK Mid channel
Band LTE41 15MHz 16QAM	 Band LTE41 15MHz 16QAM Mid channel	 Band LTE41 15MHz QPSK Mid channel

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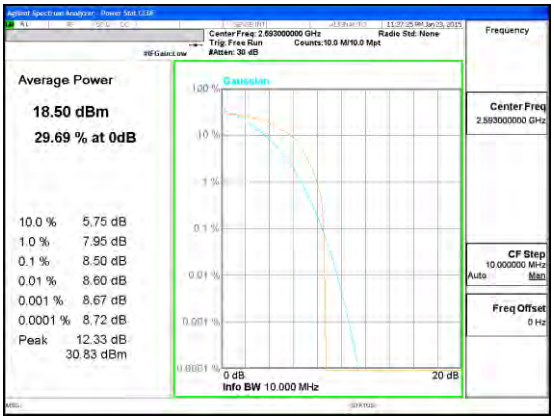
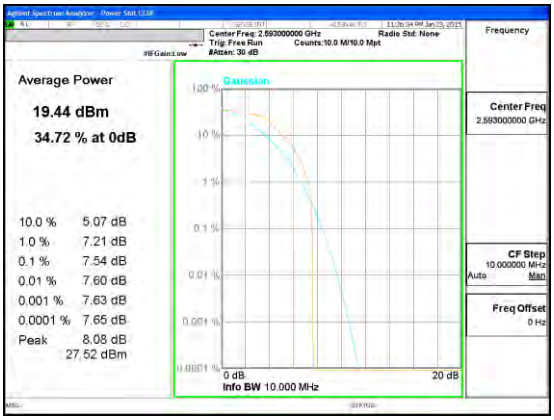
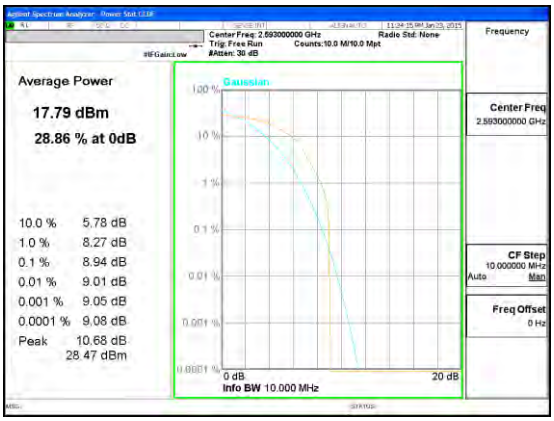
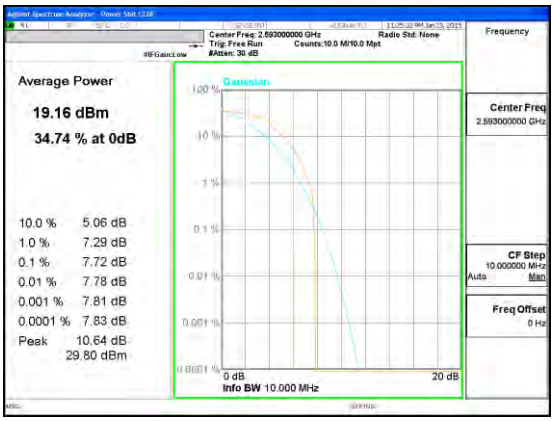
Band LTE41 10MHz 16QAM	 Band LTE41 10MHz 16QAM Mid channel	 Band LTE41 10MHz QPSK Mid channel

Band LTE41 5MHz 16QAM	 Band LTE41 5MHz 16QAM Mid channel	 Band LTE41 5MHz QPSK Mid channel

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10. LIMITS AND CONDUCTED RESULTS

10.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049
IC: RSS-132, 4.5; RSS-133, 6.5

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The -26dB bandwidth was also measured and recorded.

(KDB 971168 D01 Power Meas License Digital Systems v02r02)

MODES TESTED

CDMA and LTE

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10.1.1. OCCUPIED BANDWIDTH RESULTS

CDMA

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
BC10	1xRTT	476	817.9	1.283	1.433
		580	820.5	1.2792	1.433
		684	823.1	1.2624	1.423
	EVDO REL. 0	476	817.9	1.2648	1.429
		580	820.5	1.2769	1.427
		684	823.1	1.2752	1.423
BC0	1xRTT	1013	824.7	1.2672	1.413
		384	836.52	1.2715	1.419
		777	848.31	1.2682	1.416
	EVDO REL. 0	1013	824.7	1.2696	1.409
		384	836.52	1.2656	1.41
		777	848.31	1.2671	1.406
BC1	1xRTT	25	1851.25	1.2765	1.432
		600	1880	1.2754	1.431
		1175	1908.75	1.2743	1.433
	EVDO REL. 0	25	1851.25	1.2743	1.426
		600	1880	1.2714	1.425
		1175	1908.75	1.2714	1.428

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LTE Band 2

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE2	20	QPSK	100/0	1860	17.890	19.500
			100/0	1880	17.840	19.250
			100/0	1900	17.800	19.140
		16QAM	100/0	1860	17.910	19.430
			100/0	1880	17.800	19.310
			100/0	1900	17.800	19.140
	15	QPSK	75/0	1857.5	13.460	14.500
			75/0	1880	13.420	14.640
			75/0	1902.5	13.410	14.540
		16QAM	75/0	1857.5	13.430	14.320
			75/0	1880	13.410	14.760
			75/0	1902.5	13.410	14.490
	10	QPSK	50/0	1855	8.958	9.795
			50/0	1880	8.974	9.813
			50/0	1905	8.970	9.827
		16QAM	50/0	1855	8.956	9.866
			50/0	1880	8.954	9.789
			50/0	1905	8.996	9.760
	5	QPSK	25/0	1852.5	4.505	4.953
			25/0	1880	4.517	4.967
			25/0	1907.5	4.507	4.942
		16QAM	25/0	1852.5	4.504	4.920
			25/0	1880	4.511	4.894
			25/0	1907.5	4.509	5.027
	3	QPSK	15/0	1851.5	2.681	2.970
			15/0	1880	2.694	2.986
			15/0	1908.5	2.696	2.958
		16QAM	15/0	1851.5	2.685	2.955
			15/0	1880	2.689	2.955
			15/0	1908.5	2.694	2.956

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Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE2	1.4	QPSK	6/0	1850.7	1.086	1.264
			6/0	1880	1.085	1.285
			6/0	1909.3	1.086	1.249
		16QAM	6/0	1850.7	1.089	1.288
			6/0	1880	1.083	1.278
			6/0	1909.3	1.090	1.284

LTE Band 4

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE4	20	QPSK	100/0	1720	17.860	19.200
			100/0	1732.5	17.880	19.280
			100/0	1745	17.880	19.170
		16QAM	100/0	1720	17.880	19.270
			100/0	1732.5	17.900	19.220
			100/0	1745	17.880	19.310
	15	QPSK	75/0	1717.5	13.360	14.230
			75/0	1732.5	13.430	14.540
			75/0	1747.5	13.410	14.550
		16QAM	75/0	1717.5	13.410	14.550
			75/0	1732.5	13.420	14.520
			75/0	1747.5	13.430	14.670
	10	QPSK	50/0	1715	8.976	9.838
			50/0	1732.5	8.978	9.819
			50/0	1750	8.979	9.731
		16QAM	50/0	1715	8.950	9.737
			50/0	1732.5	8.964	9.771
			50/0	1750	8.969	9.844

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Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE4	5	QPSK	25/0	1712.5	4.505	4.964
			25/0	1732.5	4.515	4.971
			25/0	1752.5	4.496	4.968
		16QAM	25/0	1712.5	4.503	4.990
			25/0	1732.5	4.507	4.974
			25/0	1752.5	4.514	5.019
	3	QPSK	15/0	1711.5	2.691	2.975
			15/0	1732.5	2.691	2.967
			15/0	1753.5	2.696	2.974
		16QAM	15/0	1711.5	2.694	2.956
			15/0	1732.5	2.691	2.998
			15/0	1753.5	2.684	2.970
	1.4	QPSK	6/0	1710.7	1.088	1.280
			6/0	1732.5	1.086	1.284
			6/0	1754.3	1.087	1.281
		16QAM	6/0	1710.7	1.094	1.308
			6/0	1732.5	1.089	1.288
			6/0	1754.3	1.091	1.289

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LTE Band 5

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE5	10	QPSK	50/0	829	8.995	9.902
			50/0	836.5	8.995	9.808
			50/0	844	8.967	9.811
		16QAM	50/0	829	8.993	9.862
			50/0	836.5	8.962	9.872
			50/0	844	8.995	9.880
	5	QPSK	25/0	826.5	4.502	4.975
			25/0	836.5	4.504	4.979
			25/0	846.5	4.494	4.948
		16QAM	25/0	826.5	4.510	4.991
			25/0	836.5	4.508	4.978
			25/0	846.5	4.507	5.006
	3	QPSK	15/0	825.5	2.701	2.964
			15/0	836.5	2.700	2.983
			15/0	847.5	2.701	2.987
		16QAM	15/0	825.5	2.699	2.981
			15/0	836.5	2.701	2.985
			15/0	847.5	2.695	2.992
	1.4	QPSK	6/0	824.7	1.088	1.282
			6/0	836.5	1.088	1.287
			6/0	848.3	1.088	1.281
		16QAM	6/0	824.7	1.084	1.282
			6/0	836.5	1.095	1.299
			6/0	848.3	1.085	1.284

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LTE Band 12

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE12	10	QPSK	50/0	704	8.990	9.909
			50/0	707.5	8.978	9.835
			50/0	711	8.972	9.845
		16QAM	50/0	704	8.988	9.897
			50/0	707.5	8.955	9.831
			50/0	711	9.003	9.917
	5	QPSK	25/0	701.5	4.504	4.941
			25/0	707.5	4.502	5.005
			25/0	713.5	4.497	4.972
		16QAM	25/0	701.5	4.504	4.979
			25/0	707.5	4.501	4.993
			25/0	713.5	4.514	5.013
	3	QPSK	15/0	700.5	2.698	2.963
			15/0	707.5	2.700	2.992
			15/0	714.5	2.706	2.989
		16QAM	15/0	700.5	2.705	2.999
			15/0	707.5	2.698	2.981
			15/0	714.5	2.698	2.995
	1.4	QPSK	6/0	699.7	1.087	1.277
			6/0	707.5	1.082	1.273
			6/0	715.3	1.088	1.290
		16QAM	6/0	699.7	1.096	1.319
			6/0	707.5	1.088	1.283
			6/0	715.3	1.096	1.309

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LTE Band 25

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE25	20	QPSK	100/0	1860	17.926	19.411
			100/0	1882.5	17.936	19.324
			100/0	1905	17.926	19.453
		16QAM	100/0	1860	17.931	19.383
			100/0	1882.5	17.886	19.383
			100/0	1905	17.891	19.418
	15	QPSK	75/0	1857.5	13.465	14.678
			75/0	1882.5	13.465	14.661
			75/0	1907.5	13.451	14.577
		16QAM	75/0	1857.5	13.455	14.659
			75/0	1882.5	13.448	14.685
			75/0	1907.5	13.429	14.625
	10	QPSK	50/0	1855	8.998	9.887
			50/0	1882.5	8.991	9.895
			50/0	1910	8.971	9.868
		16QAM	50/0	1855	8.990	9.911
			50/0	1882.5	8.969	9.809
			50/0	1910	9.002	9.860
	5	QPSK	25/0	1852.5	4.504	4.964
			25/0	1882.5	4.501	4.963
			25/0	1912.5	4.507	4.991
		16QAM	25/0	1852.5	4.502	4.989
			25/0	1882.5	4.507	4.980
			25/0	1912.5	4.504	4.981

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Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE25	3	QPSK	15/0	1851.5	2.700	2.968
			15/0	1882.5	2.704	2.987
			15/0	1913.5	2.699	2.972
		16QAM	15/0	1851.5	2.703	2.987
			15/0	1882.5	2.697	2.998
			15/0	1913.5	2.700	2.984
	1.4	QPSK	6/0	1850.7	1.087	1.293
			6/0	1882.5	1.089	1.298
			6/0	1914.3	1.082	1.283
		16QAM	6/0	1850.7	1.095	1.299
			6/0	1882.5	1.087	1.300
			6/0	1914.3	1.087	1.303

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LTE Band 26

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE26	15	QPSK	75/0	821.5	13.400	14.660
			75/0	831.5	13.420	14.550
			75/0	841.5	13.420	14.600
		16QAM	75/0	821.5	13.410	14.600
			75/0	831.5	13.420	14.510
			75/0	841.5	13.390	14.620
	10	QPSK	50/0	819	8.961	9.697
			50/0	831.5	8.974	9.765
			50/0	844	8.968	9.621
		16QAM	50/0	819	8.953	9.895
			50/0	831.5	8.963	9.793
			50/0	844	8.971	9.774
	5	QPSK	25/0	816.5	4.533	5.025
			25/0	831.5	4.506	4.995
			25/0	846.5	4.504	4.991
		16QAM	25/0	816.5	4.526	5.030
			25/0	831.5	4.512	4.972
			25/0	846.5	4.493	4.952
	3	QPSK	15/0	815.5	2.694	2.976
			15/0	831.5	2.690	2.969
			15/0	847.5	2.694	2.979
		16QAM	15/0	815.5	2.695	2.970
			15/0	831.5	2.685	2.957
			15/0	847.5	2.689	2.986
	1.4	QPSK	6/0	814.7	1.079	1.278
			6/0	831.5	1.083	1.253
			6/0	848.3	1.078	1.261
		16QAM	6/0	814.7	1.095	1.287
			6/0	831.5	1.085	1.260
			6/0	848.3	1.083	1.256

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LTE Band 41

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE41	20	QPSK	100/0	2506	17.87	19.46
			100/0	2593	17.90	19.25
			100/0	2680	17.87	19.11
		16QAM	100/0	2506	17.85	19.55
			100/0	2593	17.88	19.23
			100/0	2680	17.85	19.02
	15	QPSK	75/0	2503.5	13.40	14.63
			75/0	2593	13.42	14.61
			75/0	2682.5	13.40	14.78
		16QAM	75/0	2503.5	13.40	14.50
			75/0	2593	13.42	14.62
			75/0	2682.5	13.44	15.13
	10	QPSK	50/0	2501	8.953	9.715
			50/0	2593	8.967	9.739
			50/0	2685	8.963	9.724
		16QAM	50/0	2501	8.961	9.703
			50/0	2593	8.967	9.675
			50/0	2685	8.963	9.856
	5	QPSK	25/0	2498.5	4.485	4.923
			25/0	2593	4.499	4.921
			25/0	2687.5	4.496	4.928
		16QAM	25/0	2498.5	4.491	4.898
			25/0	2593	4.493	5.045
			25/0	2687.5	4.510	4.945

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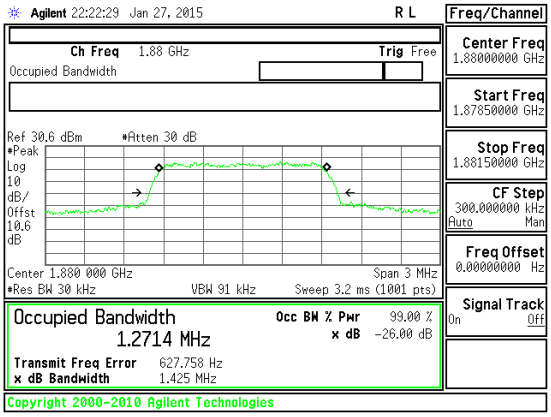
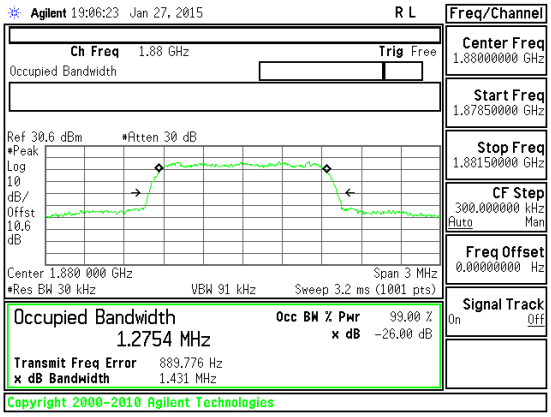
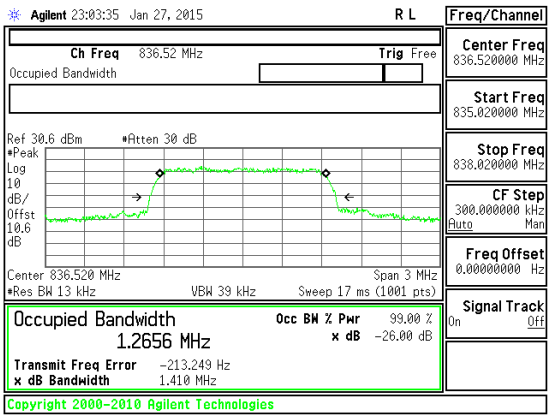
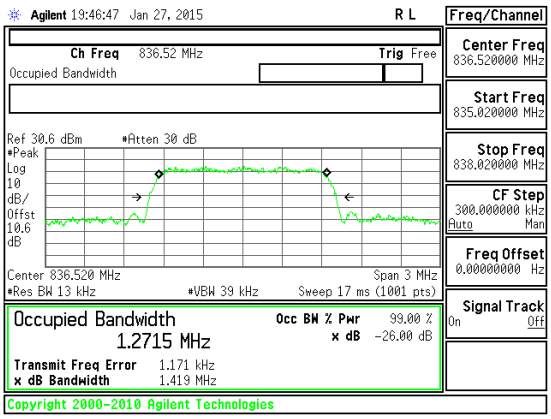
10.1.1. OCCUPIED BANDWIDTH PLOTS

CDMA

Band BC1 EVDO REL. 0	 Band BC1 EVDO Rel. 0 OBW Mid channel	 Band BC1 1xRTT OBW Mid channel
Band BC0 EVDO REL. 0	 Band BC0 EVDO Rel. 0 OBW Mid channel	 Band BC0 1xRTT OBW Mid channel

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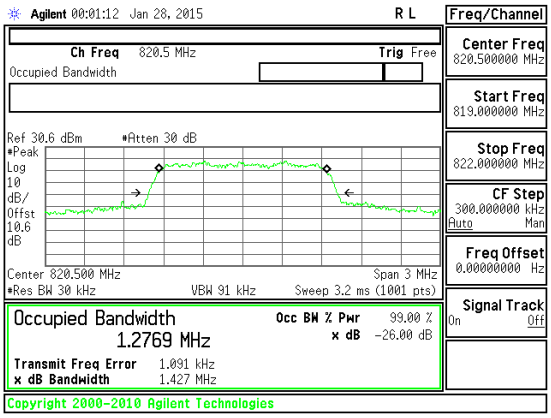
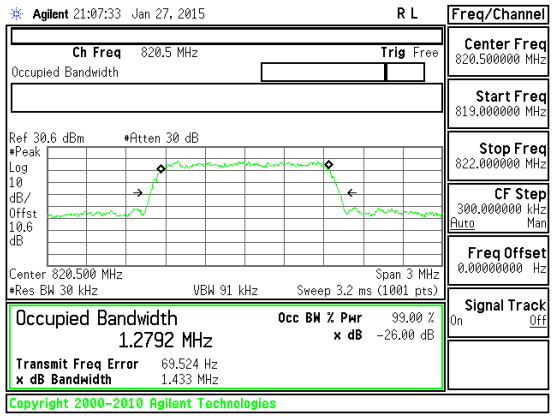
Band BC10 EVDO REL. 0	 Band BC10 EVDO Rel. 0 OBW Mid channel	 Band BC10 1xRTT OBW Mid channel

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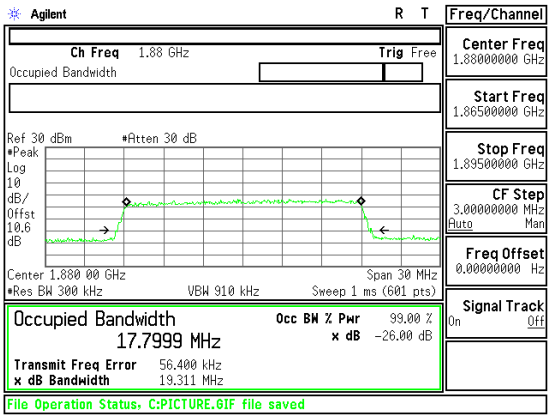
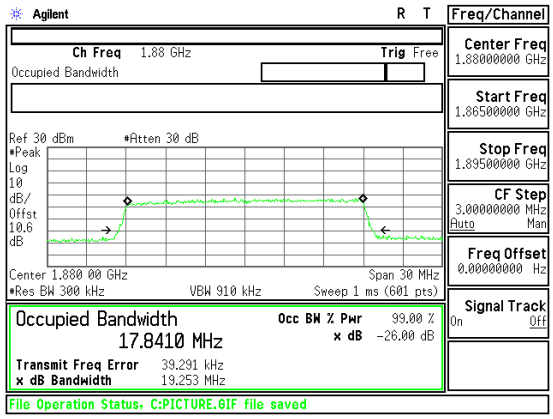
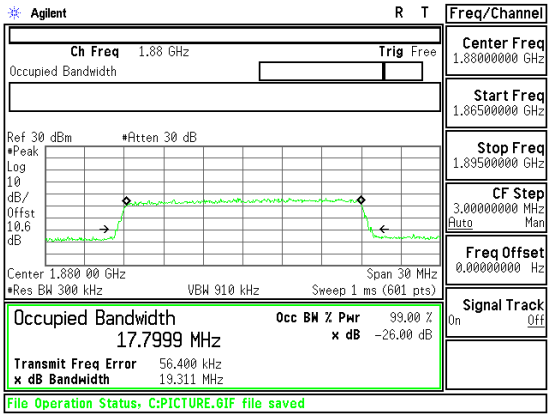
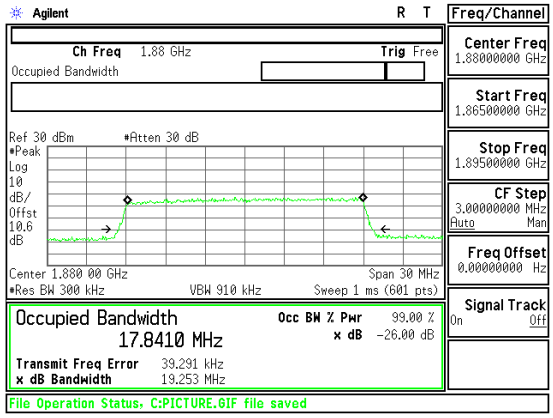
LTE Band 2

Band LTE2 20MHz 16QAM	 Band LTE2 20MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 20MHz OBW QPSK Mid Channel FRB.gif
Band LTE2 20MHz 16QAM	 Band LTE2 20MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 20MHz OBW QPSK Mid Channel FRB.gif

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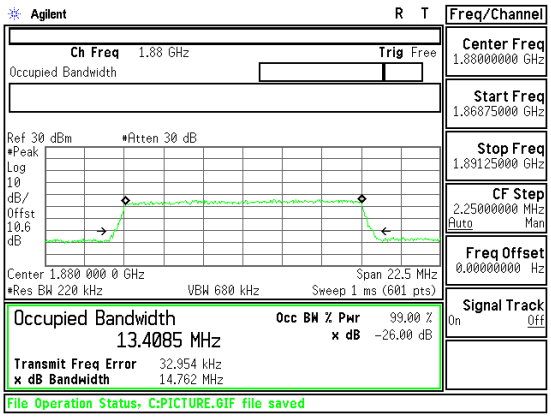
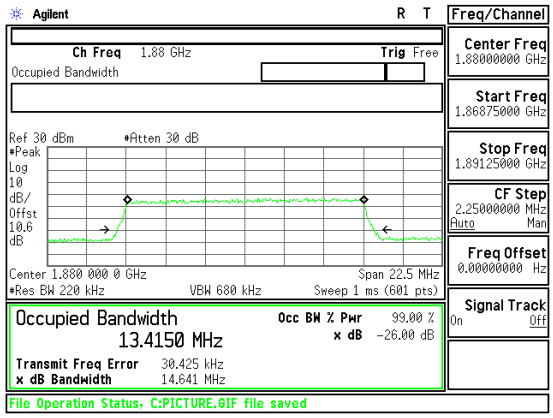
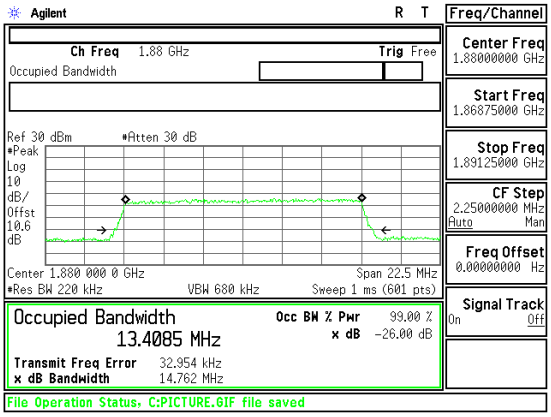
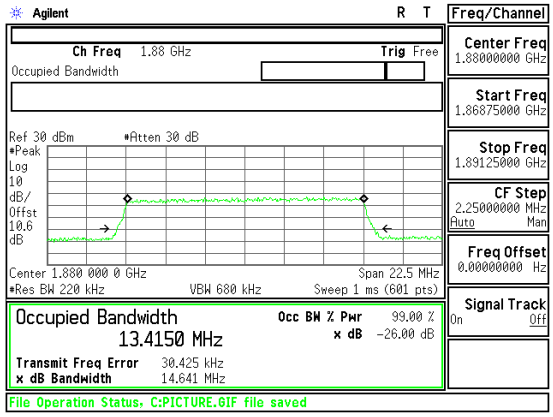
Band LTE2 15MHz 16QAM	 Band LTE2 15MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 15MHz OBW QPSK Mid Channel FRB.gif
Band LTE2 15MHz 16QAM	 Band LTE2 15MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 15MHz OBW QPSK Mid Channel FRB.gif

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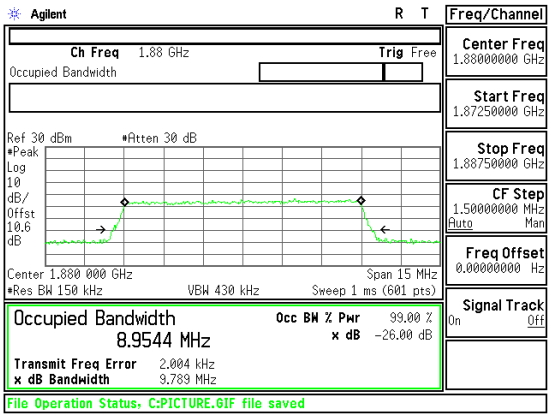
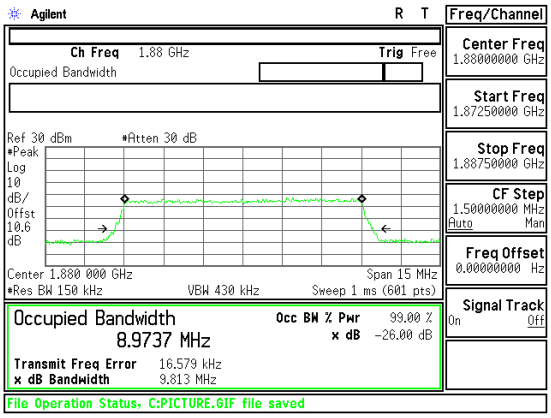
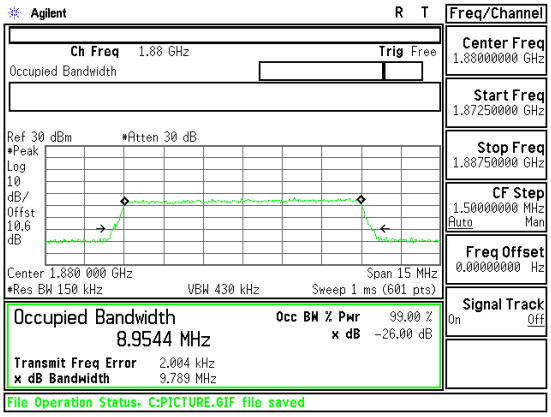
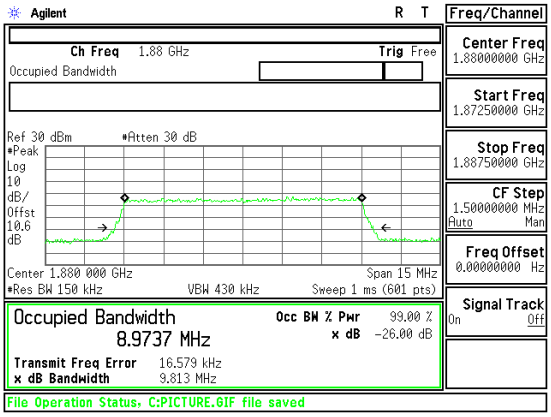
Band LTE2 10MHz 16QAM	 Band LTE2 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 10MHz OBW QPSK Mid Channel FRB.gif
Band LTE2 10MHz 16QAM	 Band LTE2 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 10MHz OBW QPSK Mid Channel FRB.gif

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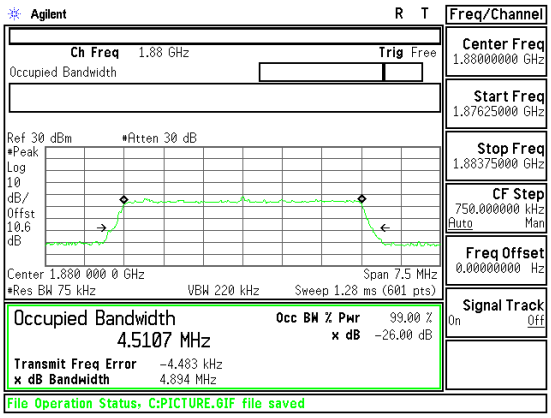
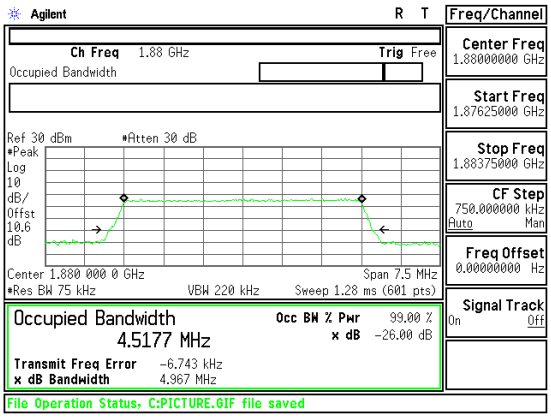
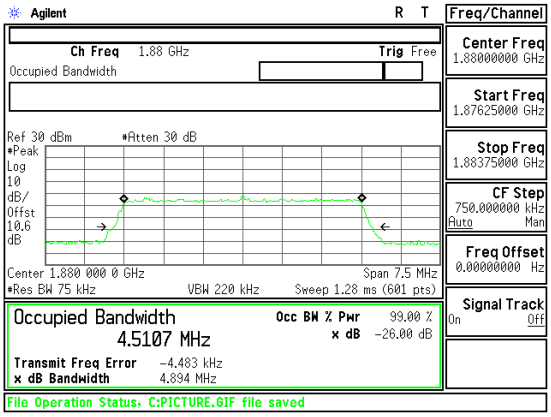
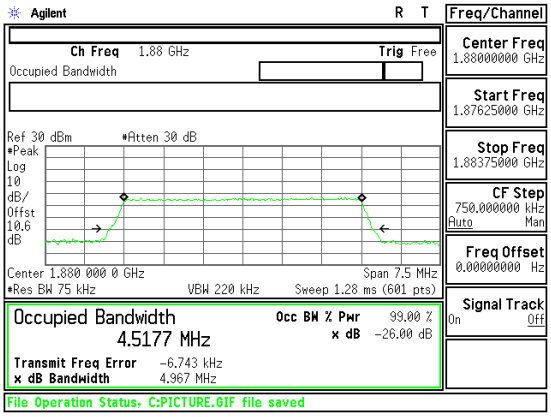
Band LTE2 5MHz 16QAM	 Band LTE2 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 5MHz OBW QPSK Mid Channel FRB.gif
Band LTE2 5MHz 16QAM	 Band LTE2 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 5MHz OBW QPSK Mid Channel FRB.gif

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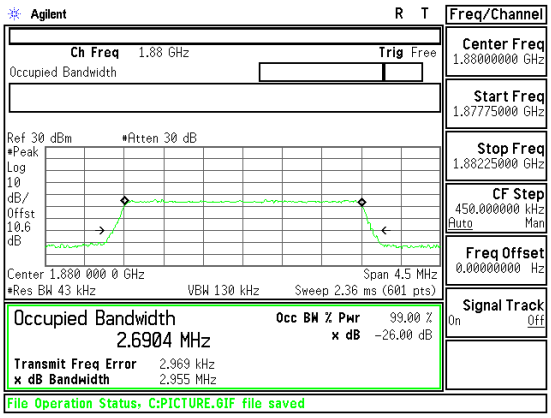
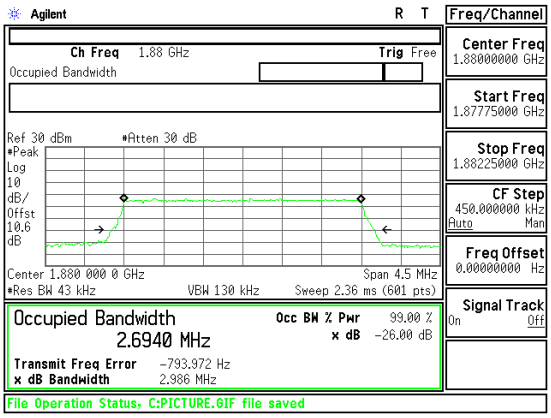
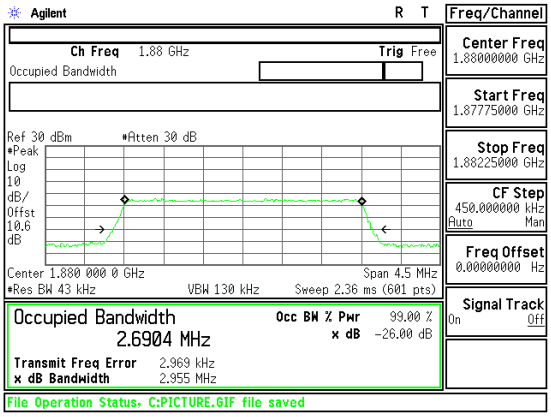
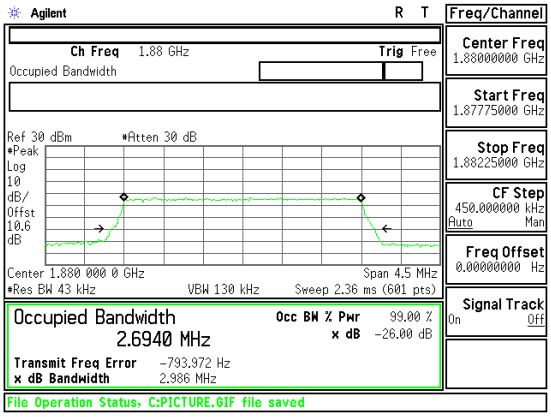
Band LTE2 3MHz 16QAM	 Band LTE2 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 3MHz OBW QPSK Mid Channel FRB.gif
Band LTE2 3MHz 16QAM	 Band LTE2 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 3MHz OBW QPSK Mid Channel FRB.gif

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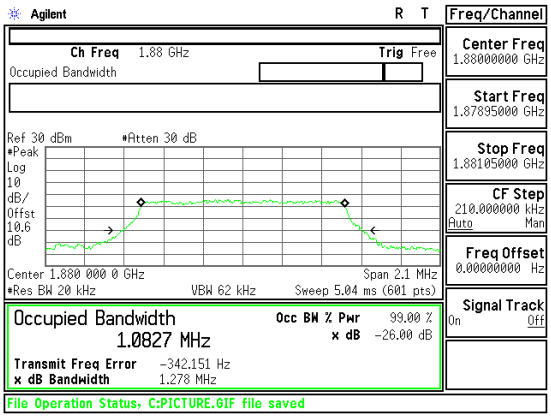
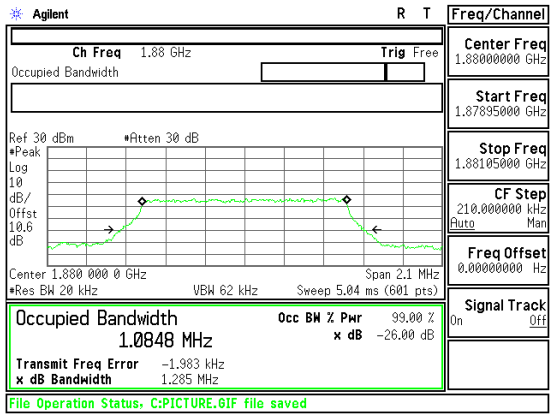
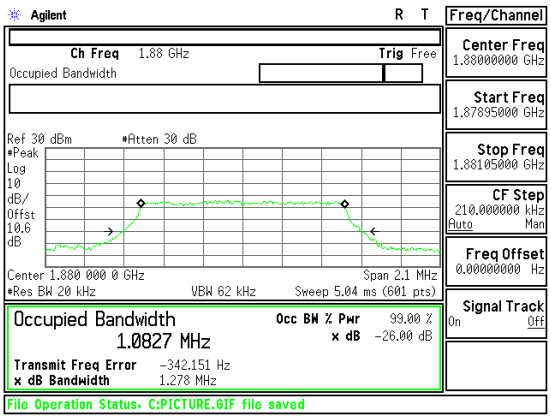
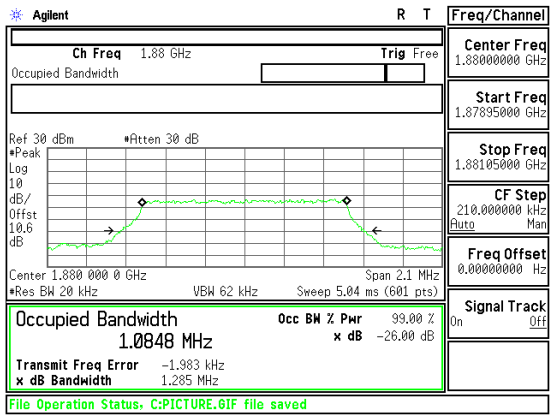
Band LTE2 1.4MHz 16QAM	 Band LTE2 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 1.4MHz OBW QPSK Mid Channel FRB.gif
Band LTE2 1.4MHz 16QAM	 Band LTE2 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE2 1.4MHz OBW QPSK Mid Channel FRB.gif

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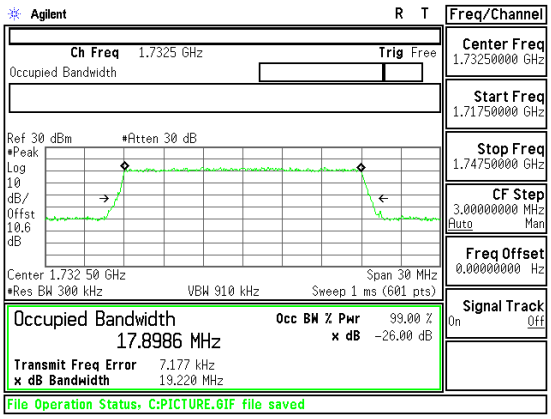
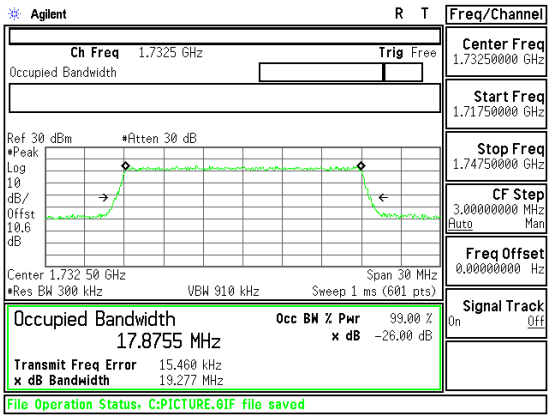
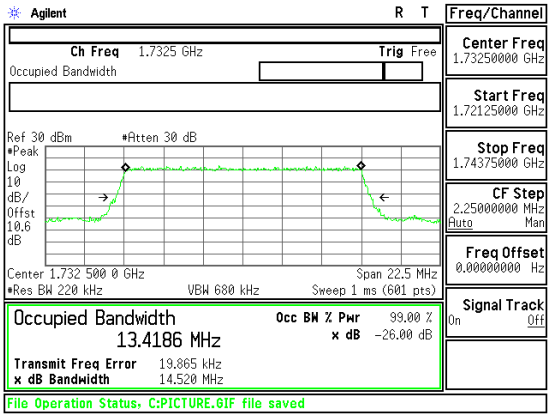
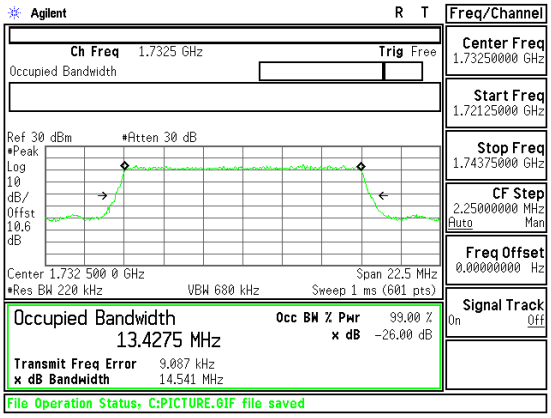
LTE Band 4

Band LTE4 20MHz 16QAM	 Band LTE4 20MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE4 20MHz OBW QPSK Mid Channel FRB.gif
Band LTE4 15MHz 16QAM	 Band LTE4 15MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE4 15MHz OBW QPSK Mid Channel FRB.gif

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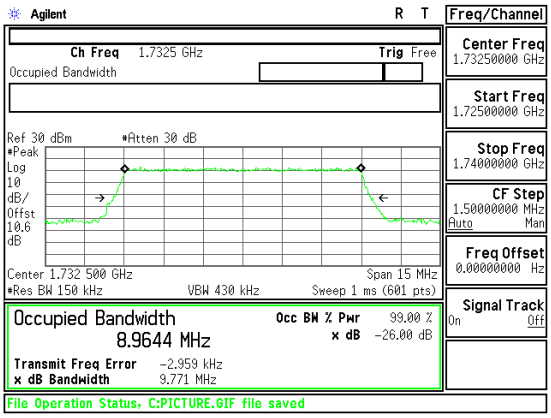
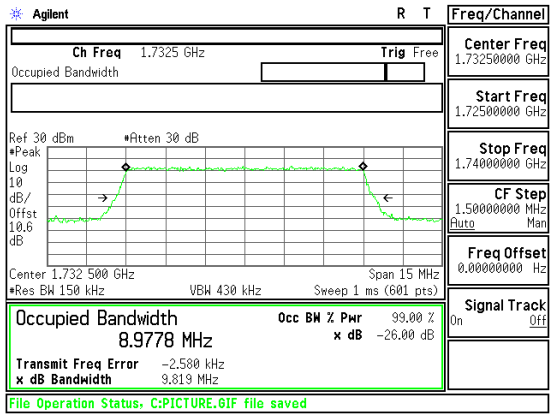
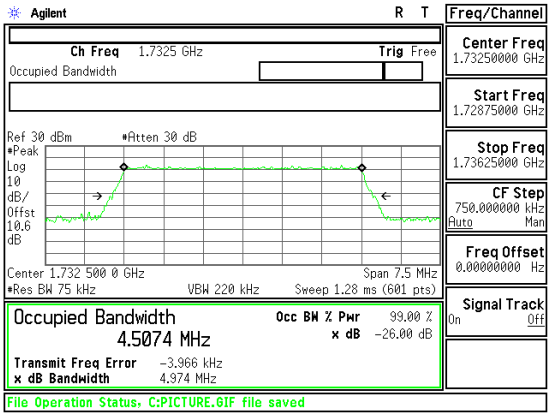
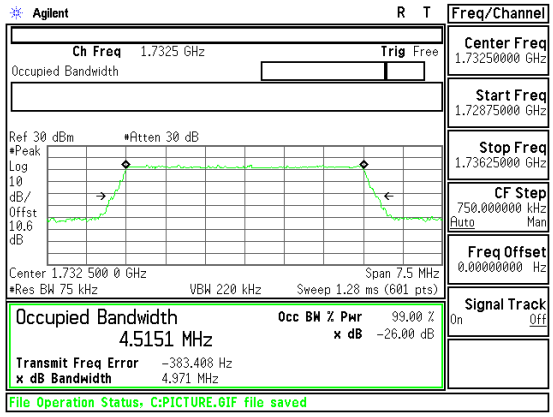
Band LTE4 10MHz 16QAM	 Band LTE4 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE4 10MHz OBW QPSK Mid Channel FRB.gif
Band LTE4 5MHz 16QAM	 Band LTE4 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE4 5MHz OBW QPSK Mid Channel FRB.gif

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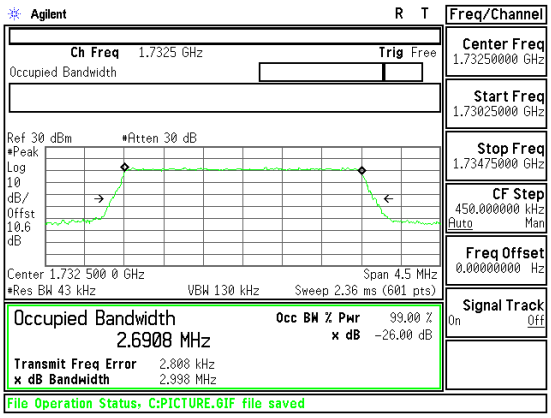
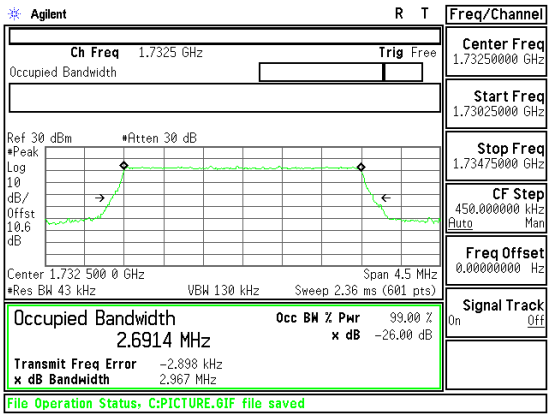
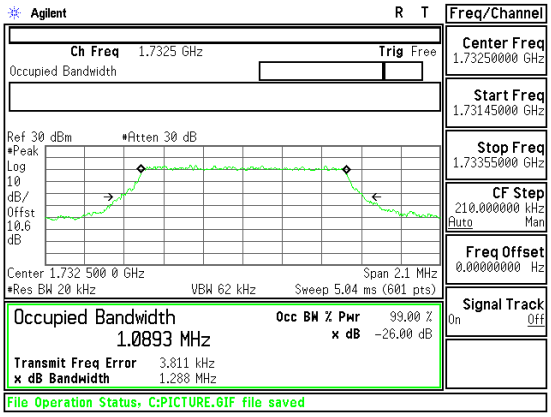
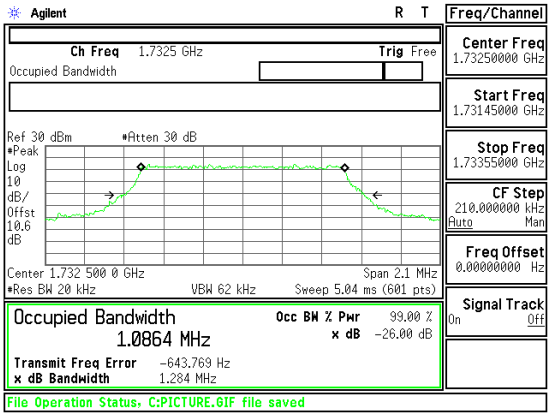
Band LTE4 3MHz 16QAM	 Band LTE4 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE4 3MHz OBW QPSK Mid Channel FRB.gif
Band LTE4 1.4MHz 16QAM	 Band LTE4 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE4 1.4MHz OBW QPSK Mid Channel FRB.gif

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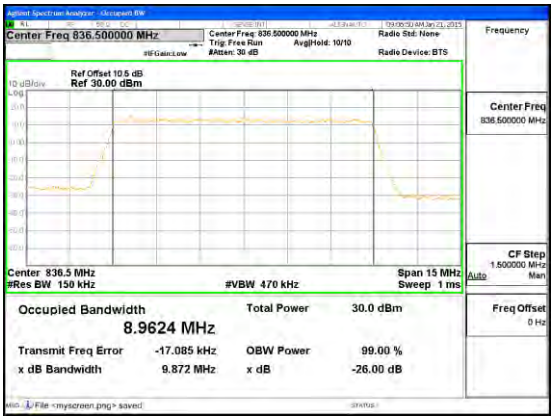
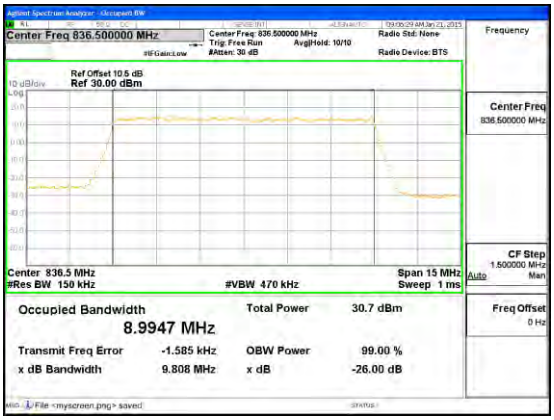
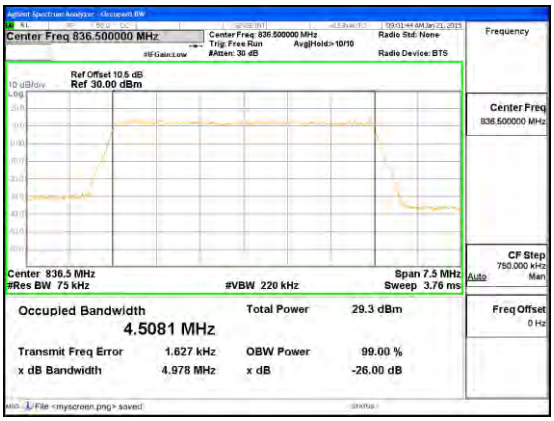
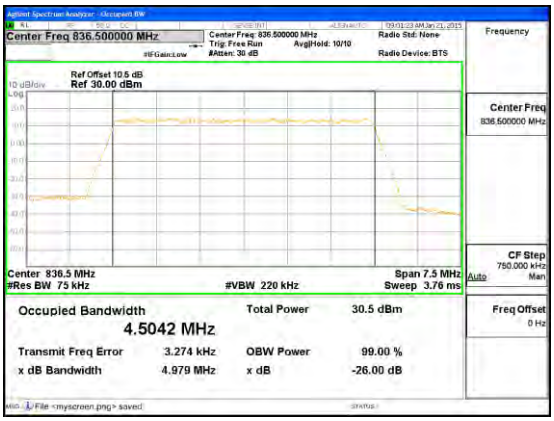
LTE Band 5

Band LTE5 10MHz 16QAM	 Band LTE5 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE5 10MHz OBW QPSK Mid Channel FRB.gif
Band LTE5 5MHz 16QAM	 Band LTE5 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE5 5MHz OBW QPSK Mid Channel FRB.gif

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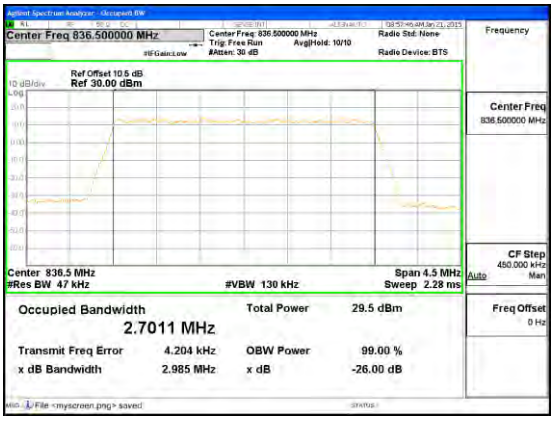
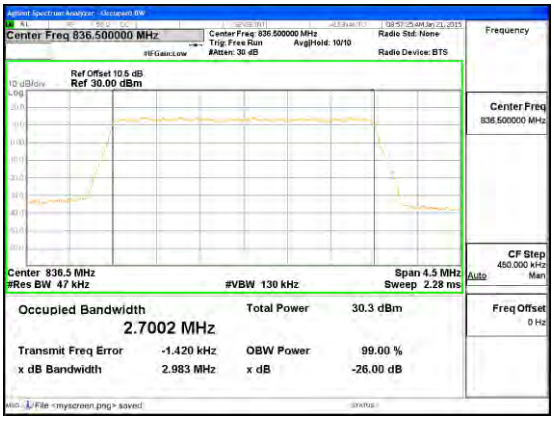
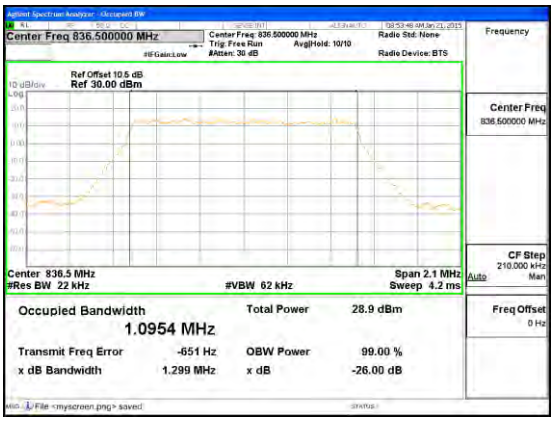
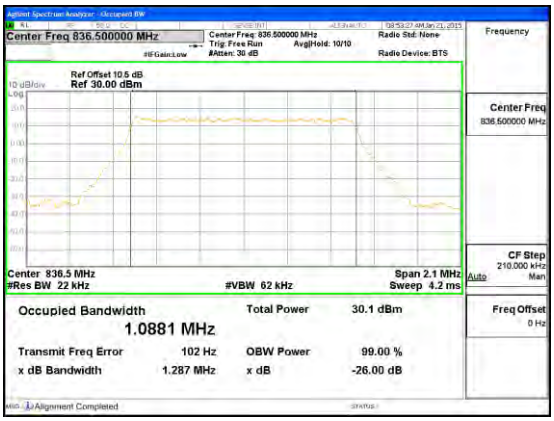
Band LTE5 3MHz 16QAM	 Band LTE5 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE5 3MHz OBW QPSK Mid Channel FRB.gif
Band LTE5 1.4MHz 16QAM	 Band LTE5 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE5 1.4MHz OBW QPSK Mid Channel FRB.gif

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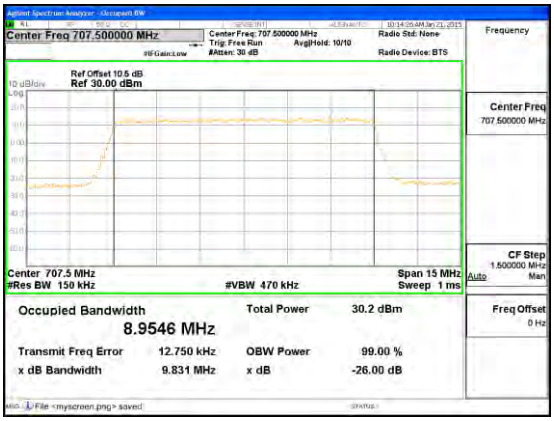
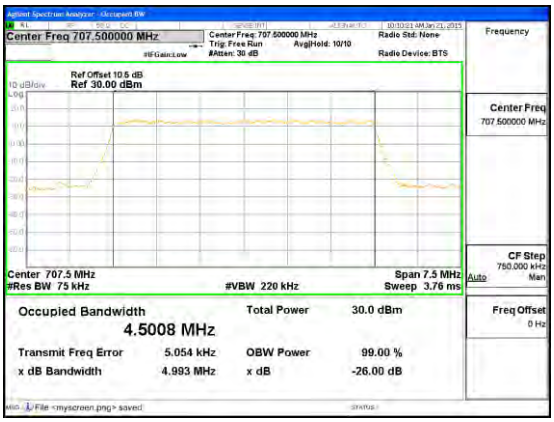
LTE Band 12

Band LTE12 10MHz 16QAM	 Band LTE12 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE12 10MHz OBW QPSK Mid Channel FRB.gif
Band LTE12 5MHz 16QAM	 Band LTE12 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE12 5MHz OBW QPSK Mid Channel FRB.gif

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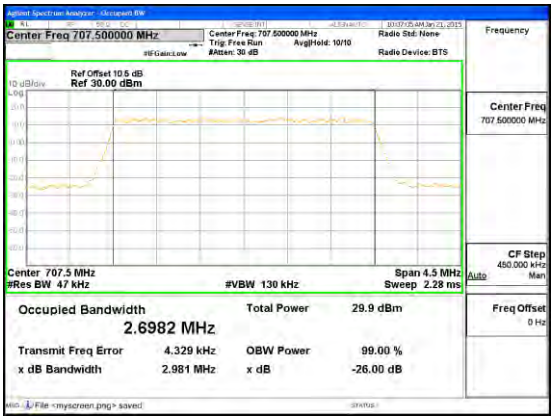
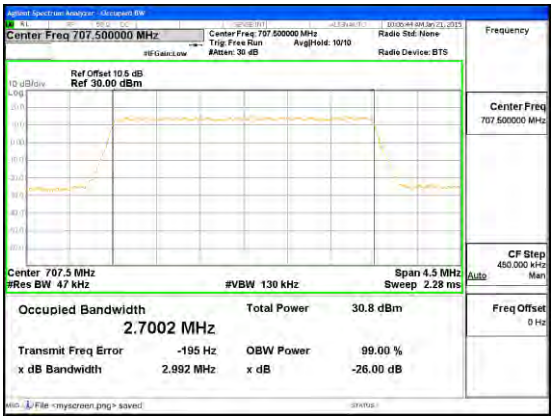
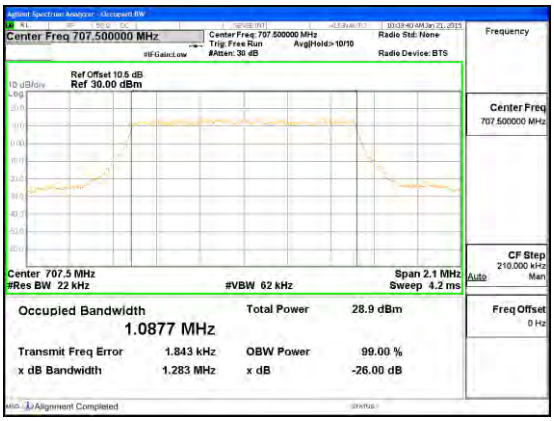
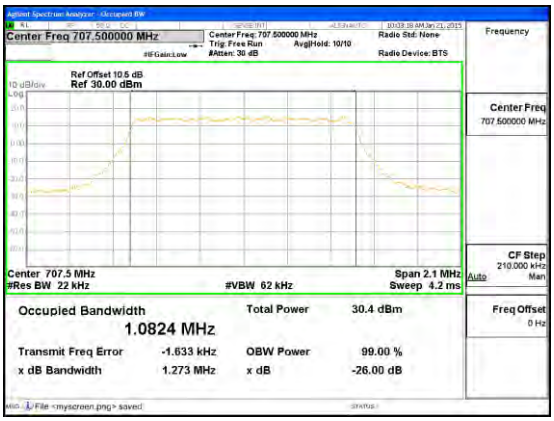
Band LTE12 3MHz 16QAM	 Band LTE12 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE12 3MHz OBW QPSK Mid Channel FRB.gif
Band LTE12 1.4MHz 16QAM	 Band LTE12 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE12 1.4MHz OBW QPSK Mid Channel FRB.gif

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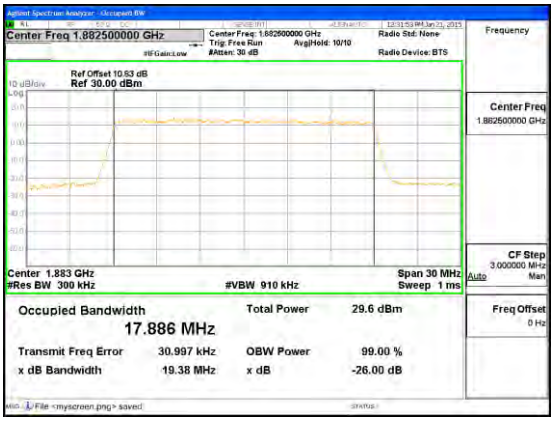
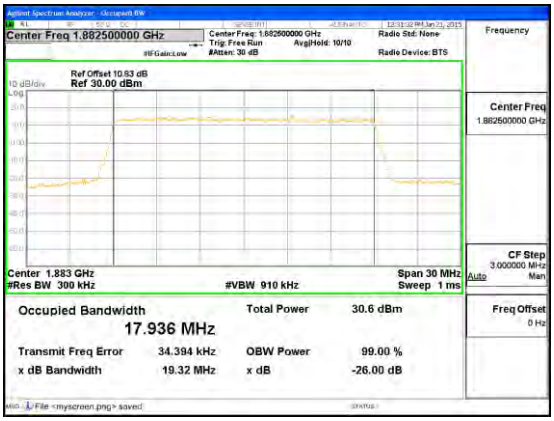
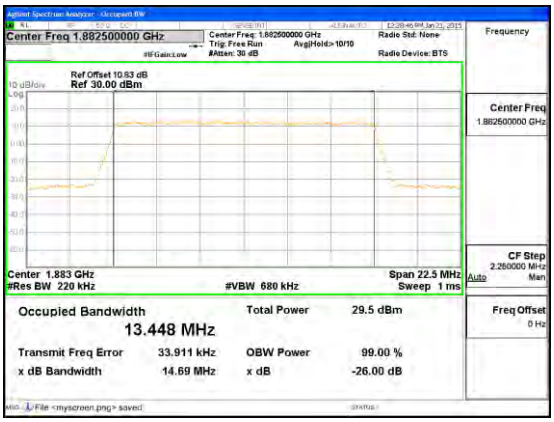
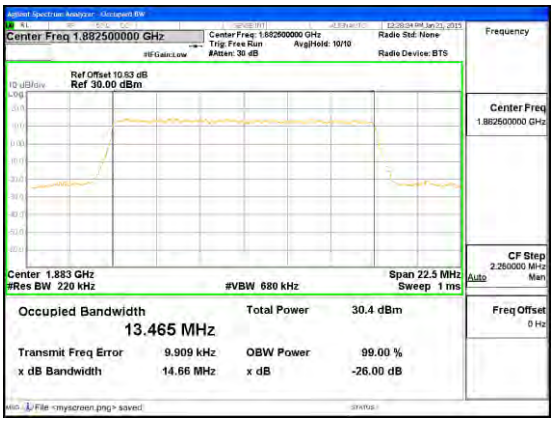
LTE Band 25

Band LTE25 20MHz 16QAM	 Band LTE25 20MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE25 20MHz OBW QPSK Mid Channel FRB.gif
Band LTE25 15MHz 16QAM	 Band LTE25 15MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE25 15MHz OBW QPSK Mid Channel FRB.gif

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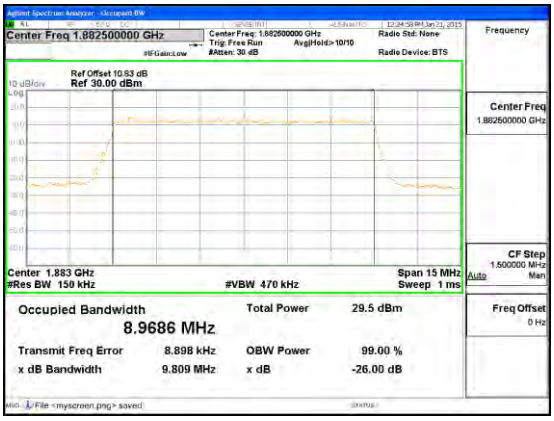
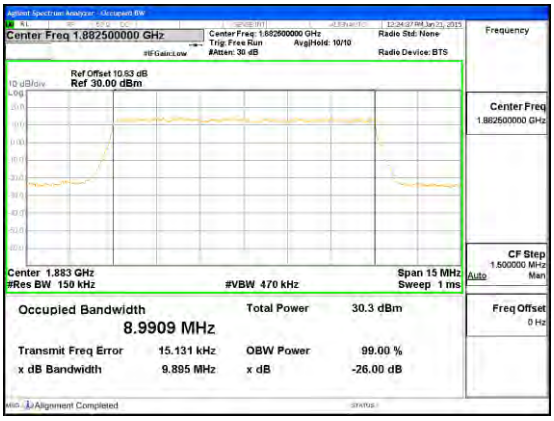
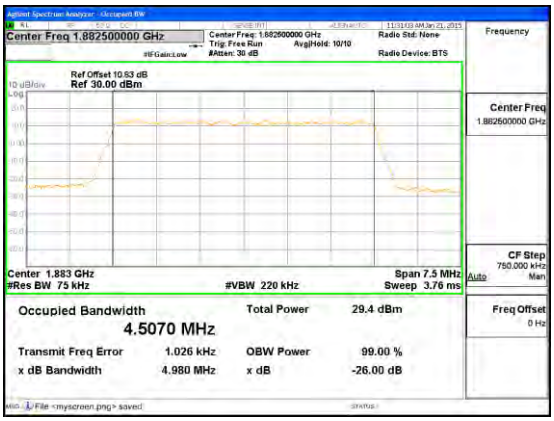
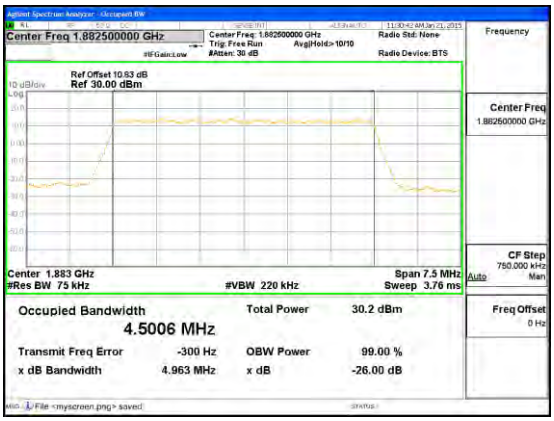
Band LTE25 10MHz 16QAM	 Band LTE25 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE25 10MHz OBW QPSK Mid Channel FRB.gif
Band LTE25 5MHz 16QAM	 Band LTE25 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE25 5MHz OBW QPSK Mid Channel FRB.gif

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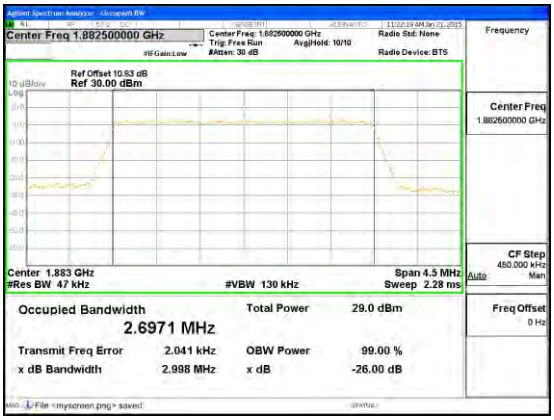
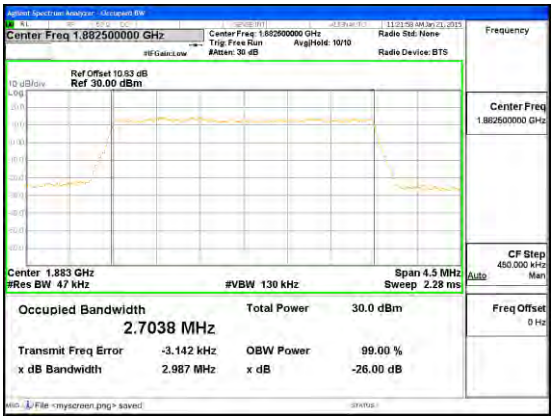
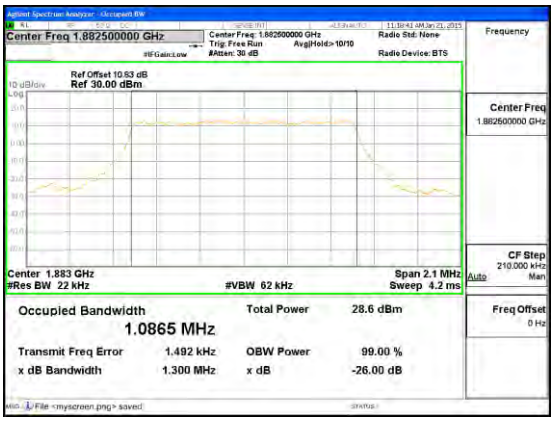
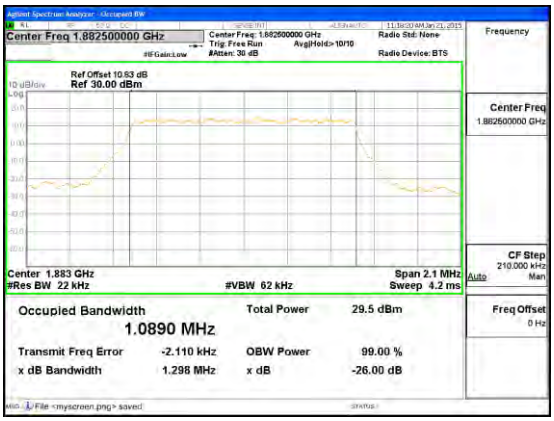
Band LTE25 3MHz 16QAM	 Band LTE25 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE25 3MHz OBW QPSK Mid Channel FRB.gif
Band LTE25 1.4MHz 16QAM	 Band LTE25 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE25 1.4MHz OBW QPSK Mid Channel FRB.gif

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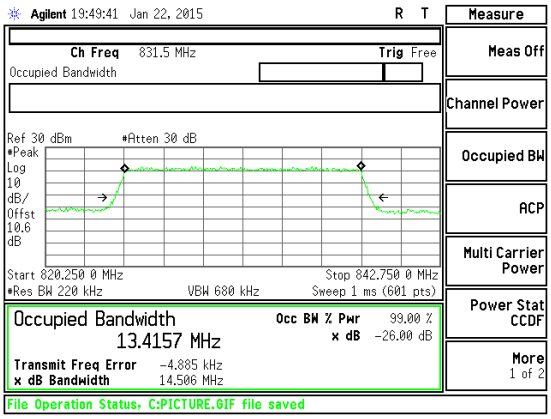
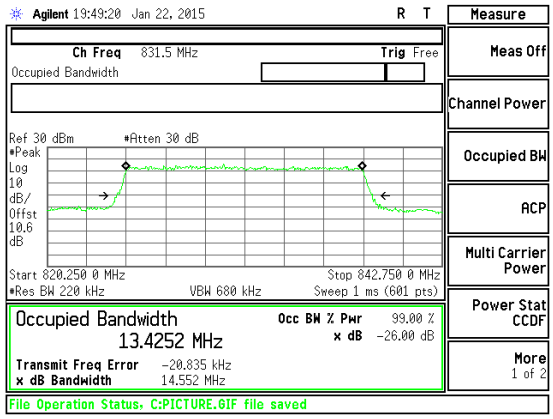
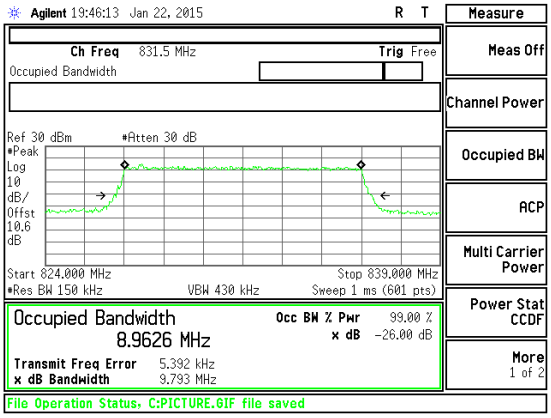
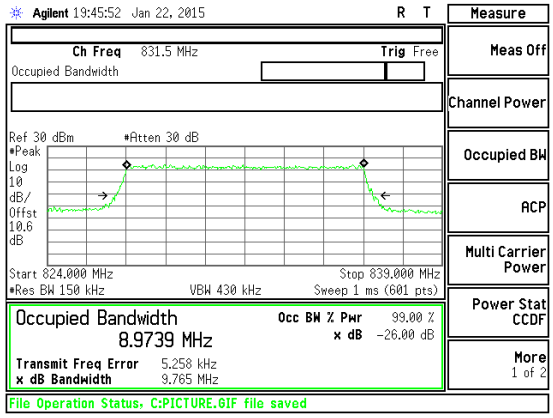
LTE Band 26

Band LTE26 15MHz 16QAM	 Band LTE26 15MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE26 15MHz OBW QPSK Mid Channel FRB.gif
Band LTE26 10MHz 16QAM	 Band LTE26 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE26 10MHz OBW QPSK Mid Channel FRB.gif

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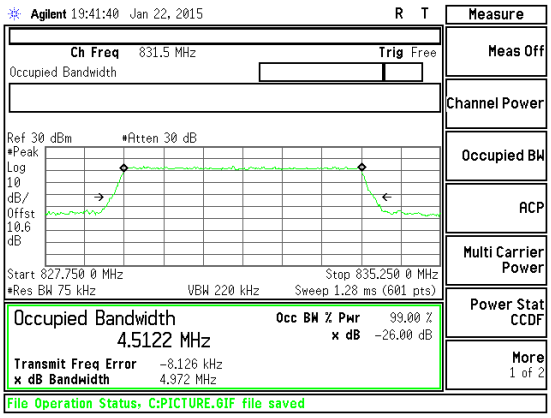
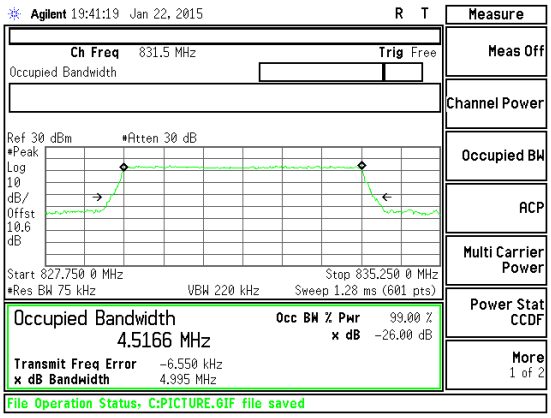
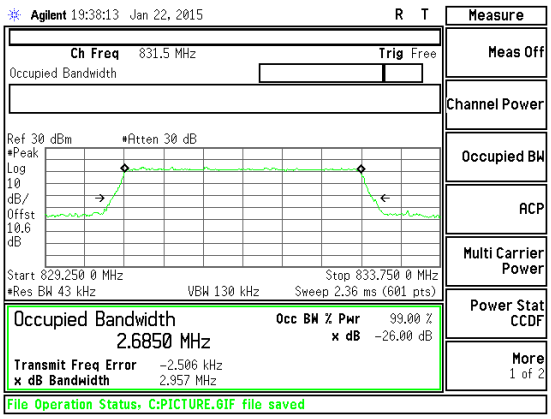
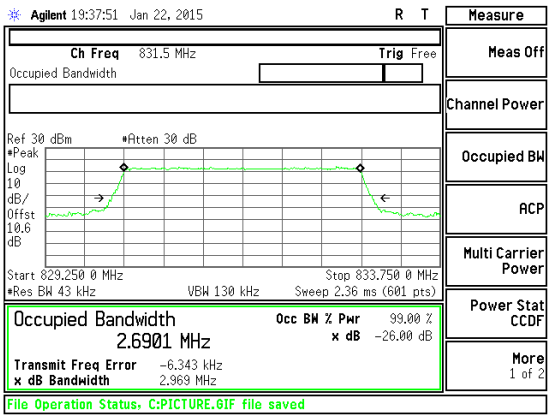
Band LTE26 5MHz 16QAM	 Band LTE26 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE26 5MHz OBW QPSK Mid Channel FRB.gif
Band LTE26 3MHz 16QAM	 Band LTE26 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE26 3MHz OBW QPSK Mid Channel FRB.gif

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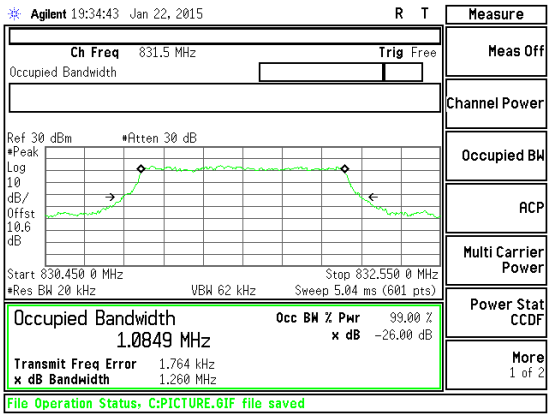
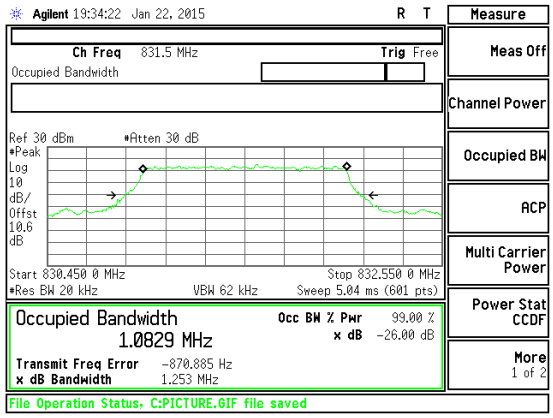
Band LTE26 1.4MHz 16QAM	 Band LTE26 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE26 1.4MHz OBW QPSK Mid Channel FRB.gif

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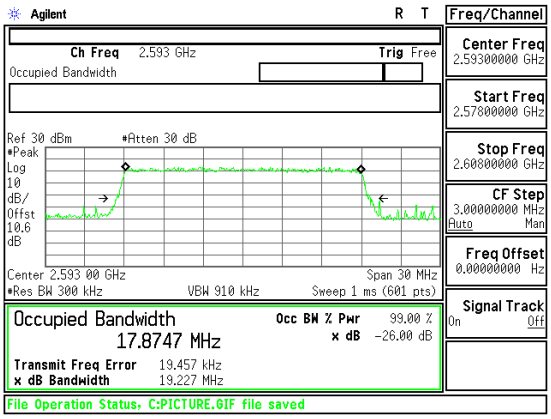
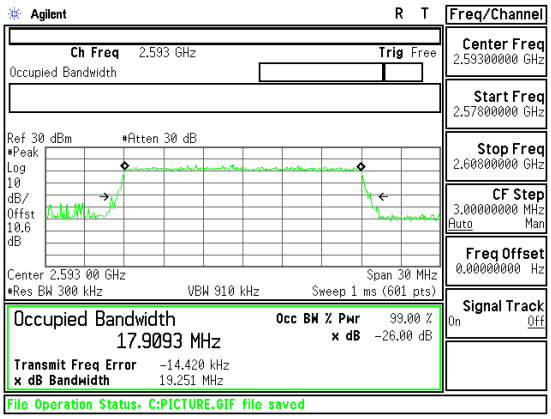
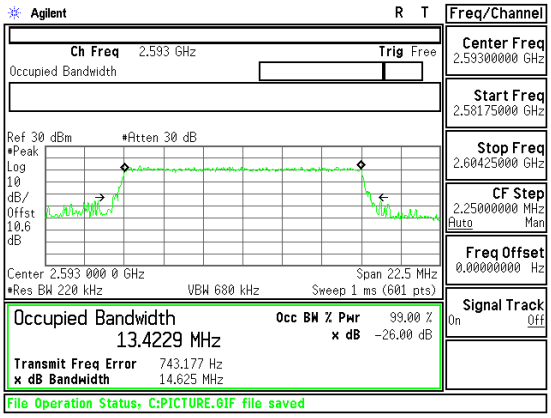
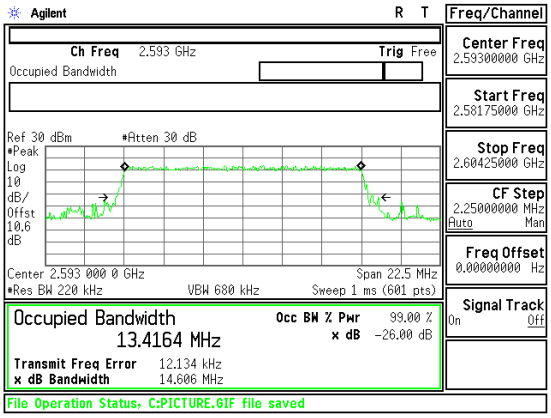
LTE Band 41

Band LTE41 20MHz 16QAM	 Band LTE41 20MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE41 20MHz OBW QPSK Mid Channel FRB.gif
Band LTE41 15MHz 16QAM	 Band LTE41 15MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE41 15MHz OBW QPSK Mid Channel FRB.gif

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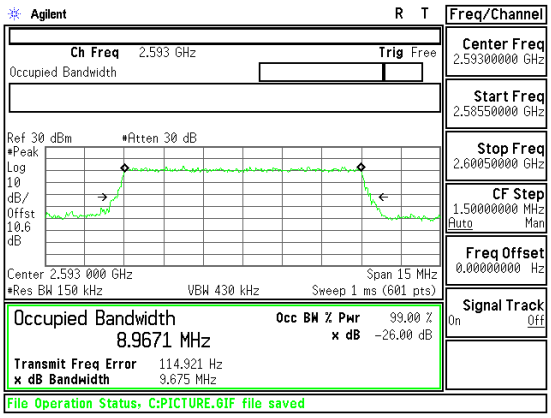
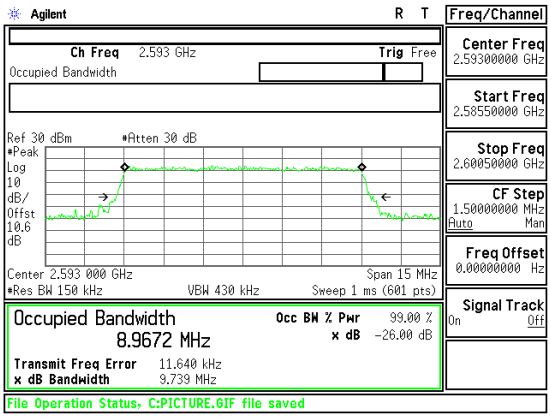
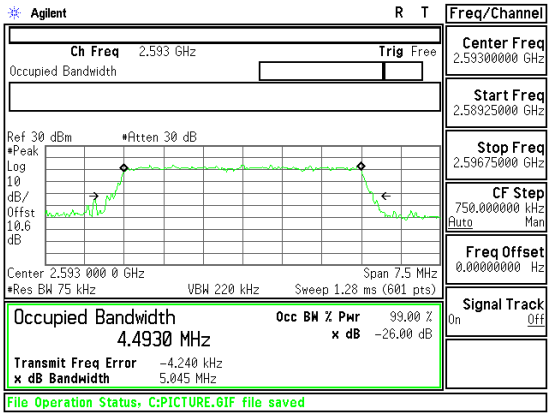
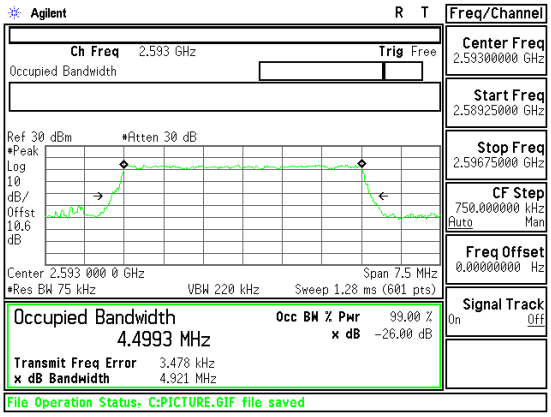
Band LTE41 10MHz 16QAM	 Band LTE41 10MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE41 10MHz OBW QPSK Mid Channel FRB.gif
Band LTE41 5MHz 16QAM	 Band LTE41 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE41 5MHz OBW QPSK Mid Channel FRB.gif

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10.2. BAND EDGE EMISSIONS

RULE PART(S)

FCC: §22.359, §24.238, §27. 53 and § 90.691

LIMITS

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

Part 27: (m)(4) For mobile station, the attenuation factor shall be not less than 43+10Log(P)dB at the channel edge and (55+10Log(P)dB) at 5.5MHz from the channel edges.

Part 90:
(a)(1)For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
(a)(2)For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz. {NOTE: Use 100 kHz reference bandwidth.}

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02
The transmitter output was connected to an Agilent 8960 or a CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

MODES TESTED

CDMA and LTE

RESULTS

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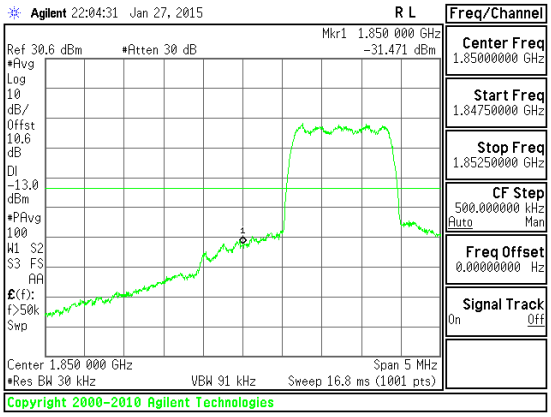
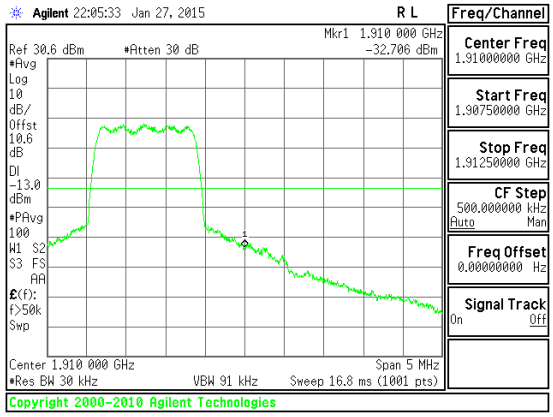
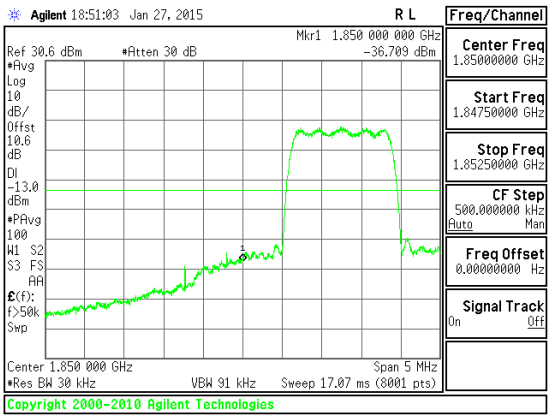
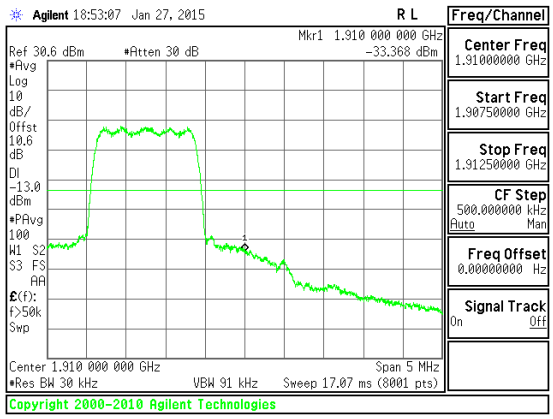
10.2.1. BAND EDGE PLOTS

CDMA

Band BC1 EVDO REL. 0	 Band BC1 EVDO Rel. 0 CBE Low channel	 Band BC1 EVDO Rel. 0 CBE High channel
Band BC1 1xRTT	 Band BC1 1xRTT CBE Low channel	 Band BC1 1xRTT CBE High channel

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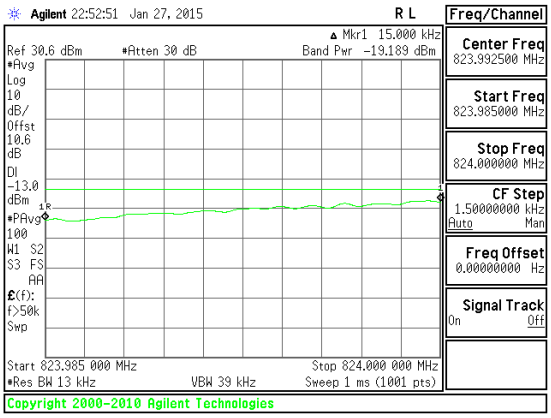
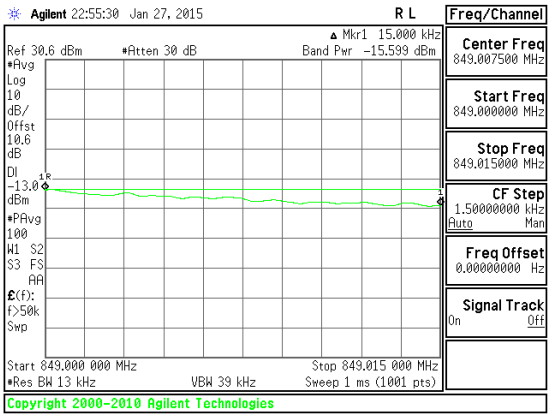
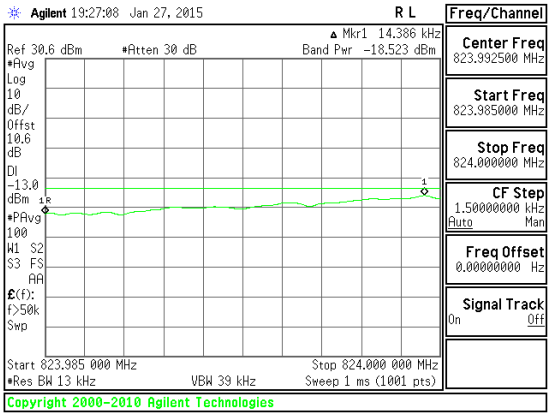
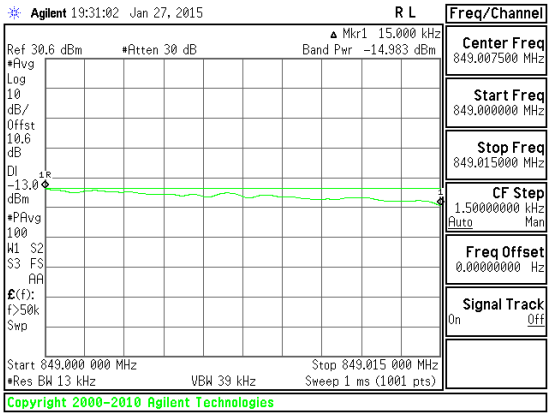
Band BC0 EVDO REL. 0	 Band BC0 EVDO Rel. 0 CBE Low channel	 Band BC0 EVDO Rel. 0 CBE High channel
Band BC0 1xRTT	 Band BC0 1xRTT CBE Low channel	 Band BC0 1xRTT CBE High channel

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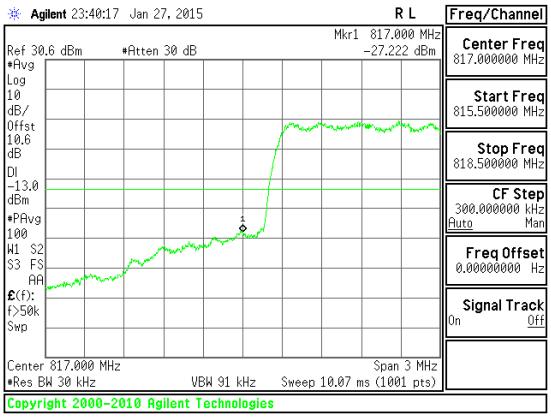
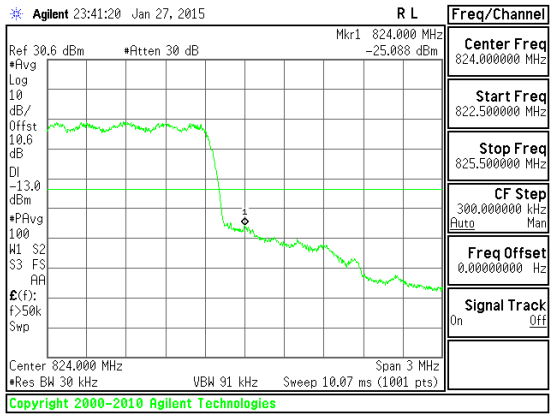
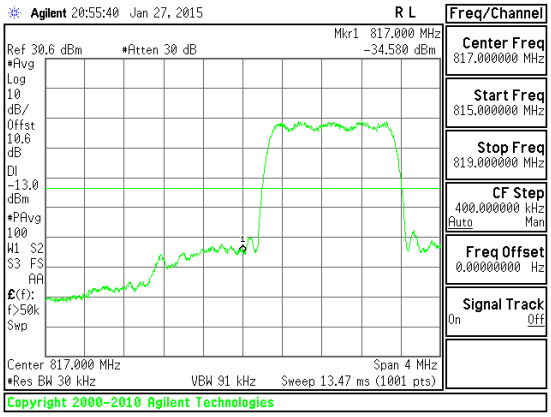
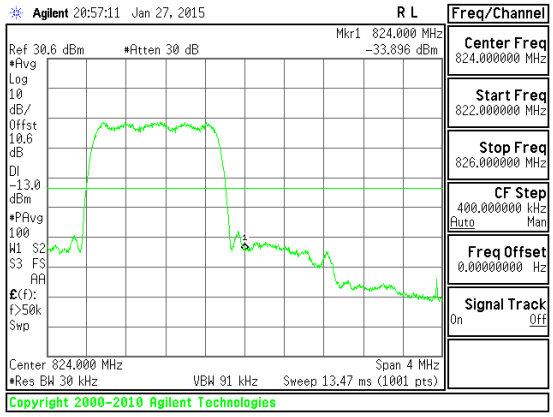
Band BC10 EVDO REL. 0	 Band BC10 EVDO Rel. 0 CBE Low channel	 Band BC10 EVDO Rel. 0 CBE High channel
Band BC10 1xRTT	 Band BC10 1xRTT CBE Low channel	 Band BC10 1xRTT CBE High channel

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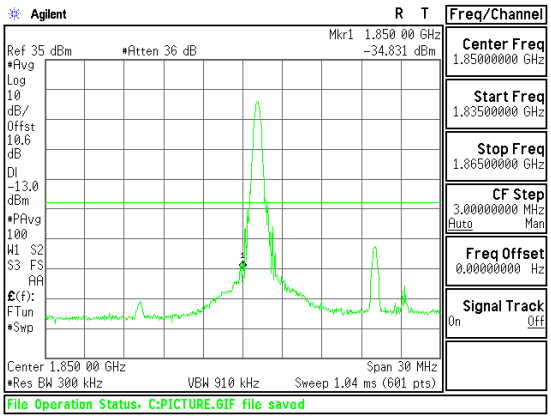
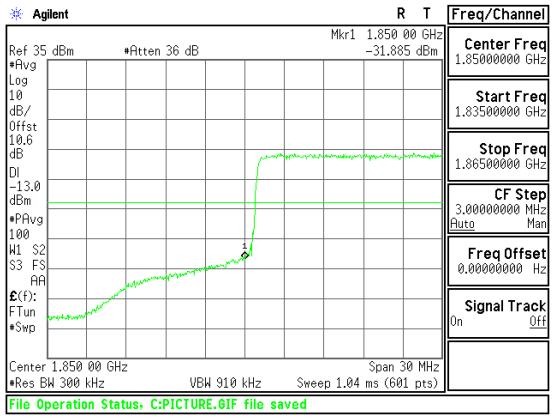
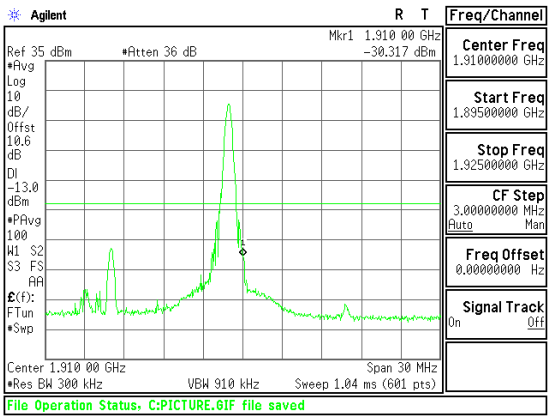
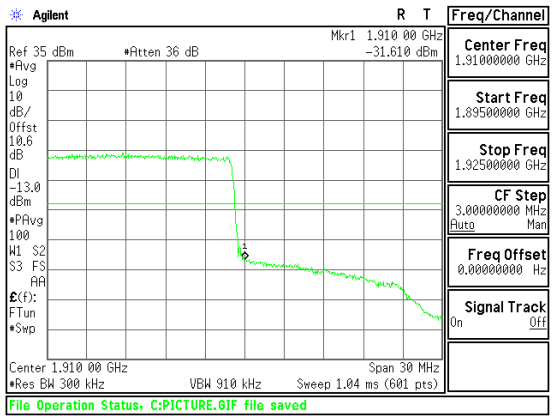
LTE Band 2

Band LTE2 20MHz 16QAM	 Band LTE2 20MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE2 20MHz CBE 16QAM Low Channel FRB.gif
Band LTE2 20MHz 16QAM	 Band LTE2 20MHz CBE 16QAM High Channel 1RB.gif	 Band LTE2 20MHz CBE 16QAM High Channel FRB.gif

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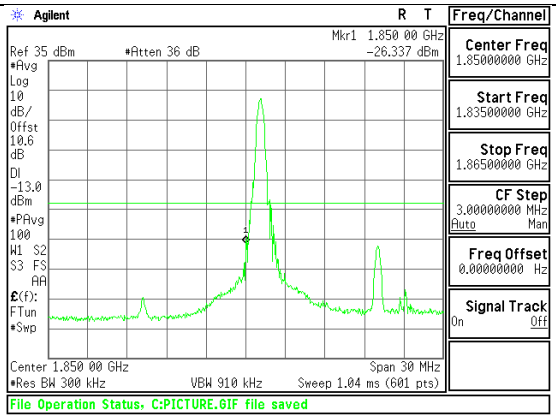
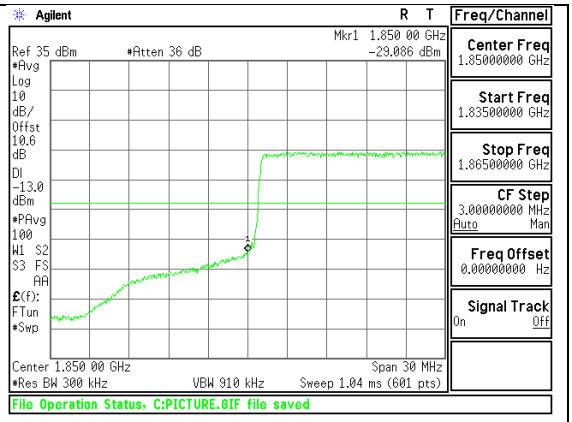
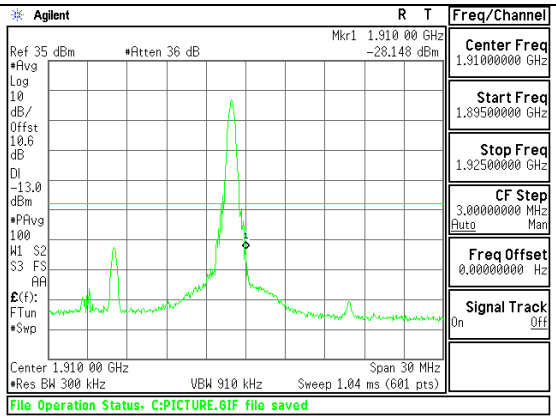
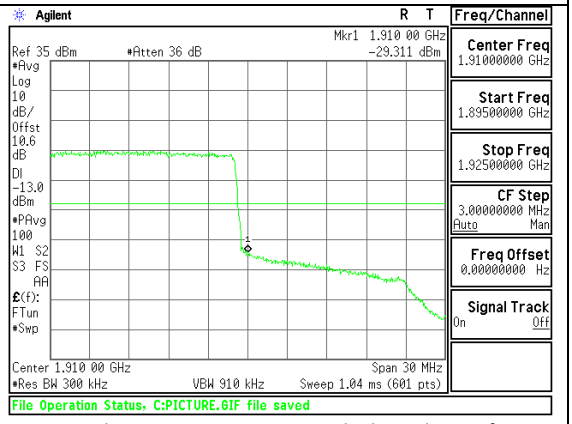
Band LTE2 20MHz QPSK	 Band LTE2 20MHz CBE QPSK Low Channel 1RB.gif	 Band LTE2 20MHz CBE QPSK Low Channel FRB.gif
Band LTE2 20MHz QPSK	 Band LTE2 20MHz CBE QPSK High Channel 1RB.gif	 Band LTE2 20MHz CBE QPSK High Channel FRB.gif

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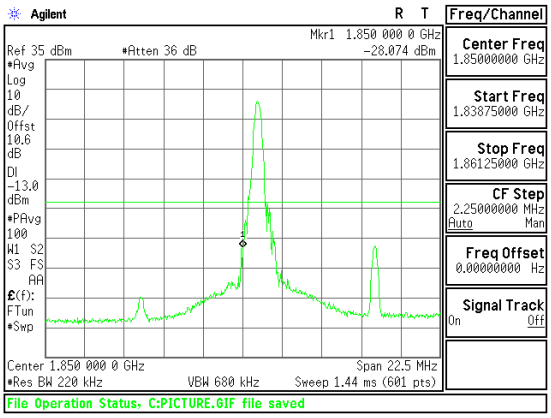
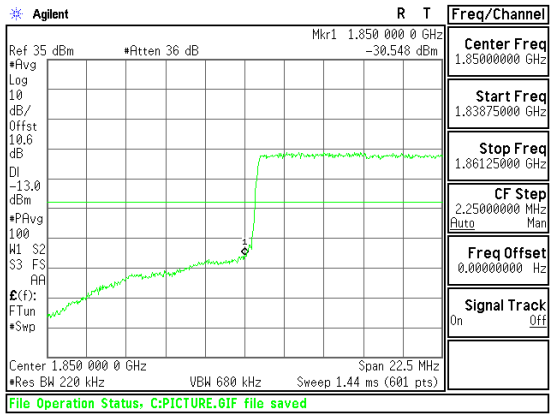
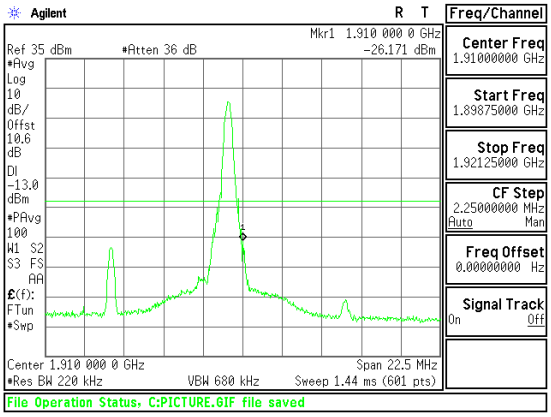
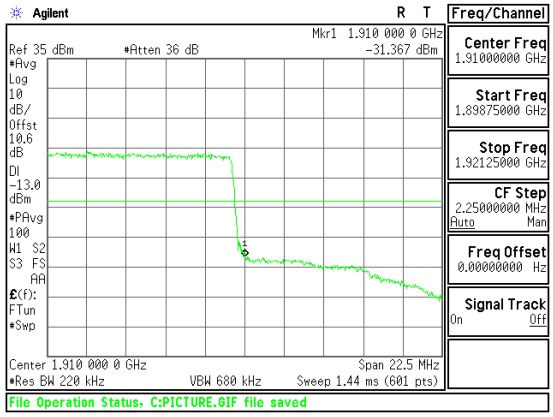
Band LTE2 15MHz 16QAM	 Band LTE2 15MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE2 15MHz CBE 16QAM Low Channel FRB.gif
Band LTE2 15MHz 16QAM	 Band LTE2 15MHz CBE 16QAM High Channel 1RB.gif	 Band LTE2 15MHz CBE 16QAM High Channel FRB.gif

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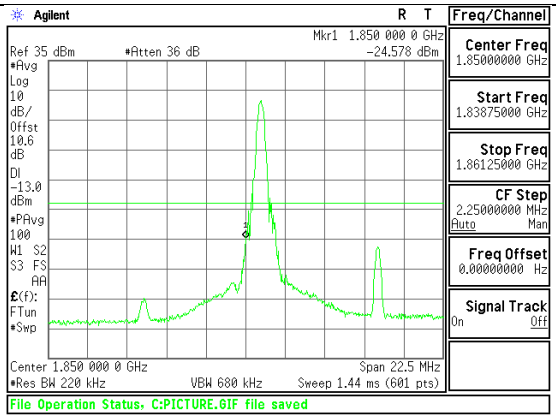
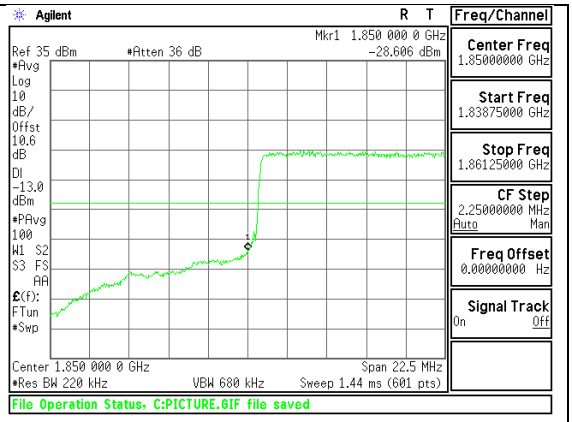
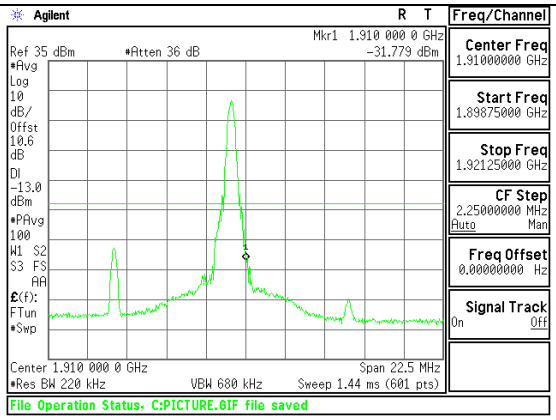
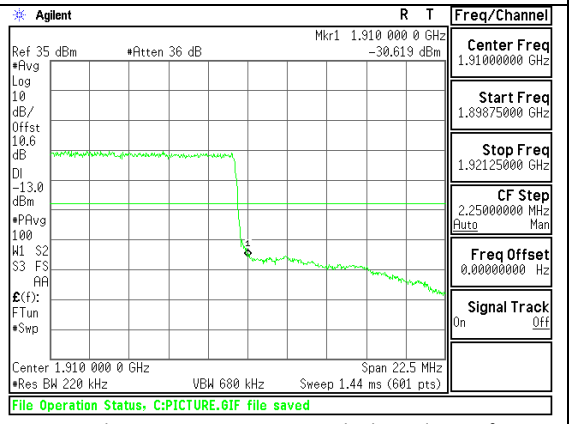
Band LTE2 15MHz QPSK	 Band LTE2 15MHz CBE QPSK Low Channel 1RB.gif	 Band LTE2 15MHz CBE QPSK Low Channel FRB.gif
Band LTE2 15MHz QPSK	 Band LTE2 15MHz CBE QPSK High Channel 1RB.gif	 Band LTE2 15MHz CBE QPSK High Channel FRB.gif

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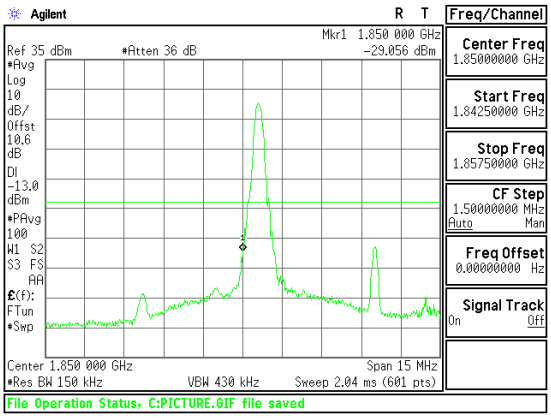
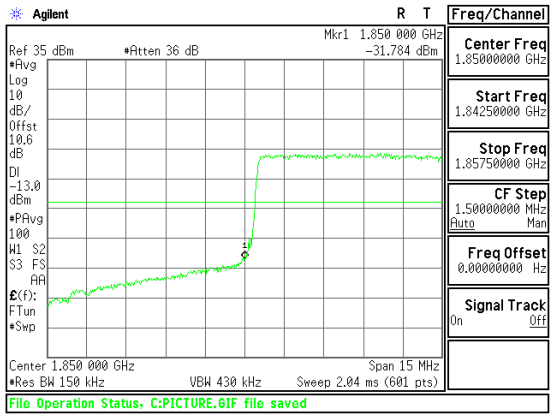
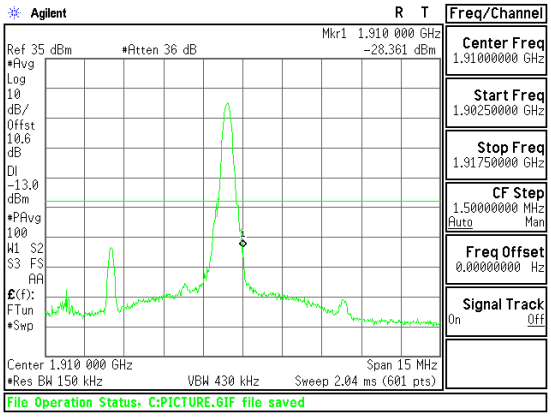
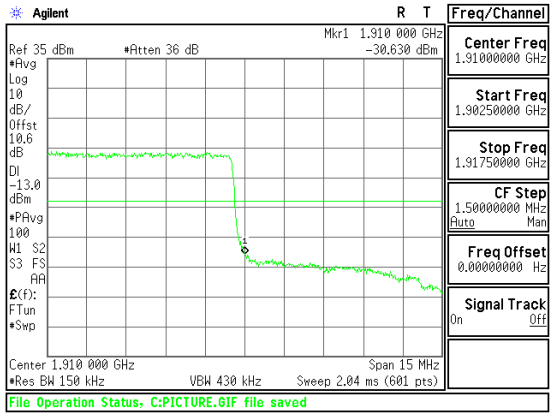
Band LTE2 10MHz 16QAM	 Band LTE2 10MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE2 10MHz CBE 16QAM Low Channel FRB.gif
Band LTE2 10MHz 16QAM	 Band LTE2 10MHz CBE 16QAM High Channel 1RB.gif	 Band LTE2 10MHz CBE 16QAM High Channel FRB.gif

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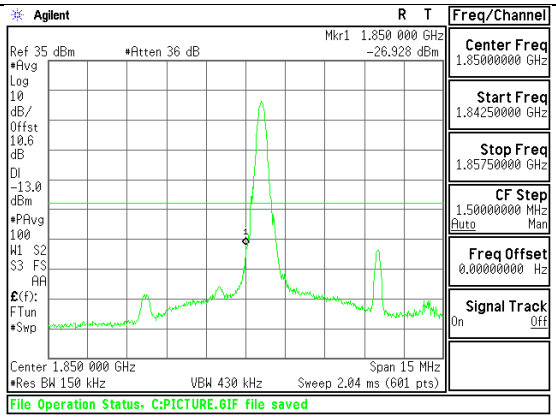
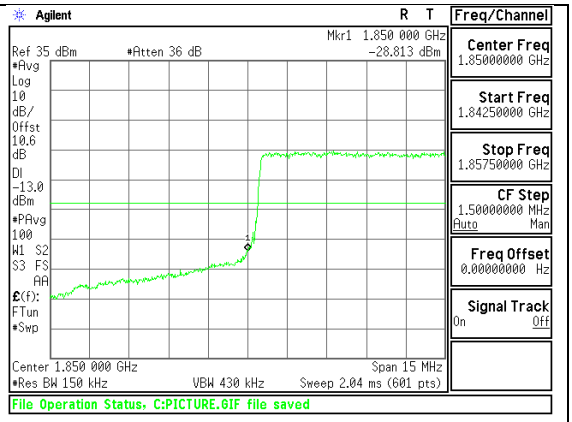
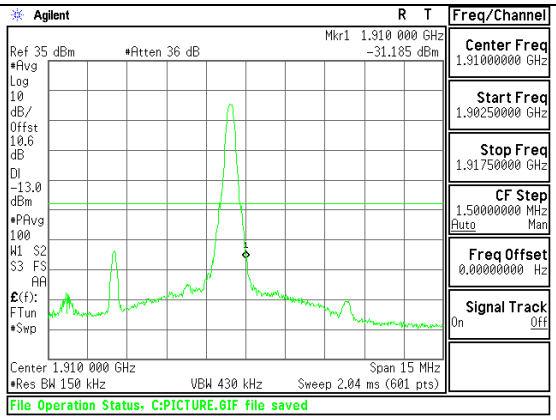
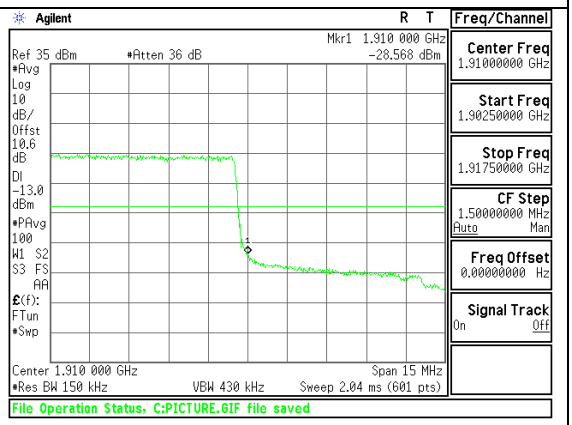
Band LTE2 10MHz QPSK	 Band LTE2 10MHz CBE QPSK Low Channel 1RB.gif	 Band LTE2 10MHz CBE QPSK Low Channel FRB.gif
Band LTE2 10MHz QPSK	 Band LTE2 10MHz CBE QPSK High Channel 1RB.gif	 Band LTE2 10MHz CBE QPSK High Channel FRB.gif

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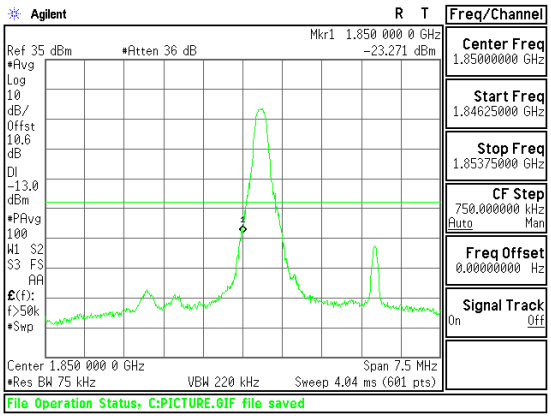
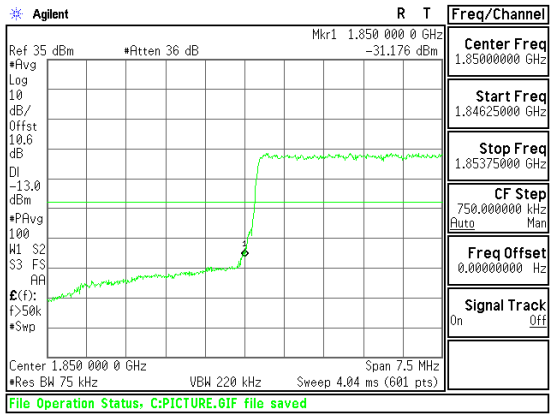
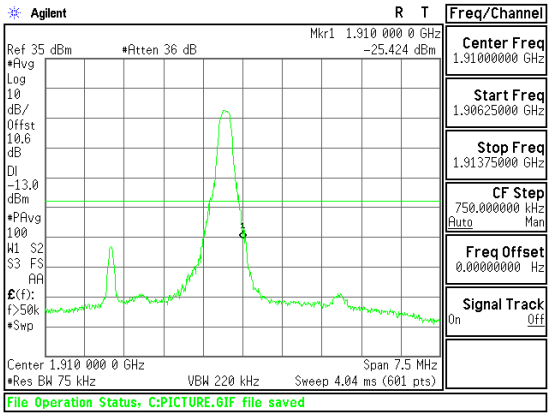
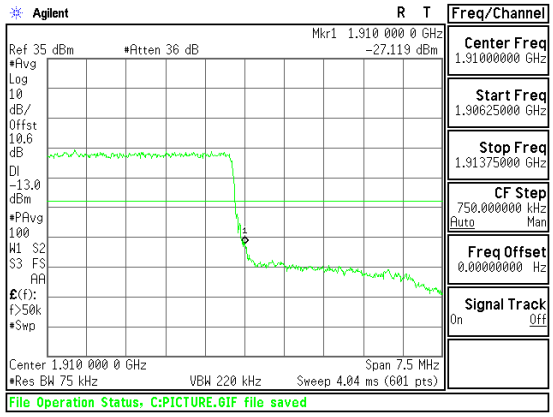
Band LTE2 5MHz 16QAM	 Band LTE2 5MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE2 5MHz CBE 16QAM Low Channel FRB.gif
Band LTE2 5MHz 16QAM	 Band LTE2 5MHz CBE 16QAM High Channel 1RB.gif	 Band LTE2 5MHz CBE 16QAM High Channel FRB.gif

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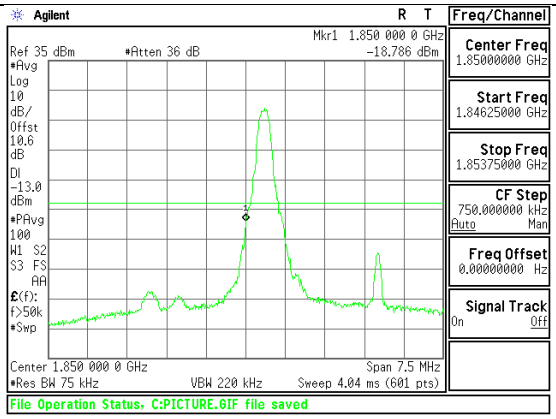
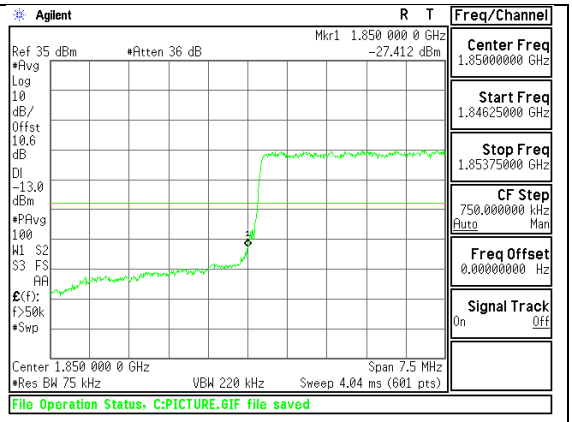
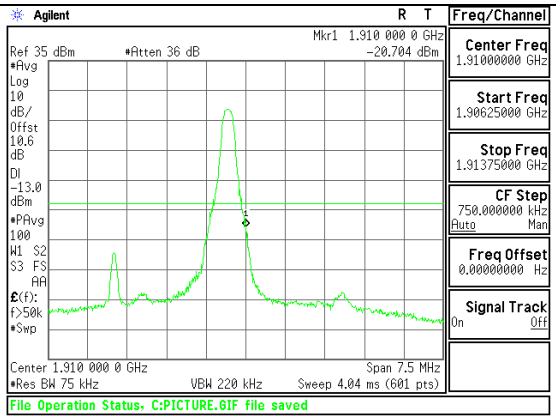
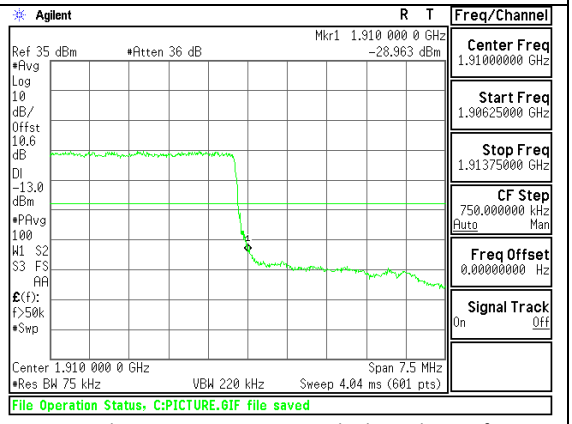
Band LTE2 5MHz QPSK	 Band LTE2 5MHz CBE QPSK Low Channel 1RB.gif	 Band LTE2 5MHz CBE QPSK Low Channel FRB.gif
Band LTE2 5MHz QPSK	 Band LTE2 5MHz CBE QPSK High Channel 1RB.gif	 Band LTE2 5MHz CBE QPSK High Channel FRB.gif

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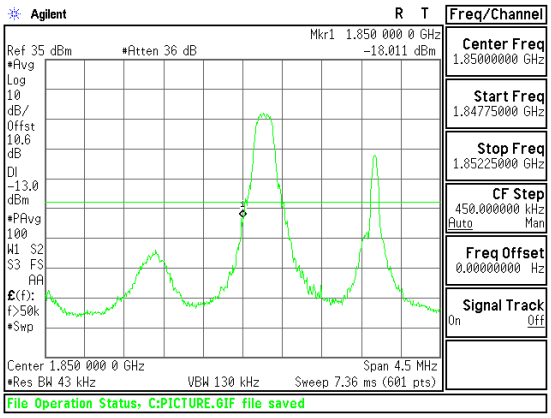
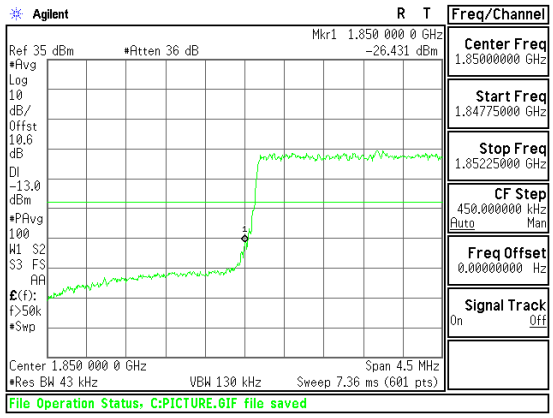
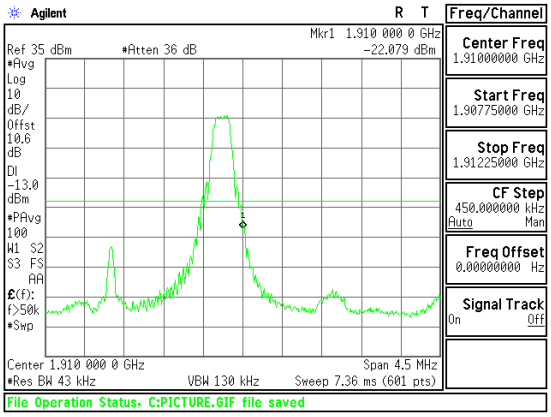
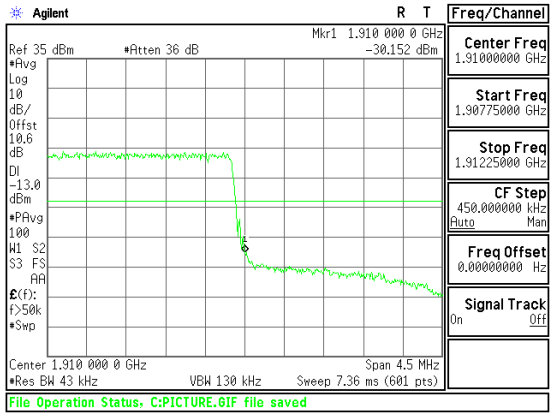
Band LTE2 3MHz 16QAM	 Band LTE2 3MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE2 3MHz CBE 16QAM Low Channel FRB.gif
Band LTE2 3MHz 16QAM	 Band LTE2 3MHz CBE 16QAM High Channel 1RB.gif	 Band LTE2 3MHz CBE 16QAM High Channel FRB.gif

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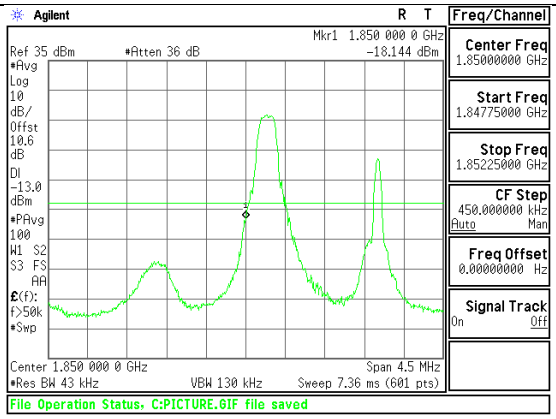
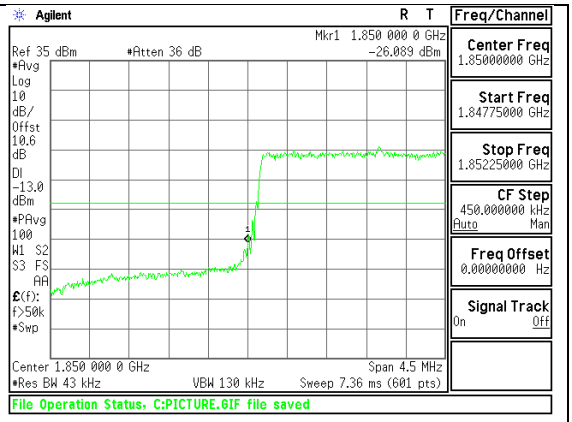
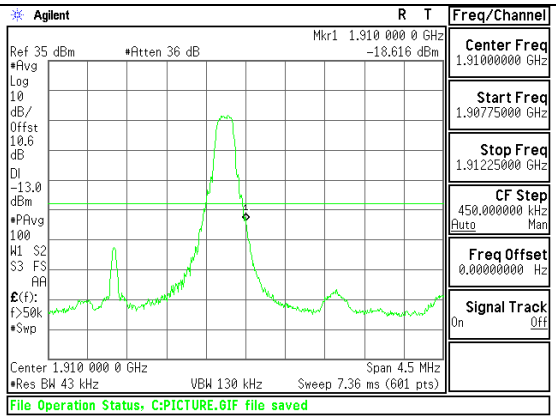
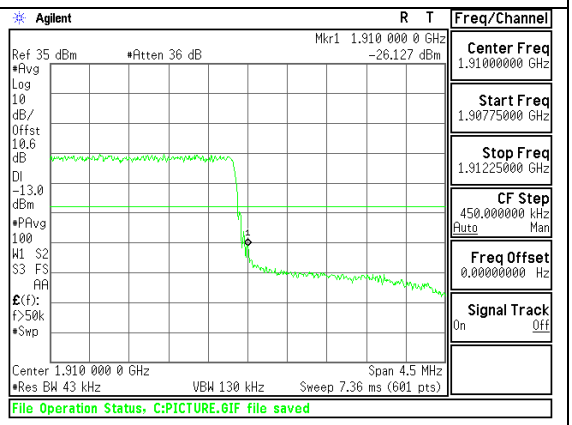
Band LTE2 3MHz QPSK	 Band LTE2 3MHz CBE QPSK Low Channel 1RB.gif	 Band LTE2 3MHz CBE QPSK Low Channel FRB.gif
Band LTE2 3MHz QPSK	 Band LTE2 3MHz CBE QPSK High Channel 1RB.gif	 Band LTE2 3MHz CBE QPSK High Channel FRB.gif

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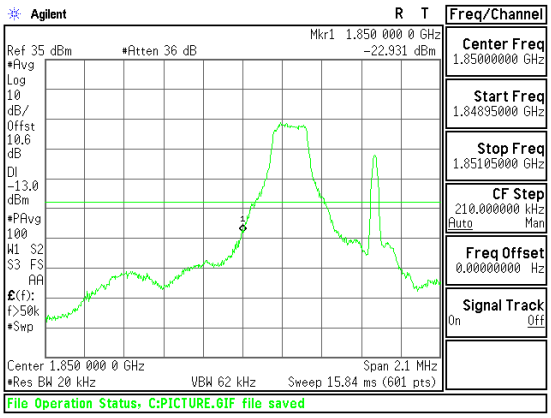
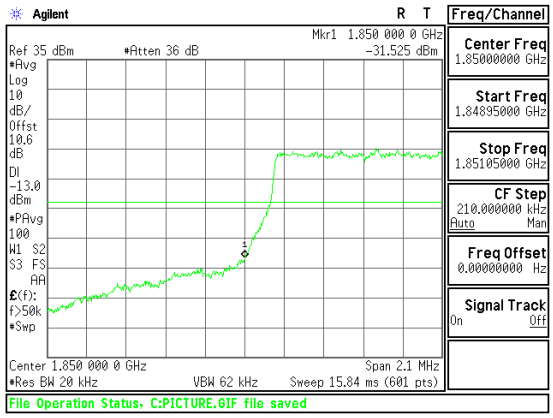
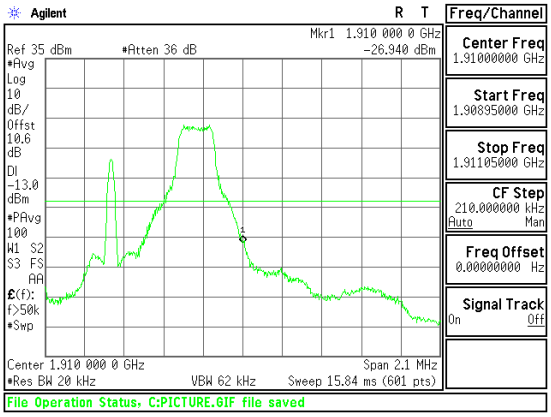
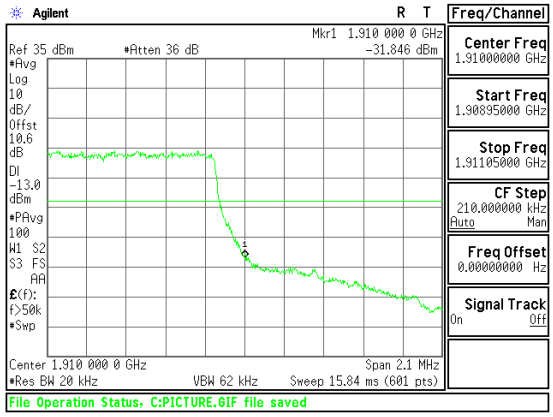
Band LTE2 1.4MHz 16QAM	 Band LTE2 1.4MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE2 1.4MHz CBE 16QAM Low Channel FRB.gif
Band LTE2 1.4MHz 16QAM	 Band LTE2 1.4MHz CBE 16QAM High Channel 1RB.gif	 Band LTE2 1.4MHz CBE 16QAM High Channel FRB.gif

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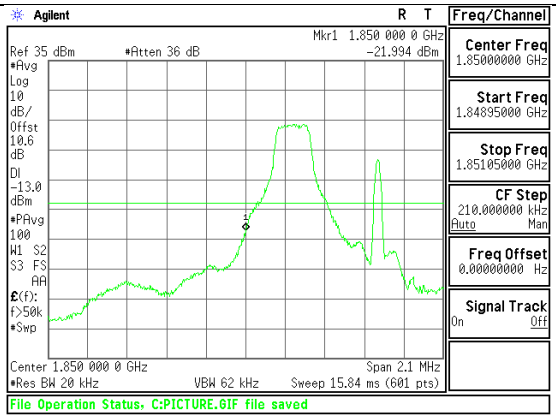
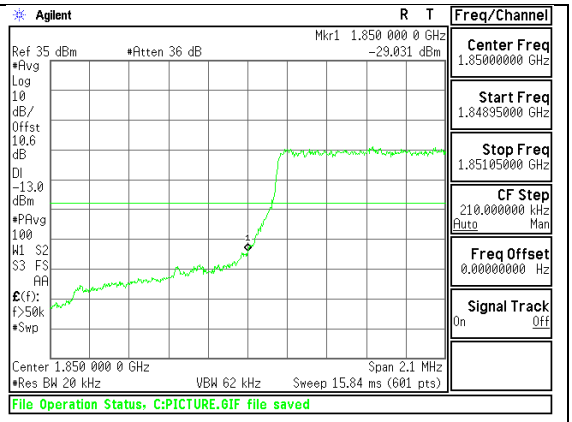
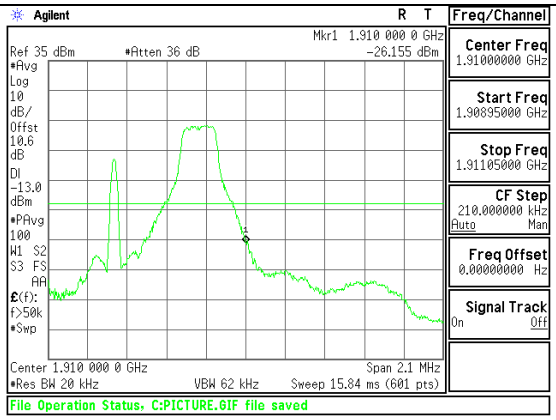
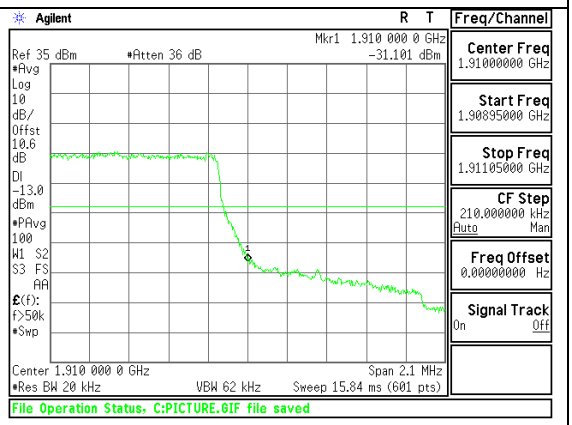
Band LTE2 1.4MHz QPSK	 Band LTE2 1.4MHz CBE QPSK Low Channel 1RB.gif	 Band LTE2 1.4MHz CBE QPSK Low Channel FRB.gif
Band LTE2 1.4MHz QPSK	 Band LTE2 1.4MHz CBE QPSK High Channel 1RB.gif	 Band LTE2 1.4MHz CBE QPSK High Channel FRB.gif

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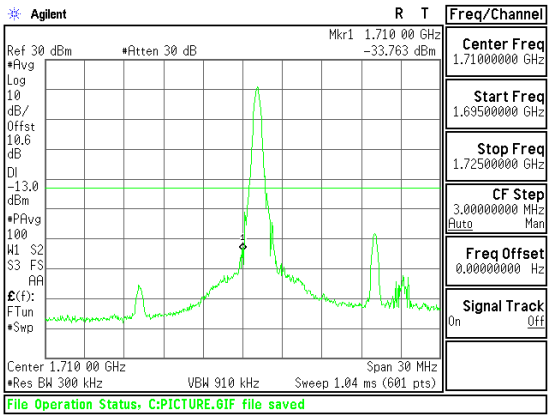
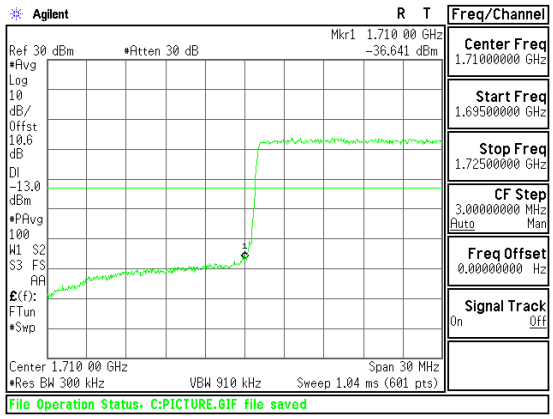
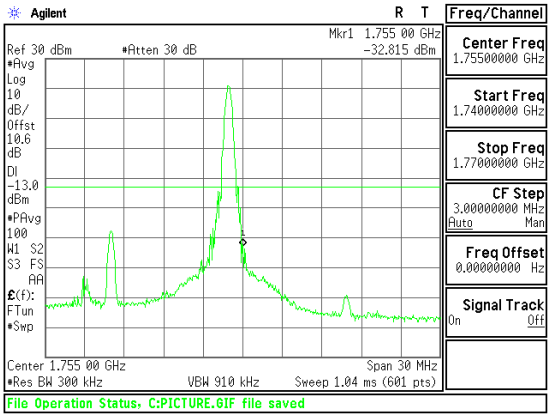
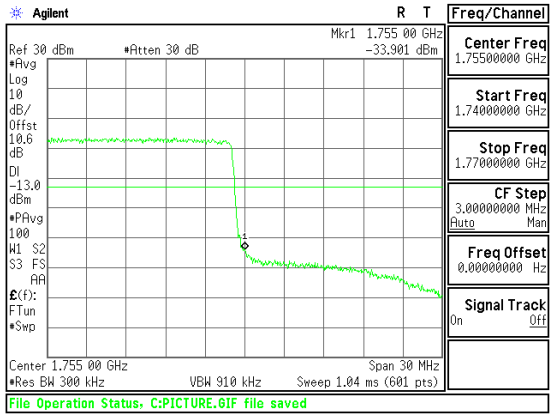
LTE Band 4

Band LTE4 20MHz 16QAM	 Band LTE4 20MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE4 20MHz CBE 16QAM Low Channel FRB.gif
Band LTE4 20MHz 16QAM	 Band LTE4 20MHz CBE 16QAM High Channel 1RB.gif	 Band LTE4 20MHz CBE 16QAM High Channel FRB.gif

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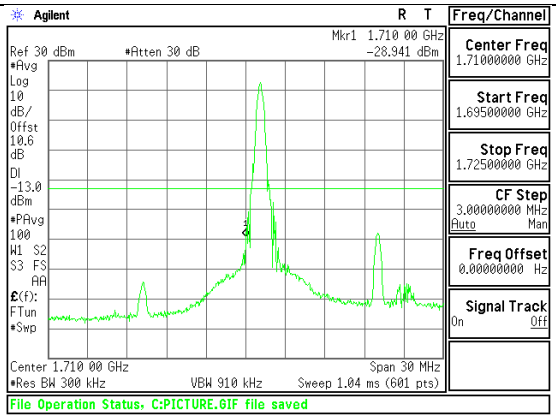
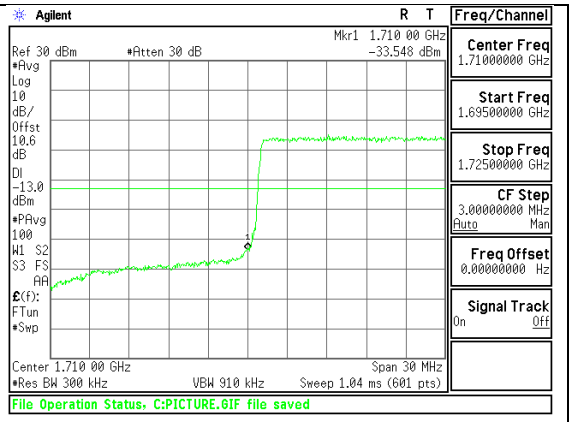
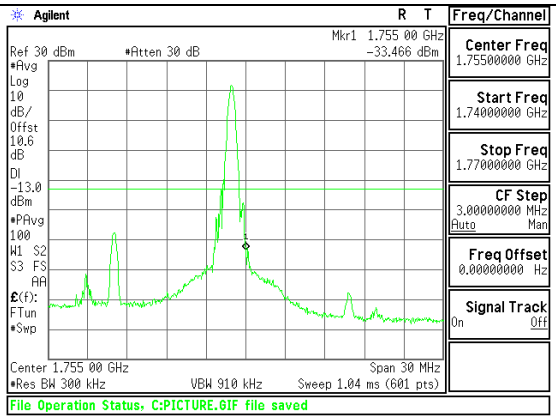
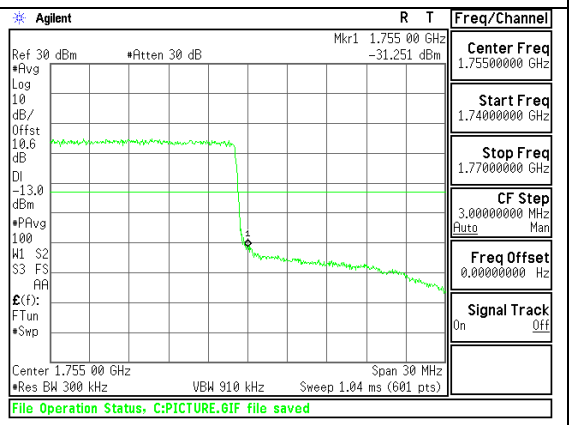
Band LTE4 20MHz QPSK	 Band LTE4 20MHz CBE QPSK Low Channel 1RB.gif	 Band LTE4 20MHz CBE QPSK Low Channel FRB.gif
Band LTE4 20MHz QPSK	 Band LTE4 20MHz CBE QPSK High Channel 1RB.gif	 Band LTE4 20MHz CBE QPSK High Channel FRB.gif

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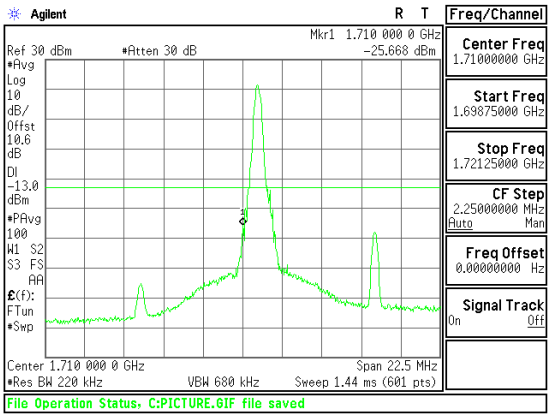
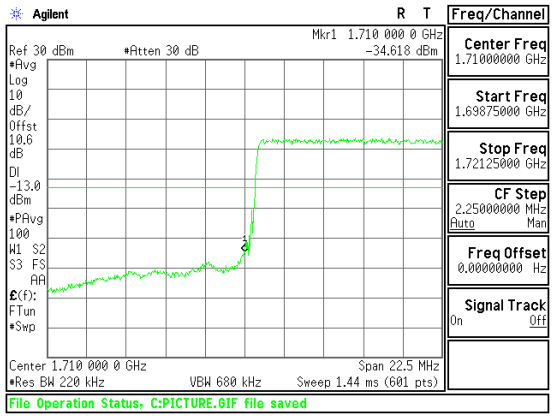
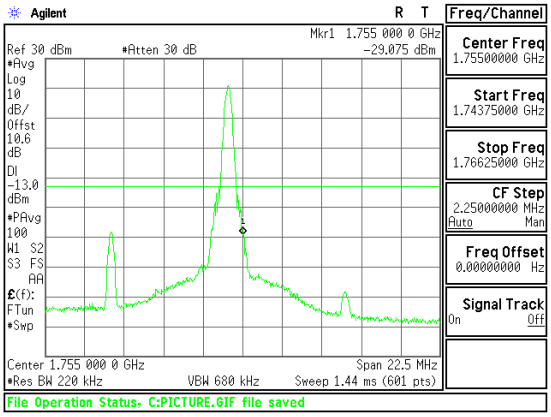
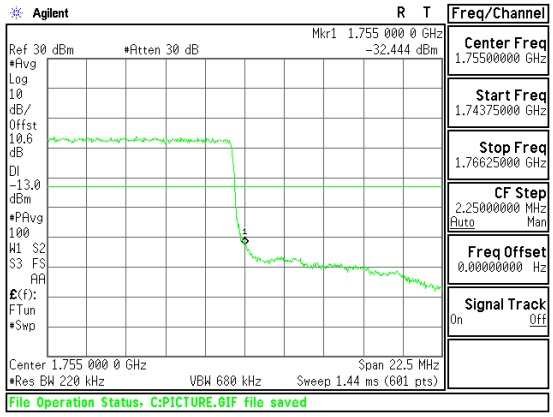
Band LTE4 15MHz 16QAM	 Band LTE4 15MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE4 15MHz CBE 16QAM Low Channel FRB.gif
Band LTE4 15MHz 16QAM	 Band LTE4 15MHz CBE 16QAM High Channel 1RB.gif	 Band LTE4 15MHz CBE 16QAM High Channel FRB.gif

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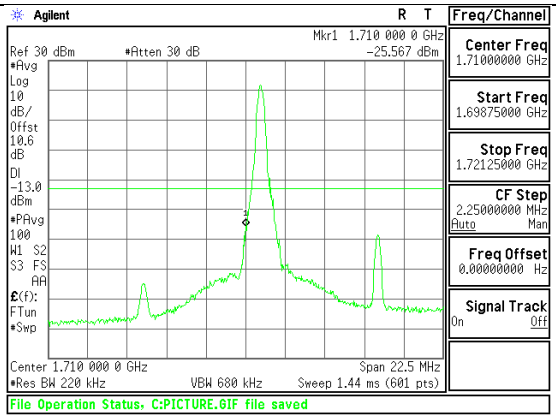
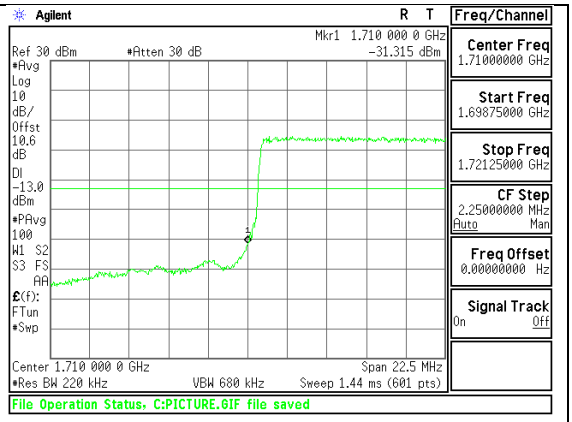
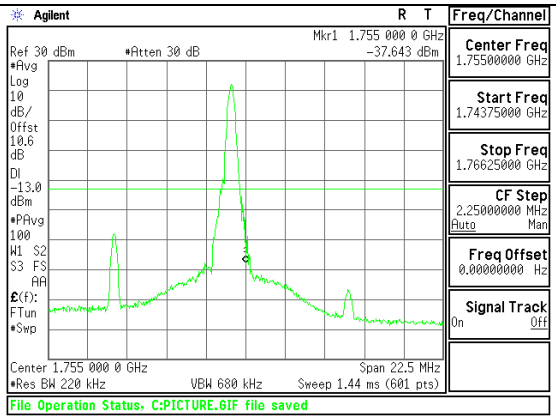
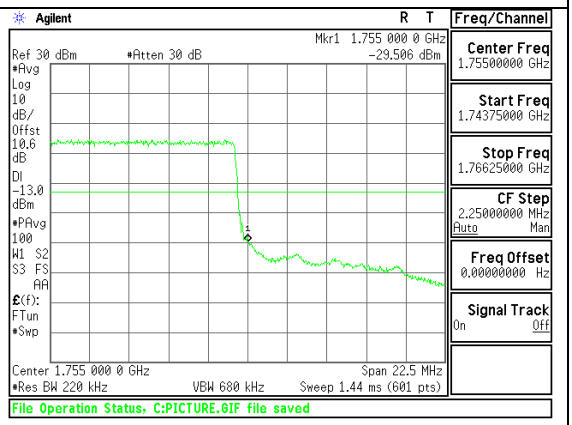
Band LTE4 15MHz QPSK	 Band LTE4 15MHz CBE QPSK Low Channel 1RB.gif	 Band LTE4 15MHz CBE QPSK Low Channel FRB.gif
Band LTE4 15MHz QPSK	 Band LTE4 15MHz CBE QPSK High Channel 1RB.gif	 Band LTE4 15MHz CBE QPSK High Channel FRB.gif

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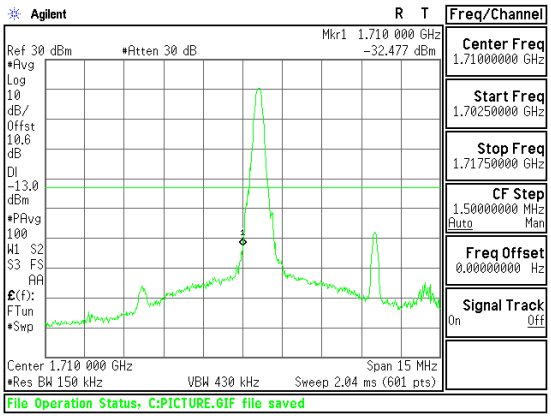
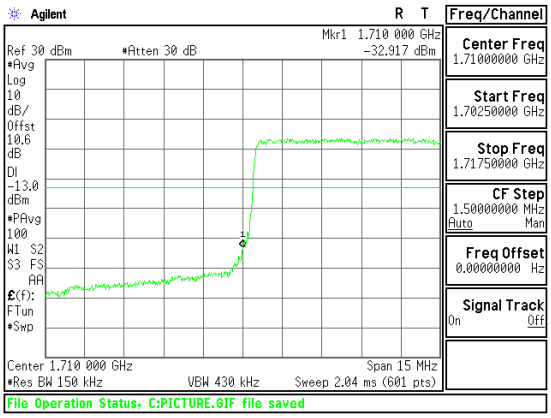
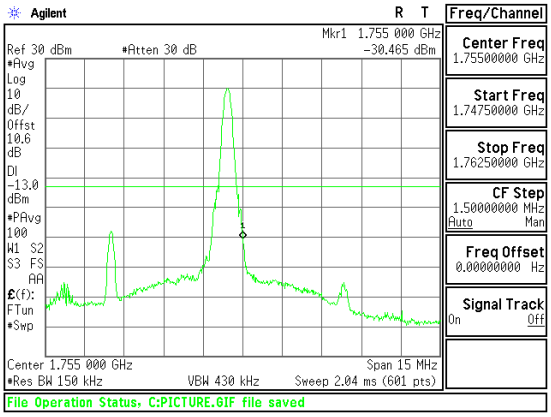
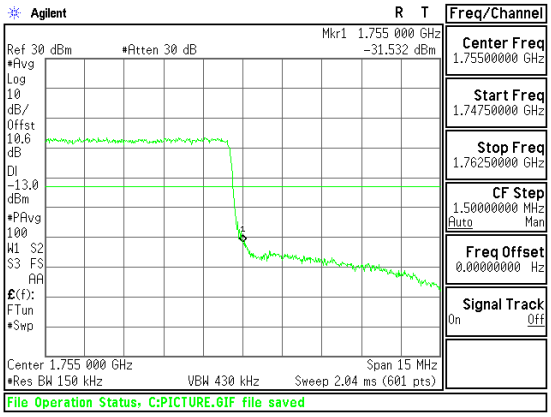
Band LTE4 10MHz 16QAM	 Band LTE4 10MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE4 10MHz CBE 16QAM Low Channel FRB.gif
Band LTE4 10MHz 16QAM	 Band LTE4 10MHz CBE 16QAM High Channel 1RB.gif	 Band LTE4 10MHz CBE 16QAM High Channel FRB.gif

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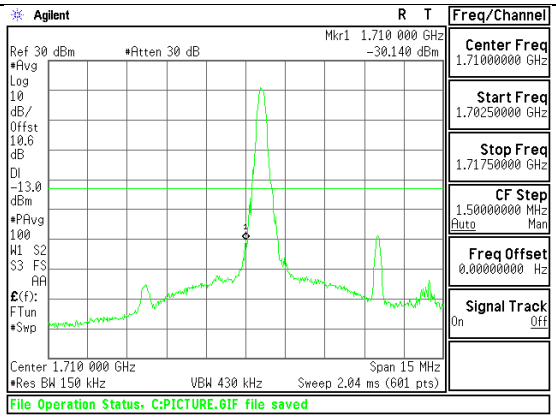
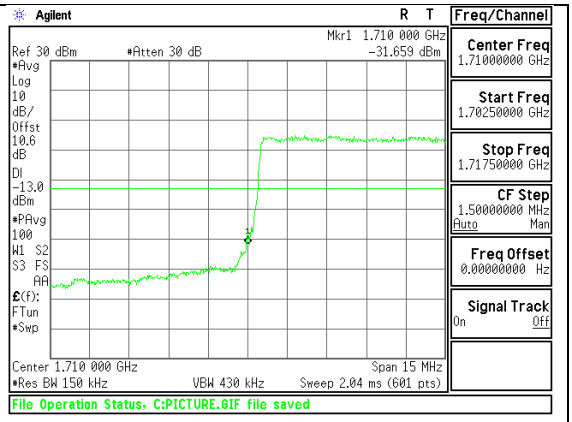
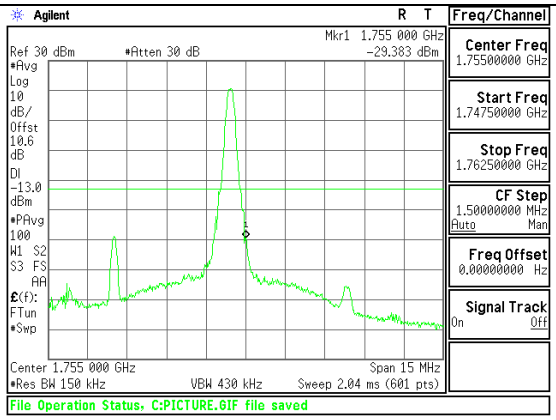
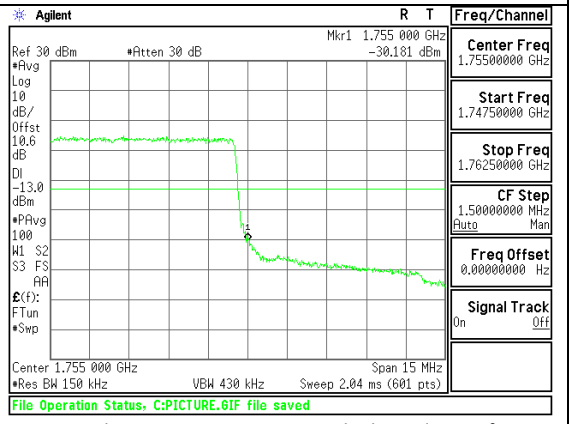
Band LTE4 10MHz QPSK	 Band LTE4 10MHz CBE QPSK Low Channel 1RB.gif	 Band LTE4 10MHz CBE QPSK Low Channel FRB.gif
Band LTE4 10MHz QPSK	 Band LTE4 10MHz CBE QPSK High Channel 1RB.gif	 Band LTE4 10MHz CBE QPSK High Channel FRB.gif

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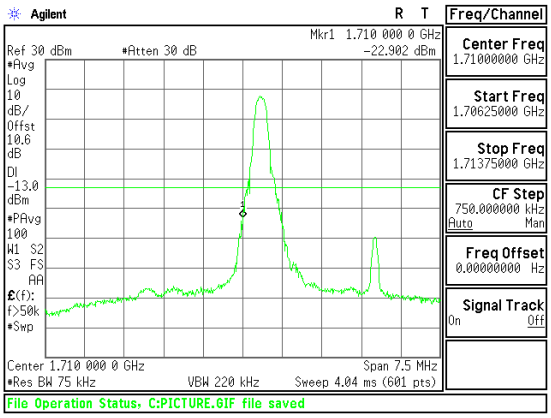
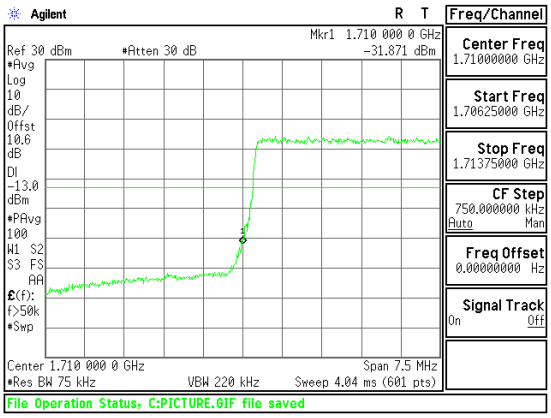
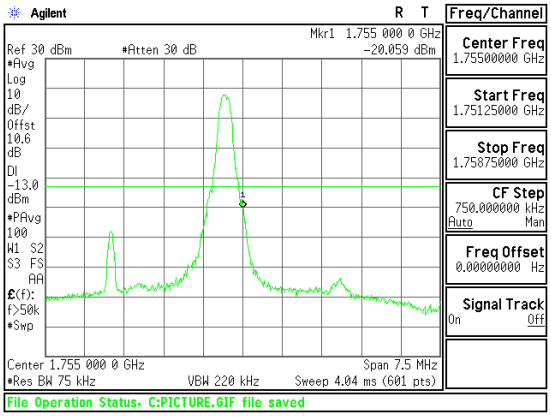
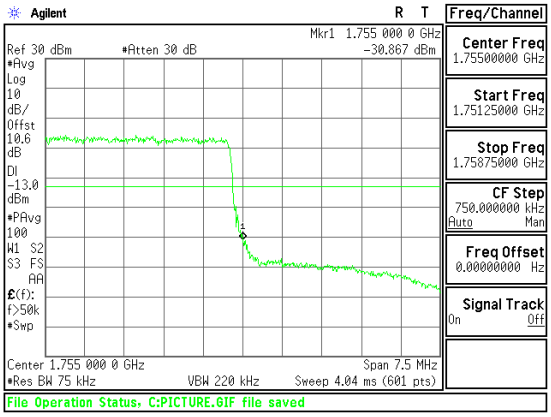
Band LTE4 5MHz 16QAM	 Band LTE4 5MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE4 5MHz CBE 16QAM Low Channel FRB.gif
Band LTE4 5MHz 16QAM	 Band LTE4 5MHz CBE 16QAM High Channel 1RB.gif	 Band LTE4 5MHz CBE 16QAM High Channel FRB.gif

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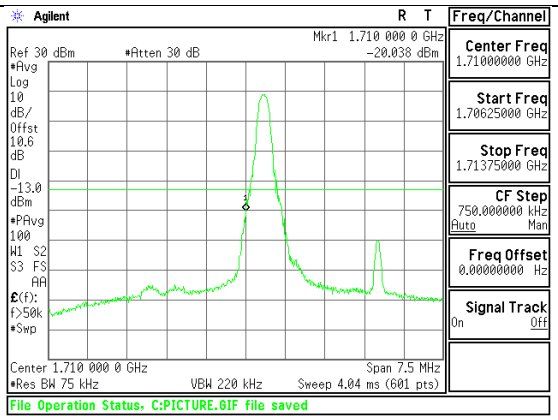
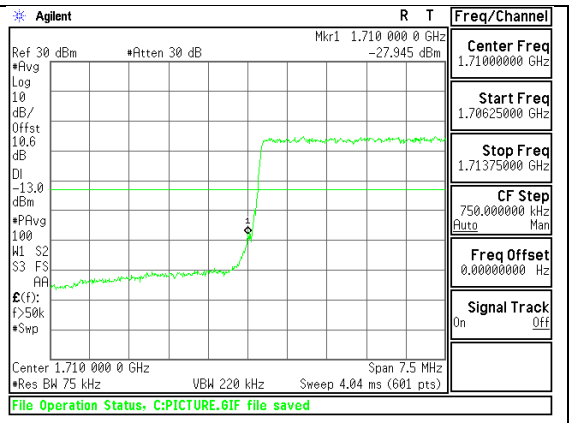
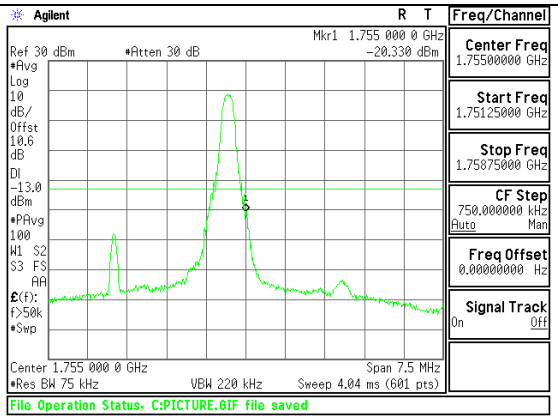
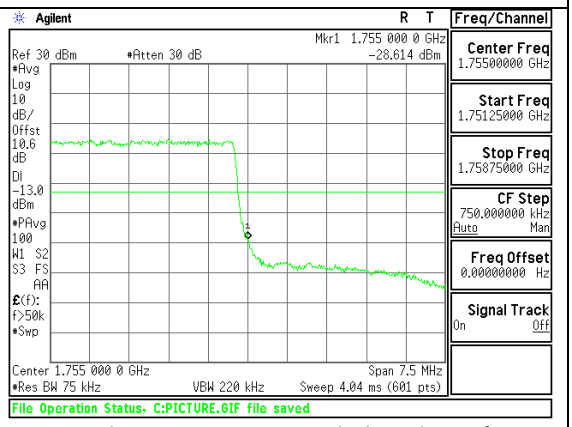
Band LTE4 5MHz QPSK	 Band LTE4 5MHz CBE QPSK Low Channel 1RB.gif	 Band LTE4 5MHz CBE QPSK Low Channel FRB.gif
Band LTE4 5MHz QPSK	 Band LTE4 5MHz CBE QPSK High Channel 1RB.gif	 Band LTE4 5MHz CBE QPSK High Channel FRB.gif

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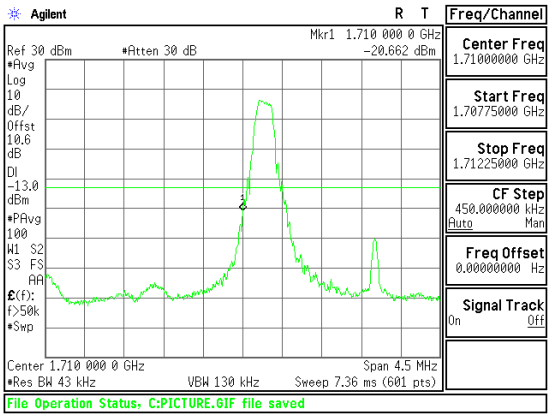
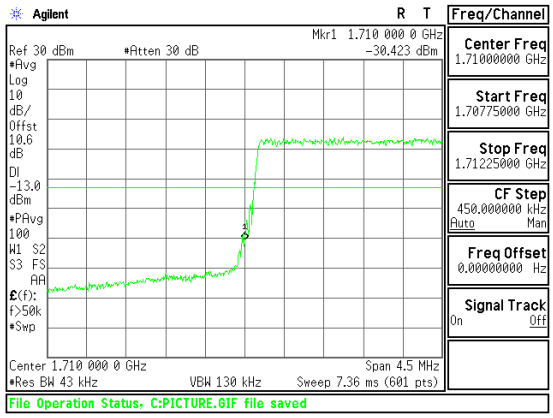
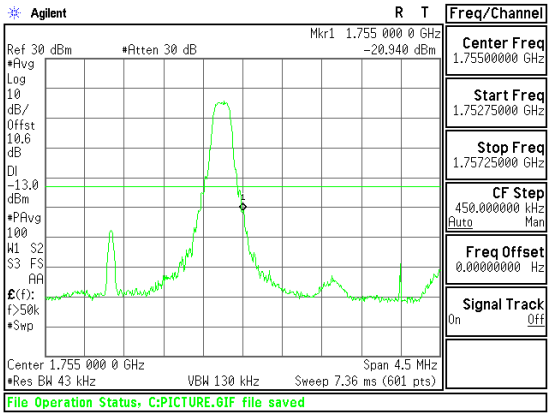
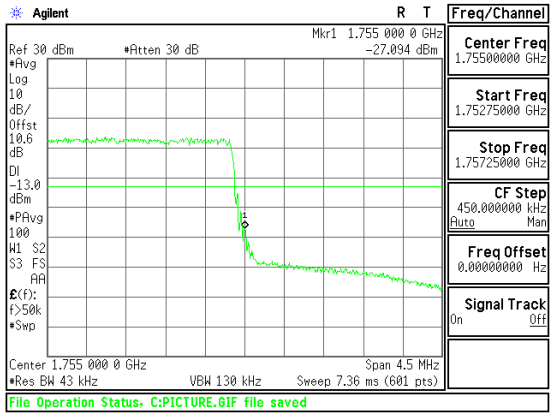
Band LTE4 3MHz 16QAM	 Band LTE4 3MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE4 3MHz CBE 16QAM Low Channel FRB.gif
Band LTE4 3MHz 16QAM	 Band LTE4 3MHz CBE 16QAM High Channel 1RB.gif	 Band LTE4 3MHz CBE 16QAM High Channel FRB.gif

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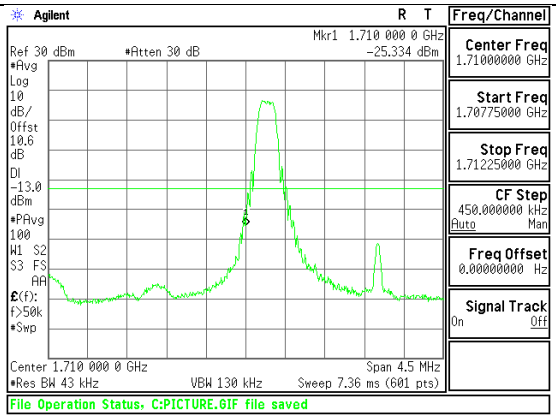
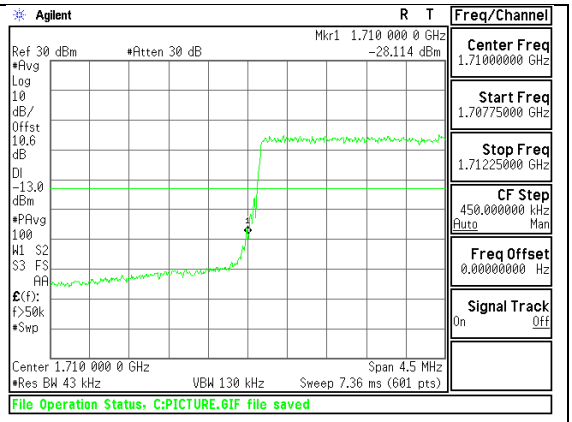
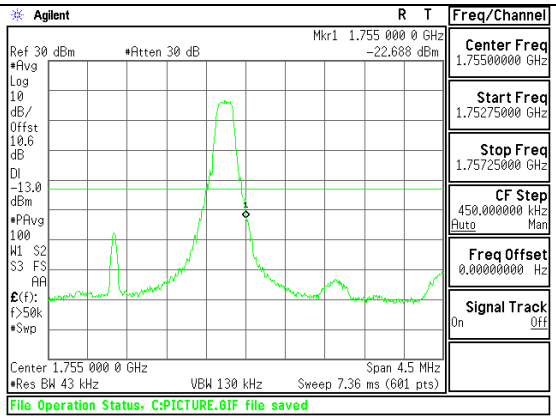
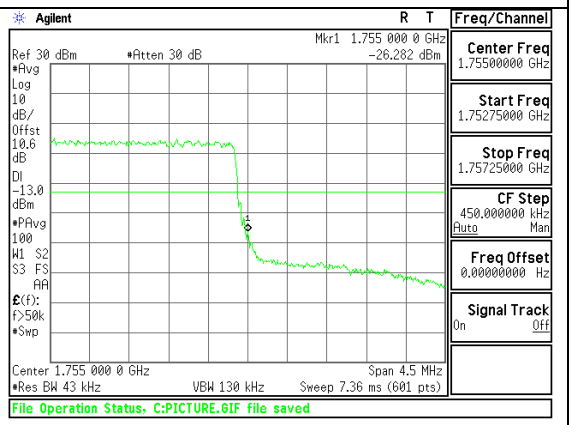
Band LTE4 3MHz QPSK	 Band LTE4 3MHz CBE QPSK Low Channel 1RB.gif	 Band LTE4 3MHz CBE QPSK Low Channel FRB.gif
Band LTE4 3MHz QPSK	 Band LTE4 3MHz CBE QPSK High Channel 1RB.gif	 Band LTE4 3MHz CBE QPSK High Channel FRB.gif

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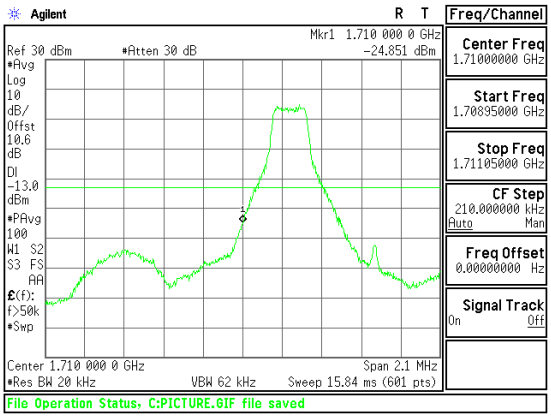
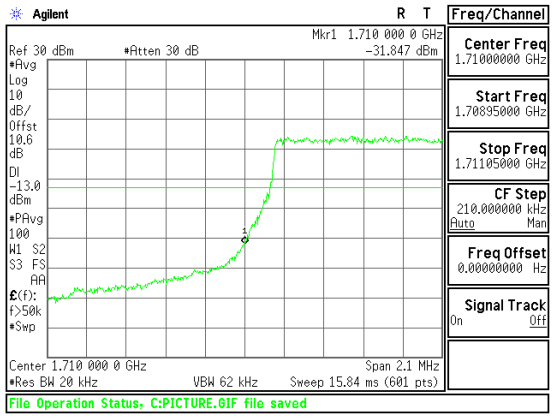
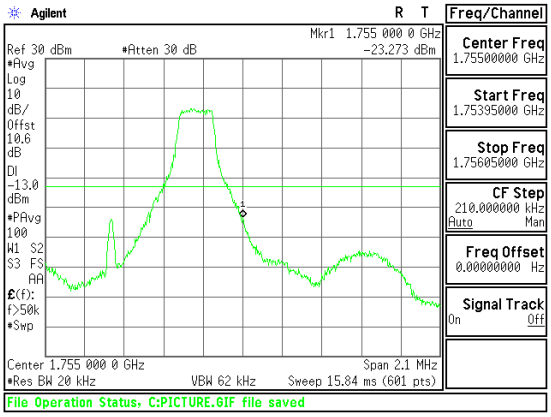
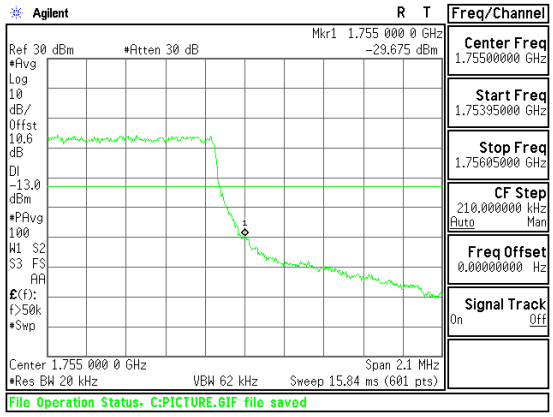
Band LTE4 1.4MHz 16QAM	 Band LTE4 1.4MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE4 1.4MHz CBE 16QAM Low Channel FRB.gif
Band LTE4 1.4MHz 16QAM	 Band LTE4 1.4MHz CBE 16QAM High Channel 1RB.gif	 Band LTE4 1.4MHz CBE 16QAM High Channel FRB.gif

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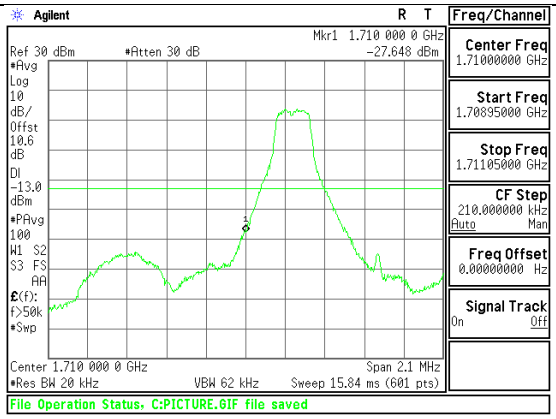
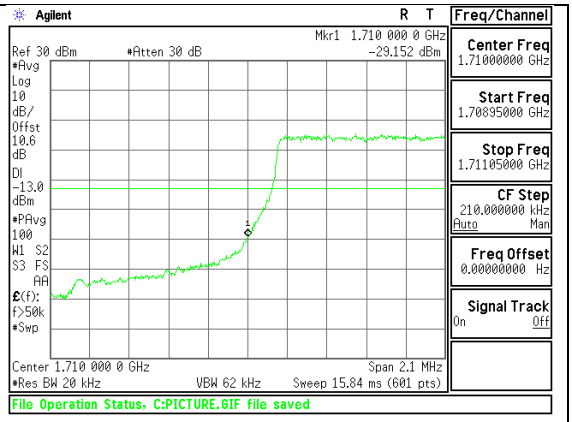
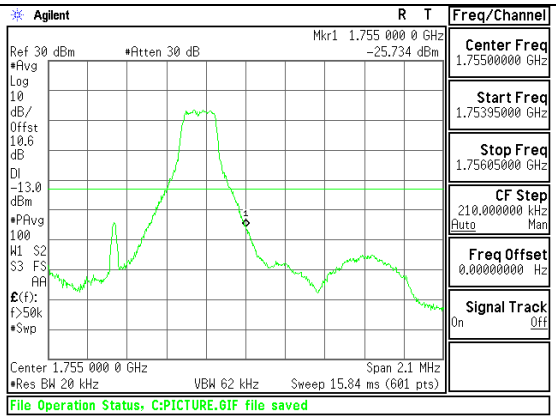
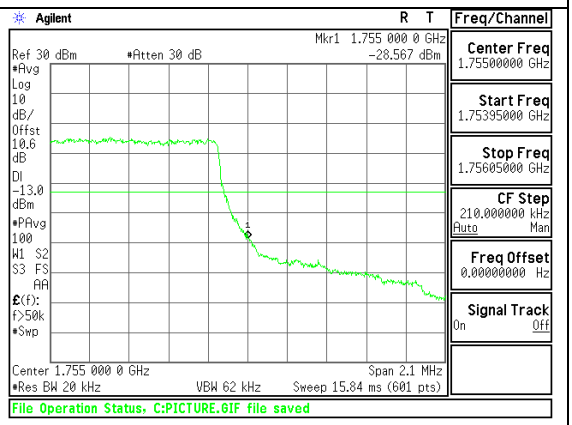
Band LTE4 1.4MHz QPSK	 Band LTE4 1.4MHz CBE QPSK Low Channel 1RB.gif	 Band LTE4 1.4MHz CBE QPSK Low Channel FRB.gif
Band LTE4 1.4MHz QPSK	 Band LTE4 1.4MHz CBE QPSK High Channel 1RB.gif	 Band LTE4 1.4MHz CBE QPSK High Channel FRB.gif

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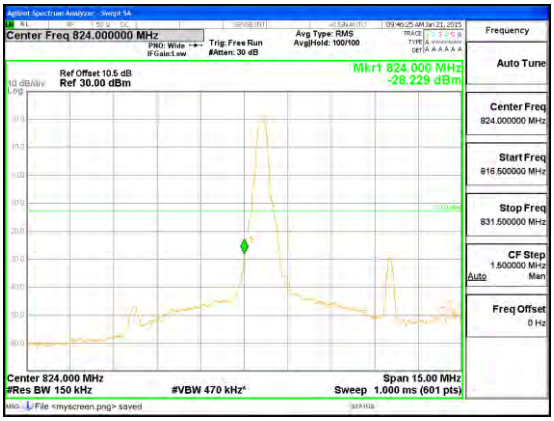
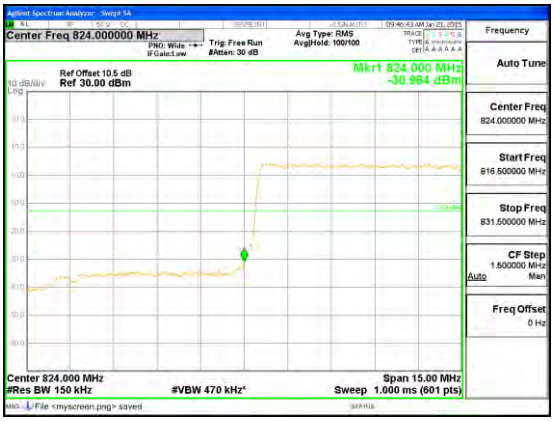
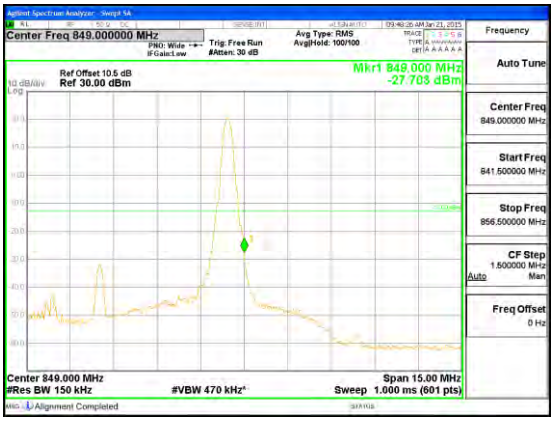
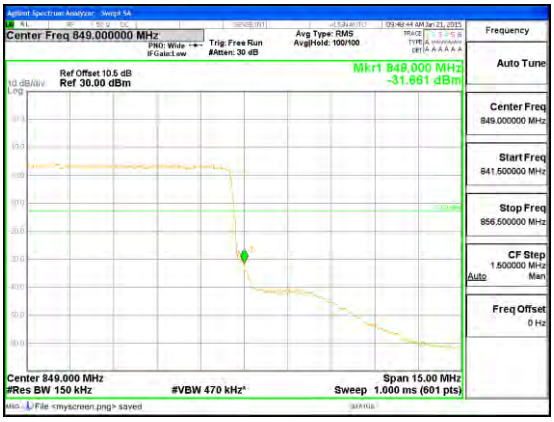
LTE Band 5

Band LTE5 10MHz 16QAM	 Band LTE5 10MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE5 10MHz CBE 16QAM Low Channel FRB.gif
Band LTE5 10MHz 16QAM	 Band LTE5 10MHz CBE 16QAM High Channel 1RB.gif	 Band LTE5 10MHz CBE 16QAM High Channel FRB.gif

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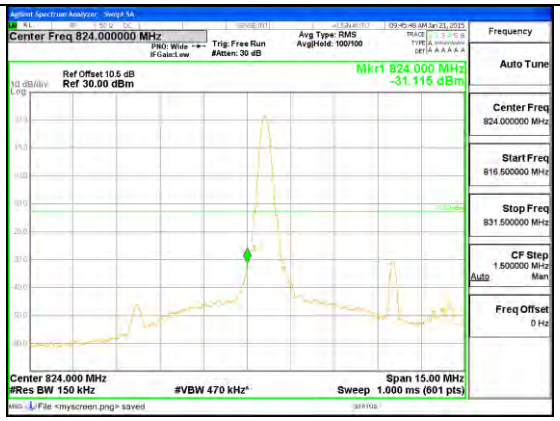
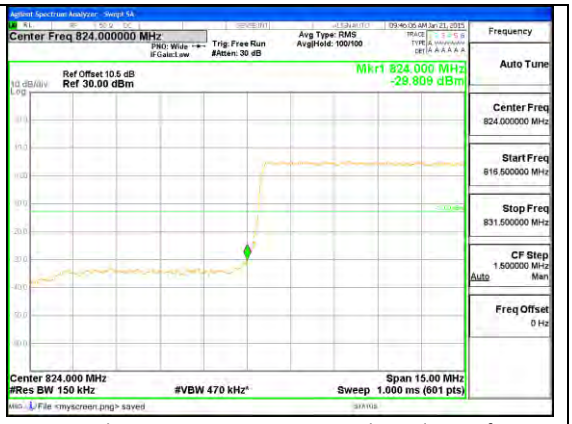
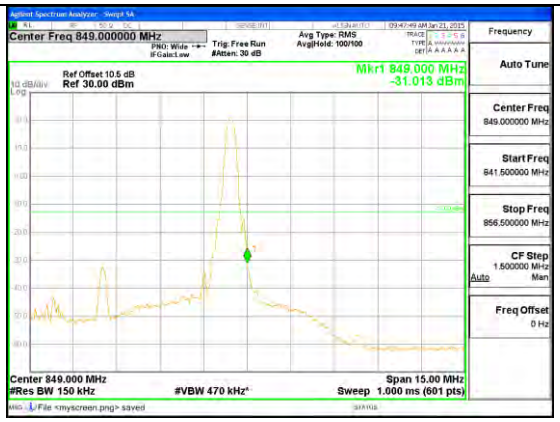
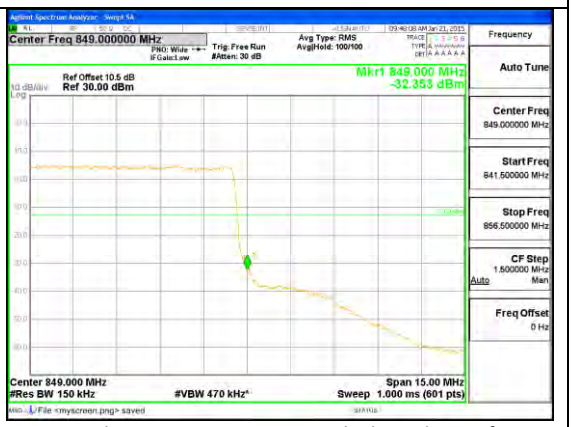
Band LTE5 10MHz QPSK	 Band LTE5 10MHz CBE QPSK Low Channel 1RB.gif	 Band LTE5 10MHz CBE QPSK Low Channel FRB.gif
Band LTE5 10MHz QPSK	 Band LTE5 10MHz CBE QPSK High Channel 1RB.gif	 Band LTE5 10MHz CBE QPSK High Channel FRB.gif

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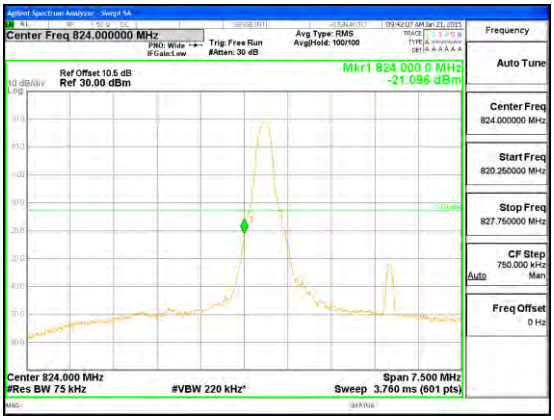
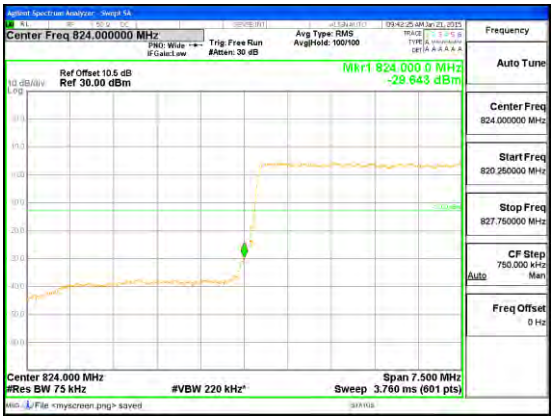
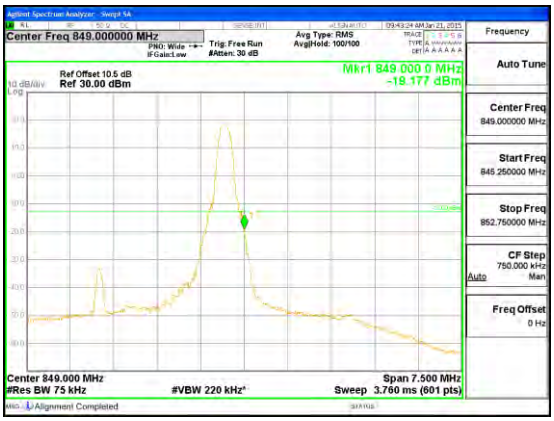
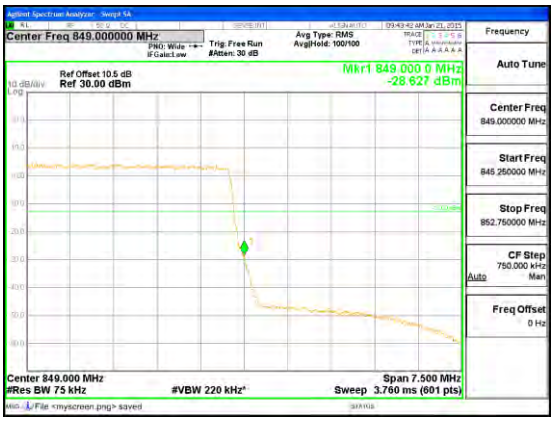
Band LTE5 5MHz 16QAM	 Band LTE5 5MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE5 5MHz CBE 16QAM Low Channel FRB.gif
Band LTE5 5MHz 16QAM	 Band LTE5 5MHz CBE 16QAM High Channel 1RB.gif	 Band LTE5 5MHz CBE 16QAM High Channel FRB.gif

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