



**FCC 47 CFR PART 22 SUBPART H
FCC 47 CFR PART 24 SUBPART E
FCC 47 CFR PART 27 SUBPART M
FCC 47 CFR PART 90 SUBPART S
CERTIFICATION TEST REPORT**

FOR

**CDMA/LTE MINI-CARD MODULE
MODEL NUMBER: NM7371
FCC ID: PY3NM7371**

**REPORT NUMBER: 13U15614-2, Revision D
ISSUE DATE: SEPTEMBER 30, 2013**

Prepared for

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	9/10/13	Initial Issue	P. Kim
A	9/20/13	Add part 90s power summary table	P. Kim
B	9/23/13	Section 9 add reference KDB information	P. Kim
C	9/27/13	Replace the EIRP measurement by calculation. Updated Section 10 Antenna gain information	P. Kim
D	09/30/13	Noted KDB information in Section 5.2 and 8	AAumentado

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: NETGEAR INC
2200 FARADAY AVE.
CARLSBAD, CA 92008

EUT DESCRIPTION: CDMA/LTE MINI-CARD MODULE
MODEL: NM7371

SERIAL NUMBER: GR325700840102

DATE TESTED: AUG 26 - SEP 6, 2013

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22H, 24E, 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.

Approved & Released For

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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 2, Part 22, Part 24, Part 27 and Part 90.

Test Procedure: Reference KDB 971168 D01 Power Meas License Digital Systems v02r01
6/7/2013

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

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:

$$\text{Field Strength (dBuV/m)} = \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)}$$

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

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

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an STANDALONE MINI-CARD BASED MODULE with CDMA BC0/1/10 (1xRTT, REV A); LTE B 25(1900) / B26 / B41(2600).

5.2. MAXIMUM OUTPUT POWER

Reference KDB 971168 D01 Power Meas License Digital Systems v02r01 6/7/2013

The transmitter has a maximum average of conducted output powers as follows:

Note: All power measurements for both radiated/conducted were based on integrated channel power measurement provided by test equipment.

Part 22/24/90			
Frequency Range (MHz)	Modulation	Conducted	
		Average	mW
817.9-823.10	BC10, 1xRTT	24.84	304.8
817.9-823.10	BC10, EVDO	24.92	310.5
824.7 - 848.31	BC0, 1xRTT	24.69	294.4
824.7 - 848.31	BC0, EVDO	24.83	304.1
1851.25-1908.75	BC1, 1xRTT	24.61	289.1
1851.25-1908.75	BC1, EVDO	24.76	299.2

Part 24 LTE Band 25 MODE (3.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
1851.5 - 1913.5	QPSK RB1-0	23.18	208.0
1851.5 - 1913.5	16QAM, RB1-0	22.91	195.4

Part 24 LTE Band 25 MODE (5.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
1852.5 - 1912.5	QPSK RB25-0	23.18	208.0
1852.5 - 1912.5	16QAM, RB25-0	23.19	208.4

Part 24 LTE Band 25 MODE (10.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
1855 - 1910	QPSK RB50-0	23.98	250.0
1855 - 1910	16QAM, RB50-0	23.94	247.7

Part 90S LTE Band 26 MODE (1.4 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
814.7 - 823.3	QPSK RB6-0	23.23	210.4
814.7 - 823.3	16QAM, RB6-0	23.27	212.3

Part 90S LTE Band 26 MODE (3.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
815.5 - 822.5	QPSK RB15-0	23.19	208.4
815.5 - 822.5	16QAM, RB15-0	23.03	200.9

Part 90S LTE Band 26 MODE (5.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
816.5 - 821.5	QPSK RB25-0	23.42	219.8
816.5 - 821.5	16QAM, RB25-0	22.75	188.4

Part 90S LTE Band 26 MODE (10.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
819 - 819	QPSK RB50-0	23.46	221.8
819 - 819	16QAM, RB50-0	22.98	198.6

Part 22 LTE Band 26 MODE (1.4 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
824.7 - 848.3	QPSK RB6-0	23.51	224.4
824.7 - 848.3	16QAM, RB6-0	23.41	219.3

Part 22 LTE Band 26 MODE (3.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
825.5 - 847.5	QPSK RB15-0	23.43	220.3
825.5 - 847.5	16QAM, RB15-0	22.96	197.7

Part 22 LTE Band 26 MODE (5.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
826.5 - 846.5	QPSK RB25-0	23.52	224.9
826.5 - 846.5	16QAM, RB25-0	22.92	195.9

Part 22 LTE Band 26 MODE (10.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
829 - 844	QPSK RB50-0	23.56	227.0
829 - 844	16QAM, RB50-0	23.34	215.8

Part 27 LTE Band 41 MODE (10.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
2501 - 2685	QPSK RB50-0	23.49	223.4
2501 - 2685	16QAM, RB50-0	22.75	188.4

Part 27 LTE Band 41 MODE (15.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
2503.5 - 2682.5	QPSK RB75-0	23.49	223.4
2503.5 - 2682.5	16QAM, RB75-0	22.11	162.6

Part 27 LTE Band 41 MODE (20.0 MHz BANDWIDTH)			
Frequency range (MHz)	Modulation	Conducted(Average)	
		dBm	mW
2506 - 2680	QPSK RB100-0	23.37	217.3
2506 - 2680	16QAM, RB100-0	22.97	198.2

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with CMW500 Test Set and HyperTerminal for communication.

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

The maximum antenna can be use and compliant with MPE requirement:

LTE BANDS	Antenna Gain (dBi)
BC10, 817 – 824MHz	7.9
BC0, Cell 824 – 849MHz	7.9
BC1, PCS 1850 – 1910MHz	8
LTE Band 25, 1851.5 – 1913.5MHz	8
LTE Band 26, 817.7 – 847.5MHz	7.9
LTE Band 41, 2501 - 2685MHz	9.5

5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case channel for RF radiated emissions below 1GHz tests is channel with highest RF output power.

The worst-case scenario for all measurements is based on the investigation results.

Worst-case modes below:

- For Cellular and PCS band: 1xRTT
- For Cellular and PCS band: CDMA2000 1xEV-DO Rev 0
- LTE BAND 25, 26 and 41

For the fundamental investigation of radiated emissions, the EUT is investigated for vertical and horizontal antenna orientations and X, Y, and Z orientation and the worst case was determined to be at Y position for PCS Band and LTE Band 41 and X position for Cellular Band and LTE Band 25 and 26.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

RADIATED TESTS SUPPORT EQUIPMENT

I/O CABLES (RF Conducted Test)

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	RFOut	1	Directional Coupler	Un-shielded	0.1m	NA
2	RF In/Out	1	Spectrum Analyzer	Un-shielded	None	NA
3	RF In/Out	1	Communications Test	Un-shielded	1.2m	NA

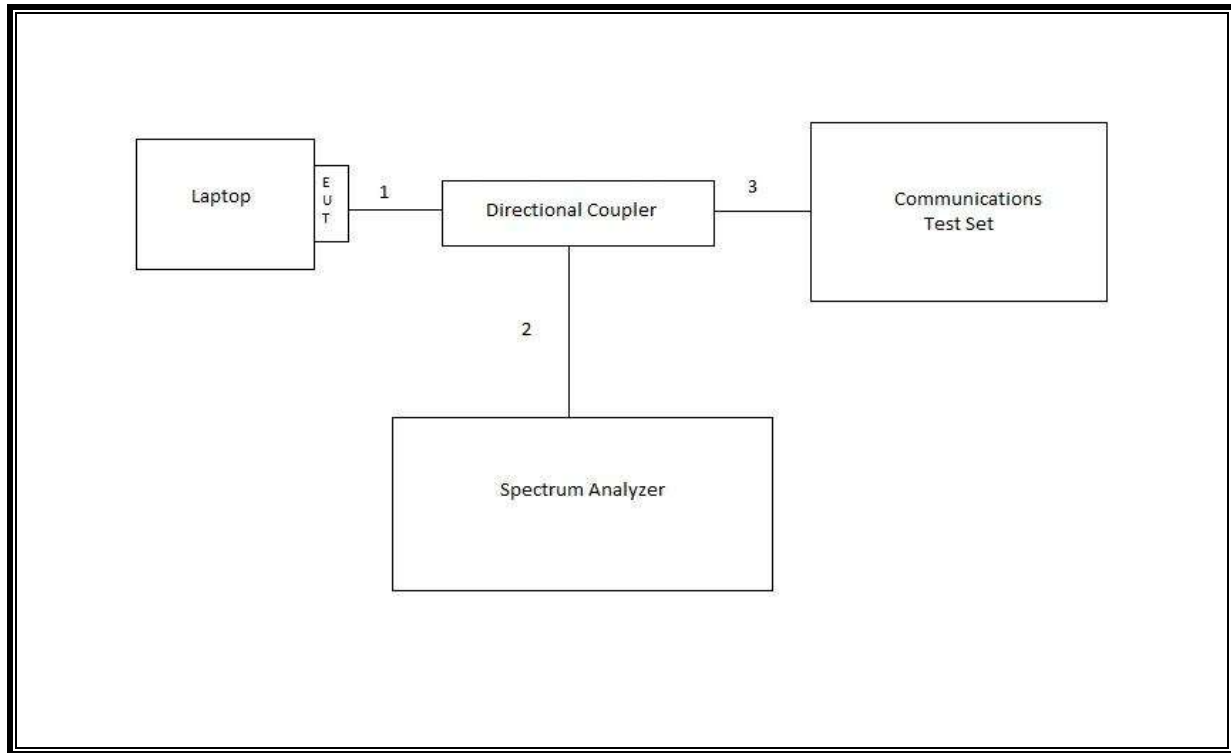
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC Power	1	2-Prong	Un-Shielded	1.5m	N/A
2	RF In/out	1	Communication Test Set	Un-shielded	2m	N/A
3	USB	1	Laptop	Un-shielded	2m	N/A

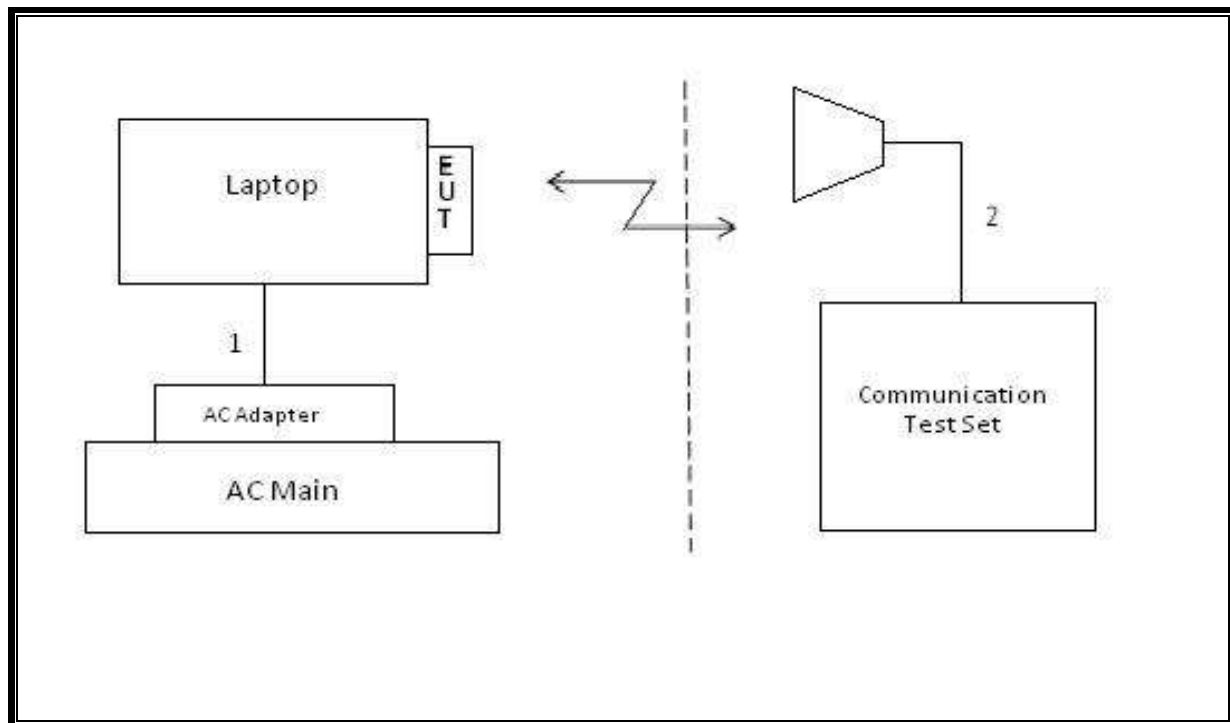
TEST SETUP

The EUT is connected to a laptop computer during the tests. Test software exercised the radio card.

CONDUCTED SETUP DIAGRAM FOR TESTS



RADIATED SETUP DIAGRAM FOR TEST



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	N9030A	N/A	4/1/14
Spectrum Analyzer, 26.5 GHz	Agilent	E4440A	C01161	5/7/2014
Spectrum Analyzer, 50 GHz	Agilent	PXA	80125	1/22/2014
True RMS Multimeter	Fluke	Model 87	T361	3/18/2014
Temperature / Humidity Controller	ProTemp Mechanical	29800-C	N/A	11/1/2013
Temperature / Humidity Chamber	WATLOW	SK-3102	N/A	CNR
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689	CNR
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Directional Coupler	RF-Lambda	RFDC5M06G15	None	CNR
Vector signal generator, 6 GHz	Agilent / HP	E4438C	C01197	8/6/14
Antenna, Tuned Dipole 400~1000	ETS	3121C DB4	C00993	2/14/14
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C80401	8/19/14
Communication Test Set	R & S	CMW500	C80580	2/19/14
Antenna, Horn, 18 GHz	EMCO	3115	C00945	11/12/13
Antenna, Horn, 18 GHz	ETS	3117	C01006	1/18/2014
Antenna, Horn, 18 GHz	ETS	3117	C01022	10/5/2013
Antenna, Biconolog, 30-1000MHz	Sunol Sciences	JB1	C01171	2/13/14

7. Summary Table

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
22.917(a) 24.238(a)	N/A	Occupied Band width (99%)	N/A	Conducted	Pass	17.799MHz
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	-13.071dBm
2.1046	N/A	Conducted output power	N/A		Pass	24.91dBm
27.53(g) 90.691	RSS-139(6.5.1)	Emission Mask	-13dBm		Pass	0.9dB margin
22.355 24.235 27.54	RSS-132(4.3) RSS-133(6.3) RSS-139(6.3)	Frequency Stability	2.5PPM		Pass	0.026PPM
22.913(a)(2)	RSS-132(4.4)	Effective Radiated Power	38 dBm		Pass	28.31dBm
27.50(d)(2)	SRSP-503(5.1.3)		24 dm/5MHz		Pass	
90.635			50dBm		Pass	27.93dBm
24.232(c)	RSS-133(6.4) RSS-139(6.4) SRSP-510(5.1.2)	Equivalent Isotropic Radiated Power	33dBm	Radiated	Pass	29.12dBm
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	-29.3dBm
N/A	RSS-132(4.6) RSS-133(6.6) RSS-139(6.6)	Receiver Spurious Emission	5nW above 1GHz 2nW below 1GHz		N/A	

8.1. 1xRTT

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BC1	Radio Configuration (RC)	Service Option (SO)	Conducted Output Power (dBm)					
			25/1851.25MHz		600/1880MHz		1175/1908.75MHz	
				Average		Average		Average
BC1	RC1	2 (Loopback)		24.34		24.30		24.16
		55 (Loopback)		24.32		24.32		24.16
	RC2	9 (Loopback)		24.37		24.41		24.11
		55 (Loopback)		24.36		24.39		24.10
	RC3	2 (Loopback)		24.41		24.61		24.25
		55 (Loopback)		24.36		24.58		23.87
		32 (+ F-SCH)		24.43		24.45		23.95
		32 (+ SCH)		24.38		24.42		23.95
	RC4	2 (Loopback)		24.38		24.54		24.26
		55 (Loopback)		24.55		24.50		23.85
		32 (+ F-SCH)		24.29		24.36		23.82
		32 (+ SCH)		24.13		24.45		23.85
	RC5	9 (Loopback)		24.37		24.51		23.42
		55 (Loopback)		24.42		24.52		23.39
	RC11	2 (Loopback)		24.27		24.51		24.22
		75 (Loopback)		24.28		24.40		24.14
		32 (+ F-SCH)		24.29		24.33		24.30
		32 (+ SCH)		24.34		24.37		24.24

BC0	Radio Configuration (RC)	Service Option (SO)	Conducted Output Power (dBm)					
			1013/824.7MHz		384/836.52MHz		777/848.31MHz	
				Average		Average		Average
BC0	RC1	2 (Loopback)		24.58		24.65		24.14
		55 (Loopback)		24.60		24.62		24.18
	RC2	9 (Loopback)		24.60		24.57		24.13
		55 (Loopback)		24.62		24.66		24.08
	RC3	2 (Loopback)		24.18		24.61		24.27
		55 (Loopback)		24.21		24.63		24.23
		32 (+ F-SCH)		24.23		24.61		24.25
		32 (+ SCH)		24.27		24.65		24.29
	RC4	2 (Loopback)		24.60		24.28		24.24
		55 (Loopback)		24.62		24.31		24.28
		32 (+ F-SCH)		24.56		24.19		24.26
		32 (+ SCH)		24.57		24.27		24.30
	RC5	9 (Loopback)		24.65		24.69		24.23
		55 (Loopback)		24.69		24.72		24.30
	RC11	2 (Loopback)		24.58		24.68		24.41
		75 (Loopback)		24.61		24.74		24.26
		32 (+ F-SCH)		24.59		24.69		24.41
		32 (+ SCH)		24.62		24.74		24.35

BC10	Radio Configuration (RC)	Service Option (SO)	Conducted Output Power (dBm)					
			476/817.9MHz		580/820.5MHz		684/823.1MHz	
				Average		Average		Average
	RC1	2 (Loopback)		24.61		24.76		24.53
		55 (Loopback)		24.70		24.78		24.55
	RC2	9 (Loopback)		24.67		24.81		24.57
		55 (Loopback)		24.68		24.81		24.54
	RC3	2 (Loopback)		24.70		24.74		24.56
		55 (Loopback)		24.64		24.75		24.49
		32 (+ F-SCH)		24.67		24.71		24.52
		32 (+ SCH)		24.71		24.78		24.57
	RC4	2 (Loopback)		24.72		24.78		24.57
		55 (Loopback)		24.69		24.84		24.53
		32 (+ F-SCH)		24.68		24.74		24.55
		32 (+ SCH)		24.60		24.75		24.56
	RC5	9 (Loopback)		24.72		24.68		24.56
		55 (Loopback)		24.66		24.83		24.49
	RC11	2 (Loopback)		24.77		24.81		24.56
		75 (Loopback)		24.73		24.84		24.53
		32 (+ F-SCH)		24.69		24.82		24.57
		32 (+ SCH)		24.76		24.81		24.61

8.2. CDMA2000 1xEV-DO Rel. 0

TEST PROCEDURE

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

<u>Application</u>	<u>Rev. License</u>
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 Params:
 - 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 Params:
 - 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)

8.2.1.

Radio Configuration	FTAP Rate	RTAP Rate	Channel	f(MHz)	Conducted Power (dBm)	
						Average
BC10	307.2 kbps(2 slot, QPSK)	153.6 kbps	476	817.9		24.80
			580	820.5		24.74
			684	823.1		24.50
BC0			1013	824.7		24.64
			384	836.52		24.75
			777	848.31		24.40
BC1			25	1851.25		24.58
			600	1880		24.48
			1175	1908.75		24.44

Radio Configuration	Service Option	Channel	f (MHz)	Conducted Power (dBm)	
					Average
BC10	EVDO REL. 0	476	817.9		24.76
		580	820.5		24.85
		684	823.1		24.60
BC0	EVDO REL. 0	1013	824.7		24.43
		384	836.52		24.53
		777	848.31		24.06
BC1	EVDO REL. 0	25	1851.25		24.37
		600	1880		24.45
		1175	1908.75		24.27

8.3. CDMA2000 1xEV-DO Rev. A

TEST PROCEDURE

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

<u>Application</u>	<u>Rev. License</u>
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)

RESULTS

Radio Configuration	FETAP-Traffic Format	RETAP-Data Payload Size	Channel	f(MHz)	Conducted Power (dBm)	
						Average
BC10	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	476	817.9		24.86
			580	820.5		24.91
			684	823.1		24.62
BC0			1013	824.7		24.69
			384	836.52		24.70
			777	848.31		24.45
BC1			25	1851.25		24.56
			600	1880		24.69
			1175	1908.75		24.65

Radio Configuration	Service Option	Channel	f (MHz)	Conducted Power (dBm)	
					Average
BC10	EVDO REV. A	476	817.9		24.84
		580	820.5		24.92
		684	823.1		24.69
BC0	EVDO REV. A	1013	824.7		24.62
		384	836.52		24.83
		777	848.31		24.48
BC1	EVDO REV. A	25	1851.25		24.71
		600	1880		24.76
		1175	1908.75		24.68

8.4. LTE

8.4.1. BAND 25

	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE25	1855	QPSK	10	1	0	23.04
				1	24	23.11
				1	49	23.98
				25	0	22.85
				25	11	22.94
				25	24	23.57
				50	0	23.16
	1855	16QAM		1	0	22.71
				1	24	22.96
				1	49	22.94
				25	0	22.16
				25	11	22.18
				25	24	22.72
				50	0	22.19
	1882.5	QPSK		1	0	23.47
				1	24	22.93
				1	49	23.03
				25	0	22.99
				25	11	22.94
				25	24	22.96
				50	0	22.79
	1882.5	16QAM		1	0	23.41
				1	24	22.93
				1	49	22.83
				25	0	22.14
				25	11	22.09
				25	24	22.03
				50	0	22.09
	1910	QPSK		1	0	23.91
				1	24	22.59
				1	49	22.59
				25	0	23.41
				25	11	22.67
				25	24	22.51
				50	0	22.74
	1910	16QAM		1	0	23.78
				1	24	22.41
				1	49	23.91
				25	0	22.57
				25	11	22.09
				25	24	22.04

				50	0	22.05
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Band	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE25	1852.5	QPSK	5	1	0	22.81
				1	11	22.84
				1	24	22.97
				12	0	22.91
				12	5	23.02
				12	11	23.04
	25	0		23.01		
	1852.5	16QAM		1	0	22.65
				1	11	22.52
				1	24	22.48
				12	0	22.02
				12	5	22.05
				12	11	22.14
	25	0		22.03		
	1882.5	QPSK		1	0	22.96
				1	11	22.97
				1	24	23.07
				12	0	23.18
				12	5	23.09
				12	11	23.10
	25	0		23.08		
	1882.5	16QAM		1	0	23.03
				1	11	23.01
				1	24	23.06
				12	0	22.24
				12	5	22.26
				12	11	22.27
	25	0		22.05		
	1912.5	QPSK		1	0	22.51
				1	11	22.35
				1	24	22.53
				12	0	22.48
				12	5	22.46
				12	11	22.53
	25	0		22.41		
	1912.5	16QAM		1	0	22.23
				1	11	22.07
				1	24	22.24
				12	0	22.11
				12	5	22.09
				12	11	22.13

				25	0	22.05
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Band	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE25	1851.5	QPSK	3	1	0	22.92
				1	7	22.79
				1	14	22.76
				7	0	22.86
				7	2	22.93
				7	6	22.86
	15	0		22.83		
	1851.5	16QAM		1	0	22.58
				1	7	22.70
				1	14	22.81
				7	0	22.08
				7	2	22.01
				7	6	22.03
	15	0		22.05		
	1882.5	QPSK		1	0	23.07
				1	7	23.05
				1	14	23.09
				7	0	23.25
				7	2	23.18
				7	6	23.18
	15	0		23.08		
	1882.5	16QAM		1	0	23.03
				1	7	22.95
				1	14	22.91
				7	0	22.33
				7	2	22.18
				7	6	22.28
	15	0		22.24		
	1913.5	QPSK		1	0	22.57
				1	7	22.46
				1	14	22.78
				7	0	22.58
				7	2	22.56
				7	6	22.42
	15	0		22.51		
	1913.5	16QAM		1	0	22.29
				1	7	22.61
				1	14	22.57
				7	0	22.13
				7	2	22.15
				7	6	22.09

				15	0	22.05
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8.4.2. BAND 26

	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE26	819	QPSK	10	1	0	22.70
				1	24	22.95
				1	49	23.36
				25	0	22.68
				25	11	23.05
				25	24	23.46
				50	0	23.11
	819	16QAM		1	0	22.41
				1	24	22.61
				1	49	22.98
				25	0	22.01
				25	11	22.20
				25	24	22.55
				50	0	22.13
	831.5	QPSK		1	0	23.11
				1	24	22.97
				1	49	23.29
				25	0	22.98
				25	11	22.93
				25	24	23.12
				50	0	22.89
	831.5	16QAM		1	0	22.89
				1	24	22.82
				1	49	22.94
				25	0	22.11
				25	11	22.02
				25	24	22.12
				50	0	22.08
	844	QPSK		1	0	23.56
				1	24	23.42
				1	49	23.10
				25	0	23.50
				25	11	23.47
				25	24	23.14
				50	0	23.18
	844	16QAM		1	0	23.31
				1	24	23.34
				1	49	22.89
				25	0	22.72
				25	11	22.62
				25	24	22.39
				50	0	22.36

Band	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE26	816.5	QPSK	5	1	0	23.19
				1	11	23.04
				1	24	23.42
				12	0	23.12
				12	5	23.09
				12	11	23.19
				25	0	23.04
	816.5	16QAM		1	0	22.58
				1	11	22.39
				1	24	22.75
				12	0	22.12
				12	5	22.10
				12	11	22.02
				25	0	22.12
	831.5	QPSK		1	0	23.22
				1	11	23.13
				1	24	23.29
				12	0	23.12
				12	5	23.21
				12	11	23.34
				25	0	23.11
	831.5	16QAM		1	0	22.65
				1	11	22.48
				1	24	22.72
				12	0	22.19
				12	5	22.18
				12	11	22.37
				25	0	22.32
	846.5	QPSK		1	0	23.52
				1	11	23.31
				1	24	23.25
				12	0	23.48
				12	5	23.42
				12	11	23.45
				25	0	23.41
	846.5	16QAM		1	0	22.92
				1	11	22.65
				1	24	22.63
				12	0	22.40
				12	5	22.35
				12	11	22.37
				25	0	22.37

Band	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE26	815.5	QPSK	3	1	0	23.13
				1	7	22.96
				1	14	22.95
				7	0	23.19
				7	2	23.16
				7	6	23.06
				15	0	23.05
	815.5	16QAM		1	0	23.03
				1	7	22.97
				1	14	22.92
				7	0	22.27
				7	2	22.31
				7	6	22.16
				15	0	22.15
	831.5	QPSK		1	0	23.24
				1	7	23.26
				1	14	23.35
				7	0	23.39
				7	2	23.41
				7	6	23.39
				15	0	23.35
	831.5	16QAM		1	0	23.22
				1	7	23.21
				1	14	23.13
				7	0	22.23
				7	2	22.18
				7	6	22.41
				15	0	22.32
	847.5	QPSK		1	0	23.27
				1	7	23.19
				1	14	23.21
				7	0	23.38
				7	2	23.43
				7	6	23.36
				15	0	23.42
	847.5	16QAM		1	0	23.18
				1	7	23.09
				1	14	23.22
				7	0	22.33
				7	2	22.27
				7	6	22.56
				15	0	22.55

Band	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE26	814.7	QPSK	1.4	1	0	23.23
				1	2	23.22
				1	5	23.03
				3	0	23.13
				3	0	23.13
				3	2	23.22
				6	0	23.22
	814.7	16QAM		1	0	22.82
				1	2	22.87
				1	5	22.81
				3	0	23.27
				3	0	23.27
				3	2	23.25
				6	0	22.19
	831.5	QPSK		1	0	23.41
				1	2	23.48
				1	5	23.51
				3	0	23.42
				3	0	23.42
				3	2	23.46
				6	0	23.48
	831.5	16QAM		1	0	23.21
				1	2	23.28
				1	5	23.07
				3	0	23.34
				3	0	23.34
				3	2	23.29
				6	0	22.46
	848.3	QPSK		1	0	23.42
				1	2	23.13
				1	5	23.27
				3	0	23.32
				3	0	23.32
				3	2	23.36
				6	0	23.46
	848.3	16QAM		1	0	23.21
				1	2	22.89
				1	5	23.15
				3	0	23.26
				3	0	23.26
				3	2	23.13
				6	0	22.46

8.4.3. BAND 41

	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE41	2506	QPSK	20	1	0	22.76
				1	49	22.97
				1	99	22.66
				50	0	18.23
				50	24	18.32
				50	49	18.23
				100	0	18.15
	2506	16QAM		1	0	21.57
				1	49	21.65
				1	99	21.58
				50	0	16.52
				50	24	16.67
				50	49	16.68
				100	0	16.60
	2593	QPSK		1	0	23.41
				1	49	22.71
				1	99	22.64
				50	0	18.68
				50	24	18.29
				50	49	18.23
				100	0	18.44
	2593	16QAM		1	0	22.82
				1	49	22.18
				1	99	22.03
				50	0	17.10
				50	24	17.01
				50	49	17.09
				100	0	17.17
	2680	QPSK		1	0	23.12
				1	49	23.37
				1	99	23.03
				50	0	19.01
				50	24	18.88
				50	49	18.64
				100	0	18.76
	2680	16QAM		1	0	22.97
				1	49	22.55
				1	99	22.16
				50	0	17.96
				50	24	17.86
				50	49	17.56
				100	0	17.79

Band	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE41	2503.5	QPSK	15	1	0	22.56
				1	37	22.91
				1	74	22.84
				37	0	19.11
				37	17	19.19
				37	36	19.31
				75	0	19.11
	2503.5	16QAM		1	0	21.58
				1	37	21.90
				1	74	21.93
				37	0	18.22
				37	17	18.31
				37	36	18.32
				75	0	18.20
	2593	QPSK		1	0	23.49
				1	37	22.90
				1	74	22.71
				37	0	19.51
				37	17	19.32
				37	36	19.23
				75	0	19.25
	2593	16QAM		1	0	22.10
				1	37	21.53
				1	74	21.54
				37	0	18.61
				37	17	18.39
				37	36	18.37
				75	0	18.17
	2682.5	QPSK		1	0	23.23
				1	37	23.41
				1	74	22.95
				37	0	19.95
				37	17	19.84
				37	36	19.74
				75	0	19.63
	2682.5	16QAM		1	0	22.30
				1	37	22.11
				1	74	21.66
				37	0	19.11
				37	17	18.91
				37	36	18.75
				75	0	18.56

Band	Frequency	Modulation	BW (MHz)	RB Size	RB Offset	Average
LTE41	2501	QPSK	10	1	0	22.75
				1	24	23.01
				1	49	23.25
				25	0	21.69
				25	11	21.80
				25	24	21.85
				50	0	21.59
	2501	16QAM		1	0	21.98
				1	24	22.27
				1	49	22.21
				25	0	20.66
				25	11	20.80
				25	24	20.77
				50	0	20.57
	2593	QPSK		1	0	23.23
				1	24	22.96
				1	49	23.08
				25	0	22.19
				25	11	22.02
				25	24	21.96
				50	0	21.93
	2593	16QAM		1	0	22.38
				1	24	21.97
				1	49	22.12
				25	0	21.23
				25	11	21.02
				25	24	21.04
				50	0	20.80
	2685	QPSK		1	0	23.49
				1	24	23.28
				1	49	23.04
				25	0	22.54
				25	11	22.36
				25	24	22.33
				50	0	22.13
	2685	16QAM		1	0	22.75
				1	24	22.50
				1	49	21.79
				25	0	21.58
				25	11	21.25
				25	24	21.43
				50	0	21.29

9. CONDUCTED TEST RESULTS

9.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

Part §90.209(b)(7) Economic Area (EA)-based licensees in frequencies 817–824/862–869 MHz (813.5–824/858.5–869 MHz in the counties listed in § 90.614(c)) may exceed the standard channel spacing and authorized bandwidth listed in paragraph (b)(5) of this section [i.e. 25 kHz, 20 kHz, resp.] in any National Public Safety Planning Advisory Committee Region when all 800 MHz public safety licensees in the Region have completed band reconfiguration consistent with this part.

LIMITS

For reporting purposes only

TEST PROCEDURE

Reference KDB 971168 D01 Power Meas License Digital Systems v02r01 6/7/2013

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.

MODES TESTED

- CDMA2000 1xRTT BC10, BC0, BC1
- CDMA2000 1xEVDO BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
BC10	1xRTT	476	817.90	1.2751	1.429
		580	820.50	1.2742	1.435
		684	823.10	1.2848	1.455
	EVDO	476	817.90	1.2747	1.423
		580	820.50	1.2735	1.435
		684	823.1	1.2831	1.617

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
BC0, Cellular	1xRTT	1013	824.70	1.2872	1.462
		384	836.52	1.2802	1.436
		777	848.31	1.2857	1.439
	CDMA2000 1xEV-DO (Rev. A)	1013	824.70	1.2821	1.701
		384	836.52	1.2716	1.433
		777	848.31	1.2738	1.427

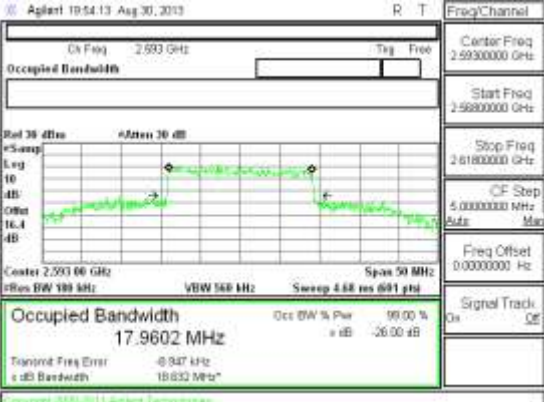
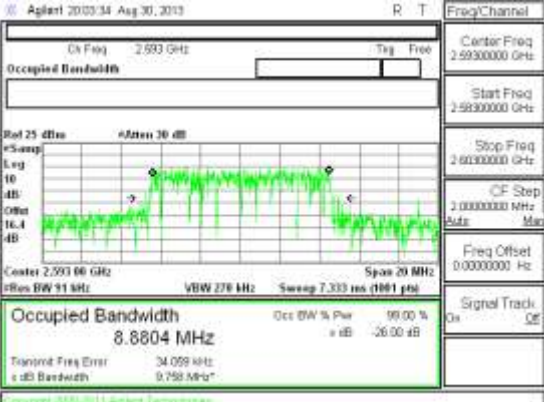
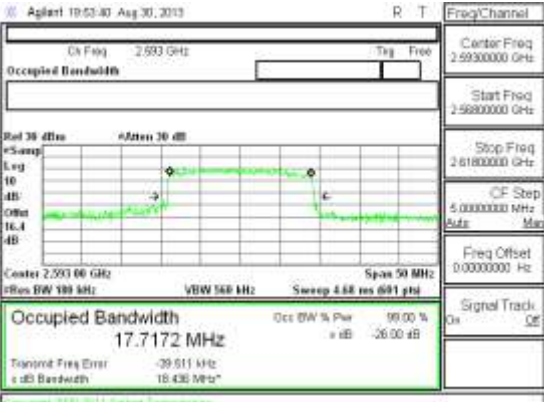
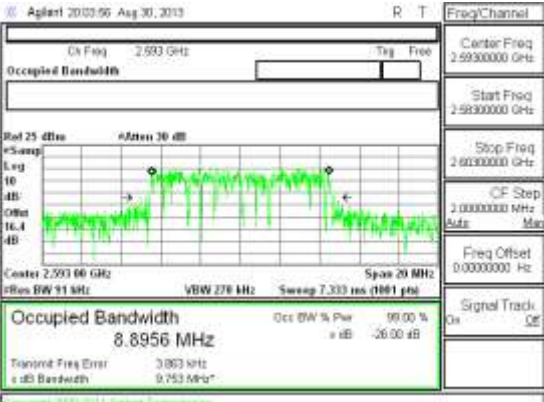
Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
BC1, PCS	1xRTT	25	1851.25	1.2835	1.451
		600	1880.0	1.2944	1.485
		1175	1908.75	1.2797	1.440
	CDMA2000 1xEV-DO (Rev. A)	25	1851.25	1.2830	1.448
		600	1880.0	1.2962	1.928
		1175	1908.75	1.2784	1.448

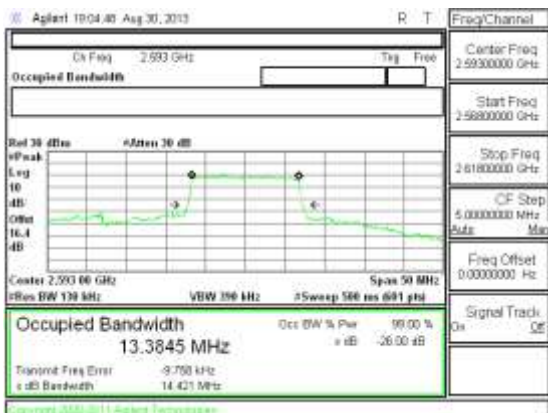
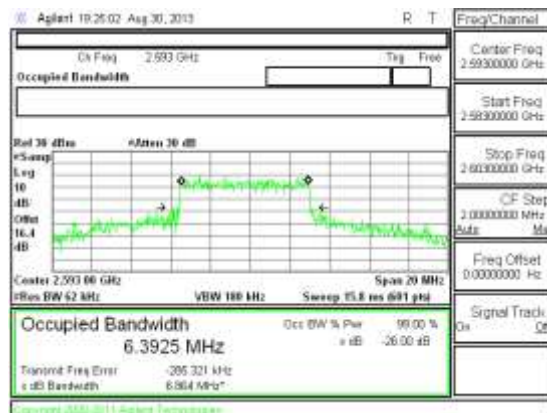
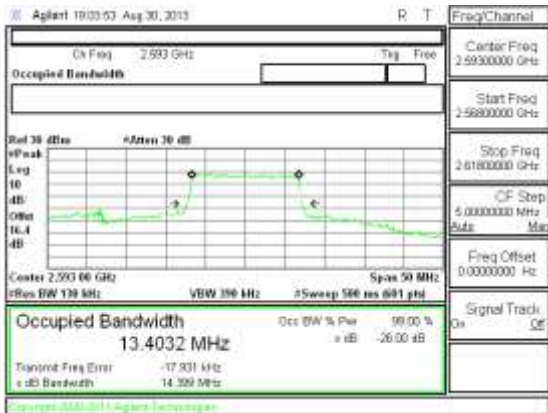
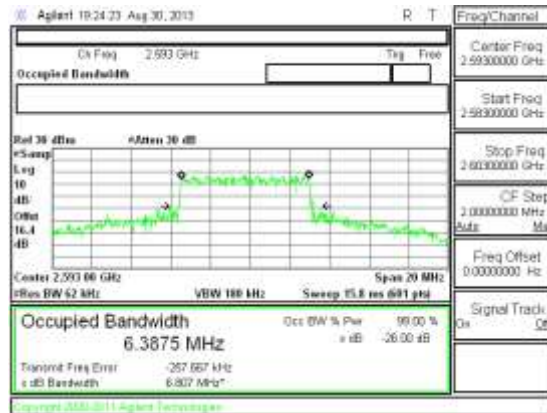
Band	Mode	RB/RB SIZE	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 25	3.0 MHz BAND QPSK	6/2	1851.5	1.0943	1.399
		15/0		2.6760	2.916
	3.0 MHz BAND 16QAM	6/2		1.0916	1.359
		15/0		2.6762	2.928
	3.0 MHz BAND QPSK	6/2	1882.5	1.0862	1.388
		15/0		2.6783	2.937
	3.0 MHz BAND 16QAM	6/2		1.1222	1.543
		15/0		2.6662	2.952
	3.0 MHz BAND QPSK	6/2	1913.5	1.1042	1.479
		15/0		2.6841	2.975
	3.0 MHz BAND 16QAM	6/2		1.1032	1.486
		15/0		2.6685	2.939
	5 MHz BAND QPSK	12/5	1852.5	2.1717	2.804
		25/0		4.4552	4.926
	5 MHz BAND 16QAM	12/5		2.1895	2.979
		25/0		4.4719	4.941
	5 MHz BAND QPSK	12/5	1882.5	2.1684	2.565
		25/0		4.4547	4.865
	5 MHz BAND 16QAM	12/5		2.1828	2.748
		25/0		4.4564	4.894
	5 MHz BAND QPSK	12/5	1912.5	2.1826	2.869
		25/0		4.4518	4.898
	5 MHz BAND 16QAM	12/5		2.1926	2.840
		25/0		4.4590	4.948
	10 MHz BAND QPSK	25/11	1855	4.4729	5.373
		50/0		8.8808	9.474
	10 MHz BAND 16QAM	25/11		4.4724	5.639
		50/0		8.9282	9.701
	10 MHz BAND QPSK	25/11	1882.5	4.4837	5.536
		50/0		8.8801	9.456
	10 MHz BAND 16QAM	25/11		4.4683	5.393
		50/0		8.8840	9.593
	10 MHz BAND QPSK	25/11	1910	4.4715	5.584
		50/0		8.9237	9.458
	10 MHz BAND 16QAM	25/11		4.4795	5.390
		50/0		8.9027	9.696

Band	Mode	RB/RB SIZE	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 26	1.4 MHz BAND QPSK	3/0	814.7	0.557	0.746
		6/0		1.0998	1.343
	1.4 MHz BAND 16QAM	3/0		0.558	0.758
		6/0		1.0963	1.335
	1.4 MHz BAND QPSK	3/0	831.5	0.556	0.769
		6/0		1.0995	1.322
	1.4 MHz BAND 16QAM	3/0		0.555	0.736
		6/0		1.1010	1.332
	1.4 MHz BAND QPSK	3/0	848.3	0.554	0.713
		6/0		1.0935	1.325
	1.4 MHz BAND 16QAM	3/0		0.554	0.758
		6/0		1.0918	1.321
	3.0 MHz BAND QPSK	6/2	815.5	1.1229	1.480
		15/0		2.7089	3.051
	3.0 MHz BAND 16QAM	6/2		1.1245	1.531
		15/0		2.7052	3.051
	3.0 MHz BAND QPSK	6/2	831.5	1.1197	1.572
		15/0		2.7100	3.087
	3.0 MHz BAND 16QAM	6/2		1.1261	1.533
		15/0		2.7095	3.110
	3.0 MHz BAND QPSK	6/2	847.5	1.1121	1.469
		15/0		2.7062	3.096
	3.0 MHz BAND 16QAM	6/2		1.1209	1.498
		15/0		2.7117	3.096
	5 MHz BAND QPSK	12/5	816.5	2.2035	2.969
		25/0		4.5246	5.077
	5 MHz BAND 16QAM	12/5		2.2177	3.052
		25/0		4.5516	5.182
	5 MHz BAND QPSK	12/5	831.5	2.2087	2.915
		25/0		4.5419	5.127
	5 MHz BAND 16QAM	12/5		2.2239	2.988
		25/0		4.5491	5.065
	5 MHz BAND QPSK	12/5	846.5	2.2043	2.972
		25/0		4.5351	5.070
	5 MHz BAND 16QAM	12/5		2.2212	3.000
		25/0		4.5462	5.167
	10 MHz BAND QPSK	25/0	819	4.5971	6.186
		50/0		9.0637	10.212
	10 MHz BAND 16QAM	25/0		4.6536	6.548
		50/0		9.0530	9.986
	10 MHz BAND QPSK	25/0	831.5	4.6072	6.292
		50/0		9.0574	10.044
	10 MHz BAND 16QAM	25/0		4.6297	6.705
		50/0		9.0636	10.103
	10 MHz BAND QPSK	25/0	844	4.6192	6.035
		50/0		9.0185	10.017
	10 MHz BAND 16QAM	25/0		4.5940	6.347
		50/0		8.9765	10.004

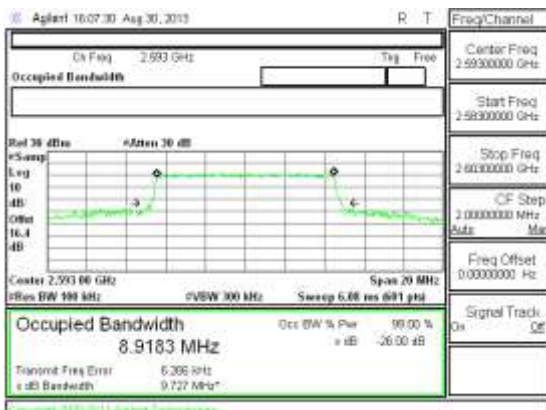
Band	Mode	RB/RB SIZE	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE BAND 41	10 MHz BAND QPSK	25/11	2501	4.4691	5.476
		50/0		8.8915	9.623
	10 MHz BAND 16QAM	25/11		4.4678	5.926
		50/0		8.9205	9.511
	10 MHz BAND QPSK	25/11	2593	4.4832	5.547
		50/0		8.9101	9.606
	10 MHz BAND 16QAM	25/11		4.4713	5.346
		50/0		8.9183	9.727
	10 MHz BAND QPSK	25/11	2685	4.4748	5.229
		50/0		8.9344	11.240
	10 MHz BAND 16QAM	25/11		4.4821	5.472
		50/0		8.9089	10.577
	15 MHz BAND QPSK	36/17	2503.5	6.3750	6.744
		75/0		13.3814	14.212
	15 MHz BAND 16QAM	36/17		6.4043	6.797
		75/0		13.3712	14.071
	15 MHz BAND QPSK	36/17	2593	6.3875	6.807
		75/0		13.4032	14.399
	15 MHz BAND 16QAM	36/17		6.3925	6.864
		75/0		13.3845	14.421
	15 MHz BAND QPSK	36/17	2682.5	6.4096	6.984
		75/0		13.3331	13.904
	15 MHz BAND 16QAM	36/17		6.3945	6.615
		75/0		13.4088	14.822
	20 MHz BAND QPSK	50/24	2506	8.8229	9.216
		100/0		17.6718	18.468
	20 MHz BAND 16QAM	50/24		8.8440	9.550
		100/0		17.4941	18.539
	20 MHz BAND QPSK	50/24	2593	8.8956	9.753
		100/0		17.7172	18.436
	20 MHz BAND 16QAM	50/24		8.8804	9.758
		100/0		17.9602	18.632
	20 MHz BAND QPSK	50/24	2680	8.8632	9.329
		100/0		17.6218	18.128
	20 MHz BAND 16QAM	50/24		8.9133	9.194
		100/0		17.7989	21.679

9.1.1. OCCUPIED BANDWIDTH PLOTS

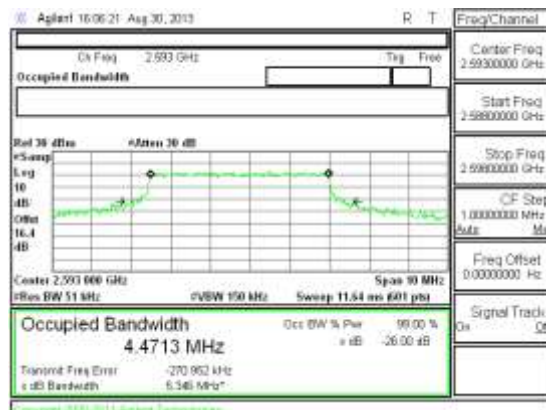
Band LTE41	 Band LTE41 20MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE41 20MHz OBW 16QAM Mid Channel HRB.gif
	 Band LTE41 20MHz OBW QPSK Mid Channel FRB.gif	 Band LTE41 20MHz OBW QPSK Mid Channel HRB.gif

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

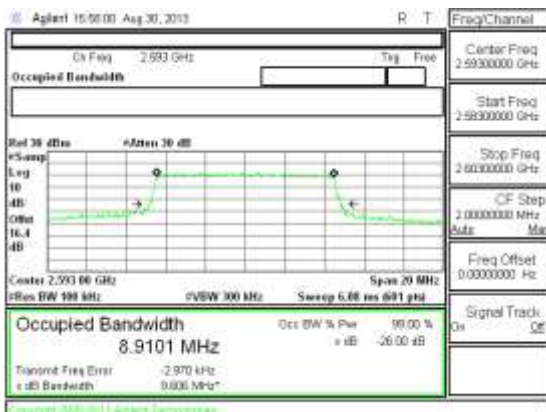
Band
LTE41



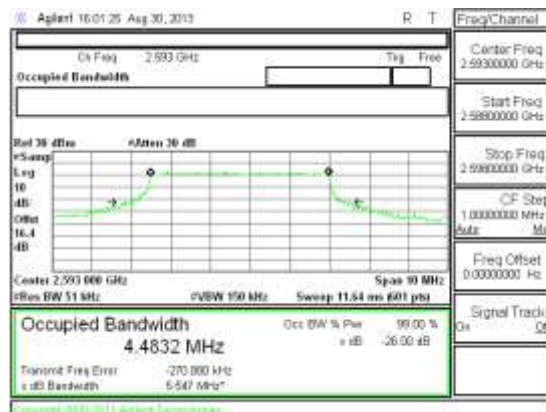
Band LTE41 10MHz OBW 16QAM Mid Channel FRB.gif



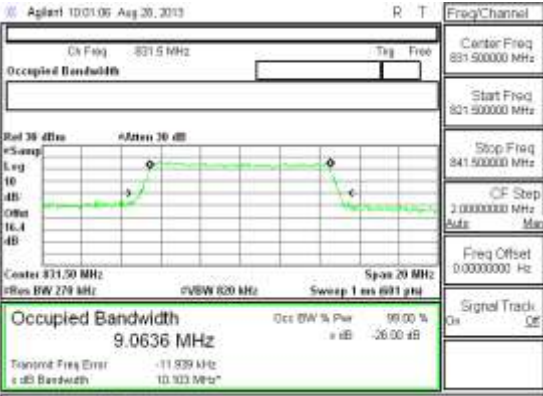
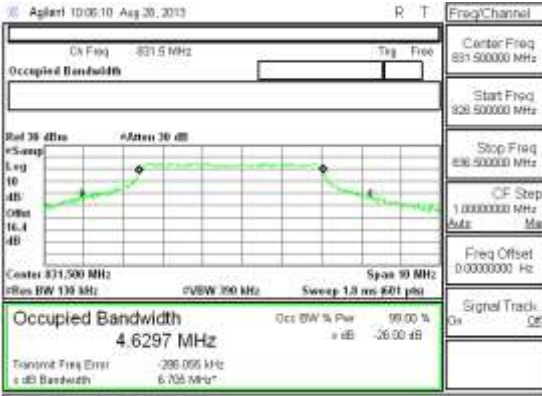
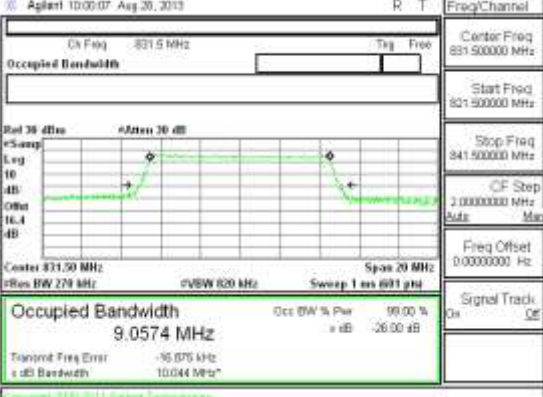
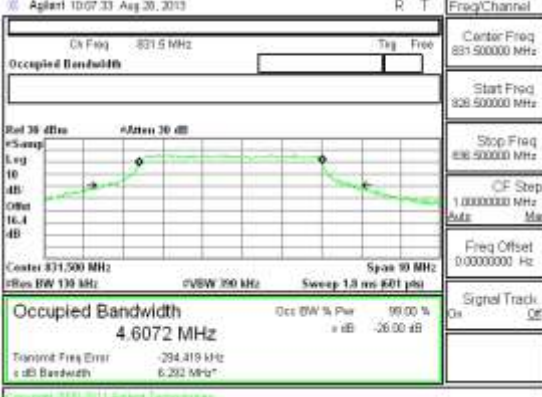
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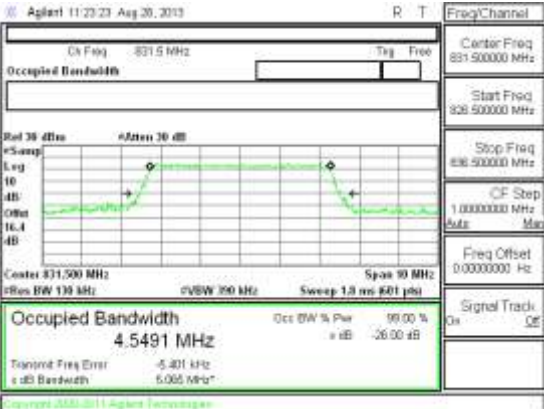
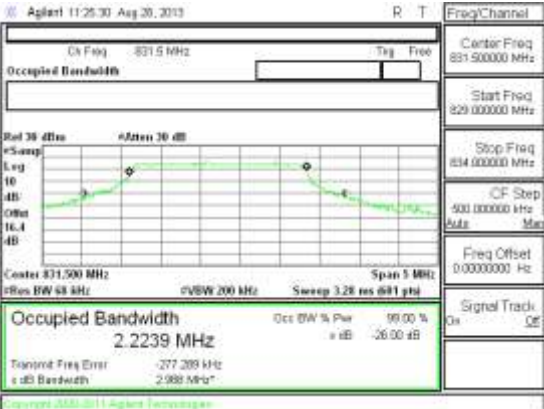
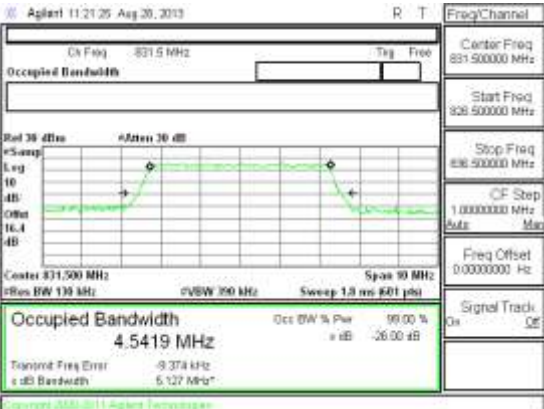
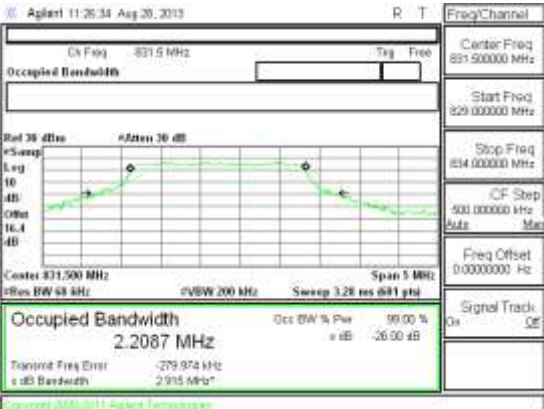


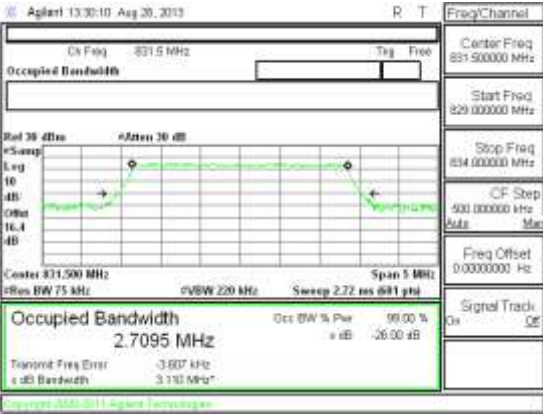
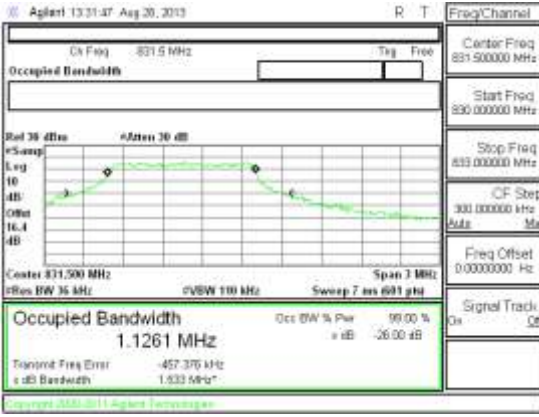
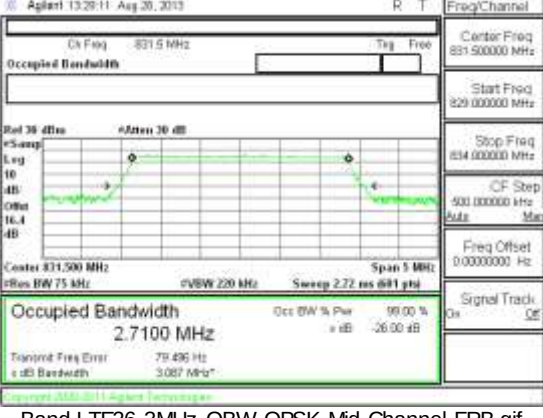
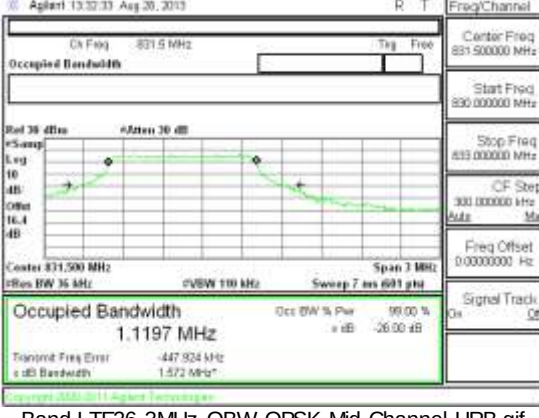
Band LTE41 10MHz OBW QPSK Mid Channel FRB.gif

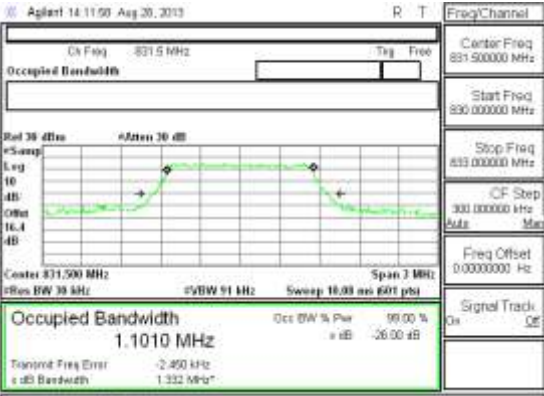
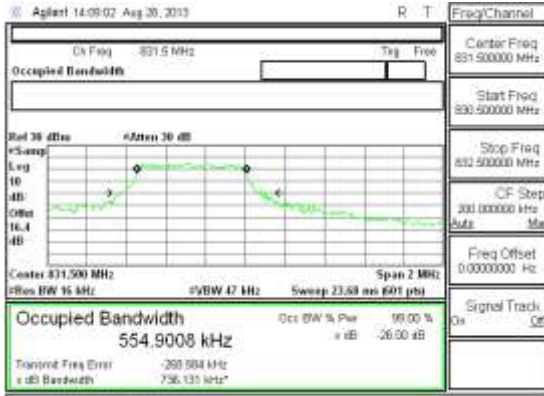
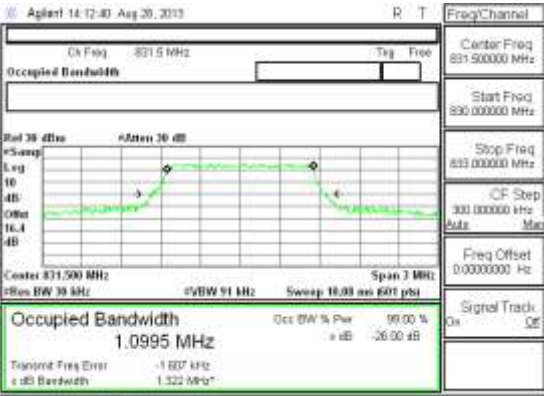
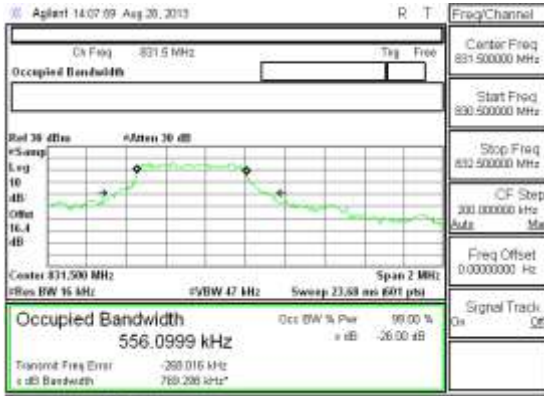


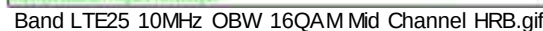
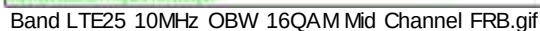
Band LTE41 10MHz OBW QPSK Mid Channel HRB.gif

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

Band LTE26	 Agilent 11:23:23 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 4.5491 MHz Start Freq: 829.500000 MHz Stop Freq: 834.500000 MHz CF Step: 1.0000000 MHz Freq Offset: 0.0000000 Hz Signal Track: Off Band LTE26 5MHz OBW 16QAM Mid Channel FRB.gif	 Agilent 11:25:30 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 2.2239 MHz Start Freq: 829.500000 MHz Stop Freq: 834.500000 MHz CF Step: 1.0000000 MHz Freq Offset: 0.0000000 Hz Signal Track: Off Band LTE26 5MHz OBW 16QAM Mid Channel HRB.gif
	 Agilent 11:21:25 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 4.5419 MHz Start Freq: 829.500000 MHz Stop Freq: 834.500000 MHz CF Step: 1.0000000 MHz Freq Offset: 0.0000000 Hz Signal Track: Off Band LTE26 5MHz OBW QPSK Mid Channel FRB.gif	 Agilent 11:26:34 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 2.2087 MHz Start Freq: 829.500000 MHz Stop Freq: 834.500000 MHz CF Step: 1.0000000 MHz Freq Offset: 0.0000000 Hz Signal Track: Off Band LTE26 5MHz OBW QPSK Mid Channel HRB.gif

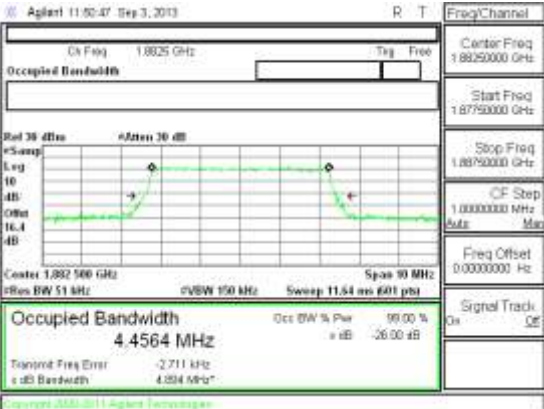
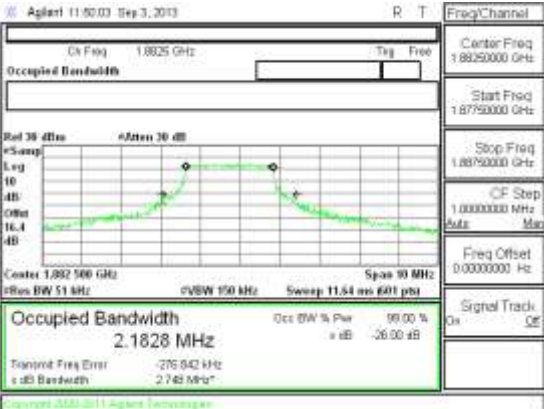
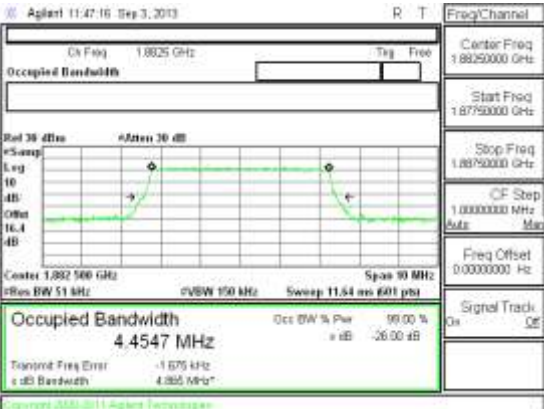
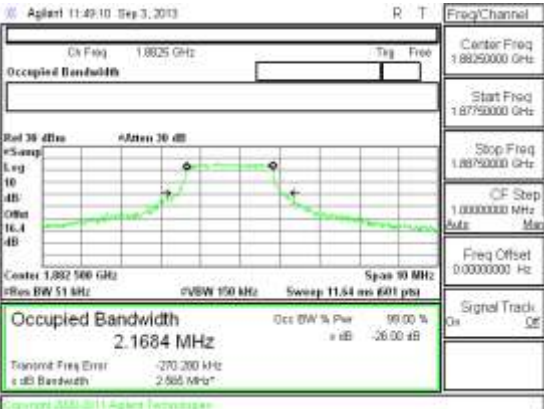
Band LTE26	 Band LTE26 3MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE26 3MHz OBW 16QAM Mid Channel HRB.gif
	 Band LTE26 3MHz OBW QPSK Mid Channel FRB.gif	 Band LTE26 3MHz OBW QPSK Mid Channel HRB.gif

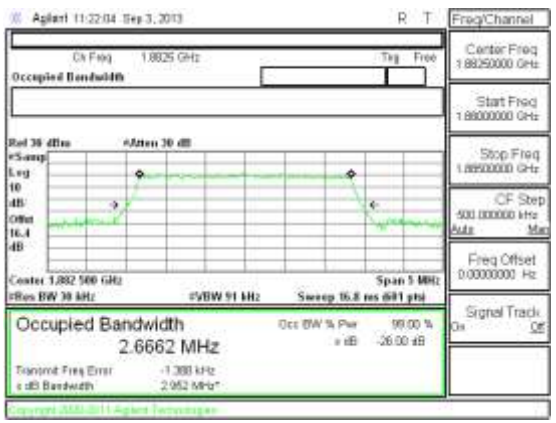
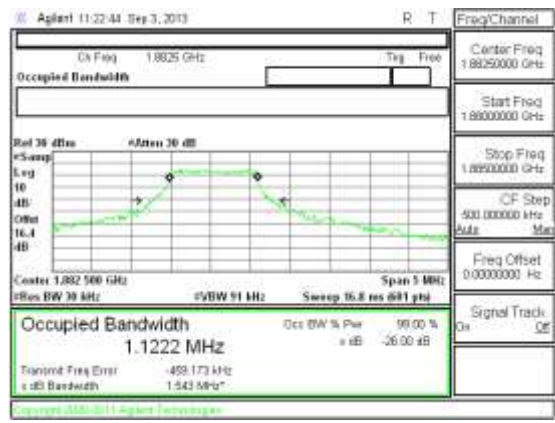
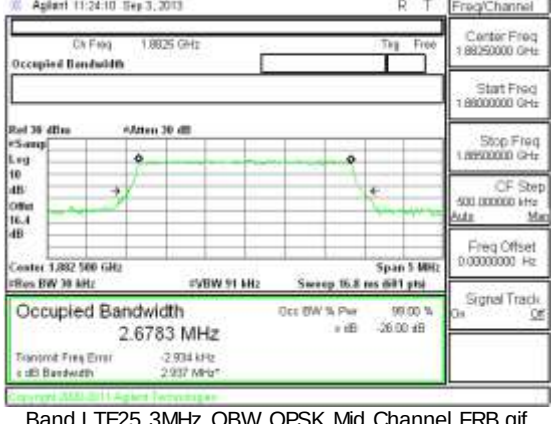
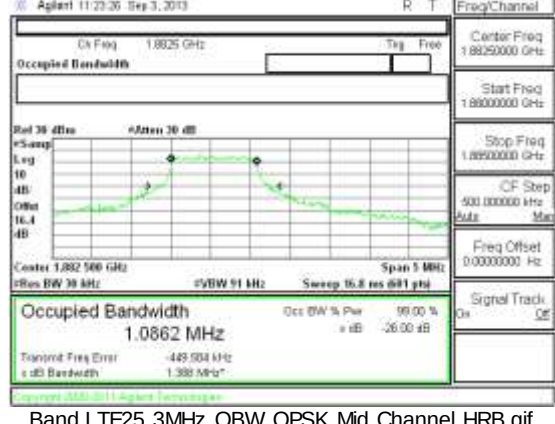
Band LTE26	 Agilent 14:11:59 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 1.1010 MHz Start Freq: 830.000000 MHz Stop Freq: 833.000000 MHz CF Step: 300.000000 kHz Freq Offset: 0.00000000 Hz Center: 831.500 MHz Span: 3 MHz Ref BW: 30 kHz Res BW: 91 kHz Sweep: 10.00 ms 600 ppts Occupied Bandwidth: 1.1010 MHz Transmit Freq Error: -2.460 kHz dB Bandwidth: 1.332 MHz Signal Track: On Band LTE26 1.4MHz OBW 16QAM Mid Channel FRB.gif	 Agilent 14:09:02 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 554.9008 kHz Start Freq: 830.000000 MHz Stop Freq: 833.000000 MHz CF Step: 300.000000 kHz Freq Offset: 0.00000000 Hz Center: 831.500 MHz Span: 3 MHz Ref BW: 30 kHz Res BW: 47 kHz Sweep: 23.68 ms 600 ppts Occupied Bandwidth: 554.9008 kHz Transmit Freq Error: -268.984 kHz dB Bandwidth: 736.135 kHz Signal Track: On Band LTE26 1.4MHz OBW 16QAM Mid Channel HRB.gif
	 Agilent 14:12:40 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 1.0995 MHz Start Freq: 830.000000 MHz Stop Freq: 833.000000 MHz CF Step: 300.000000 kHz Freq Offset: 0.00000000 Hz Center: 831.500 MHz Span: 3 MHz Ref BW: 30 kHz Res BW: 91 kHz Sweep: 10.00 ms 600 ppts Occupied Bandwidth: 1.0995 MHz Transmit Freq Error: -1.607 kHz dB Bandwidth: 1.322 MHz Signal Track: On Band LTE26 1.4MHz OBW QPSK Mid Channel FRB.gif	 Agilent 14:07:09 Aug 20, 2013 R T Freq/Channel CA Freq: 831.5 MHz Tag: Free Center Freq: 831.500000 MHz Occupied Bandwidth: 556.0999 kHz Start Freq: 830.000000 MHz Stop Freq: 833.000000 MHz CF Step: 300.000000 kHz Freq Offset: 0.00000000 Hz Center: 831.500 MHz Span: 3 MHz Ref BW: 30 kHz Res BW: 47 kHz Sweep: 23.68 ms 600 ppts Occupied Bandwidth: 556.0999 kHz Transmit Freq Error: -268.016 kHz dB Bandwidth: 769.296 kHz Signal Track: On Band LTE26 1.4MHz OBW QPSK Mid Channel HRB.gif

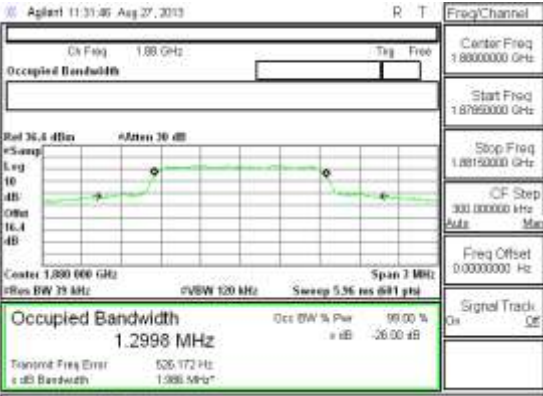
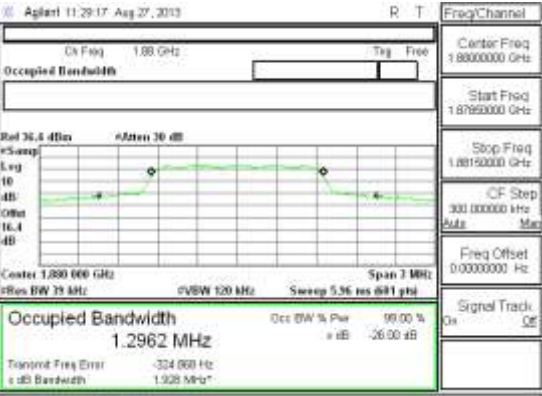
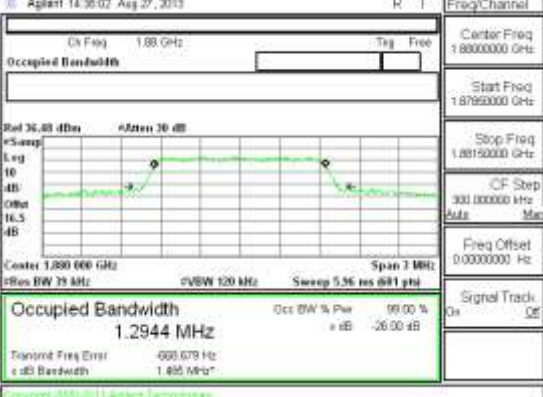


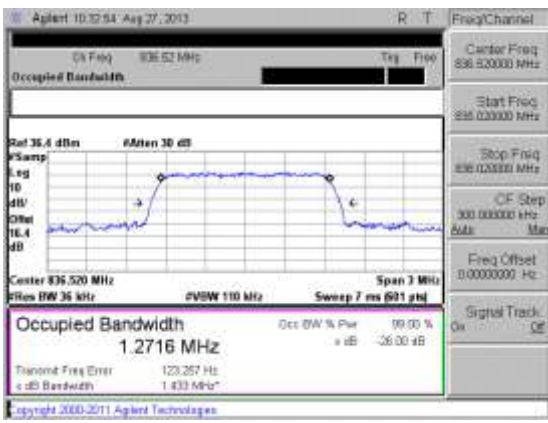
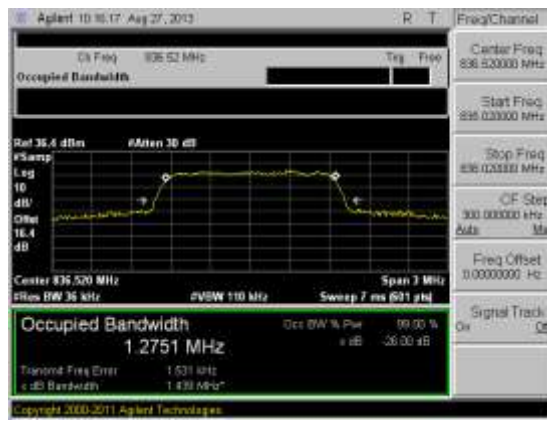
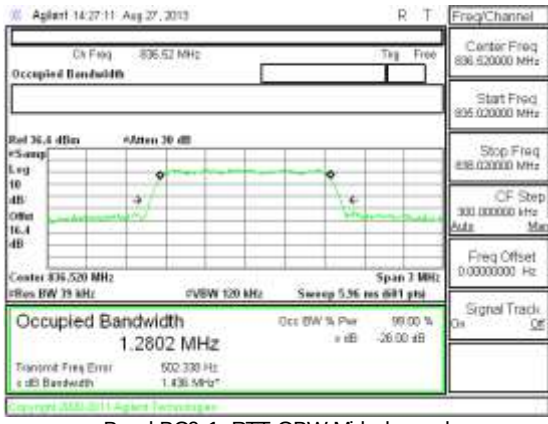
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LTE25

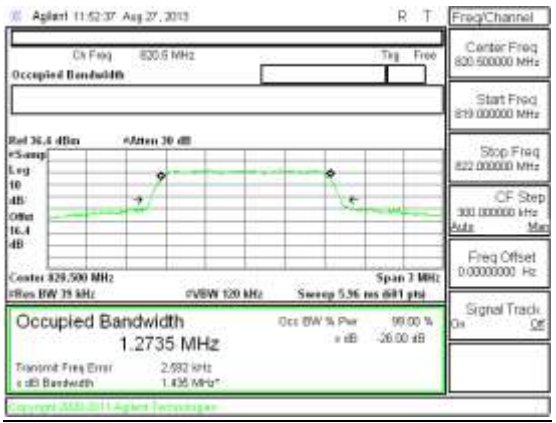
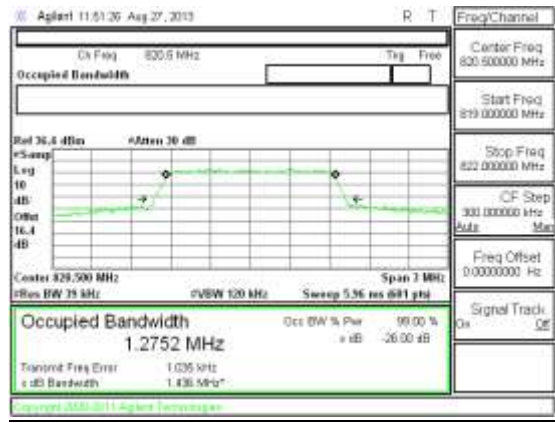
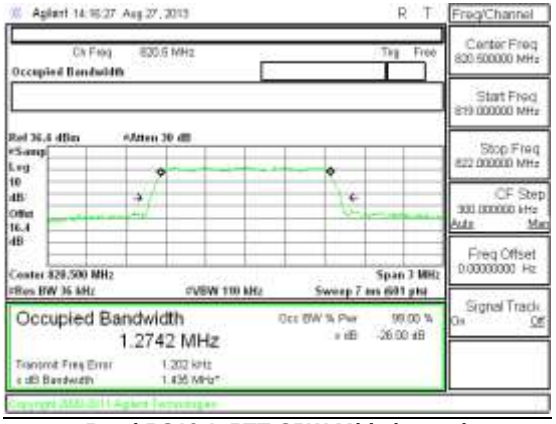


Band LTE25	 Band LTE25 5MHz OBW 16QAM Mid Channel FRB.gif	 Band LTE25 5MHz OBW 16QAM Mid Channel HRB.gif
	 Band LTE25 5MHz OBW QPSK Mid Channel FRB.gif	 Band LTE25 5MHz OBW QPSK Mid Channel HRB.gif

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

	 Agilent 11:31:46 Aug 27, 2013 R T Freq/Channel CA Freq 1.88 GHz Tag Free Center Freq 1.8800000 GHz Occupied Bandwidth Start Freq 1.8795000 GHz Stop Freq 1.8815000 GHz CF Step 300.00000 kHz Auto Mac Freq Offset 0.0000000 Hz Signal Track Off Center 1.880 000 GHz Span 3 MHz Ref 26.4 dBm #Atten 30 dB Occupied Bandwidth 1.2998 MHz Transmit Freq Error 626.172 Hz ± dB Bandwidth 1.986 MHz Occupied BW 75 MHz Occ BW % Pow 99.00 % ± dB -36.00 dB Band BC1 EVDO Rel. 0 OBW Mid channel	 Agilent 11:29:17 Aug 27, 2013 R T Freq/Channel CA Freq 1.88 GHz Tag Free Center Freq 1.8800000 GHz Occupied Bandwidth Start Freq 1.8795000 GHz Stop Freq 1.8815000 GHz CF Step 300.00000 kHz Auto Mac Freq Offset 0.0000000 Hz Signal Track Off Center 1.880 000 GHz Span 3 MHz Ref 26.4 dBm #Atten 30 dB Occupied Bandwidth 1.2962 MHz Transmit Freq Error -324.060 Hz ± dB Bandwidth 1.928 MHz Occupied BW 75 MHz Occ BW % Pow 99.00 % ± dB -36.00 dB Band BC1 EVDO Rev. A OBW Mid channel
Band BC1	 Agilent 14:38:02 Aug 27, 2013 R T Freq/Channel CA Freq 1.88 GHz Tag Free Center Freq 1.8800000 GHz Occupied Bandwidth Start Freq 1.8795000 GHz Stop Freq 1.8815000 GHz CF Step 300.00000 kHz Auto Mac Freq Offset 0.0000000 Hz Signal Track Off Center 1.880 000 GHz Span 3 MHz Ref 26.4 dBm #Atten 30 dB Occupied Bandwidth 1.2944 MHz Transmit Freq Error -660.679 Hz ± dB Bandwidth 1.895 MHz Occupied BW 75 MHz Occ BW % Pow 99.00 % ± dB -36.00 dB Band BC1 1xRTT OBW Mid channel	

	 Band BC0 EVDO Rel. 0 OBW Mid channel	 Band BC0 EVDO Rev. A OBW Mid channel
Band BC0	 Band BC0 1xRTT OBW Mid channel	

	 Band BC10 EVDO Rel. 0 OBW Mid channel	 Band BC10 EVDO Rev. A OBW Mid channel
Band BC10	 Band BC10 1xRTT OBW Mid channel	

9.2. PEAK-TO-AVERAGE RATIO

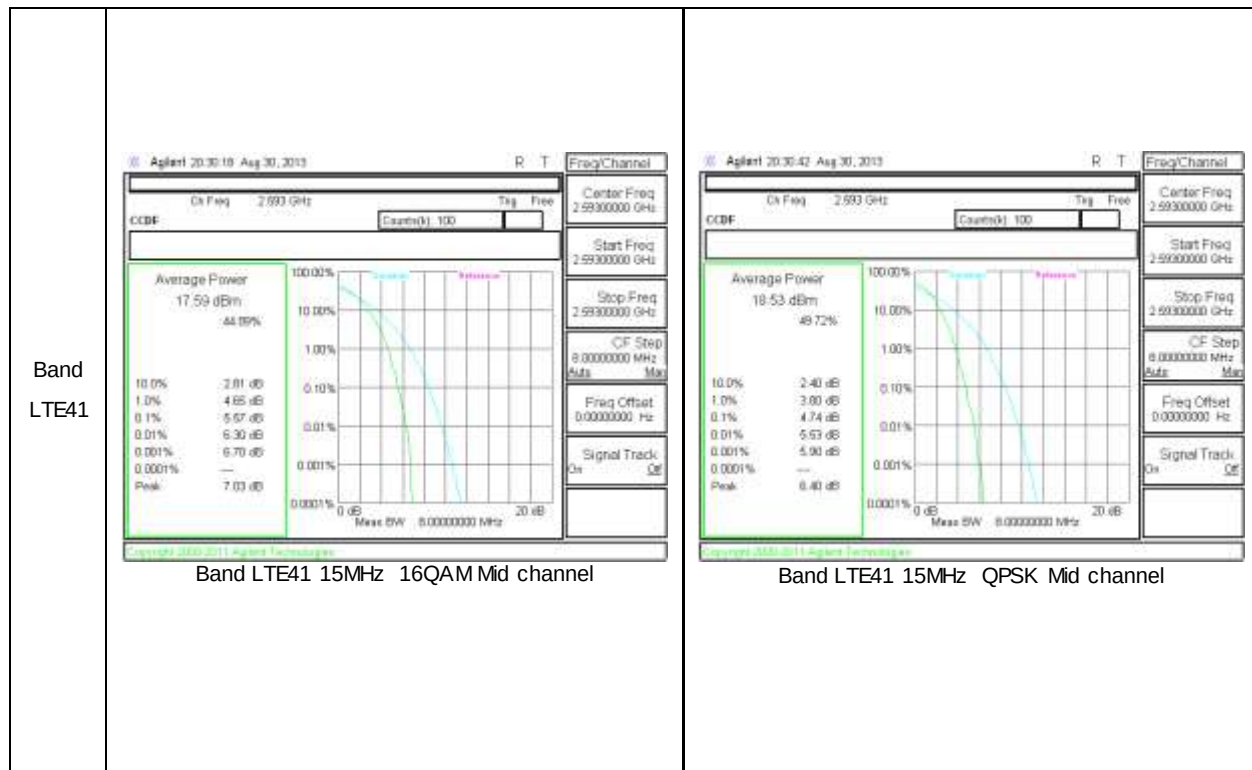
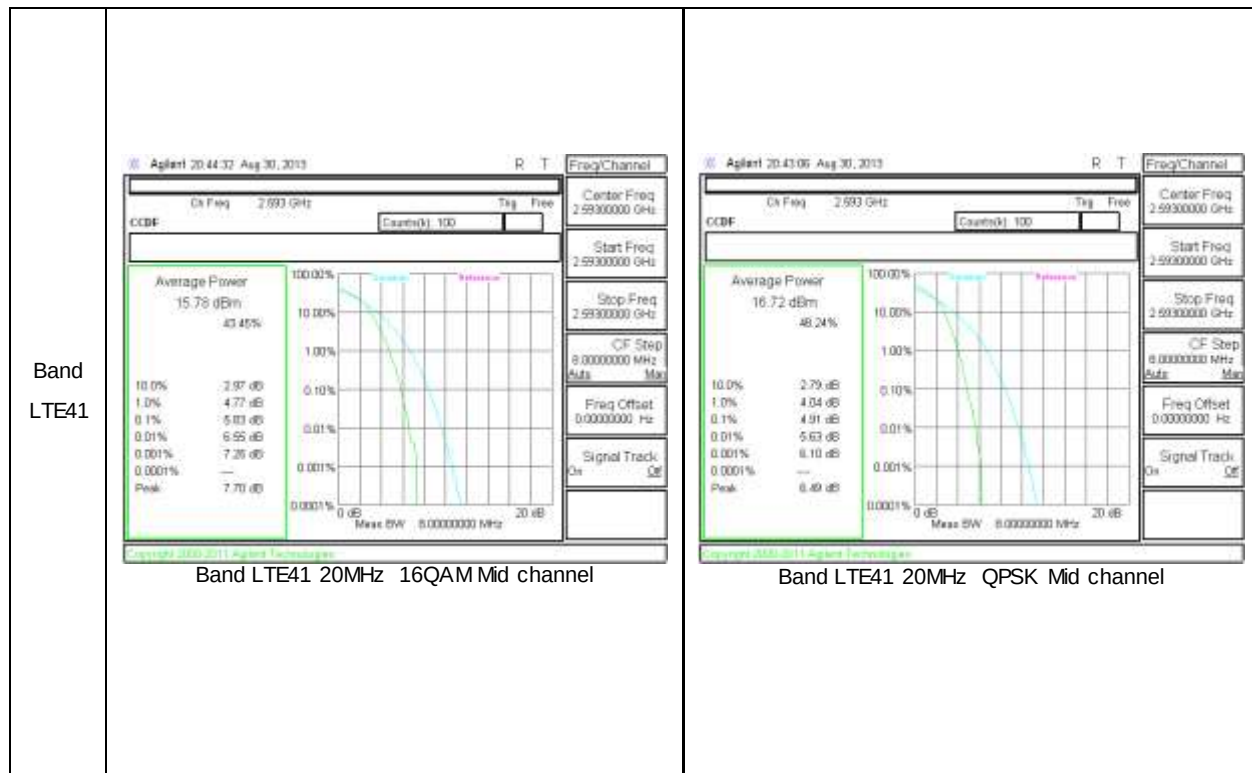
Reference KDB 971168 D01 Power Meas License Digital Systems v02r01 6/7/2013

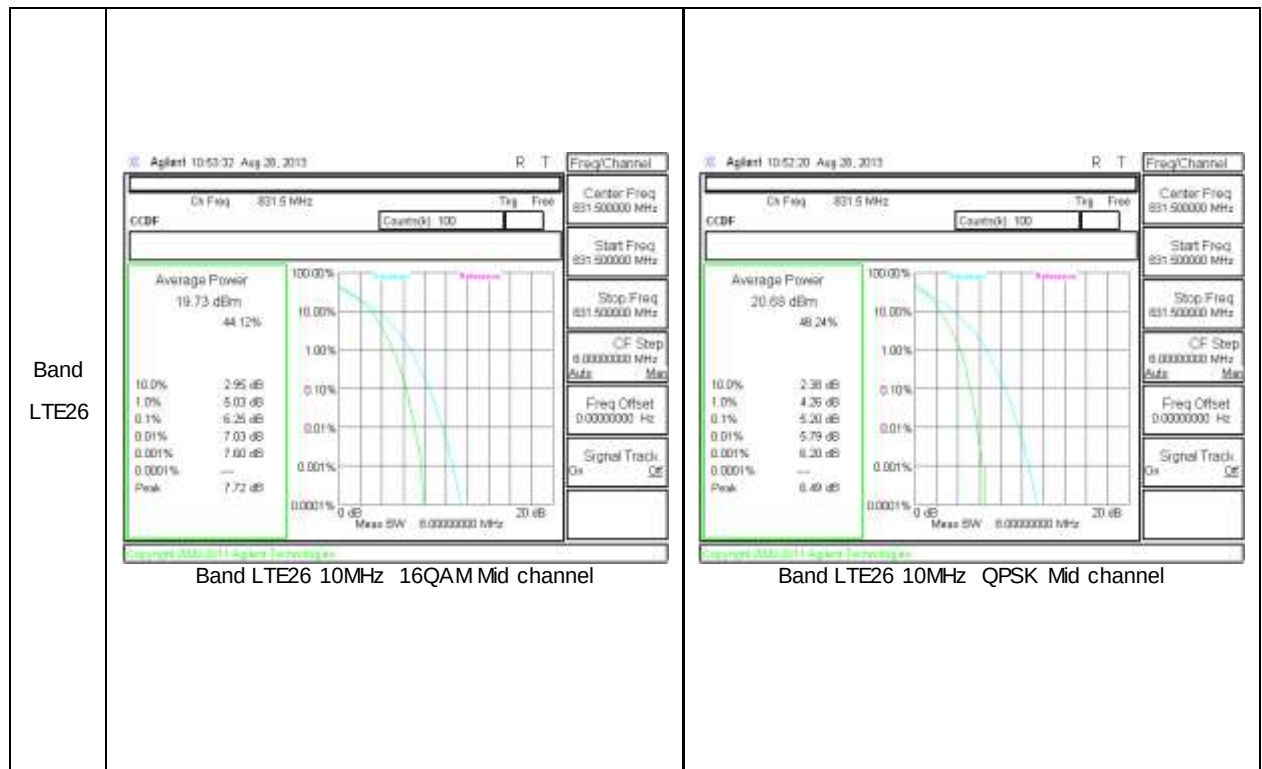
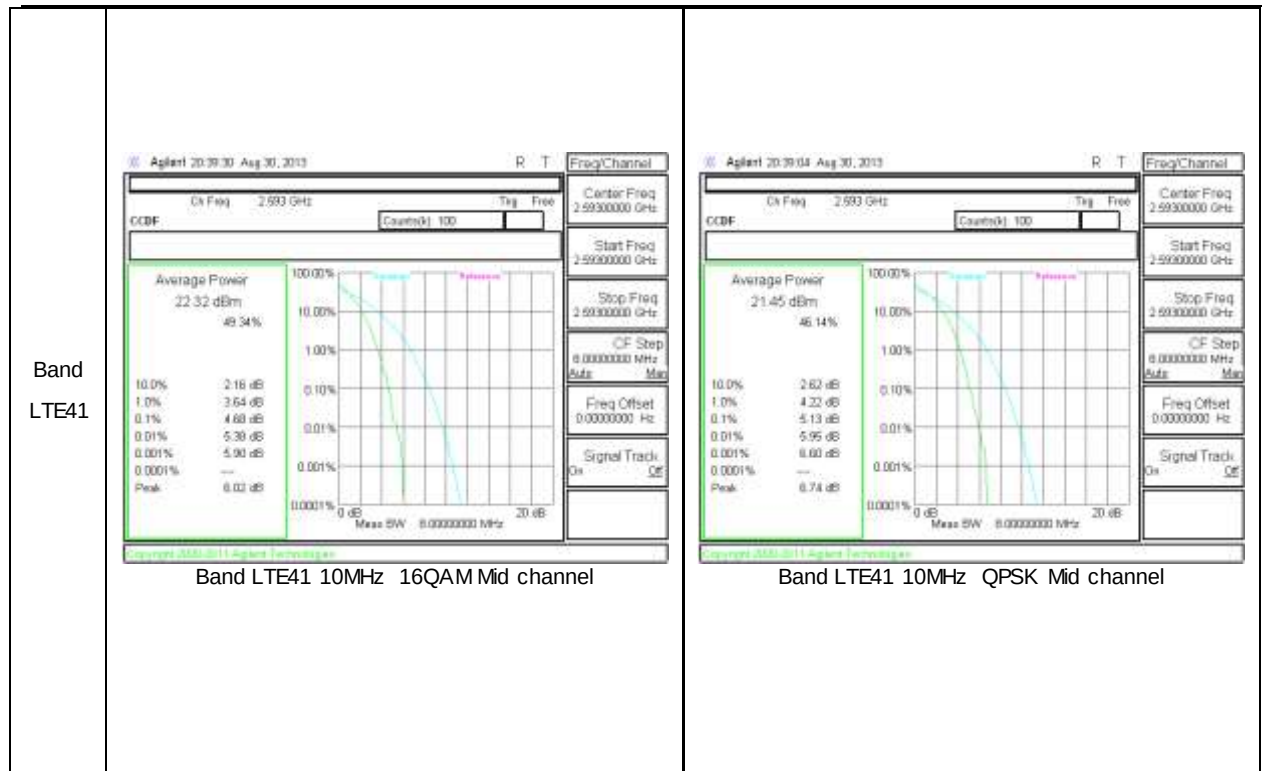
In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

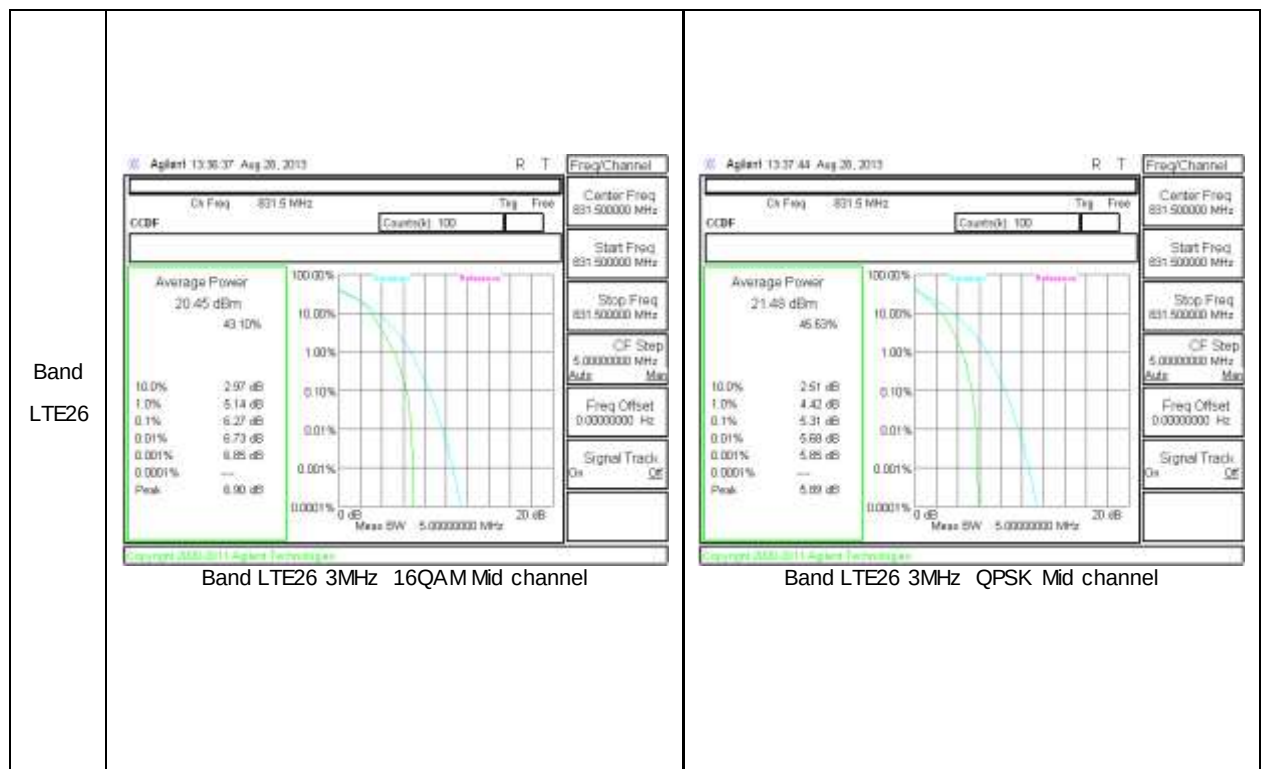
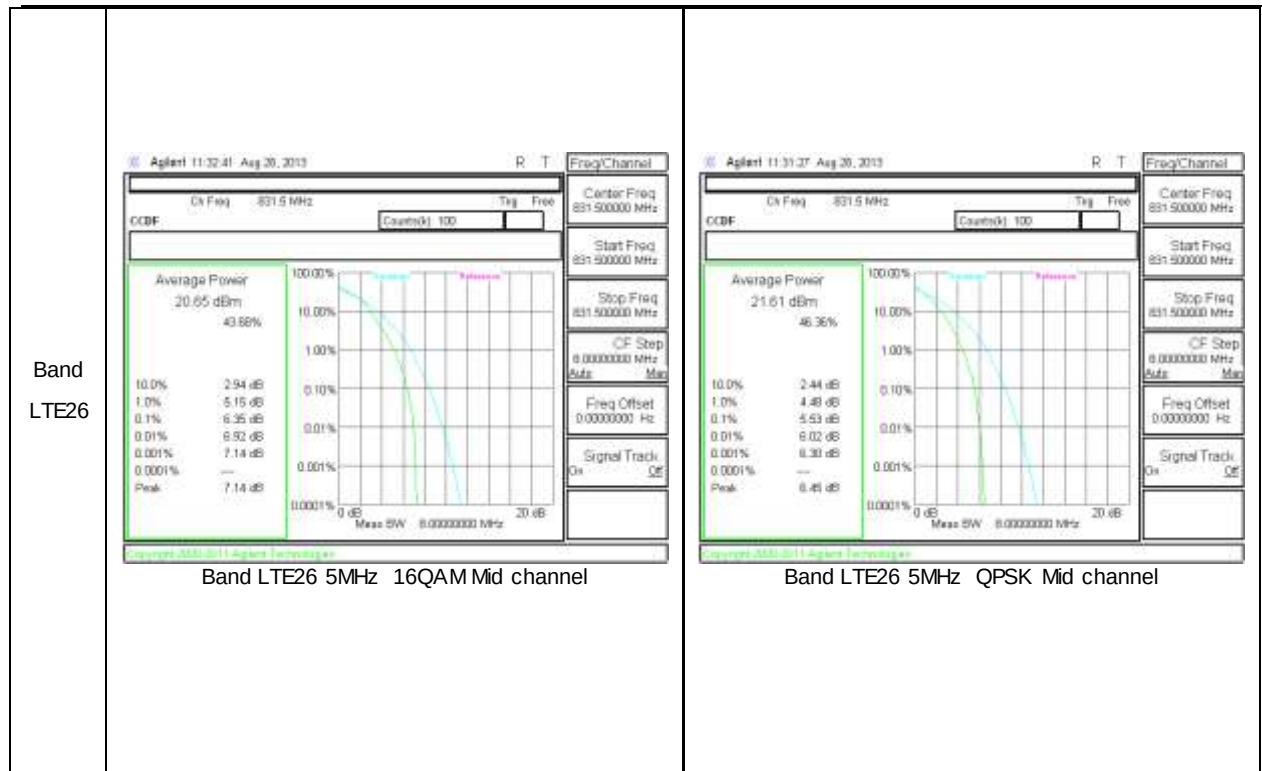
MODES TESTED

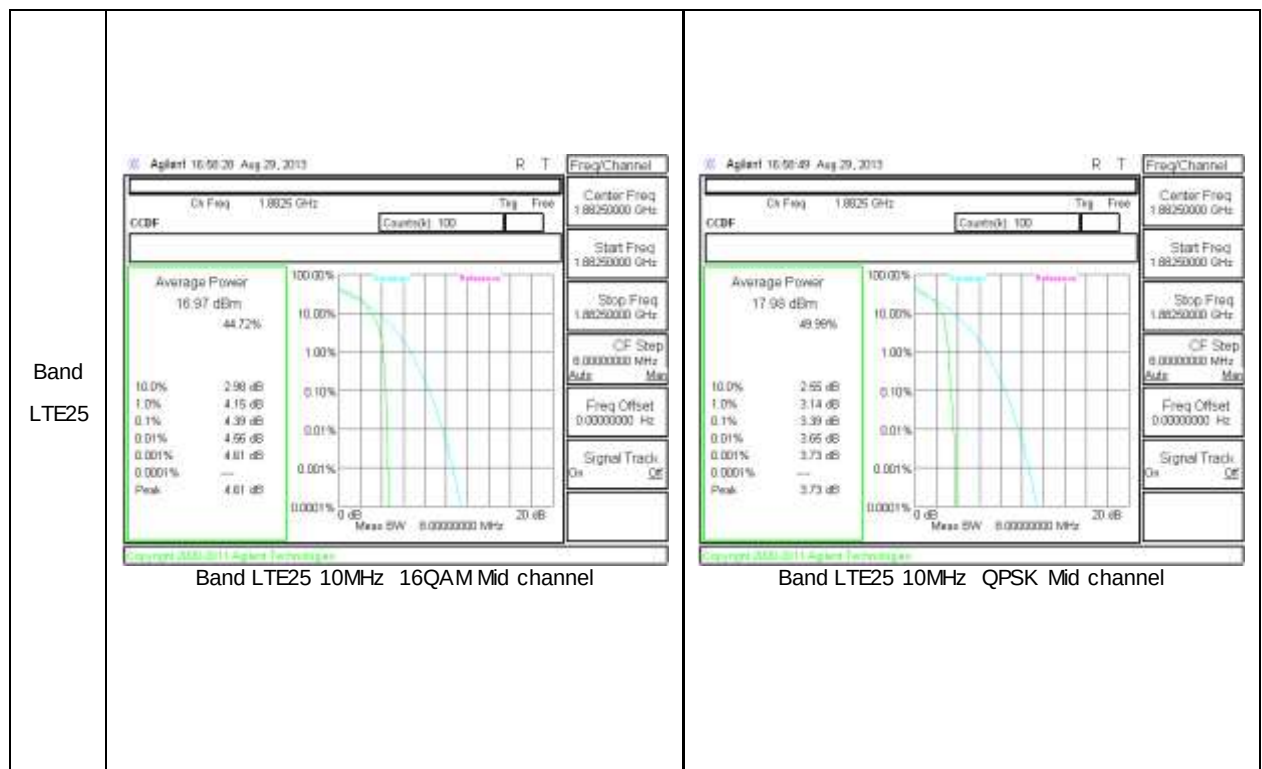
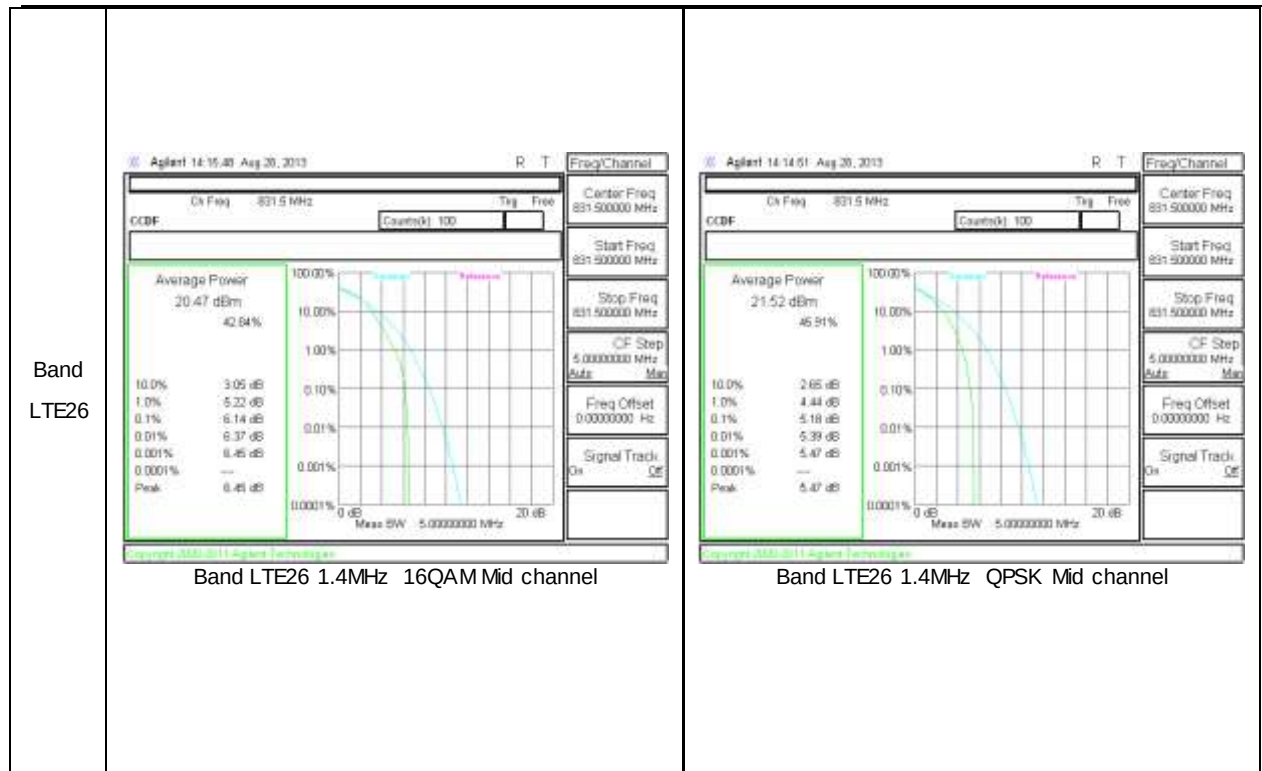
- CDMA2000 1xRTT BC10, BC0, BC1
- CDMA2000 1xEVDO BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

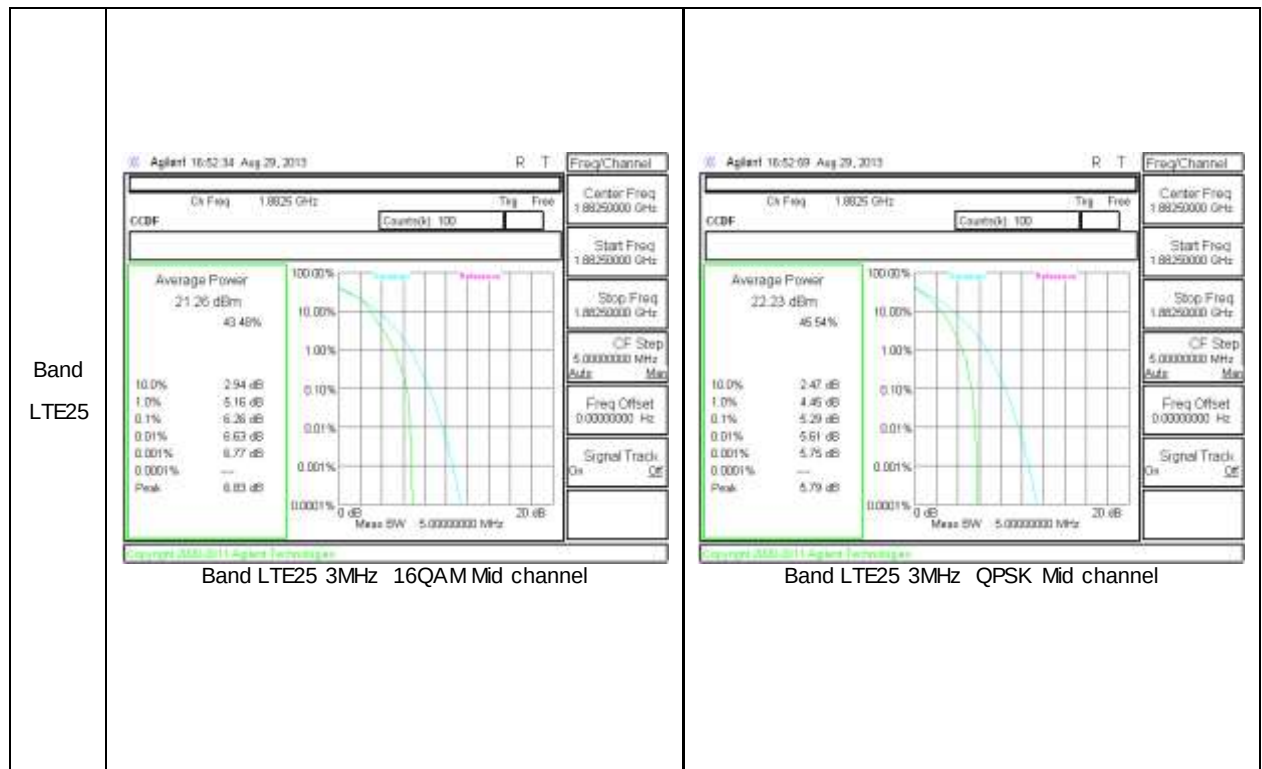
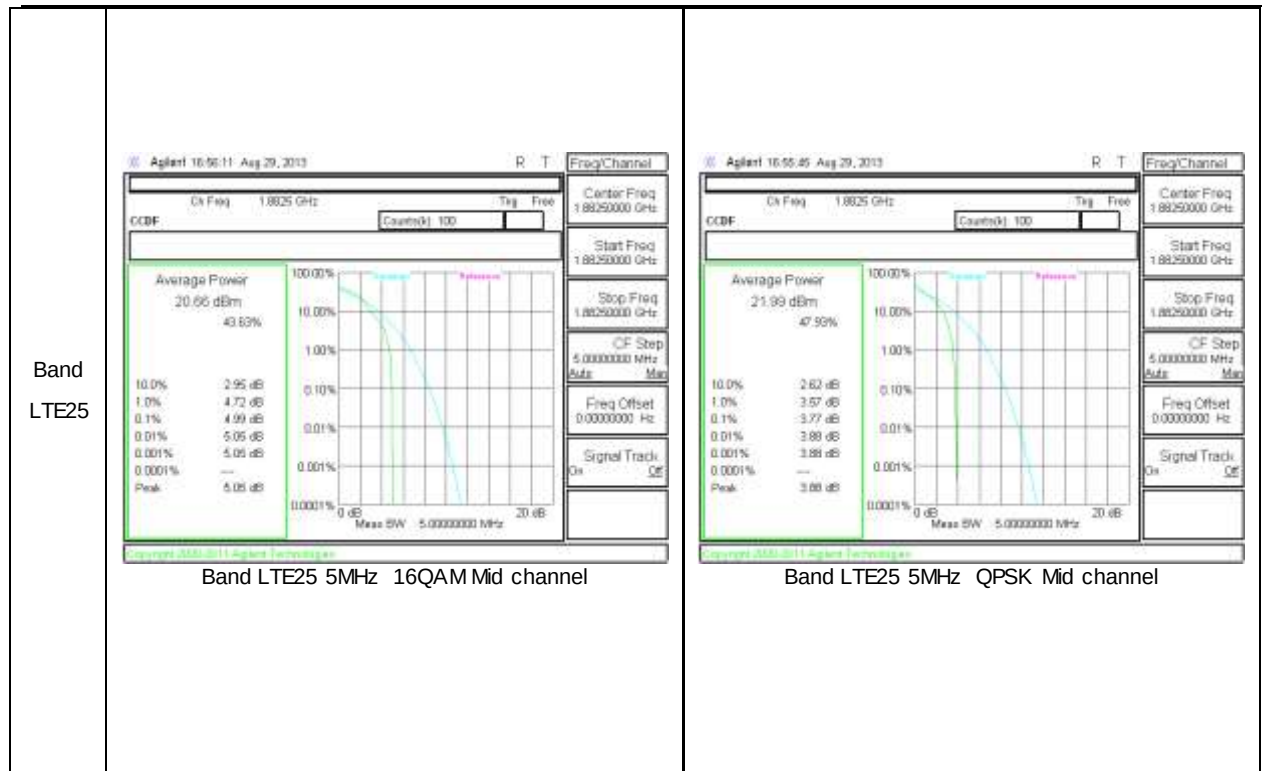
RESULTS











9.3. BAND EDGE

RULE PART(S)

FCC: §22.359, 24.238

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.

TEST PROCEDURE

Reference KDB 971168 D01 Power Meas License Digital Systems v02r01 6/7/2013

The transmitter output was connected to a Agilent 8960 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.

For each band edge measurement:

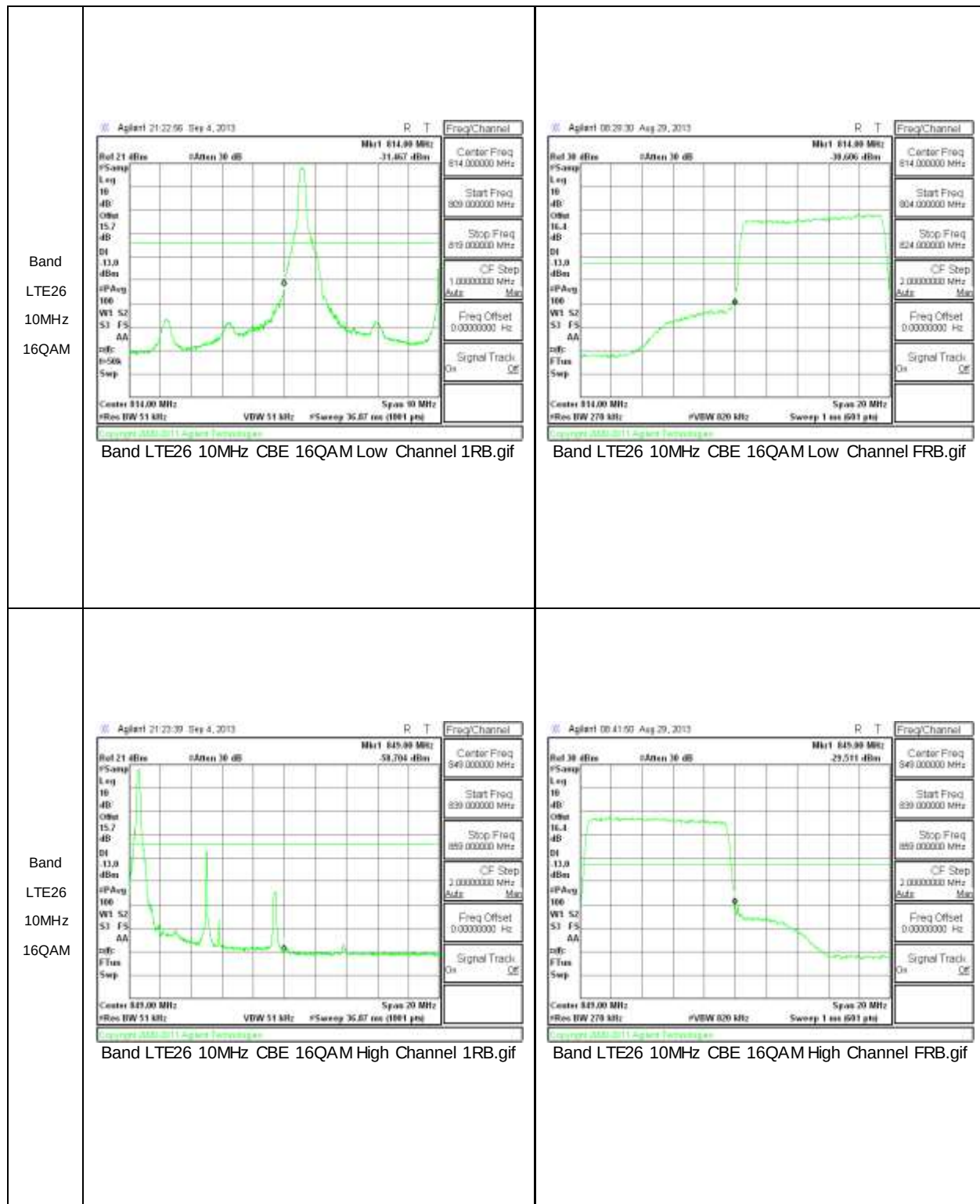
- Set the spectrum analyzer span to include the block edge frequency (824, 848, 1850, 1910MHz)
- Set a marker to point the corresponding band edge frequency in each test case.
- Set display line at -13 dBm
- Set resolution bandwidth to at least 1% of emission bandwidth.

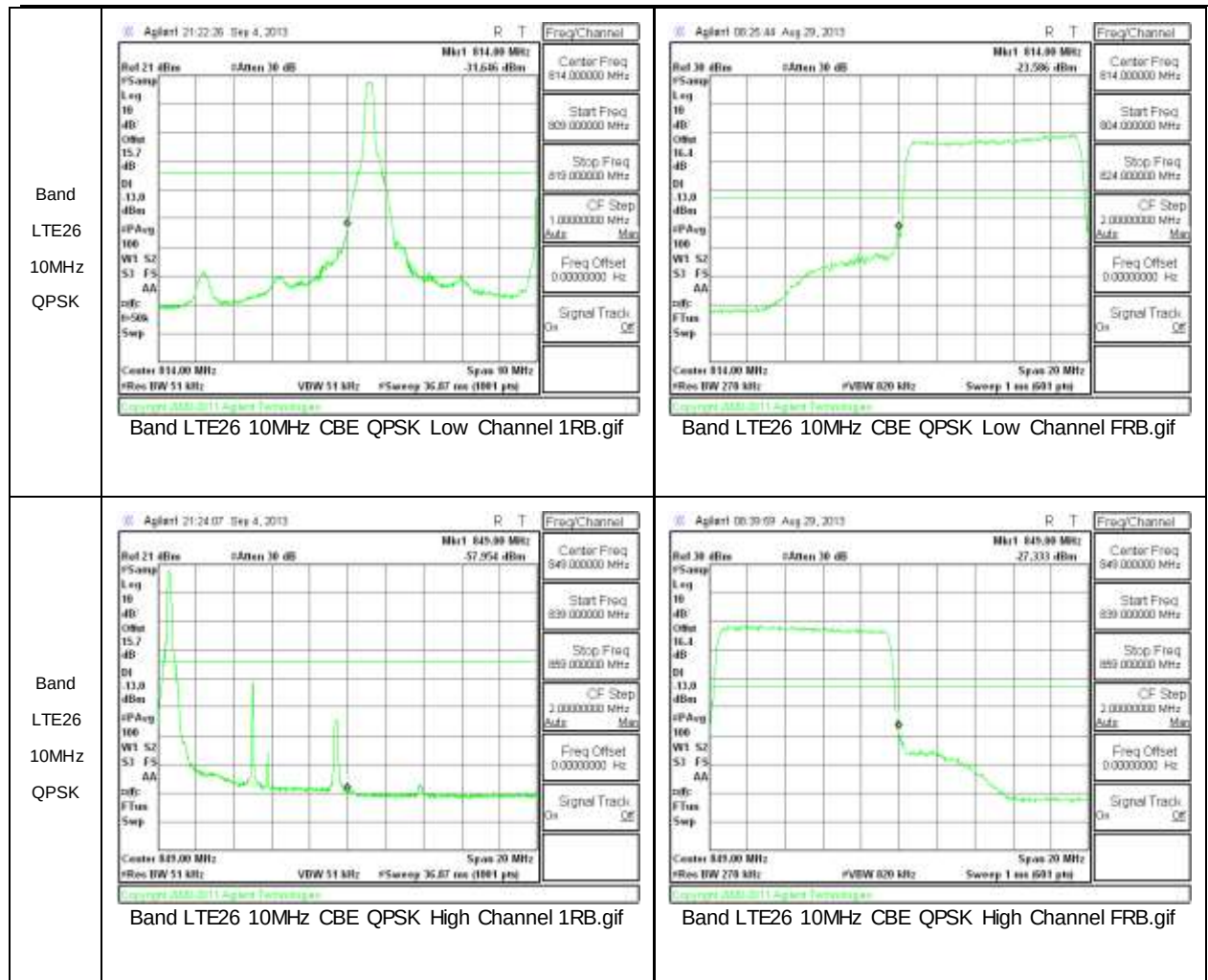
MODES TESTED

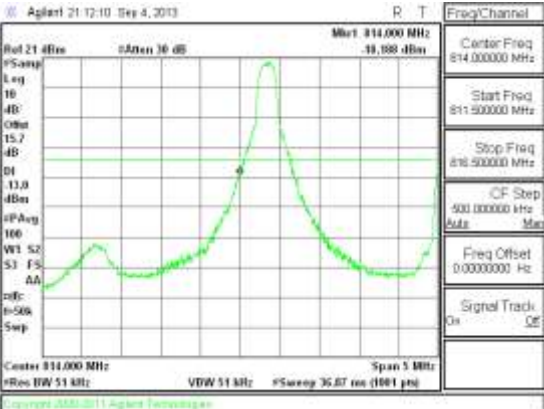
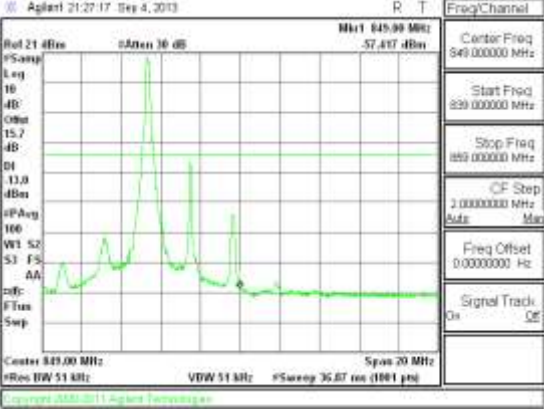
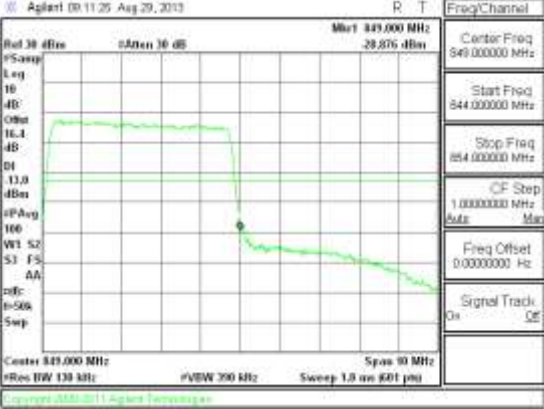
- CDMA2000 1xRTT BC10, BC0, BC1
- CDMA2000 1xEVDO BC10, BC0, BC1
- LTE Band 25
- LTE Band 26

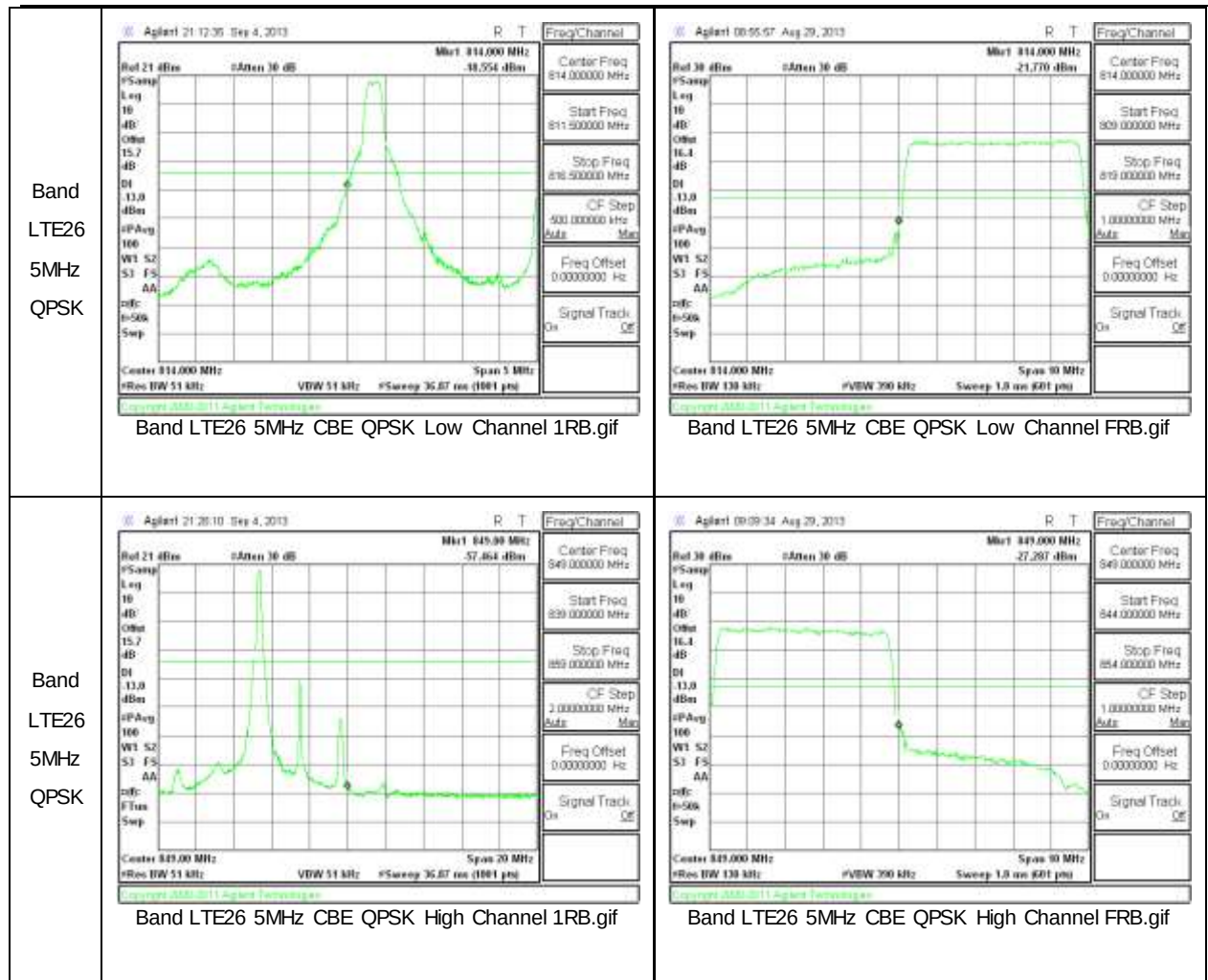
RESULTS

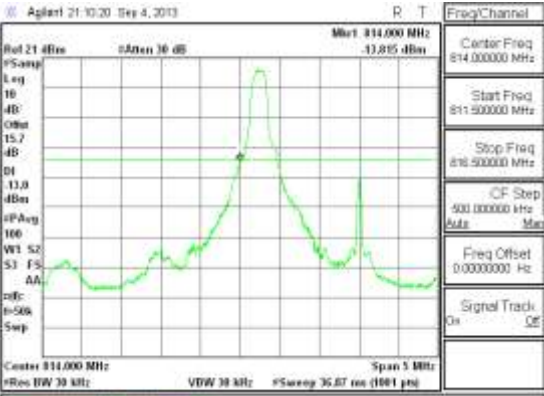
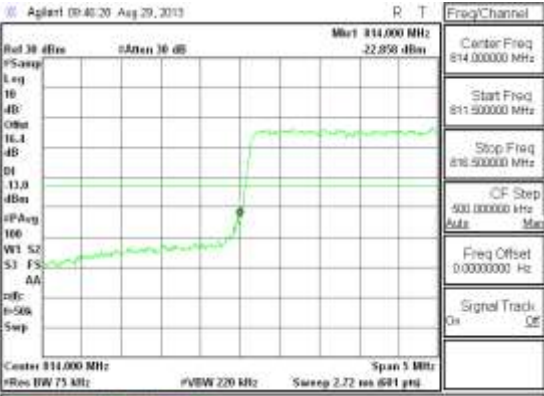
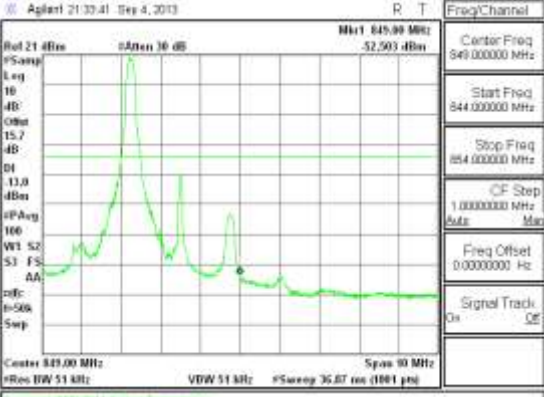
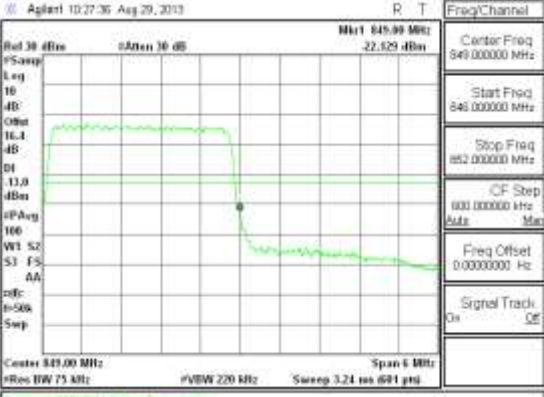
9.3.1. BAND EDGE PLOTS

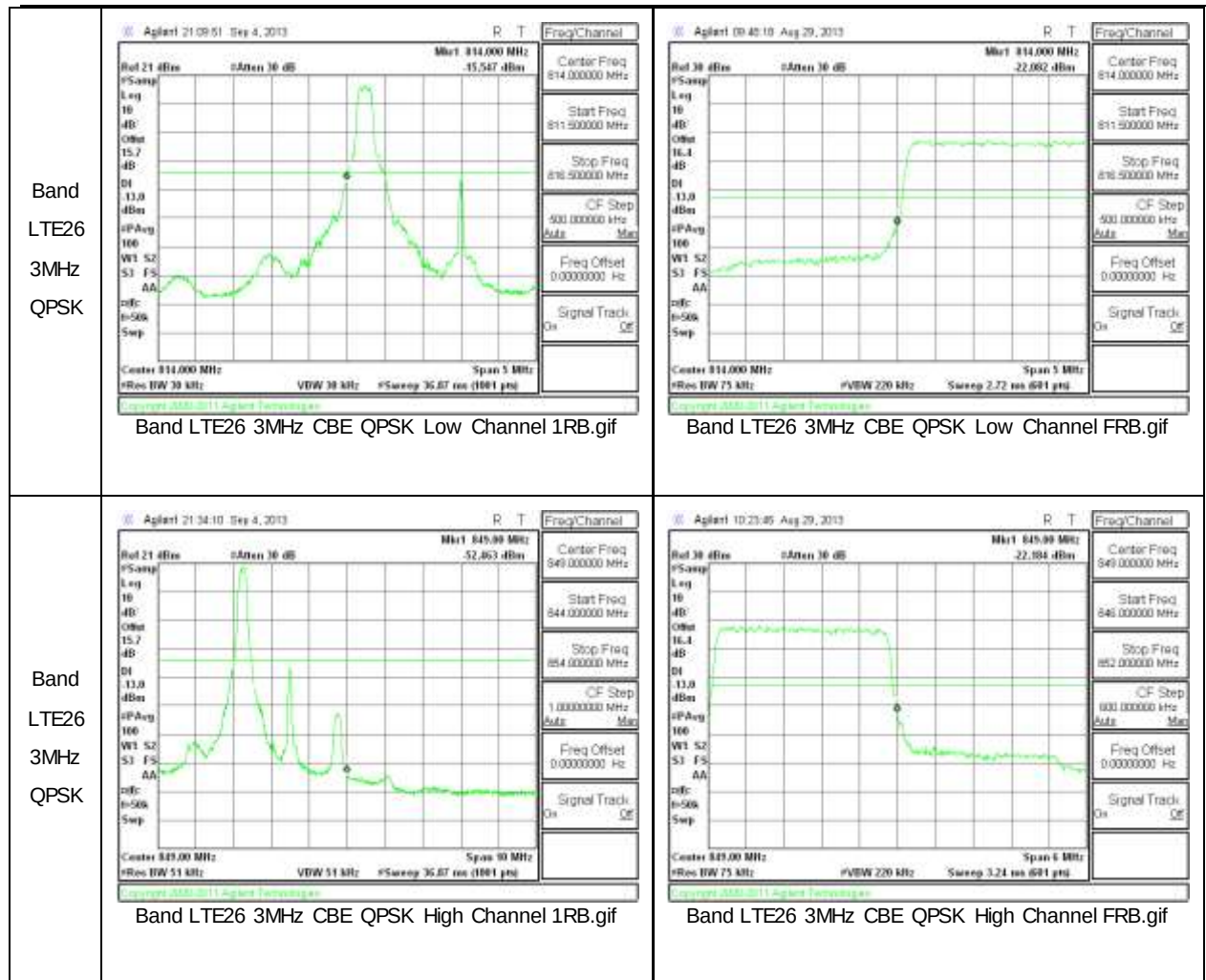


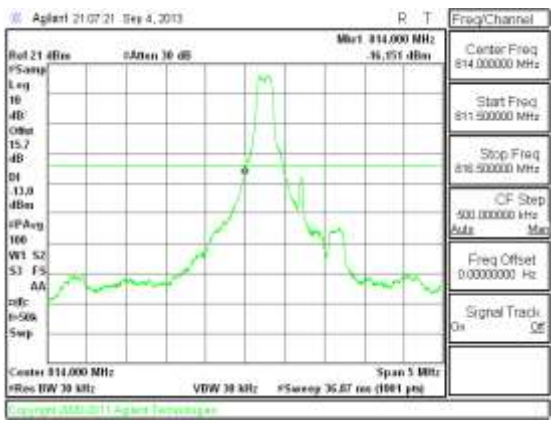
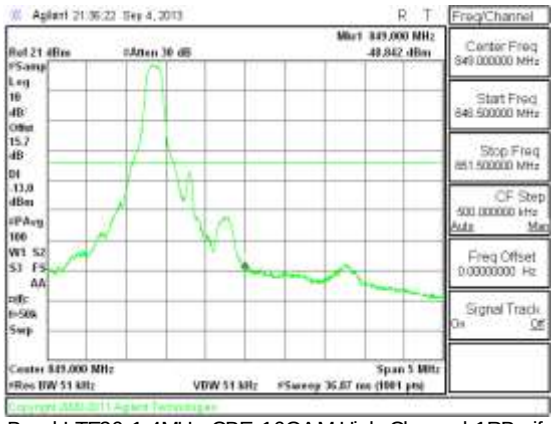


Band LTE26 5MHz 16QAM	 Band LTE26 5MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE26 5MHz CBE 16QAM Low Channel FRB.gif
Band LTE26 5MHz 16QAM	 Band LTE26 5MHz CBE 16QAM High Channel 1RB.gif	 Band LTE26 5MHz CBE 16QAM High Channel FRB.gif

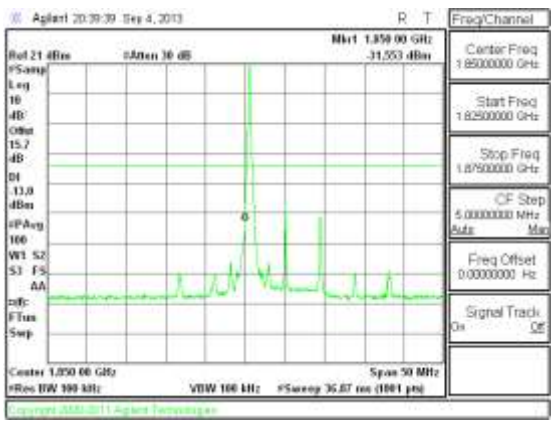
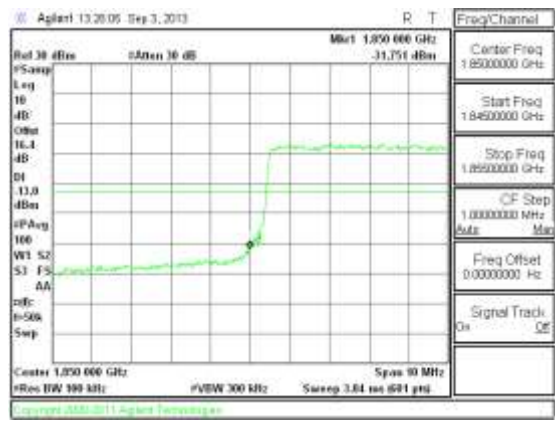
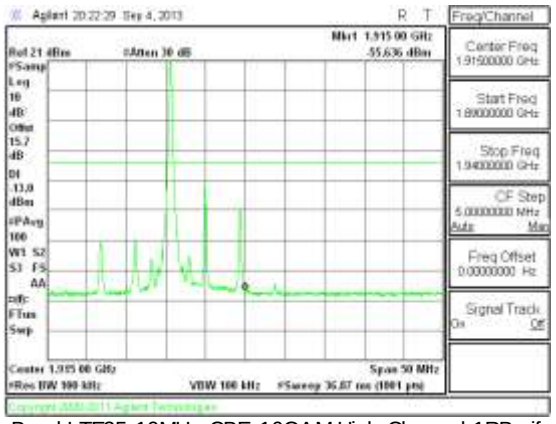
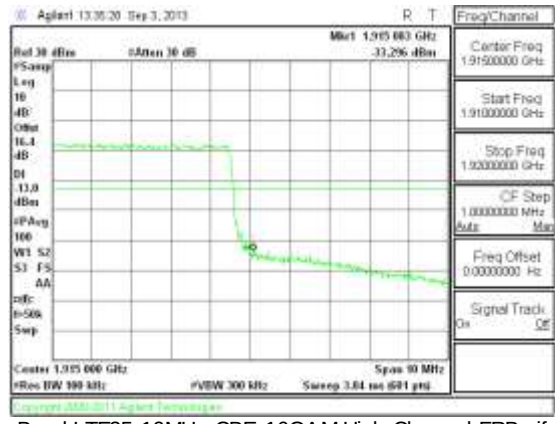


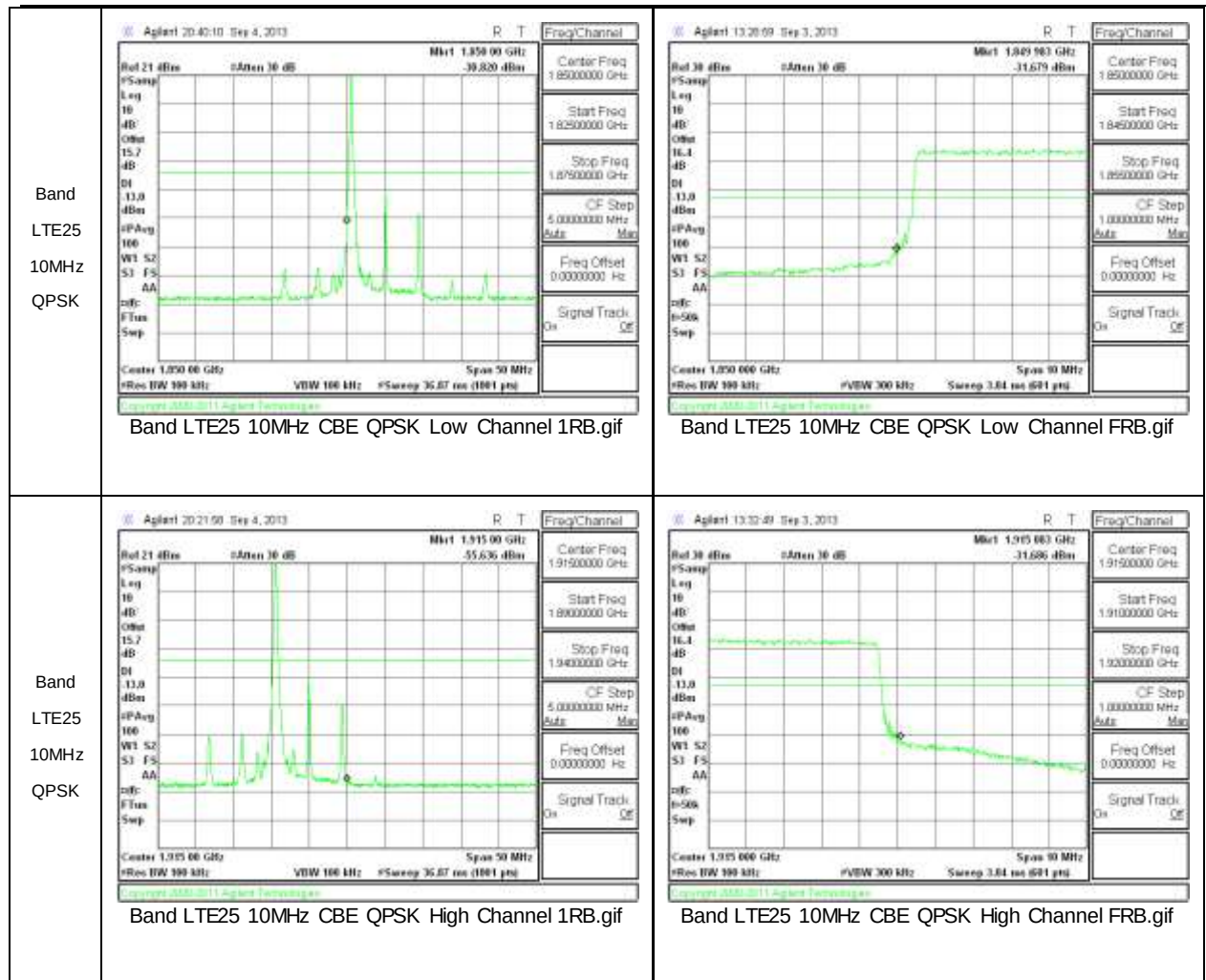
Band LTE26 3MHz 16QAM	 Band LTE26 3MHz CBE 16QAM Low Channel 1RB.jif	 Band LTE26 3MHz CBE 16QAM Low Channel FRB.jif
Band LTE26 3MHz 16QAM	 Band LTE26 3MHz CBE 16QAM High Channel 1RB.jif	 Band LTE26 3MHz CBE 16QAM High Channel FRB.jif

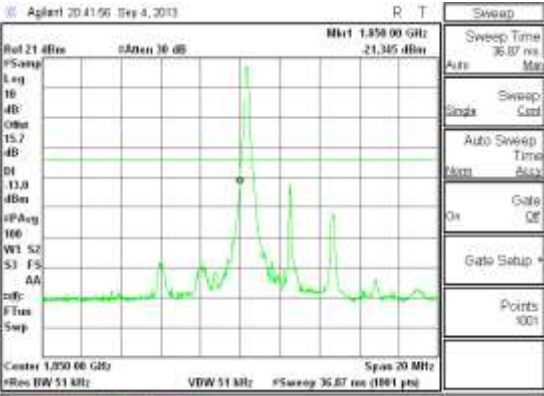
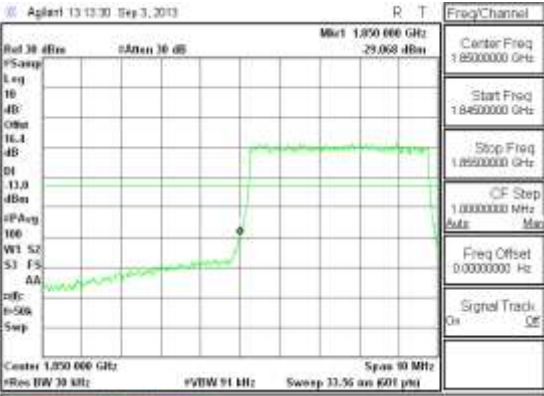
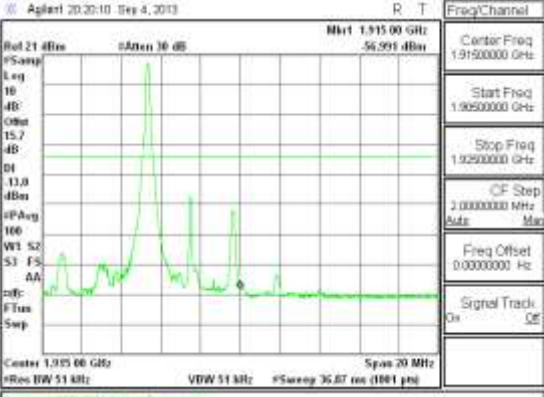
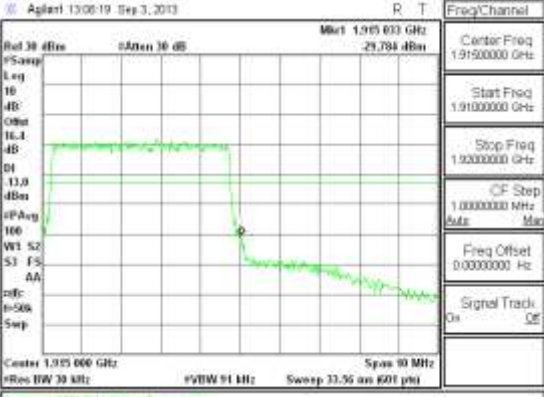


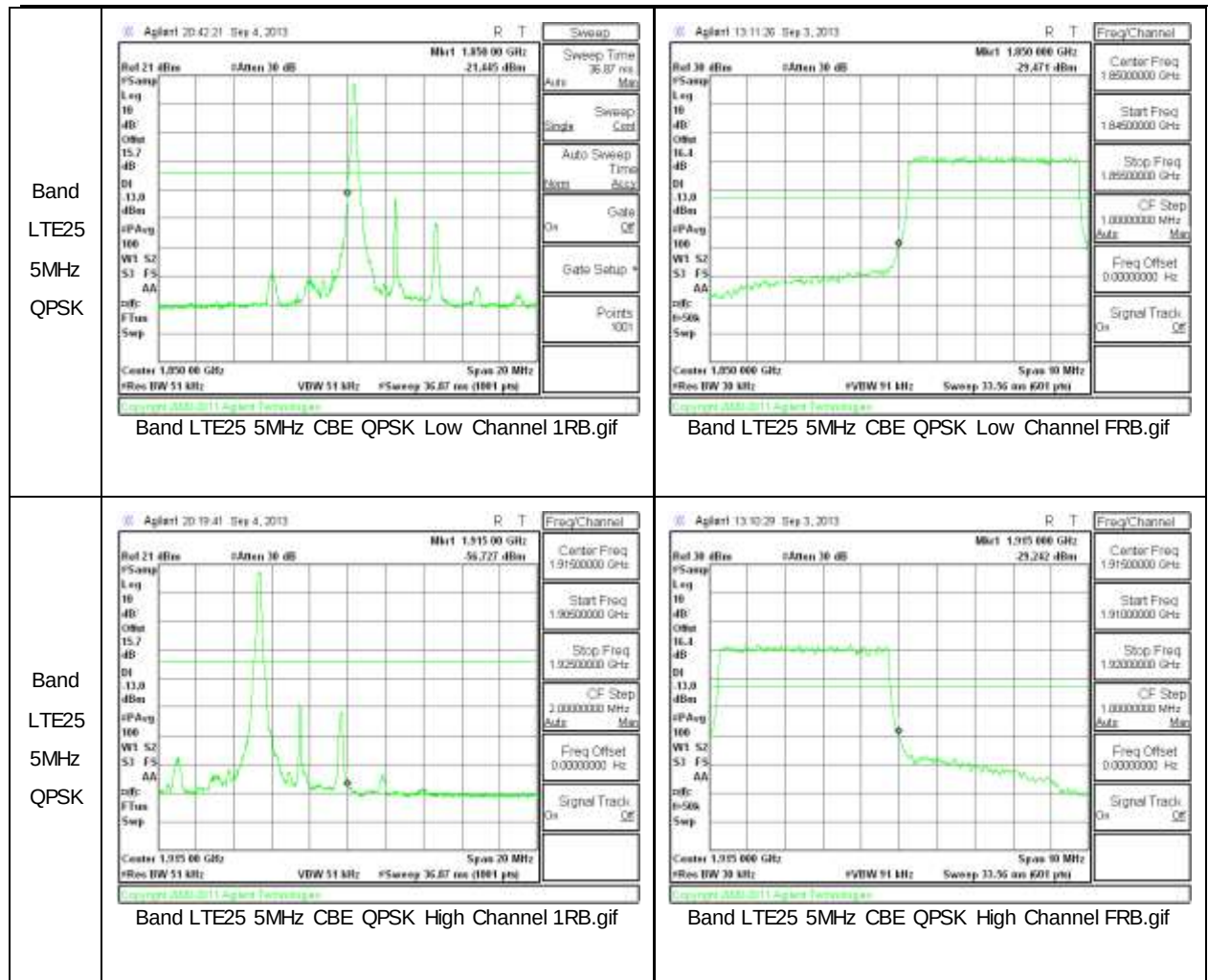
Band LTE26 1.4MHz 16QAM	 Band LTE26 1.4MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE26 1.4MHz CBE 16QAM Low Channel FRB.gif
Band LTE26 1.4MHz 16QAM	 Band LTE26 1.4MHz CBE 16QAM High Channel 1RB.gif	 Band LTE26 1.4MHz CBE 16QAM High Channel FRB.gif

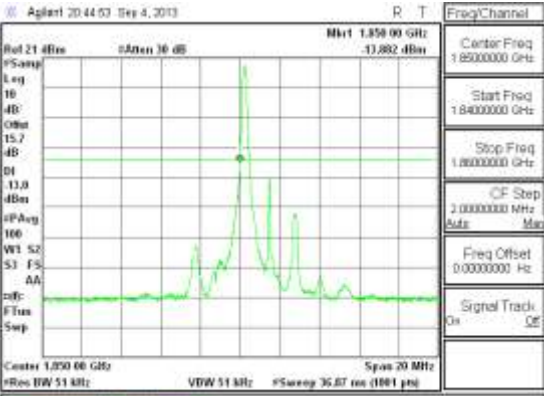
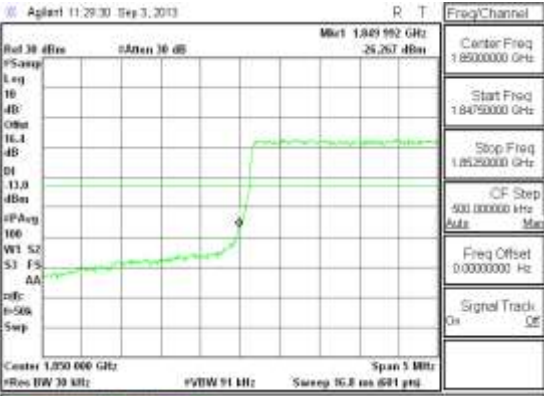
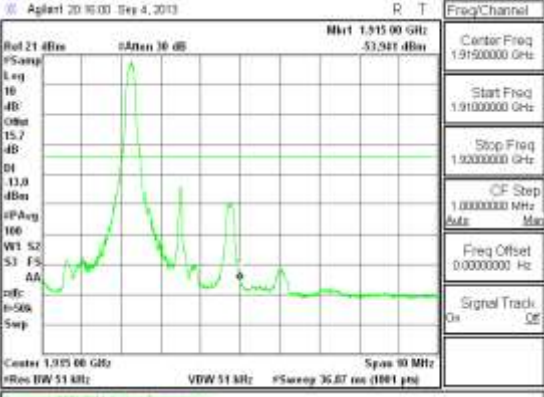
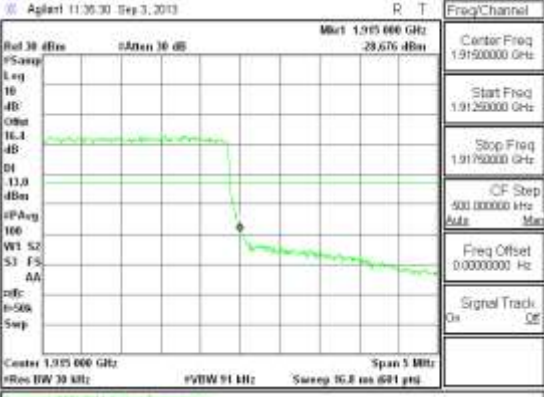


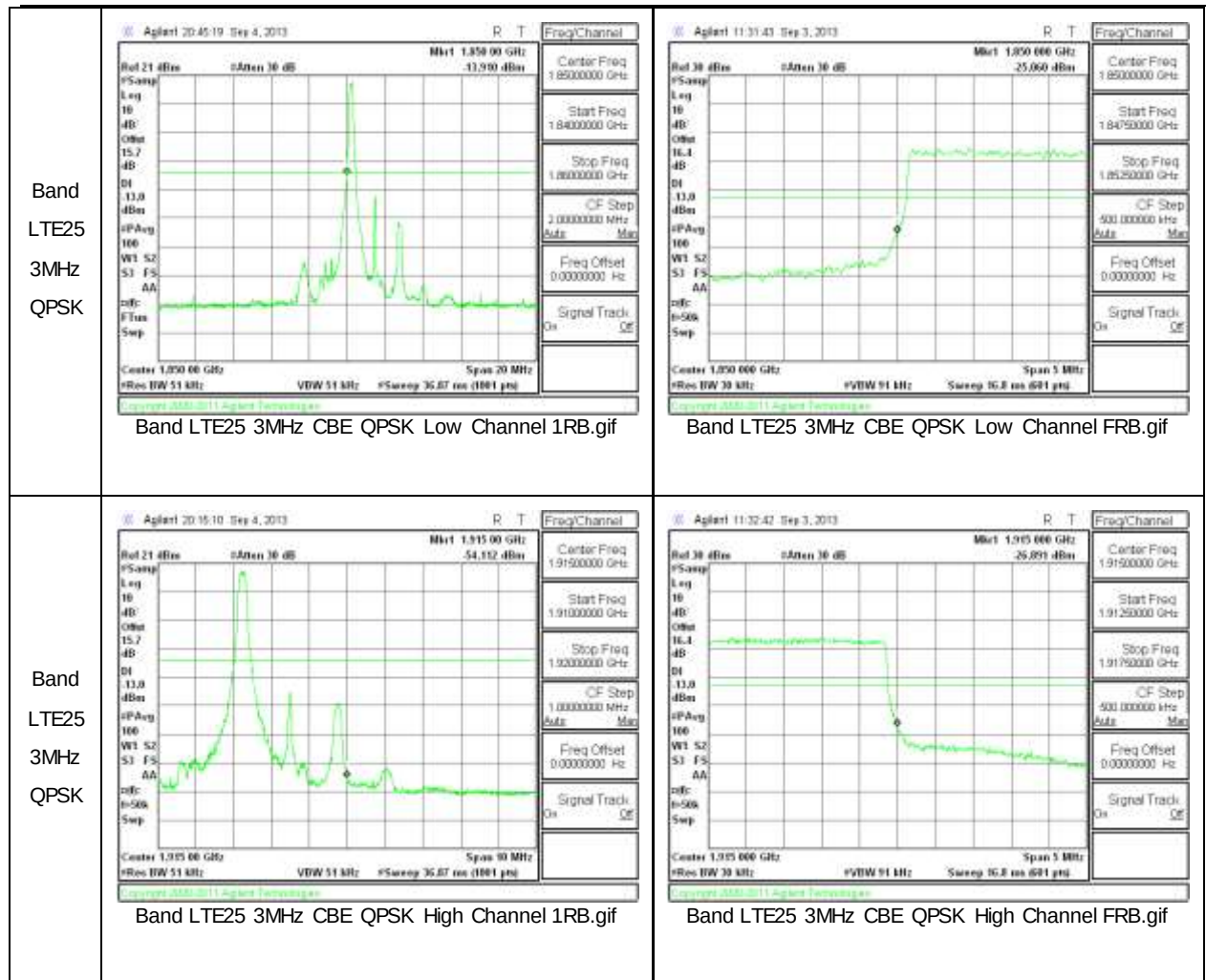
Band LTE25 10MHz 16QAM	 Band LTE25 10MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE25 10MHz CBE 16QAM Low Channel FRB.gif
Band LTE25 10MHz 16QAM	 Band LTE25 10MHz CBE 16QAM High Channel 1RB.gif	 Band LTE25 10MHz CBE 16QAM High Channel FRB.gif

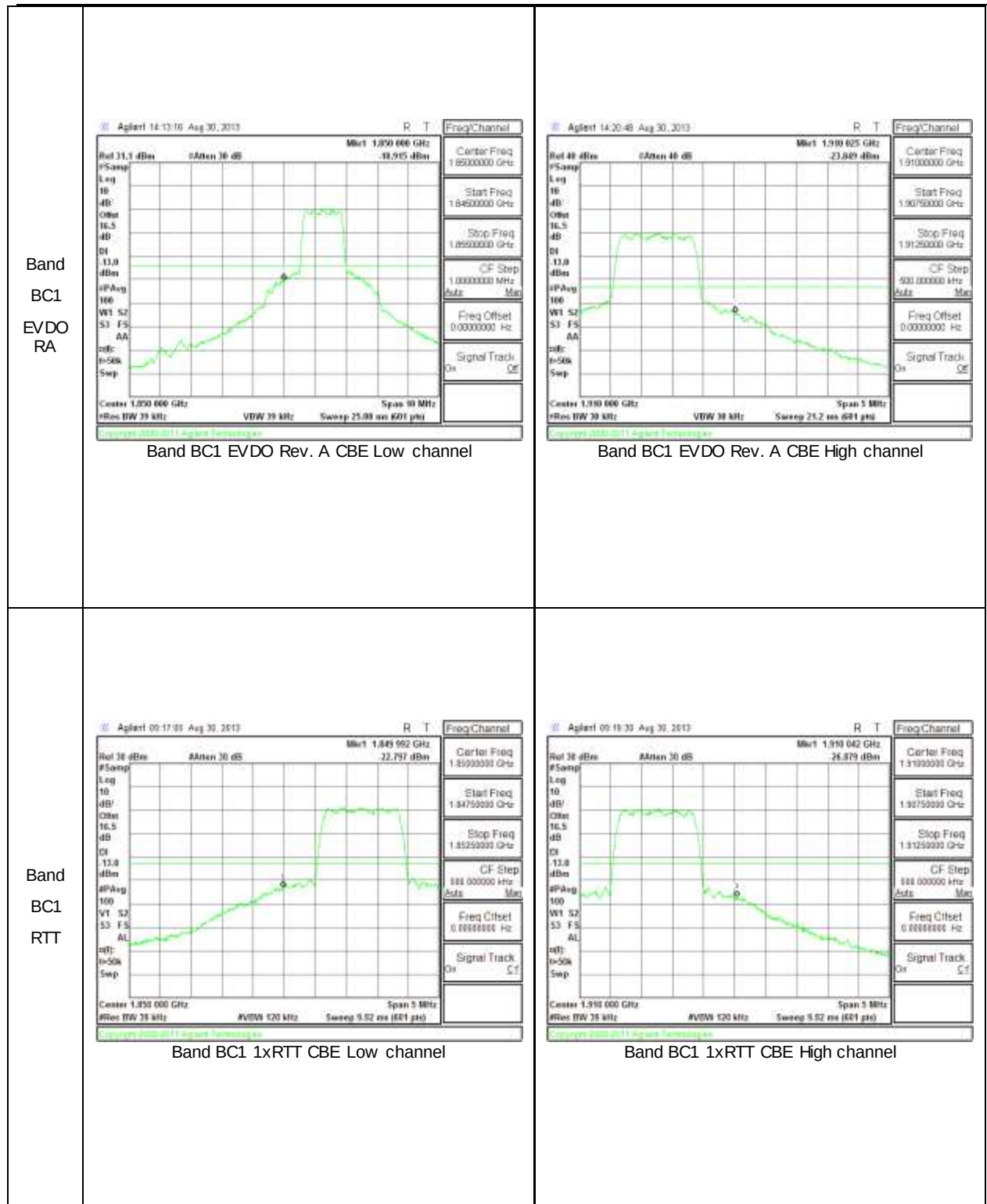


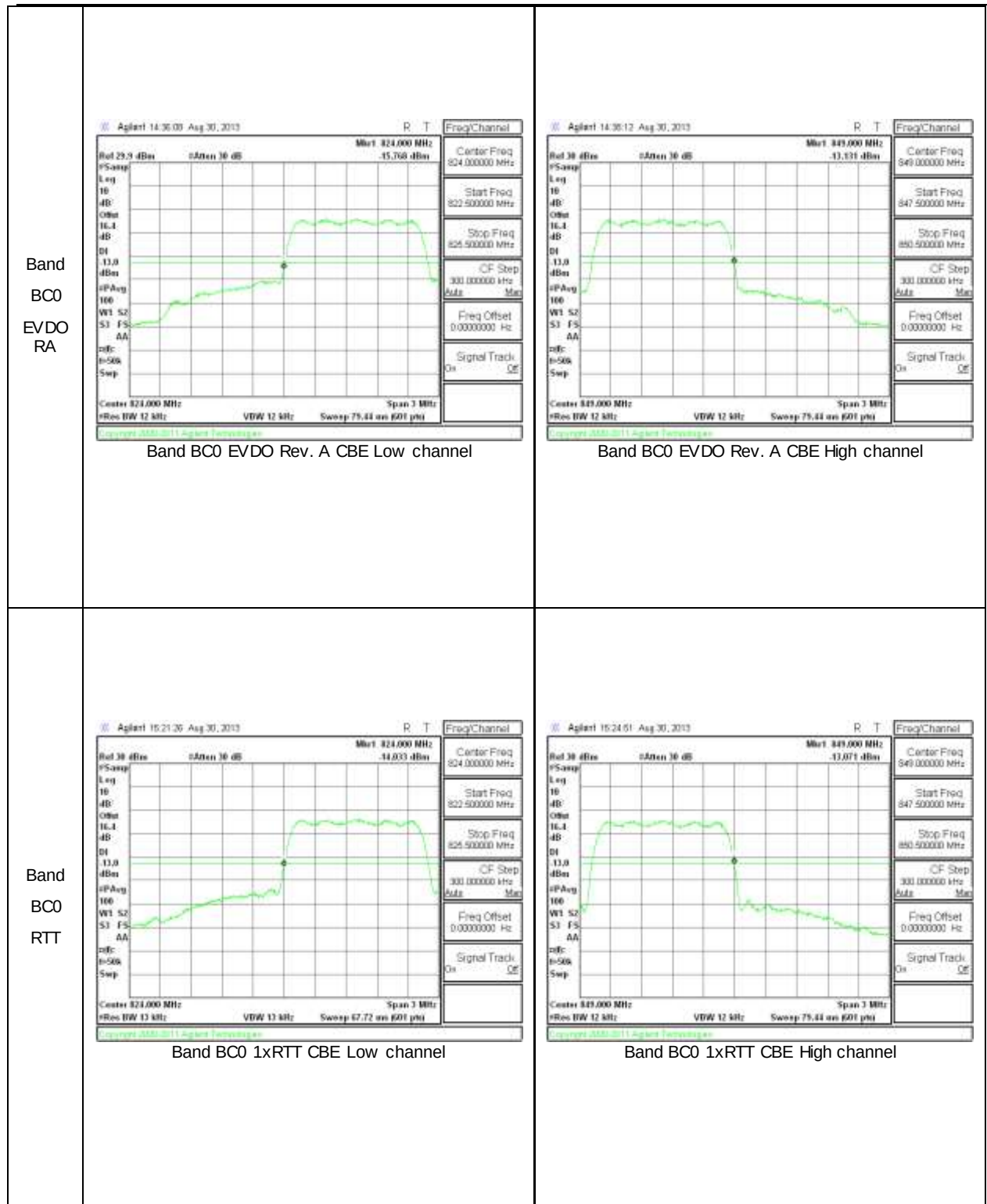
Band LTE25 5MHz 16QAM	 Band LTE25 5MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE25 5MHz CBE 16QAM Low Channel FRB.gif
Band LTE25 5MHz 16QAM	 Band LTE25 5MHz CBE 16QAM High Channel 1RB.gif	 Band LTE25 5MHz CBE 16QAM High Channel FRB.gif



Band LTE25 3MHz 16QAM	 Band LTE25 3MHz CBE 16QAM Low Channel 1RB.gif	 Band LTE25 3MHz CBE 16QAM Low Channel FRB.gif
Band LTE25 3MHz 16QAM	 Band LTE25 3MHz CBE 16QAM High Channel 1RB.gif	 Band LTE25 3MHz CBE 16QAM High Channel FRB.gif







Band BC10 1xRTT CBE High channel

9.4. EMISSION MASK

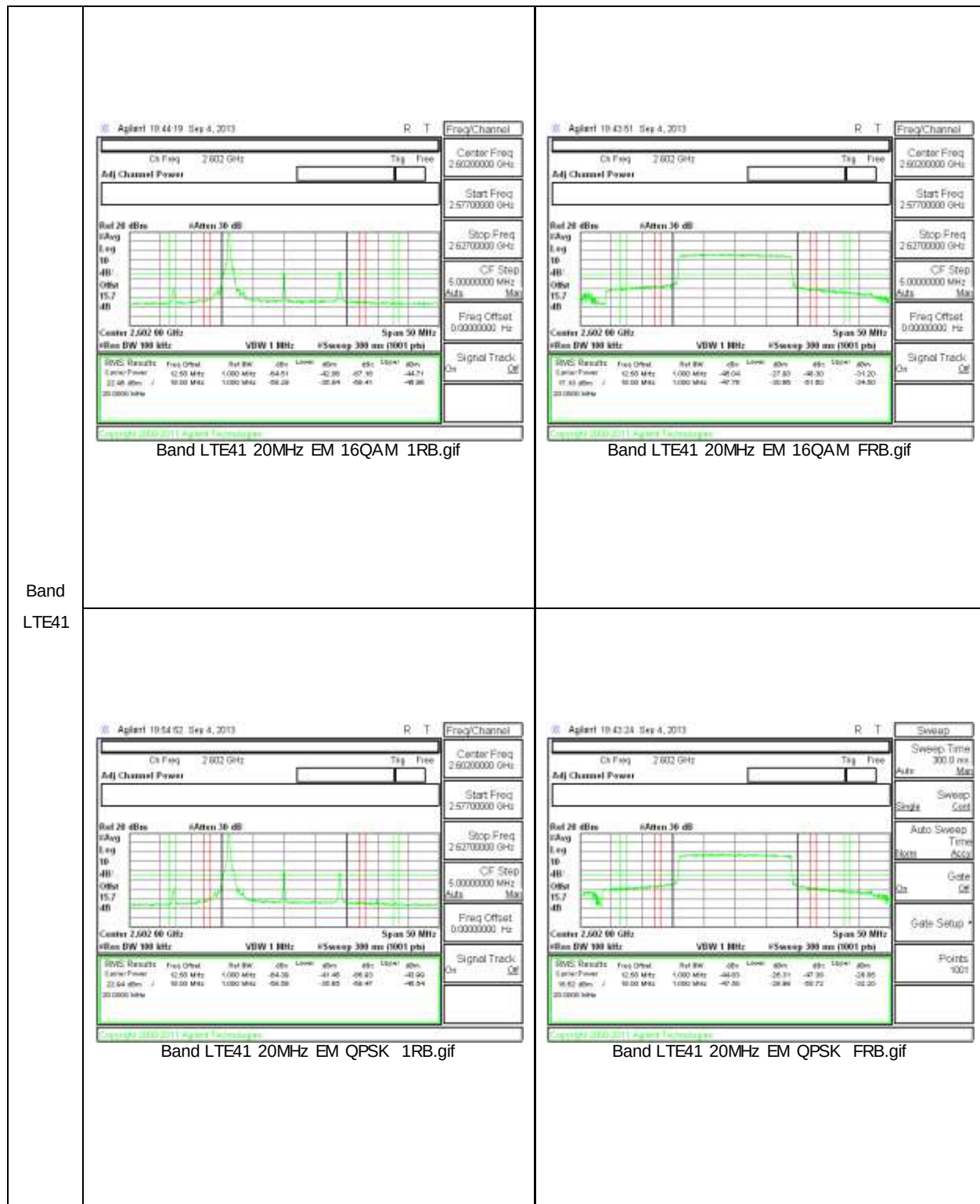
Test Specification

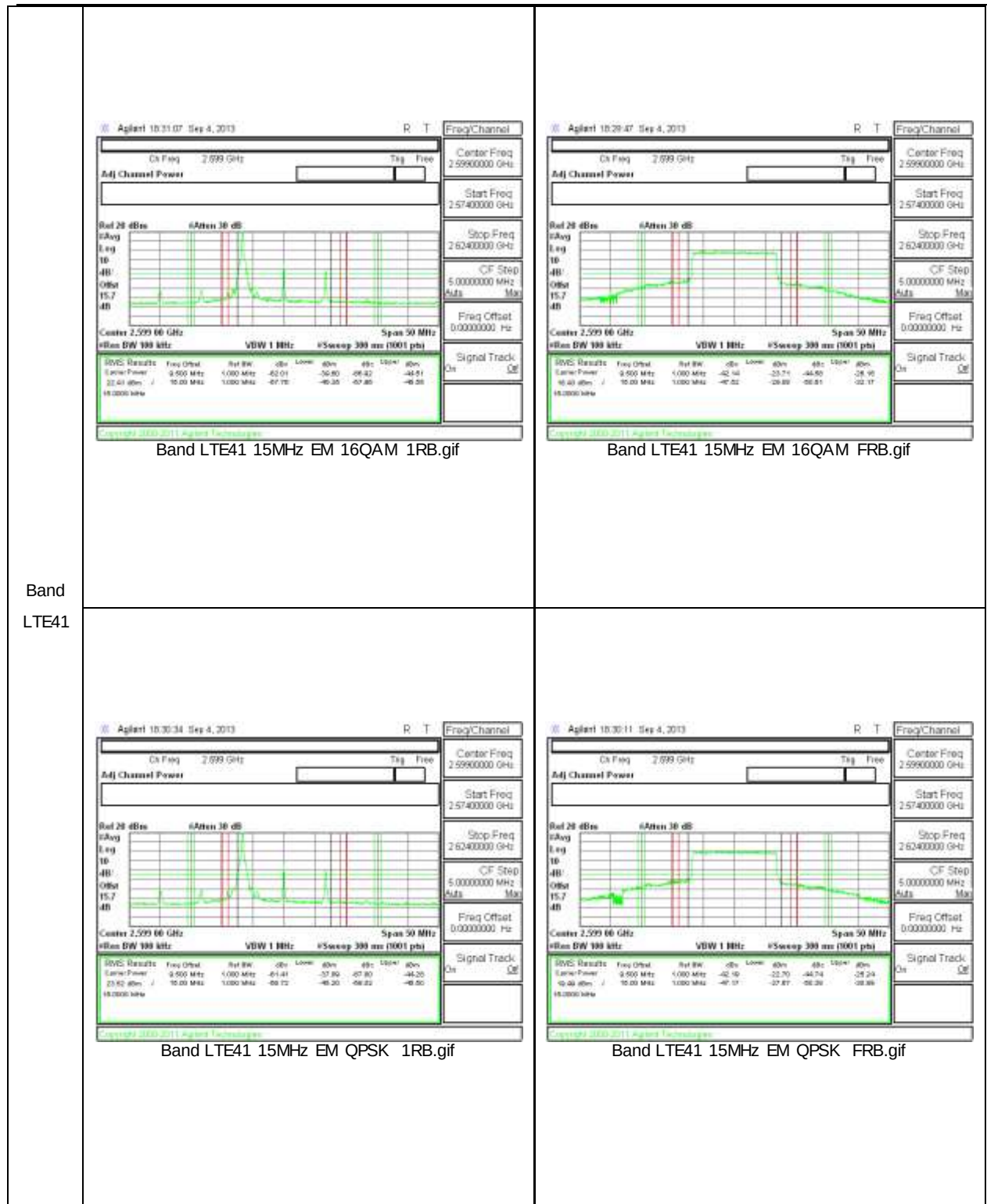
- FCC: §27.53 (LTE BAND 41)
- (m)(4) For mobile station, the attenuation factor shall be not less than $43+10\log(P)$ dB at the channel edge and $(55+10\log(P))$ dB at 5.5MHz from the channel edges.
- FCC: §90.210, and §90.691 (LTE BAND 26)
- (a)(1) For any frequency removed from the EA licensee's frequency 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 $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ 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 $43 + 10\log_{10}(P)$ 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.}

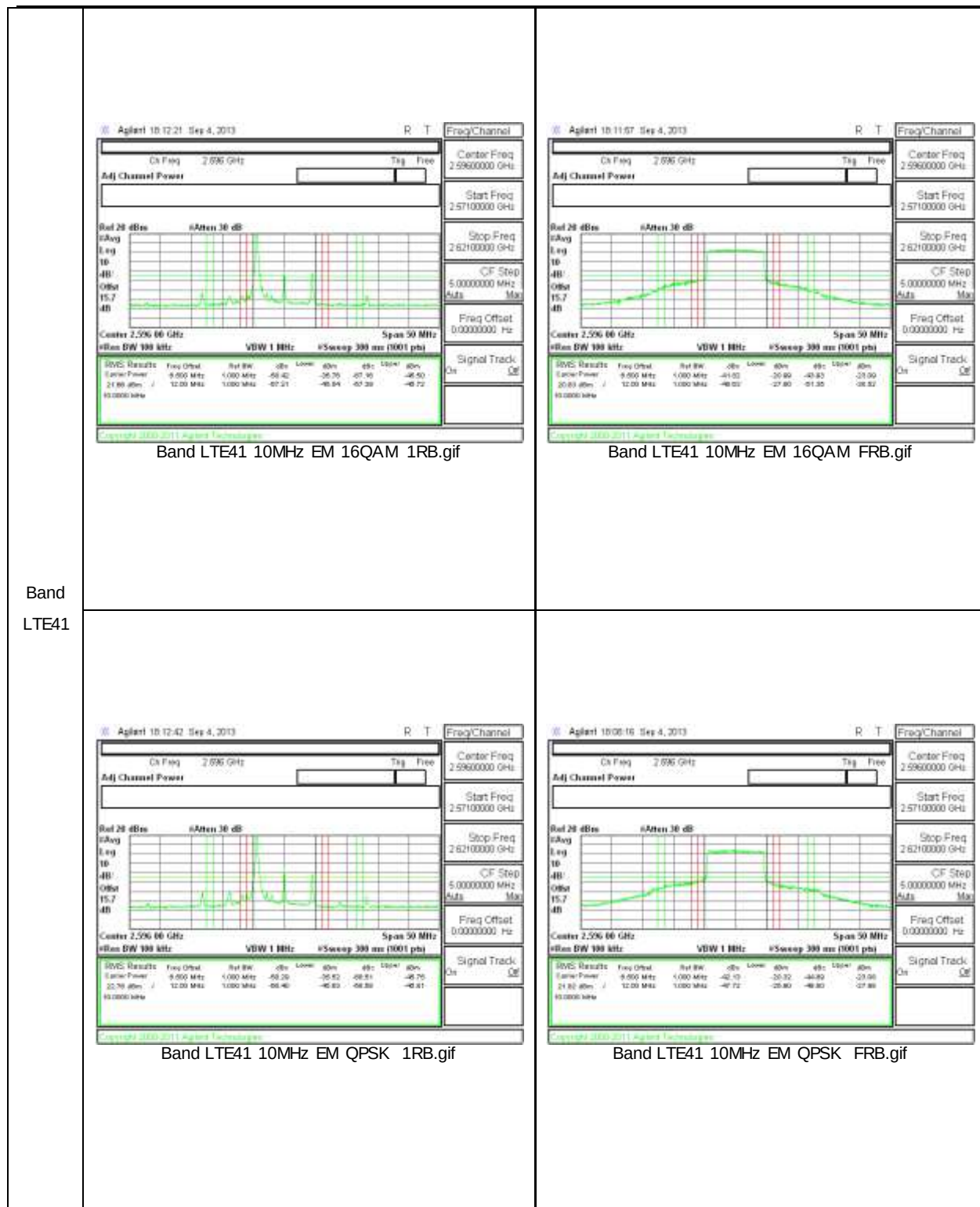
Test Procedure

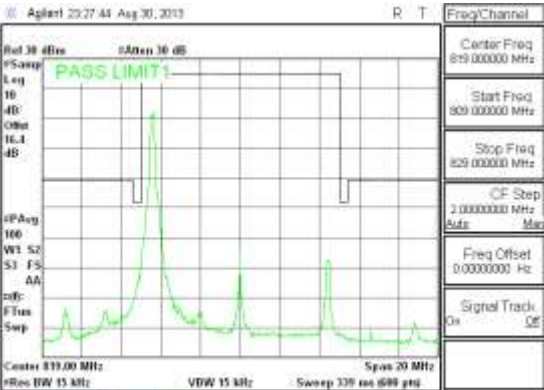
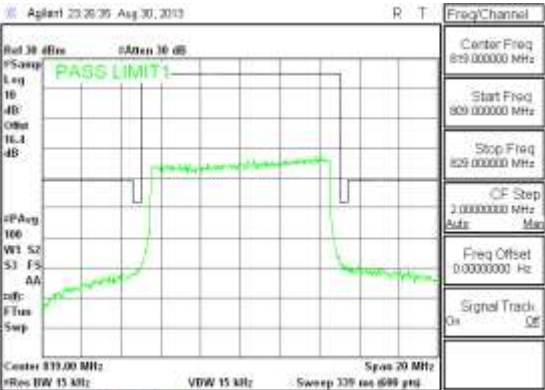
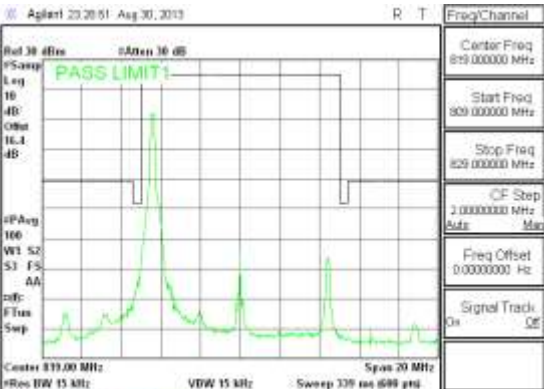
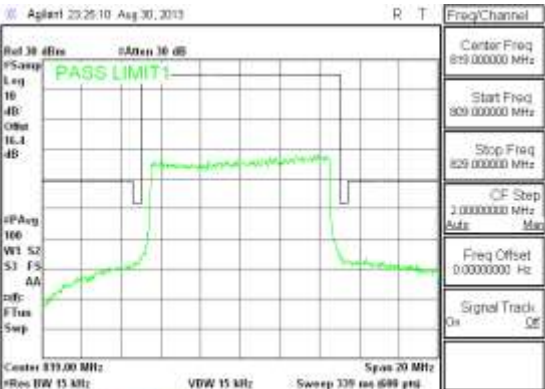
- FCC: §27.53 (LTE BAND 41)
- (m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.
- Emission mask plot has limit line to demonstrate the out of band emission lower than -25dBm/MHz, therefore, in order to show compliance, following formula has been applied on each emission mask plots.
RBW integration method is applied when RBW less than 1MHz:
Emission mask display line formula= $-25\text{dBm} + 10\log(\text{RBW}/1\text{MHz})$
For example:
If RBW = 100 KHz then display line limit will be $-25\text{dBm} + 10\log(100/1000) = -35\text{dBm}$

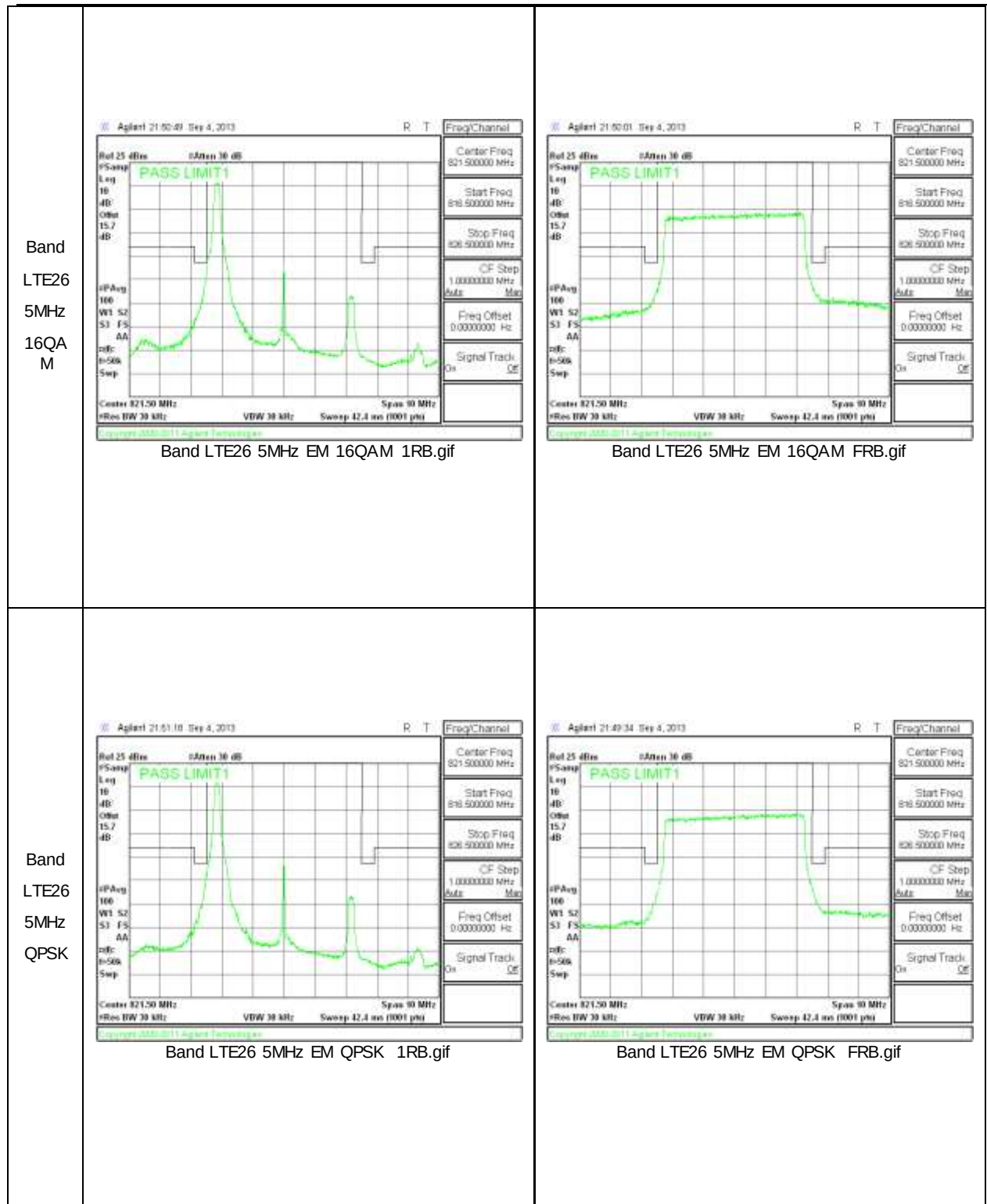
9.4.1. LTE BAND 41

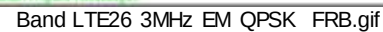
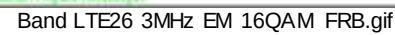


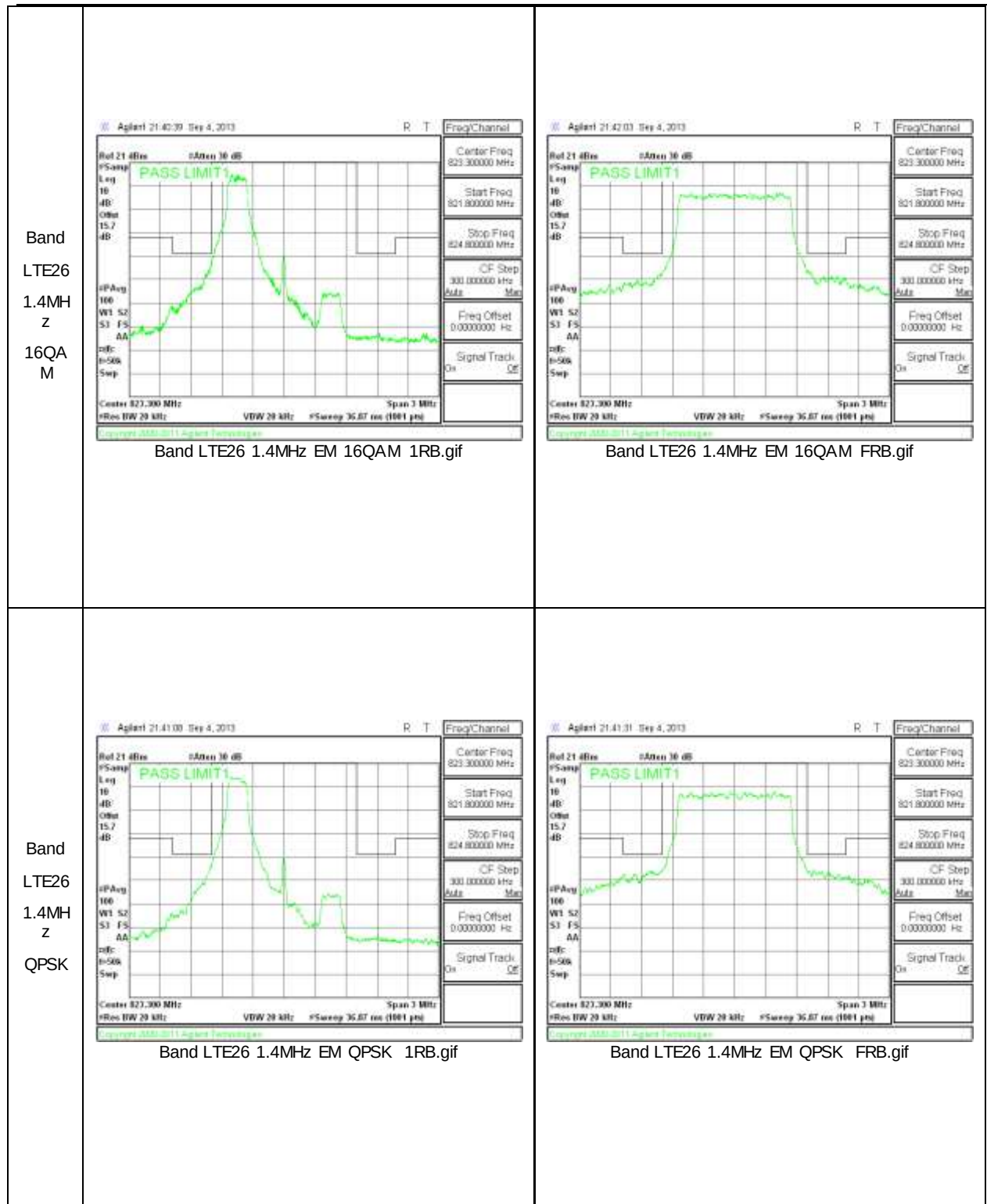


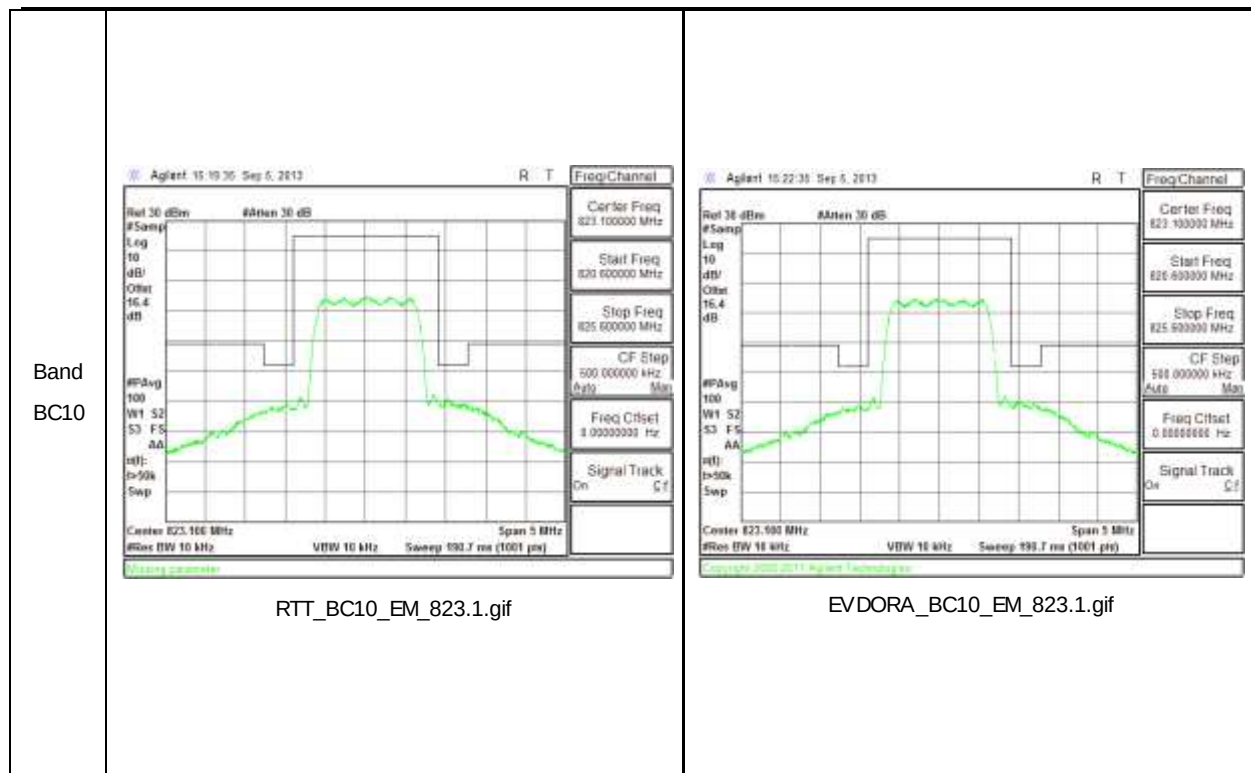


Band LTE26 10MHz z 16QAM	 Band LTE26 10MHz EM 16QAM Low Channel 1RB.gif	 Band LTE26 10MHz EM 16QAM Low Channel FRB.gif
Band LTE26 10MHz z QPSK	 Band LTE26 10MHz EM QPSK Low Channel 1RB.gif	 Band LTE26 10MHz EM QPSK Low Channel FRB.gif









9.5. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238

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.

TEST PROCEDURE

Reference KDB 971168 D01 Power Meas License Digital Systems v02r01 6/7/2013

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

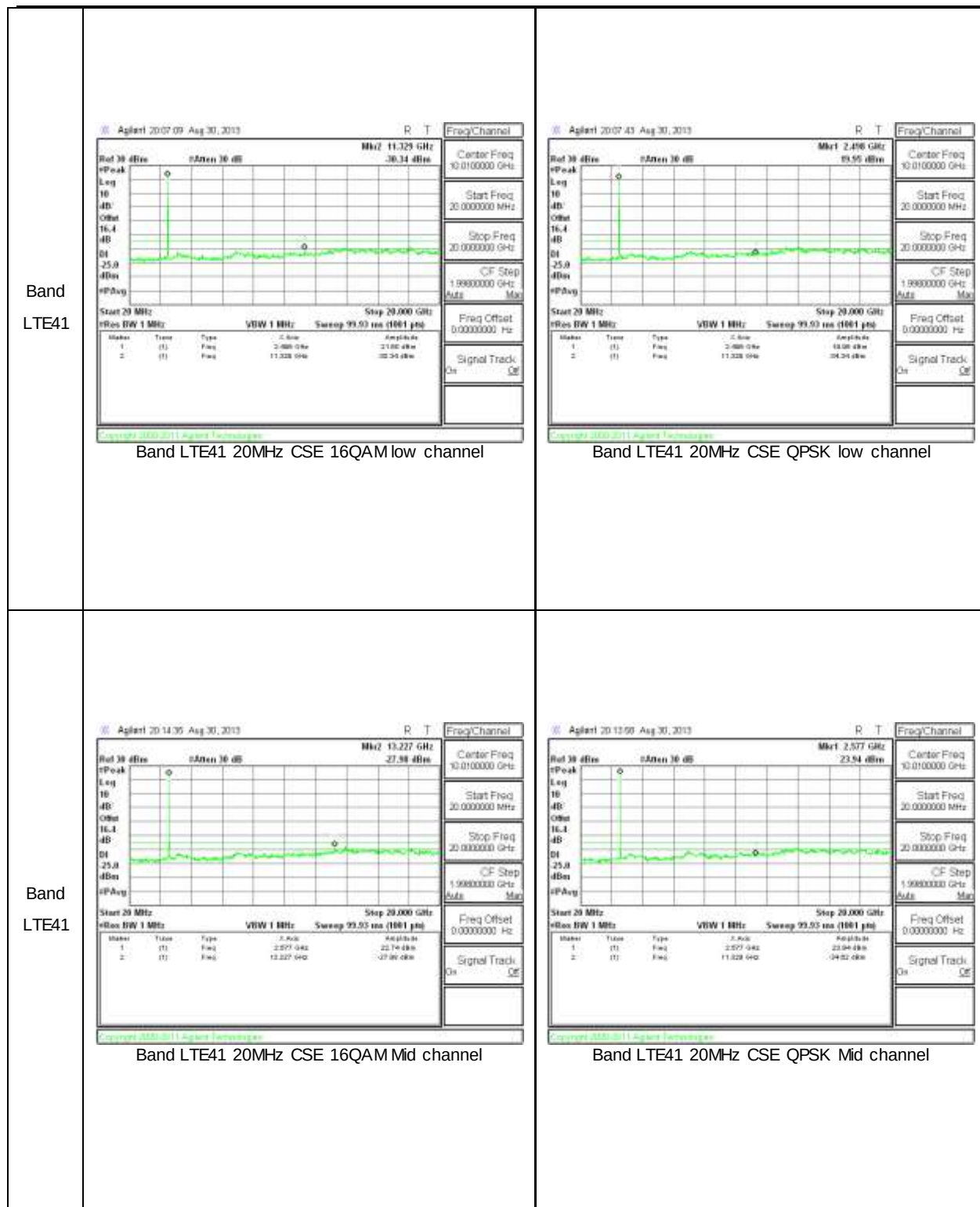
For each out of band emissions measurement:

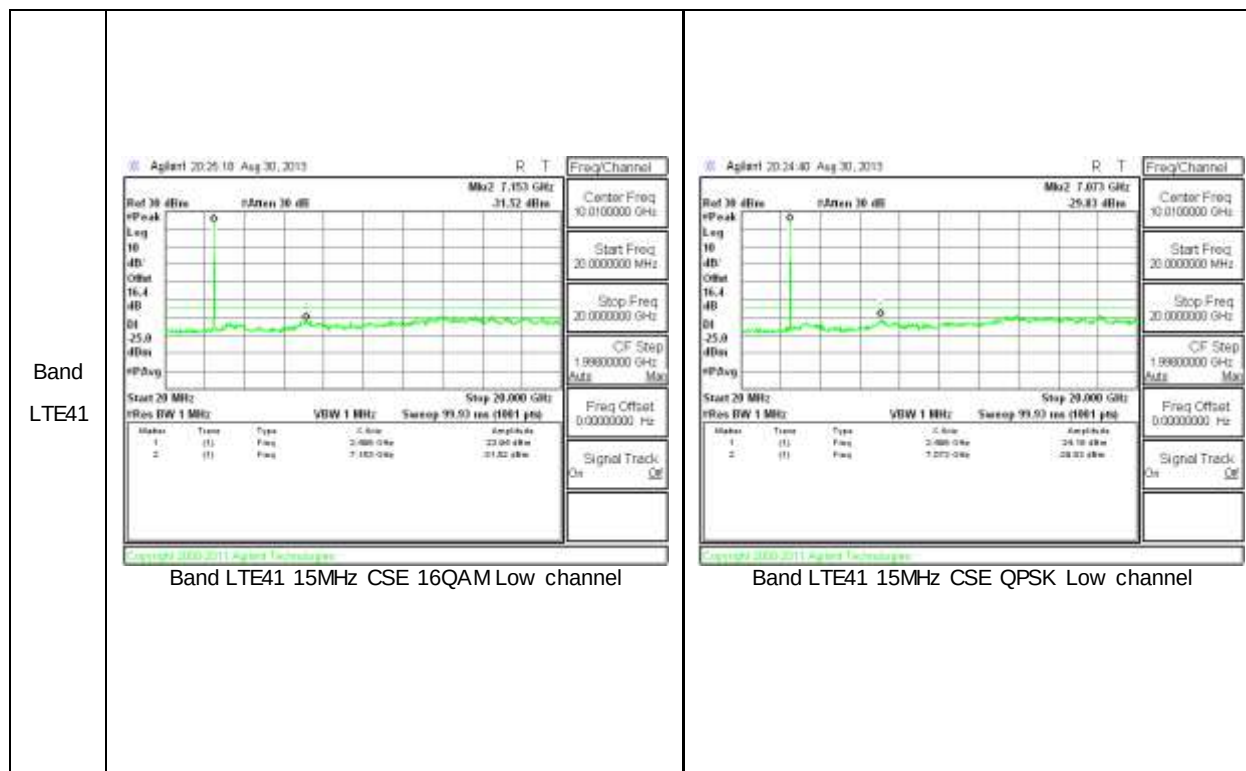
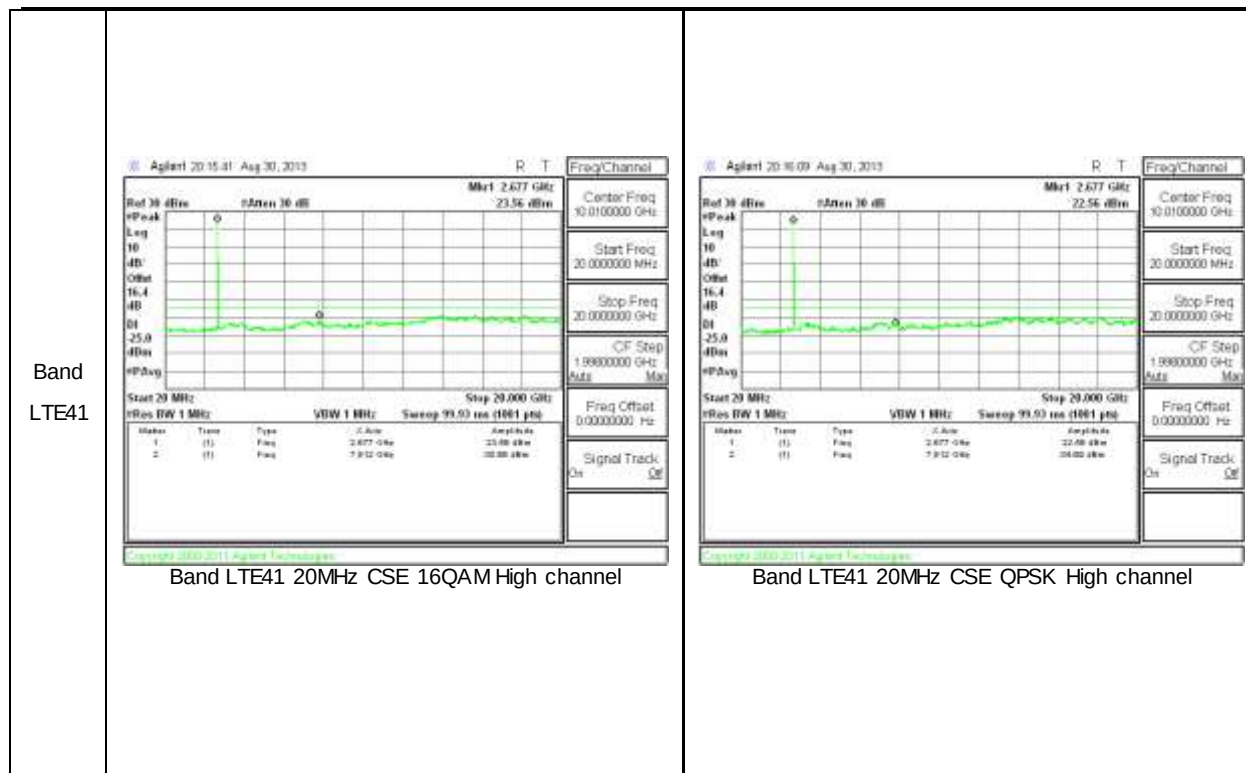
- Set display line at -13 dBm
- Set RBW & VBW to 1MHz for the measurements.

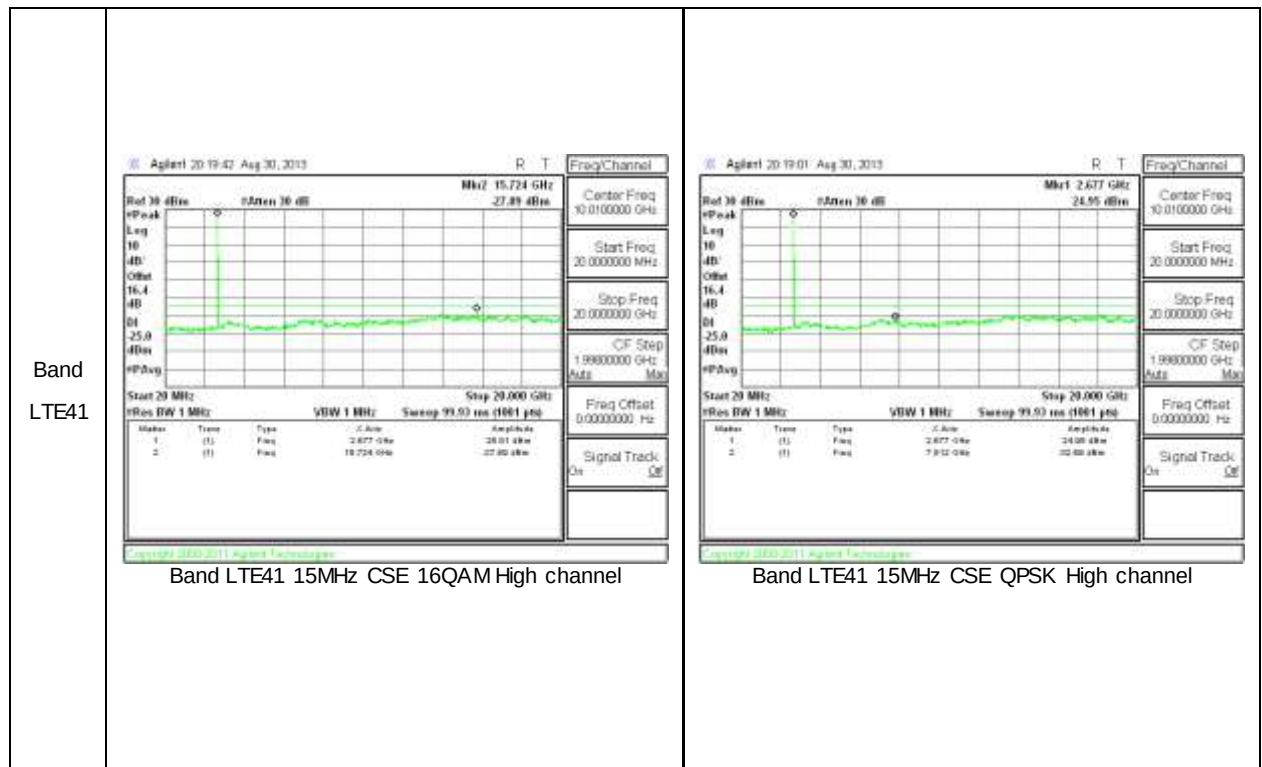
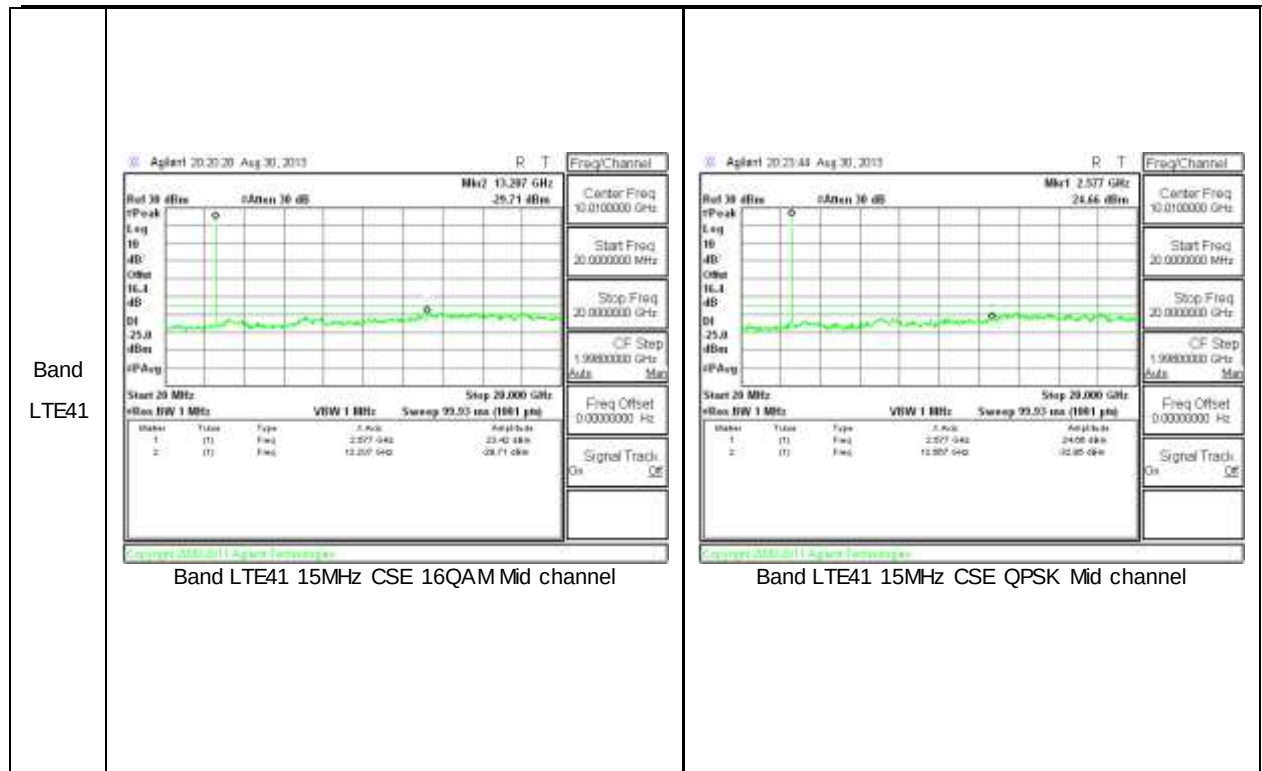
MODES TESTED

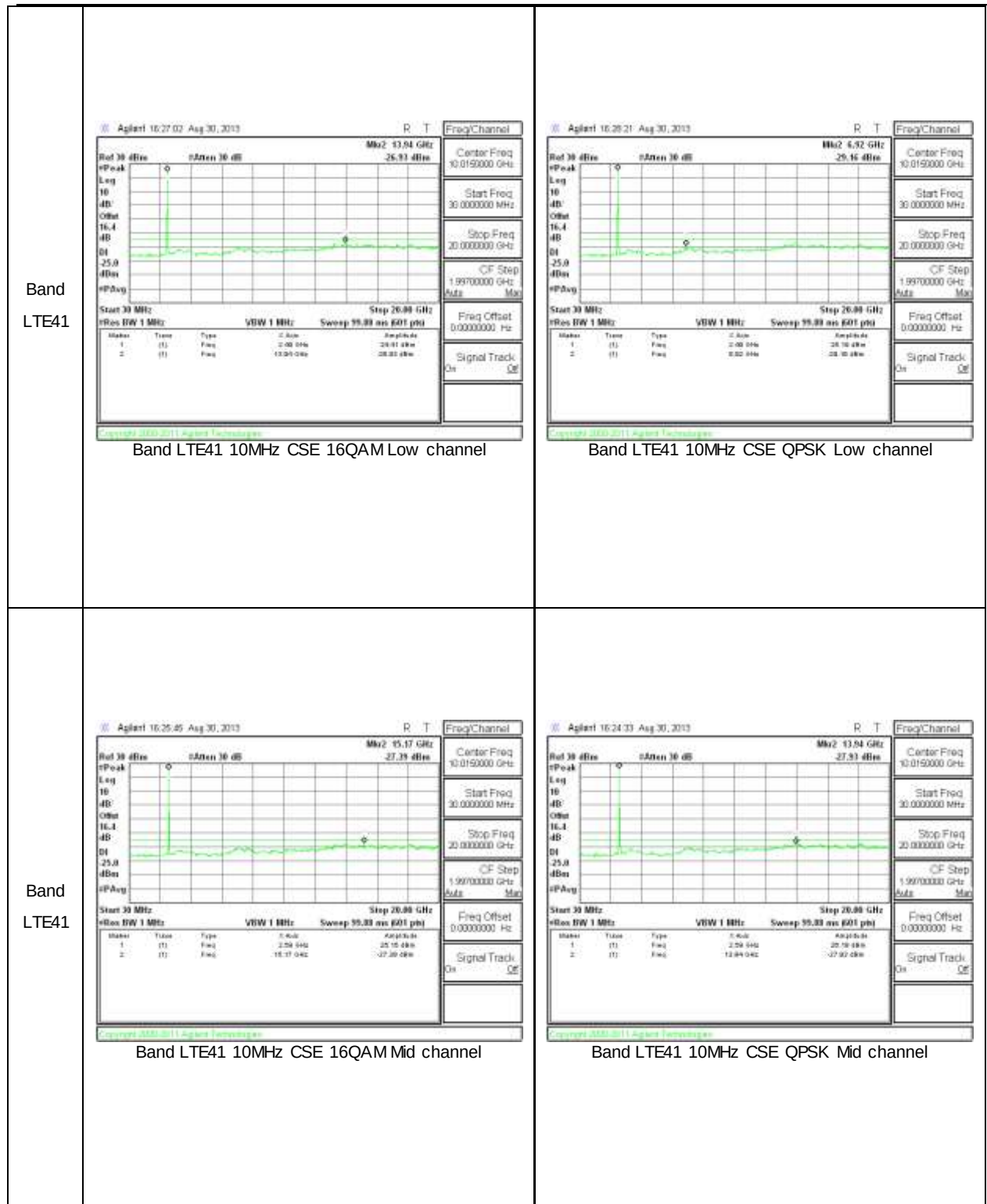
RESULTS

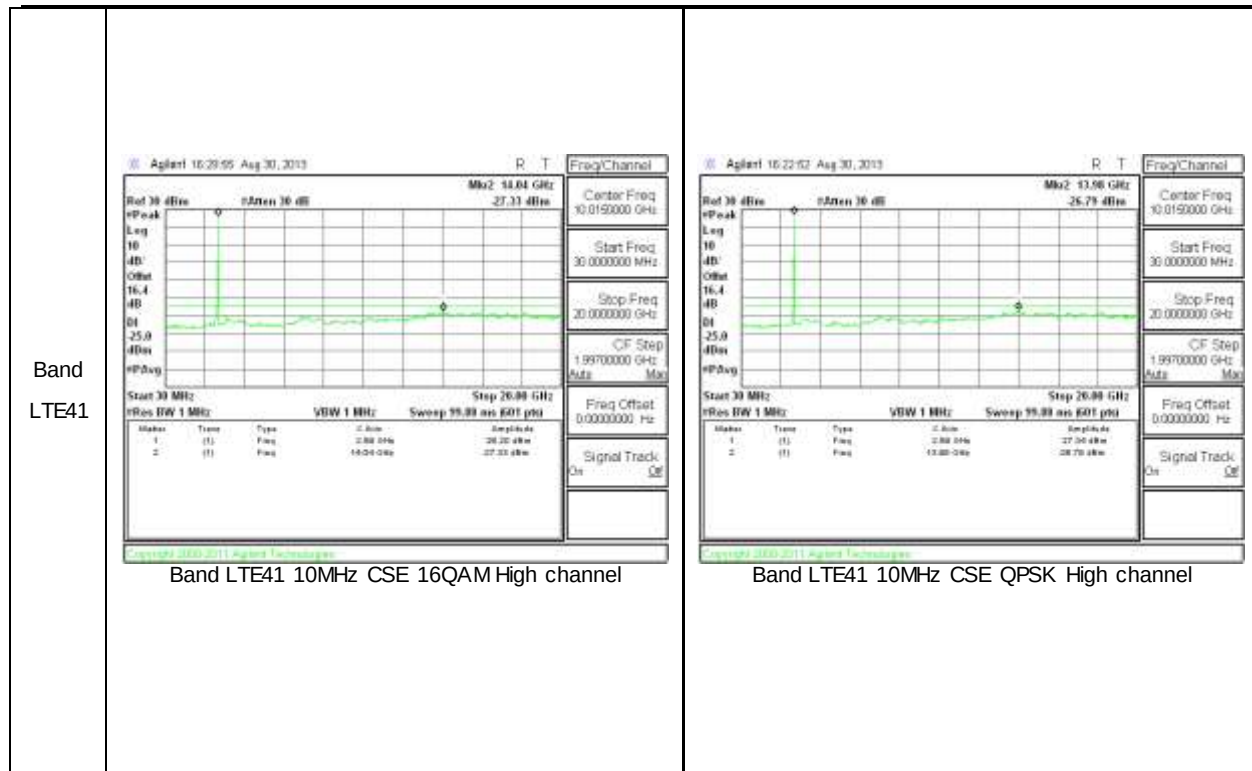
- CDMA2000 1xRTT BC10, BC0, BC1
- CDMA2000 EVDO BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

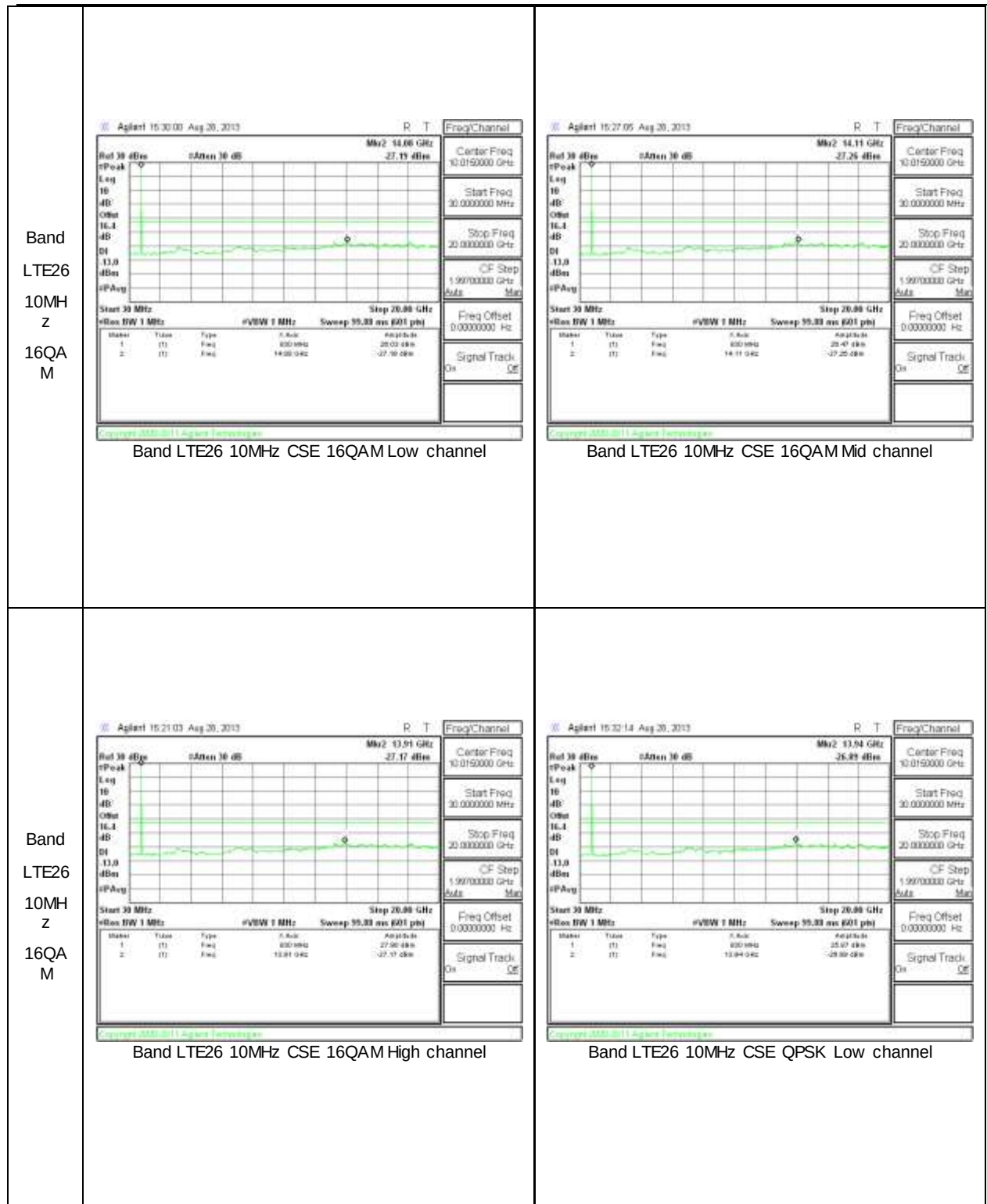


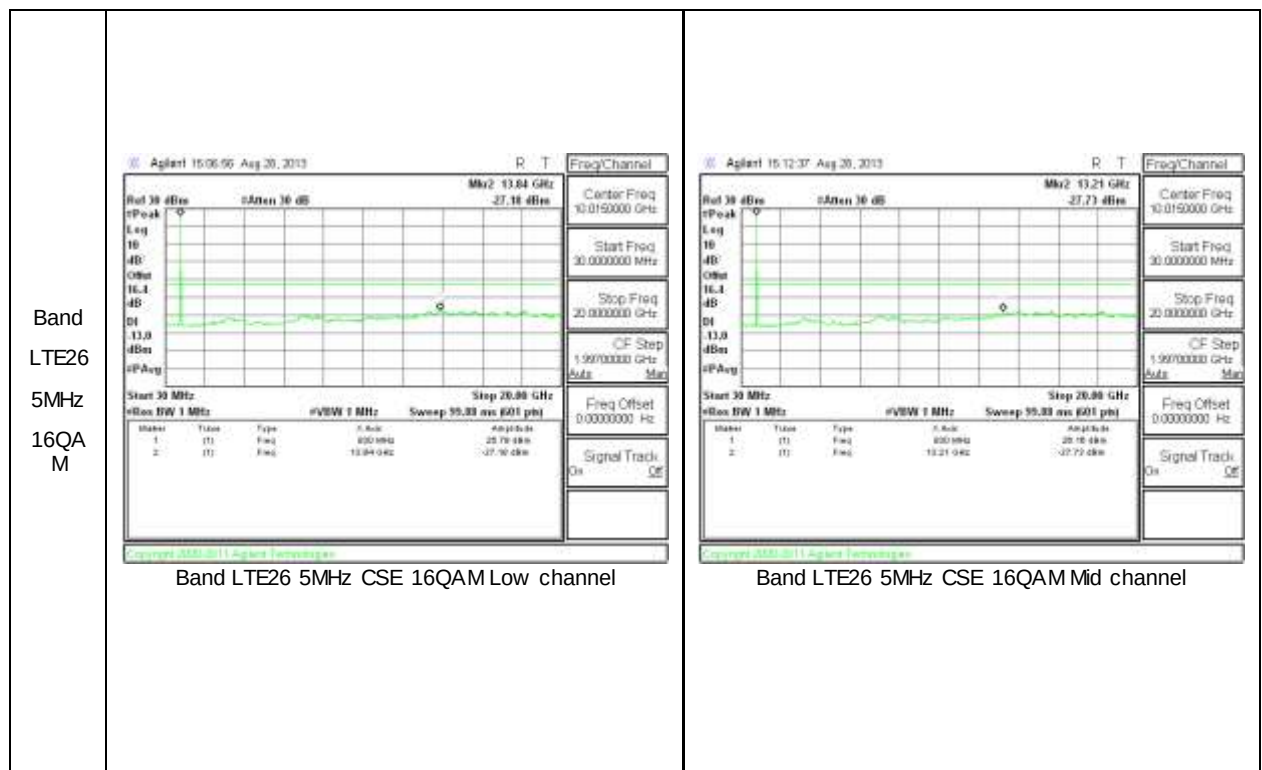
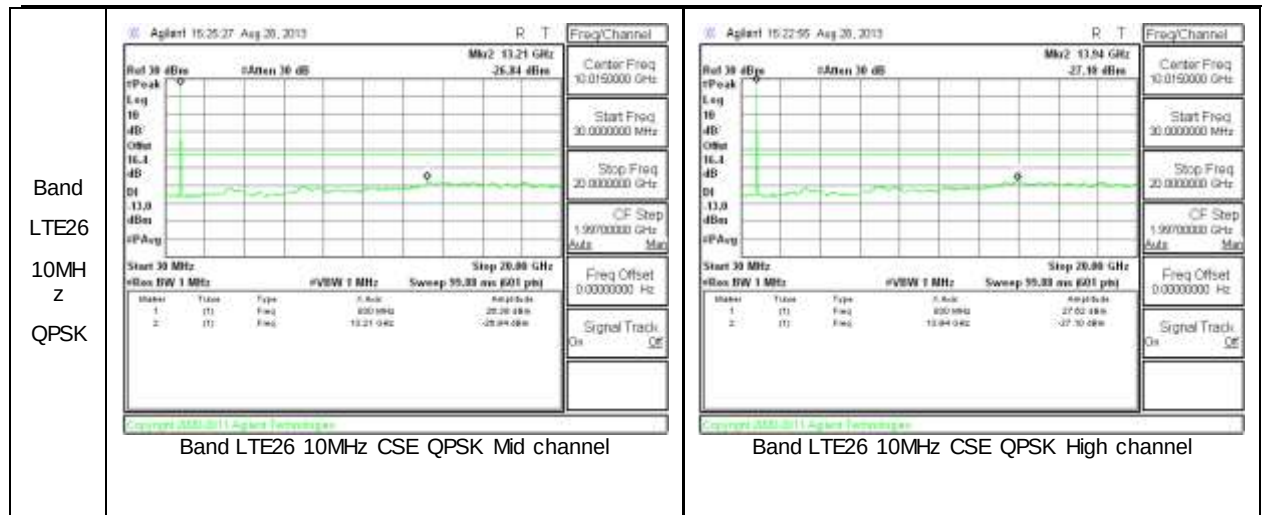


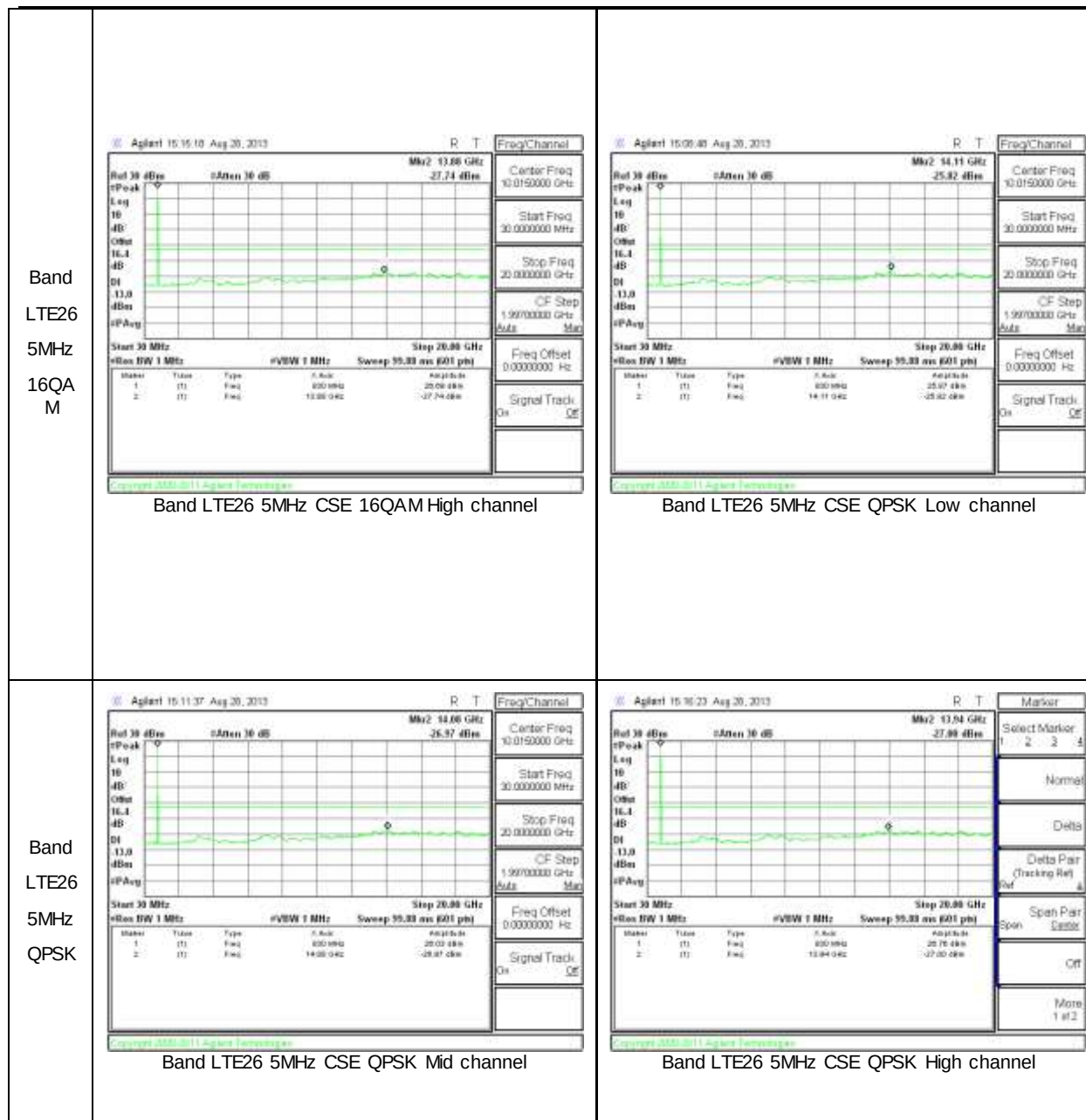


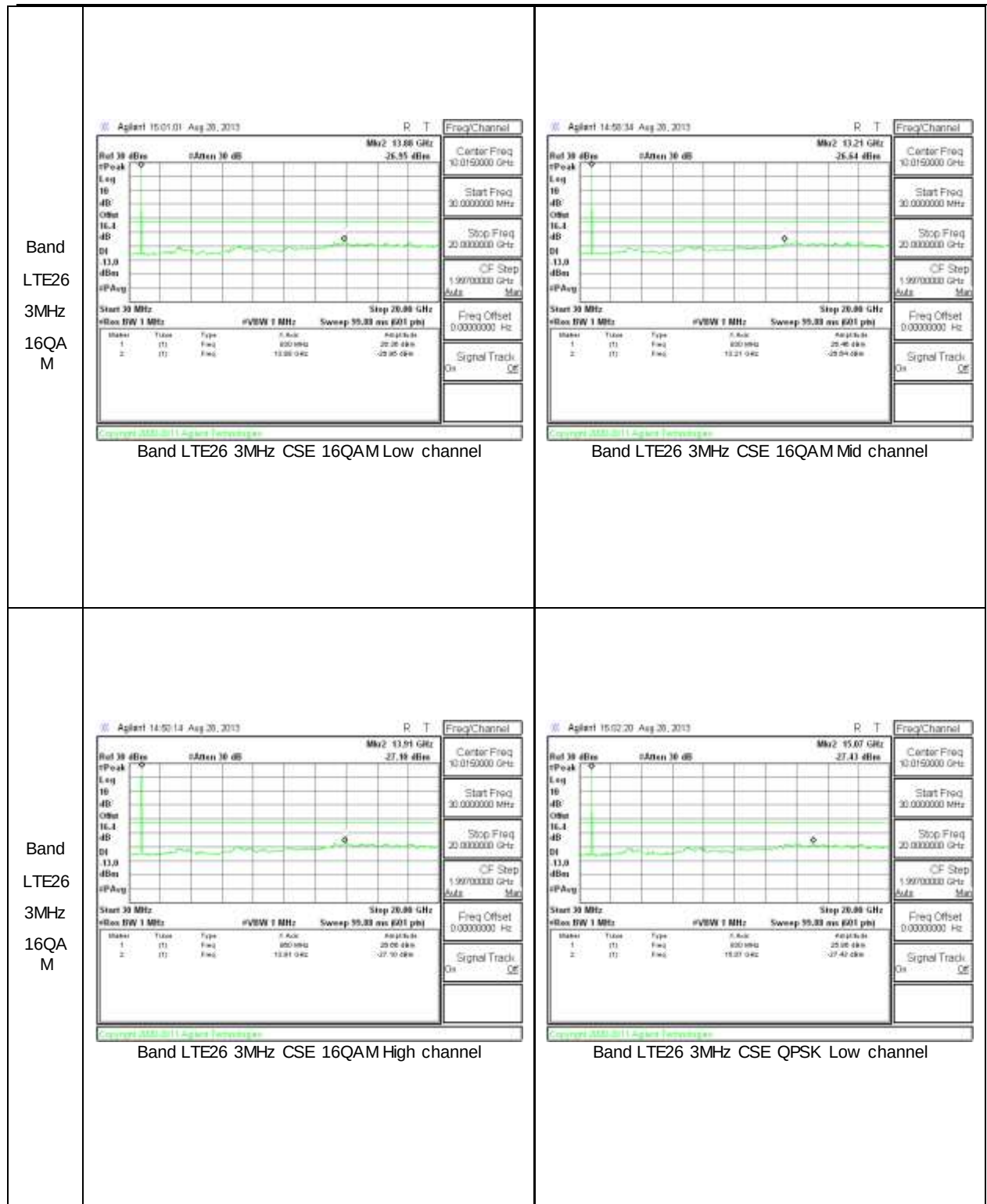


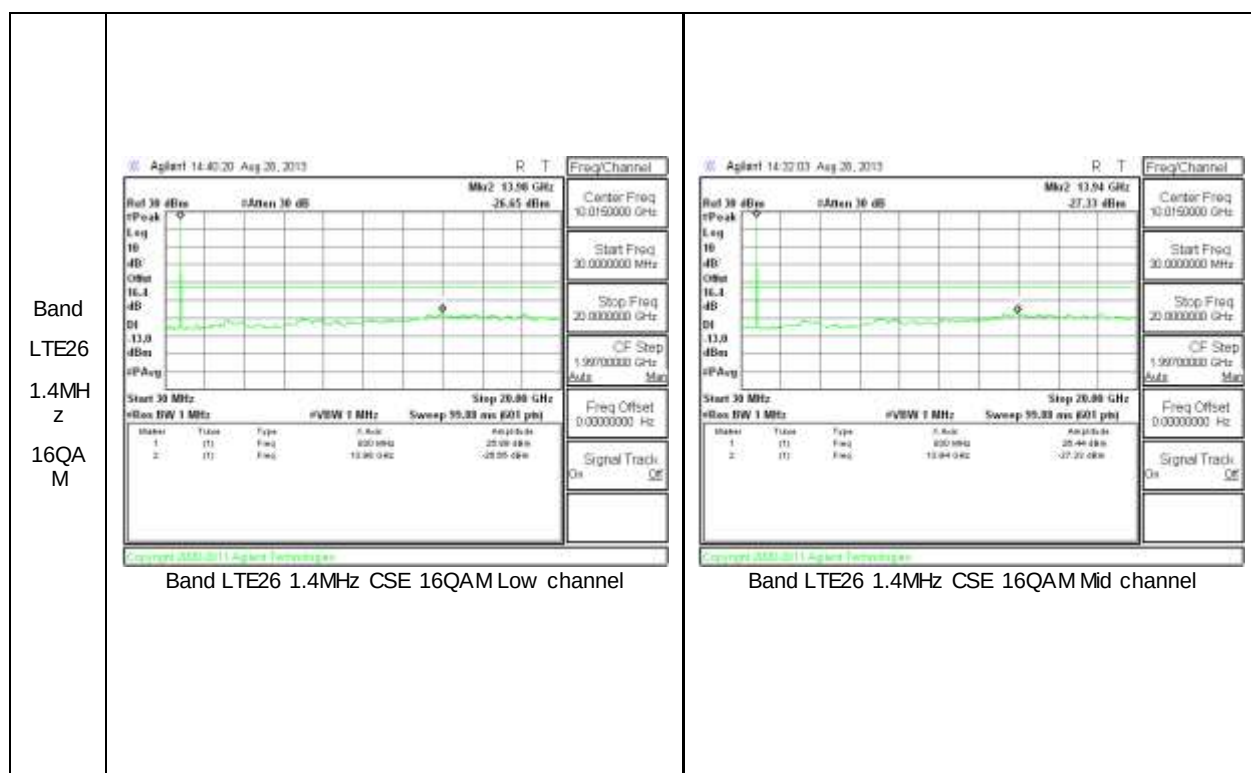
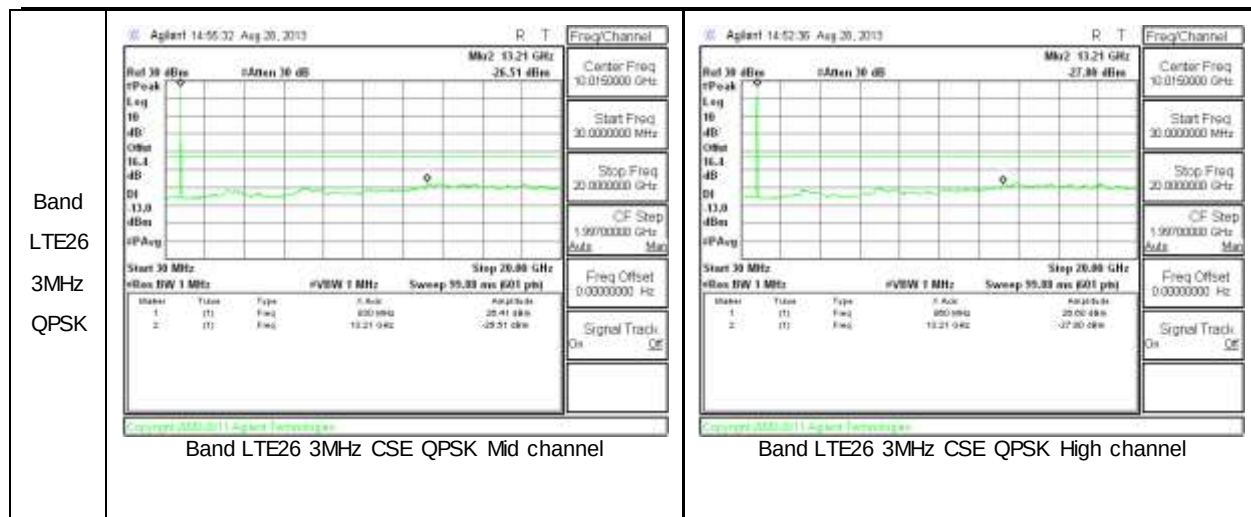


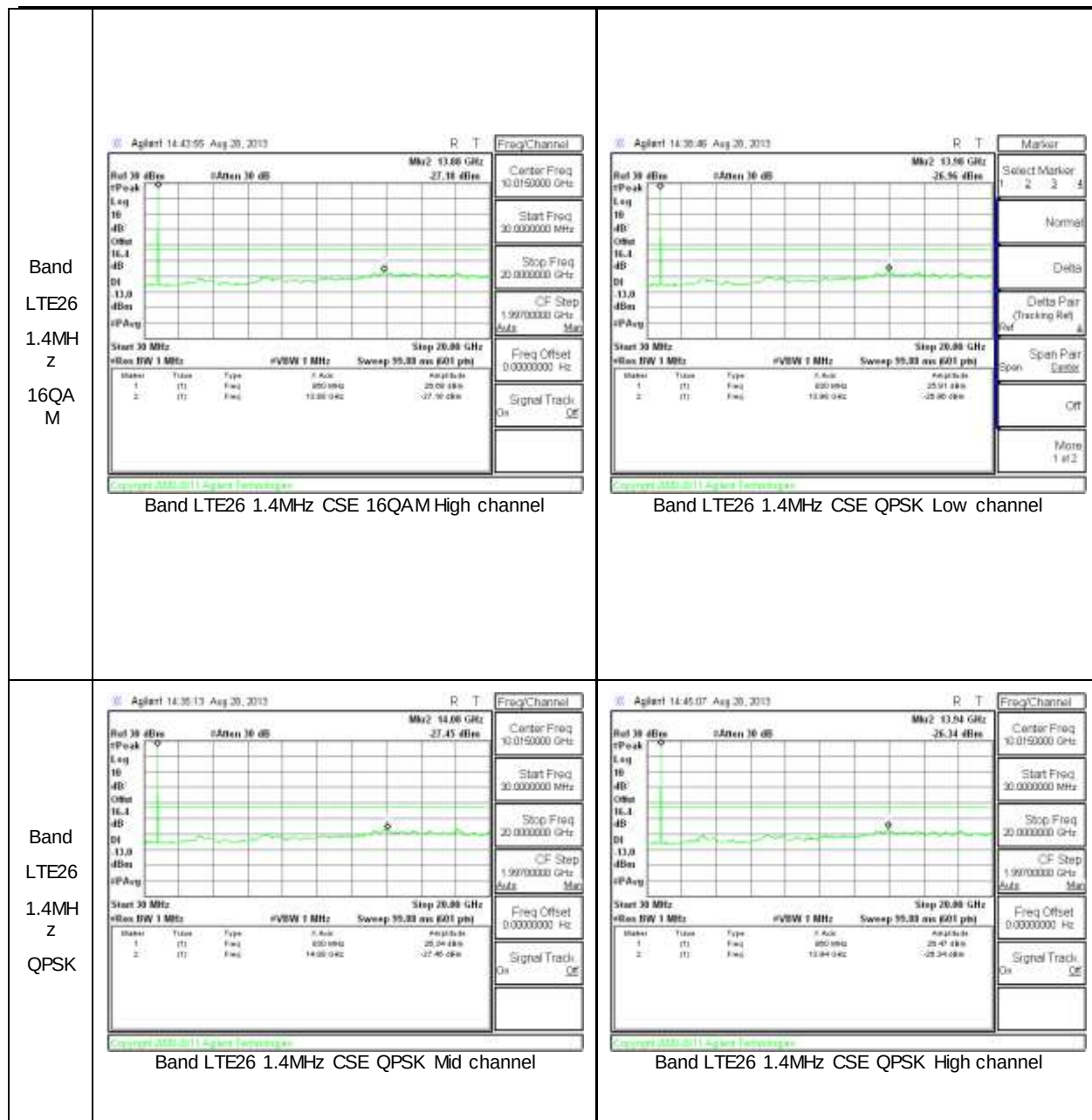


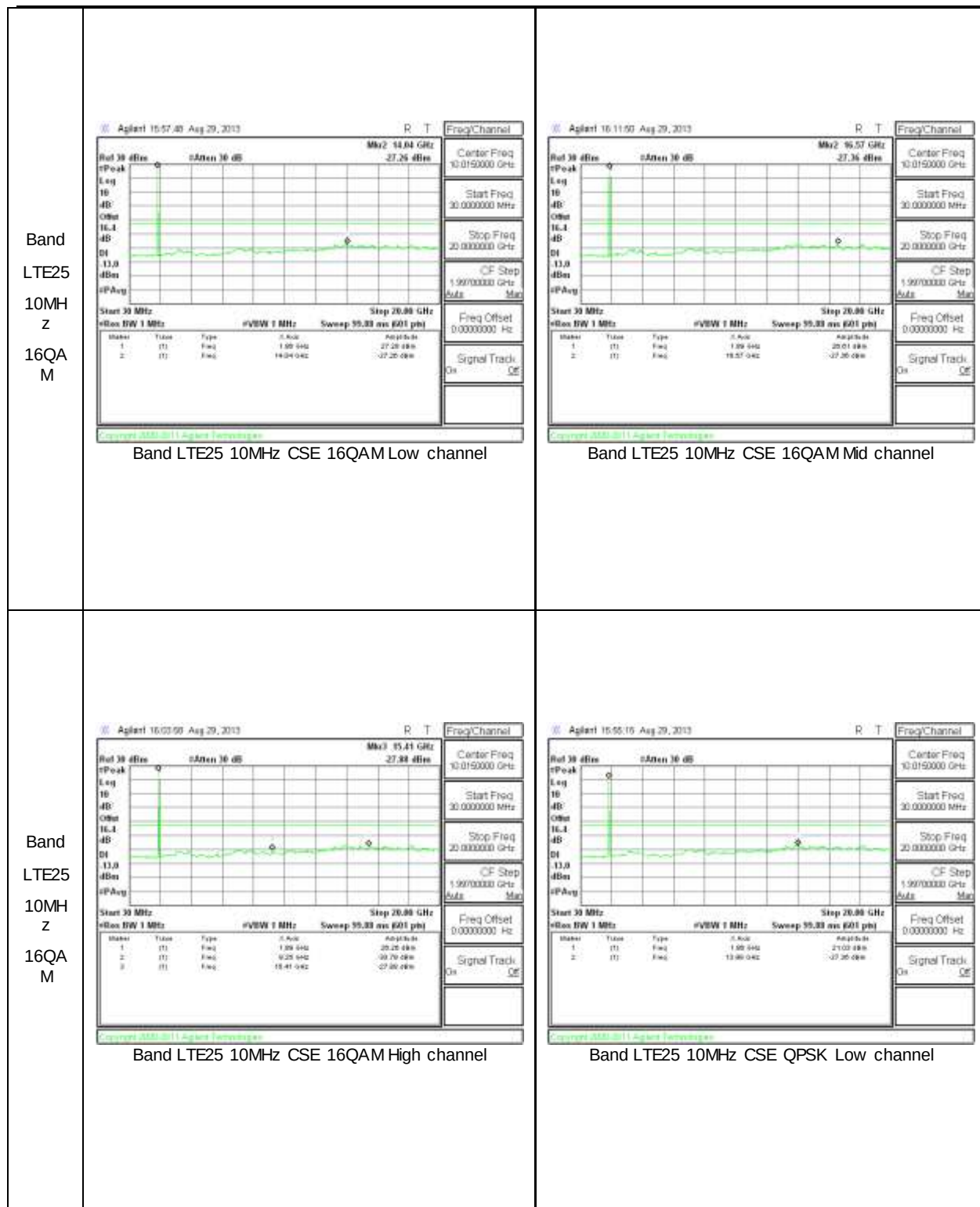


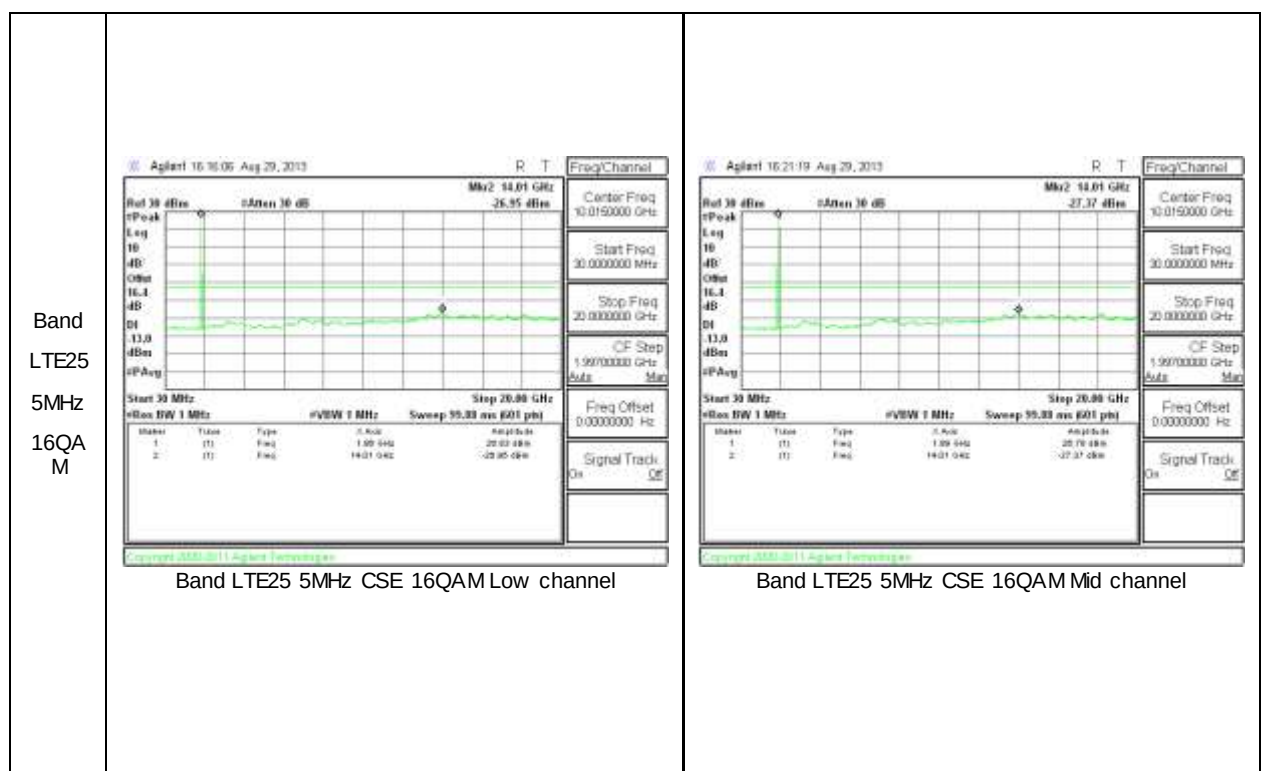
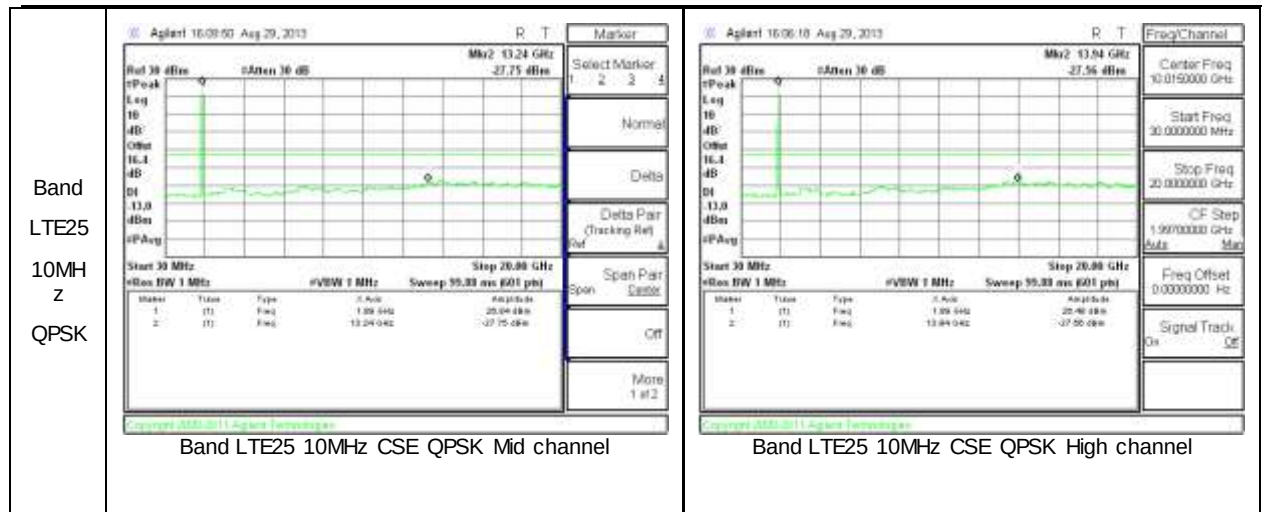


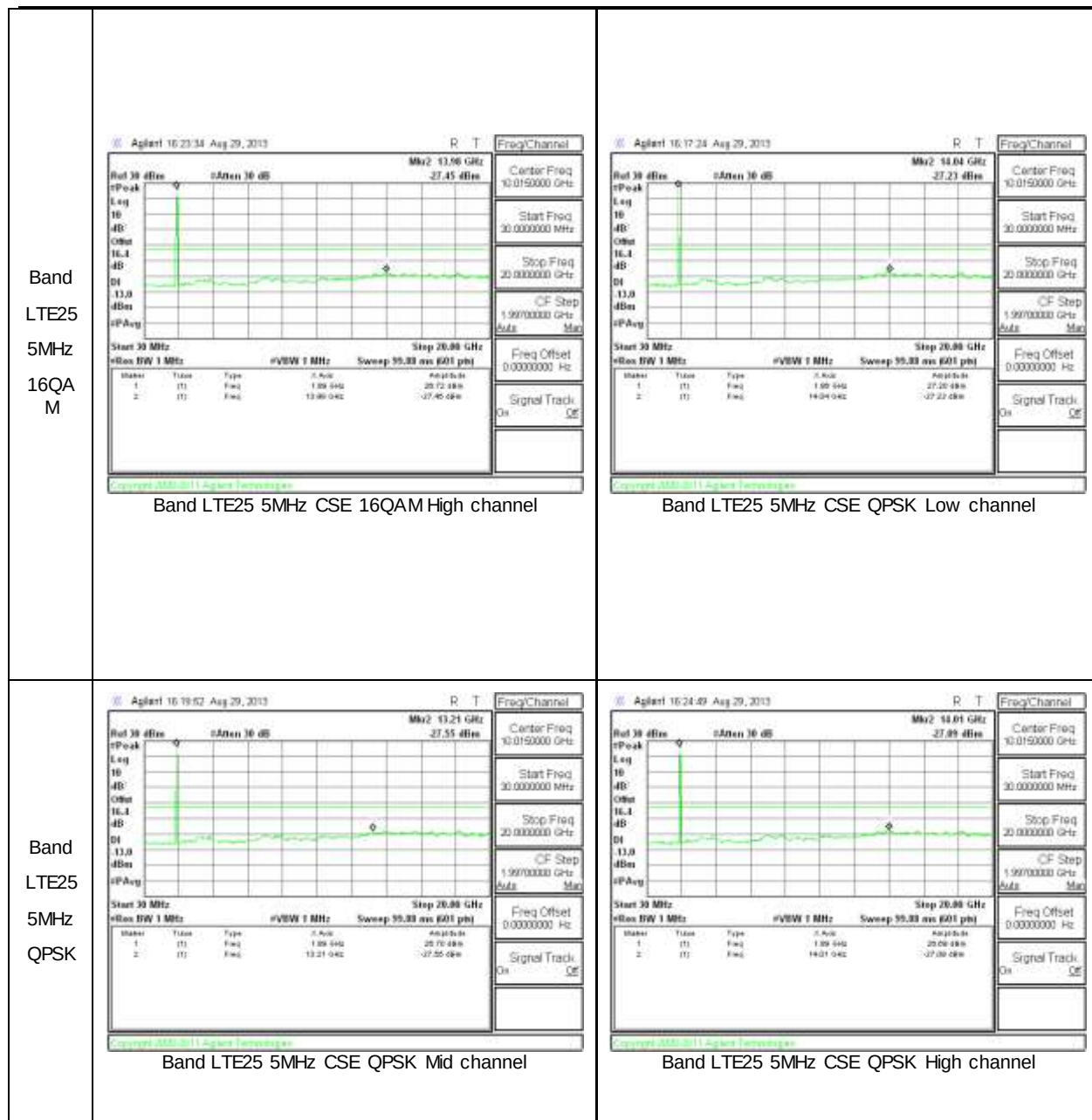


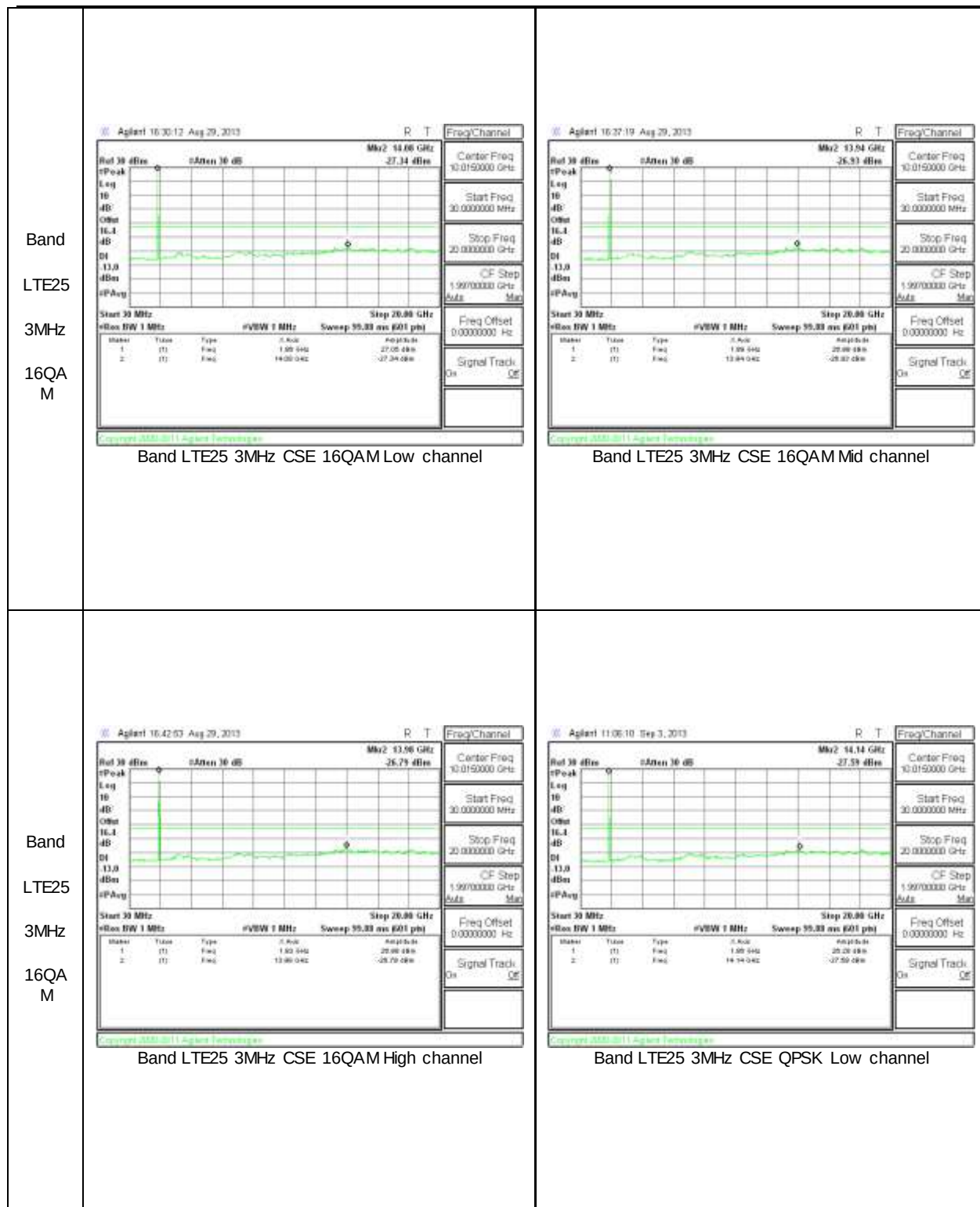


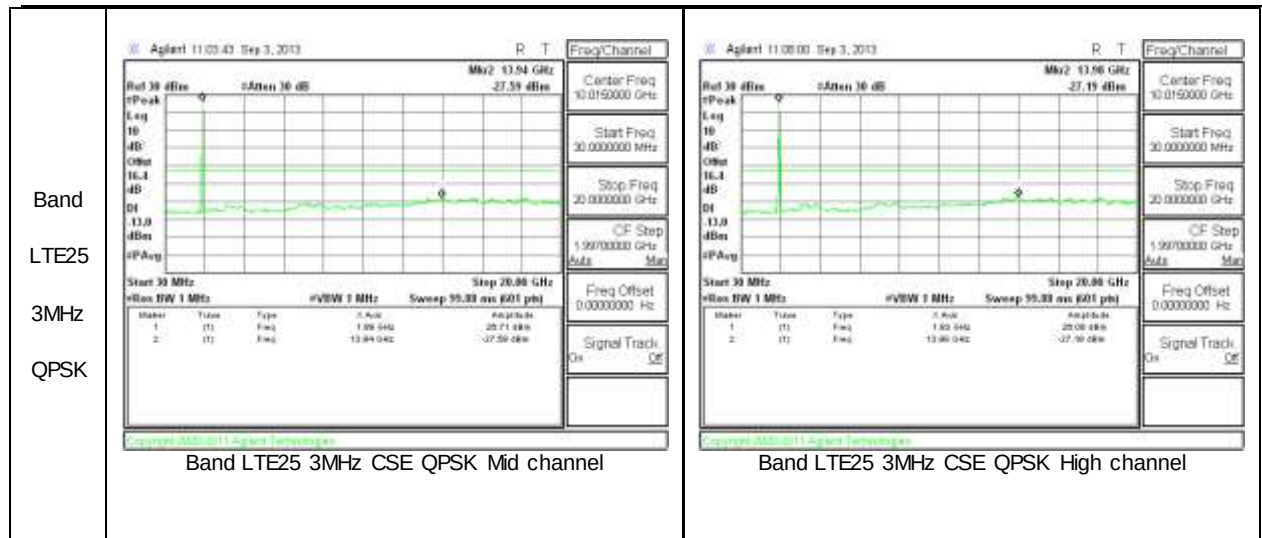


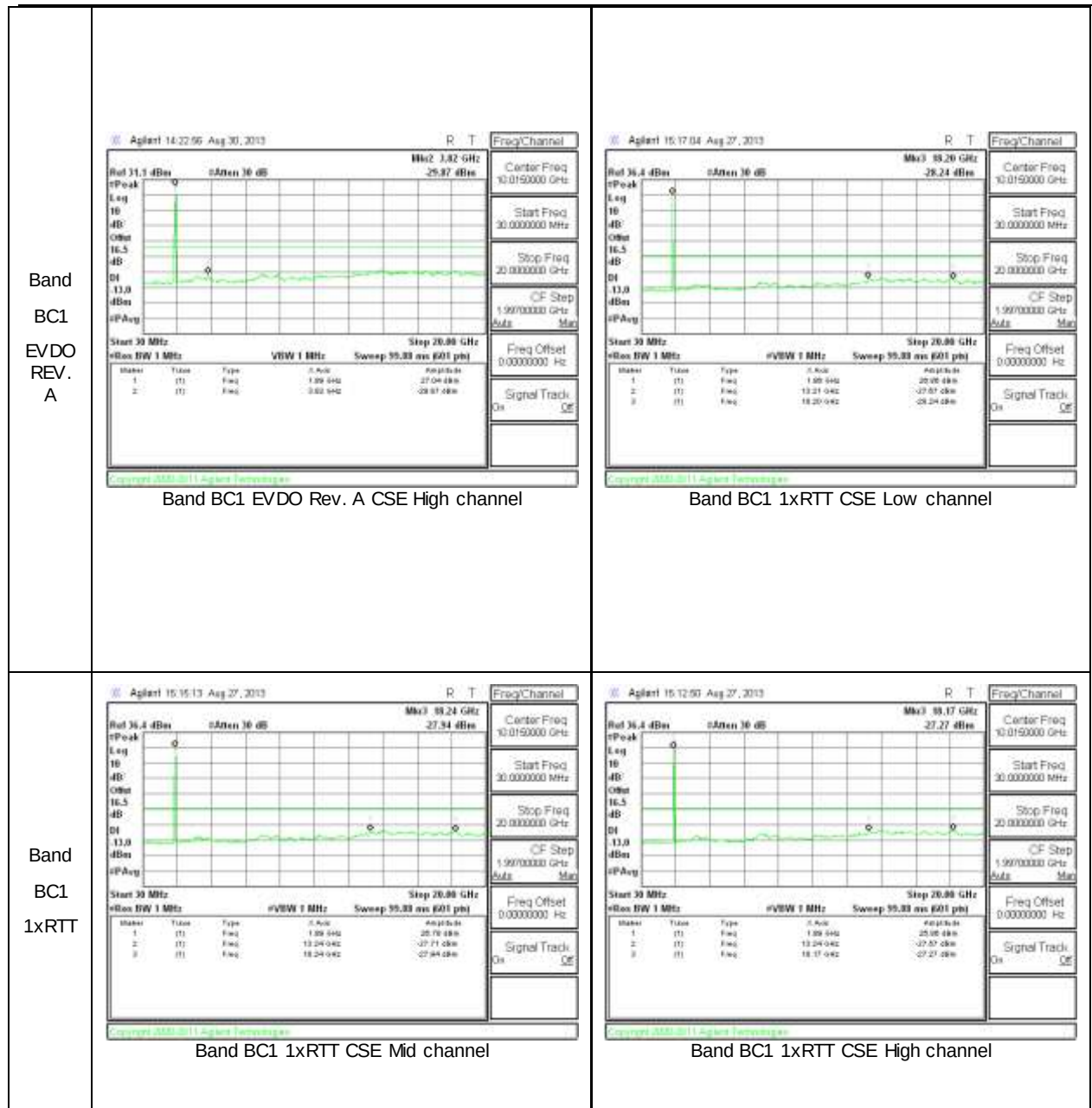


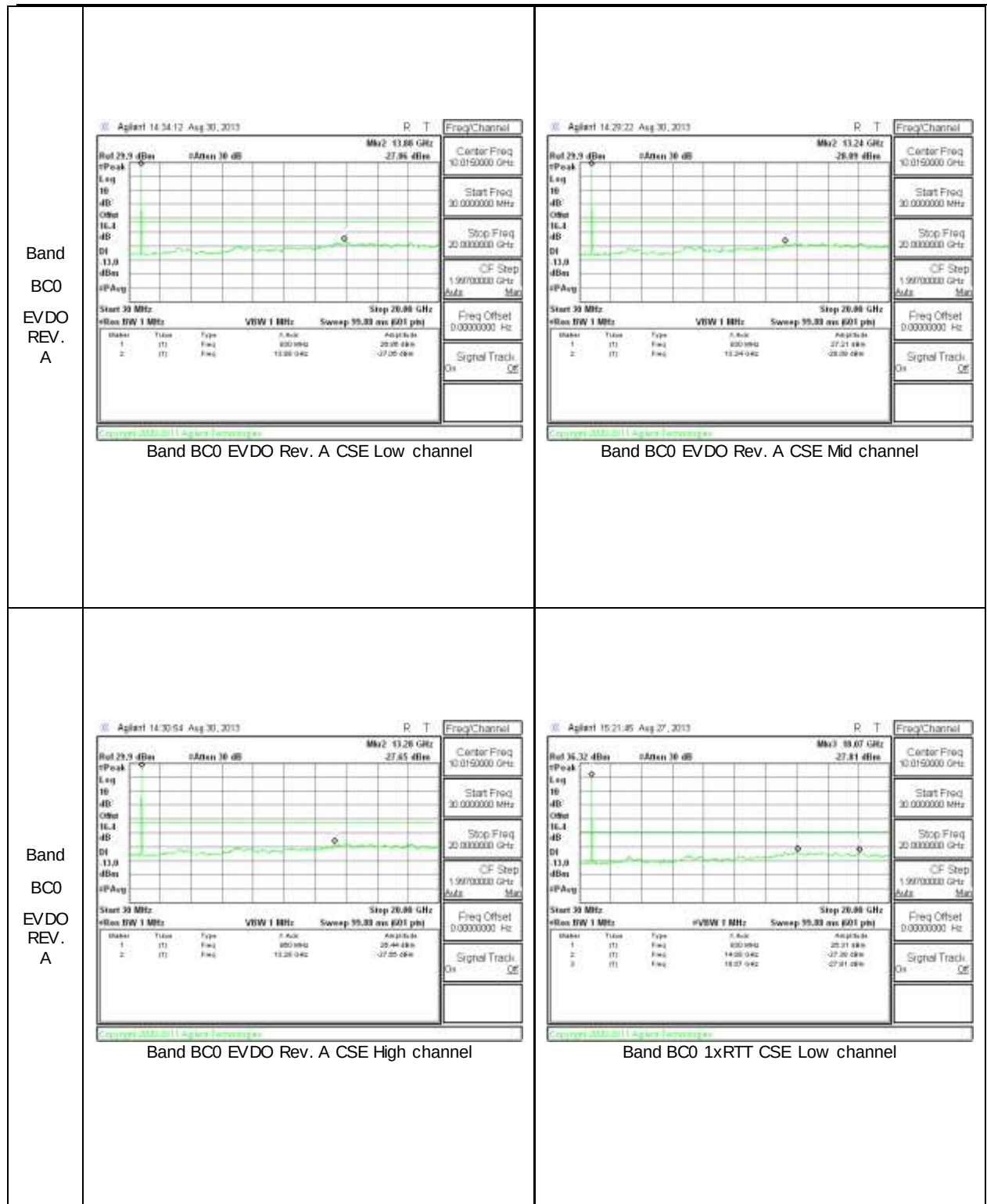


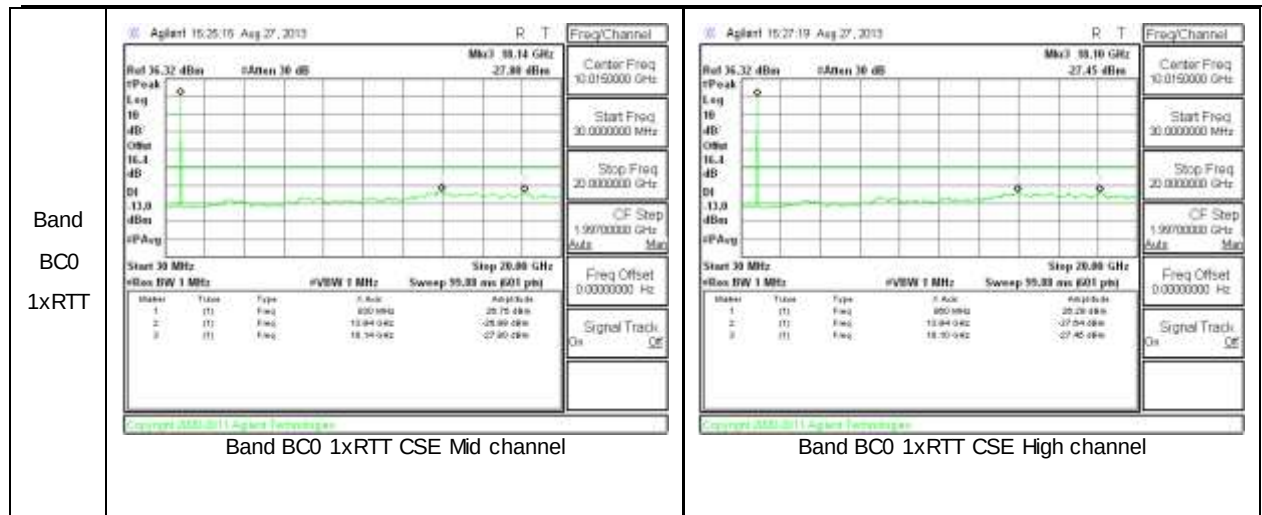


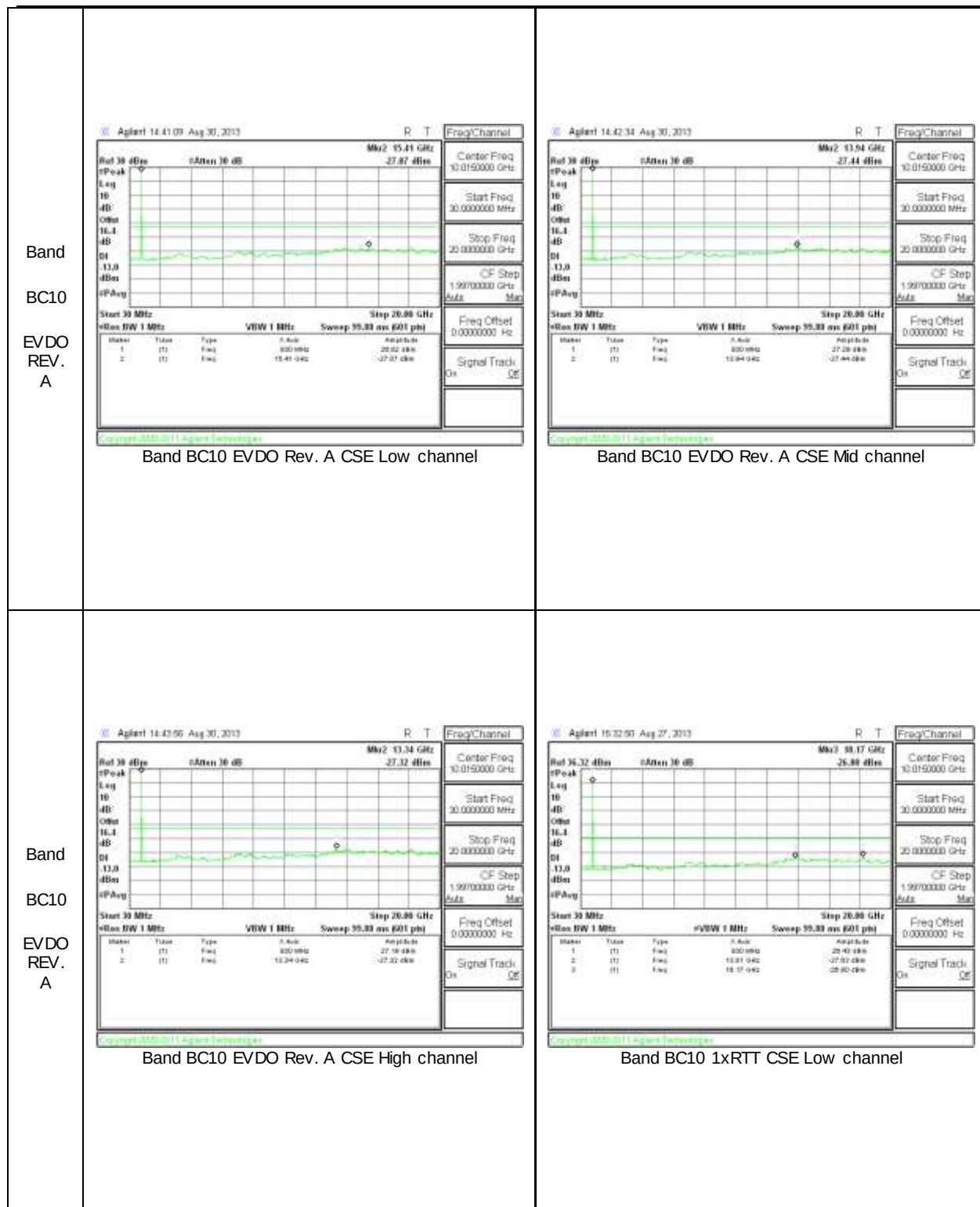


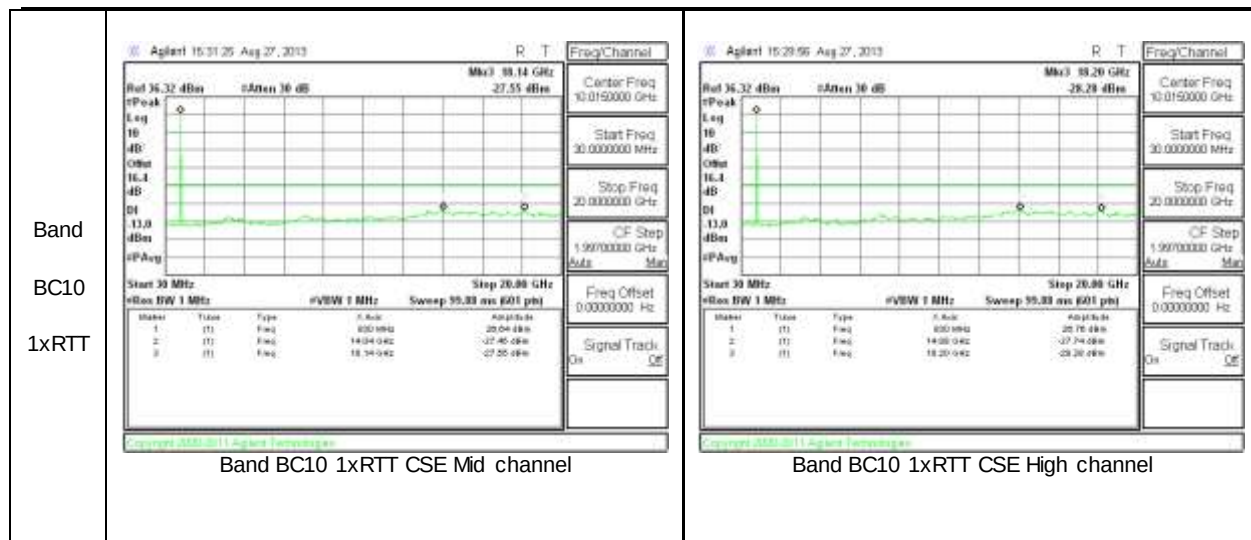












9.6. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235

LIMITS

- §22.355 - The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.
- §24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

TEST PROCEDURE

Reference KDB 971168 D01 Power Meas License Digital Systems v02r01 6/7/2013

Use Agilent 8960 with Frequency Error measurement capability.

- Temp. = -30° to $+50^{\circ}\text{C}$
- Voltage = 85% - 115%

Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

MODES TESTED

- CDMA2000 1xRTT BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

See the following pages

CDMA2000 BC0 MODULATION – MID CHANNEL

Reference Frequency: BC0 Mid Channel 384MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	50	836.5200054	0.000	2.5
3.30	40	836.5200048	0.001	2.5
3.30	30	836.5200042	0.002	2.5
3.30	20	836.5200056	0	2.5
3.30	10	836.520004	0.002	2.5
3.30	0	836.5200049	0.001	2.5
3.30	-10	836.5200029	0.003	2.5
3.30	-20	836.5200039	0.002	2.5
3.30	-30	836.5199907	0.018	2.5

Reference Frequency: BC0 Mid Channel 384MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	20	836.520000	0	2.5
3.60	20	836.519978	0.026	2.5
3.00	20	836.519984	0.019	2.5

CDMA2000 BC1 MODULATION – MID CHANNEL

Reference Frequency: BC1 Mid Channel 1880MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	50	1879.999982	-0.001	2.5
3.30	40	1879.999977	0.002	2.5
3.30	30	1879.999982	-0.001	2.5
3.30	20	1879.999981	0	2.5
3.30	10	1879.999983	-0.001	2.5
3.30	0	1879.999985	-0.002	2.5
3.30	-10	1879.999984	-0.002	2.5
3.30	-20	1879.999978	0.002	2.5
3.30	-30	1879.999975	0.003	2.5

Reference Frequency: BC1 Mid Channel 1880MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	20	1879.999981	0	2.5
3.60	20	1880.000019	-0.020	2.5
3.00	20	1880.000022	-0.022	2.5

CDMA2000 BC10 MODULATION – MID CHANNEL

Reference Frequency: BC10 Mid Channel 820.5MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2051.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	50	820.4999924	0.001	2.5
3.30	40	820.4999944	-0.001	2.5
3.30	30	820.4999934	0.000	2.5
3.30	20	820.4999935	0	2.5
3.30	10	820.4999979	-0.005	2.5
3.30	0	820.4999969	-0.004	2.5
3.30	-10	820.4999963	-0.003	2.5
3.30	-20	820.4999949	-0.002	2.5
3.30	-30	820.4999966	-0.004	2.5

Reference Frequency: BC10 Mid Channel 580MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2051.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	20	820.500000	0	2.5
3.60	20	820.499985	0.018	2.5
3.00	20	820.499983	0.021	2.5

LTE Band 25 MODULATION – MID CHANNEL

Reference Frequency: LTE25 Mid Channel 1882.5MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4706.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	50	1882.499976	0.001	2.5
3.30	40	1882.50002	-0.022	2.5
3.30	30	1882.500019	-0.022	2.5
3.30	20	1882.499979	0	2.5
3.30	10	1882.499982	-0.002	2.5
3.30	0	1882.499977	0.001	2.5
3.30	-10	1882.500022	-0.023	2.5
3.30	-20	1882.50002	-0.022	2.5
3.30	-30	1882.500019	-0.022	2.5

Reference Frequency: LTE25 Mid Channel 1882.5MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4706.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	20	1882.500000	0	2.5
3.60	20	1882.499977	0.012	2.5
3.00	20	1882.499980	0.011	2.5

LTE Band 26 MODULATION – MID CHANNEL

Reference Frequency: LTE26 Mid Channel 831.5MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2078.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	50	831.4999911	-0.001	2.5
3.30	40	831.4999915	-0.001	2.5
3.30	30	831.49999	0.001	2.5
3.30	20	831.4999906	0	2.5
3.30	10	831.4999935	-0.004	2.5
3.30	0	831.4999902	0.000	2.5
3.30	-10	831.4999931	-0.003	2.5
3.30	-20	831.4999934	-0.003	2.5
3.30	-30	831.4999929	-0.003	2.5

Reference Frequency: LTE26 Mid Channel 831.5MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2078.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	20	831.500000	0	2.5
3.60	20	831.499991	0.010	2.5
3.00	20	831.499991	0.011	2.5

LTE Band 41 MODULATION – MID CHANNEL

Reference Frequency: LTE41 Mid Channel 2593MHz @ 20°C Limit: to stay +/- 2.5 ppm = 6482.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	50	2593.000005	0.000	2.5
3.30	40	2593.000005	0.000	2.5
3.30	30	2593.000004	0.001	2.5
3.30	20	2593.000006	0	2.5
3.30	10	2593.000004	0.001	2.5
3.30	0	2593.000005	0.000	2.5
3.30	-10	2593.000003	0.001	2.5
3.30	-20	2593.000004	0.001	2.5
3.30	-30	2592.999991	0.006	2.5

Reference Frequency: LTE41 Mid Channel 40620MHz @ 20°C Limit: to stay +/- 2.5 ppm = 6482.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.30	20	2593.000000	0	2.5
3.60	20	2592.999976	0.009	2.5
3.00	20	2593.000025	-0.010	2.5

10. RADIATED TEST RESULTS

10.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232

LIMITS

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17

The ERP/EIRP power was measured with the spectrum analyzer which attached with receiver antenna via calibrated cable. The measurements have been taken at the low, middle and high channel in each band.

- Set the spectrum analyzer span wide enough or greater than the modulated signal BW.
 - Set a spectrum analyzer at peak detection mode with VBW $\geq$ RBW $\geq$ 26dB BW, typically 3MHz for GSM and 5MHz for WCDMA modes respectively.
 - Set a marker to point the corresponding peak value.
1. Tuning the table to find the worst angle and raising the antenna to achieve the maximize reading (SA reading).
 2. Perform Substitute measurement by following the setup described below:
 - a. For Low Band (below 1GHz):
 - i. Obtain the calibrated dipole antenna
 - ii. Set the output power of the signal generator to 0dBm
 - iii. Find the peak position again.
 - iv. Increase SG output power until SG value equals that of current "SA reading (dBm)" column.
 - v. $ERP = SG \text{ output} - \text{cable loss (cable connecting signal generator and horn antenna)}$
 - b. For High Band (above 1GHz):
 - i. Obtain the calibrated Horn T217 antenna from the warehouse.
 - ii. Set the output power of the signal generator to 0dBm
 - iii. Find the peak position again.
 - iv. Increase SG output power until SG value equals that of current "SA reading (dBm)" column.
 - v. $EIRP = SG \text{ output} - \text{cable loss (Cable connecting signal generator and horn antenna)} + \text{Antenna gain}$

MODES TESTED

- CDMA2000 1xRTT BC10, BC0, BC1
- CDMA2000 EVDO BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

The maximum antenna can be use and compliant with MPE requirement:

BANDS	Maxium Output Power(dBm)	Antenna Gain (dBi)	EIRP	ERP	ERP Limit
BC10, 817 – 824MHz	25	7.9	32.9	30.75	50
BC0, Cell 824 – 849MHz	25	7.9	32.9	30.75	38
LTE Band 26, 817.7 – 823.3MHz	24	7.9	31.9	29.75	50
LTE Band 26, 824.7 – 847.3MHz	24	7.9	31.9	29.75	38

BANDS	Maxium Output Power(dBm)	Antenna Gain (dBi)	EIRP	EIRP Limit
BC1, PCS 1850 – 1910MHz	25	8	33	33
LTE Band 25, 1851.5 – 1913.5MHz	24	8	32	33
LTE Band 41, 2501 - 2685MHz	23.5	9.5	33	33

10.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238

LIMIT

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.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

MODES TESTED

- CDMA2000 1xRTT BC10, BC0, BC1
- CDMA2000 EVDO BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

10.2.1. CDMA RTT

BC0

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/23/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT Module with Laptop							
Mode:		Tx, BC0 CDMA RTT							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.07MHz									
1.649	-15.2	V	3.0	37.4	1.0	-51.6	-13.0	-38.6	
2.474	-17.8	V	3.0	36.4	1.0	-53.2	-13.0	-40.2	
3.296	-23.6	V	3.0	35.8	1.0	-58.4	-13.0	-45.4	
1.649	-11.6	H	3.0	37.4	1.0	-48.0	-13.0	-35.0	
2.474	-16.1	H	3.0	36.4	1.0	-51.5	-13.0	-38.5	
3.296	-23.4	H	3.0	35.8	1.0	-58.2	-13.0	-45.2	
Mid Ch, 836.52MHz									
1.674	-9.4	V	3.0	37.3	1.0	-45.7	-13.0	-32.7	
2.510	-17.1	V	3.0	36.4	1.0	-52.4	-13.0	-39.4	
3.346	-21.7	V	3.0	35.8	1.0	-56.4	-13.0	-43.4	
1.674	-11.0	H	3.0	37.3	1.0	-47.3	-13.0	-34.3	
2.510	-19.2	H	3.0	36.4	1.0	-54.6	-13.0	-41.6	
3.346	-21.9	H	3.0	35.8	1.0	-56.7	-13.0	-43.7	
High Ch, 848.31MHz									
1.697	-13.2	V	3.0	37.3	1.0	-49.5	-13.0	-36.5	
2.545	-18.2	V	3.0	36.3	1.0	-53.5	-13.0	-40.5	
3.393	-21.6	V	3.0	35.7	1.0	-56.3	-13.0	-43.3	
1.697	-12.7	H	3.0	37.3	1.0	-49.0	-13.0	-36.0	
2.545	-19.2	H	3.0	36.3	1.0	-54.6	-13.0	-41.6	
3.393	-23.1	H	3.0	35.7	1.0	-57.8	-12.0	-45.8	
Note: No other emissions were detected above the system noise floor.									

BC1

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/29/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT Module with Laptop							
Mode:		Tx, BC1 CDMA RTT							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.25MHz									
3.703	-18.1	V	3.0	35.4	1.0	-52.5	-13.0	-39.5	
5.553	-5.5	V	3.0	34.7	1.0	-39.2	-13.0	-26.2	
7.405	-19.6	V	3.0	34.9	1.0	-53.5	-13.0	-40.5	
3.703	-23.9	H	3.0	35.4	1.0	-58.3	-13.0	-45.3	
5.553	-12.1	H	3.0	34.7	1.0	-45.8	-13.0	-32.8	
7.405	-19.1	H	3.0	34.9	1.0	-53.0	-13.0	-40.0	
Mid Ch, 1880MHz									
3.760	-22.5	V	3.0	35.3	1.0	-56.9	-13.0	-43.9	
5.640	-11.2	V	3.0	34.7	1.0	-44.9	-13.0	-31.9	
7.520	-19.5	V	3.0	34.9	1.0	-53.4	-13.0	-40.4	
3.760	-24.2	H	3.0	35.3	1.0	-58.6	-13.0	-45.6	
5.640	-12.1	H	3.0	34.7	1.0	-45.8	-13.0	-32.8	
7.520	-18.9	H	3.0	34.9	1.0	-52.8	-13.0	-39.8	
High Ch, 1908.75MHz									
3.818	-8.5	V	3.0	35.3	1.0	-42.8	-13.0	-29.8	
5.726	-15.4	V	3.0	34.7	1.0	-49.1	-13.0	-36.1	
7.635	-19.5	V	3.0	34.9	1.0	-53.5	-13.0	-40.5	
3.818	-15.9	H	3.0	35.3	1.0	-50.2	-13.0	-37.2	
5.726	-17.7	H	3.0	34.7	1.0	-51.5	-13.0	-38.5	
7.635	-18.8	H	3.0	34.9	1.0	-52.7	-12.0	-40.7	
Note: No other emissions were detected above the system noise floor.									

BC10

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/23/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT Module with Laptop							
Mode:		Tx, BC10 Secondary 800 CDMA							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 817.9MHz									
1.636	-13.9	V	3.0	37.4	1.0	-50.3	-13.0	-37.3	
2.454	-17.9	V	3.0	36.4	1.0	-53.3	-13.0	-40.3	
3.272	-21.6	V	3.0	35.8	1.0	-56.4	-13.0	-43.4	
1.636	-9.9	H	3.0	37.4	1.0	-46.3	-13.0	-33.3	
2.454	-18.2	H	3.0	36.4	1.0	-53.6	-13.0	-40.6	
3.272	-23.1	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	
Mid Ch, 820.5MHz									
1.641	-14.8	V	3.0	37.4	1.0	-51.2	-13.0	-38.2	
2.462	-16.7	V	3.0	36.4	1.0	-52.1	-13.0	-39.1	
3.282	-22.6	V	3.0	35.8	1.0	-57.5	-13.0	-44.5	
1.641	-11.5	H	3.0	37.4	1.0	-47.8	-13.0	-34.8	
2.462	-18.3	H	3.0	36.4	1.0	-53.8	-13.0	-40.8	
3.282	-22.9	H	3.0	35.8	1.0	-57.7	-13.0	-44.7	
High Ch, 823.1MHz									
1.646	-14.6	V	3.0	37.4	1.0	-51.0	-13.0	-38.0	
2.469	-17.0	V	3.0	36.4	1.0	-52.4	-13.0	-39.4	
3.292	-22.8	V	3.0	35.8	1.0	-57.6	-13.0	-44.6	
1.646	-12.2	H	3.0	37.4	1.0	-48.6	-13.0	-35.6	
2.469	-17.9	H	3.0	36.4	1.0	-53.3	-13.0	-40.3	
3.292	-22.6	H	3.0	35.8	1.0	-57.4	-12.0	-45.4	
Note: No other emissions were detected above the system noise floor.									

10.2.2. CDMA EVDO

BC0

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/23/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT Module with Laptop							
Mode:		Tx, BC0 EVDO RELO - RTAP							
Chamber		Pre-amplifer		Filter		Limit			
3m Chamber		T34 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7MHz									
1.649	-11.8	V	3.0	37.4	1.0	-48.1	-13.0	-35.1	
2.474	-15.8	V	3.0	36.4	1.0	-51.2	-13.0	-38.2	
3.299	-22.3	V	3.0	35.8	1.0	-57.1	-13.0	-44.1	
1.649	-13.4	H	3.0	37.4	1.0	-49.8	-13.0	-36.8	
2.474	-17.7	H	3.0	36.4	1.0	-53.1	-13.0	-40.1	
3.299	-23.2	H	3.0	35.8	1.0	-58.0	-13.0	-45.0	
Mid Ch, 836.52MHz									
1.673	-10.4	V	3.0	37.3	1.0	-46.7	-13.0	-33.7	
2.510	-19.3	V	3.0	36.4	1.0	-54.7	-13.0	-41.7	
3.348	-20.9	V	3.0	35.7	1.0	-55.6	-13.0	-42.6	
1.673	-12.3	H	3.0	37.3	1.0	-48.6	-13.0	-35.6	
2.510	-21.2	H	3.0	36.4	1.0	-56.6	-13.0	-43.6	
3.348	-23.0	H	3.0	35.7	1.0	-57.7	-13.0	-44.7	
High Ch, 848.31MHz									
1.697	-10.5	V	3.0	37.3	1.0	-46.8	-13.0	-33.8	
2.545	-20.2	V	3.0	36.3	1.0	-55.5	-13.0	-42.5	
3.393	-21.4	V	3.0	35.7	1.0	-56.1	-13.0	-43.1	
1.697	-14.7	H	3.0	37.3	1.0	-51.0	-13.0	-38.0	
2.545	-22.1	H	3.0	36.3	1.0	-57.4	-13.0	-44.4	
3.393	-23.5	H	3.0	35.7	1.0	-58.2	-12.0	-46.2	
Note: No other emissions were detected above the system noise floor.									

BC1

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/29/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT Module with Laptop							
Mode:		Tx, BC1 EVDO REL. 0							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.25MHz									
3.703	-18.3	V	3.0	35.4	1.0	-52.7	-13.0	-39.7	
5.553	-5.8	V	3.0	34.7	1.0	-39.5	-13.0	-26.5	
7.405	-19.6	V	3.0	34.9	1.0	-53.6	-13.0	-40.6	
3.703	-23.0	H	3.0	35.4	1.0	-57.4	-13.0	-44.4	
5.553	-14.4	H	3.0	34.7	1.0	-48.1	-13.0	-35.1	
7.405	-18.1	H	3.0	34.9	1.0	-52.0	-13.0	-39.0	
Mid Ch, 1880MHz									
3.760	-23.0	V	3.0	35.3	1.0	-57.3	-13.0	-44.3	
5.640	-10.8	V	3.0	34.7	1.0	-44.5	-13.0	-31.5	
7.520	-19.7	V	3.0	34.9	1.0	-53.6	-13.0	-40.6	
3.760	-21.9	H	3.0	35.3	1.0	-56.3	-13.0	-43.3	
5.640	-11.5	H	3.0	34.7	1.0	-45.2	-13.0	-32.2	
7.520	-18.9	H	3.0	34.9	1.0	-52.9	-13.0	-39.9	
High Ch, 1908.75MHz									
3.818	-8.0	V	3.0	35.3	1.0	-42.2	-13.0	-29.2	
5.726	-15.0	V	3.0	34.7	1.0	-48.8	-13.0	-35.8	
7.635	-19.4	V	3.0	34.9	1.0	-53.3	-13.0	-40.3	
3.818	-15.5	H	3.0	35.3	1.0	-49.8	-13.0	-36.8	
5.726	-15.7	H	3.0	34.7	1.0	-49.4	-13.0	-36.4	
7.635	-17.9	H	3.0	34.9	1.0	-51.8	-12.0	-39.8	
Note: No other emissions were detected above the system noise floor.									

BC10

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/23/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT Module with Laptop							
Mode:		Tx, BC10 EVDO REL0 - RTAP							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T34 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 817.9MHz									
1.636	-10.2	V	3.0	37.4	1.0	-46.6	-13.0	-33.6	
2.454	-15.1	V	3.0	36.4	1.0	-50.5	-13.0	-37.5	
3.272	-21.5	V	3.0	35.8	1.0	-56.3	-13.0	-43.3	
1.636	-9.9	H	3.0	37.4	1.0	-46.3	-13.0	-33.3	
2.454	-20.9	H	3.0	36.4	1.0	-56.3	-13.0	-43.3	
3.272	-22.4	H	3.0	35.8	1.0	-57.2	-13.0	-44.2	
Mid Ch, 820.5MHz									
1.641	-11.3	V	3.0	37.4	1.0	-47.7	-13.0	-34.7	
2.462	-14.3	V	3.0	36.4	1.0	-49.7	-13.0	-36.7	
3.282	-20.8	V	3.0	35.8	1.0	-55.6	-13.0	-42.6	
1.641	-11.2	H	3.0	37.4	1.0	-47.6	-13.0	-34.6	
2.462	-19.0	H	3.0	36.4	1.0	-54.4	-13.0	-41.4	
3.282	-22.2	H	3.0	35.8	1.0	-57.0	-13.0	-44.0	
High Ch, 823.10MHz									
1.646	-12.3	V	3.0	37.4	1.0	-48.7	-13.0	-35.7	
2.469	-15.1	V	3.0	36.4	1.0	-50.5	-13.0	-37.5	
3.393	-21.3	V	3.0	35.7	1.0	-56.0	-13.0	-43.0	
1.646	-11.7	H	3.0	37.4	1.0	-48.1	-13.0	-35.1	
2.469	-18.8	H	3.0	36.4	1.0	-54.2	-13.0	-41.2	
3.393	-22.9	H	3.0	35.7	1.0	-57.6	-12.0	-45.6	
Note: No other emissions were detected above the system noise floor.									

10.2.3. LTE BAND 25

3 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/28/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B25 3MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1851.5MHz)									
3.703	-15.9	V	3.0	30.2	1.0	-45.1	-13.0	-32.1	
5.555	-2.6	V	3.0	28.4	1.0	-30.0	-13.0	-17.0	
7.406	-18.7	V	3.0	26.5	1.0	-44.1	-13.0	-31.1	
3.703	-20.2	H	3.0	30.2	1.0	-49.4	-13.0	-36.4	
5.555	-11.9	H	3.0	28.4	1.0	-39.3	-13.0	-26.3	
7.406	-17.8	H	3.0	26.5	1.0	-43.3	-13.0	-30.3	
Mid Ch, (1882.5MHz)									
3.765	-20.5	V	3.0	30.1	1.0	-49.6	-13.0	-36.6	
5.648	-9.9	V	3.0	28.3	1.0	-37.2	-13.0	-24.2	
7.530	-18.4	V	3.0	26.3	1.0	-43.7	-13.0	-30.7	
3.765	-23.7	H	3.0	30.1	1.0	-52.8	-13.0	-39.8	
5.648	-10.2	H	3.0	28.3	1.0	-37.5	-13.0	-24.5	
7.530	-18.5	H	3.0	26.3	1.0	-43.8	-13.0	-30.8	
High Ch, (1913.5MHz)									
3.827	-6.4	V	3.0	30.1	1.0	-35.5	-13.0	-22.5	
5.741	-10.2	V	3.0	28.2	1.0	-37.4	-13.0	-24.4	
7.654	-18.4	V	3.0	26.1	1.0	-43.6	-13.0	-30.6	
3.827	-13.3	H	3.0	30.1	1.0	-42.4	-13.0	-29.4	
5.741	-12.5	H	3.0	28.2	1.0	-39.7	-13.0	-26.7	
7.654	-17.4	H	3.0	26.1	1.0	-42.5	-13.0	-29.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		NETGEAR							
Project #:		13U15614							
Date:		08/28/13							
Test Engineer:		CHARLES VERGONIO							
Configuration:		EUT, LAPTOP							
Mode:		TX, LTE band 25, 10MHz, 16QAM							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1851.5MHz)									
3.703	-15.9	V	3.0	30.2	1.0	-45.1	-13.0	-32.1	
5.555	-1.9	V	3.0	28.4	1.0	-29.3	-13.0	-16.3	
7.406	-18.9	V	3.0	26.5	1.0	-44.4	-13.0	-31.4	
3.703	-20.1	H	3.0	30.2	1.0	-49.3	-13.0	-36.3	
5.555	-9.7	H	3.0	28.4	1.0	-37.0	-13.0	-24.0	
7.406	-17.6	H	3.0	26.5	1.0	-43.1	-13.0	-30.1	
Mid Ch, (1882.5 MHz)									
3.765	-20.4	V	3.0	30.1	1.0	-49.6	-13.0	-36.6	
5.648	-11.0	V	3.0	28.3	1.0	-38.2	-13.0	-25.2	
7.530	-18.3	V	3.0	26.3	1.0	-43.6	-13.0	-30.6	
3.765	-22.6	H	3.0	30.1	1.0	-51.7	-13.0	-38.7	
5.648	-10.3	H	3.0	28.3	1.0	-37.6	-13.0	-24.6	
7.530	-18.1	H	3.0	26.3	1.0	-43.4	-13.0	-30.4	
High Ch, (1913.5MHz)									
3.827	-6.2	V	3.0	30.1	1.0	-35.3	-13.0	-22.3	
5.741	-9.8	V	3.0	28.2	1.0	-37.0	-13.0	-24.0	
7.654	-18.6	V	3.0	26.1	1.0	-43.8	-13.0	-30.8	
3.827	-12.4	H	3.0	30.1	1.0	-41.4	-13.0	-28.4	
5.741	-12.0	H	3.0	28.2	1.0	-39.2	-13.0	-26.2	
7.654	-17.4	H	3.0	26.1	1.0	-42.6	-13.0	-29.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

5 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/28/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B25 5MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1852.5MHz)									
3.705	-16.1	V	3.0	30.2	1.0	-45.2	-13.0	-32.2	
5.558	-5.6	V	3.0	28.4	1.0	-33.0	-13.0	-20.0	
7.410	-18.7	V	3.0	26.5	1.0	-44.2	-13.0	-31.2	
3.705	-20.9	H	3.0	30.2	1.0	-50.1	-13.0	-37.1	
5.558	-11.9	H	3.0	28.4	1.0	-39.3	-13.0	-26.3	
7.410	-18.3	H	3.0	26.5	1.0	-43.8	-13.0	-30.8	
Mid Ch, (1882.5MHz)									
3.765	-20.7	V	3.0	30.1	1.0	-49.8	-13.0	-36.8	
5.648	-10.5	V	3.0	28.3	1.0	-37.8	-13.0	-24.8	
7.530	-19.4	V	3.0	26.3	1.0	-44.7	-13.0	-31.7	
3.765	-22.6	H	3.0	30.1	1.0	-51.7	-13.0	-38.7	
5.648	-11.2	H	3.0	28.3	1.0	-38.4	-13.0	-25.4	
7.530	-17.6	H	3.0	26.3	1.0	-42.9	-13.0	-29.9	
High Ch, (1912.5MHz)									
3.825	-9.2	V	3.0	30.1	1.0	-38.3	-13.0	-25.3	
5.738	-12.2	V	3.0	28.2	1.0	-39.4	-13.0	-26.4	
7.640	-18.7	V	3.0	26.2	1.0	-43.9	-13.0	-30.9	
3.825	-14.1	H	3.0	30.1	1.0	-43.2	-13.0	-30.2	
5.738	-14.7	H	3.0	28.2	1.0	-41.9	-13.0	-28.9	
7.640	-17.9	H	3.0	26.2	1.0	-43.0	-13.0	-30.0	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement

Company: NETGEAR
Project #: 13U15614
Date: 08/28/13
Test Engineer: CHARLES VERGONIO
Configuration: EUT , LAPTOP
Mode: TX, LTE band 25, 10MHz, 16QAM

Chamber	Pre-amplifier	Filter	Limit
3m Chamber	T145 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1852.5MHz)									
3.705	-15.9	V	3.0	30.2	1.0	-45.1	-13.0	-32.1	
5.558	-5.0	V	3.0	28.4	1.0	-32.3	-13.0	-19.3	
7.410	-18.9	V	3.0	26.5	1.0	-44.3	-13.0	-31.3	
3.705	-20.1	H	3.0	30.2	1.0	-49.3	-13.0	-36.3	
5.558	-11.1	H	3.0	28.4	1.0	-38.5	-13.0	-25.5	
7.410	-18.9	H	3.0	26.5	1.0	-44.3	-13.0	-31.3	
Mid Ch, (1882.5 MHz)									
3.765	-20.1	V	3.0	30.1	1.0	-49.2	-13.0	-36.2	
5.648	-8.3	V	3.0	28.3	1.0	-35.6	-13.0	-22.6	
7.530	-18.0	V	3.0	26.3	1.0	-43.3	-13.0	-30.3	
3.765	-23.2	H	3.0	30.1	1.0	-52.4	-13.0	-39.4	
5.648	-9.5	H	3.0	28.3	1.0	-36.8	-13.0	-23.8	
7.530	-17.9	H	3.0	26.3	1.0	-43.2	-13.0	-30.2	
High Ch, (1912.5MHz)									
3.825	-9.6	V	3.0	30.1	1.0	-38.7	-13.0	-25.7	
5.738	-11.1	V	3.0	28.2	1.0	-38.3	-13.0	-25.3	
7.640	-18.5	V	3.0	26.2	1.0	-43.7	-13.0	-30.7	
3.825	-16.3	H	3.0	30.1	1.0	-45.4	-13.0	-32.4	
5.738	-13.8	H	3.0	28.2	1.0	-41.0	-13.0	-28.0	
7.640	-18.4	H	3.0	26.2	1.0	-43.6	-13.0	-30.6	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

10 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/28/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B25 110MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1855MHz)									
3.710	-16.6	V	3.0	30.2	1.0	-45.8	-13.0	-32.8	
5.565	-5.5	V	3.0	28.4	1.0	-32.8	-13.0	-19.8	
7.420	-19.6	V	3.0	26.5	1.0	-45.1	-13.0	-32.1	
3.710	-19.2	H	3.0	30.2	1.0	-48.4	-13.0	-35.4	
5.565	-10.8	H	3.0	28.4	1.0	-38.2	-13.0	-25.2	
7.420	-18.9	H	3.0	26.5	1.0	-44.3	-13.0	-31.3	
Mid Ch, (1882.5MHz)									
3.765	-20.2	V	3.0	30.1	1.0	-49.4	-13.0	-36.4	
5.634	-7.4	V	3.0	28.3	1.0	-34.7	-13.0	-21.7	
7.530	-19.4	V	3.0	26.3	1.0	-44.7	-13.0	-31.7	
3.765	-23.6	H	3.0	30.1	1.0	-52.8	-13.0	-39.8	
5.634	-8.5	H	3.0	28.3	1.0	-35.7	-13.0	-22.7	
7.530	-18.5	H	3.0	26.3	1.0	-43.8	-13.0	-30.8	
High Ch, (1910MHz)									
3.820	-10.8	V	3.0	30.1	1.0	-39.9	-13.0	-26.9	
5.730	-9.4	V	3.0	28.2	1.0	-36.6	-13.0	-23.6	
7.640	-18.3	V	3.0	26.2	1.0	-43.4	-13.0	-30.4	
3.820	-16.2	H	3.0	30.1	1.0	-45.3	-13.0	-32.3	
5.730	-10.7	H	3.0	28.2	1.0	-37.9	-13.0	-24.9	
7.640	-18.2	H	3.0	26.2	1.0	-43.4	-13.0	-30.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement

Company: NETGEAR
Project #: 13U15614
Date: 08/28/13
Test Engineer: CHARLES VERGONIO
Configuration: EUT , LAPTOP
Mode: TX, LTE band 25, 10MHz, 16QAM

Chamber	Pre-amplifier	Filter	Limit
3m Chamber	T145 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (814.7MHz)									
3.710	-15.5	V	3.0	30.2	1.0	-44.7	-13.0	-31.7	
5.565	-6.6	V	3.0	28.4	1.0	-33.9	-13.0	-20.9	
7.420	-18.5	V	3.0	26.5	1.0	-43.9	-13.0	-30.9	
3.710	-20.0	H	3.0	30.2	1.0	-49.2	-13.0	-36.2	
5.565	-10.0	H	3.0	28.4	1.0	-37.4	-13.0	-24.4	
7.420	-17.0	H	3.0	26.5	1.0	-42.5	-13.0	-29.5	
Mid Ch, (1882.5 MHz)									
3.765	-19.4	V	3.0	30.1	1.0	-48.5	-13.0	-35.5	
5.634	-7.5	V	3.0	28.3	1.0	-34.8	-13.0	-21.8	
7.530	-19.0	V	3.0	26.3	1.0	-44.3	-13.0	-31.3	
3.765	-23.2	H	3.0	30.1	1.0	-52.3	-13.0	-39.3	
5.634	-8.8	H	3.0	28.3	1.0	-36.1	-13.0	-23.1	
7.530	-18.4	H	3.0	26.3	1.0	-43.7	-13.0	-30.7	
High Ch, (1910MHz)									
3.820	-10.6	V	3.0	30.1	1.0	-39.6	-13.0	-26.6	
5.730	-9.3	V	3.0	28.2	1.0	-36.5	-13.0	-23.5	
7.640	-18.7	V	3.0	26.2	1.0	-43.9	-13.0	-30.9	
3.820	-15.1	H	3.0	30.1	1.0	-44.2	-13.0	-31.2	
5.730	-10.7	H	3.0	28.2	1.0	-37.9	-13.0	-24.9	
7.640	-17.5	H	3.0	26.2	1.0	-42.7	-13.0	-42.7	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

10.2.4. LTE BAND 26

1.4 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/28/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B26 1.4MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (814.7MHz)									
1.629	-7.6	V	3.0	32.7	1.0	-39.3	-13.0	-26.3	
2.444	-13.7	V	3.0	31.2	1.0	-44.0	-13.0	-31.0	
3.259	-21.1	V	3.0	30.6	1.0	-50.7	-13.0	-37.7	
1.629	-12.1	H	3.0	32.7	1.0	-43.8	-13.0	-30.8	
2.444	-17.2	H	3.0	31.2	1.0	-47.4	-13.0	-34.4	
3.259	-21.4	H	3.0	30.6	1.0	-51.0	-13.0	-38.0	
Mid Ch, (831.5MHz)									
1.663	-10.9	V	3.0	32.6	1.0	-42.6	-13.0	-29.6	
2.495	-14.7	V	3.0	31.5	1.0	-45.2	-13.0	-32.2	
3.326	-20.9	V	3.0	30.5	1.0	-50.4	-13.0	-37.4	
1.663	-12.1	H	3.0	32.6	1.0	-43.8	-13.0	-30.8	
2.495	-18.6	H	3.0	31.5	1.0	-49.1	-13.0	-36.1	
3.326	-22.8	H	3.0	30.5	1.0	-52.3	-13.0	-39.3	
High Ch, (848.3MHz)									
1.697	-9.6	V	3.0	32.6	1.0	-41.1	-13.0	-28.1	
2.545	-18.8	V	3.0	31.4	1.0	-49.2	-13.0	-36.2	
3.393	-21.9	V	3.0	30.5	1.0	-51.4	-13.0	-38.4	
1.697	-10.7	H	3.0	32.6	1.0	-42.2	-13.0	-29.2	
2.545	-20.4	H	3.0	31.4	1.0	-50.9	-13.0	-37.9	
3.393	-21.7	H	3.0	30.5	1.0	-51.1	-13.0	-38.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		NETGEAR							
Project #:		13U15614							
Date:		08/28/13							
Test Engineer:		CHARLES VERGONIO							
Configuration:		EUT , LAPTOP							
Mode:		TX, LTE band 26, 1.4MHz, 16QAM							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (814.7MHz)									
1.629	-7.6	V	3.0	32.7	1.0	-39.3	-13.0	-26.3	
2.444	-13.0	V	3.0	31.2	1.0	-43.2	-13.0	-30.2	
3.259	-21.3	V	3.0	30.6	1.0	-50.9	-13.0	-37.9	
1.629	-11.8	H	3.0	32.7	1.0	-43.6	-13.0	-30.6	
2.444	-16.9	H	3.0	31.2	1.0	-47.1	-13.0	-34.1	
3.259	-21.5	H	3.0	30.6	1.0	-51.0	-13.0	-38.0	
Mid Ch, (831.5 MHz)									
1.663	-8.3	V	3.0	32.6	1.0	-39.9	-13.0	-26.9	
2.495	-14.1	V	3.0	31.5	1.0	-44.5	-13.0	-31.5	
3.326	-18.5	V	3.0	30.5	1.0	-48.0	-13.0	-35.0	
1.663	-11.4	H	3.0	32.6	1.0	-43.0	-13.0	-30.0	
2.495	-16.7	H	3.0	31.5	1.0	-47.2	-13.0	-34.2	
3.326	-21.0	H	3.0	30.5	1.0	-50.5	-13.0	-37.5	
High Ch, (848.3MHz)									
1.697	-9.7	V	3.0	32.6	1.0	-41.2	-13.0	-28.2	
2.545	-18.3	V	3.0	31.4	1.0	-48.8	-13.0	-35.8	
3.393	-21.5	V	3.0	30.5	1.0	-51.0	-13.0	-38.0	
1.697	-10.4	H	3.0	32.6	1.0	-41.9	-13.0	-28.9	
2.545	-19.6	H	3.0	31.4	1.0	-50.1	-13.0	-37.1	
3.393	-23.0	H	3.0	30.5	1.0	-52.5	-13.0	-52.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

3MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B26 3MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (815.5MHz)									
1.631	-7.3	V	3.0	32.7	1.0	-39.0	-13.0	-26.0	
2.447	-14.0	V	3.0	31.2	1.0	-44.2	-13.0	-31.2	
3.262	-21.8	V	3.0	30.6	1.0	-51.4	-13.0	-38.4	
1.631	-10.7	H	3.0	32.7	1.0	-42.4	-13.0	-29.4	
2.447	-17.4	H	3.0	31.2	1.0	-47.7	-13.0	-34.7	
3.262	-22.1	H	3.0	30.6	1.0	-51.7	-13.0	-38.7	
Mid Ch, (831.5MHz)									
1.663	-6.8	V	3.0	32.6	1.0	-38.4	-13.0	-25.4	
2.495	-15.0	V	3.0	31.5	1.0	-45.5	-13.0	-32.5	
3.326	-21.9	V	3.0	30.5	1.0	-51.4	-13.0	-38.4	
1.663	-10.2	H	3.0	32.6	1.0	-41.8	-13.0	-28.8	
2.495	-16.0	H	3.0	31.5	1.0	-46.4	-13.0	-33.4	
3.326	-23.0	H	3.0	30.5	1.0	-52.5	-13.0	-39.5	
High Ch, (847.5MHz)									
1.695	-9.1	V	3.0	32.6	1.0	-40.6	-13.0	-27.6	
2.543	-21.7	V	3.0	31.4	1.0	-52.1	-13.0	-39.1	
3.390	-22.3	V	3.0	30.5	1.0	-51.7	-13.0	-38.7	
1.695	-10.1	H	3.0	32.6	1.0	-41.7	-13.0	-28.7	
2.543	-20.6	H	3.0	31.4	1.0	-51.0	-13.0	-38.0	
3.390	-24.4	H	3.0	30.5	1.0	-53.8	-13.0	-40.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement

Company: NETGEAR
Project #: 13U15614
Date: 08/27/13
Test Engineer: CHARLES VERGONIO
Configuration: EUT , LAPTOP
Mode: TX, LTE band 26, 3MHz, 16QAM

Chamber	Pre-amplifier	Filter	Limit
3m Chamber	T145 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (815.5MHz)									
1.631	-7.2	V	3.0	32.7	1.0	-38.9	-13.0	-25.9	
2.447	-13.9	V	3.0	31.2	1.0	-44.1	-13.0	-31.1	
3.262	-20.9	V	3.0	30.6	1.0	-50.5	-13.0	-37.5	
1.631	-11.1	H	3.0	32.7	1.0	-42.8	-13.0	-29.8	
2.447	-18.6	H	3.0	31.2	1.0	-48.8	-13.0	-35.8	
3.262	-22.6	H	3.0	30.6	1.0	-52.1	-13.0	-39.1	
Mid Ch, (831.5 MHz)									
1.663	-6.6	V	3.0	32.6	1.0	-38.3	-13.0	-25.3	
2.495	-14.1	V	3.0	31.5	1.0	-44.6	-13.0	-31.6	
3.326	-21.9	V	3.0	30.5	1.0	-51.4	-13.0	-38.4	
1.663	-10.3	H	3.0	32.6	1.0	-42.0	-13.0	-29.0	
2.495	-15.7	H	3.0	31.5	1.0	-46.1	-13.0	-33.1	
3.326	-23.1	H	3.0	30.5	1.0	-52.6	-13.0	-39.6	
High Ch, (847.5MHz)									
1.695	-9.2	V	3.0	32.6	1.0	-40.7	-13.0	-27.7	
2.543	-20.5	V	3.0	31.4	1.0	-50.9	-13.0	-37.9	
3.390	-22.6	V	3.0	30.5	1.0	-52.1	-13.0	-39.1	
1.695	-9.6	H	3.0	32.6	1.0	-41.2	-13.0	-28.2	
2.543	-20.0	H	3.0	31.4	1.0	-50.5	-13.0	-37.5	
3.390	-24.4	H	3.0	30.5	1.0	-53.8	-13.0	-53.8	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

3 MHz

QPSK

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B26 3MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (815.5MHz)									
1.631	-7.3	V	3.0	32.7	1.0	-39.0	-13.0	-26.0	
2.447	-14.0	V	3.0	31.2	1.0	-44.2	-13.0	-31.2	
3.262	-21.8	V	3.0	30.6	1.0	-51.4	-13.0	-38.4	
1.631	-10.7	H	3.0	32.7	1.0	-42.4	-13.0	-29.4	
2.447	-17.4	H	3.0	31.2	1.0	-47.7	-13.0	-34.7	
3.262	-22.1	H	3.0	30.6	1.0	-51.7	-13.0	-38.7	
Mid Ch, (831.5MHz)									
1.663	-6.8	V	3.0	32.6	1.0	-38.4	-13.0	-25.4	
2.495	-15.0	V	3.0	31.5	1.0	-45.5	-13.0	-32.5	
3.326	-21.9	V	3.0	30.5	1.0	-51.4	-13.0	-38.4	
1.663	-10.2	H	3.0	32.6	1.0	-41.8	-13.0	-28.8	
2.495	-16.0	H	3.0	31.5	1.0	-46.4	-13.0	-33.4	
3.326	-23.0	H	3.0	30.5	1.0	-52.5	-13.0	-39.5	
High Ch, (847.5MHz)									
1.695	-9.1	V	3.0	32.6	1.0	-40.6	-13.0	-27.6	
2.543	-21.7	V	3.0	31.4	1.0	-52.1	-13.0	-39.1	
3.390	-22.3	V	3.0	30.5	1.0	-51.7	-13.0	-38.7	
1.695	-10.1	H	3.0	32.6	1.0	-41.7	-13.0	-28.7	
2.543	-20.6	H	3.0	31.4	1.0	-51.0	-13.0	-38.0	
3.390	-24.4	H	3.0	30.5	1.0	-53.8	-13.0	-40.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		NETGEAR							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		CHARLES VERGONIO							
Configuration:		EUT , LAPTOP							
Mode:		TX, LTE band 26, 3MHz, 16QAM							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (815.5MHz)									
1.631	-7.2	V	3.0	32.7	1.0	-38.9	-13.0	-25.9	
2.447	-13.9	V	3.0	31.2	1.0	-44.1	-13.0	-31.1	
3.262	-20.9	V	3.0	30.6	1.0	-50.5	-13.0	-37.5	
1.631	-11.1	H	3.0	32.7	1.0	-42.8	-13.0	-29.8	
2.447	-18.6	H	3.0	31.2	1.0	-48.8	-13.0	-35.8	
3.262	-22.6	H	3.0	30.6	1.0	-52.1	-13.0	-39.1	
Mid Ch, (831.5 MHz)									
1.663	-6.6	V	3.0	32.6	1.0	-38.3	-13.0	-25.3	
2.495	-14.1	V	3.0	31.5	1.0	-44.6	-13.0	-31.6	
3.326	-21.9	V	3.0	30.5	1.0	-51.4	-13.0	-38.4	
1.663	-10.3	H	3.0	32.6	1.0	-42.0	-13.0	-29.0	
2.495	-15.7	H	3.0	31.5	1.0	-46.1	-13.0	-33.1	
3.326	-23.1	H	3.0	30.5	1.0	-52.6	-13.0	-39.6	
High Ch, (847.5MHz)									
1.695	-9.2	V	3.0	32.6	1.0	-40.7	-13.0	-27.7	
2.543	-20.5	V	3.0	31.4	1.0	-50.9	-13.0	-37.9	
3.390	-22.6	V	3.0	30.5	1.0	-52.1	-13.0	-39.1	
1.695	-9.6	H	3.0	32.6	1.0	-41.2	-13.0	-28.2	
2.543	-20.0	H	3.0	31.4	1.0	-50.5	-13.0	-37.5	
3.390	-24.4	H	3.0	30.5	1.0	-53.8	-13.0	-53.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

5 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/23/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B26 5MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (816.5MHz)									
1.633	-7.4	V	3.0	32.7	1.0	-39.1	-13.0	-26.1	
2.450	-14.7	V	3.0	31.2	1.0	-44.9	-13.0	-31.9	
3.266	-20.7	V	3.0	30.6	1.0	-50.2	-13.0	-37.2	
1.633	-10.6	H	3.0	32.7	1.0	-42.3	-13.0	-29.3	
2.450	-16.9	H	3.0	31.2	1.0	-47.2	-13.0	-34.2	
3.266	-22.0	H	3.0	30.6	1.0	-51.6	-13.0	-38.6	
Mid Ch, (831.5MHz)									
1.663	-7.9	V	3.0	32.6	1.0	-39.5	-13.0	-26.5	
2.495	-15.0	V	3.0	31.5	1.0	-45.4	-13.0	-32.4	
3.326	-21.8	V	3.0	30.5	1.0	-51.3	-13.0	-38.3	
1.663	-11.0	H	3.0	32.6	1.0	-42.6	-13.0	-29.6	
2.495	-16.8	H	3.0	31.5	1.0	-47.3	-13.0	-34.3	
3.326	-24.0	H	3.0	30.5	1.0	-53.5	-13.0	-40.5	
High Ch, (846.5MHz)									
1.693	-12.9	V	3.0	32.6	1.0	-44.4	-13.0	-31.4	
2.540	-19.7	V	3.0	31.4	1.0	-50.2	-13.0	-37.2	
3.386	-22.9	V	3.0	30.5	1.0	-52.4	-13.0	-39.4	
1.693	-10.3	H	3.0	32.6	1.0	-41.9	-13.0	-28.9	
2.540	-19.8	H	3.0	31.4	1.0	-50.3	-13.0	-37.3	
3.386	-24.4	H	3.0	30.5	1.0	-53.9	-13.0	-40.9	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement

Company: NETGEAR
Project #: 13U15614
Date: 08/27/13
Test Engineer: CHARLES VERGONIO
Configuration: EUT , LAPTOP
Mode: TX, LTE band 26, 5MHz, 16QAM

Chamber	Pre-amplifier	Filter	Limit
3m Chamber	T145 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (816.5MHz)									
1.633	-7.1	V	3.0	32.7	1.0	-38.8	-13.0	-25.8	
2.450	-14.3	V	3.0	31.2	1.0	-44.5	-13.0	-31.5	
3.266	-21.6	V	3.0	30.6	1.0	-51.2	-13.0	-38.2	
1.633	-10.6	H	3.0	32.7	1.0	-42.3	-13.0	-29.3	
2.450	-17.1	H	3.0	31.2	1.0	-47.4	-13.0	-34.4	
3.266	-22.1	H	3.0	30.6	1.0	-51.6	-13.0	-38.6	
Mid Ch, (831.5 MHz)									
1.663	-7.9	V	3.0	32.6	1.0	-39.6	-13.0	-26.6	
2.495	-15.1	V	3.0	31.5	1.0	-45.6	-13.0	-32.6	
3.326	-21.6	V	3.0	30.5	1.0	-51.1	-13.0	-38.1	
1.663	-10.4	H	3.0	32.6	1.0	-42.0	-13.0	-29.0	
2.495	-18.0	H	3.0	31.5	1.0	-48.5	-13.0	-35.5	
3.326	-24.2	H	3.0	30.5	1.0	-53.8	-13.0	-40.8	
High Ch, (846.5MHz)									
1.693	-12.4	V	3.0	32.6	1.0	-44.0	-13.0	-31.0	
2.540	-19.9	V	3.0	31.4	1.0	-50.4	-13.0	-37.4	
3.386	-24.2	V	3.0	30.5	1.0	-53.7	-13.0	-40.7	
1.693	-10.3	H	3.0	32.6	1.0	-41.9	-13.0	-28.9	
2.540	-19.2	H	3.0	31.4	1.0	-49.6	-13.0	-36.6	
3.386	-24.8	H	3.0	30.5	1.0	-54.3	-13.0	-40.8	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

10 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/23/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B26 10MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (819MHz)									
1.638	-6.9	V	3.0	32.7	1.0	-38.6	-13.0	-25.6	
2.457	-14.2	V	3.0	31.3	1.0	-44.4	-13.0	-31.4	
3.326	-20.8	V	3.0	30.5	1.0	-50.3	-13.0	-37.3	
1.638	-10.3	H	3.0	32.7	1.0	-42.0	-13.0	-29.0	
2.457	-18.2	H	3.0	31.3	1.0	-48.5	-13.0	-35.5	
3.276	-21.9	H	3.0	30.6	1.0	-51.4	-13.0	-38.4	
Mid Ch, (831.5MHz)									
1.663	-9.6	V	3.0	32.6	1.0	-41.2	-13.0	-28.2	
2.495	-16.7	V	3.0	31.5	1.0	-47.1	-13.0	-34.1	
3.326	-22.6	V	3.0	30.5	1.0	-52.1	-13.0	-39.1	
1.663	-10.4	H	3.0	32.6	1.0	-42.1	-13.0	-29.1	
2.495	-19.4	H	3.0	31.5	1.0	-49.9	-13.0	-36.9	
3.326	-24.1	H	3.0	30.5	1.0	-53.6	-13.0	-40.6	
High Ch, (844MHz)									
1.688	-8.9	V	3.0	32.6	1.0	-40.4	-13.0	-27.4	
2.532	-18.7	V	3.0	31.5	1.0	-49.1	-13.0	-36.1	
3.376	-21.5	V	3.0	30.5	1.0	-51.0	-13.0	-38.0	
1.688	-8.1	H	3.0	32.6	1.0	-39.7	-13.0	-26.7	
2.532	-18.8	H	3.0	31.5	1.0	-49.2	-13.0	-36.2	
3.376	-22.5	H	3.0	30.5	1.0	-52.0	-13.0	-39.0	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement

Company: NETGEAR
Project #: 13U15614
Date: 08/27/13
Test Engineer: CHARLES VERGONIO
Configuration: EUT , LAPTOP
Mode: TX, LTE band 26, 10MHz, 16QAM

Chamber	Pre-amplifier	Filter	Limit
3m Chamber	T145 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (819MHz)									
1.638	-6.8	V	3.0	32.7	1.0	-38.5	-13.0	-25.5	
2.457	-14.6	V	3.0	31.3	1.0	-44.9	-13.0	-31.9	
3.326	-21.1	V	3.0	30.5	1.0	-50.6	-13.0	-37.6	
1.638	-10.3	H	3.0	32.7	1.0	-42.0	-13.0	-29.0	
2.457	-17.8	H	3.0	31.3	1.0	-48.1	-13.0	-35.1	
3.276	-21.6	H	3.0	30.6	1.0	-51.2	-13.0	-38.2	
Mid Ch, (831.5 MHz)									
1.663	-10.0	V	3.0	32.6	1.0	-41.7	-13.0	-28.7	
2.495	-16.8	V	3.0	31.5	1.0	-47.3	-13.0	-34.3	
3.326	-21.9	V	3.0	30.5	1.0	-51.4	-13.0	-38.4	
1.663	-10.6	H	3.0	32.6	1.0	-42.2	-13.0	-29.2	
2.495	-19.2	H	3.0	31.5	1.0	-49.6	-13.0	-36.6	
3.326	-24.8	H	3.0	30.5	1.0	-54.3	-13.0	-41.3	
High Ch, (844MHz)									
1.688	-8.4	V	3.0	32.6	1.0	-40.0	-13.0	-27.0	
2.532	-18.3	V	3.0	31.5	1.0	-48.8	-13.0	-35.8	
3.376	-22.2	V	3.0	30.5	1.0	-51.6	-13.0	-38.6	
1.688	-8.9	H	3.0	32.6	1.0	-40.4	-13.0	-27.4	
2.532	-19.2	H	3.0	31.5	1.0	-49.7	-13.0	-36.7	
3.376	-22.5	H	3.0	30.5	1.0	-51.9	-13.0	-38.9	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

10.2.6. LTE BAND 41

10 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/23/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT							
Mode:		TX, LTE B41 10MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2501MHz)									
5.002	-14.6	V	3.0	28.9	1.0	-42.5	-13.0	-29.5	
7.503	-18.3	V	3.0	26.3	1.0	-43.7	-13.0	-30.7	
10.004	-17.1	V	3.0	23.1	1.0	-39.2	-13.0	-26.2	
5.002	-16.8	H	3.0	28.9	1.0	-44.7	-13.0	-31.7	
7.503	-17.9	H	3.0	26.3	1.0	-43.3	-13.0	-30.3	
10.004	-16.0	H	3.0	23.1	1.0	-38.1	-13.0	-25.1	
Mid Ch, (2593MHz)									
5.186	-16.0	V	3.0	28.7	1.0	-43.7	-13.0	-30.7	
7.779	-17.8	V	3.0	26.0	1.0	-42.8	-13.0	-29.8	
10.372	-16.0	V	3.0	23.0	1.0	-38.0	-13.0	-25.0	
5.186	-17.2	H	3.0	28.7	1.0	-44.9	-13.0	-31.9	
7.779	-17.3	H	3.0	26.0	1.0	-42.3	-13.0	-29.3	
10.372	-15.9	H	3.0	23.0	1.0	-37.9	-13.0	-24.9	
High Ch, (2685MHz)									
5.370	-15.3	V	3.0	28.5	1.0	-42.9	-13.0	-29.9	
8.055	-18.8	V	3.0	25.6	1.0	-43.4	-13.0	-30.4	
10.740	-16.5	V	3.0	22.9	1.0	-38.4	-13.0	-25.4	
5.370	-17.2	H	3.0	28.5	1.0	-44.8	-13.0	-31.8	
8.055	-16.7	H	3.0	25.6	1.0	-41.3	-13.0	-28.3	
10.740	-16.3	H	3.0	22.9	1.0	-38.2	-13.0	-25.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		NETGEAR							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		CHARLES VERGONIO							
Configuration:		EUT , LAPTOP							
Mode:		TX, LTE band 41, 10MHz, 16QAM							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2501 MHz)									
5.002	-13.4	V	3.0	28.9	1.0	-41.3	-13.0	-28.3	
7.503	-19.1	V	3.0	26.3	1.0	-44.4	-13.0	-31.4	
10.004	-16.6	V	3.0	23.1	1.0	-38.7	-13.0	-25.7	
5.002	-17.0	H	3.0	28.9	1.0	-44.9	-13.0	-31.9	
7.503	-18.1	H	3.0	26.3	1.0	-43.5	-13.0	-30.5	
10.004	-16.2	H	3.0	23.1	1.0	-38.3	-13.0	-25.3	
Mid Ch, (2593 MHz)									
5.186	-15.7	V	3.0	28.7	1.0	-43.4	-13.0	-30.4	
7.779	-18.9	V	3.0	26.0	1.0	-43.9	-13.0	-30.9	
10.372	-16.9	V	3.0	23.0	1.0	-38.9	-13.0	-25.9	
5.186	-18.5	H	3.0	28.7	1.0	-46.2	-13.0	-33.2	
7.779	-18.1	H	3.0	26.0	1.0	-43.1	-13.0	-30.1	
10.372	-15.6	H	3.0	23.0	1.0	-37.6	-13.0	-24.6	
High Ch, (2685 MHz)									
5.370	-12.6	V	3.0	28.5	1.0	-40.1	-13.0	-27.1	
8.055	-18.5	V	3.0	25.6	1.0	-43.2	-13.0	-30.2	
10.740	-17.1	V	3.0	22.9	1.0	-39.0	-13.0	-26.0	
5.370	-18.1	H	3.0	28.5	1.0	-45.7	-13.0	-32.7	
8.055	-17.4	H	3.0	25.6	1.0	-42.1	-13.0	-29.1	
10.74	-17.6		3.0	22.9	1.0	-39.5		-39.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

QPSK

15 MHz

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT , LAPTOP							
Mode:		TX, LTE B41 15MHZ har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2503.5MHz)									
5.007	-14.7	V	3.0	28.9	1.0	-42.6	-13.0	-29.6	
7.511	-18.8	V	3.0	26.3	1.0	-44.1	-13.0	-31.1	
10.014	-16.0	V	3.0	23.1	1.0	-38.1	-13.0	-25.1	
5.007	-17.1	H	3.0	28.9	1.0	-45.0	-13.0	-32.0	
7.511	-18.3	H	3.0	26.3	1.0	-43.7	-13.0	-30.7	
10.014	-16.5	H	3.0	23.1	1.0	-38.6	-13.0	-25.6	
Mid Ch, (2593MHz)									
5.186	-16.9	V	3.0	28.7	1.0	-44.6	-13.0	-31.6	
7.779	-18.6	V	3.0	26.0	1.0	-43.6	-13.0	-30.6	
10.372	-16.8	V	3.0	23.0	1.0	-38.8	-13.0	-25.8	
5.186	-18.6	H	3.0	28.7	1.0	-46.3	-13.0	-33.3	
7.779	-18.2	H	3.0	26.0	1.0	-43.2	-13.0	-30.2	
10.372	-16.0	H	3.0	23.0	1.0	-38.0	-13.0	-25.0	
High Ch, (2682.5MHz)									
5.365	-15.7	V	3.0	28.5	1.0	-43.3	-13.0	-30.3	
8.048	-18.2	V	3.0	25.6	1.0	-42.8	-13.0	-29.8	
10.730	-17.1	V	3.0	22.9	1.0	-39.0	-13.0	-26.0	
5.365	-17.4	H	3.0	28.5	1.0	-45.0	-13.0	-32.0	
8.048	-17.6	H	3.0	25.6	1.0	-42.3	-13.0	-29.3	
10.730	-17.3	H	3.0	22.9	1.0	-39.2	-13.0	-26.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		NETGEAR							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		CHARLES VERGONIO							
Configuration:		EUT , LAPTOP							
Mode:		TX, LTE band 41, 10MHz, 16QAM							
Chamber		Pre-amplifer		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2503.5 MHz)									
5.007	-13.6	V	3.0	28.9	1.0	-41.5	-13.0	-28.5	
7.511	-19.2	V	3.0	26.3	1.0	-44.6	-13.0	-31.6	
10.014	-17.3	V	3.0	23.1	1.0	-39.4	-13.0	-26.4	
5.007	-16.8	H	3.0	28.9	1.0	-44.7	-13.0	-31.7	
7.511	-18.0	H	3.0	26.3	1.0	-43.3	-13.0	-30.3	
10.014	-16.5	H	3.0	23.1	1.0	-38.6	-13.0	-25.6	
Mid Ch, (2593 MHz)									
5.186	-16.7	V	3.0	28.7	1.0	-44.4	-13.0	-31.4	
7.779	-18.2	V	3.0	26.0	1.0	-43.2	-13.0	-30.2	
10.372	-17.4	V	3.0	23.0	1.0	-39.3	-13.0	-26.3	
5.186	-19.7	H	3.0	28.7	1.0	-47.4	-13.0	-34.4	
7.779	-18.5	H	3.0	26.0	1.0	-43.5	-13.0	-30.5	
10.372	-16.6	H	3.0	23.0	1.0	-38.5	-13.0	-25.5	
High Ch, (2682.5 MHz)									
5.365	-14.5	V	3.0	28.5	1.0	-42.0	-13.0	-29.0	
8.048	-18.6	V	3.0	25.6	1.0	-43.2	-13.0	-30.2	
10.730	-17.2	V	3.0	22.9	1.0	-39.1	-13.0	-26.1	
5.365	-20.1	H	3.0	28.5	1.0	-47.7	-13.0	-34.7	
8.048	-17.5	H	3.0	25.6	1.0	-42.2	-13.0	-29.2	
10.730	-17.4	H	3.0	22.9	1.0	-39.3		-39.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

20 MHz

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		Charles Vergonio							
Configuration:		EUT , LAPTOP							
Mode:		TX, LTE B41 20MHz har QPSK							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2506MHz)									
5.012	-15.3	V	3.0	28.9	1.0	-43.2	-13.0	-30.2	
7.518	-19.3	V	3.0	26.3	1.0	-44.7	-13.0	-31.7	
10.024	-16.9	V	3.0	23.1	1.0	-39.0	-13.0	-26.0	
5.012	-18.8	H	3.0	28.9	1.0	-46.7	-13.0	-33.7	
7.518	-18.2	H	3.0	26.3	1.0	-43.6	-13.0	-30.6	
10.024	-16.5	H	3.0	23.1	1.0	-38.5	-13.0	-25.5	
Mid Ch, (2593MHz)									
5.186	-16.4	V	3.0	28.7	1.0	-44.1	-13.0	-31.1	
7.779	-19.0	V	3.0	26.0	1.0	-44.0	-13.0	-31.0	
10.372	-17.1	V	3.0	23.0	1.0	-39.1	-13.0	-26.1	
5.186	-21.3	H	3.0	28.7	1.0	-49.1	-13.0	-36.1	
7.779	-17.6	H	3.0	26.0	1.0	-42.6	-13.0	-29.6	
10.372	-15.7	H	3.0	23.0	1.0	-37.7	-13.0	-24.7	
High Ch, (2680MHz)									
5.360	-18.6	V	3.0	28.5	1.0	-46.1	-13.0	-33.1	
8.040	-18.9	V	3.0	25.6	1.0	-43.5	-13.0	-30.5	
10.720	-17.5	V	3.0	22.9	1.0	-39.4	-13.0	-26.4	
5.360	-20.0	H	3.0	28.5	1.0	-47.6	-13.0	-34.6	
8.040	-17.4	H	3.0	25.6	1.0	-42.1	-13.0	-29.1	
10.720	-16.7	H	3.0	22.9	1.0	-38.6	-13.0	-25.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

16QAM

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		NETGEAR							
Project #:		13U15614							
Date:		08/27/13							
Test Engineer:		CHARLES VERGONIO							
Configuration:		EUT , LAPTOP							
Mode:		TX, LTE band 41, 20MHz, 16QAM							
Chamber		Pre-amplifier		Filter		Limit			
3m Chamber		T145 8449B		Filter 1		Part 24			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2506 MHz)									
5.012	-14.9	V	3.0	28.9	1.0	-42.8	-13.0	-29.8	
7.518	-18.9	V	3.0	26.3	1.0	-44.2	-13.0	-31.2	
10.024	-16.9	V	3.0	23.1	1.0	-39.0	-13.0	-26.0	
5.012	-18.0	H	3.0	28.9	1.0	-45.9	-13.0	-32.9	
7.518	-18.1	H	3.0	26.3	1.0	-43.4	-13.0	-30.4	
10.024	-16.3	H	3.0	23.1	1.0	-38.4	-13.0	-25.4	
Mid Ch, (2593 MHz)									
5.186	-15.8	V	3.0	28.7	1.0	-43.5	-13.0	-30.5	
7.779	-18.1	V	3.0	26.0	1.0	-43.1	-13.0	-30.1	
10.372	-17.1	V	3.0	23.0	1.0	-39.1	-13.0	-26.1	
5.186	-17.7	H	3.0	28.7	1.0	-45.4	-13.0	-32.4	
7.779	-18.0	H	3.0	26.0	1.0	-43.0	-13.0	-30.0	
10.372	-16.4	H	3.0	23.0	1.0	-38.4	-13.0	-25.4	
High Ch, (2680 MHz)									
5.360	-14.8	V	3.0	28.5	1.0	-42.4	-13.0	-29.4	
8.040	-18.9	V	3.0	25.6	1.0	-43.6	-13.0	-30.6	
10.720	-17.2	V	3.0	22.9	1.0	-39.1	-13.0	-26.1	
5.360	-20.0	H	3.0	28.5	1.0	-47.5	-13.0	-34.5	
8.040	-17.9	H	3.0	25.6	1.0	-42.6	-13.0	-29.6	
10.720	-17.2	H	3.0	22.9	1.0	-39.0	-13.0	-26.0	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									