



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

INDUSTRY CANADA RSS-130 ISSUE 1
INDUSTRY CANADA RSS-132 ISSUE 3
INDUSTRY CANADA RSS-133 ISSUE 6
INDUSTRY CANADA RSS-139 ISSUE 3
INDUSTRY CANADA RSS-199 ISSUE 2

C2PC CERTIFICATION TEST REPORT

CDMA/GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC

MODEL NUMBER: LG-H790, LGH790, H790

**FCC ID: ZNFH790
IC ID: 2703C-H790**

REPORT NUMBER: 15I21523-E1V1

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC.
EUT DESCRIPTION: CDMA/GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC
MODEL: LG-H790, LGH790, H790
SERIAL NUMBER: 218DX, 218DW (Radiated), 218DY, 218DZ (Conducted)
DATE TESTED: August 17-31, 2015

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22H, 24E, 27H, 27F, 27L, 27M, 90S	PASS
INDUSTRY CANADA RSS-130,132,133,139,199	PASS

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

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

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-C, FCC CFR 47 Part 22, FCC CFR Part 24, FCC CFR 47 Part 27, and FCC CFR 47 Part 90, RSS-130, 32, 133, 139, 139 and RSS-GEN Issue 4.

3. FACILITIES AND ACCREDITATION

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

47173 Benicia Street	47266 Benicia Street
<input checked="" type="checkbox"/> Chamber A(IC: 2324B-1)	<input type="checkbox"/> Chamber D(IC: 2324B-4)
<input checked="" type="checkbox"/> Chamber B(IC: 2324B-2)	<input type="checkbox"/> Chamber E(IC: 2324B-5)
<input checked="" type="checkbox"/> Chamber C(IC: 2324B-3)	<input type="checkbox"/> Chamber F(IC: 2324B-6)
	<input type="checkbox"/> Chamber G(IC: 2324B-7)
	<input type="checkbox"/> Chamber H(IC: 2324B-8)

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

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

4.3. MEASUREMENT UNCERTAINTY

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

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

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

This EUT is a CDMA/GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC.

5.2. MAXIMUM OUTPUT POWER

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

FCC Part 22/24/27						
Band	Frequency Range(MHz)	Modulation	Conducted		Radiated	
			AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
GSM850	824~849	GMSK	33.10	2041.74		
	824~849	GPRS	33.10	2041.74	30.50	1122.02
	824~849	EGPRS	27.20	524.81	26.40	436.52
GSM1900	1850~1910	GMSK	29.70	933.25		
	1850~1910	GPRS	29.70	933.25	30.69	1172.20
	1850~1910	EGPRS	25.70	371.54	25.99	397.19
Band 5	824~849	REL99	24.70	295.12	22.00	158.49
	824~849	HSDPA	24.60	288.40	21.00	125.89
	824~849	HSUPA	24.00	251.19		
Band 4	1710~1755	REL99	23.90	245.47	26.20	416.87
	1710~1755	HSDPA	23.70	234.42	24.70	295.12
	1710~1755	HSUPA	22.80	190.55		
Band 2	1850~1910	REL99	23.80	239.88	23.57	227.51
	1850~1910	HSDPA	23.90	245.47	21.29	134.59
	1850~1910	HSUPA	23.90	245.47		

FCC Part 22/24						
Band	Frequency Range(MHz)	Modulation	Conducted		Radiated	
			AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
BC10	816~824	1xRTT	24.60	288.40	21.68	147.06
	816~824	EVDO REL. 0	24.60	288.40	21.76	149.97
	816~824	EVDO REV. A	24.60	288.40		
BC0	824~849	1xRTT	24.70	295.12	22.58	181.30
	824~849	EVDO REL. 0	24.50	281.84	22.18	165.20
	824~849	EVDO REV. A	24.50	281.84		
BC1	1850~1910	1xRTT	24.70	295.12	25.79	379.31
	1850~1910	EVDO REL. 0	23.70	234.42	26.38	434.51
	1850~1910	EVDO REV. A	23.37	217.27		

5.3. MAXIMUM OUTPUT POWER (LTE)

LTE Band 2

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

FCC Part 24							
(20MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE2	1850~1910	20MHz	QPSK	23.40	218.78	26.25	421.70
			16QAM	22.40	173.78	25.37	344.35
		15MHz	QPSK	23.40	218.78	26.30	426.58
			16QAM	22.40	173.78	25.18	329.61
		10MHz	QPSK	23.40	218.78	26.24	420.73
			16QAM	22.20	165.96	25.26	335.74
		5MHz	QPSK	23.40	218.78	26.23	419.76
			16QAM	22.10	162.18	25.16	328.10
		3MHz	QPSK	23.40	218.78	26.21	417.83
			16QAM	22.40	173.78	25.21	331.89
		1.4MHz	QPSK	23.40	218.78	26.29	425.60
			16QAM	22.10	162.18	25.21	331.89

LTE Band 4

FCC Part 27 (20MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE4	1710~1755	20MHz	QPSK	23.40	218.78	26.03	400.87
			16QAM	22.00	158.49	25.22	332.66
		15MHz	QPSK	23.40	218.78	26.09	406.44
			16QAM	22.20	165.96	25.11	324.34
		10MHz	QPSK	23.40	218.78	26.18	414.95
			16QAM	22.20	165.96	25.20	331.13
		5MHz	QPSK	23.30	213.80	26.24	420.73
			16QAM	22.10	162.18	25.17	328.85
		3MHz	QPSK	23.20	208.93	26.23	419.76
			16QAM	22.20	165.96	25.18	329.61
		1.4MHz	QPSK	23.40	218.78	26.22	418.79
			16QAM	22.00	158.49	25.26	335.74

LTE Band 5

FCC Part 22 (10MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE5	824~849	10MHz	QPSK	24.20	263.03	22.41	174.18
			16QAM	23.10	204.17	21.68	147.23
		5MHz	QPSK	24.20	263.03	22.75	188.36
			16QAM	23.10	204.17	22.35	171.79
		3MHz	QPSK	24.10	257.04	22.77	189.23
			16QAM	23.10	204.17	21.97	157.40
		1.4MHz	QPSK	24.20	263.03	22.86	193.20
			16QAM	23.10	204.17	21.91	155.24

LTE Band 7

FCC Part 27							
(20MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	PEAK(dBm)	PEAK(mW)
LTE7	2500~2570	20MHz	QPSK	23.70	234.42	22.25	167.88
			16QAM	22.60	181.97	21.28	134.28
		15MHz	QPSK	23.70	234.42	21.64	145.88
			16QAM	22.60	181.97	20.57	114.02
		10MHz	QPSK	23.60	229.09	21.45	139.64
			16QAM	22.30	169.82	20.52	112.72
		5MHz	QPSK	23.70	234.42	21.60	144.54
			16QAM	22.30	169.82	20.65	116.14

LTE Band 12

FCC Part 27							
(10MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE12	699~716	10MHz	QPSK	24.10	257.04	19.56	90.36
			16QAM	22.80	190.55	18.81	76.03
		5MHz	QPSK	24.00	251.19	19.18	82.79
			16QAM	22.90	194.98	18.53	71.29
		3MHz	QPSK	24.10	257.04	19.24	83.95
			16QAM	23.10	204.17	18.51	70.96
		1.4MHz	QPSK	24.10	257.04	19.16	82.41
			16QAM	23.00	199.53	18.37	68.71

LTE Band 13

FCC Part 27							
(10MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE13	777~787	10MHz	QPSK	24.20	263.03	19.50	89.13
			16QAM	23.10	204.17	18.82	76.21
		5MHz	QPSK	24.20	263.03	19.71	93.54
			16QAM	23.20	208.93	18.93	78.16

LTE Band 17

FCC Part 27							
(10MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE17	704~716	10MHz	QPSK	24.10	257.04	19.56	90.36
			16QAM	22.80	190.55	18.81	76.03
		5MHz	QPSK	24.00	251.19	19.18	82.79
			16QAM	22.90	194.98	18.53	71.29

LTE Band 25

FCC Part 24							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE25	1850~1915	20MHz	QPSK	23.40	218.78	26.25	421.70
			16QAM	22.40	173.78	25.37	344.35
		15MHz	QPSK	23.40	218.78	26.30	426.58
			16QAM	22.40	173.78	25.18	329.61
		10MHz	QPSK	23.40	218.78	26.24	420.73
			16QAM	22.20	165.96	25.26	335.74
		5MHz	QPSK	23.40	218.78	26.23	419.76
			16QAM	22.10	162.18	25.16	328.10
		3MHz	QPSK	23.40	218.78	26.21	417.83
			16QAM	22.40	173.78	25.21	331.89
		1.4MHz	QPSK	23.40	218.78	26.29	425.60
			16QAM	22.10	162.18	25.21	331.89

LTE Band 26 PART 90

FCC Part 90							
(15MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE26	814~824	10MHz	QPSK	24.20	263.03	21.74	149.28
			16QAM	22.90	194.98	21.00	125.89
		5MHz	QPSK	24.20	263.03	22.75	188.36
			16QAM	23.10	204.17	21.82	152.05
		3MHz	QPSK	24.10	257.04	22.77	189.23
			16QAM	23.00	199.53	21.97	157.40
		1.4MHz	QPSK	24.20	263.03	22.86	193.20
			16QAM	23.10	204.17	21.91	155.24

LTE Band 26 PART 22

FCC Part 22							
(15MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	AVG(dBm)	AVG(mW)
LTE26	824~849	15MHz	QPSK	24.20	263.03	22.64	183.65
			16QAM	23.20	208.93	21.96	157.04
		10MHz	QPSK	24.20	263.03	22.41	174.18
			16QAM	23.10	204.17	21.68	147.23
		5MHz	QPSK	24.10	257.04	22.59	181.55
			16QAM	23.10	204.17	22.35	171.79
		3MHz	QPSK	24.10	257.04	22.49	177.42
			16QAM	23.10	204.17	21.54	142.56
		1.4MHz	QPSK	24.20	263.03	22.62	182.81
			16QAM	23.10	204.17	21.49	140.93

LTE Band 41

FCC Part 27							
(20MHz Bandwidth)							
Band	Frequency Range(MHz)	BandWidth (MHz)	Modulation	Conducted		Radiated	
				AVG(dBm)	AVG(mW)	Peak(dBm)	Peak(mW)
LTE41	2496~2690	20MHz	QPSK	23.10	204.17	19.87	97.05
			16QAM	22.20	165.96	18.87	77.09
		15MHz	QPSK	23.20	208.93	19.51	89.33
			16QAM	22.20	165.96	18.74	74.82
		10MHz	QPSK	23.10	204.17	19.47	88.51
			16QAM	22.10	162.18	18.68	73.79
		5MHz	QPSK	22.90	194.98	19.44	87.90
			16QAM	22.20	165.96	18.70	74.13

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PIFA antenna for the bands listed below with a maximum peak gain as follow:

Frequency (MHz)	Peak Gain (dBi)
GSM850, 824~849MHz	-4.8
GSM1900, 1850~1910MHz	-0.9
Band 2, 1850~1910MHz	-0.9
Band 4, 1710~1755MHz	-1.4
Band 5, 824~849MHz	-4.8
Band 7, 2500~2570MHz	-2.6
Band 12, 699~716MHz	-4.1
Band 13, 777~787MHz	-3.7
Band 17, 704~716MHz	-4.1
Band 25, 1850~1915MHz	-0.9
Band 26, 824~849MHz	-4.8
Band 41, 2496~2690MHz	-2.6
BC10, 816~824MHz	-4.8
BC0, 824~849MHz	-4.8
BC1, 1850~1910MHz	-0.9

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-N04WS	SA560000030	N/A
Earphone	LG	-	-	N/A

I/O CABLES (CONDUCTED SETUP)

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

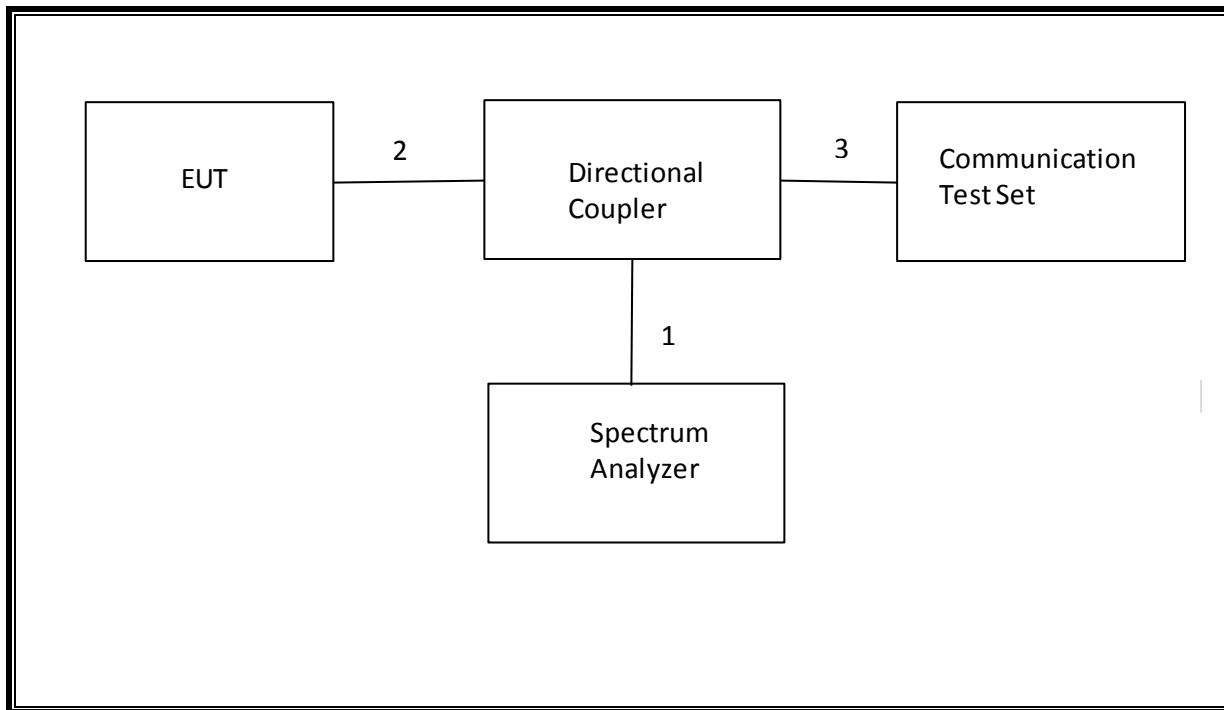
I/O CABLES (RADIATED SETUP)

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

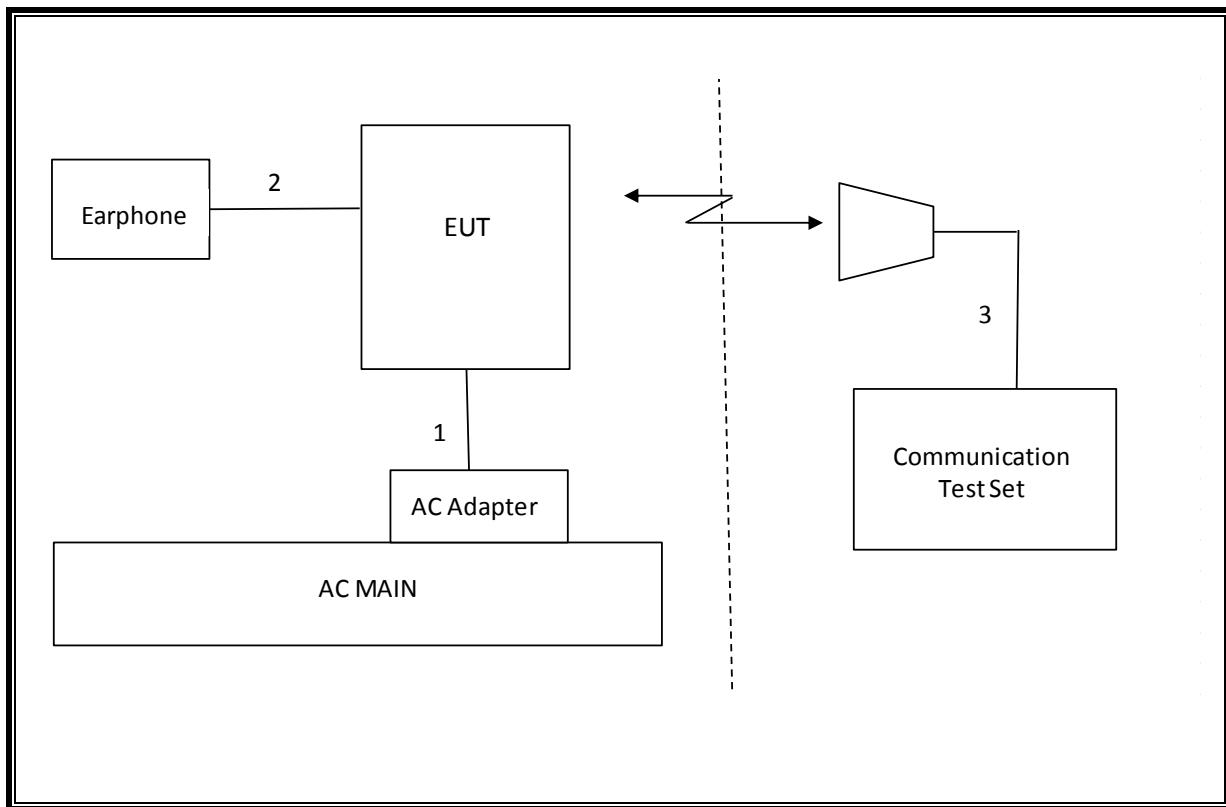
TEST SETUP

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

SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	123	10/28/15
Antenna, BiLog, 2 GHz	Sunol Sciences	JB1	T243	12/08/15
Antenna, Horn, 18 GHz	EMCO	3115	C00783	10/25/15
Antenna, Horn, 18 GHz	EMCO	3115	C00784	10/25/15
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02688	CNR
Temperature / Humidity Chamber	Thermotron	SE 600-10-10	T80	11/01/15
Communications Test Set	R&S	CMW500	T232	01/14/16
DC power supply, 8 V @ 3 A or 15 V	Agilent / HP	E3610A	None	CNR
Vector signal generator, 6 GHz	Agilent / HP	E4438C	T201	06/16/16
Antenna, Tuned Dipole 400~1000	ETS	6502	158071	10/14/15
Directional Coupler	RF-Lambda	RFDC5M06G15	None	CNR
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00589	12/17/15

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

7. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Note
2.1049	N/A	Occupied Band width (99%)	N/A	Conducted	Pass	17.94 MHz
22.917(a) 24.238(a) 27.53(g) 90.691	RSS-132(4.5.1) RSS-133(6.5.1) RSS-139(6.5.1)	Band Edge / Conducted Spurious Emission	-13 dBm		Pass	-15.14 dBm
27.53(m)	RSS-199(4.5)		-25 dBm		Pass	-28.2 dBm
2.1046	N/A	Conducted output power	N/A		Pass	33.1 dBm
27.53(m) 90.691	RSS-199(4.5)	Emission Mask			Pass	-
22.355 24.235 27.54 90.213	RSS-132(4.3) RSS-133(6.3) RSS-139(6.3) RSS-199(4.3)	Frequency Stability	2.5 PPM		Pass	0.009 PPM
22.913(a)(2)	RSS-132(4.4)		38 dBm		Pass	30.5 dBm
27.50(c)(10)	N/A	Effective Radiated Power	34.77 dBm	Radiated	Pass	19.7 dBm
90.635	N/A		50 dBm		Pass	22.9 dBm
24.232(c) 27.50(h)(2)	RSS-133(6.4) RSS-199(4.4)		33 dBm		Pass	30.7 dBm
27.50(d)(4)	RSS-139(6.4)	Equivalent Isotropic Radiated Power	30 dBm		Pass	26.2 dBm
22.917(a) 24.238(a) 27.53(g)	RSS-132(4.5.1) RSS-133(6.5.1) RSS-139(6.5.1)		-13 dBm		Pass	-43.5 dBm
27.53(m)	RSS-199(4.5)	Radiated Spurious Emission	-25 dBm		Pass	-35.9 dBm
N/A	RSS-132(4.6) RSS-133(6.6) RSS-139(6.6)	Receiver Spurious Emission	5 nW above 1GHz 2nW below 1GHz		Pass	

8. RF OUTPUT POWER VERIFICATION

8.1. GSM/GPRS/EDGE

Function: Menu select > GSM Mobile Station > GSM 850/900/1800/1900
Press Connection control to choose the different menus
Press RESET > choose all to reset all settings
Connection Press Signal Off to turn off the signal and change settings
Network Support > GSM+GPRS or GSM+EGPRS
Main Service > Packet Data
Service selection > Test Mode A – Auto Slot Config. off
MS Signal Press Slot Config bottom on the right twice to select and change the number of time slots and power setting
 > Slot configuration > Uplink/Gamma
 > 33 dBm for GPRS 850/900
 > 30 dBm for GPRS1800/1900
BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel
Frequency Offset > + 0 Hz
Mode > BCCH and TCH
BCCH Level > -85 dBm (May need to adjust if link is not stable)
BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]
Channel Type > Off
PO> 4 dB
Slot Config > Unchanged (if already set under MS Signal)
TCH > choose desired test channel
Hopping > Off
Main Timeslot > 3 (Default)
Network Coding Scheme > CS4 (GPRS) and MCS5 ~ MCS9 (EGPRS)
 Bit Stream > 2E9-1PSR Bit Pattern
AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input
Connection Press Signal On to turn on the signal and change settings

8.1.1. GSM OUTPUT POWER RESULT

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Burst Pwr (dBm)
GSM (Voice)	CS1	1	128	824.2	33.1
			190	836.6	33.1
			251	848.8	33.1
GPRS (GMSK)	CS1	1	128	824.2	33.1
			190	836.6	33.1
			251	848.8	33.1
		2	128	824.2	31.2
			190	836.6	31.1
			251	848.8	31.2
		3	128	824.2	29.2
			190	836.6	29.2
			251	848.8	29.2
		4	128	824.2	28.1
			190	836.6	28.1
			251	848.8	28.1
EGPRS (8PSK)	MCS5	1	128	824.2	27.2
			190	836.6	27.1
			251	848.8	27.2
		2	128	824.2	26.2
			190	836.6	26.1
			251	848.8	26.2
		3	128	824.2	25.1
			190	836.6	25.1
			251	848.8	25.2
		4	128	824.2	24.2
			190	836.6	24.1
			251	848.8	24.2

Mode	Coding Scheme	Time Slots	Ch No.	Freq. (MHz)	Burst Pwr (dBm)
GSM (Voice)	CS1	1	512	1850.2	29.7
			661	1880.0	29.7
			810	1909.8	29.6
GPRS (GMSK)	CS1	1	512	1850.2	29.7
			661	1880.0	29.7
			810	1909.8	29.6
		2	512	1850.2	27.7
			661	1880.0	27.7
			810	1909.8	27.7
		3	512	1850.2	25.6
			661	1880.0	25.6
			810	1909.8	25.7
		4	512	1850.2	24.7
			661	1880.0	24.7
			810	1909.8	24.5
EGPRS (8PSK)	MCS5	1	512	1850.2	25.7
			661	1880.0	25.7
			810	1909.8	25.7
		2	512	1850.2	24.7
			661	1880.0	24.7
			810	1909.8	24.7
		3	512	1850.2	23.7
			661	1880.0	23.6
			810	1909.8	23.7
		4	512	1850.2	22.7
			661	1880.0	22.6
			810	1909.8	22.6

8.2. UMTS REL 99

TEST PROCEDURE

The following summary of these settings are illustrated below:

	Mode	Rel99
	Subtest	-
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	HSDPA FRC	Not Applicable
	HSUPA Test	Not Applicable
	Power Control Algorithm	Algorithm2
	β_c	Not Applicable
	β_d	Not Applicable
	β_{ec}	Not Applicable
	β_c/β_d	8/15
	β_{hs}	Not Applicable
	β_{ed}	Not Applicable

8.2.1. UMTS REL 99 OUTPUT POWER RESULT

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band V	Rel 99 (RMC, 12.2 kbps)	4132	826.4	0	24.6
		4183	836.6	0	24.7
		4233	846.6	0	24.7

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band IV	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	0	23.9
		1413	1732.6	0	23.8
		1513	1752.6	0	23.8

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band II	Rel 99 (RMC, 12.2 kbps)	9262 9662	1852.4	0	23.8
		9400 9800	1880.0	0	23.8
		9538 9937	1907.6	0	23.8

8.3. UMTS HSDPA

The following 4 Sub-tests were completed according to Release 5 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	Rel5 HSDPA			
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 2			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	12/15	15/8	15/4
	β_{hs}	4/15	24/15	30/15	30/15
HSDPA Specific Settings	MPR (dB)	0	0	0.5	0.5
	D _{ACK}	8			
	D _{NAK}	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	A _{hs} = β_{hs}/β_c	30/15			

8.3.1. UMTS HSDPA OUTPUT POWER RESULT

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band V	Subtest 1	4132	826.4	0.0	24.4
		4183	836.6	0.0	24.6
		4233	846.6	0.0	24.3
	Subtest 2	4132	826.4	0.0	24.6
		4183	836.6	0.0	24.5
		4233	846.6	0.0	24.3
	Subtest 3	4132	826.4	0.5	23.9
		4183	836.6	0.5	24.1
		4233	846.6	0.5	23.8
	Subtest 4	4132	826.4	0.5	23.9
		4183	836.6	0.5	24.1
		4233	846.6	0.5	23.9

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band IV	Subtest 1	1312	1712.4	0	23.6
		1413	1732.6	0	23.7
		1513	1752.6	0	23.7
	Subtest 2	1312	1712.4	0	23.6
		1413	1732.6	0	23.7
		1513	1752.6	0	23.7
	Subtest 3	1312	1712.4	0.5	23.1
		1413	1732.6	0.5	23.2
		1513	1752.6	0.5	23.1
	Subtest 4	1312	1712.4	0.5	23.1
		1413	1732.6	0.5	23.2
		1513	1752.6	0.5	23.1

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band II	Subtest 1	9262	1852.4	0	23.9
		9400	1880.0	0	23.9
		9538	1907.6	0	23.8
	Subtest 2	9262	1852.4	0	23.9
		9400	1880.0	0	23.9
		9538	1907.6	0	23.8
	Subtest 3	9262	1852.4	0.5	23.4
		9400	1880.0	0.5	23.4
		9538	1907.6	0.5	23.3
	Subtest 4	9262	1852.4	0.5	23.3
		9400	1880.0	0.5	23.3
		9538	1907.6	0.5	23.2

8.4. UMTS HSUPA

TEST PROCEDURE

The following summary of these settings are illustrated below: (ETSI TS 134.121-1 Table C.11.1)

	Mode	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA
	Subtest	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	P-CPICH (dB)	-10				
	P-CCPCH (dB)	-12				
	SCH (dB)	-12				
	PICH(dB)	-15				
	DPCCH (dB)	-9				
	HS-SCCH_1 (dB)	-8				
	HS-PDSCH (dB)	-3				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
HSDPA Specific Settings	Bc	11/15	6/15	15/15	2/15	15/15
	Bd	15/15	15/15	9/15	15/15	15/15
	Bec	209/225	12/15	30/15	2/15	5/15
	β_c/β_d	11/15	6/15	15/9	2/15	15/15
	Bhs	22/15	12/15	30/15	4/15	30/15
	β_{ed} (note1)	1309/225	94/75	47/15	56/75	134/15
	MPR	0	2	1	2	0
HSUPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = β_{hs}/β_c	30/15				
	D E-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	Reference E-TFCIs	5	5	2	5	5
	E-TFCI (from 34.121 Table C.11.1.3)	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_TFCIs	E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26			E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26	
		E-TFCI 81 E-TFCI PO 27			E-TFCI 92 E-TFCI PO 18	

Note1: β_{ed} cannot be set directly, it is set by Absolute Grant Value.

8.4.1. UMTS HSUPA OUTPUT POWER RESULT

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band V	Subtest 1	4132	826.4	0	23.9
		4183	836.6	0	24.0
		4233	846.6	0	23.9
	Subtest 2	4132	826.4	2	22.7
		4183	836.6	2	22.7
		4233	846.6	2	22.5
	Subtest 3	4132	826.4	1	23.5
		4183	836.6	1	23.5
		4233	846.6	1	23.1
	Subtest 4	4132	826.4	2	22.7
		4183	836.6	2	22.7
		4233	846.6	2	22.7
	Subtest 5	4132	826.4	0	24.2
		4183	836.6	0	24.5
		4233	846.6	0	23.7

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band IV	Subtest 1	1312	1712.4	0	22.8
		1413	1732.6	0	22.7
		1513	1752.6	0	23.0
	Subtest 2	1312	1712.4	2	21.9
		1413	1732.6	2	21.9
		1513	1752.6	2	21.9
	Subtest 3	1312	1712.4	1	22.6
		1413	1732.6	1	22.7
		1513	1752.6	1	22.7
	Subtest 4	1312	1712.4	2	21.9
		1413	1732.6	2	21.9
		1513	1752.6	2	21.9
	Subtest 5	1312	1712.4	0	23.3
		1413	1732.6	0	23.6
		1513	1752.6	0	23.5

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band II	Subtest 1	9262	1852.4	0	23.0
		9400	1880.0	0	22.9
		9538	1907.6	0	22.9
	Subtest 2	9262	1852.4	2	21.9
		9400	1880.0	2	21.9
		9538	1907.6	2	21.9
	Subtest 3	9262	1852.4	1	22.6
		9400	1880.0	1	22.4
		9538	1907.6	1	22.6
	Subtest 4	9262	1852.4	2	21.9
		9400	1880.0	2	21.9
		9538	1907.6	2	21.9
	Subtest 5	9262	1852.4	0	23.7
		9400	1880.0	0	23.9
		9538	1907.6	0	23.6

8.5. DC-HSDPA

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

Table E.5.0: Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH_Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Proces ses	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

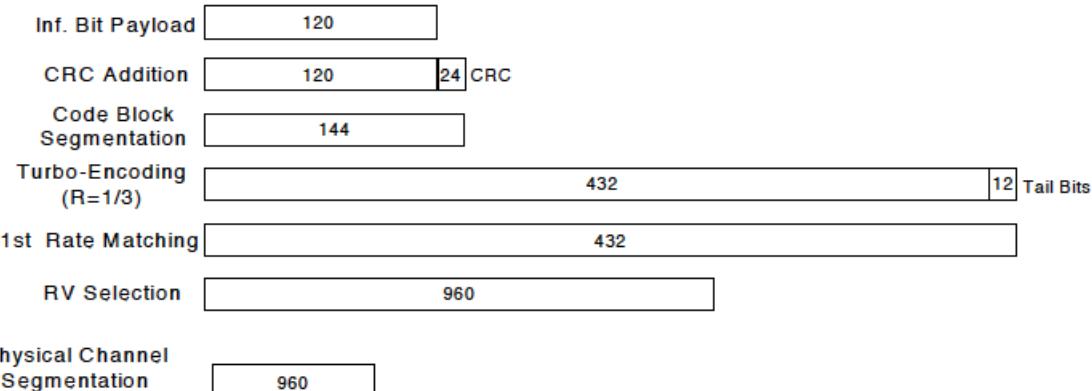


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 6 procedures in section 5.2 of 3GPP TS34.121. A summary of subtest settings are illustrated below:

	Mode	Rel6 HSDPA	Rel6 HSDPA	Rel6 HSDPA	Rel6 HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	β_d (SF)	64			
	β_c/β_d	2/15	12/15	15/8	15/4
	β_{hs}	4/15	24/15	30/15	30/15
HSDPA Specific Settings	MPR	0	0	0.5	0.5
	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	$A_{hs} = \beta_{hs}/\beta_c$	30/15			

Up commands are set continuously to set the UE to Max power.

8.5.1. UMTS DC-HSDPA OUTPUT POWER RESULT

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band V	Subtest 1	4132	826.4	0.0	24.5
		4183	836.6	0.0	24.6
		4233	846.6	0.0	24.3
	Subtest 2	4132	826.4	0.0	24.6
		4183	836.6	0.0	24.6
		4233	846.6	0.0	24.4
	Subtest 3	4132	826.4	0.5	23.9
		4183	836.6	0.5	24.1
		4233	846.6	0.5	23.9
	Subtest 4	4132	826.4	0.5	23.9
		4183	836.6	0.5	24.1
		4233	846.6	0.5	23.9

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band IV	Subtest 1	1312	1712.4	0	23.7
		1413	1732.6	0	23.8
		1513	1752.6	0	23.7
	Subtest 2	1312	1712.4	0	23.6
		1413	1732.6	0	23.8
		1513	1752.6	0	23.7
	Subtest 3	1312	1712.4	0.5	23.1
		1413	1732.6	0.5	23.1
		1513	1752.6	0.5	23.2
	Subtest 4	1312	1712.4	0.5	23.1
		1413	1732.6	0.5	23.2
		1513	1752.6	0.5	23.2

Band	Mode	UL Ch No.	Freq. (MHz)	MPR	Avg Pwr (dBm)
W-CDMA Band IV	Subtest 1	9262	1852.4	0	23.9
		9400	1880.0	0	23.8
		9538	1907.6	0	23.8
	Subtest 2	9262	1852.4	0	23.9
		9400	1880.0	0	23.8
		9538	1907.6	0	23.7
	Subtest 3	9262	1852.4	0.5	23.4
		9400	1880.0	0.5	23.3
		9538	1907.6	0.5	23.3
	Subtest 4	9262	1852.4	0.5	23.3
		9400	1880.0	0.5	23.3
		9538	1907.6	0.5	23.3

8.6. CDMA2000

8.6.1. 1xRTT

TEST PROCEDURE

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

Application Rev, License

CDMA2000 Mobile Test B.13.08, L

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

8.6.2. CDMA2000 OUTPUT POWER RESULT

Band	Mode	Ch	Freq. (MHz)	Avg Pwr (dBm)
BC10	RC1, SO55 (Loopback)	476	817.90	24.6
		580	820.50	24.6
		684	823.10	24.6
	RC3, SO55 (Loopback)	476	817.90	24.6
		580	820.50	24.6
		684	823.10	24.6
	RC3, SO32 (+F-SCH)	476	817.90	24.6
		580	820.50	24.6
		684	823.10	24.6

Band	Mode	Ch	Freq. (MHz)	Avg Pwr (dBm)
BC0	RC1, SO55 (Loopback)	1013	824.70	24.6
		384	836.52	24.7
		777	848.31	24.5
	RC3, SO55 (Loopback)	1013	824.70	24.6
		384	836.52	24.7
		777	848.31	24.5
	RC3, SO32 (+F-SCH)	1013	824.70	24.5
		384	836.52	24.7
		777	848.31	24.5

Band	Mode	Ch	Freq. (MHz)	Avg Pwr (dBm)
BC1	RC1, SO55 (Loopback)	25	1851.25	24.7
		600	1880.00	24.7
		1175	1908.75	24.7
	RC3, SO55 (Loopback)	25	1851.25	24.7
		600	1880.00	24.7
		1175	1908.75	24.7
	RC3, SO32 (+F-SCH)	25	1851.25	24.7
		600	1880.00	24.7
		1175	1908.75	24.7

8.6.3. 1xEV-DO Release 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
- CallParms:
 - 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
- CallParms:
 - 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)

8.6.4. 1XEVDO REL 0 OUTPUT POWER RESULT

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC10	307.2 kbps (2 slot, QPSK)	476	817.90	24.6
		580	820.50	24.6
		684	823.10	24.5

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

Band	FTAP Rate	Channel	f (MHz)	Avg Pwr (dBm)
BC1	307.2 kbps (2 slot, QPSK)	25	1851.25	23.7
		600	1880.00	23.7
		1175	1908.75	23.6

8.6.5. 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)

8.6.6. 1xEVDO REV A OUTPUT RESULT

Band	FETAP Traffic Format	Channel	f (MHz)	Avg Pwr (dBm)
BC10	307.2k, QPSK/ ACK channel is transmitted at all the slots	476	817.90	24.6
		580	820.50	24.6
		684	823.10	24.5

Band	FETAP Traffic Format	Channel	f (MHz)	Avg Pwr (dBm)
BC0	307.2k, QPSK/ ACK channel is transmitted at all the slots	1013	824.70	24.5
		384	836.52	24.5
		777	848.31	24.4

Band	FETAP Traffic Format	Channel	f (MHz)	Avg Pwr (dBm)
BC1	307.2k, QPSK/ ACK channel is transmitted at all the slots	25	1851.25	23.7
		600	1880.00	23.7
		1175	1908.75	23.6

8.7. LTE OUTPUT VERIFICATION

8.7.1. LTE OUTPUT RESULT

LTE Band 2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18700	18900	19100
						1880 MHz	1880 MHz	1900 MHz
LTE Band 2	20	QPSK	1	0	0	23.3	23.4	23.4
			1	49	0	23.3	23.1	23.4
			1	99	0	23.1	23.1	23.3
			50	0	1	22.2	22.1	22.3
			50	24	1	21.9	21.8	22.2
			50	50	1	21.9	21.9	22.1
			100	0	1	22.1	21.9	22.1
	16QAM	16QAM	1	0	1	22.1	22.4	22.2
			1	49	1	22.1	22.2	22.1
			1	99	1	22.1	22.2	22.2
			50	0	2	20.7	20.7	20.8
			50	24	2	20.7	20.6	20.8
			50	50	2	20.7	20.6	20.9
			100	0	2	20.8	20.7	20.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18675	18900	19125
						1857.5 MHz	1880 MHz	1902.5 MHz
LTE Band 2	15	QPSK	1	0	0	23.4	23.4	23.3
			1	37	0	23.4	23.2	23.3
			1	74	0	23.2	23.1	23.3
			36	0	1	22.1	22.0	22.2
			36	20	1	22.0	21.8	22.0
			36	39	1	21.9	21.8	22.0
			75	0	1	21.9	21.8	22.2
	16QAM	16QAM	1	0	1	22.4	21.8	22.0
			1	37	1	22.1	21.6	21.8
			1	74	1	22.0	21.6	21.9
			36	0	2	20.7	20.7	20.9
			36	20	2	20.9	20.7	20.9
			36	39	2	20.8	20.6	21.0
			75	0	2	20.8	20.6	21.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18650	18900	19150
						1855 MHz	1880 MHz	1905 MHz
LTE Band 2	10	QPSK	1	0	0	23.3	23.4	23.3
			1	25	0	23.3	23.3	23.2
			1	49	0	23.3	23.4	23.0
			25	0	1	21.9	22.1	22.1
			25	12	1	21.9	22.0	22.0
			25	25	1	21.9	21.9	22.0
			50	0	1	21.9	21.9	22.1
		16QAM	1	0	1	22.2	21.8	22.2
			1	25	1	22.1	21.7	21.8
			1	49	1	22.0	21.7	22.3
			25	0	2	20.7	20.8	21.0
			25	12	2	20.9	20.9	20.8
			25	25	2	20.8	20.7	21.0
			50	0	2	20.7	20.7	21.0
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18625	18900	19175
						1852.5 MHz	1880 MHz	1907.5 MHz
LTE Band 2	5	QPSK	1	0	0	23.3	23.4	23.3
			1	12	0	23.3	23.2	23.2
			1	24	0	23.2	23.2	23.3
			12	0	1	21.9	22.0	21.9
			12	7	1	22.0	21.9	22.0
			12	13	1	22.0	21.8	22.0
			25	0	1	21.8	21.8	21.7
		16QAM	1	0	1	22.0	22.0	21.9
			1	12	1	21.9	21.8	22.1
			1	24	1	22.0	21.9	22.0
			12	0	2	20.8	20.9	20.8
			12	7	2	20.8	20.7	21.0
			12	13	2	20.8	20.8	20.8
			25	0	2	20.8	20.7	20.8

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18615	18900	19185
						1851.5 MHz	1880 MHz	1908.5 MHz
LTE Band 2	3	QPSK	1	0	0	23.0	23.4	23.2
			1	8	0	23.3	23.3	23.2
			1	14	0	23.1	23.3	23.3
			8	0	1	21.9	22.0	21.9
			8	4	1	21.9	21.9	22.3
			8	7	1	21.9	21.8	21.9
			15	0	1	21.9	21.8	22.0
		16QAM	1	0	1	22.2	21.7	22.1
			1	8	1	22.2	21.7	22.4
			1	14	1	22.0	21.6	22.3
			8	0	2	20.8	20.7	20.8
			8	4	2	20.8	20.7	20.8
			8	7	2	20.8	20.7	20.6
			15	0	2	20.8	20.6	20.8
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						18607	18900	19193
						1850.7 MHz	1880 MHz	1909.3 MHz
LTE Band 2	1.4	QPSK	1	0	0	23.3	23.4	23.1
			1	3	0	23.4	23.3	23.3
			1	5	0	23.2	23.4	23.3
			3	0	0	21.9	22.0	22.0
			3	1	0	23.2	23.0	23.2
			3	3	0	22.9	23.0	22.7
			6	0	1	21.9	21.7	22.0
		16QAM	1	0	1	21.8	22.0	21.9
			1	3	1	22.0	22.1	22.0
			1	5	1	21.8	21.8	21.9
			3	0	1	21.6	21.7	21.6
			3	1	1	21.7	21.5	21.7
			3	3	1	21.6	21.5	21.6
			6	0	2	20.7	20.6	20.8

LTE Band 4

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20175		
						1732.5 MHz		
LTE Band 4	20	QPSK	1	0	0	23.4	23.2	23.3
			1	49	0			
			1	99	0			
			50	0	1			
			50	24	1			
			50	50	1			
			100	0	1			
		16QAM	1	0	1	22.0	21.9	21.6
			1	49	1			
			1	99	1			
			50	0	2			
			50	24	2			
			50	50	2			
			100	0	2			
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20025	20175	20325
						1717.5 MHz	1732.5 MHz	1747.5 MHz
LTE Band 4	15	QPSK	1	0	0	23.4	23.4	23.3
			1	37	0	23.4	23.1	23.3
			1	74	0	23.2	23.2	23.1
			36	0	1	22.2	22.0	22.1
			36	20	1	22.2	22.0	22.0
			36	39	1	22.0	21.9	22.0
			75	0	1	22.1	22.0	22.0
		16QAM	1	0	1	22.2	21.8	21.9
			1	37	1	22.1	21.7	21.9
			1	74	1	22.1	21.7	21.7
			36	0	2	21.1	20.8	20.9
			36	20	2	21.0	20.8	21.0
			36	39	2	20.9	20.7	20.9
			75	0	2	20.9	20.8	20.8

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20000	20175	20350
						1715 MHz	1732.5 MHz	1750 MHz
LTE Band 4	10	QPSK	1	0	0	23.2	23.3	23.4
			1	25	0	23.3	23.0	23.2
			1	49	0	23.2	23.0	23.2
			25	0	1	22.1	21.8	22.0
			25	12	1	22.1	21.8	21.9
			25	25	1	22.0	21.8	21.8
			50	0	1	22.1	21.8	21.9
		16QAM	1	0	1	22.2	21.8	21.9
			1	25	1	22.1	21.6	21.7
			1	49	1	22.1	21.5	21.8
			25	0	2	20.9	20.6	20.8
			25	12	2	21.0	20.6	20.7
			25	25	2	20.9	20.7	20.9
			50	0	2	20.8	20.7	20.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						19975	20175	20375
						1712.5 MHz	1732.5 MHz	1752.5 MHz
LTE Band 4	5	QPSK	1	0	0	23.3	23.1	23.3
			1	12	0	23.3	23.2	23.0
			1	24	0	23.3	22.9	23.2
			12	0	1	21.9	21.8	21.9
			12	7	1	22.0	21.8	21.9
			12	13	1	21.9	21.8	22.0
			25	0	1	21.9	21.8	21.8
		16QAM	1	0	1	22.1	21.8	22.0
			1	12	1	21.9	21.7	22.0
			1	24	1	22.1	21.8	22.2
			12	0	2	20.9	20.7	21.0
			12	7	2	20.9	20.7	20.8
			12	13	2	20.8	20.7	20.8
			25	0	2	20.9	20.7	20.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						19965	20175	20385
						1711.5 MHz	1732.5 MHz	1753.5 MHz
LTE Band 4	3	QPSK	1	0	0	23.1	23.1	23.2
			1	8	0	23.2	23.2	23.1
			1	14	0	23.2	22.9	23.2
			8	0	1	21.8	21.8	21.9
			8	4	1	22.1	21.9	21.9
			8	7	1	22.0	21.8	21.9
			15	0	1	21.9	21.8	21.9
		16QAM	1	0	1	21.8	21.8	22.0
			1	8	1	21.7	21.8	22.2
			1	14	1	21.6	21.8	22.3
			8	0	2	20.8	20.6	20.8
			8	4	2	20.9	20.7	20.8
			8	7	2	20.9	20.6	20.7
			15	0	2	20.7	20.7	20.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						19957	20175	20393
						1710.7 MHz	1732.5 MHz	1754.3 MHz
LTE Band 4	1.4	QPSK	1	0	0	23.2	23.1	23.3
			1	3	0	23.2	23.1	23.4
			1	5	0	23.2	23.1	23.4
			3	0	0	21.9	21.8	22.1
			3	1	0	23.2	23.0	23.2
			3	3	0	23.1	22.9	23.0
			6	0	1	22.0	21.7	21.8
		16QAM	1	0	1	21.7	21.8	21.8
			1	3	1	21.8	21.9	22.0
			1	5	1	21.7	21.8	21.8
			3	0	1	21.7	21.5	21.5
			3	1	1	21.9	21.6	21.7
			3	3	1	21.7	21.5	21.6
			6	0	2	20.9	20.6	20.8

LTE Band 5

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20450	20525	20600
						829 MHz	836.5 MHz	844 MHz
LTE Band 5	10	QPSK	1	0	0	24.1	24.0	24.0
			1	25	0	24.2	24.0	24.1
			1	49	0	24.1	24.2	23.8
			25	0	1	22.7	22.8	22.9
			25	12	1	22.7	22.8	22.9
			25	25	1	22.8	22.7	22.8
			50	0	1	22.7	22.8	23.0
		16QAM	1	0	1	22.9	23.1	23.1
			1	25	1	22.8	23.0	23.1
			1	49	1	22.9	23.0	23.1
			25	0	2	21.6	21.9	21.9
			25	12	2	21.7	21.8	22.0
			25	25	2	21.7	21.8	21.8
			50	0	2	21.7	21.8	21.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20425	20525	20625
						826.5 MHz	836.5 MHz	846.5 MHz
LTE Band 5	5	QPSK	1	0	0	24.2	24.0	24.0
			1	12	0	24.0	24.1	24.1
			1	24	0	24.1	24.0	23.7
			12	0	1	22.9	22.8	22.8
			12	7	1	22.8	22.8	22.8
			12	13	1	22.7	22.8	22.8
			25	0	1	22.8	22.7	22.8
		16QAM	1	0	1	23.0	23.1	23.1
			1	12	1	23.0	23.1	23.1
			1	24	1	23.1	23.1	23.1
			12	0	2	21.8	21.8	21.8
			12	7	2	21.8	21.8	21.8
			12	13	2	21.7	21.7	21.8
			25	0	2	21.8	21.7	21.7

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20415	20525	20635
						825.5 MHz	836.5 MHz	847.5 MHz
LTE Band 5	3	QPSK	1	0	0	24.1	24.1	24.0
			1	8	0	24.0	24.0	24.1
			1	14	0	24.0	23.8	23.6
			8	0	1	22.8	22.8	22.7
			8	4	1	22.8	22.9	22.8
			8	7	1	22.7	22.8	22.8
			15	0	1	22.8	22.9	22.7
		16QAM	1	0	1	22.9	23.1	23.1
			1	8	1	23.0	23.2	23.1
			1	14	1	22.8	23.1	23.0
			8	0	2	21.8	21.8	21.7
			8	4	2	21.8	21.9	21.8
			8	7	2	21.7	21.7	21.8
			15	0	2	21.6	21.9	21.8
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20407	20525	20643
						824.7 MHz	836.5 MHz	848.3 MHz
LTE Band 5	1.4	QPSK	1	0	0	24.2	24.2	24.1
			1	3	0	24.0	24.0	24.0
			1	5	0	24.1	24.1	23.5
			3	0	0	24.0	24.0	24.0
			3	1	0	24.0	24.1	23.7
			3	3	0	24.0	24.1	23.6
			6	0	1	22.7	22.7	22.7
		16QAM	1	0	1	23.1	23.1	23.1
			1	3	1	23.1	23.0	23.1
			1	5	1	23.1	22.9	22.9
			3	0	1	22.8	22.9	22.8
			3	1	1	22.8	23.0	22.9
			3	3	1	22.7	22.9	22.8
			6	0	2	21.7	21.8	21.6

LTE Band 7

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20850	21100	21350
						2510 MHz	2535 MHz	2560 MHz
LTE Band 7	20	QPSK	1	0	0	23.4	23.6	23.6
			1	49	0	23.7	23.6	23.6
			1	99	0	23.4	23.2	23.4
			50	0	1	22.3	22.3	22.3
			50	24	1	22.3	22.1	22.1
			50	50	1	22.3	22.1	22.1
			100	0	1	22.2	22.1	22.3
		16QAM	1	0	1	22.6	22.3	22.2
			1	49	1	22.3	22.2	22.2
			1	99	1	22.6	22.1	22.2
			50	0	2	21.2	21.1	21.2
			50	24	2	21.2	21.1	21.1
			50	50	2	21.2	21.1	21.2
			100	0	2	21.2	21.1	21.2
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20825	21100	21375
						2507.5 MHz	2535 MHz	2562.5 MHz
LTE Band 7	15	QPSK	1	0	0	23.4	23.7	23.6
			1	37	0	23.6	23.7	23.6
			1	74	0	23.6	23.5	23.5
			36	0	1	22.2	22.2	22.2
			36	20	1	22.3	22.2	22.5
			36	39	1	22.3	22.2	22.4
			75	0	1	22.2	22.1	22.5
		16QAM	1	0	1	22.6	21.9	22.4
			1	37	1	22.5	21.9	22.3
			1	74	1	22.4	21.2	22.4
			36	0	2	21.3	21.3	21.4
			36	20	2	21.3	21.3	21.4
			36	39	2	21.3	21.2	21.4
			75	0	2	21.3	21.1	21.5

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20800	21100	21400
						2505 MHz	2535 MHz	2565 MHz
LTE Band 7	10	QPSK	1	0	0	23.6	23.6	23.4
			1	25	0	23.3	23.6	23.5
			1	49	0	23.6	23.4	23.4
			25	0	1	22.1	22.2	22.0
			25	12	1	22.2	22.4	22.2
			25	25	1	22.2	22.4	22.1
			50	0	1	22.2	22.5	22.2
		16QAM	1	0	1	22.3	22.2	22.3
			1	25	1	22.2	22.2	22.2
			1	49	1	22.3	22.1	22.2
			25	0	2	21.2	21.4	21.1
			25	12	2	21.3	21.4	21.2
			25	25	2	21.2	21.3	21.1
			50	0	2	21.2	21.4	21.1
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						20775	21100	21425
						2502.5 MHz	2535 MHz	2567.5 MHz
LTE Band 7	5	QPSK	1	0	0	23.6	23.6	23.3
			1	12	0	23.7	23.5	23.4
			1	24	0	23.5	23.6	23.1
			12	0	1	22.3	22.1	21.8
			12	7	1	22.2	22.4	22.2
			12	13	1	22.1	22.4	22.1
			25	0	1	22.1	22.4	22.1
		16QAM	1	0	1	22.1	22.3	22.0
			1	12	1	22.0	22.3	22.0
			1	24	1	22.2	22.1	22.0
			12	0	2	21.2	21.4	21.2
			12	7	2	21.2	21.4	21.1
			12	13	2	21.1	21.4	21.1
			25	0	2	21.2	21.4	21.2

LTE Band 12

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23095		
						707.5 MHz		
LTE Band 12	10	QPSK	1	0	0	23.9	24.1	24.0
			1	25	0			
			1	49	0			
			25	0	1			
			25	12	1			
			25	25	1			
			50	0	1			
		16QAM	1	0	1	22.7	22.7	22.8
			1	25	1			
			1	49	1			
			25	0	2			
			25	12	2			
			25	25	2			
			50	0	2			
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23035	23095	23155
						701.5 MHz	707.5 MHz	713.5 MHz
LTE Band 12	5	QPSK	1	0	0	23.9	23.9	23.9
			1	12	0	24.0	24.0	23.9
			1	24	0	24.0	23.9	23.7
			12	0	1	22.7	22.7	22.7
			12	7	1	22.9	22.8	22.9
			12	13	1	22.8	22.8	22.8
			25	0	1	22.9	22.8	22.9
		16QAM	1	0	1	22.7	22.8	22.8
			1	12	1	22.8	22.9	22.8
			1	24	1	22.8	22.8	22.8
			12	0	2	21.8	21.9	21.8
			12	7	2	21.9	21.9	21.8
			12	13	2	21.8	21.8	21.8
			25	0	2	22.0	21.8	21.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23025	23095	23165
						700.5 MHz	707.5 MHz	714.5 MHz
LTE Band 12	3	QPSK	1	0	0	23.8	23.9	24.0
			1	8	0	24.0	24.1	24.0
			1	14	0	24.0	23.9	23.8
			8	0	1	22.7	22.8	22.6
			8	4	1	22.9	22.9	22.9
			8	7	1	22.8	22.8	22.8
			15	0	1	22.8	22.8	22.8
		16QAM	1	0	1	22.8	22.5	22.8
			1	8	1	23.1	22.8	22.9
			1	14	1	22.9	22.5	23.0
			8	0	2	21.9	21.9	21.8
			8	4	2	21.9	22.0	21.8
			8	7	2	21.9	21.9	21.8
			15	0	2	21.8	21.7	21.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						23017	23095	23173
						699.7 MHz	707.5 MHz	715.3 MHz
LTE Band 12	1.4	QPSK	1	0	0	24.0	23.9	23.9
			1	3	0	24.1	23.9	23.9
			1	5	0	23.9	24.0	23.9
			3	0	0	23.8	23.8	23.6
			3	1	0	24.1	24.1	24.1
			3	3	0	24.0	24.0	23.9
			6	0	1	22.8	22.8	22.7
		16QAM	1	0	1	22.8	22.9	22.8
			1	3	1	23.0	23.0	22.9
			1	5	1	22.9	22.9	22.8
			3	0	1	22.5	22.6	22.5
			3	1	1	22.7	22.7	22.7
			3	3	1	22.6	22.7	22.6
			6	0	2	21.8	21.8	21.7

LTE Band 13

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)
						23230
						782 MHz
LTE Band 13	10	QPSK	1	0	0	24.1
			1	25	0	24.2
			1	49	0	24.1
			25	0	1	23.0
			25	12	1	22.9
			25	25	1	22.9
			50	0	1	23.0
		16QAM	1	0	1	23.1
			1	25	1	23.0
			1	49	1	23.1
			25	0	2	21.9
			25	12	2	21.9
			25	25	2	21.9
			50	0	2	21.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)
						23230
						782 MHz
LTE Band 13	5	QPSK	1	0	0	24.1
			1	12	0	24.2
			1	24	0	24.1
			12	0	1	22.8
			12	7	1	22.8
			12	13	1	22.8
			25	0	1	22.8
		16QAM	1	0	1	23.2
			1	12	1	23.2
			1	24	1	23.2
			12	0	2	21.7
			12	7	2	21.8
			12	13	2	21.8
			25	0	2	21.7

LTE Band 17

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)
						23790
						710 MHz
LTE Band 17	10	QPSK	1	0	0	23.9
			1	25	0	24.1
			1	49	0	24.0
			25	0	1	22.7
			25	12	1	22.8
			25	25	1	22.8
			50	0	1	22.8
		16QAM	1	0	1	22.7
			1	25	1	22.7
			1	49	1	22.8
			25	0	2	21.8
			25	12	2	21.9
			25	25	2	21.9
			50	0	2	21.8
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)
						23790
						710 MHz
LTE Band 17	5	QPSK	1	0	0	23.9
			1	12	0	24.0
			1	24	0	23.9
			12	0	1	22.7
			12	7	1	22.8
			12	13	1	22.8
			25	0	1	22.8
		16QAM	1	0	1	22.8
			1	12	1	22.9
			1	24	1	22.8
			12	0	2	21.9
			12	7	2	21.9
			12	13	2	21.8
			25	0	2	21.8

LTE Band 25

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26140	26365	26590
						1860 MHz	1882.5 MHz	1905 MHz
LTE Band 25	20	QPSK	1	0	0	23.3	23.4	23.4
			1	49	0	23.3	23.1	23.4
			1	99	0	23.1	23.1	23.3
			50	0	1	22.2	22.1	22.3
			50	24	1	21.9	21.8	22.2
			50	50	1	21.9	21.9	22.1
			100	0	1	22.1	21.9	22.1
		16QAM	1	0	1	22.1	22.4	22.2
			1	49	1	22.1	22.2	22.1
			1	99	1	22.1	22.2	22.2
			50	0	2	20.7	20.7	20.8
			50	24	2	20.7	20.6	20.8
			50	50	2	20.7	20.6	20.9
			100	0	2	20.8	20.7	20.9
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26115	26365	26615
						1857.5 MHz	1882.5 MHz	1907.5 MHz
LTE Band 25	15	QPSK	1	0	0	23.4	23.4	23.3
			1	37	0	23.4	23.2	23.3
			1	74	0	23.2	23.1	23.3
			36	0	1	22.1	22.0	22.2
			36	20	1	22.0	21.8	22.0
			36	39	1	21.9	21.8	22.0
			75	0	1	21.9	21.8	22.2
		16QAM	1	0	1	22.4	21.8	22.0
			1	37	1	22.1	21.6	21.8
			1	74	1	22.0	21.6	21.9
			36	0	2	20.7	20.7	20.9
			36	20	2	20.9	20.7	20.9
			36	39	2	20.8	20.6	21.0
			75	0	2	20.8	20.6	21.2

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26090	26365	26640
						1855 MHz	1882.5 MHz	1910 MHz
LTE Band 25	10	QPSK	1	0	0	23.3	23.4	23.3
			1	25	0	23.3	23.3	23.2
			1	49	0	23.3	23.4	23.0
			25	0	1	21.9	22.1	22.1
			25	12	1	21.9	22.0	22.0
			25	25	1	21.9	21.9	22.0
			50	0	1	21.9	21.9	22.1
		16QAM	1	0	1	22.2	21.8	22.2
			1	25	1	22.1	21.7	21.8
			1	49	1	22.0	21.7	22.3
			25	0	2	20.7	20.8	21.0
			25	12	2	20.9	20.9	20.8
			25	25	2	20.8	20.7	21.0
			50	0	2	20.7	20.7	21.0
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26065	26365	26665
						1852.5 MHz	1882.5 MHz	1912.5 MHz
LTE Band 25	5	QPSK	1	0	0	23.3	23.4	23.3
			1	12	0	23.3	23.2	23.2
			1	24	0	23.2	23.2	23.3
			12	0	1	21.9	22.0	21.9
			12	7	1	22.0	21.9	22.0
			12	13	1	22.0	21.8	22.0
			25	0	1	21.8	21.8	21.7
		16QAM	1	0	1	22.0	22.0	21.9
			1	12	1	21.9	21.8	22.1
			1	24	1	22.0	21.9	22.0
			12	0	2	20.8	20.9	20.8
			12	7	2	20.8	20.7	21.0
			12	13	2	20.8	20.8	20.8
			25	0	2	20.8	20.7	20.8

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26055	26365	26675
						1851.5 MHz	1882.5 MHz	1913.5 MHz
LTE Band 25	3	QPSK	1	0	0	23.0	23.4	23.2
			1	8	0	23.3	23.3	23.2
			1	14	0	23.1	23.3	23.3
			8	0	1	21.9	22.0	21.9
			8	4	1	21.9	21.9	22.3
			8	7	1	21.9	21.8	21.9
			15	0	1	21.9	21.8	22.0
		16QAM	1	0	1	22.2	21.7	22.1
			1	8	1	22.2	21.7	22.4
			1	14	1	22.0	21.6	22.3
			8	0	2	20.8	20.7	20.8
			8	4	2	20.8	20.7	20.8
			8	7	2	20.8	20.7	20.6
			15	0	2	20.8	20.6	20.8
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26047	26365	26683
						1850.7 MHz	1882.5 MHz	1914.3 MHz
LTE Band 25	1.4	QPSK	1	0	0	23.3	23.4	23.1
			1	3	0	23.4	23.3	23.3
			1	5	0	23.2	23.4	23.3
			3	0	0	21.9	22.0	22.0
			3	1	0	23.2	23.0	23.2
			3	3	0	22.9	23.0	22.7
			6	0	1	21.9	21.7	22.0
		16QAM	1	0	1	21.8	22.0	21.9
			1	3	1	22.0	22.1	22.0
			1	5	1	21.8	21.8	21.9
			3	0	1	21.6	21.7	21.6
			3	1	1	21.7	21.5	21.7
			3	3	1	21.6	21.5	21.6
			6	0	2	20.7	20.6	20.8

LTE Band 26

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26865		
						831.5 MHz		
LTE Band 26	15	QPSK	1	0	0	24.2	24.1	24.1
			1	37	0			
			1	74	0			
			36	0	1			
			36	20	1			
			36	39	1			
			75	0	1			
		16QAM	1	0	1	23.2	23.2	23.2
			1	37	1			
			1	74	1			
			36	0	2			
			36	20	2			
			36	39	2			
			75	0	2			
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26740	26865	26990
						819 MHz	831.5 MHz	844 MHz
LTE Band 26	10	QPSK	1	0	0	24.1	24.0	24.0
			1	25	0	24.2	24.0	24.1
			1	49	0	24.1	24.2	23.8
			25	0	1	22.7	22.8	22.9
			25	12	1	22.7	22.8	22.9
			25	25	1	22.8	22.7	22.8
			50	0	1	22.7	22.8	23.0
		16QAM	1	0	1	22.9	23.1	23.1
			1	25	1	22.8	23.0	23.1
			1	49	1	22.9	23.0	23.1
			25	0	2	21.6	21.9	21.9
			25	12	2	21.7	21.8	22.0
			25	25	2	21.7	21.8	21.8
			50	0	2	21.7	21.8	21.9

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26715	26865	27015
						816.5 MHz	831.5 MHz	846.5 MHz
LTE Band 26	5	QPSK	1	0	0	24.2	24.0	24.0
			1	12	0	24.0	24.1	24.1
			1	24	0	24.1	24.0	23.7
			12	0	1	22.9	22.8	22.8
			12	7	1	22.8	22.8	22.8
			12	13	1	22.7	22.8	22.8
			25	0	1	22.8	22.7	22.8
		16QAM	1	0	1	23.0	23.1	23.1
			1	12	1	23.0	23.1	23.1
			1	24	1	23.1	23.1	23.1
			12	0	2	21.8	21.8	21.8
			12	7	2	21.8	21.8	21.8
			12	13	2	21.7	21.7	21.8
			25	0	2	21.8	21.7	21.7
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26705	26865	27025
						815.5 MHz	831.5 MHz	847.5 MHz
LTE Band 26	3	QPSK	1	0	0	24.1	24.1	24.0
			1	8	0	24.0	24.0	24.1
			1	14	0	24.0	23.8	23.6
			8	0	1	22.8	22.8	22.7
			8	4	1	22.8	22.9	22.8
			8	7	1	22.7	22.8	22.8
			15	0	1	22.8	22.9	22.7
		16QAM	1	0	1	22.9	23.1	23.1
			1	8	1	23.0	23.2	23.1
			1	14	1	22.8	23.1	23.0
			8	0	2	21.8	21.8	21.7
			8	4	2	21.8	21.9	21.8
			8	7	2	21.7	21.7	21.8
			15	0	2	21.6	21.9	21.8

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						26697	26865	27033
						814.7 MHz	831.5 MHz	848.3 MHz
LTE Band 26	1.4	QPSK	1	0	0	24.2	24.2	24.1
			1	3	0	24.0	24.0	24.0
			1	5	0	24.1	24.1	23.5
			3	0	0	24.0	24.0	24.0
			3	1	0	24.0	24.1	23.7
			3	3	0	24.0	24.1	23.6
			6	0	1	22.7	22.7	22.7
		16QAM	1	0	1	23.1	23.1	23.1
			1	3	1	23.1	23.0	23.1
			1	5	1	23.1	22.9	22.9
			3	0	1	22.8	22.9	22.8
			3	1	1	22.8	23.0	22.9
			3	3	1	22.7	22.9	22.8
			6	0	2	21.7	21.8	21.6

LTE Band 41

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39750	40620	41490
						2506 MHz	2593 MHz	2680 MHz
LTE Band 41	20	QPSK	1	0	0	23.0	23.1	23.1
			1	49	0	22.8	22.9	23.1
			1	99	0	22.9	23.0	22.9
			50	0	1	22.0	22.1	22.2
			50	24	1	22.0	22.0	22.2
			50	50	1	22.0	22.0	22.2
			100	0	1	22.1	22.2	22.1
		16QAM	1	0	1	22.2	22.2	22.2
			1	49	1	22.2	22.2	22.2
			1	99	1	22.0	22.2	22.1
			50	0	2	21.0	21.1	21.1
			50	24	2	21.0	21.0	21.2
			50	50	2	21.0	21.2	21.2
			100	0	2	21.0	21.1	21.1
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39725	40620	41515
						2503.5 MHz	2593 MHz	2682.5 MHz
LTE Band 41	15	QPSK	1	0	0	22.8	22.8	22.9
			1	37	0	22.9	22.8	23.2
			1	74	0	22.8	22.8	23.0
			36	0	1	21.8	21.9	22.1
			36	20	1	21.8	21.9	22.2
			36	39	1	21.8	22.1	22.2
			75	0	1	21.8	22.0	21.9
		16QAM	1	0	1	22.0	22.0	22.1
			1	37	1	22.0	22.0	22.2
			1	74	1	22.0	22.0	22.2
			36	0	2	20.8	21.2	21.1
			36	20	2	20.9	21.1	21.2
			36	39	2	20.9	21.1	21.1
			75	0	2	20.8	21.0	21.0

Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39700	40620	41540
						2501 MHz	2593 MHz	2685 MHz
LTE Band 41	10	QPSK	1	0	0	22.9	23.1	22.7
			1	25	0	22.8	23.1	22.7
			1	49	0	22.8	23.1	22.6
			25	0	1	22.0	22.2	21.9
			25	12	1	22.0	22.2	21.9
			25	25	1	21.9	22.1	21.8
			50	0	1	22.0	22.1	21.9
		16QAM	1	0	1	22.1	22.1	21.7
			1	25	1	22.1	22.0	21.8
			1	49	1	22.0	22.2	21.7
			25	0	2	21.0	21.2	20.8
			25	12	2	20.9	21.1	20.8
			25	25	2	20.9	21.1	20.7
			50	0	2	20.8	21.1	20.8
Band	BW (MHz)	Mode	RB Allocation	RB offset	Target MPR	Avg Pwr (dBm)		
						39675	40620	41565
						2498.5 MHz	2593 MHz	2687.5 MHz
LTE Band 41	5	QPSK	1	0	0	22.6	22.9	22.8
			1	12	0	22.7	22.9	22.7
			1	24	0	22.7	22.8	22.7
			12	0	1	21.8	22.1	21.8
			12	7	1	21.9	22.2	21.7
			12	13	1	21.9	22.1	21.6
			25	0	1	21.7	22.1	21.7
		16QAM	1	0	1	22.2	22.2	22.1
			1	12	1	22.2	22.1	22.2
			1	24	1	22.2	22.1	22.1
			12	0	2	20.8	20.9	20.7
			12	7	2	20.7	21.1	20.8
			12	13	2	20.8	21.2	20.6
			25	0	2	20.6	21.0	20.7

9. PEAK TO AVERAGE RATIO

Test Procedure

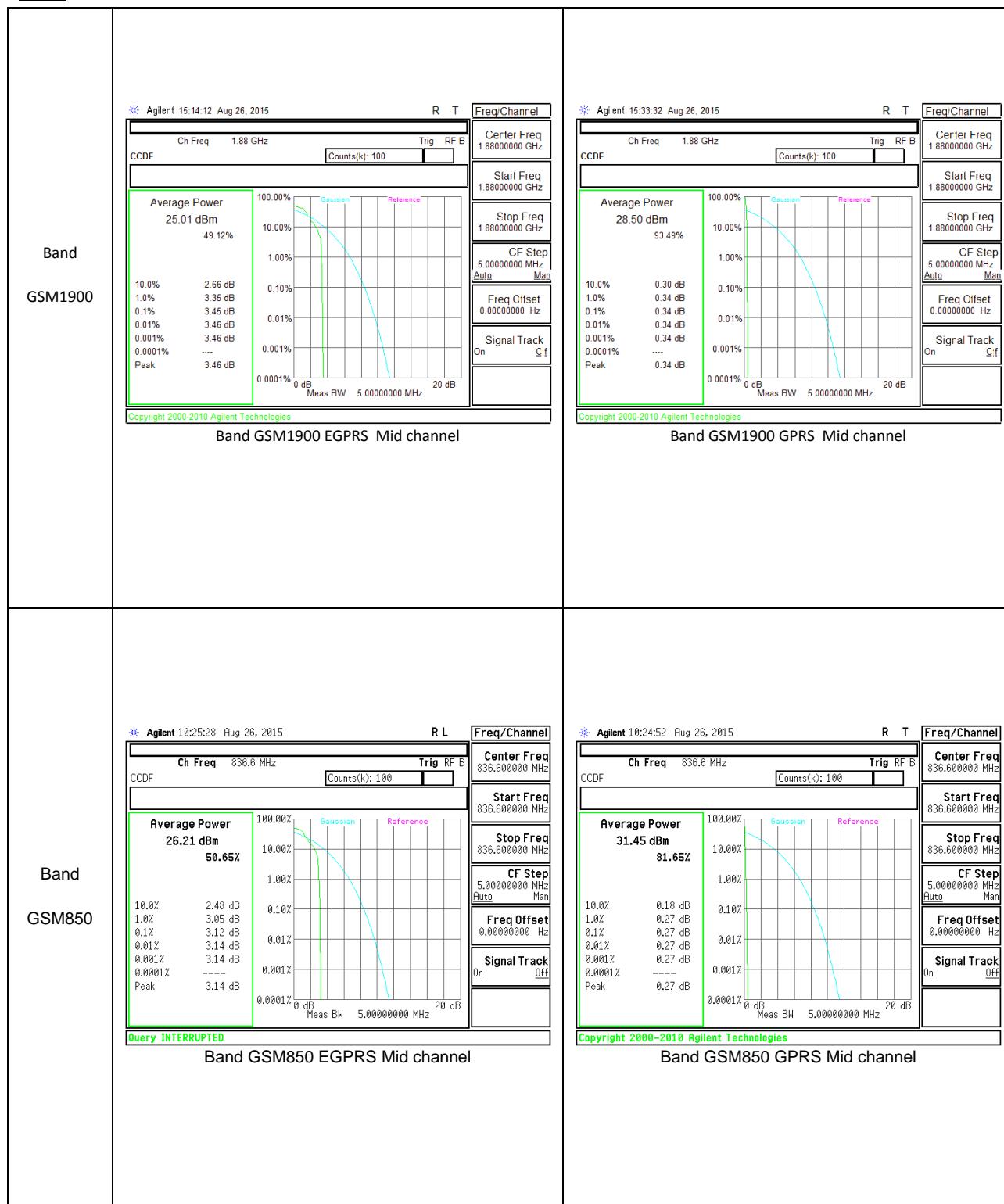
Per KDB 971168 D01 Power Meas License Digital Systems v02r02

Test Spec

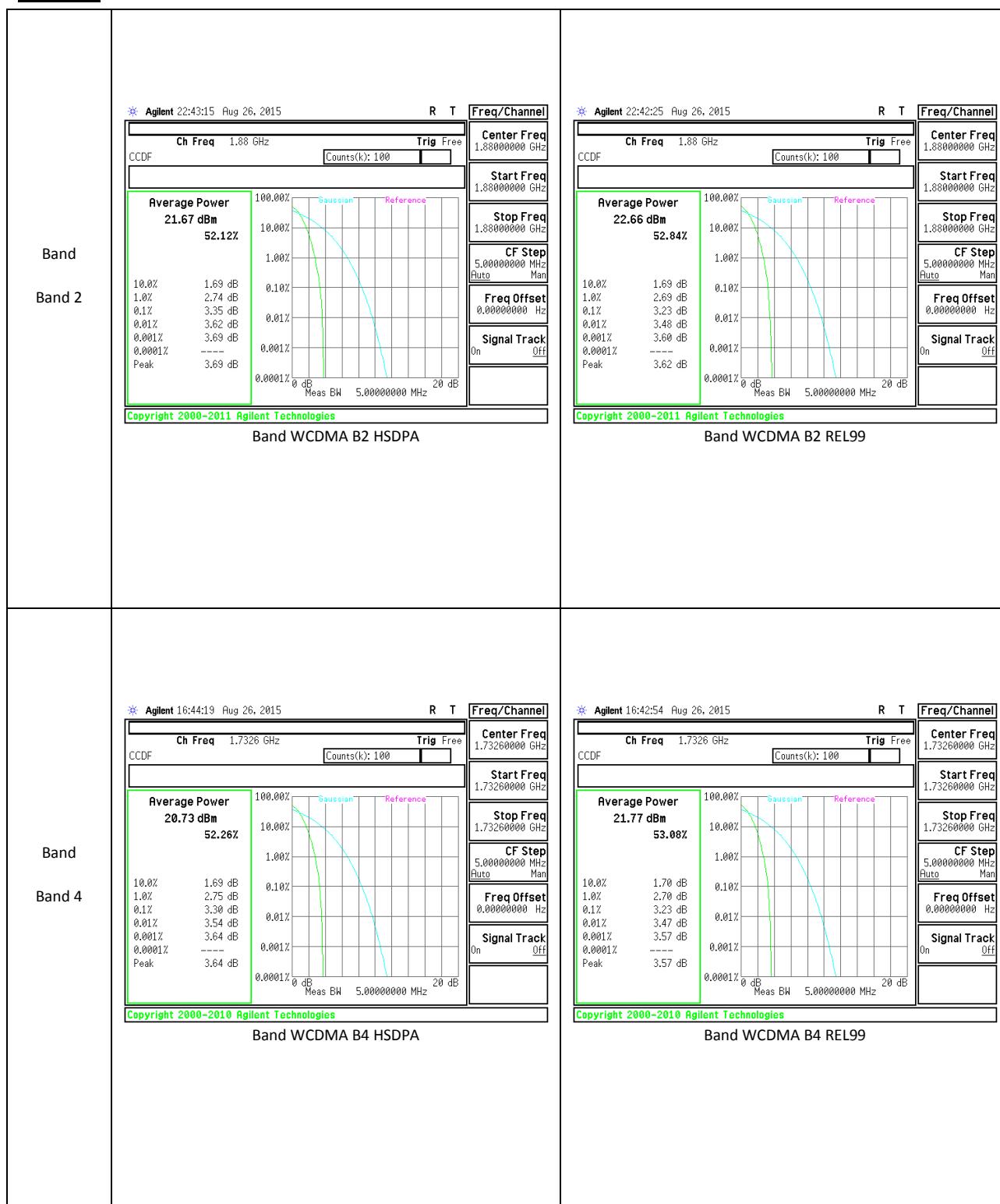
In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

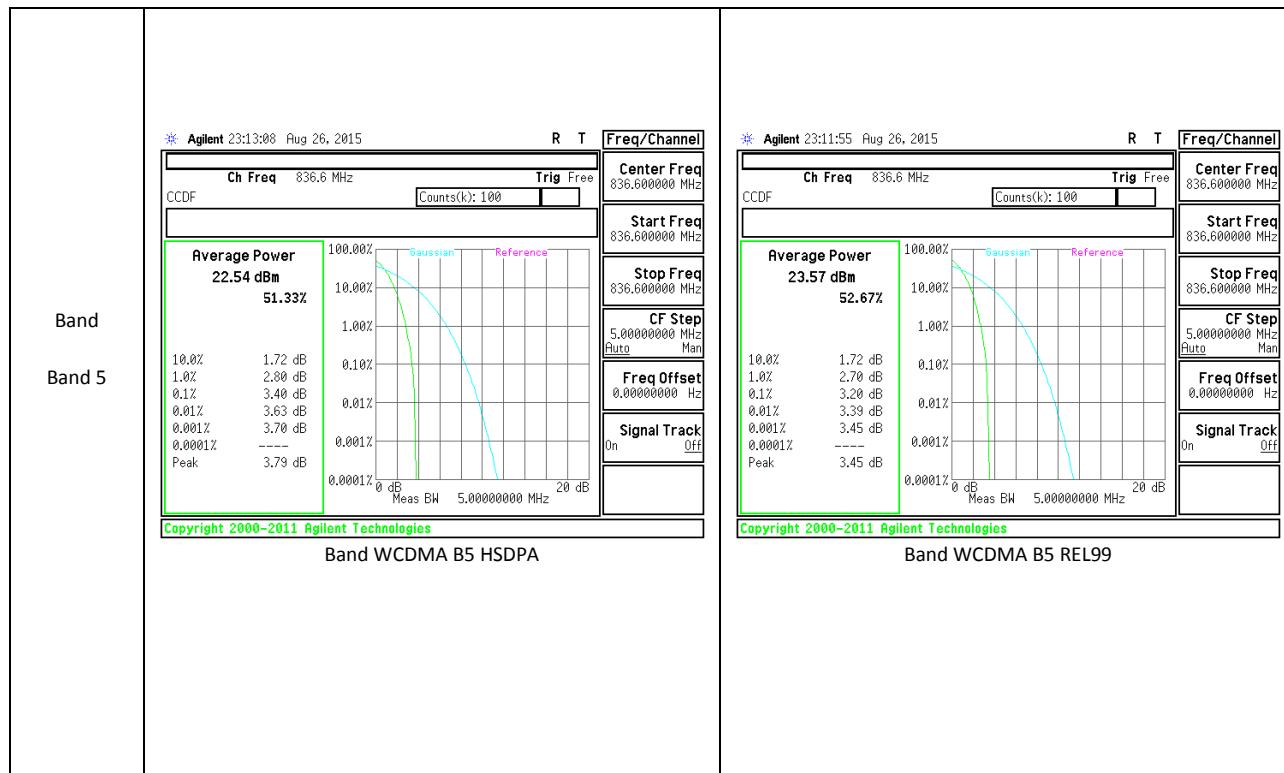
9.1. CONDUCTED PEAK TO AVERAGE RESULT

GSM

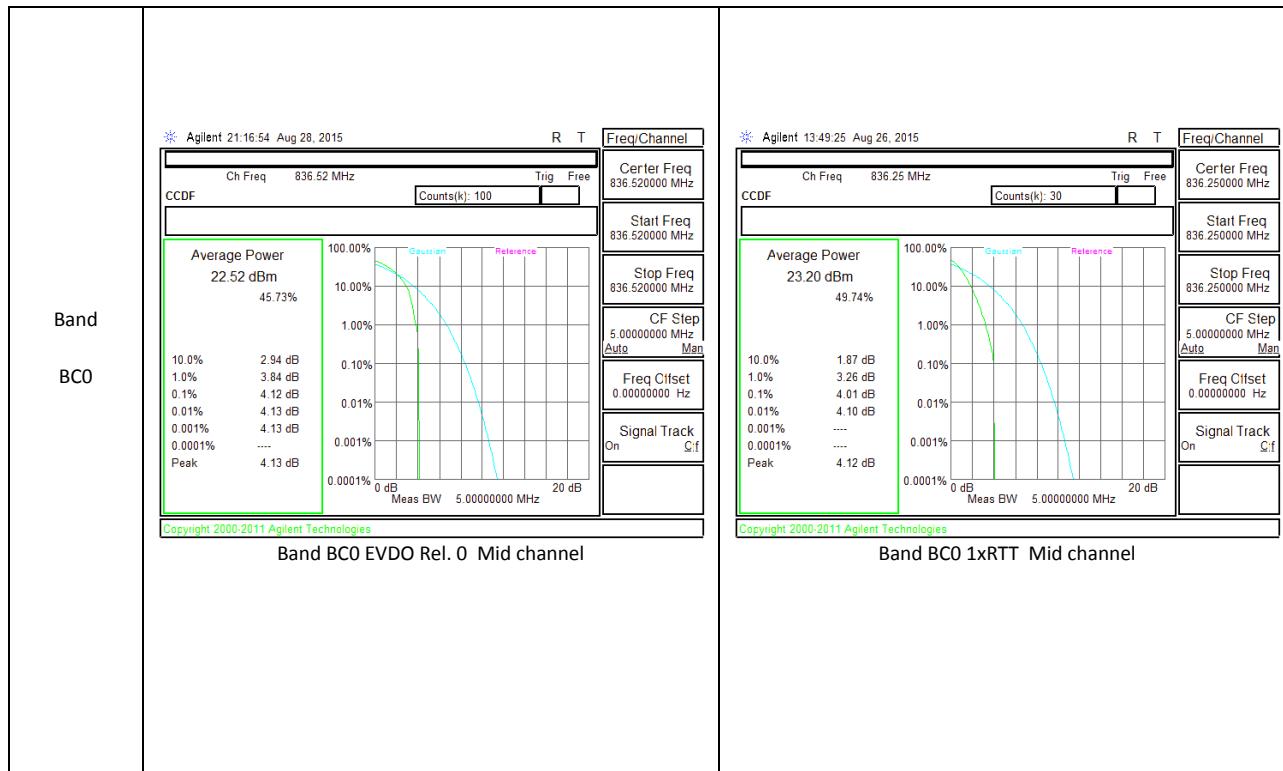
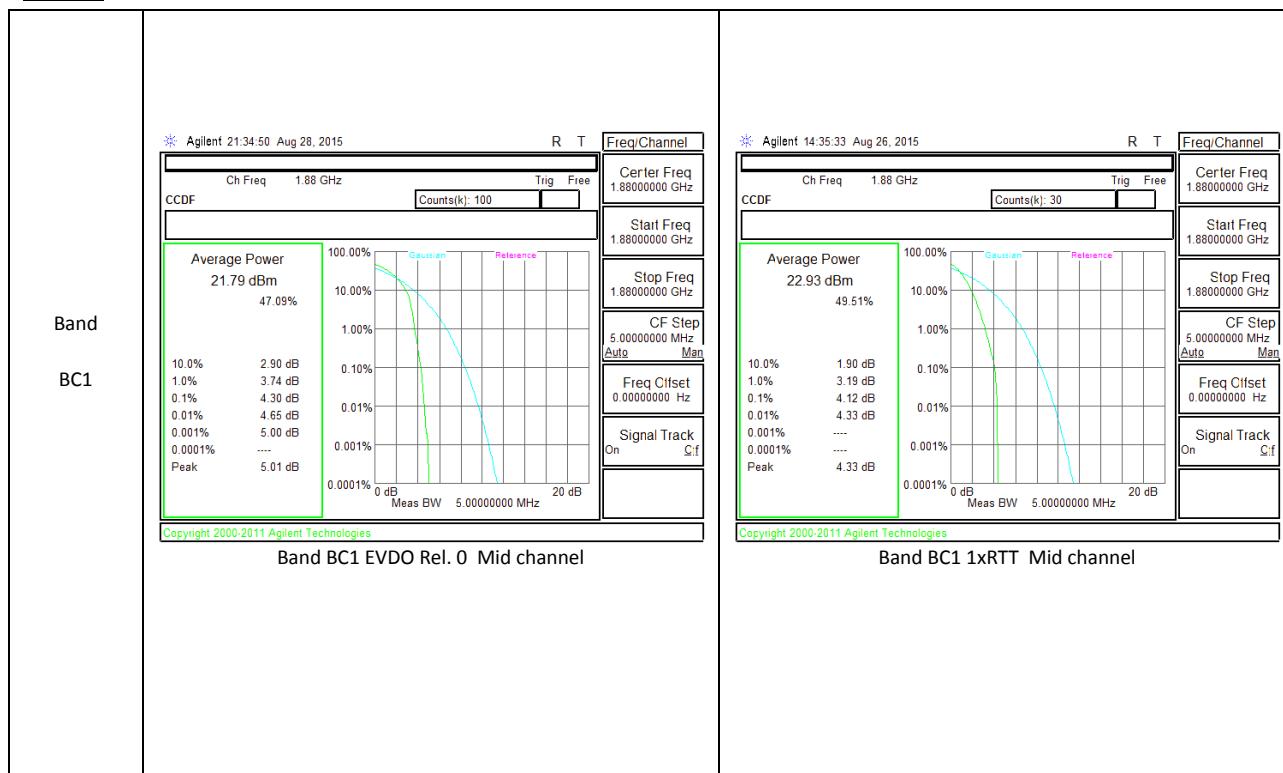


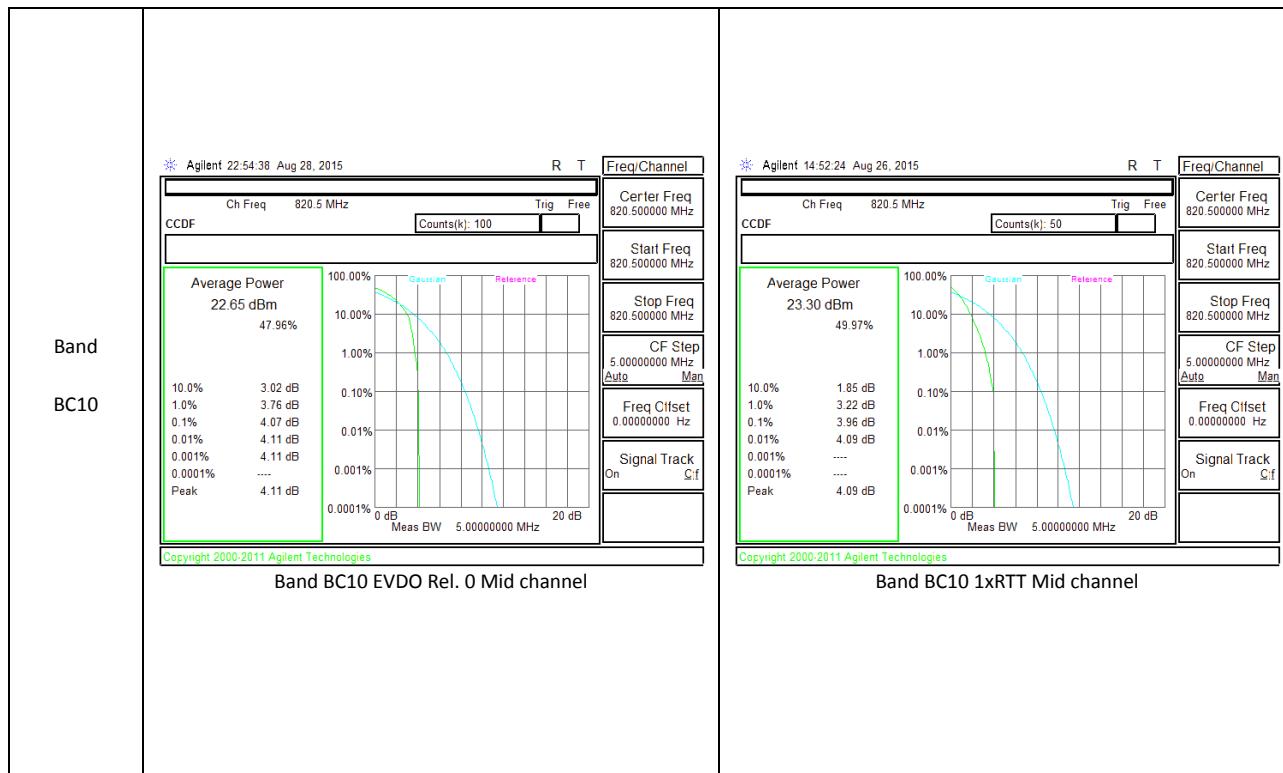
WCDMA



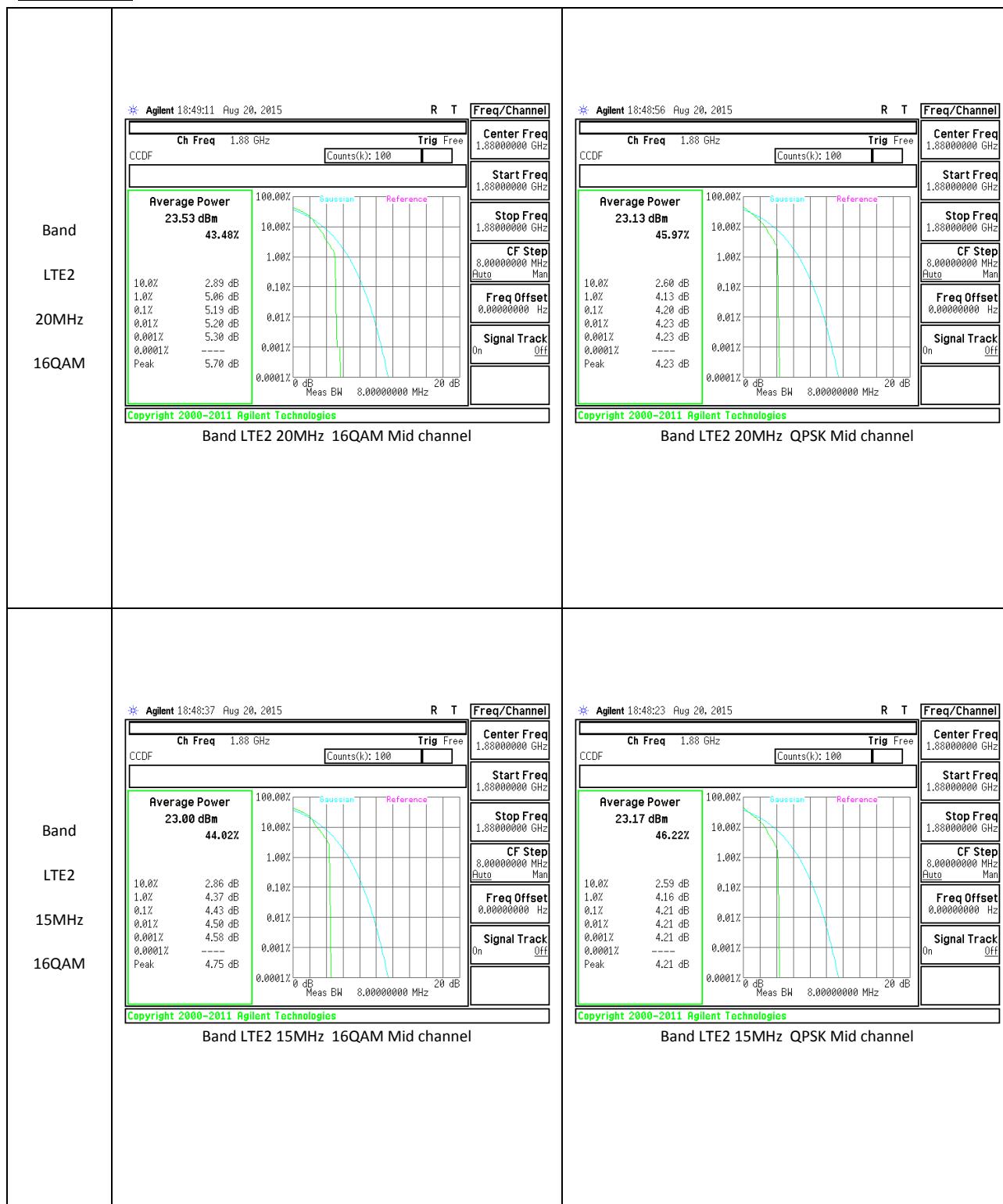


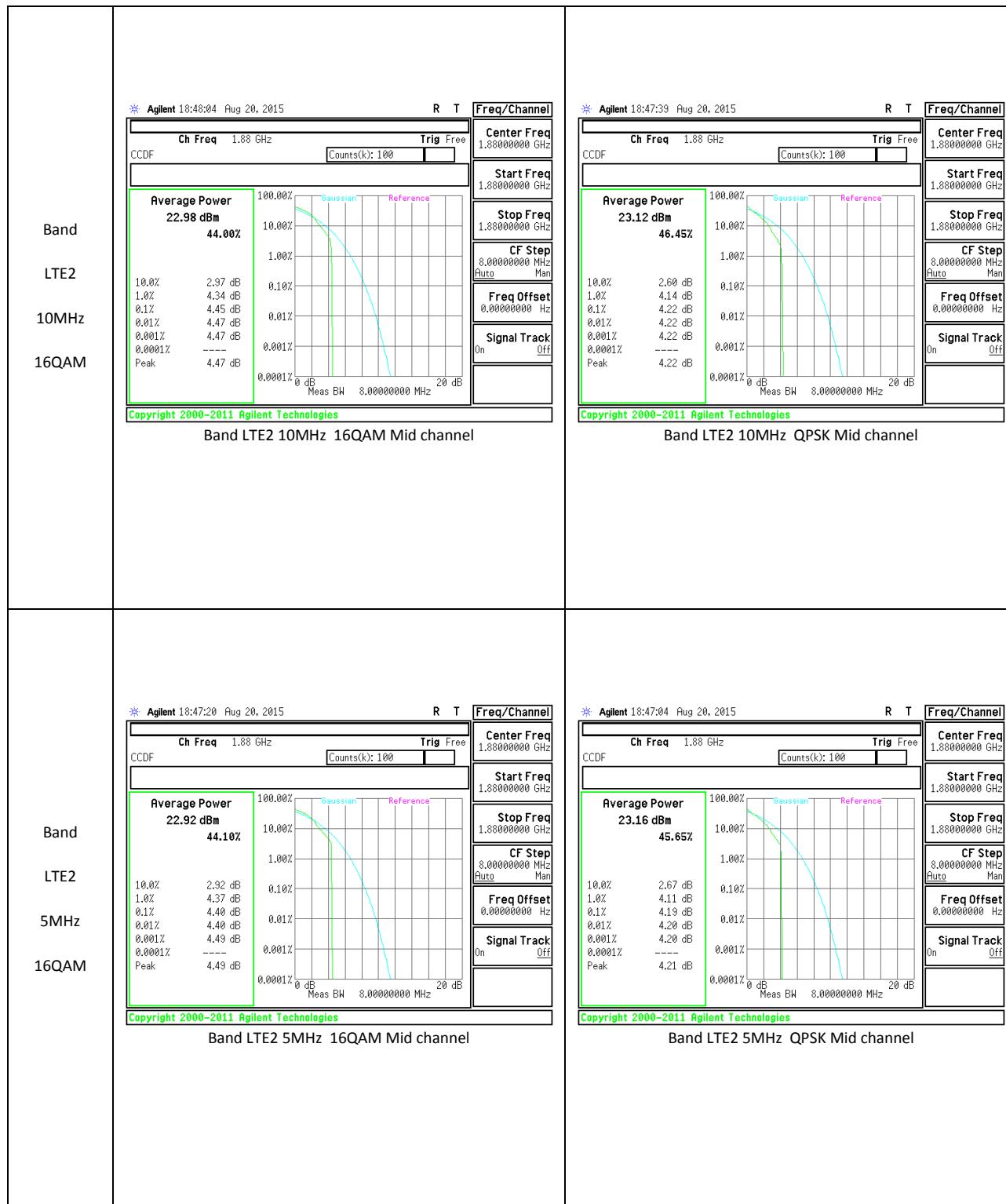
CDMA

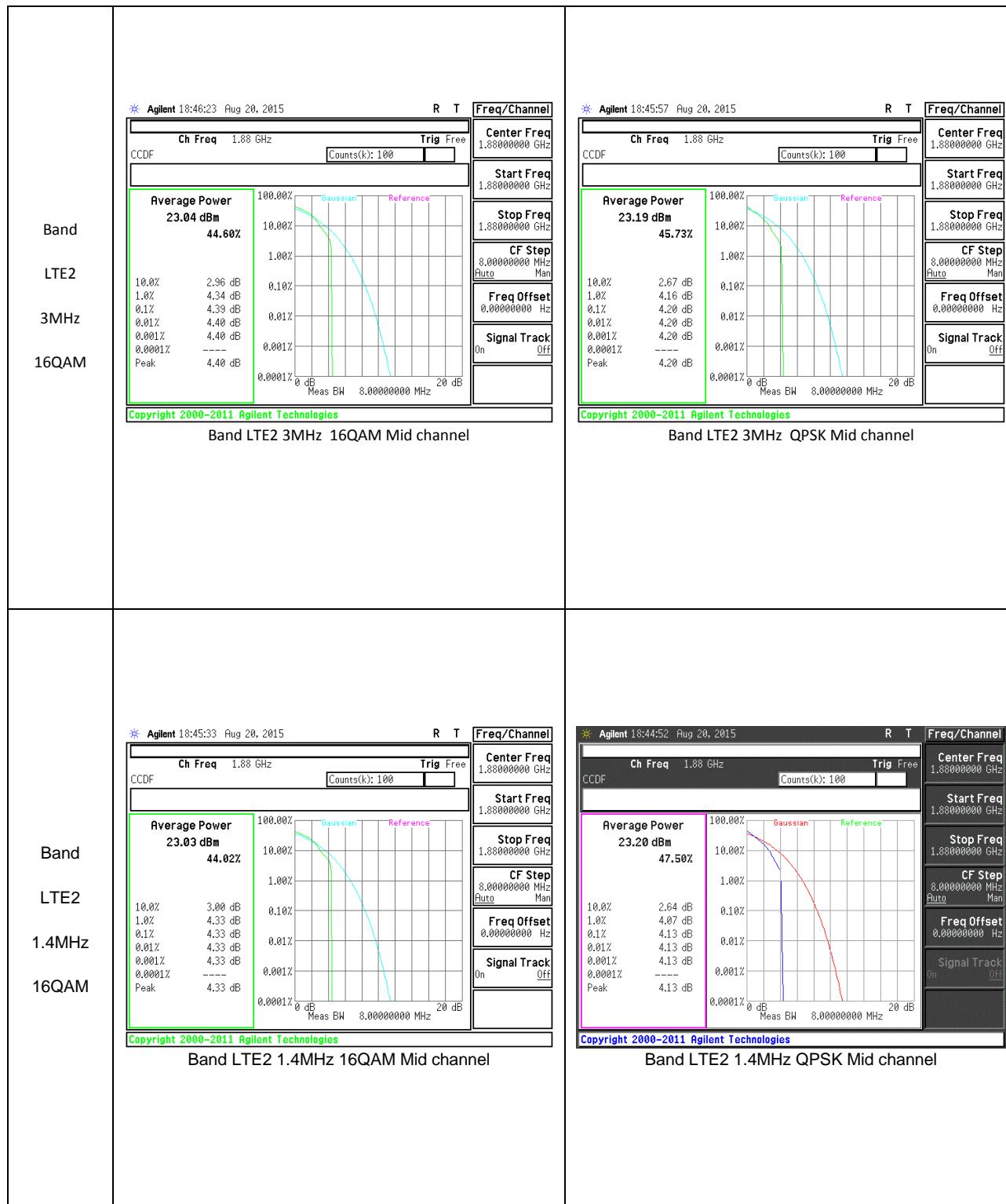




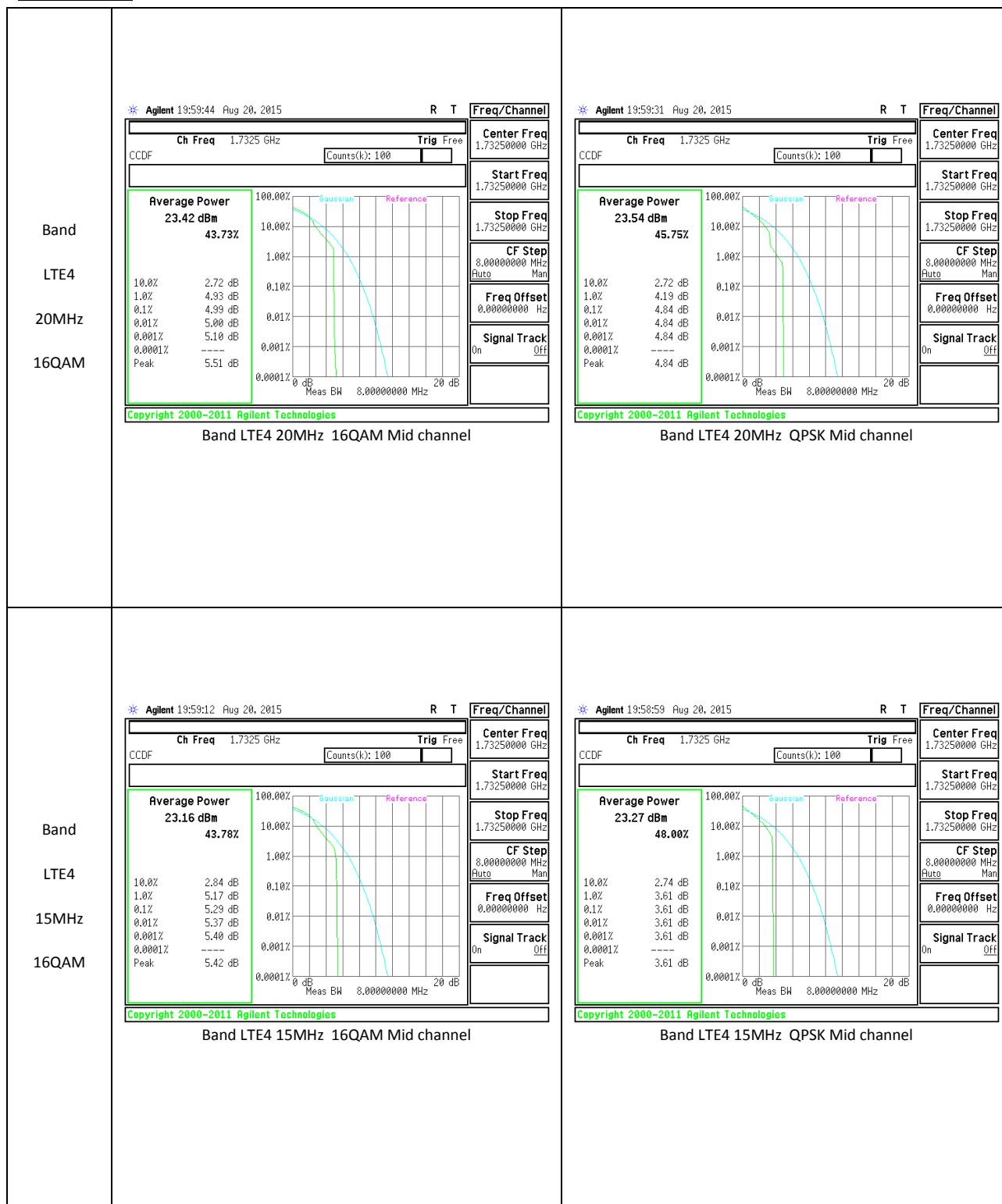
LTE Band 2

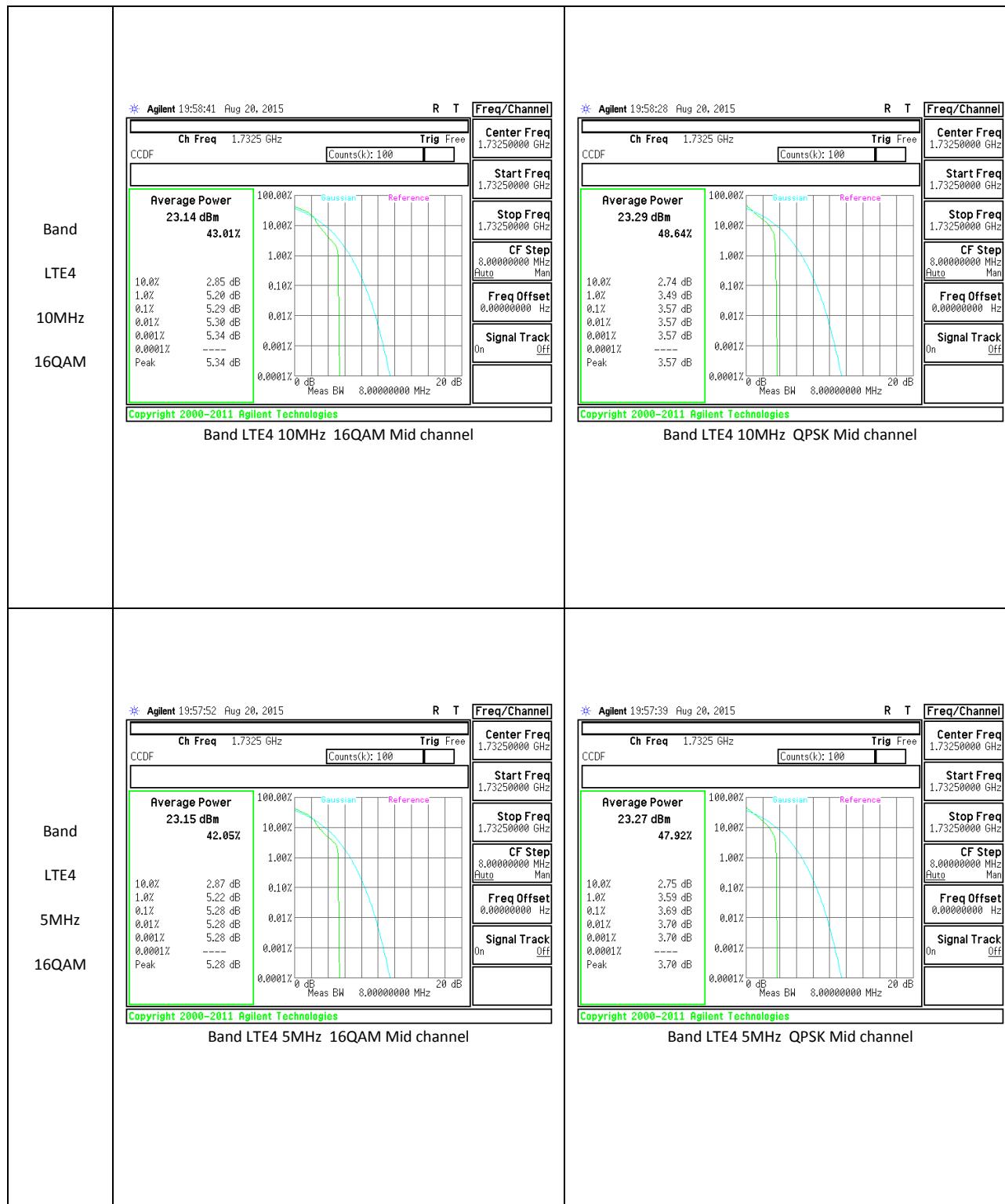


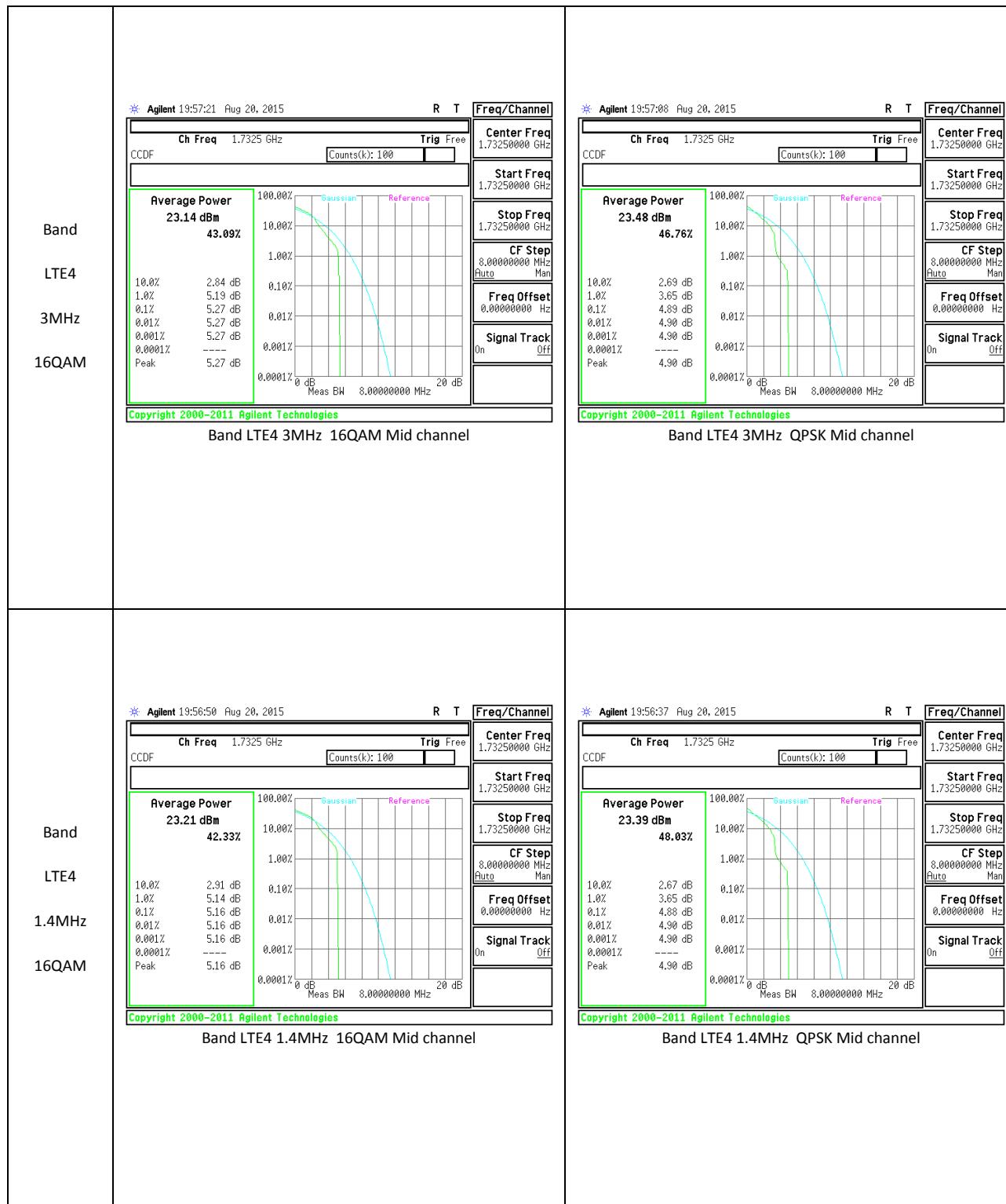




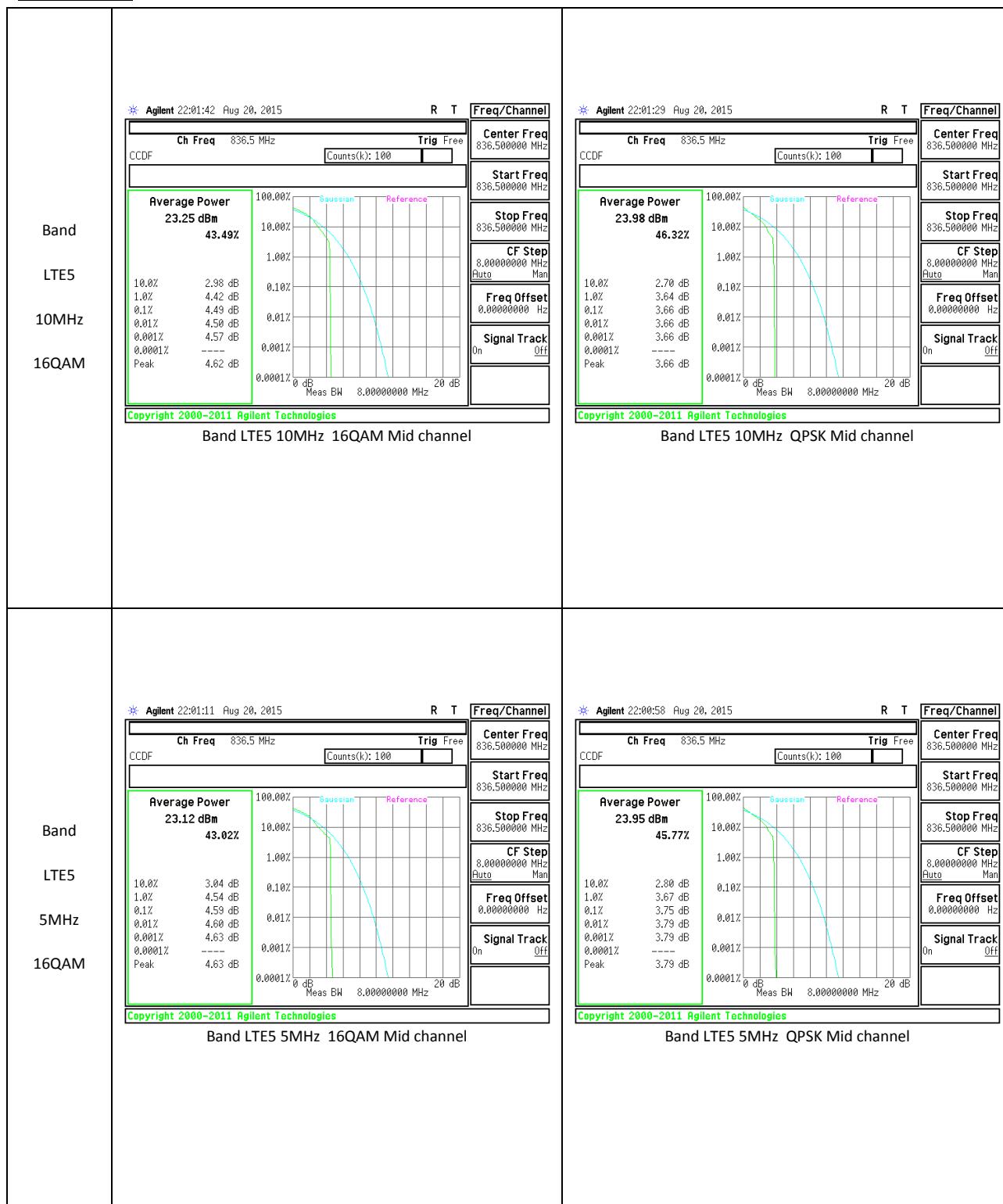
LTE Band 4

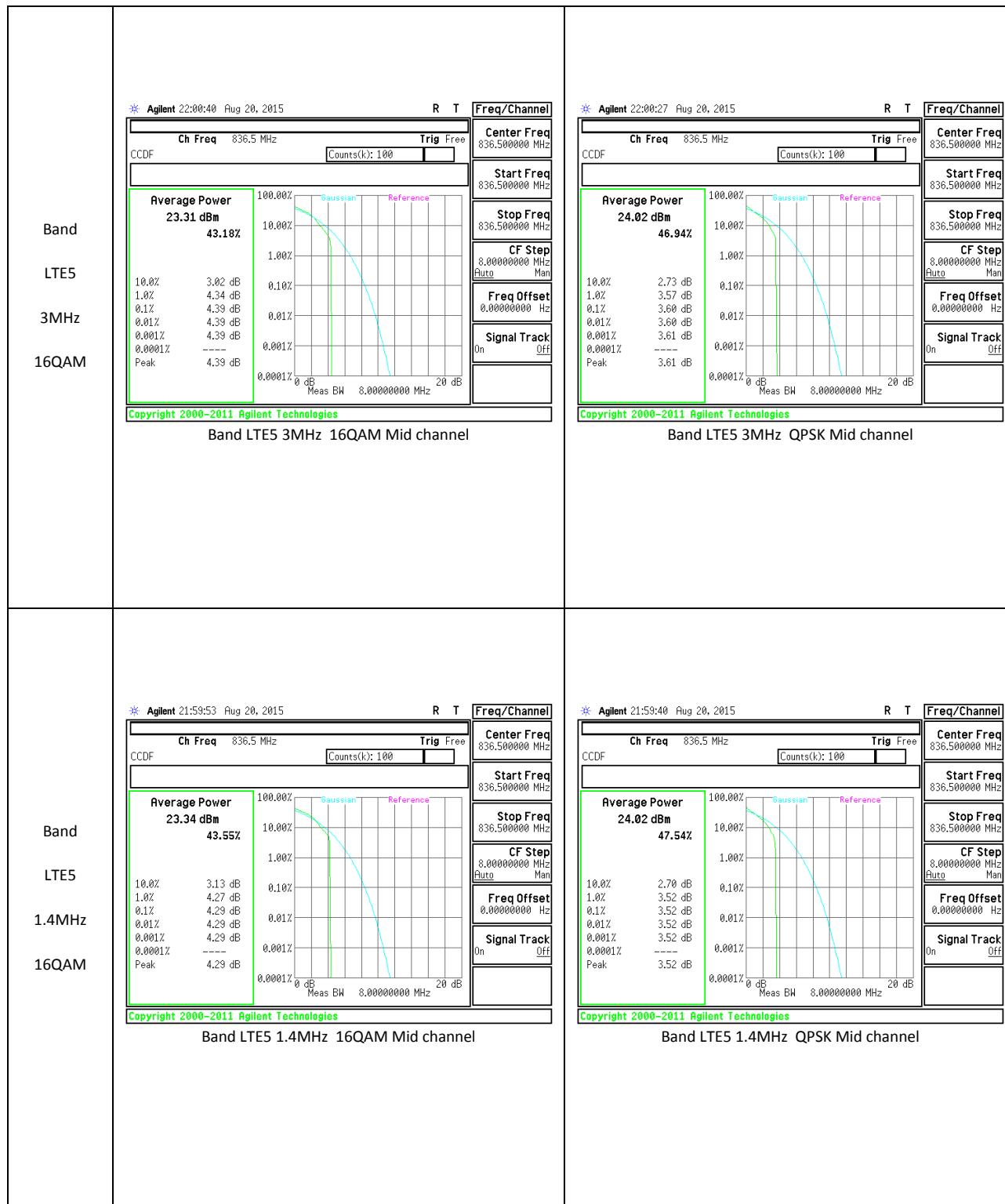




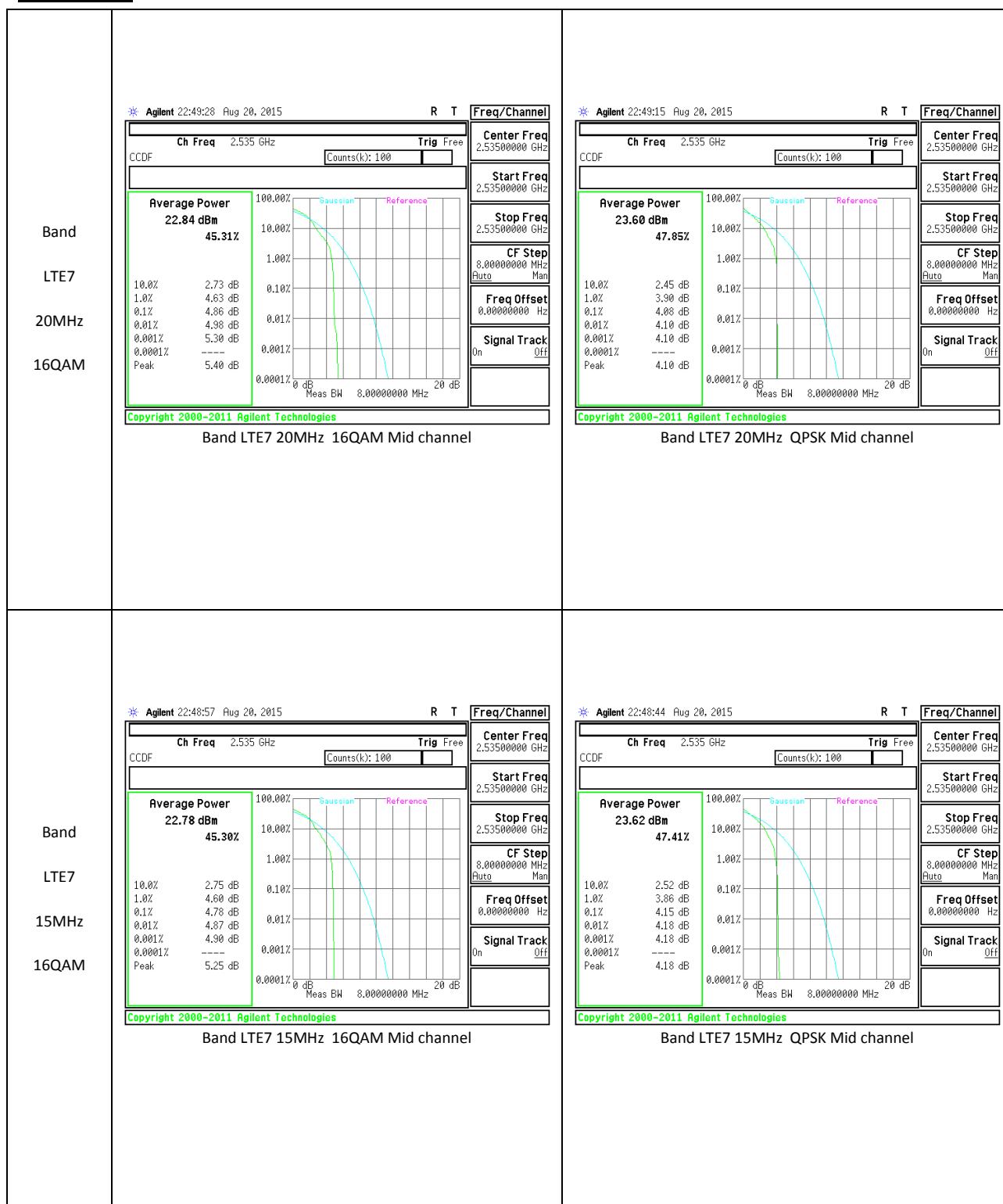


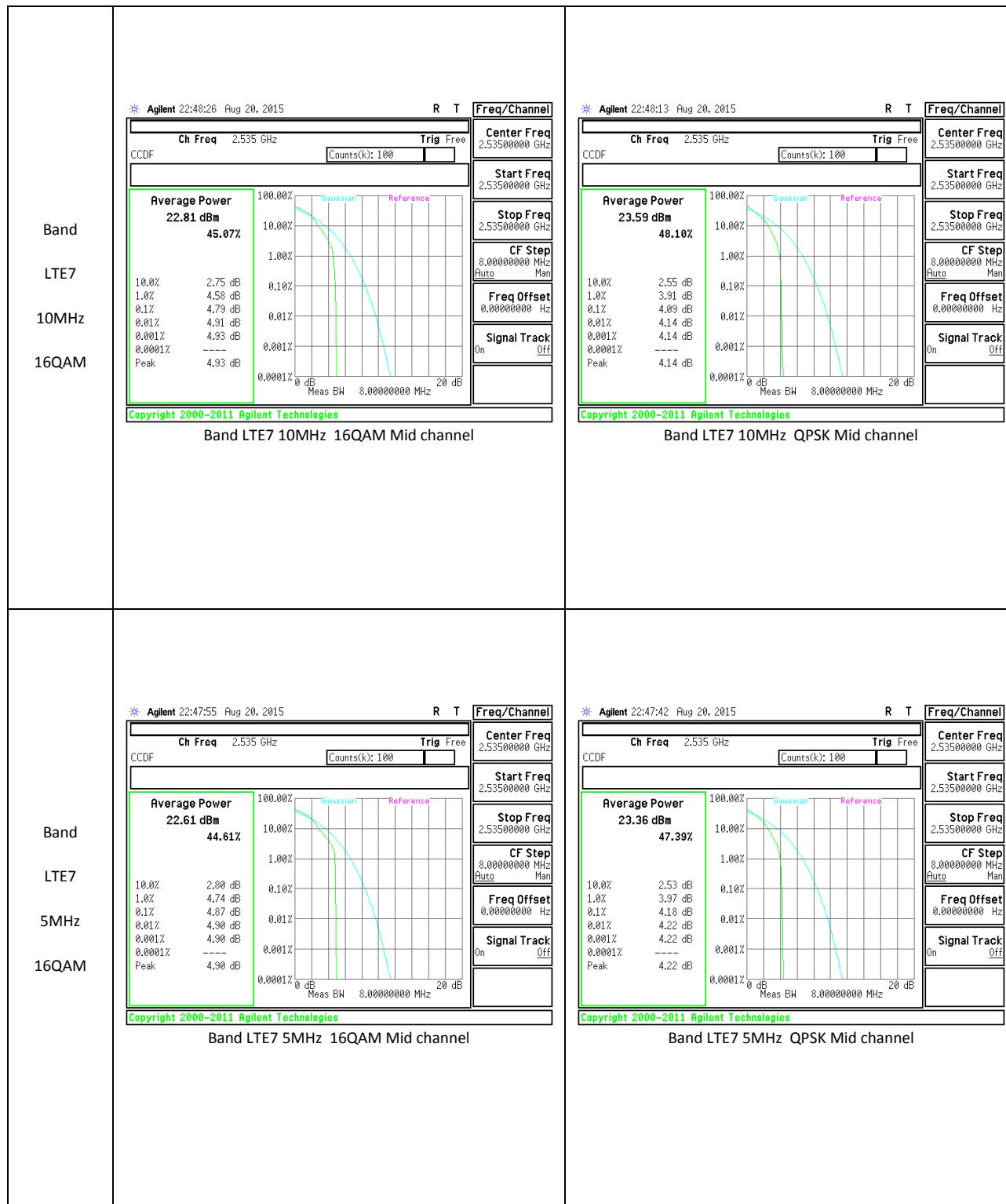
LTE Band 5



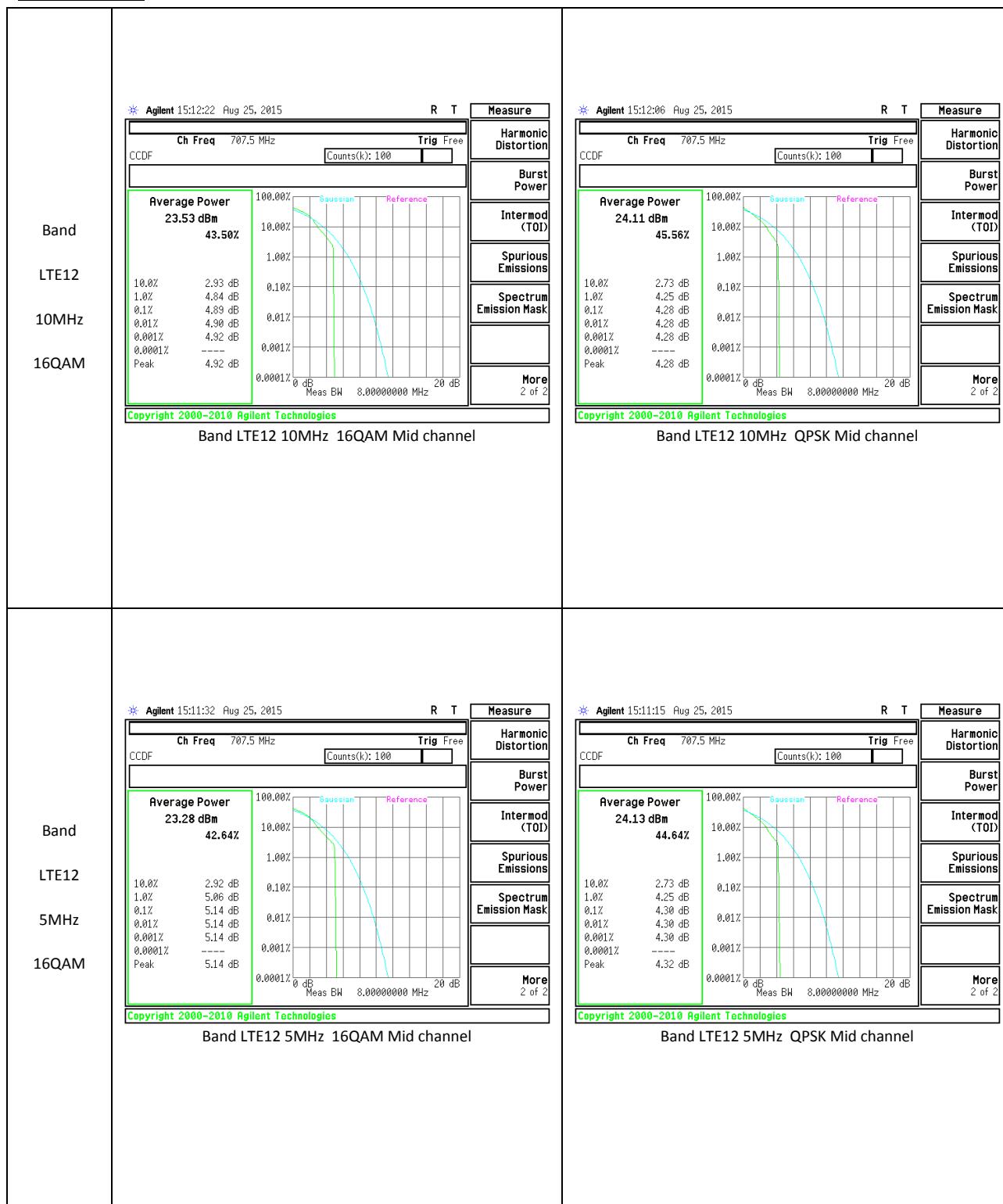


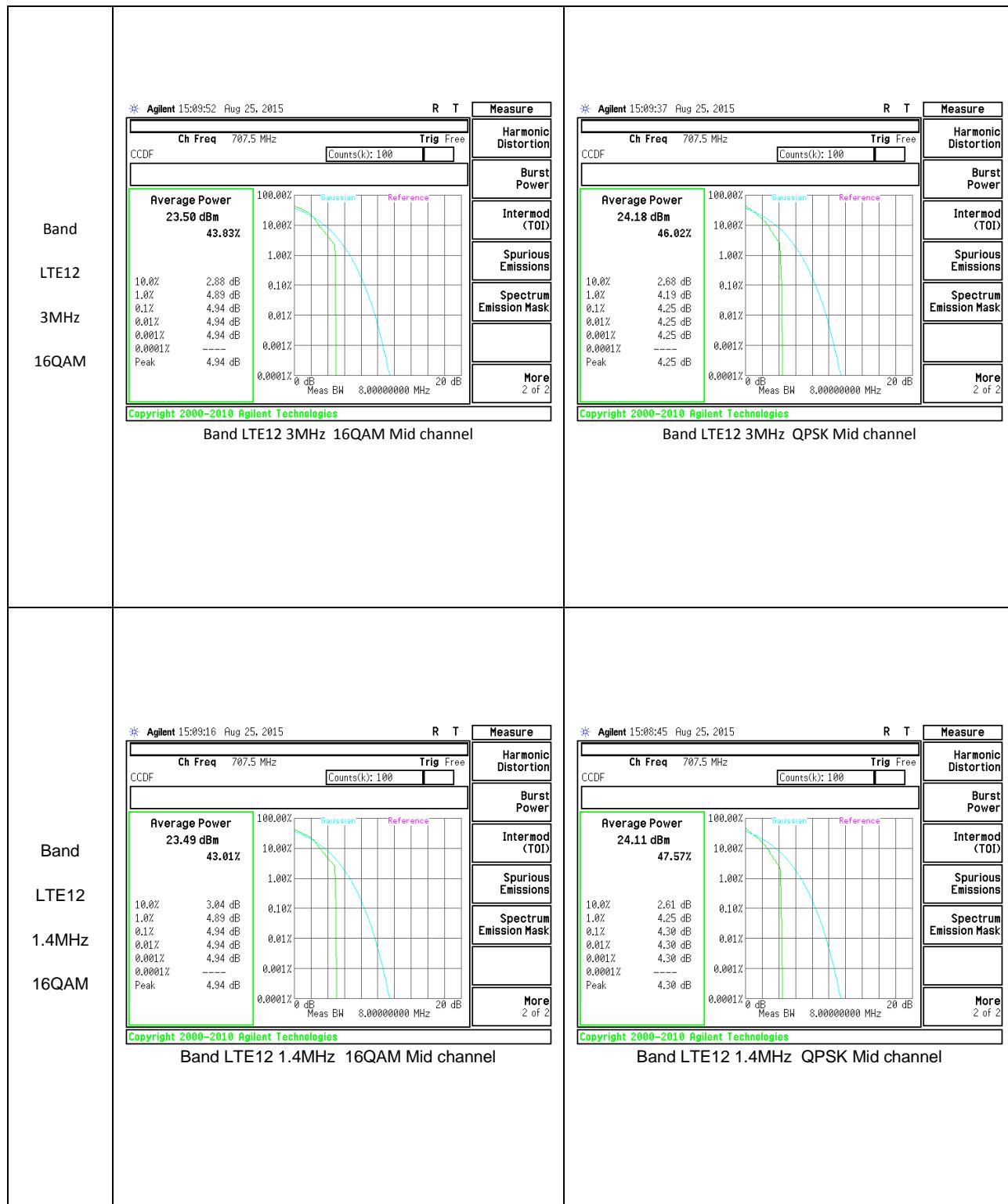
LTE Band 7



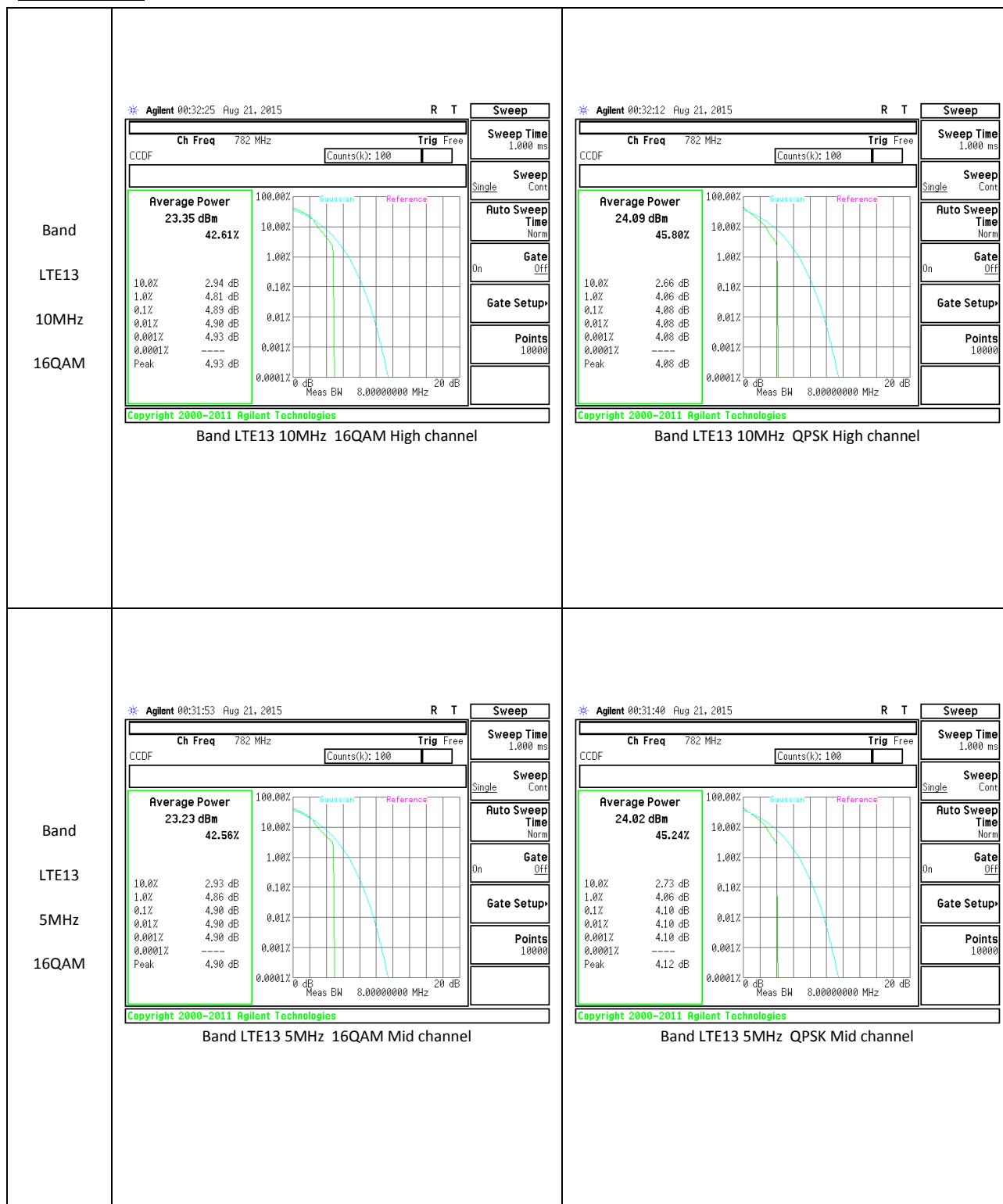


LTE Band 12

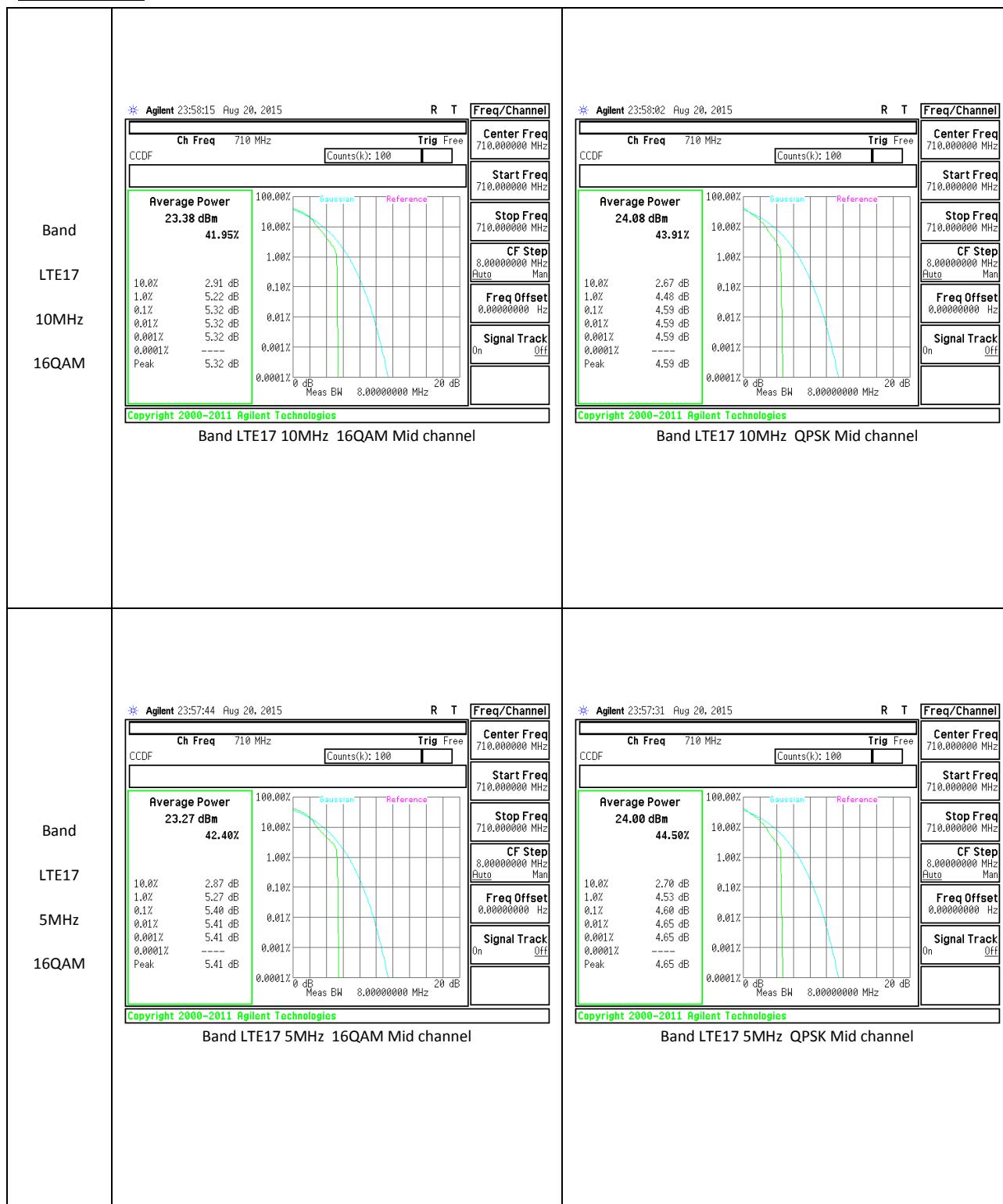




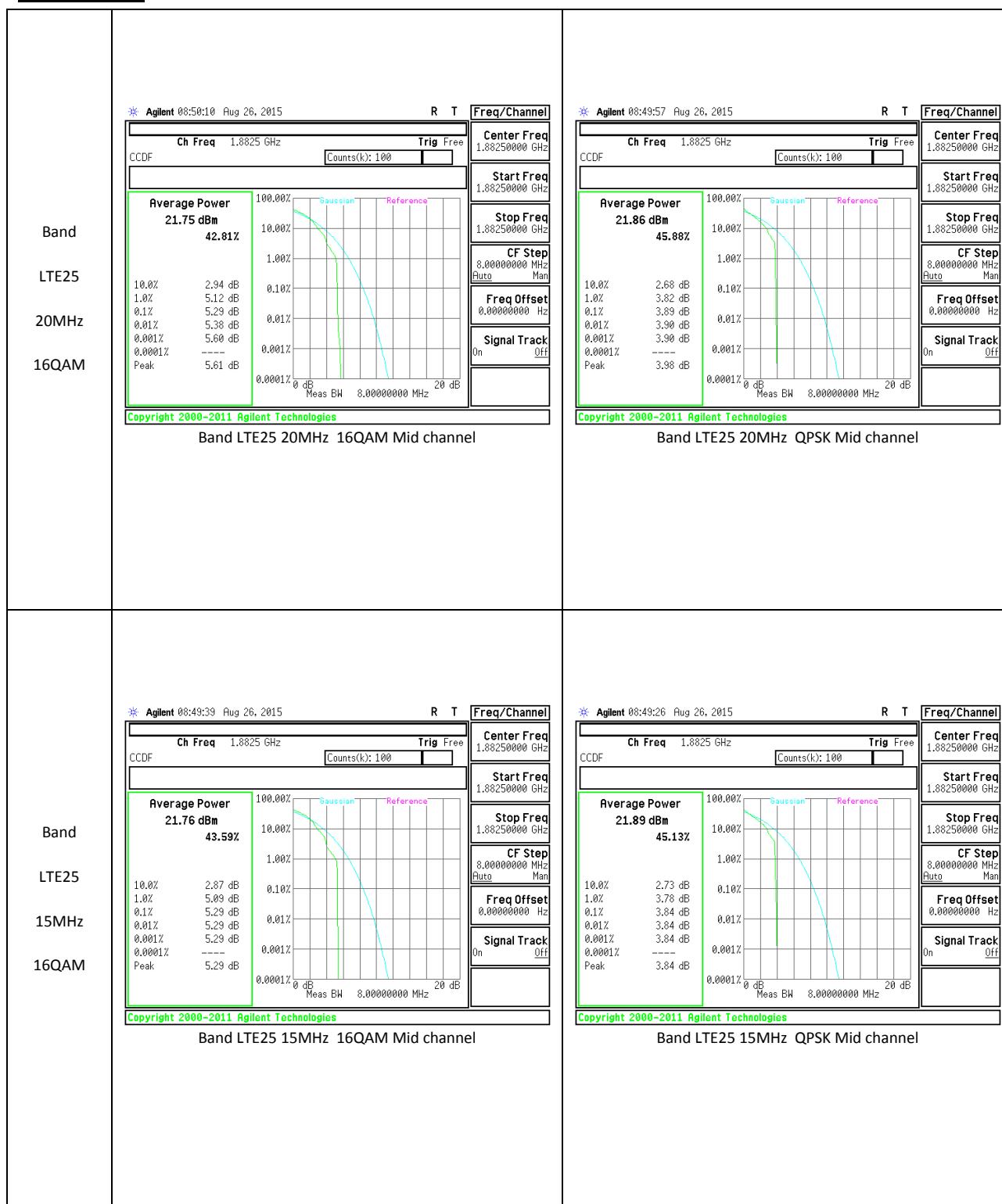
LTE Band 13

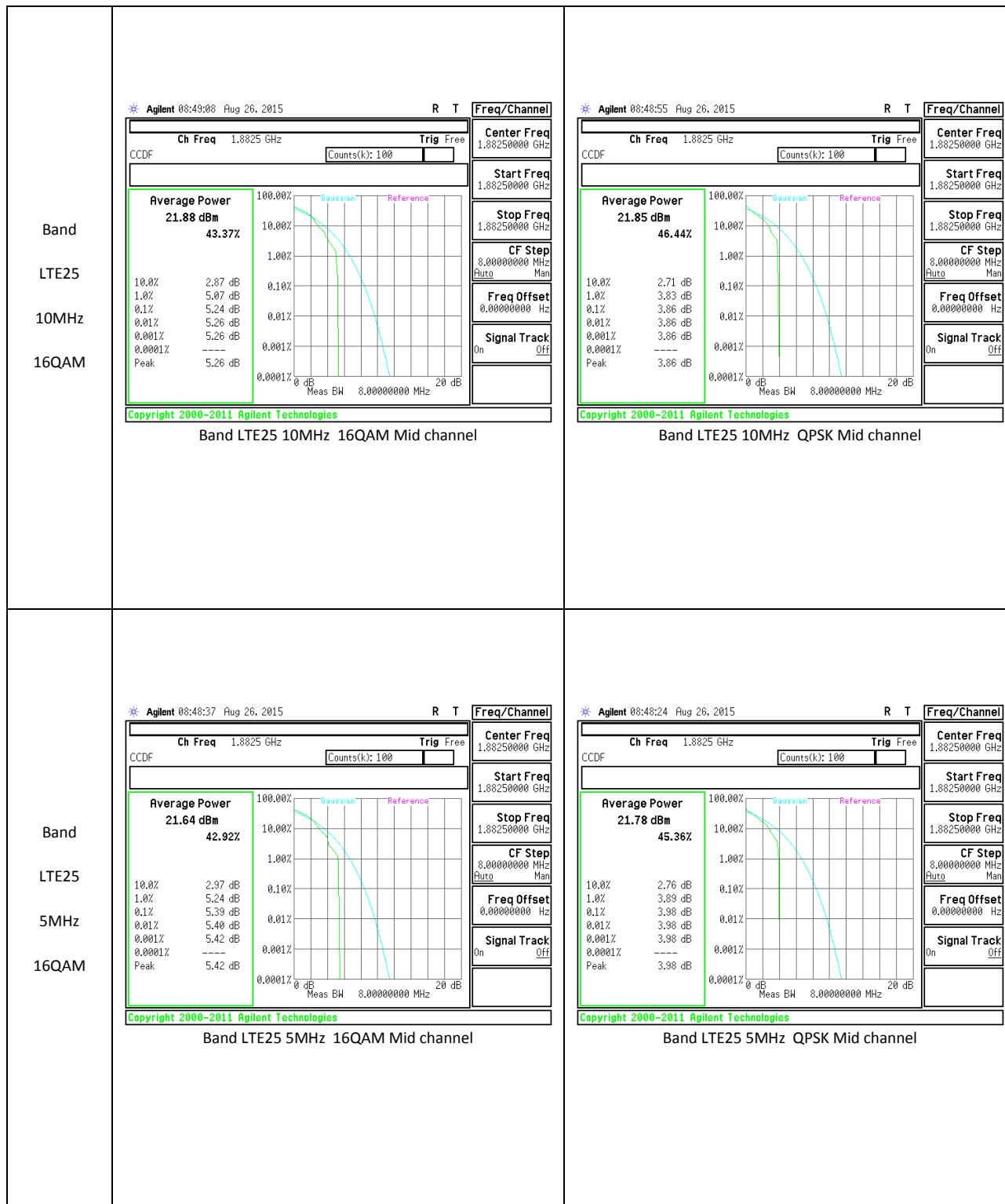


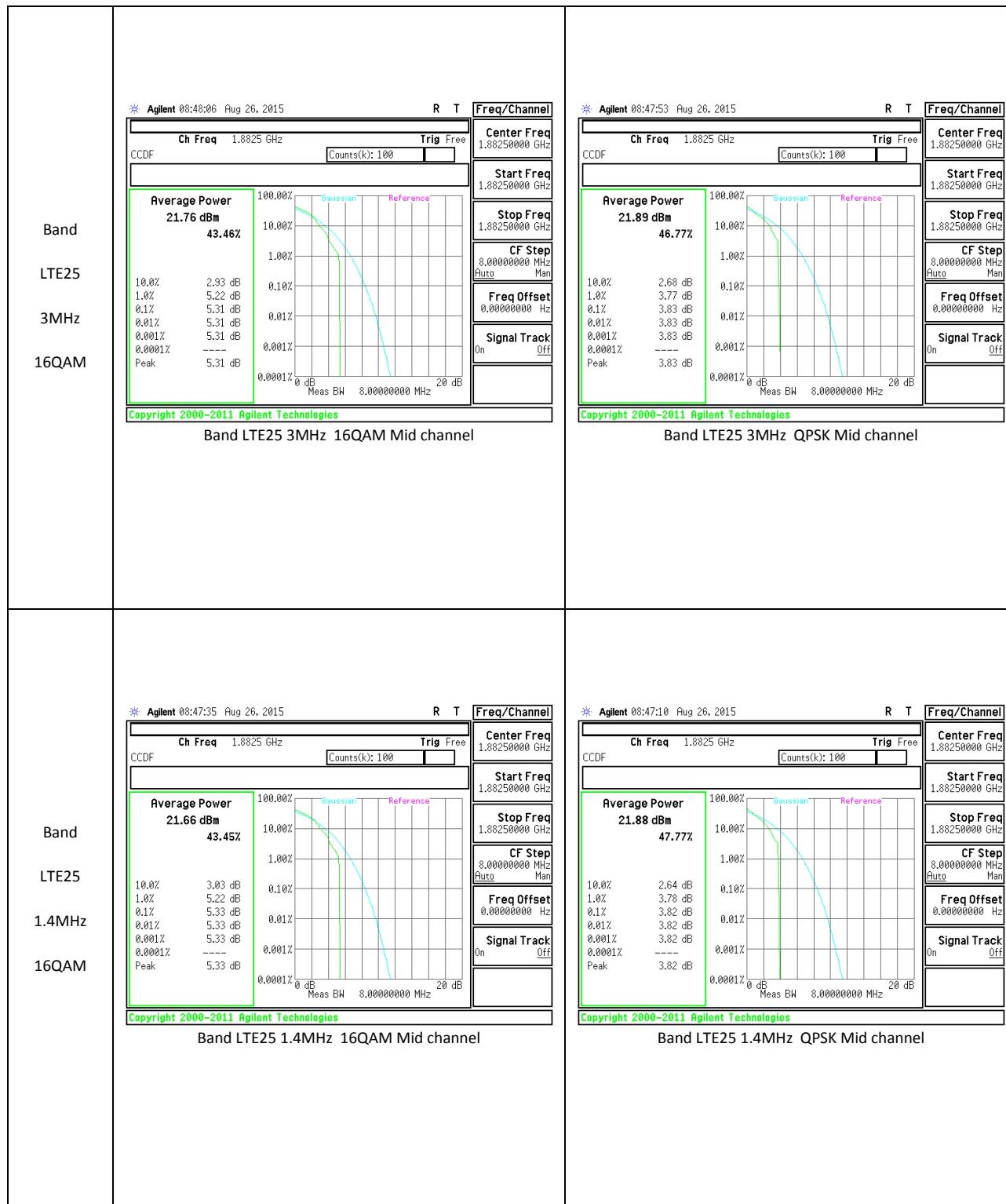
LTE Band 17



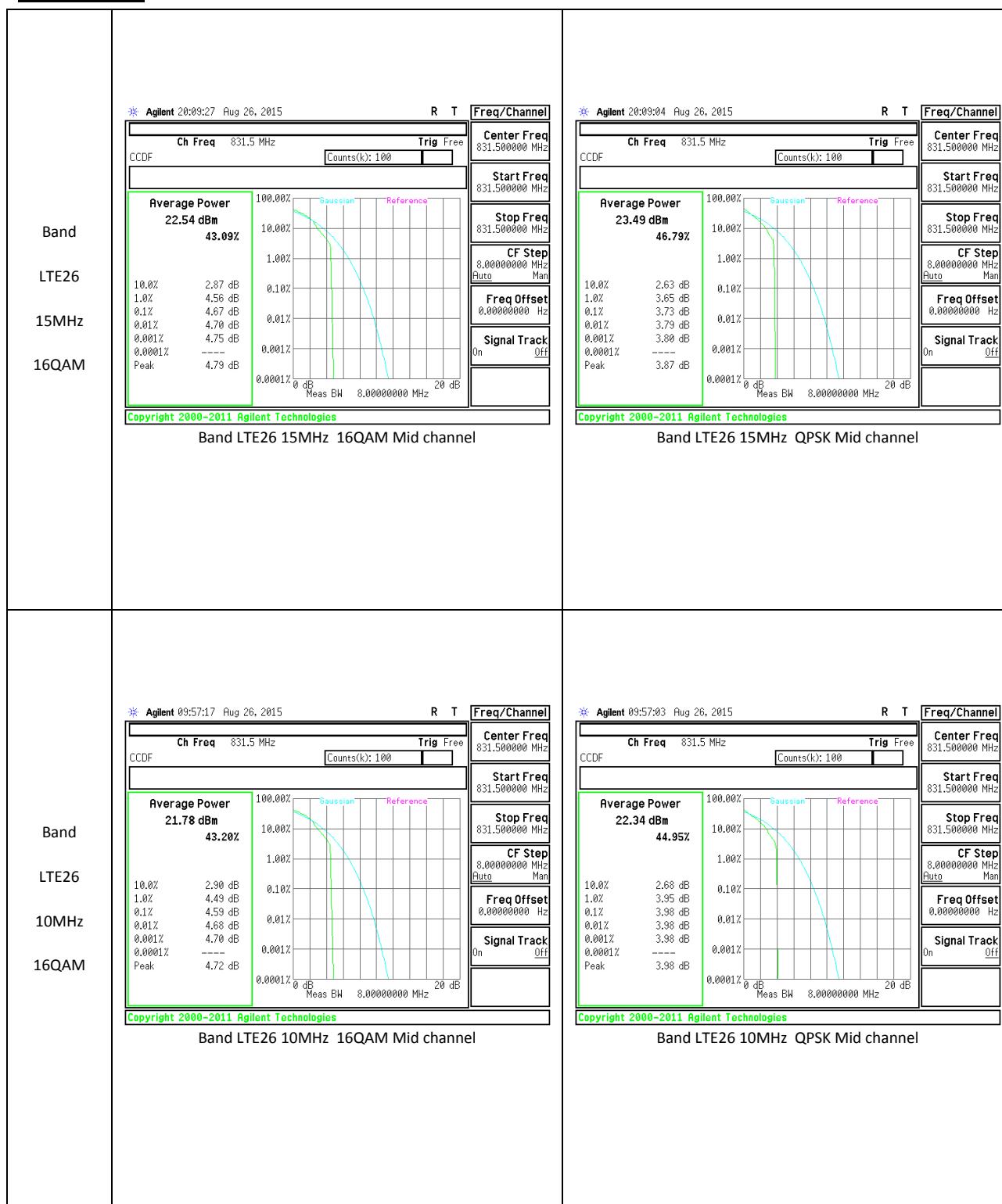
LTE Band 25

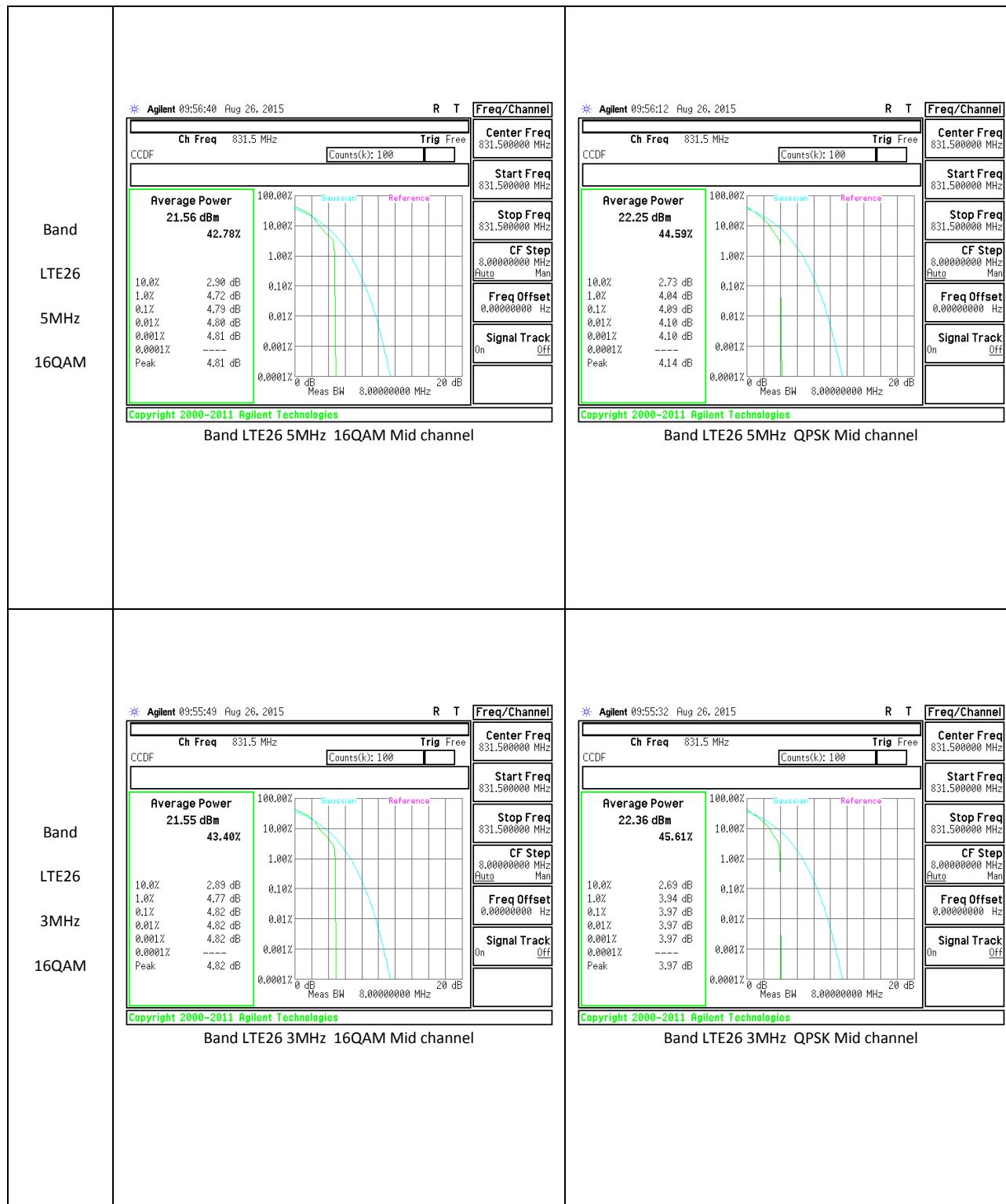


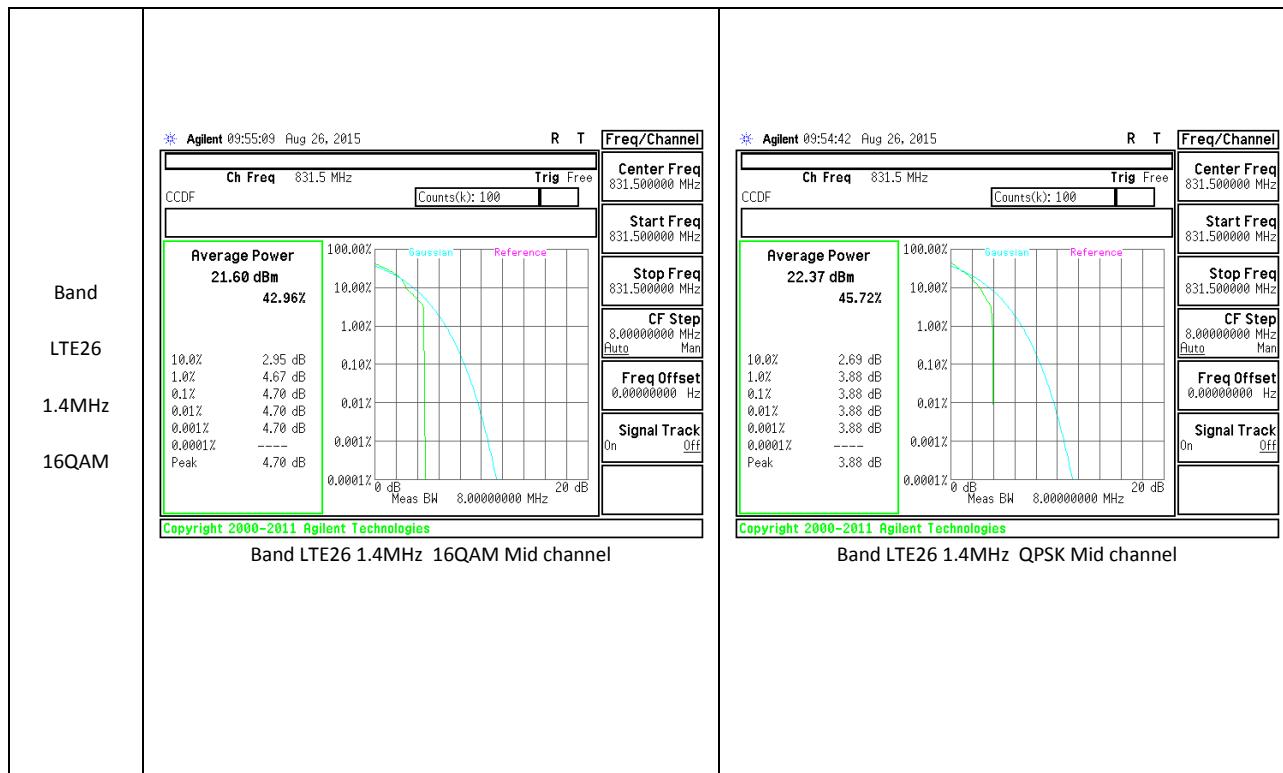




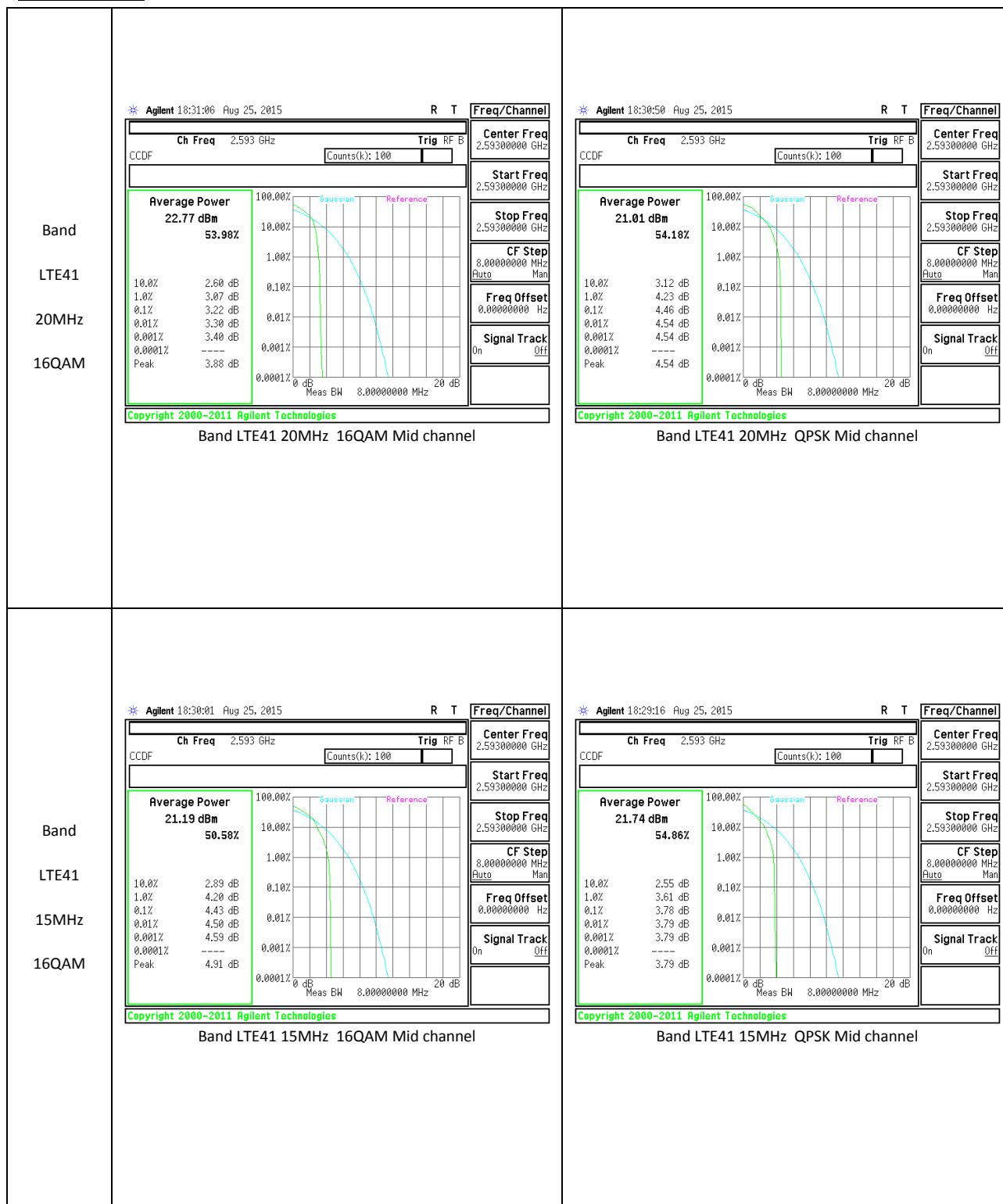
LTE Band 26

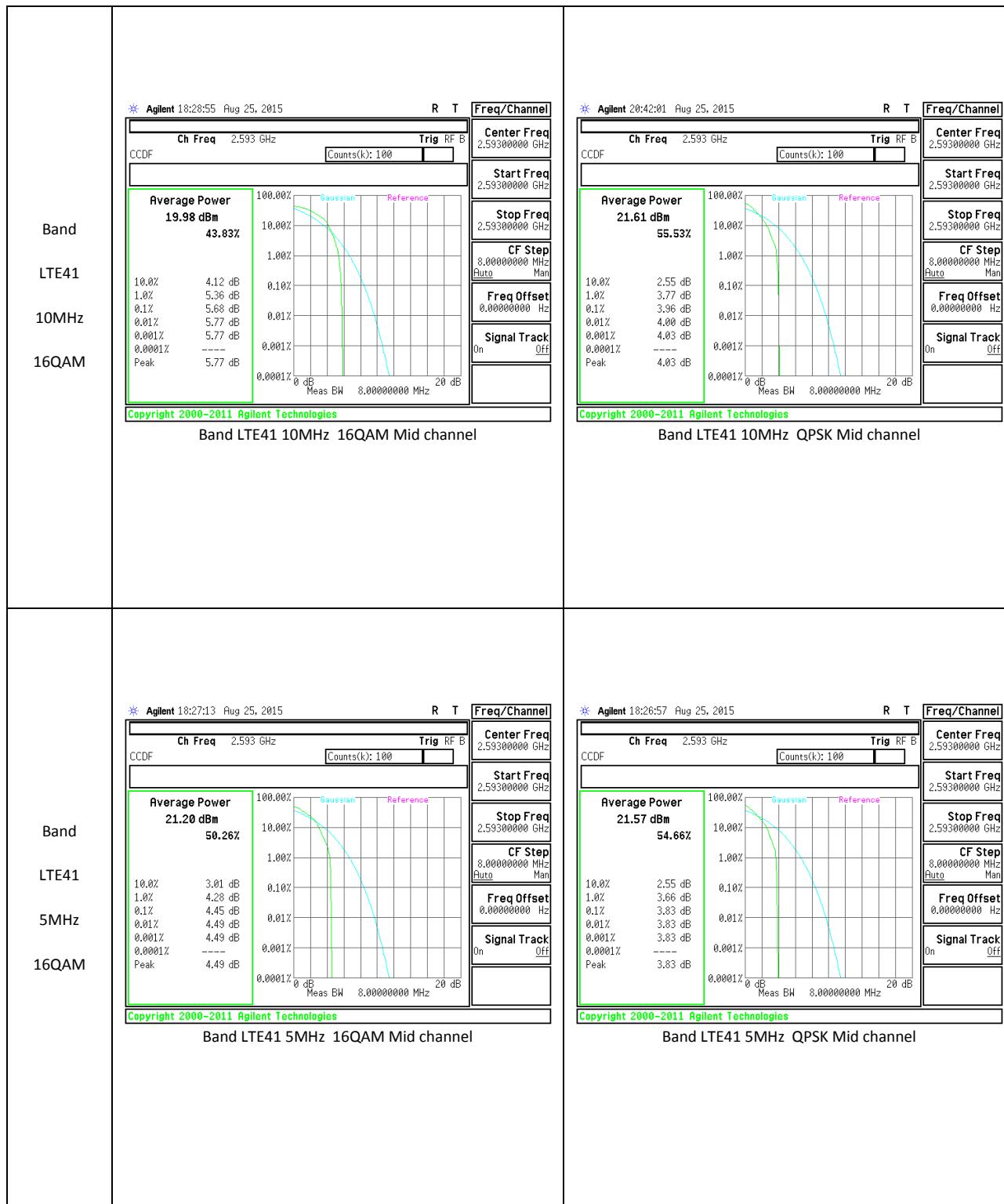






LTE Band 41





10. LIMITS AND CONDUCTED RESULTS

10.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

IC: RSS-132, 4.5; RSS-133, 6.5

LIMITS

For reporting purposes only

MODES TESTED

GSM, WCDMA, CDMA, and LTE

10.1.1. OCCUPIED BANDWIDTH RESULTS

GSM

Band	Mode	Channel	f (MHz)	99% BW (kHz)	-26dB (kHz)
GSM 850	GPRS	128	824.2	242.80	314.10
		190	836.6	249.80	314.00
		251	848.8	246.50	327.20
	EGPRS	128	824.2	245.60	305.40
		190	836.6	236.00	306.80
		251	848.8	245.20	296.10
GSM 1900	GPRS	512	1850.2	241.80	307.70
		661	1880	243.00	316.00
		810	1909.8	243.80	315.40
	EGPRS	512	1850.2	245.60	309.10
		661	1880	249.20	314.80
		810	1909.8	249.80	313.20

WCDMA

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB (MHz)
Band 5	REL99	4132	826.4	4.118	4.675
		4183	836.6	4.138	4.658
		4233	846.6	4.121	4.692
	HSDPA	4132	826.4	4.140	4.693
		4183	836.6	4.146	4.662
		4233	846.6	4.132	4.685
Band 4	REL99	9262	1712.4	4.130	4.687
		9400	1732.6	4.129	4.684
		9538	1752.6	4.132	4.681
	HSDPA	9262	1712.4	4.156	4.688
		9400	1732.6	4.126	4.686
		9538	1752.6	4.138	4.672
Band 2	REL99	9262	1852.4	4.154	4.709
		9400	1880	4.135	4.705
		9538	1907.6	4.152	4.718
	HSDPA	9262	1852.4	4.155	4.693
		9400	1880	4.136	4.658
		9538	1907.6	4.142	4.705

CDMA

Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB (MHz)
BC10	1xRTT	476	817.9	1.2726	1.391
		580	820.5	1.2587	1.372
		684	823.1	1.2837	1.394
	EVDO REL. 0	476	817.9	1.2761	1.397
		580	820.5	1.2606	1.388
		684	823.1	1.2637	1.390
BC0	1xRTT	1013	824.7	1.2604	1.405
		384	836.52	1.2545	1.373
		777	848.31	1.2769	1.394
	EVDO REL. 0	1013	824.7	1.2758	1.389
		384	836.52	1.2611	1.366
		777	848.31	1.2716	1.382
BC1	1xRTT	25	1851.25	1.2661	1.378
		600	1880	1.2520	1.405
		1175	1908.75	1.2701	1.398
	EVDO REL. 0	25	1851.25	1.2739	1.388
		600	1880	1.2615	1.375
		1175	1908.75	1.2775	1.387

LTE Band 2

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE2	20	16QAM	100/0	1860	17.860	19.230
			100/0	1880	17.870	19.330
			100/0	1900	17.830	19.370
		QPSK	100/0	1860	17.870	19.380
			100/0	1880	17.930	19.360
			100/0	1900	17.890	19.340
	15	16QAM	75/0	1857.5	13.400	14.520
			75/0	1880	13.390	14.440
			75/0	1902.5	13.390	14.420
		QPSK	75/0	1857.5	13.420	14.420
			75/0	1880	13.440	14.410
			75/0	1902.5	13.380	14.400
	10	16QAM	50/0	1855	8.960	9.741
			50/0	1880	8.962	9.555
			50/0	1905	8.938	9.696
		QPSK	50/0	1855	8.959	9.702
			50/0	1880	8.947	9.590
			50/0	1905	8.959	9.703
	5	16QAM	25/0	1852.5	4.490	4.896
			25/0	1880	4.510	4.929
			25/0	1907.5	4.501	4.915
		QPSK	25/0	1852.5	4.485	4.906
			25/0	1880	4.509	4.902
			25/0	1907.5	4.495	4.904

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE2	3	16QAM	15/0	1851.5	2.680	3.000
			15/0	1880	2.698	2.977
			15/0	1908.5	2.687	2.987
		QPSK	15/0	1851.5	2.688	2.942
			15/0	1880	2.692	2.961
			15/0	1908.5	2.687	2.968
	1.4	16QAM	6/0	1850.7	1.078	1.230
			6/0	1880	1.086	1.226
			6/0	1909.3	1.092	1.223
		QPSK	6/0	1850.7	1.084	1.224
			6/0	1880	1.081	1.232
			6/0	1909.3	1.086	1.231

LTE Band 4

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE4	20	16QAM	100/0	1720	17.86	19.07
			100/0	1732.5	17.92	19.21
			100/0	1745	17.88	19.27
		QPSK	100/0	1720	17.85	19.37
			100/0	1732.5	17.90	19.23
			100/0	1745	17.88	19.09
	15	16QAM	75/0	1717.5	13.39	14.42
			75/0	1732.5	13.38	14.62
			75/0	1747.5	13.42	14.43
		QPSK	75/0	1717.5	13.40	14.45
			75/0	1732.5	13.40	14.38
			75/0	1747.5	13.41	14.56
	10	16QAM	50/0	1715	8.972	9.617
			50/0	1732.5	8.96	9.716
			50/0	1750	8.937	9.825
		QPSK	50/0	1715	8.956	9.68
			50/0	1732.5	8.953	9.72
			50/0	1750	8.938	9.621
	5	16QAM	25/0	1712.5	4.493	4.9
			25/0	1732.5	4.516	4.931
			25/0	1752.5	4.495	4.888
		QPSK	25/0	1712.5	4.488	4.903
			25/0	1732.5	4.508	4.955
			25/0	1752.5	4.497	4.903

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE4	3	16QAM	15/0	1711.5	2.683	2.978
			15/0	1732.5	2.685	2.997
			15/0	1753.5	2.689	2.989
		QPSK	15/0	1711.5	2.689	2.930
			15/0	1732.5	2.682	2.980
			15/0	1753.5	2.678	2.985
	1.4	16QAM	6/0	1710.7	1.081	1.218
			6/0	1732.5	1.086	1.227
			6/0	1754.3	1.086	1.230
		QPSK	6/0	1710.7	1.084	1.220
			6/0	1732.5	1.079	1.222
			6/0	1754.3	1.082	1.226

LTE Band 5

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE5	10	16QAM	50/0	829	8.956	9.688
			50/0	836.5	8.933	9.650
			50/0	844	8.933	9.720
		QPSK	50/0	829	8.946	9.551
			50/0	836.5	8.947	9.692
			50/0	844	8.955	9.710
	5	16QAM	25/0	826.5	4.490	4.903
			25/0	836.5	4.492	4.910
			25/0	846.5	4.500	4.916
		QPSK	25/0	826.5	4.486	4.896
			25/0	836.5	4.504	4.967
			25/0	846.5	4.496	4.925
	3	16QAM	15/0	825.5	2.685	2.966
			15/0	836.5	2.694	2.994
			15/0	847.5	2.690	2.981
		QPSK	15/0	825.5	2.691	2.970
			15/0	836.5	2.688	2.974
			15/0	847.5	2.683	2.971
	1.4	16QAM	6/0	824.7	1.078	1.223
			6/0	836.5	1.084	1.226
			6/0	848.3	1.084	1.226
		QPSK	6/0	824.7	1.084	1.226
			6/0	836.5	1.079	1.223
			6/0	848.3	1.084	1.232

LTE Band 7

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE7	20	16QAM	100/0	2510	17.840	19.210
			100/0	2535	17.880	19.150
			100/0	2560	17.910	19.270
		QPSK	100/0	2510	17.850	19.140
			100/0	2535	17.880	19.400
			100/0	2560	17.910	19.150
	15	16QAM	75/0	2507.5	13.370	14.530
			75/0	2535	13.430	14.560
			75/0	2562.5	13.440	14.480
		QPSK	75/0	2507.5	13.400	14.620
			75/0	2535	13.410	14.600
			75/0	2562.5	13.450	14.550
	10	16QAM	50/0	2505	8.941	9.716
			50/0	2535	8.975	9.628
			50/0	2565	8.926	9.752
		QPSK	50/0	2505	8.956	9.666
			50/0	2535	8.928	9.587
			50/0	2565	8.957	9.744
	5	16QAM	25/0	2502.5	4.503	4.876
			25/0	2535	4.490	4.907
			25/0	2567.5	4.489	4.930
		QPSK	25/0	2502.5	4.494	4.923
			25/0	2535	4.481	4.914
			25/0	2567.5	4.510	4.946

LTE Band 12

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE12	10	16QAM	50/0	704	8.961	9.827
			50/0	707.5	8.941	9.672
			50/0	711	8.947	9.641
		QPSK	50/0	704	8.953	9.600
			50/0	707.5	8.974	9.676
			50/0	711	8.945	9.653
	5	16QAM	25/0	701.5	4.488	4.895
			25/0	707.5	4.491	4.891
			25/0	713.5	4.490	4.933
		QPSK	25/0	701.5	4.509	4.880
			25/0	707.5	4.508	4.956
			25/0	713.5	4.482	4.939
	3	16QAM	15/0	700.5	2.686	2.963
			15/0	707.5	2.684	2.985
			15/0	714.5	2.683	2.935
		QPSK	15/0	700.5	2.680	2.937
			15/0	707.5	2.687	2.978
			15/0	714.5	2.682	2.956
	1.4	16QAM	6/0	699.7	1.086	1.227
			6/0	707.5	1.081	1.225
			6/0	715.3	1.078	1.232
		QPSK	6/0	699.7	1.083	1.227
			6/0	707.5	1.080	1.224
			6/0	715.3	1.085	1.231

LTE Band 13

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW(MHz)	-26dB BW (MHz)
LTE13	10	16QAM	50/0	782	8.9378	9.687
		QPSK	50/0	782	8.9175	9.677
	5	16QAM	25/0	779.5	4.4918	4.890
			25/0	782	4.4928	4.930
		QPSK	25/0	784.5	4.4817	4.916
	5	16QAM	25/0	779.5	4.4946	4.908
			25/0	782	4.4902	4.927
		QPSK	25/0	784.5	4.4915	4.903

LTE Band 17

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
17	10	16QAM	50/0	710	8.969	9.669
		QPSK	50/0	710	8.937	9.691
	5	16QAM	25/0	706.5	4.506	4.955
			25/0	710	4.485	4.924
		QPSK	25/0	713.5	4.490	4.930
	5	16QAM	25/0	706.5	4.489	4.899
			25/0	710	4.491	4.926
		QPSK	25/0	713.5	4.496	4.950

LTE Band 25

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE25	20	16QAM	100/0	1860	17.930	19.230
			100/0	1882.5	17.890	19.130
			100/0	1905	17.860	19.100
		QPSK	100/0	1860	17.880	19.250
			100/0	1882.5	17.870	19.260
			100/0	1905	17.900	19.270
	15	16QAM	75/0	1857.5	13.410	14.490
			75/0	1882.5	13.400	14.530
			75/0	1907.5	13.440	14.610
		QPSK	75/0	1857.5	13.430	14.510
			75/0	1882.5	13.420	14.440
			75/0	1907.5	13.420	14.470
	10	16QAM	50/0	1855	8.939	9.711
			50/0	1882.5	8.945	9.551
			50/0	1910	8.954	9.710
		QPSK	50/0	1855	8.967	9.639
			50/0	1882.5	8.947	9.685
			50/0	1910	8.949	9.700
	5	16QAM	25/0	1852.5	4.507	4.929
			25/0	1882.5	4.500	4.884
			25/0	1912.5	4.491	4.883
		QPSK	25/0	1852.5	4.500	4.971
			25/0	1882.5	4.497	4.916
			25/0	1912.5	4.505	4.941

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE25	3	16QAM	15/0	1851.5	2.693	2.969
			15/0	1882.5	2.685	2.984
			15/0	1913.5	2.685	2.983
		QPSK	15/0	1851.5	2.692	2.961
			15/0	1882.5	2.681	2.994
			15/0	1913.5	2.686	2.970
	1.4	16QAM	6/0	1850.7	1.083	1.229
			6/0	1882.5	1.085	1.220
			6/0	1914.3	1.088	1.229
		QPSK	6/0	1850.7	1.084	1.220
			6/0	1882.5	1.080	1.225
			6/0	1914.3	1.087	1.227

LTE Band 26

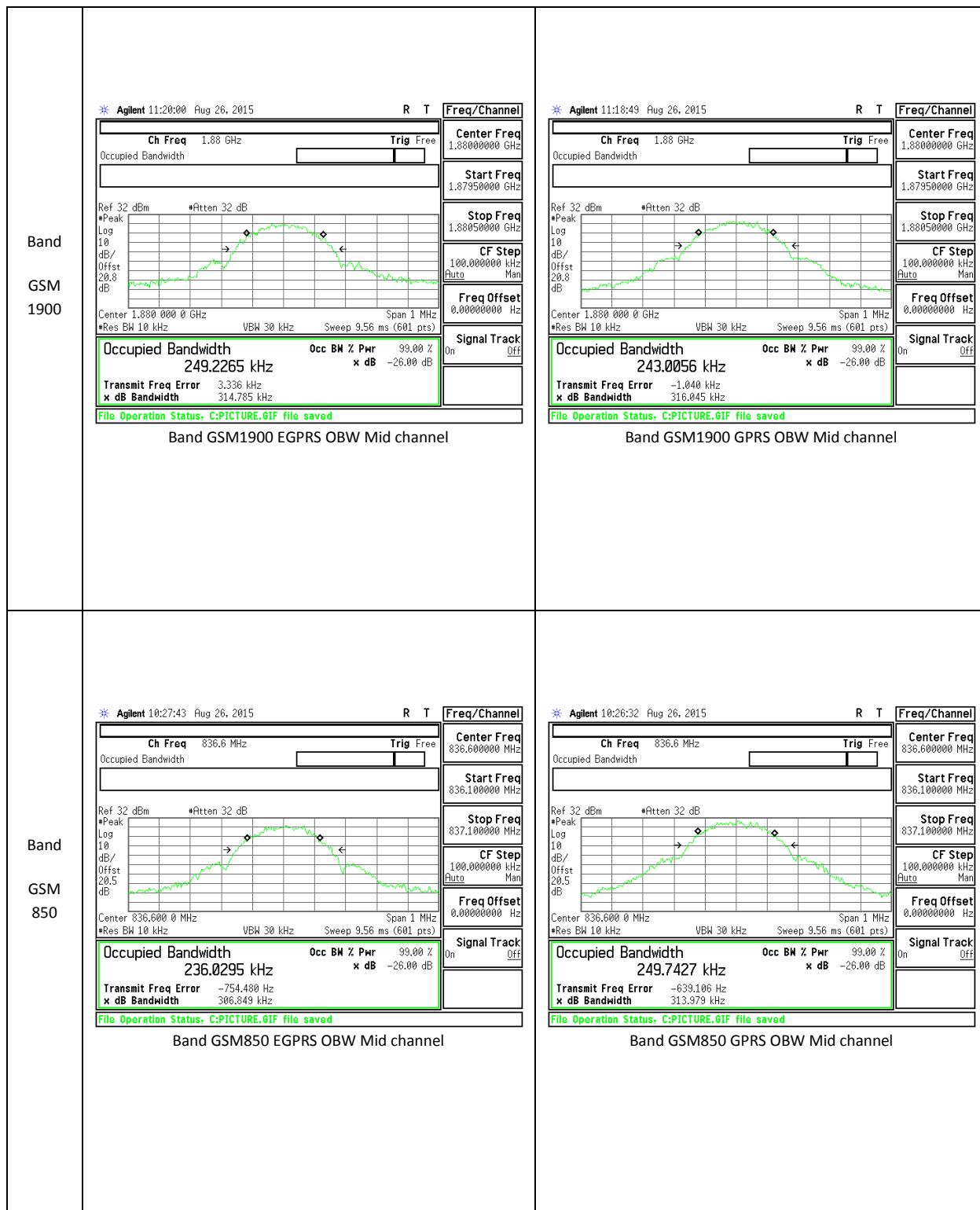
Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE26	15	16QAM	75/0	831.5	13.452	14.651
			75/0	836.5	13.434	14.664
			75/0	841.5	13.392	14.510
		QPSK	75/0	831.5	13.419	14.699
			75/0	836.5	13.443	14.529
			75/0	841.5	13.432	14.560
	10	16QAM	50/0	819	8.948	9.524
			50/0	831.5	8.953	9.728
			50/0	844	8.938	9.711
		QPSK	50/0	819	8.953	9.592
			50/0	831.5	8.954	9.604
			50/0	844	8.957	9.700
	5	16QAM	25/0	816.5	4.490	4.887
			25/0	831.5	4.506	4.979
			25/0	846.5	4.486	4.899
		QPSK	25/0	816.5	4.519	4.942
			25/0	831.5	4.503	4.894
			25/0	846.5	4.479	4.897
	3	16QAM	15/0	815.5	2.683	2.984
			15/0	831.5	2.685	2.974
			15/0	847.5	2.689	2.966
		QPSK	15/0	815.5	2.679	2.954
			15/0	831.5	2.693	2.945
			15/0	847.5	2.694	2.995
	1.4	16QAM	6/0	814.7	1.088	1.224
			6/0	831.5	1.085	1.233
			6/0	848.3	1.081	1.223
		QPSK	6/0	814.7	1.080	1.210
			6/0	831.5	1.084	1.231
			6/0	848.3	1.084	1.220

LTE Band 41

Band	BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
LTE41	20	16QAM	100/0	2506	17.821	19.551
			100/0	2593	17.887	19.497
			100/0	2680	17.837	19.165
		QPSK	100/0	2506	17.915	19.763
			100/0	2593	17.875	18.815
			100/0	2680	17.945	19.389
	15	16QAM	75/0	2503.5	13.446	14.504
			75/0	2593	13.426	15.213
			75/0	2682.5	13.451	14.844
		QPSK	75/0	2503.5	13.433	14.046
			75/0	2593	13.398	14.546
			75/0	2682.5	13.419	14.602
	10	16QAM	50/0	2501	8.939	9.602
			50/0	2593	8.936	9.674
			50/0	2685	8.934	9.667
		QPSK	50/0	2501	8.940	9.508
			50/0	2593	8.942	9.681
			50/0	2685	8.984	9.716
	5	16QAM	25/0	2498.5	4.487	4.912
			25/0	2593	4.487	4.924
			25/0	2687.5	4.487	4.900
		QPSK	25/0	2498.5	4.480	4.880
			25/0	2593	4.502	4.970
			25/0	2687.5	4.502	4.986

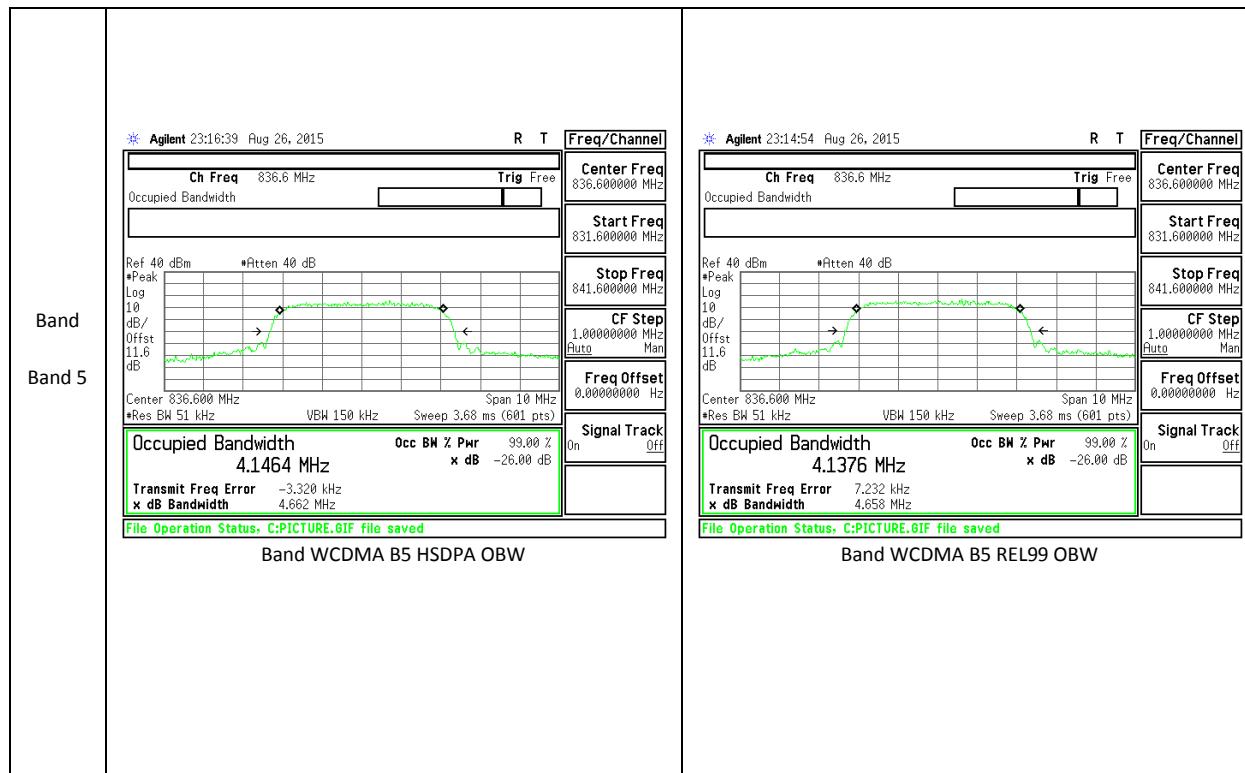
10.1.2. OCCUPIED BANDWIDTH PLOTS

GSM

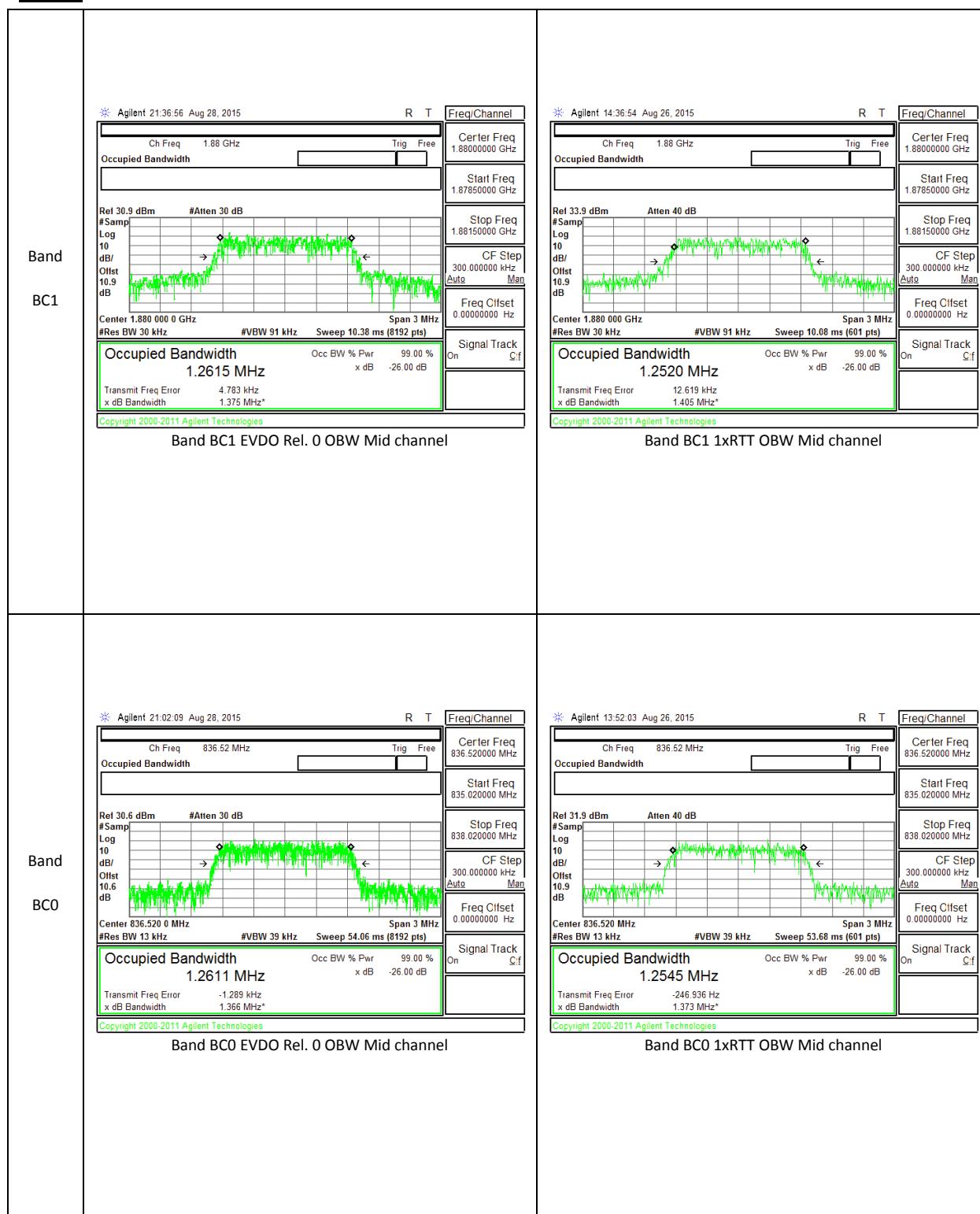


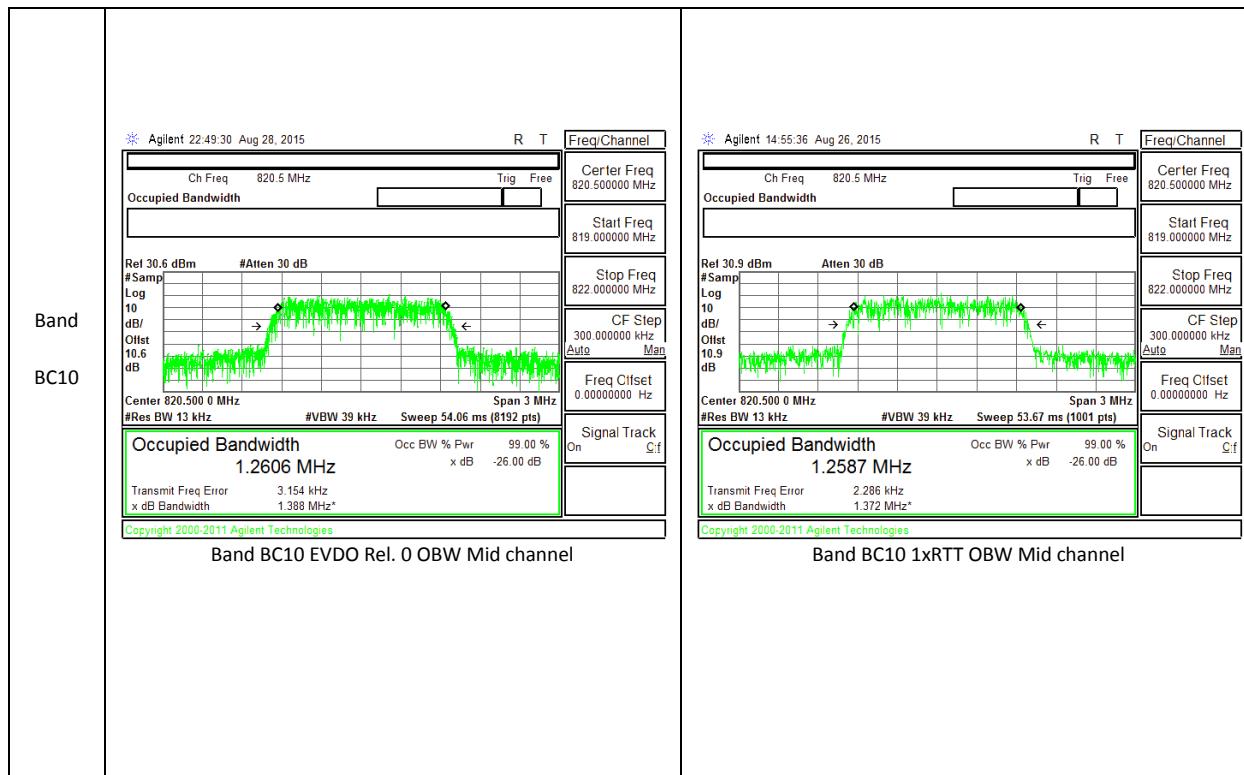
WCDMA



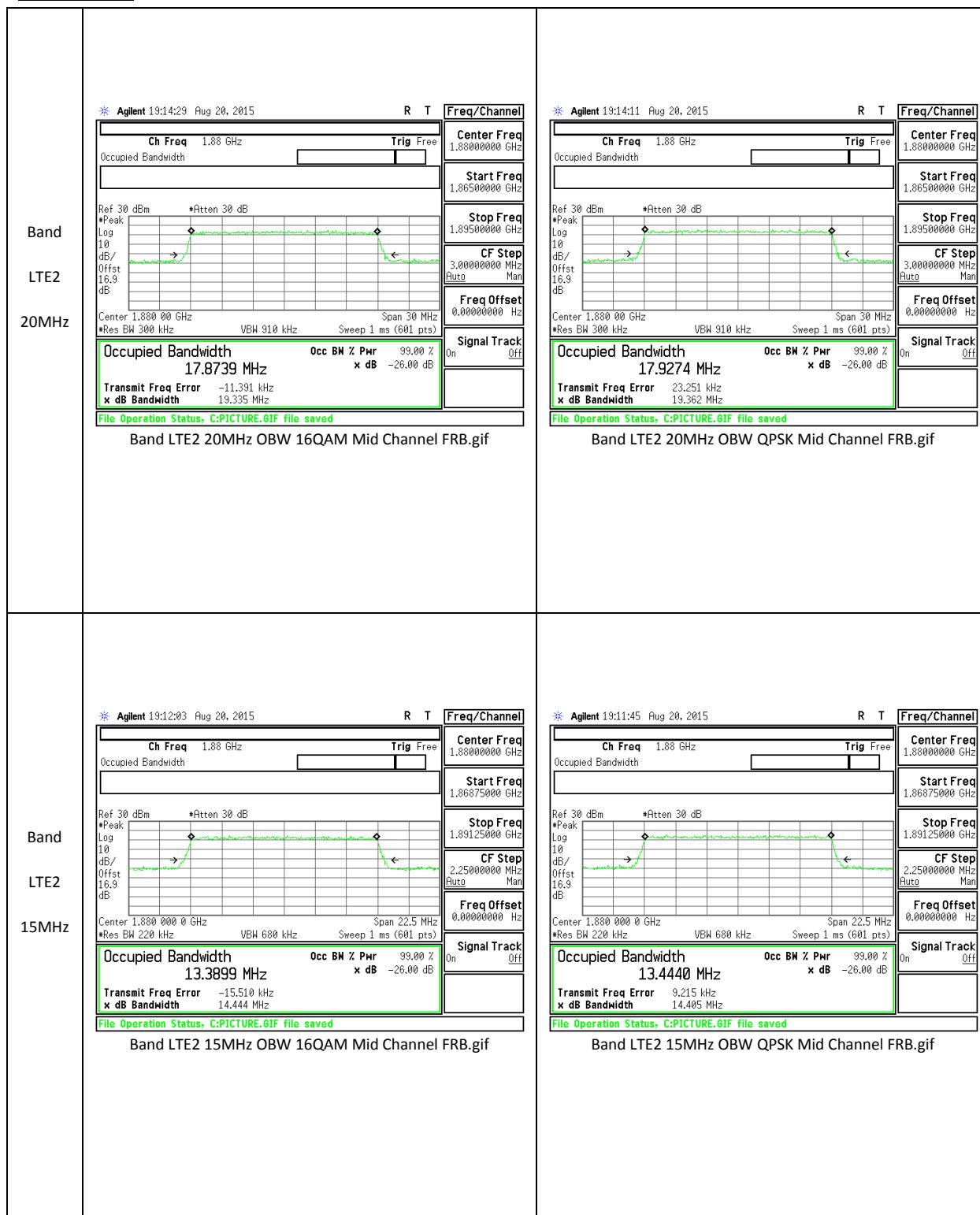


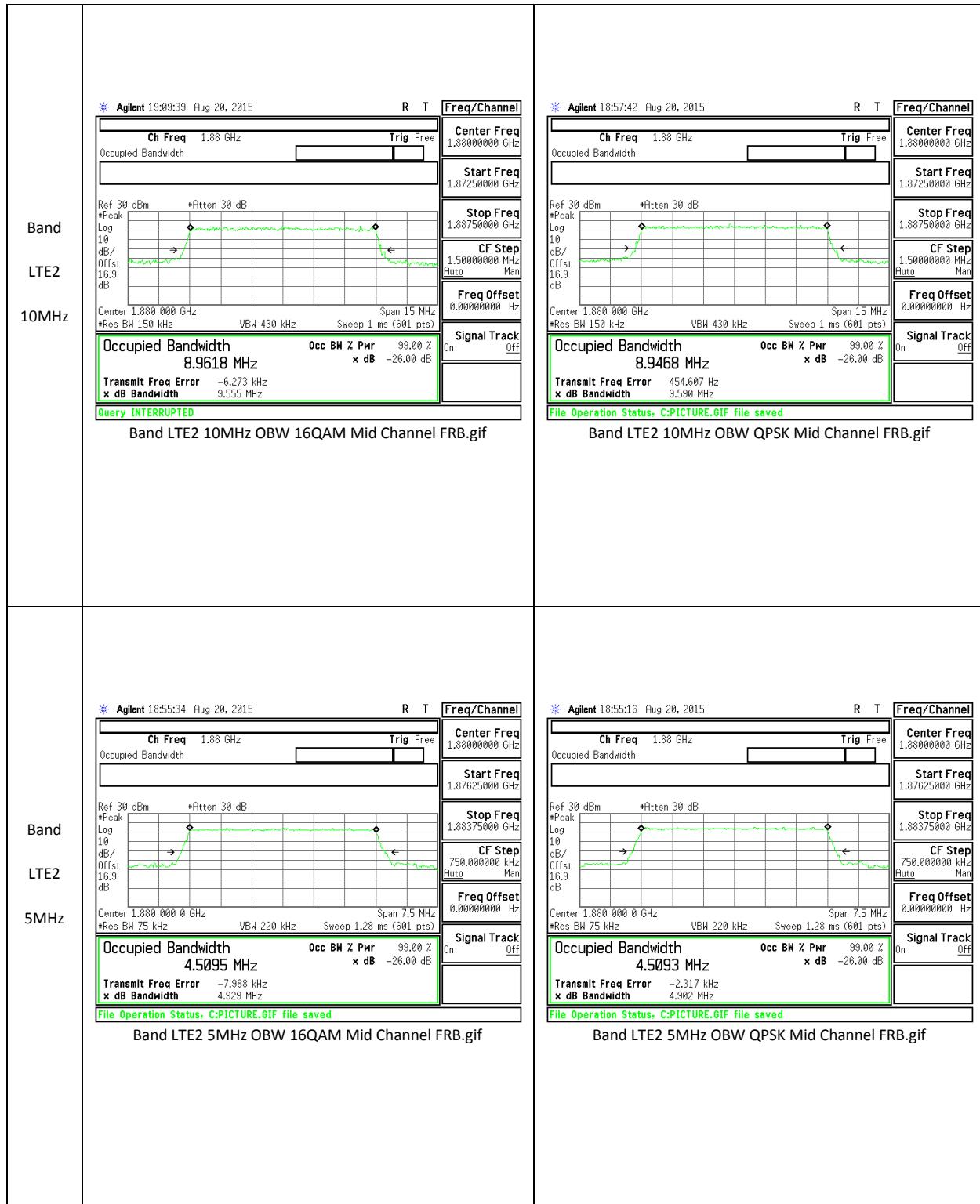
CDMA





LTE Band 2

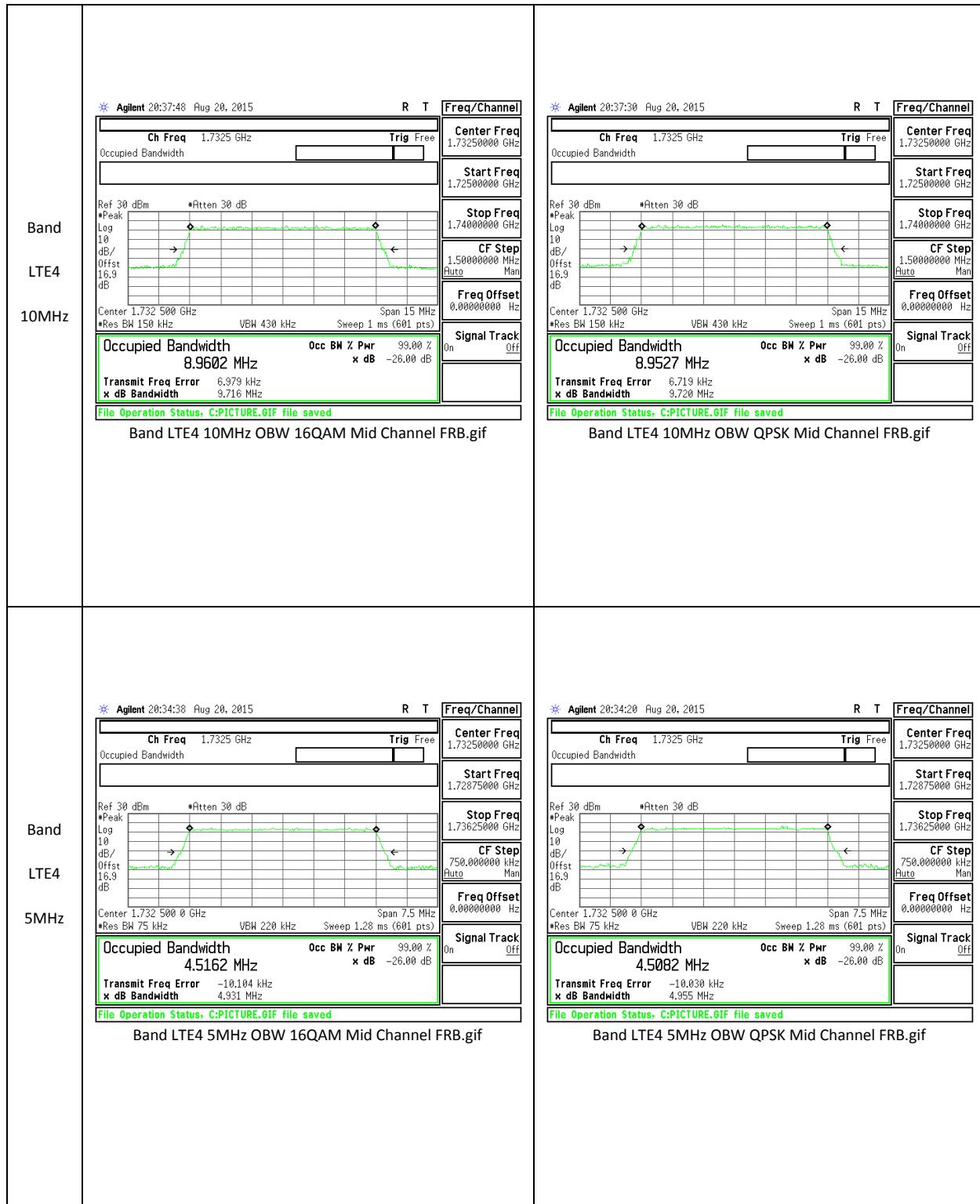






LTE Band 4

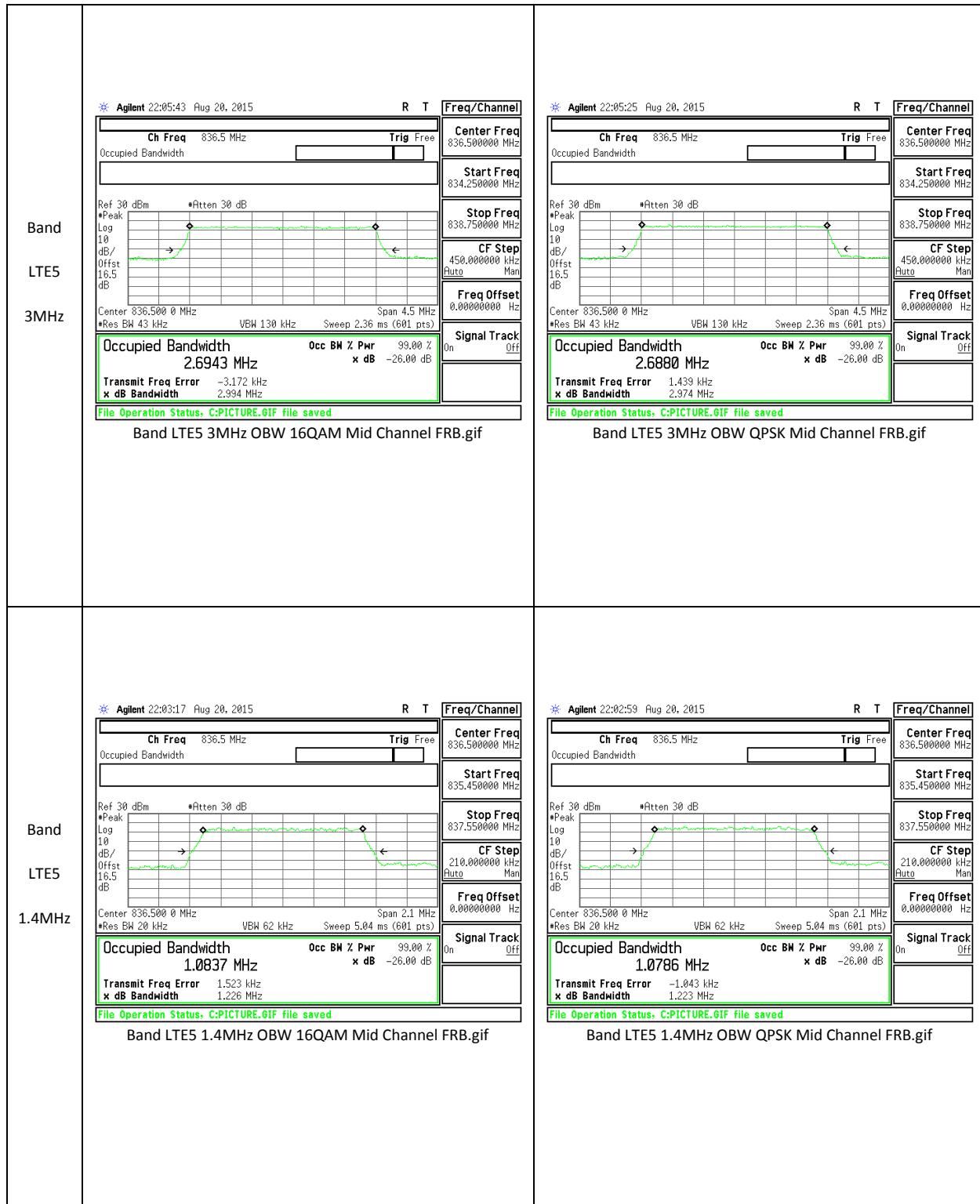




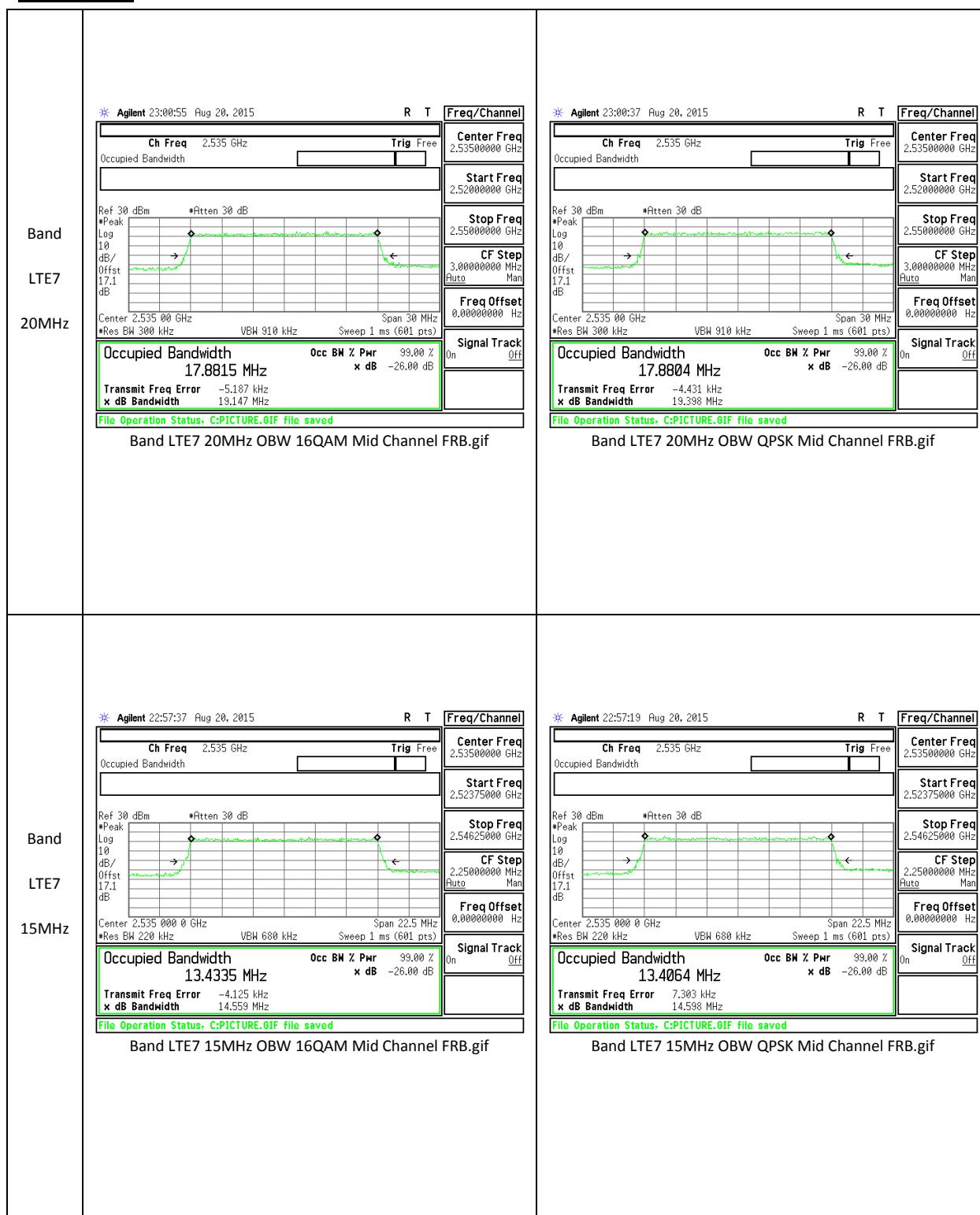


LTE Band 5

	<p>* Agilent 22:10:35 Aug 20, 2015</p> <table border="1"> <thead> <tr> <th>Ch Freq</th> <th>836.5 MHz</th> <th>Trig</th> <th>Free</th> </tr> </thead> <tbody> <tr> <td>Occupied Bandwidth</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ref 30 dBm</td> <td>#Atten 30 dB</td> <td></td> <td></td> </tr> <tr> <td>*Peak</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Log</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB/</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Offst</td> <td></td> <td></td> <td></td> </tr> <tr> <td>16.5</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Center 836.500 MHz</td> <td></td> <td>Span 15 MHz</td> <td></td> </tr> <tr> <td>*Res BW 150 kHz</td> <td>VBW 430 kHz</td> <td>Sweep 1 ms (601 pts)</td> <td></td> </tr> <tr> <td>Occupied Bandwidth</td> <td>Occ BW % Pwr</td> <td>99.00 %</td> <td></td> </tr> <tr> <td>8.9333 MHz</td> <td>x dB</td> <td>-26.00 dB</td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-8.502 kHz</td> <td></td> <td></td> </tr> <tr> <td>x dB Bandwidth</td> <td>9.650 MHz</td> <td></td> <td></td> </tr> </tbody> </table> <p>File Operation Status, C:\PICTURE.GIF file saved</p> <p>Band LTE5 10MHz OBW 16QAM Mid Channel FRB.gif</p>	Ch Freq	836.5 MHz	Trig	Free	Occupied Bandwidth				Ref 30 dBm	#Atten 30 dB			*Peak				Log				10				dB/				Offst				16.5				dB				Center 836.500 MHz		Span 15 MHz		*Res BW 150 kHz	VBW 430 kHz	Sweep 1 ms (601 pts)		Occupied Bandwidth	Occ BW % Pwr	99.00 %		8.9333 MHz	x dB	-26.00 dB		Transmit Freq Error	-8.502 kHz			x dB Bandwidth	9.650 MHz			<p>* Agilent 22:10:17 Aug 20, 2015</p> <table border="1"> <thead> <tr> <th>Ch Freq</th> <th>836.5 MHz</th> <th>Trig</th> <th>Free</th> </tr> </thead> <tbody> <tr> <td>Occupied Bandwidth</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ref 30 dBm</td> <td>#Atten 30 dB</td> <td></td> <td></td> </tr> <tr> <td>*Peak</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Log</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB/</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Offst</td> <td></td> <td></td> <td></td> </tr> <tr> <td>16.5</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dB</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Center 836.500 MHz</td> <td></td> <td>Span 15 MHz</td> <td></td> </tr> <tr> <td>*Res BW 150 kHz</td> <td>VBW 430 kHz</td> <td>Sweep 1 ms (601 pts)</td> <td></td> </tr> <tr> <td>Occupied Bandwidth</td> <td>Occ BW % Pwr</td> <td>99.00 %</td> <td></td> </tr> <tr> <td>8.9470 MHz</td> <td>x dB</td> <td>-26.00 dB</td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>-3.199 kHz</td> <td></td> <td></td> </tr> <tr> <td>x dB Bandwidth</td> <td>9.692 MHz</td> <td></td> <td></td> </tr> </tbody> </table> <p>File Operation Status, C:\PICTURE.GIF file saved</p> <p>Band LTE5 10MHz OBW QPSK Mid Channel FRB.gif</p>	Ch Freq	836.5 MHz	Trig	Free	Occupied Bandwidth				Ref 30 dBm	#Atten 30 dB			*Peak				Log				10				dB/				Offst				16.5				dB				Center 836.500 MHz		Span 15 MHz		*Res BW 150 kHz	VBW 430 kHz	Sweep 1 ms (601 pts)		Occupied Bandwidth	Occ BW % Pwr	99.00 %		8.9470 MHz	x dB	-26.00 dB		Transmit Freq Error	-3.199 kHz			x dB Bandwidth	9.692 MHz		
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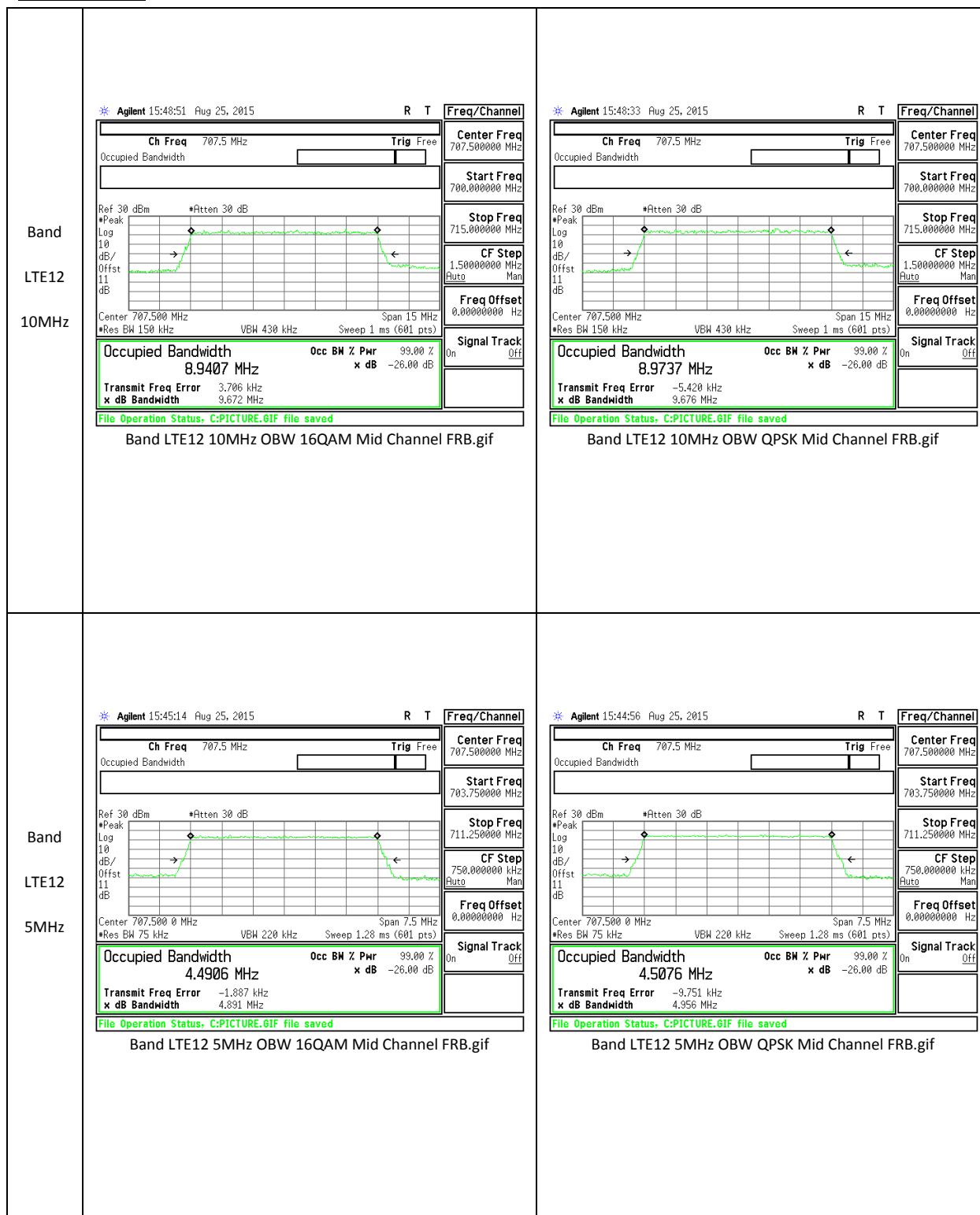


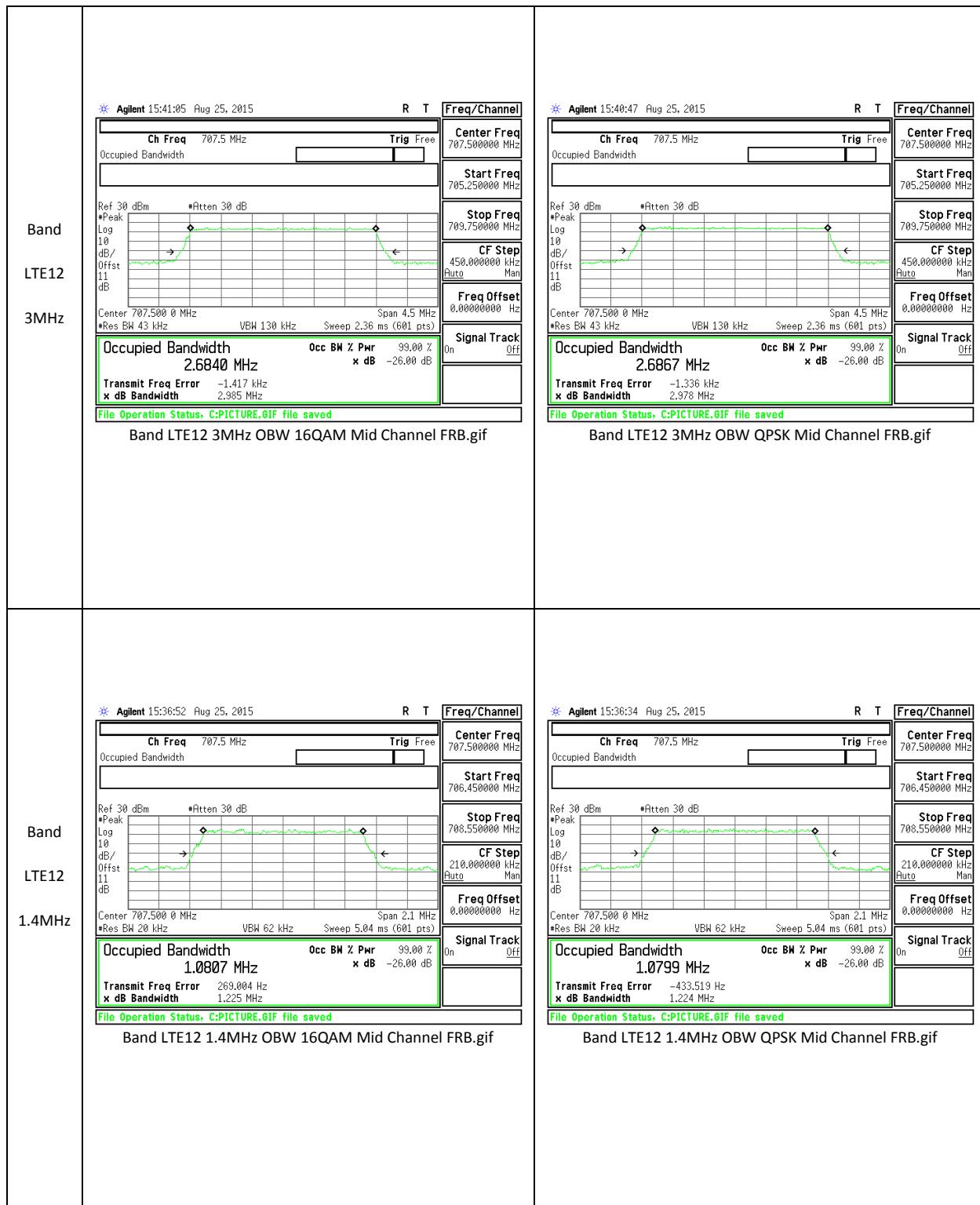
LTE Band 7





LTE Band 12

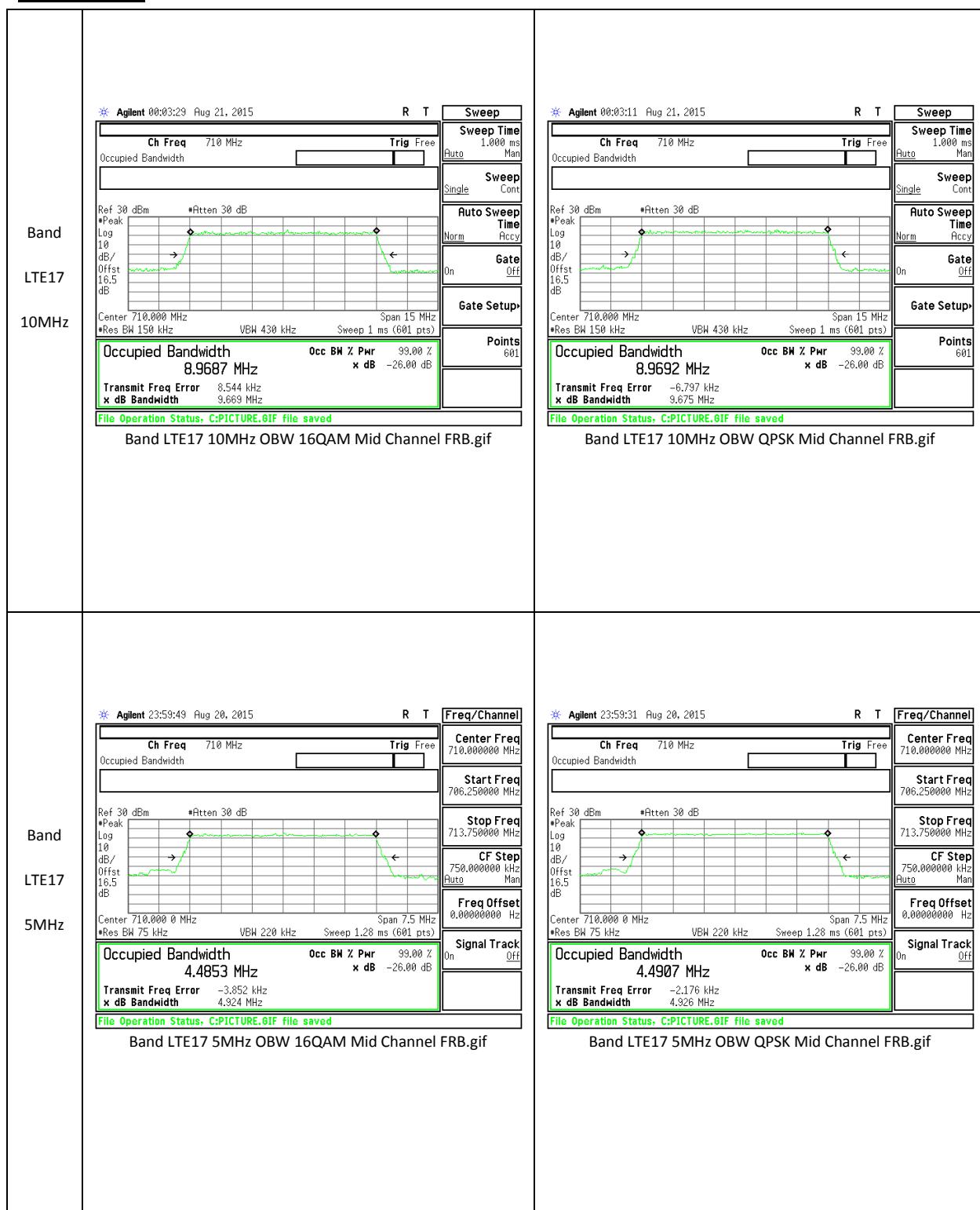




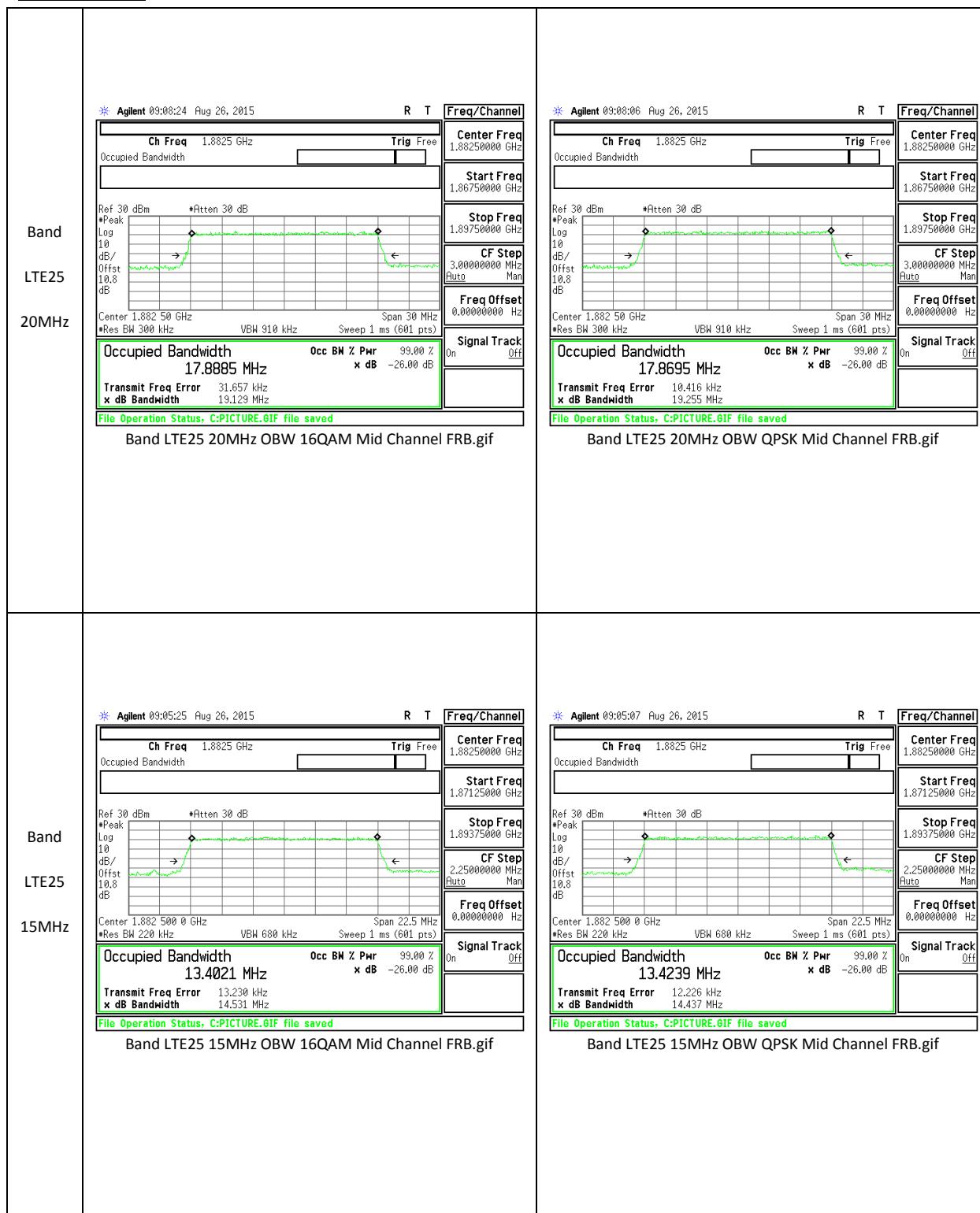
LTE Band 13



LTE Band 17



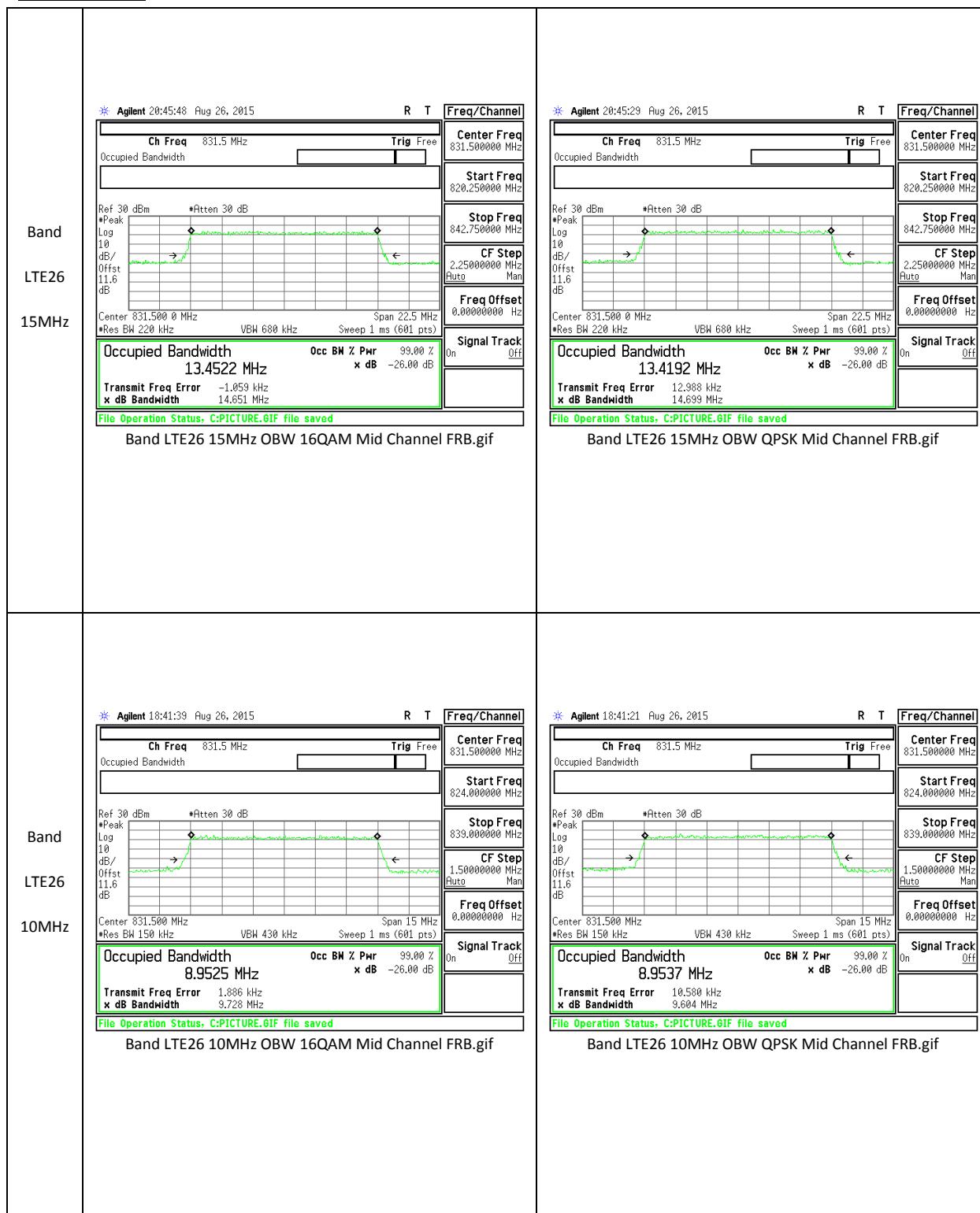
LTE Band 25



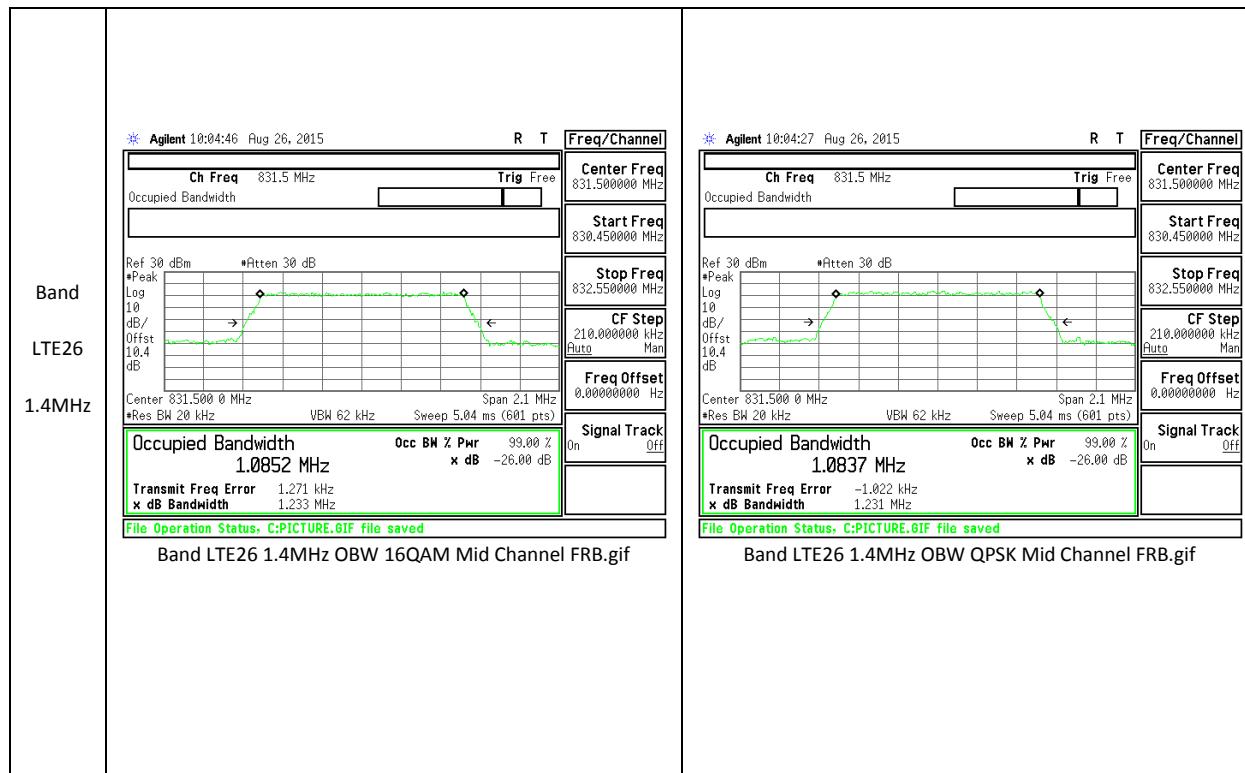




LTE Band 26







LTE Band 41

