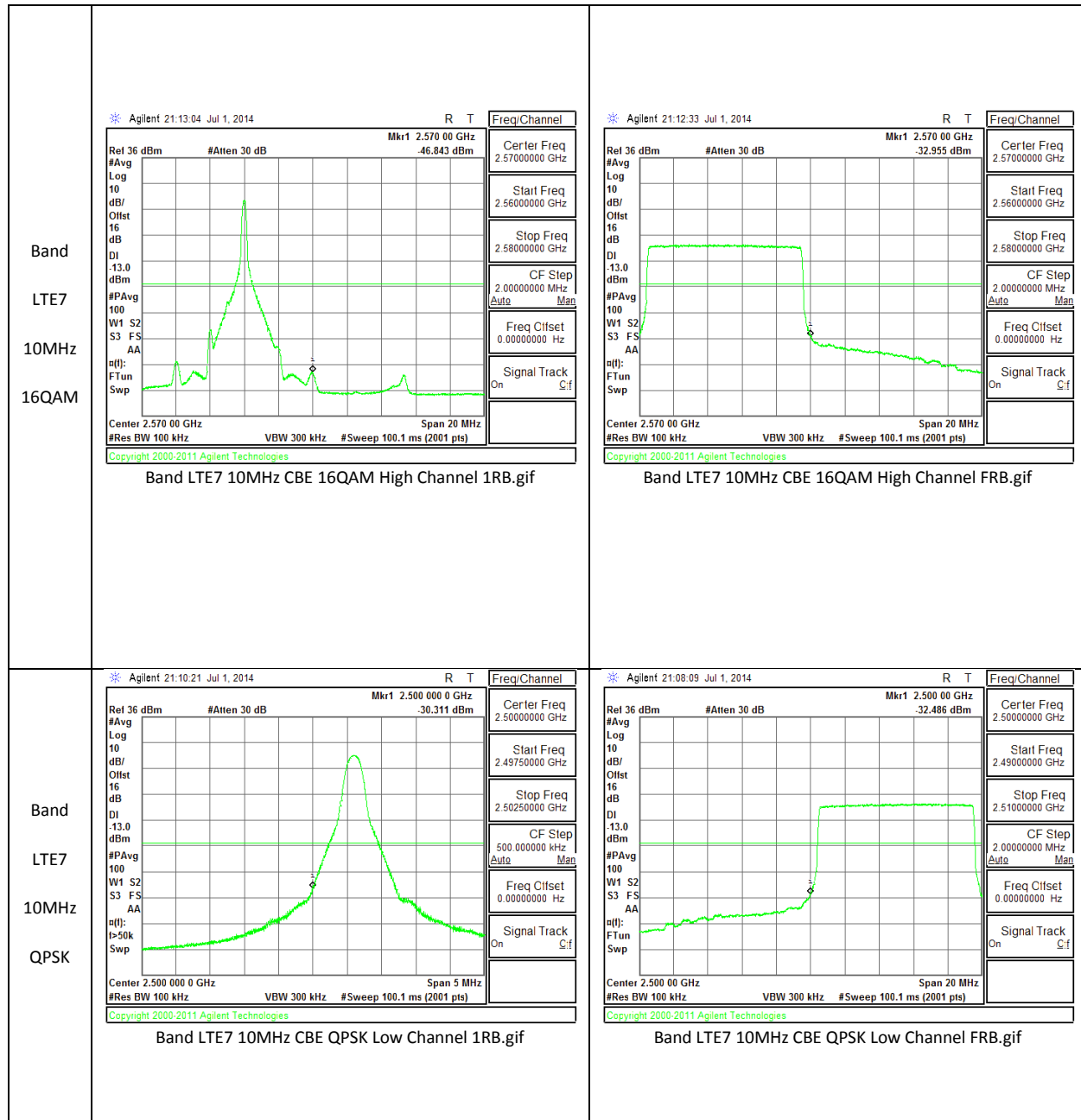
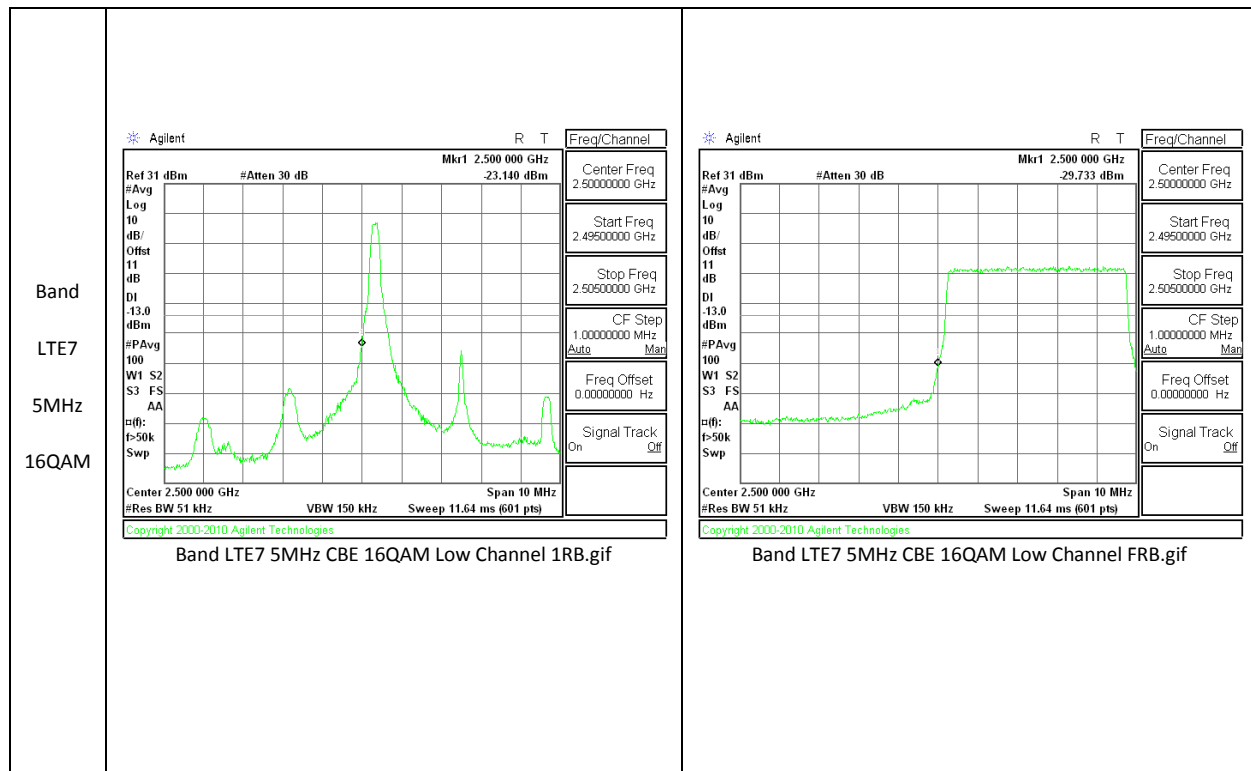
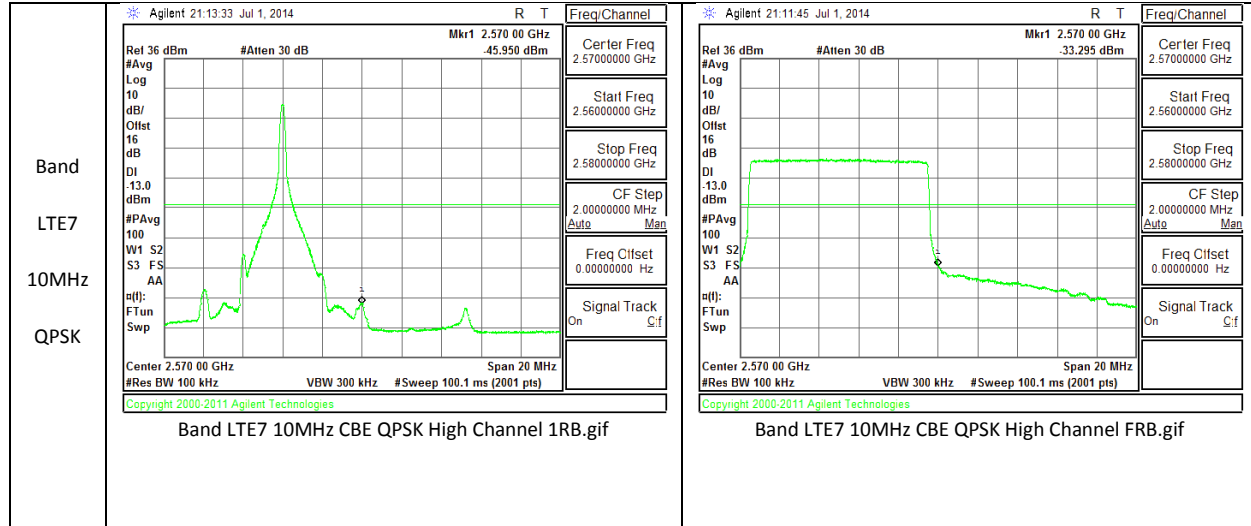
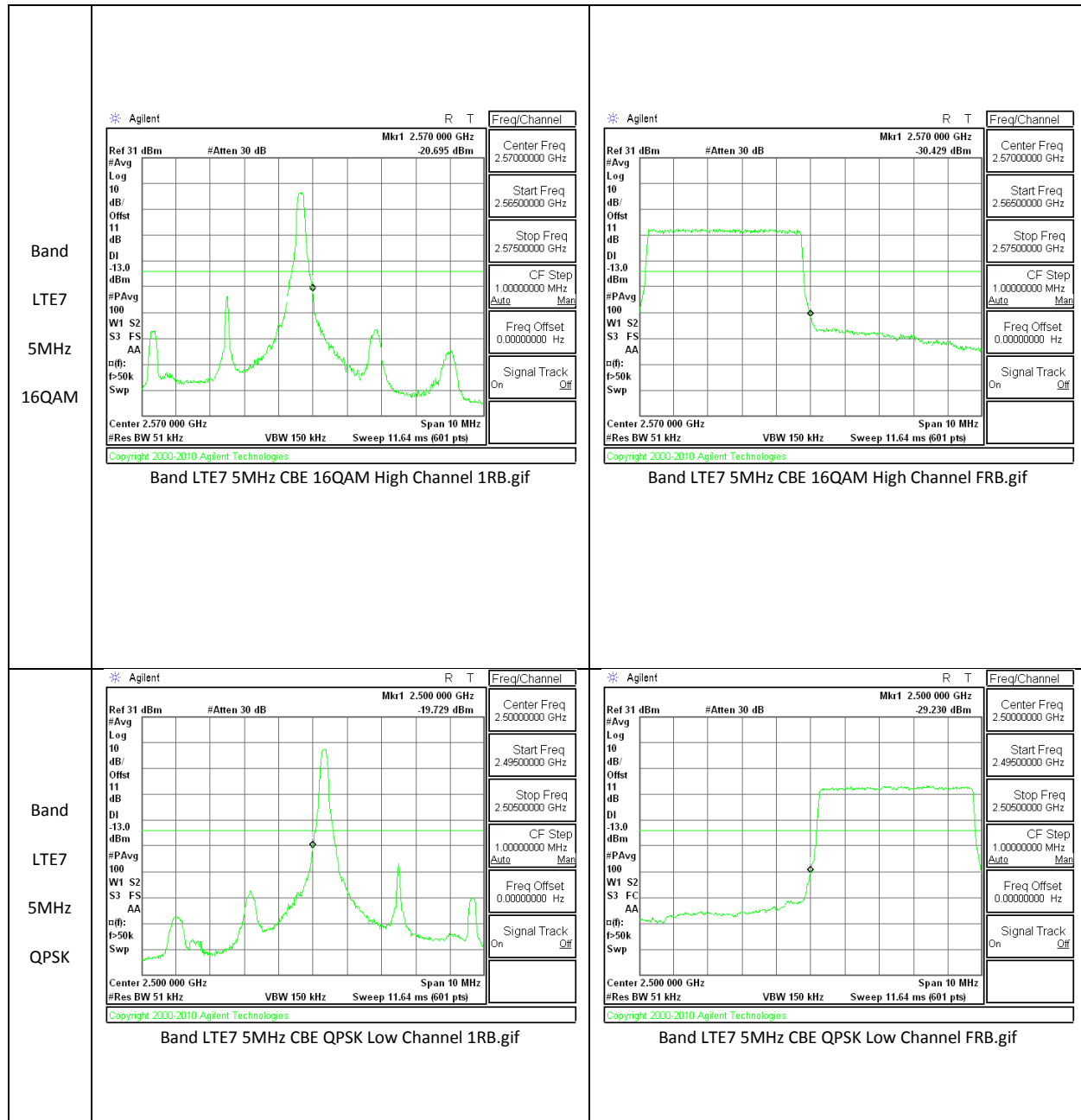
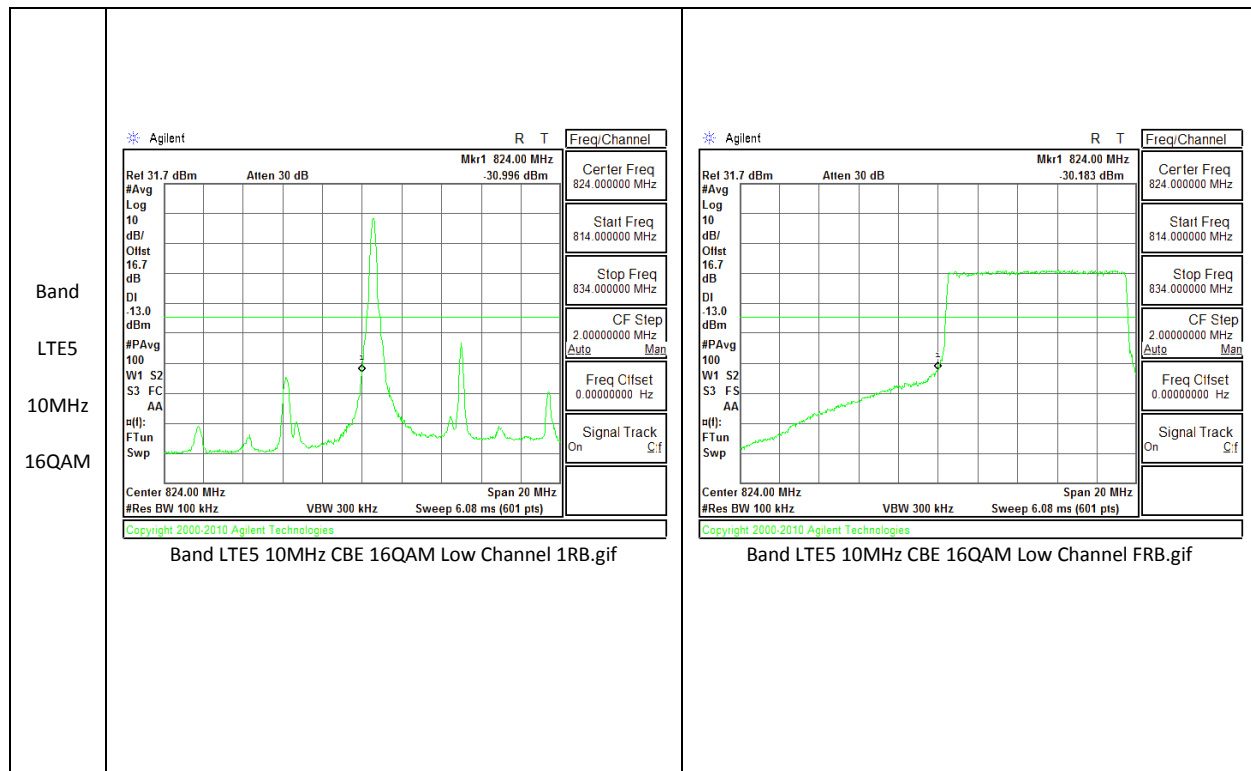
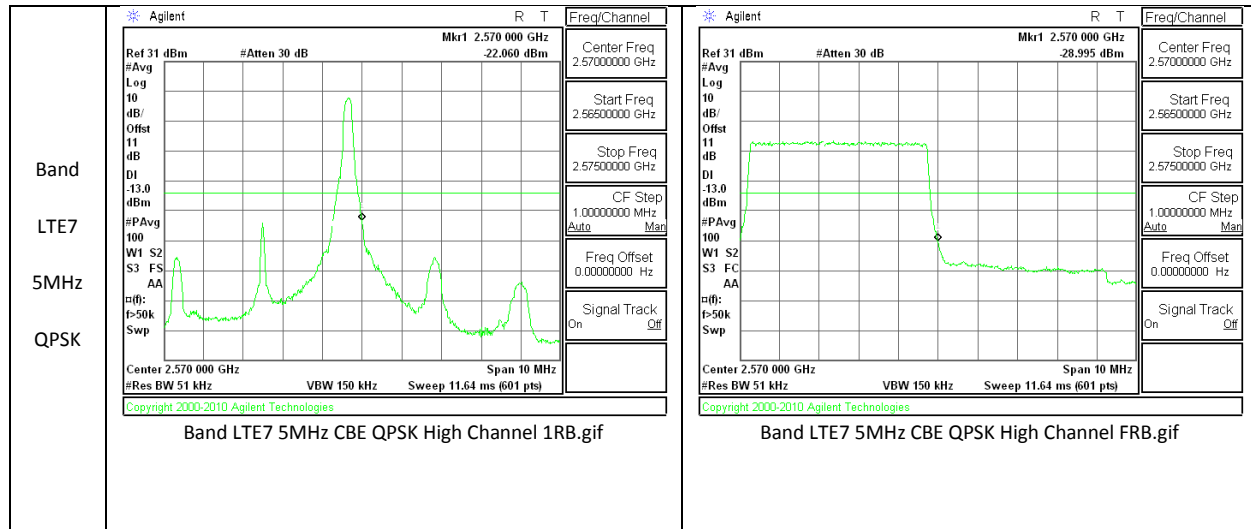
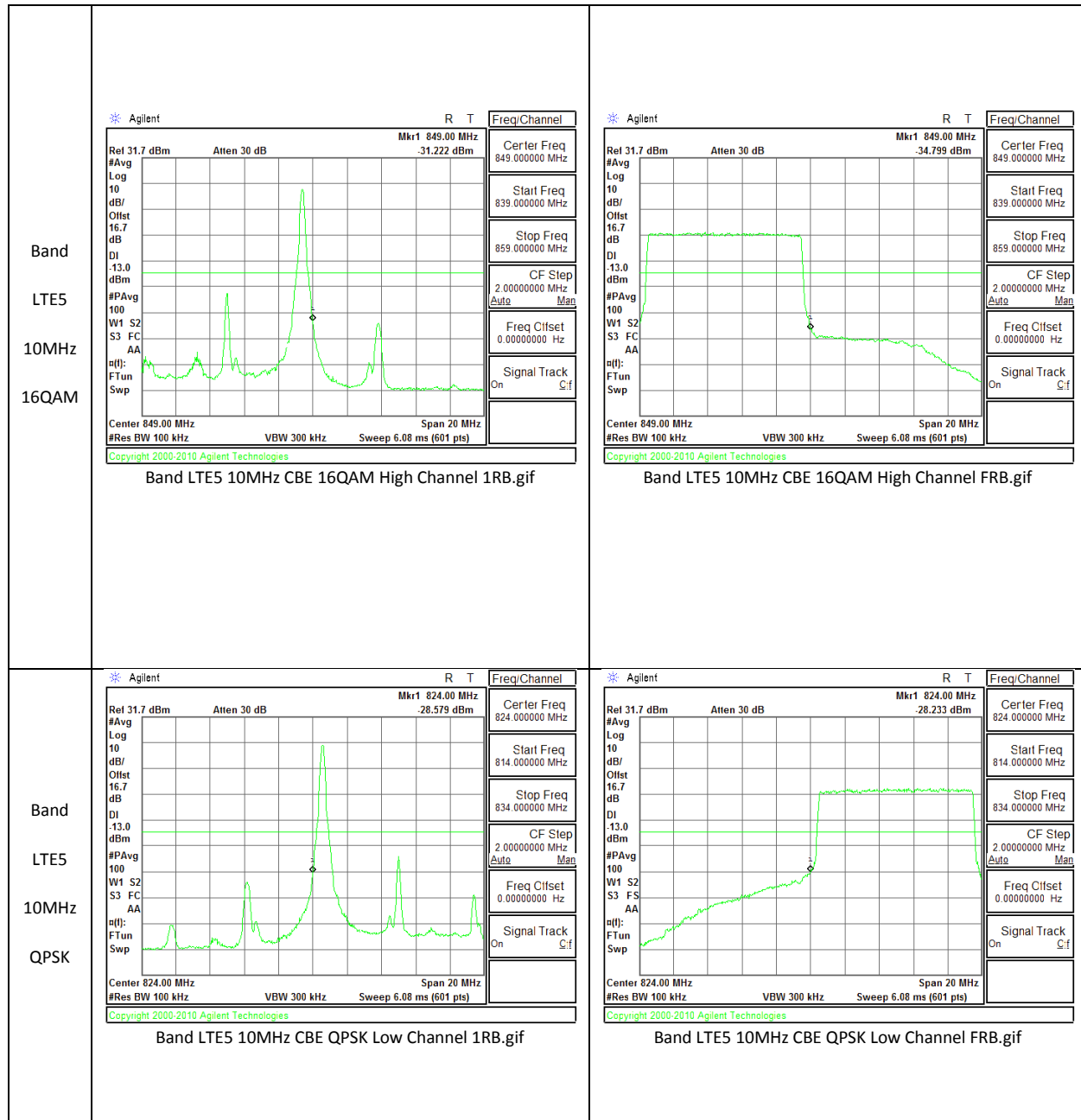


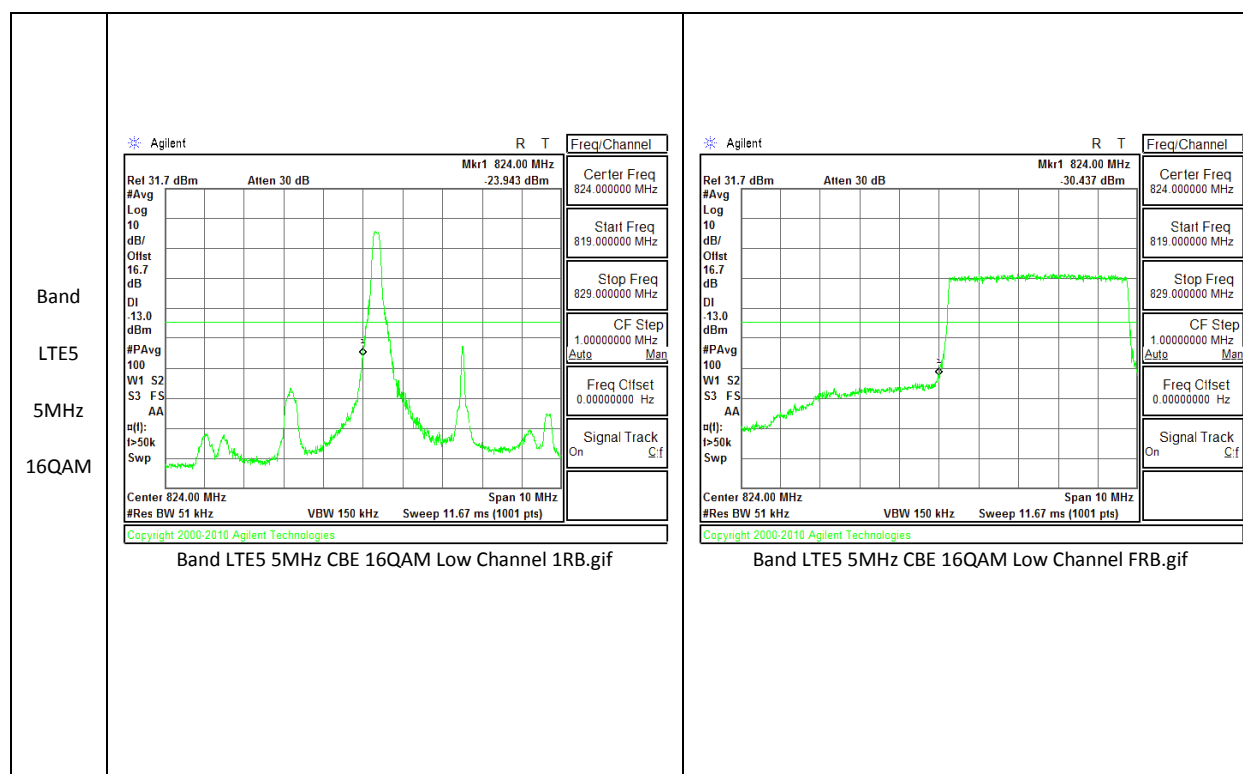
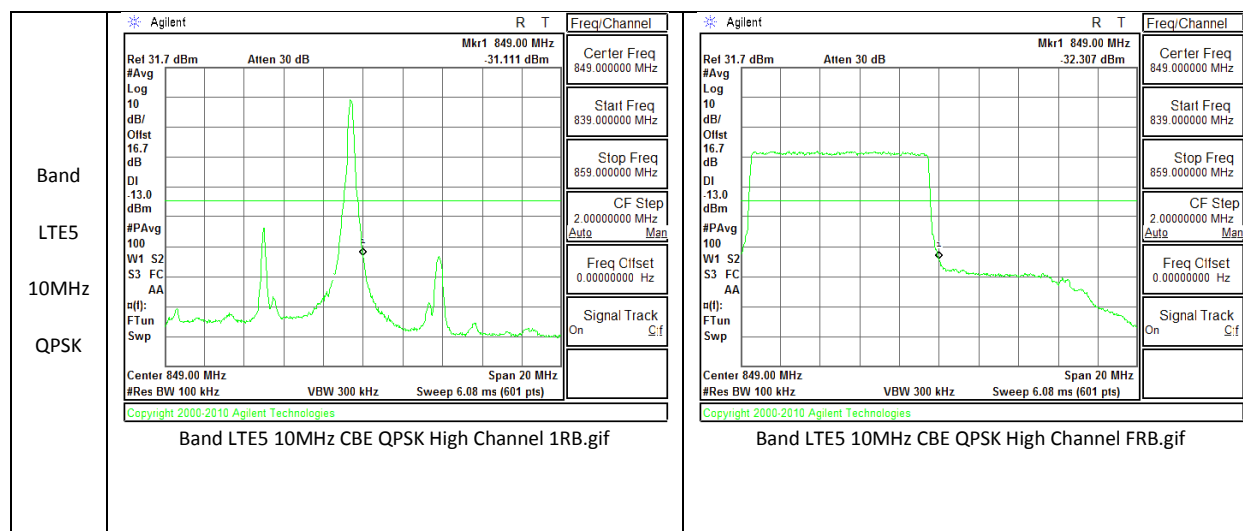


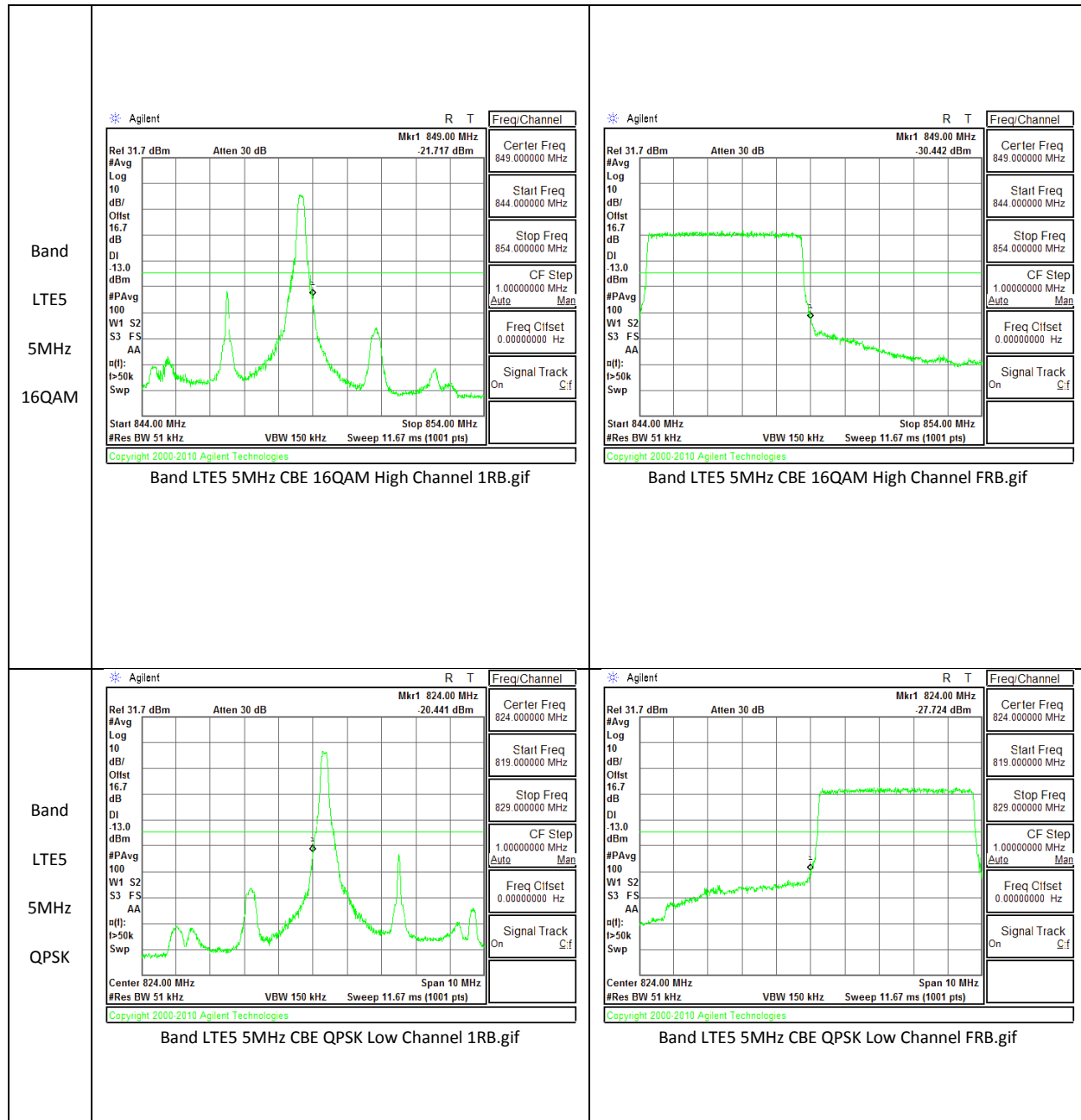


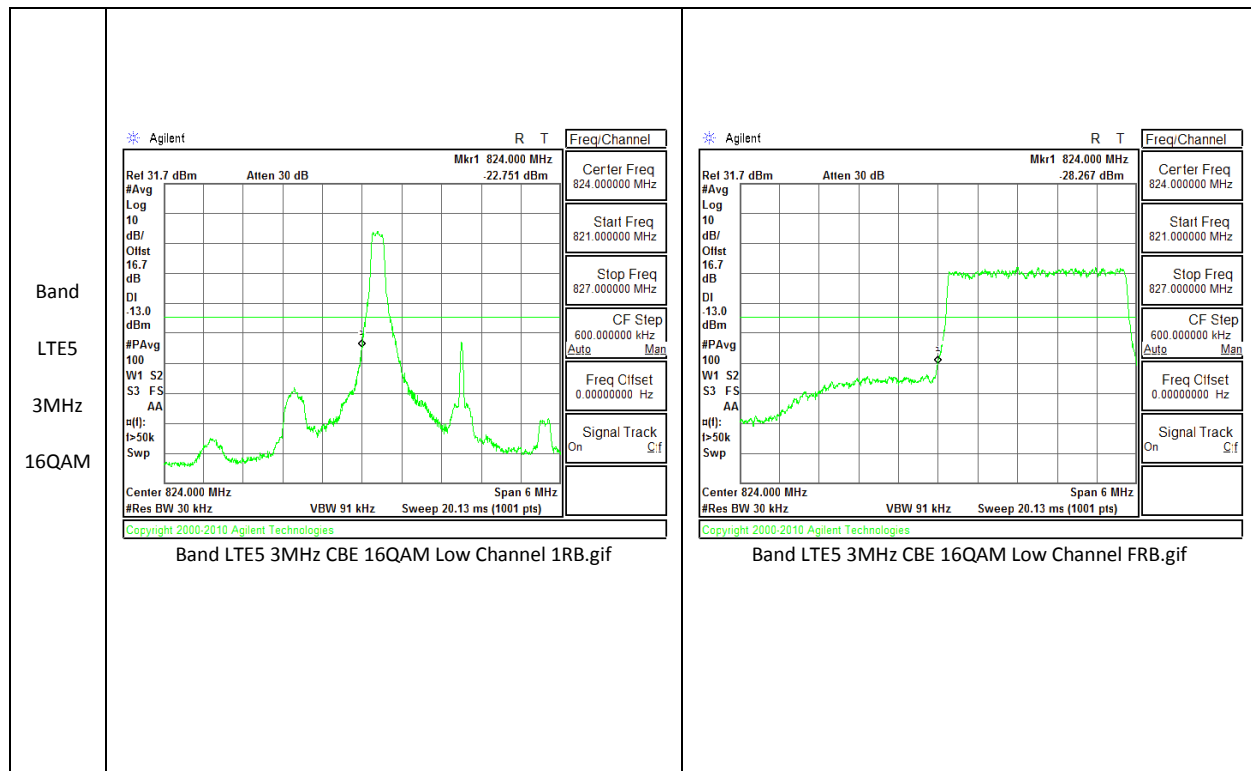
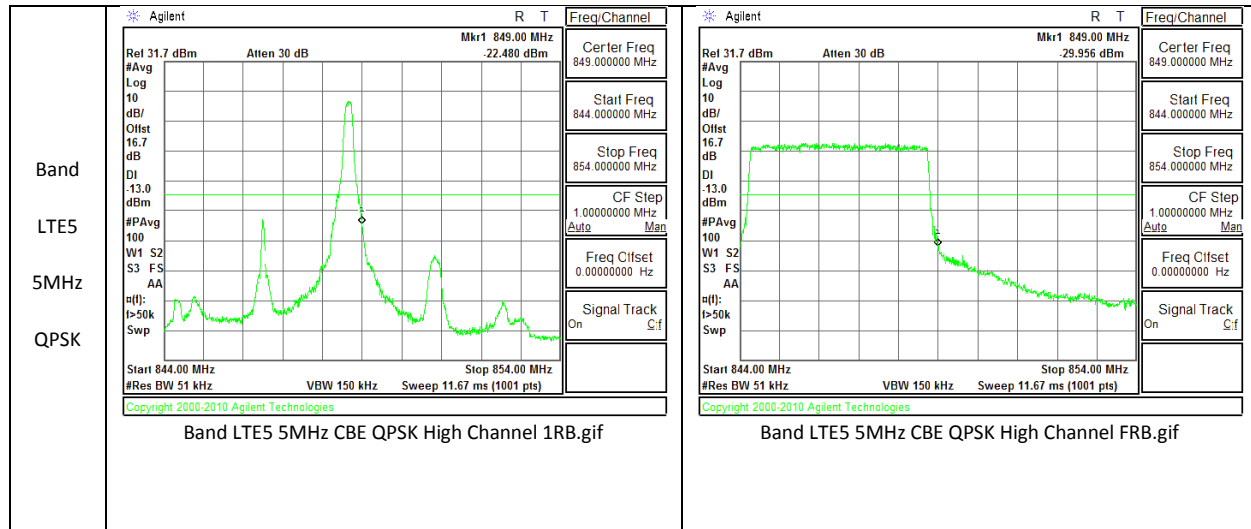


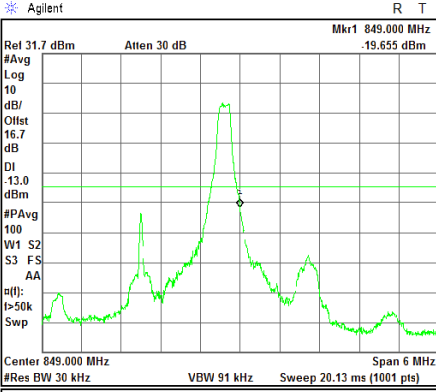
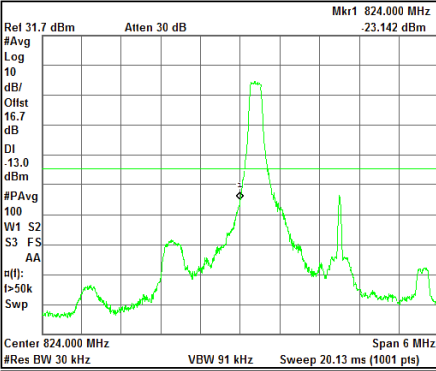
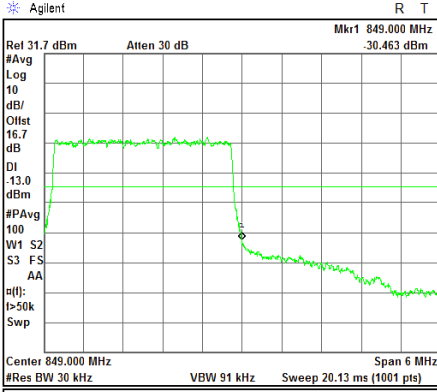
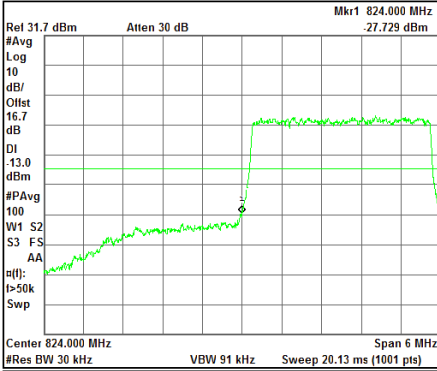


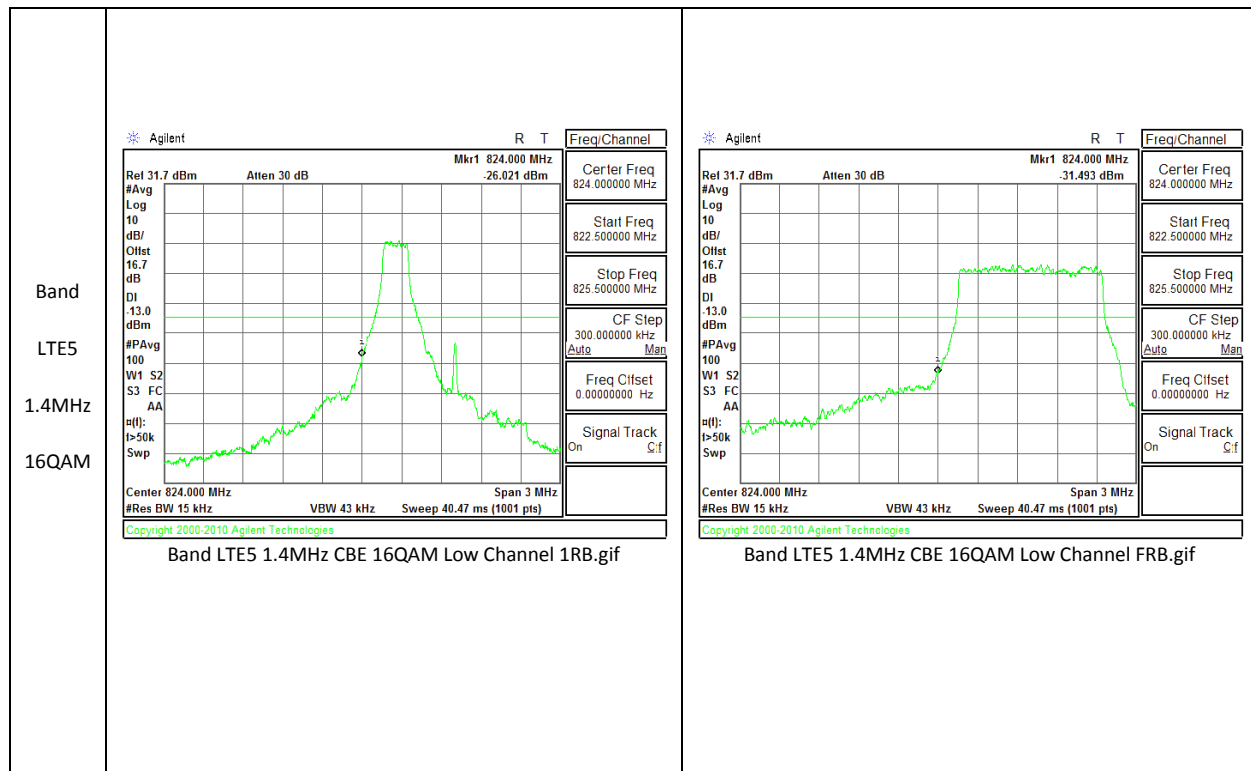
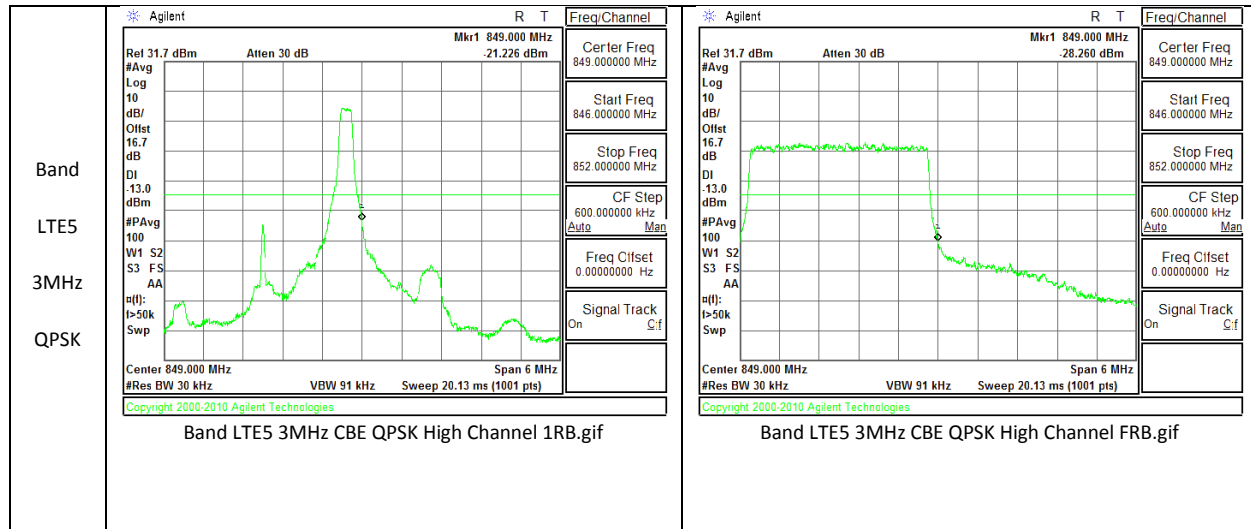


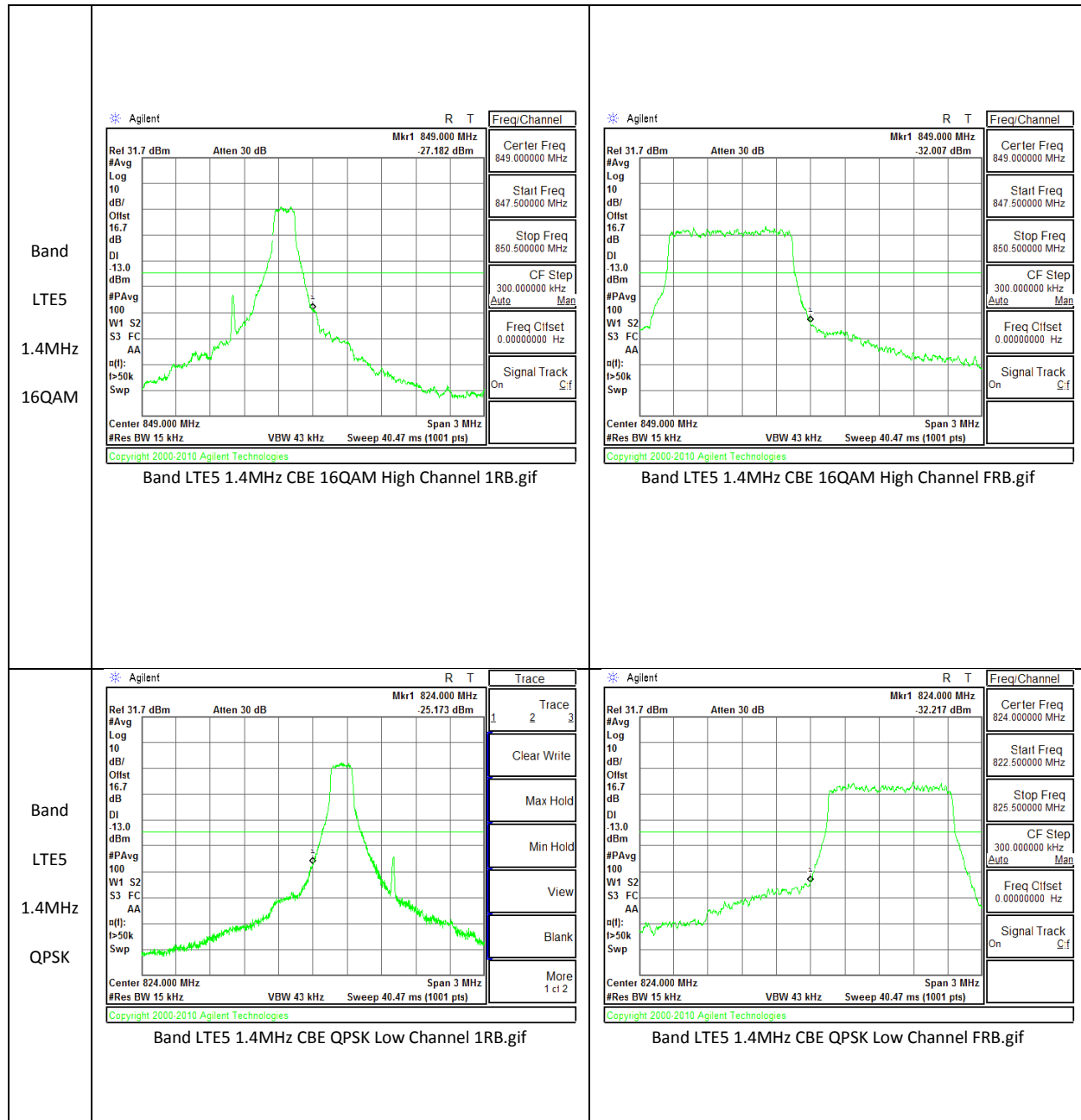


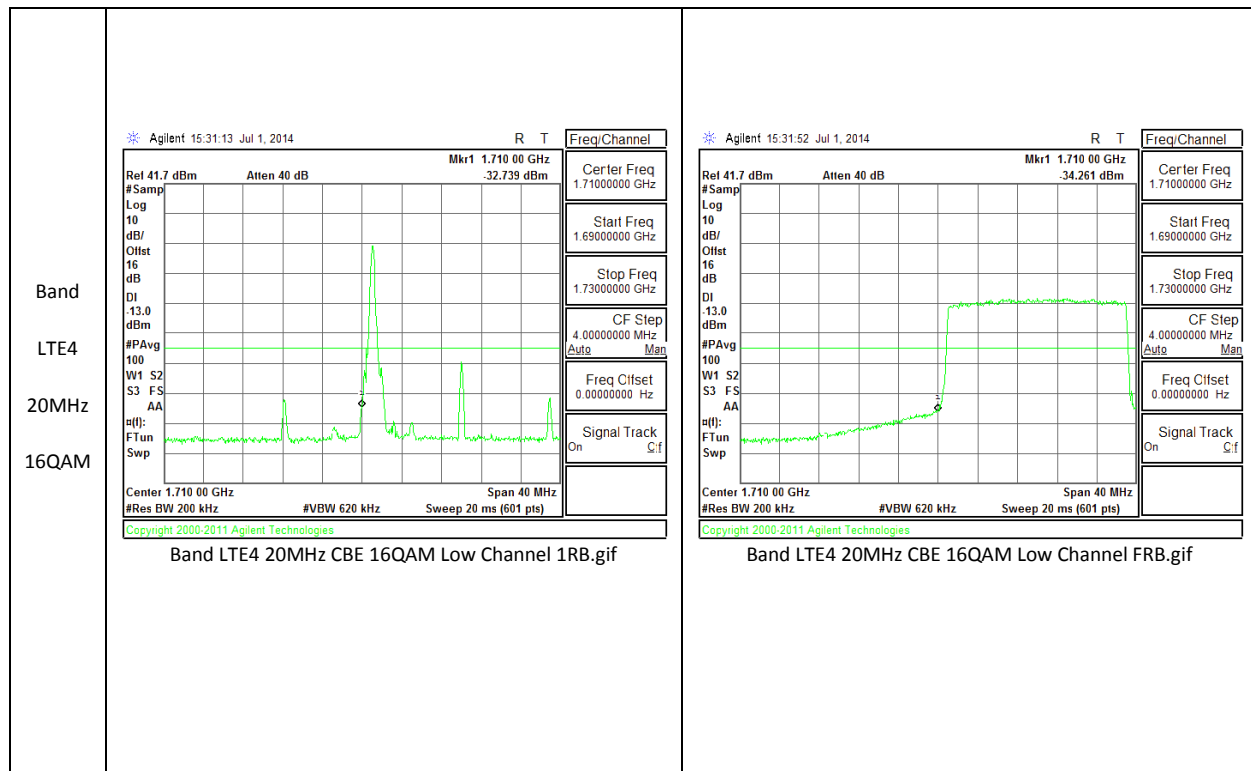
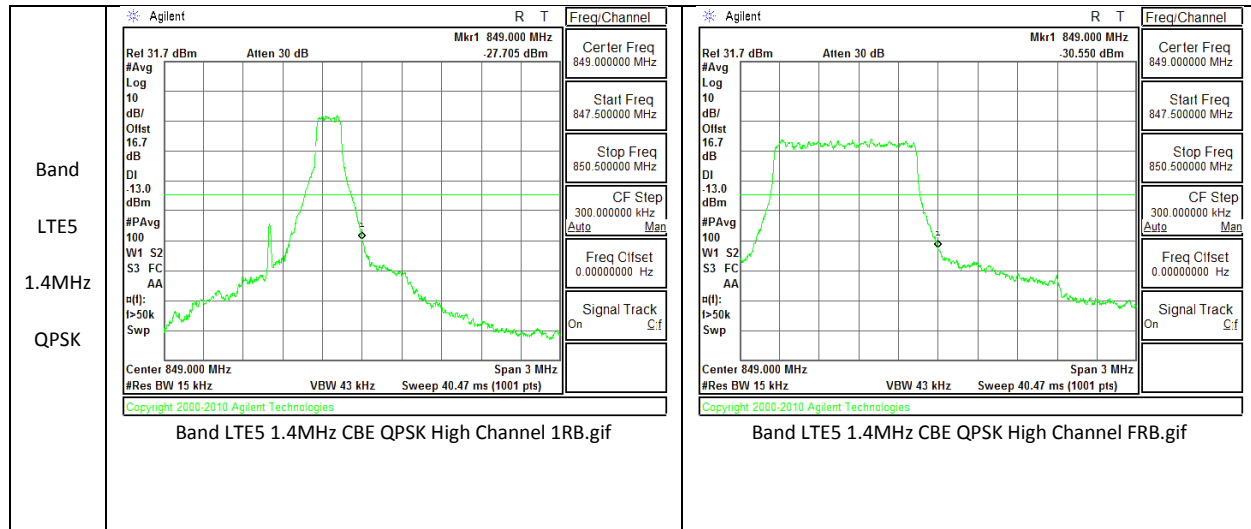


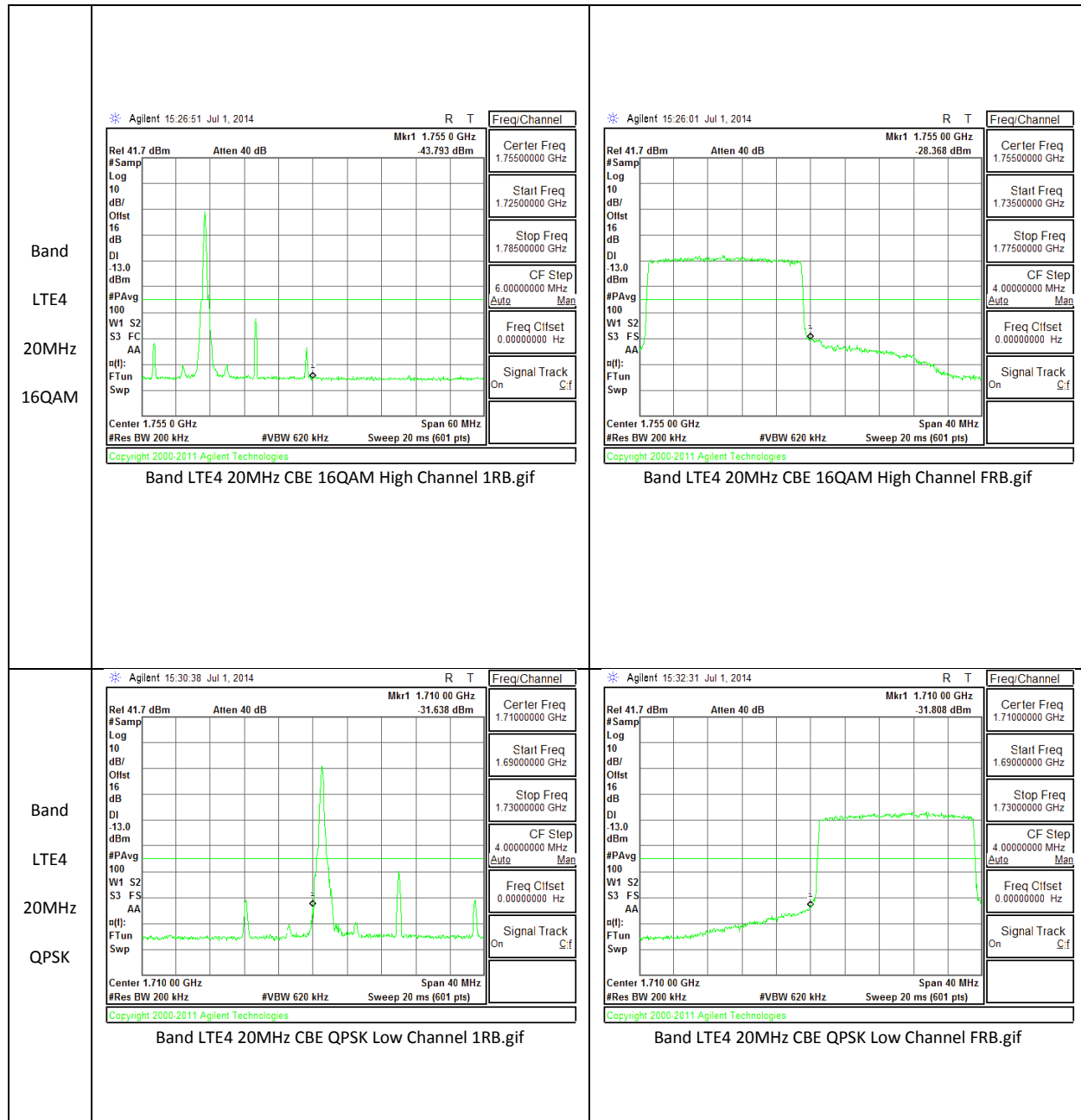


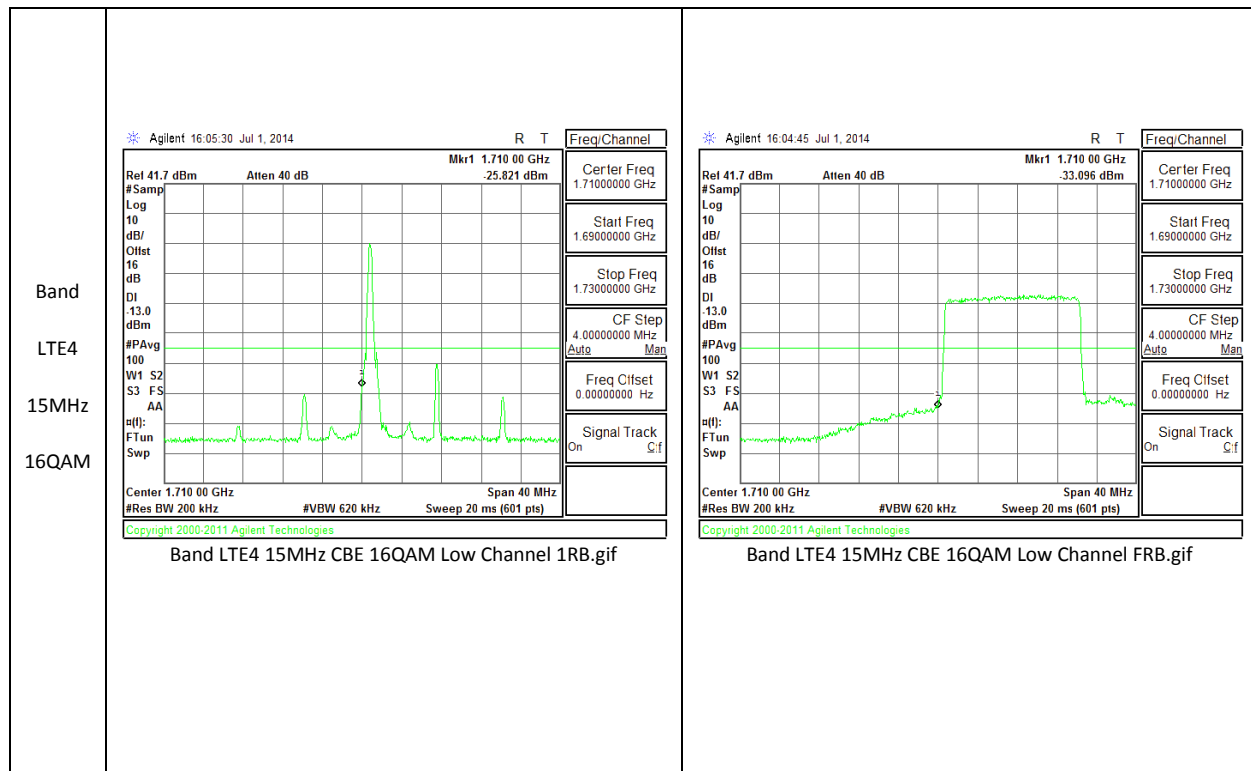
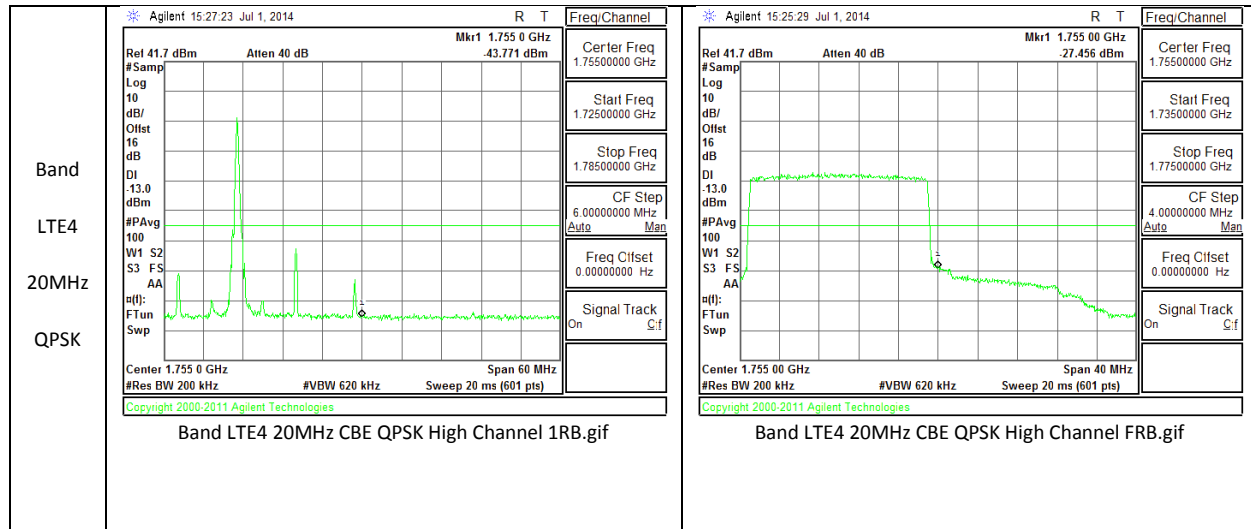
Band LTE5 3MHz 16QAM	 Agilent R T Freq/Channel Rel 31.7 dBm Atten 30 dB Mkr1 849.000 MHz -19.655 dBm Center Freq 849.000000 MHz Start Freq 846.000000 MHz Stop Freq 852.000000 MHz CF Step 600.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Center 849.000 MHz #Res BW 30 kHz VBW 91 kHz Sweep 20.13 ms (1001 pts) Span 6 MHz Copyright 2000-2010 Agilent Technologies Band LTE5 3MHz CBE 16QAM High Channel 1RB.gif
Band LTE5 3MHz QPSK	 Agilent R T Freq/Channel Rel 31.7 dBm Atten 30 dB Mkr1 824.000 MHz -23.142 dBm Center Freq 824.000000 MHz Start Freq 821.000000 MHz Stop Freq 827.000000 MHz CF Step 600.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Center 824.000 MHz #Res BW 30 kHz VBW 91 kHz Sweep 20.13 ms (1001 pts) Span 6 MHz Copyright 2000-2010 Agilent Technologies Band LTE5 3MHz CBE QPSK Low Channel 1RB.gif
 Agilent R T Freq/Channel Rel 31.7 dBm Atten 30 dB Mkr1 849.000 MHz -30.463 dBm Center Freq 849.000000 MHz Start Freq 846.000000 MHz Stop Freq 852.000000 MHz CF Step 600.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Center 849.000 MHz #Res BW 30 kHz VBW 91 kHz Sweep 20.13 ms (1001 pts) Span 6 MHz Copyright 2000-2010 Agilent Technologies Band LTE5 3MHz CBE 16QAM High Channel FRB.gif	 Agilent R T Freq/Channel Rel 31.7 dBm Atten 30 dB Mkr1 824.000 MHz -27.729 dBm Center Freq 824.000000 MHz Start Freq 821.000000 MHz Stop Freq 827.000000 MHz CF Step 600.000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Center 824.000 MHz #Res BW 30 kHz VBW 91 kHz Sweep 20.13 ms (1001 pts) Span 6 MHz Copyright 2000-2010 Agilent Technologies Band LTE5 3MHz CBE QPSK Low Channel FRB.gif

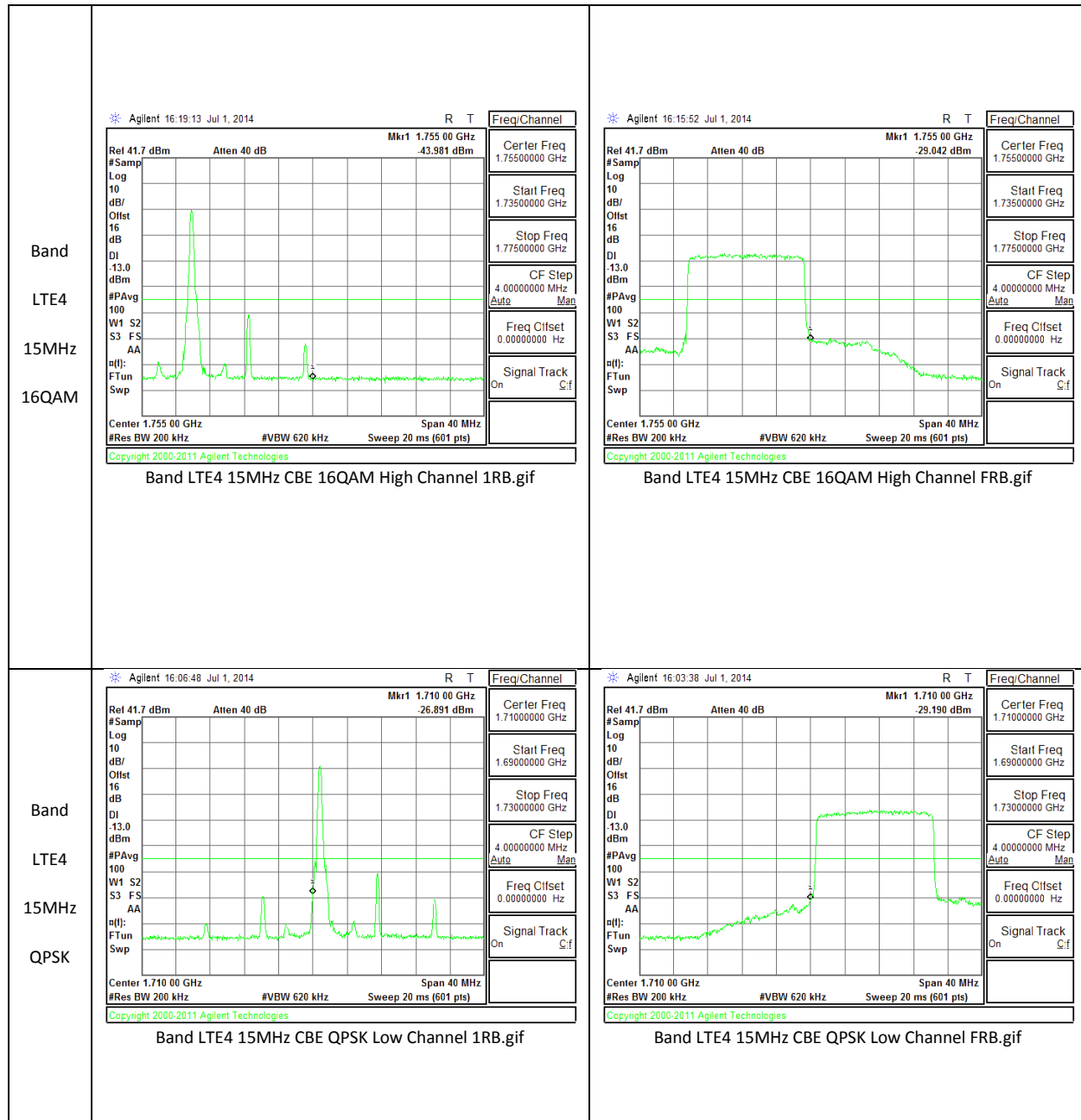


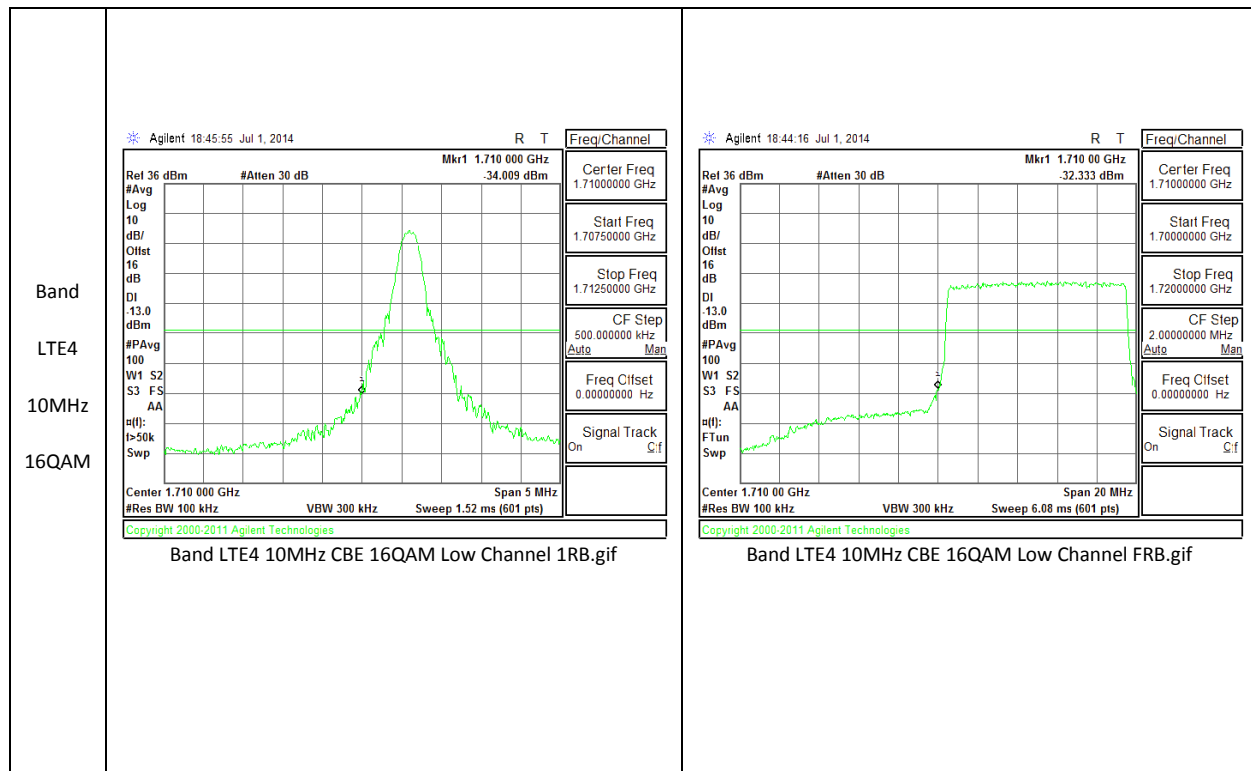
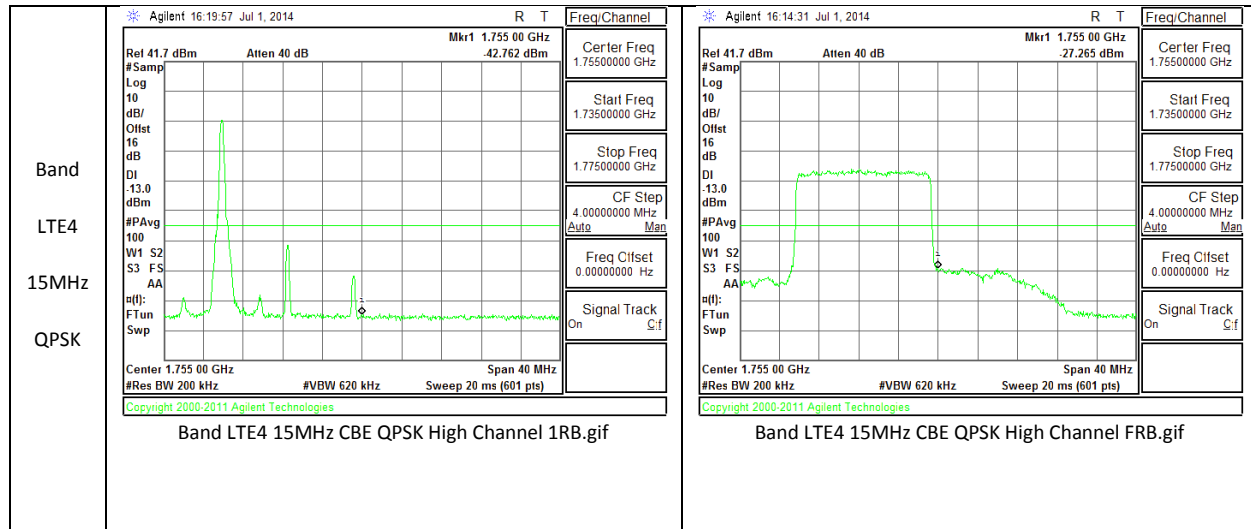


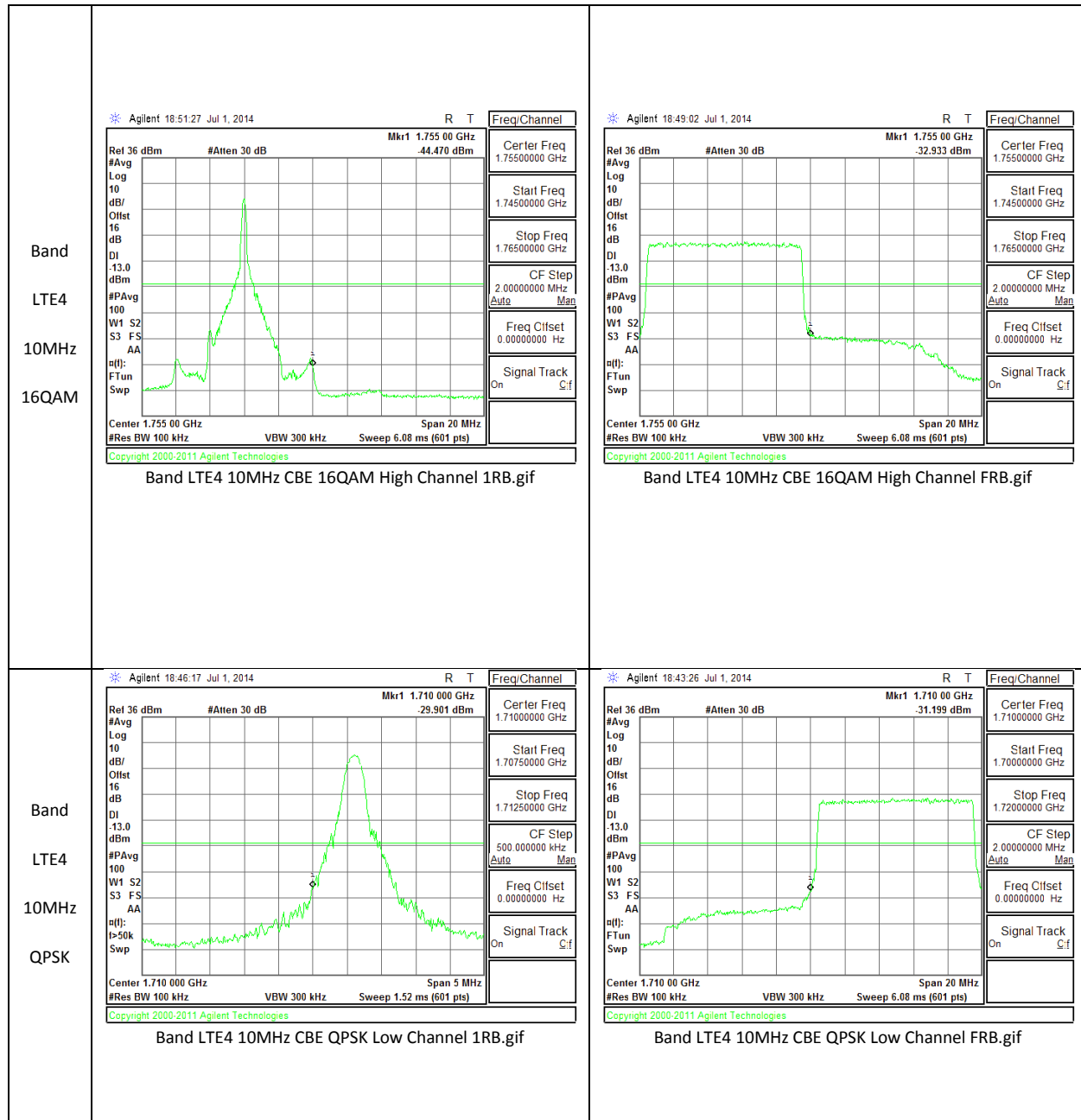


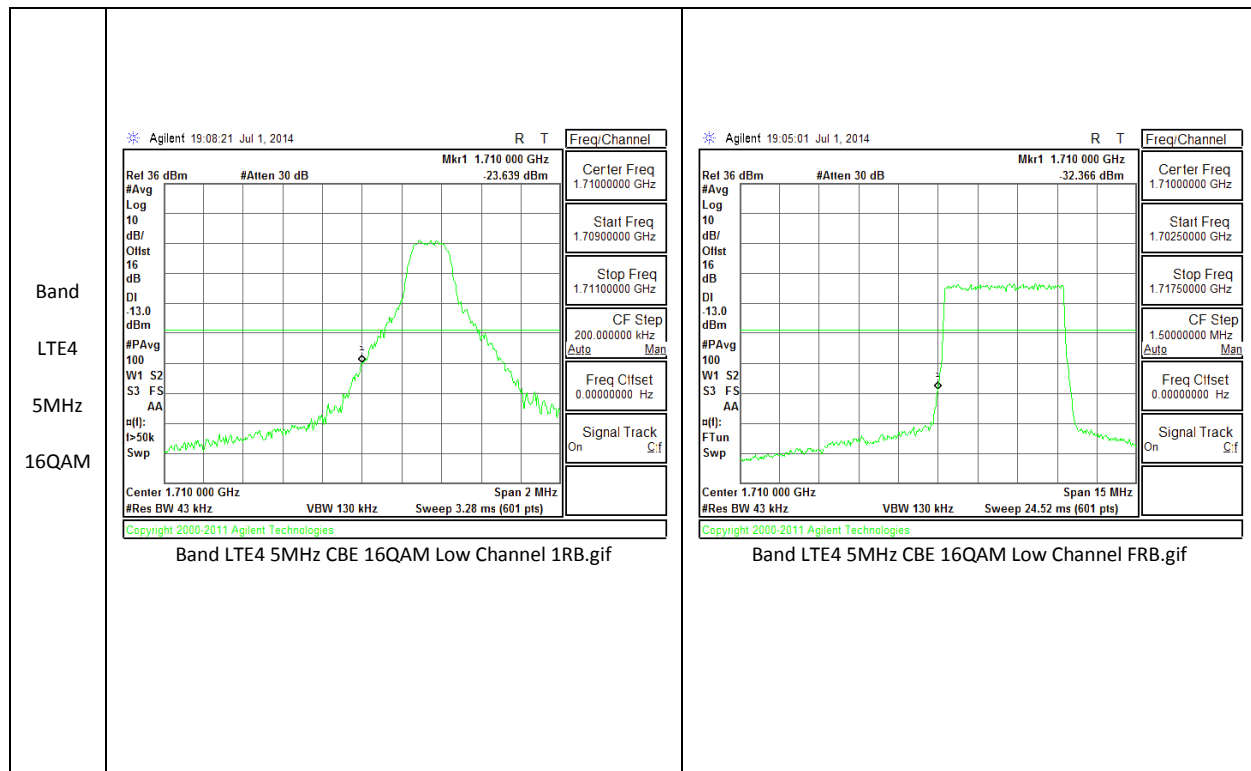
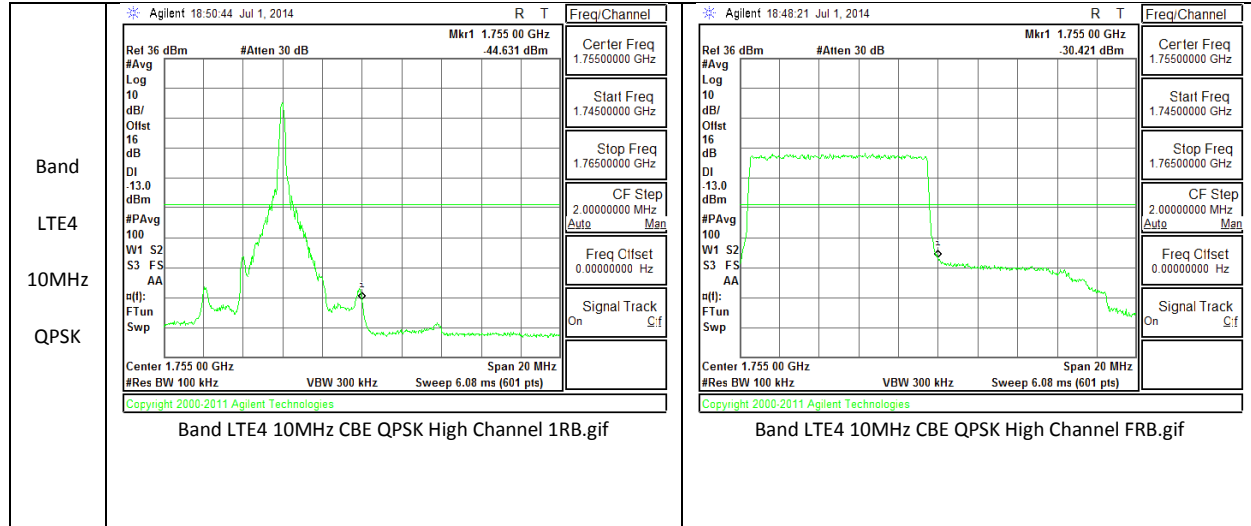




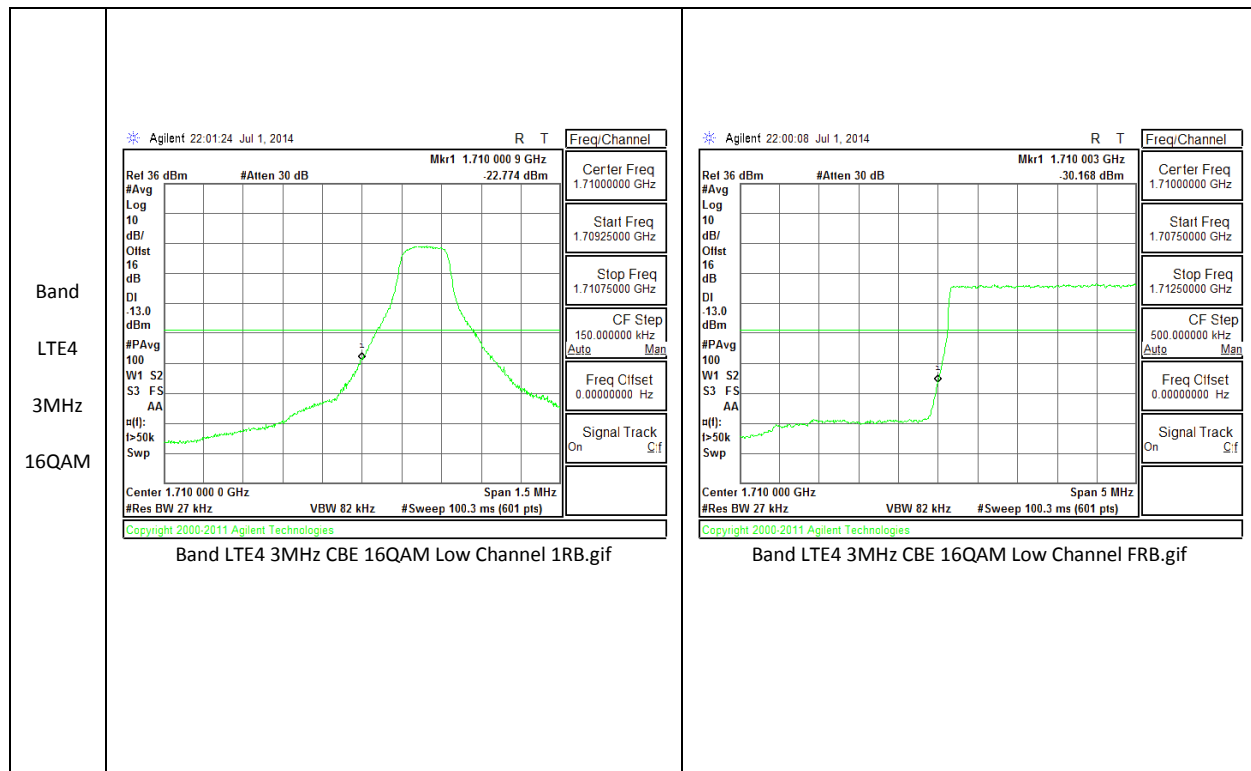
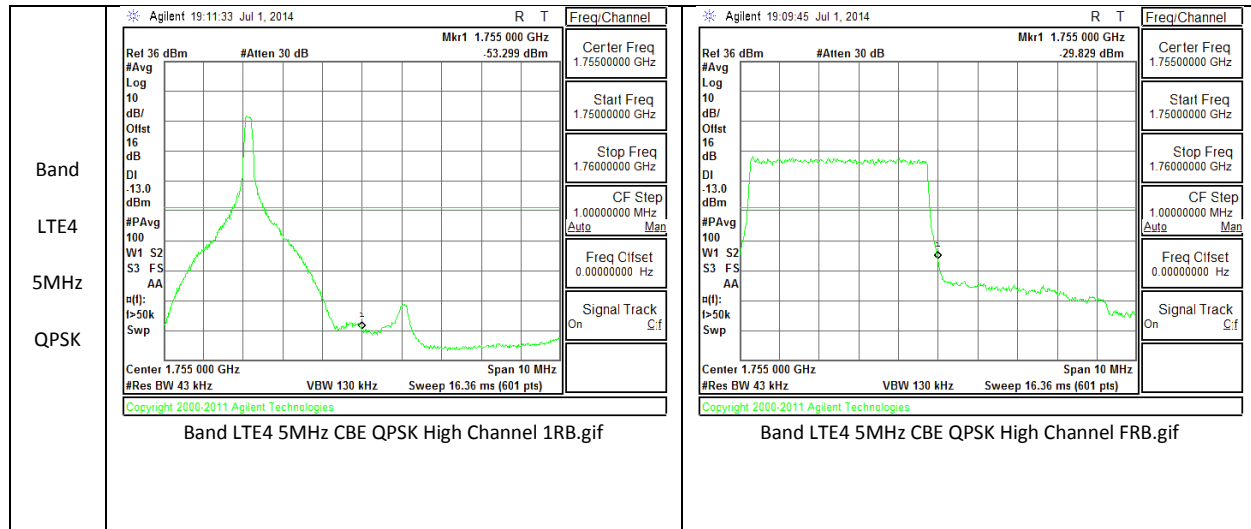




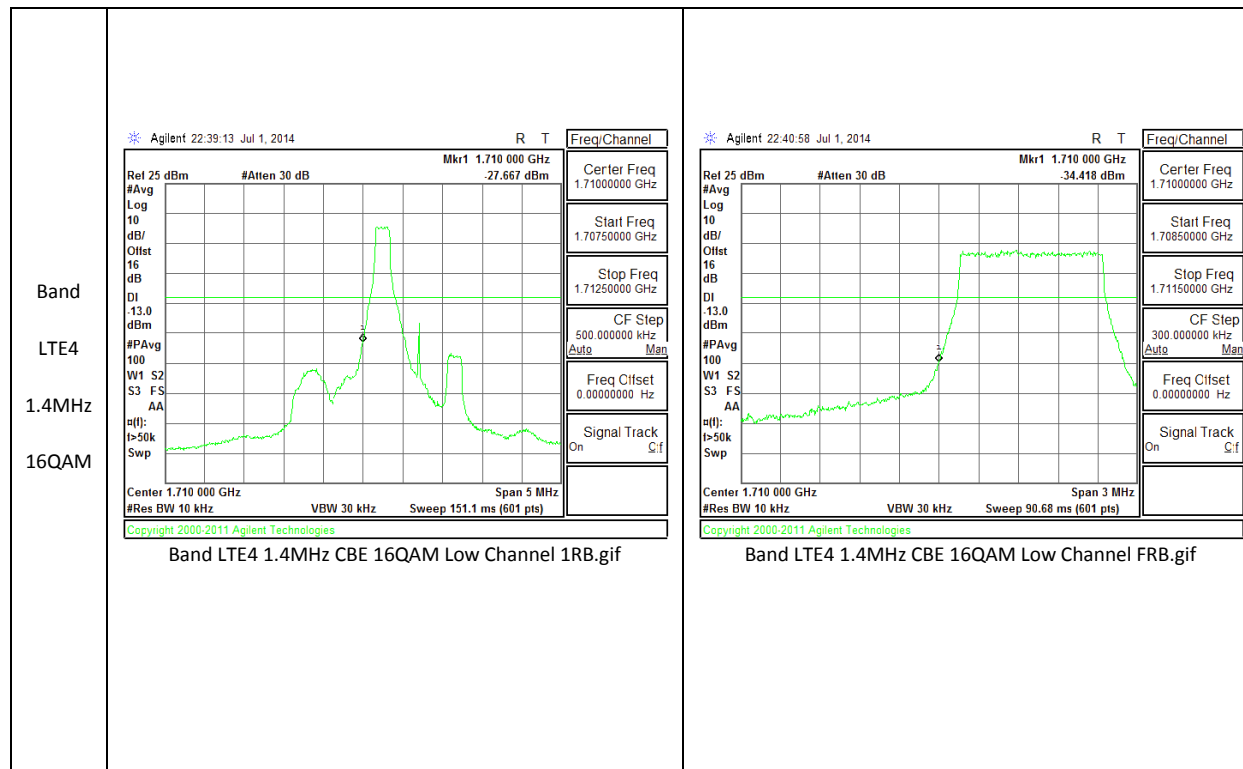


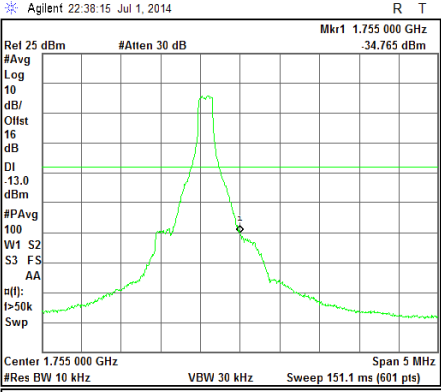
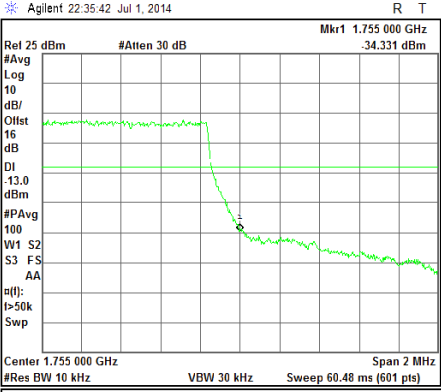
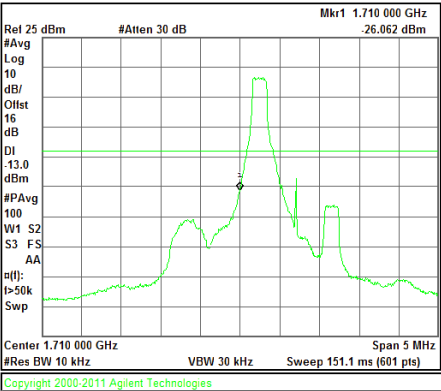
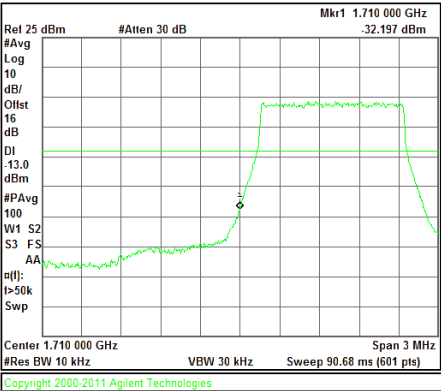


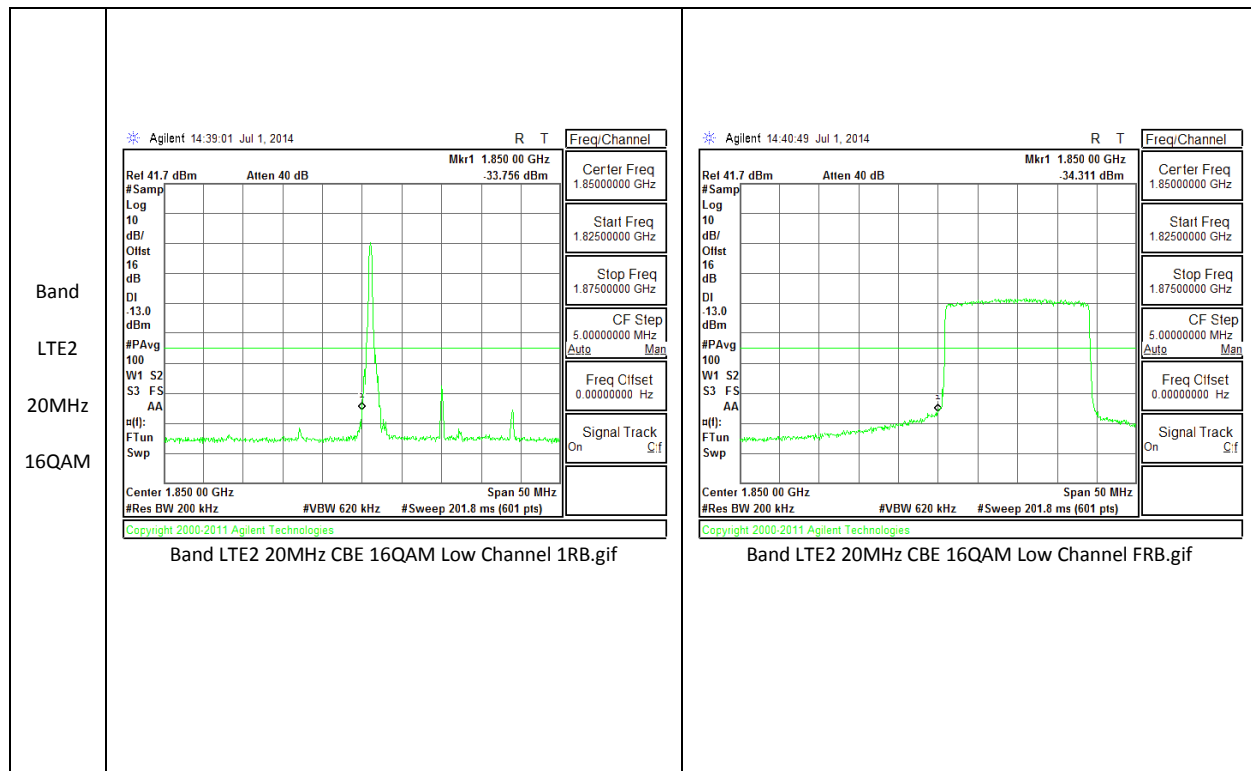
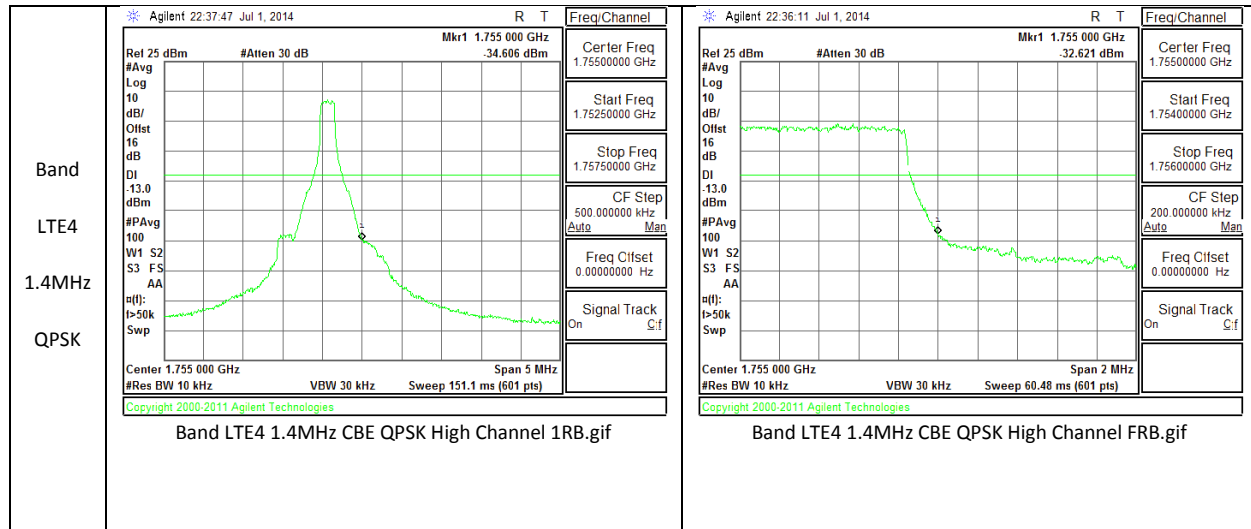
Band LTE4 5MHz 16QAM	Agilent 19:12:01 Jul 1, 2014 Rel 36 dBm #Atten 30 dB Mkr1 1.755 000 GHz -53.779 dBm Center Freq 1.75500000 GHz Start Freq 1.75000000 GHz Stop Freq 1.76000000 GHz CF Step 1.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Center 1.755 000 GHz #Res BW 43 kHz VBW 130 kHz Sweep 16.36 ms (601 pts) Span 10 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 5MHz CBE 16QAM High Channel 1RB.gif	Agilent 19:10:09 Jul 1, 2014 Rel 36 dBm #Atten 30 dB Mkr1 1.755 000 GHz -32.667 dBm Center Freq 1.75500000 GHz Start Freq 1.75000000 GHz Stop Freq 1.76000000 GHz CF Step 1.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Center 1.755 000 GHz #Res BW 43 kHz VBW 130 kHz Sweep 16.36 ms (601 pts) Span 10 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 5MHz CBE 16QAM High Channel FRB.gif
Band LTE4 5MHz QPSK	Agilent 19:08:42 Jul 1, 2014 Rel 36 dBm #Atten 30 dB Mkr1 1.710 000 GHz -23.656 dBm Center Freq 1.71000000 GHz Start Freq 1.70500000 GHz Stop Freq 1.71100000 GHz CF Step 200.000000 kHz Freq Offset 0.00000000 Hz Signal Track On Center 1.710 000 GHz #Res BW 43 kHz VBW 130 kHz Sweep 3.28 ms (601 pts) Span 2 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 5MHz CBE QPSK Low Channel 1RB.gif	Agilent 19:04:43 Jul 1, 2014 Rel 36 dBm #Atten 30 dB Mkr1 1.710 000 GHz -29.475 dBm Center Freq 1.71000000 GHz Start Freq 1.70250000 GHz Stop Freq 1.71750000 GHz CF Step 1.50000000 MHz Freq Offset 0.00000000 Hz Signal Track On Center 1.710 000 GHz #Res BW 43 kHz VBW 130 kHz Sweep 24.52 ms (601 pts) Span 15 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 5MHz CBE QPSK Low Channel FRB.gif

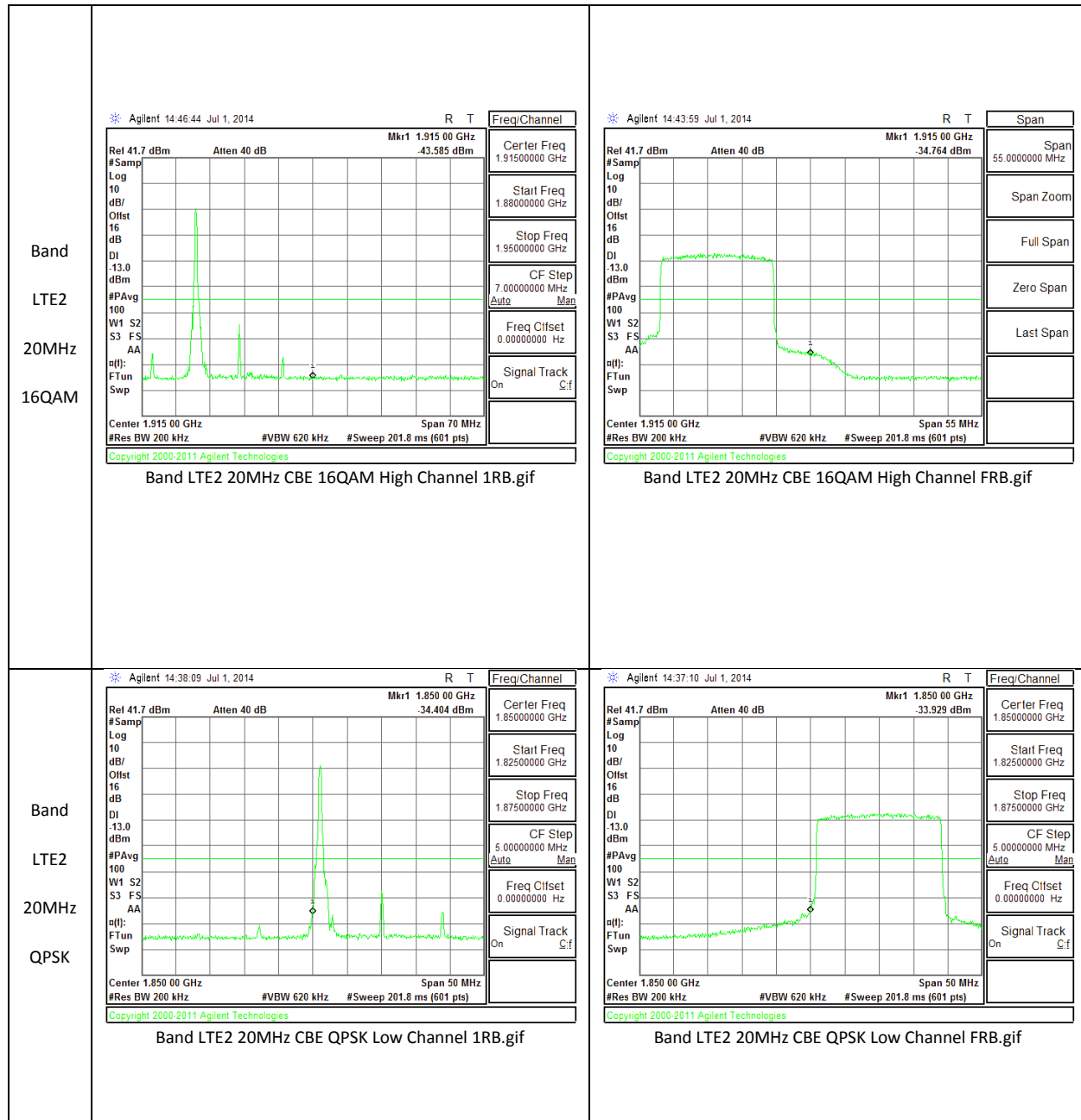


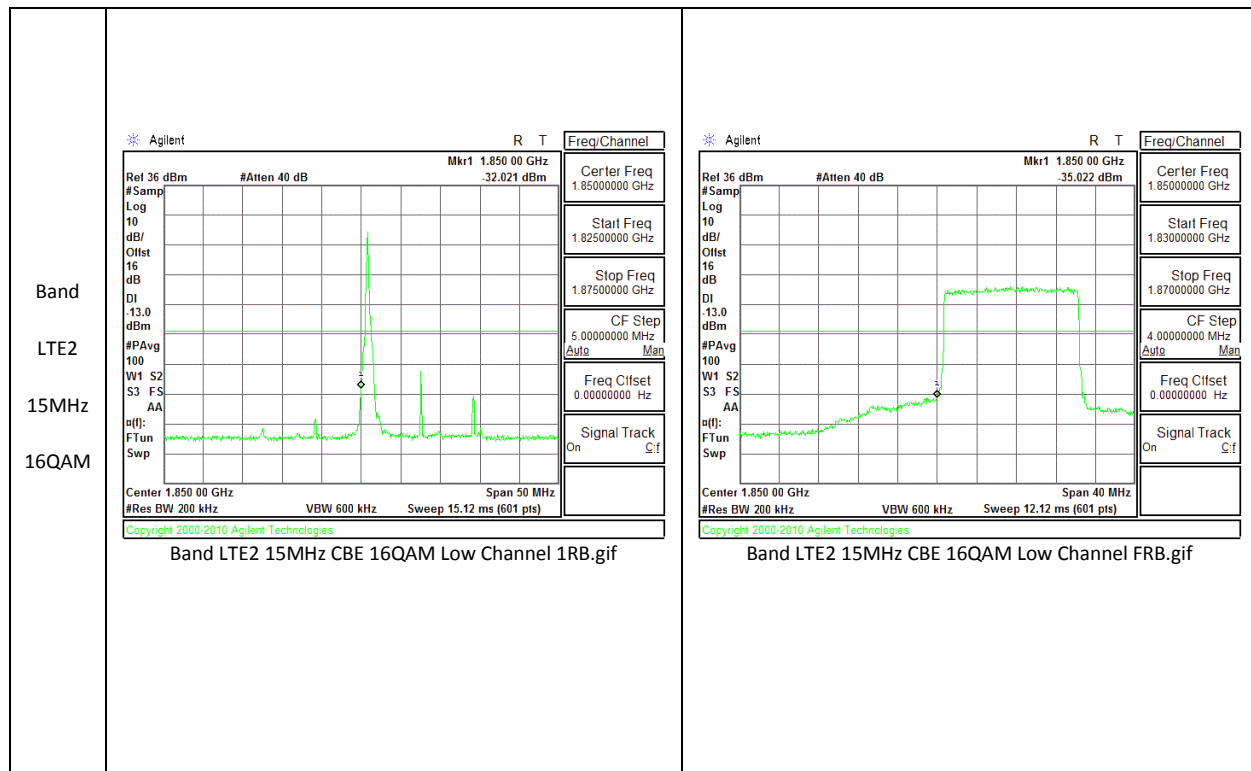
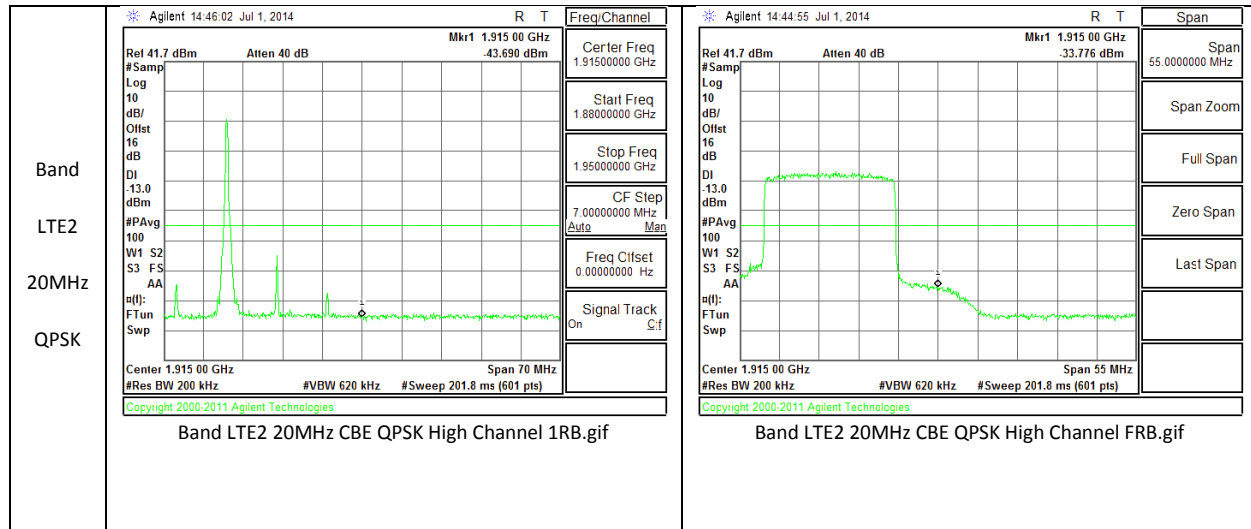
Band LTE4 3MHz 16QAM	Agilent 22:04:08 Jul 1, 2014 Center 1.755 000 GHz #Res BW 27 kHz VBW 82 kHz #Sweep 100.3 ms (601 pts) Band LTE4 3MHz CBE 16QAM High Channel 1RB.gif	Agilent 22:02:31 Jul 1, 2014 Center 1.755 000 0 GHz #Res BW 27 kHz VBW 82 kHz #Sweep 100.3 ms (601 pts) Band LTE4 3MHz CBE 16QAM High Channel FRB.gif
	Agilent 22:01:05 Jul 1, 2014 Center 1.710 000 0 GHz #Res BW 27 kHz VBW 82 kHz #Sweep 100.3 ms (601 pts) Band LTE4 3MHz CBE QPSK Low Channel 1RB.gif	Agilent 22:00:27 Jul 1, 2014 Center 1.710 000 GHz #Res BW 27 kHz VBW 82 kHz #Sweep 100.3 ms (601 pts) Band LTE4 3MHz CBE QPSK Low Channel FRB.gif

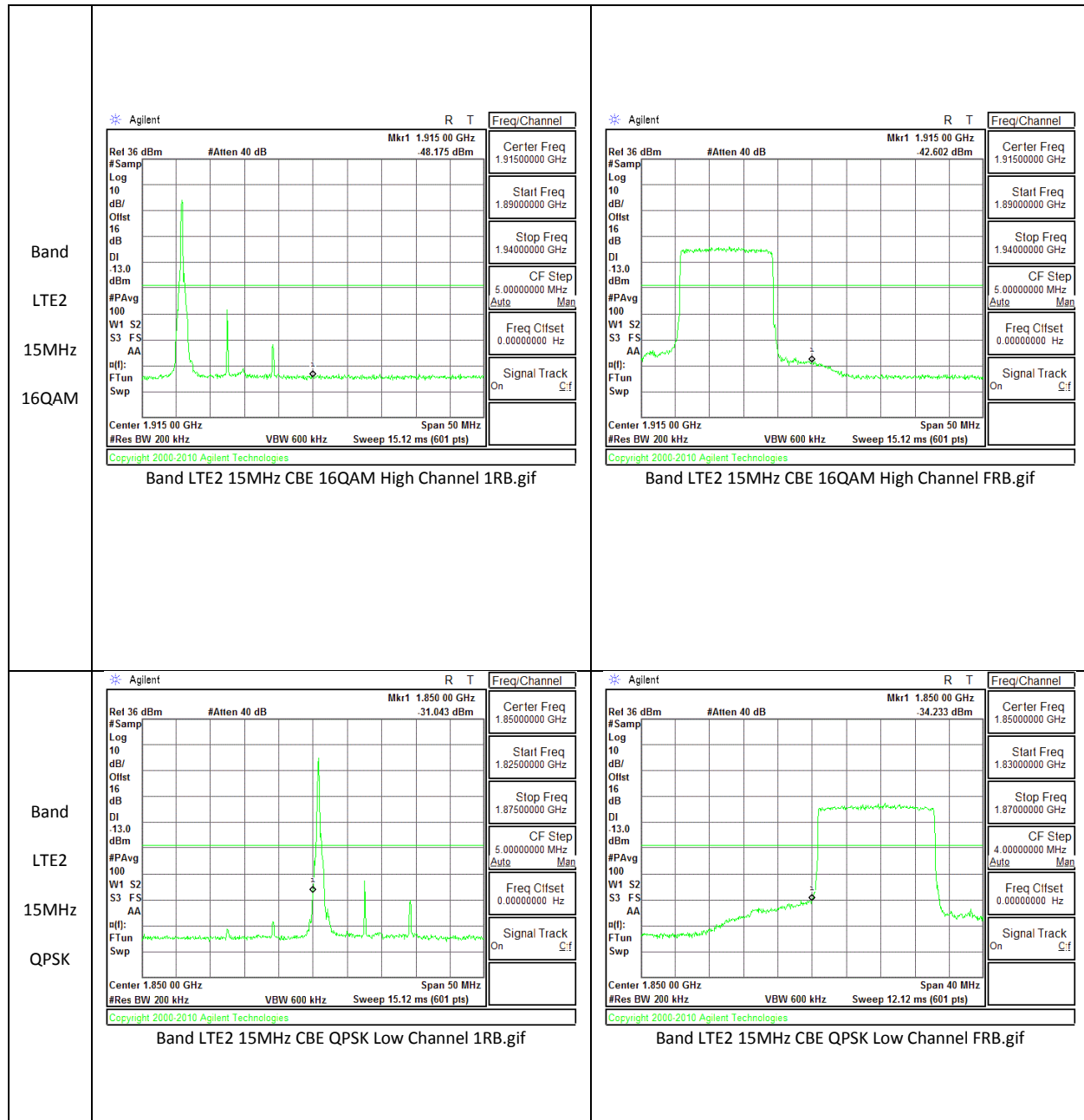


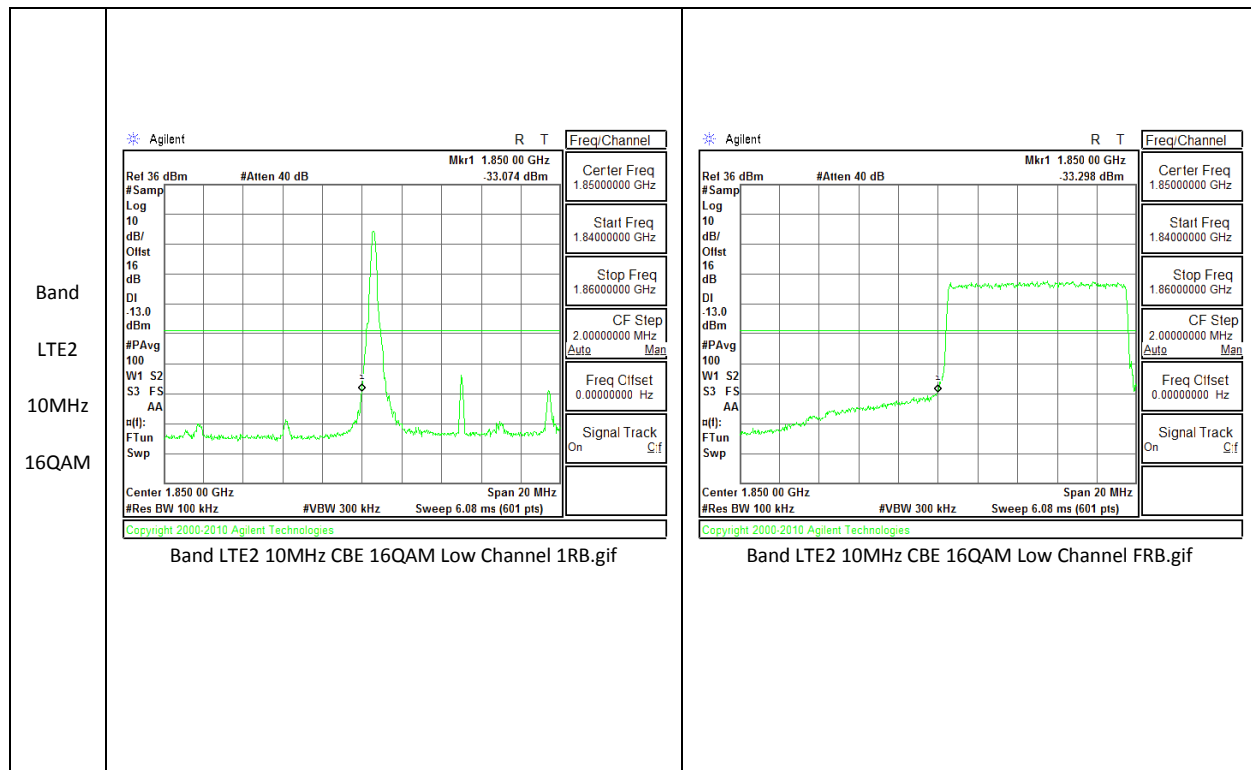
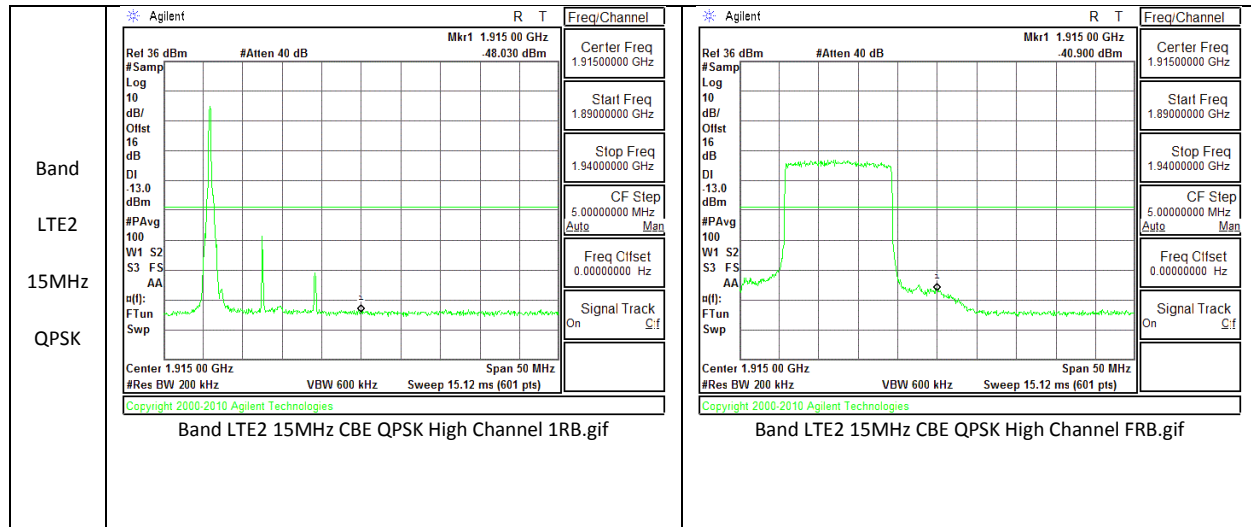
Band LTE4 1.4MHz 16QAM	 Agilent 22:38:15 Jul 1, 2014 Rel 25 dBm #Atten 30 dB Mkr1 1.755 000 GHz :34.765 dBm Center Freq 1.75500000 GHz Start Freq 1.75250000 GHz Stop Freq 1.75750000 GHz CF Step 500.000000 kHz Freq Offset 0.00000000 Hz Signal Track On Center 1.755 000 GHz #Res BW 10 kHz VBW 30 kHz Sweep 151.1 ms (601 pts) Span 5 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 1.4MHz CBE 16QAM High Channel 1RB.gif	 Agilent 22:35:42 Jul 1, 2014 Rel 25 dBm #Atten 30 dB Mkr1 1.755 000 GHz :34.331 dBm Center Freq 1.75500000 GHz Start Freq 1.75400000 GHz Stop Freq 1.75600000 GHz CF Step 200.000000 kHz Freq Offset 0.00000000 Hz Signal Track On Center 1.755 000 GHz #Res BW 10 kHz VBW 30 kHz Sweep 60.46 ms (601 pts) Span 2 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 1.4MHz CBE 16QAM High Channel FRB.gif
Band LTE4 1.4MHz QPSK	 Agilent 22:39:44 Jul 1, 2014 Rel 25 dBm #Atten 30 dB Mkr1 1.710 000 GHz :26.062 dBm Center Freq 1.71000000 GHz Start Freq 1.70750000 GHz Stop Freq 1.71250000 GHz CF Step 500.000000 kHz Freq Offset 0.00000000 Hz Signal Track On Center 1.710 000 GHz #Res BW 10 kHz VBW 30 kHz Sweep 151.1 ms (601 pts) Span 5 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 1.4MHz CBE QPSK Low Channel 1RB.gif	 Agilent 22:40:24 Jul 1, 2014 Rel 25 dBm #Atten 30 dB Mkr1 1.710 000 GHz :32.197 dBm Center Freq 1.71000000 GHz Start Freq 1.70850000 GHz Stop Freq 1.71150000 GHz CF Step 300.000000 kHz Freq Offset 0.00000000 Hz Signal Track On Center 1.710 000 GHz #Res BW 10 kHz VBW 30 kHz Sweep 90.68 ms (601 pts) Span 3 MHz Copyright 2000-2011 Agilent Technologies Band LTE4 1.4MHz CBE QPSK Low Channel FRB.gif

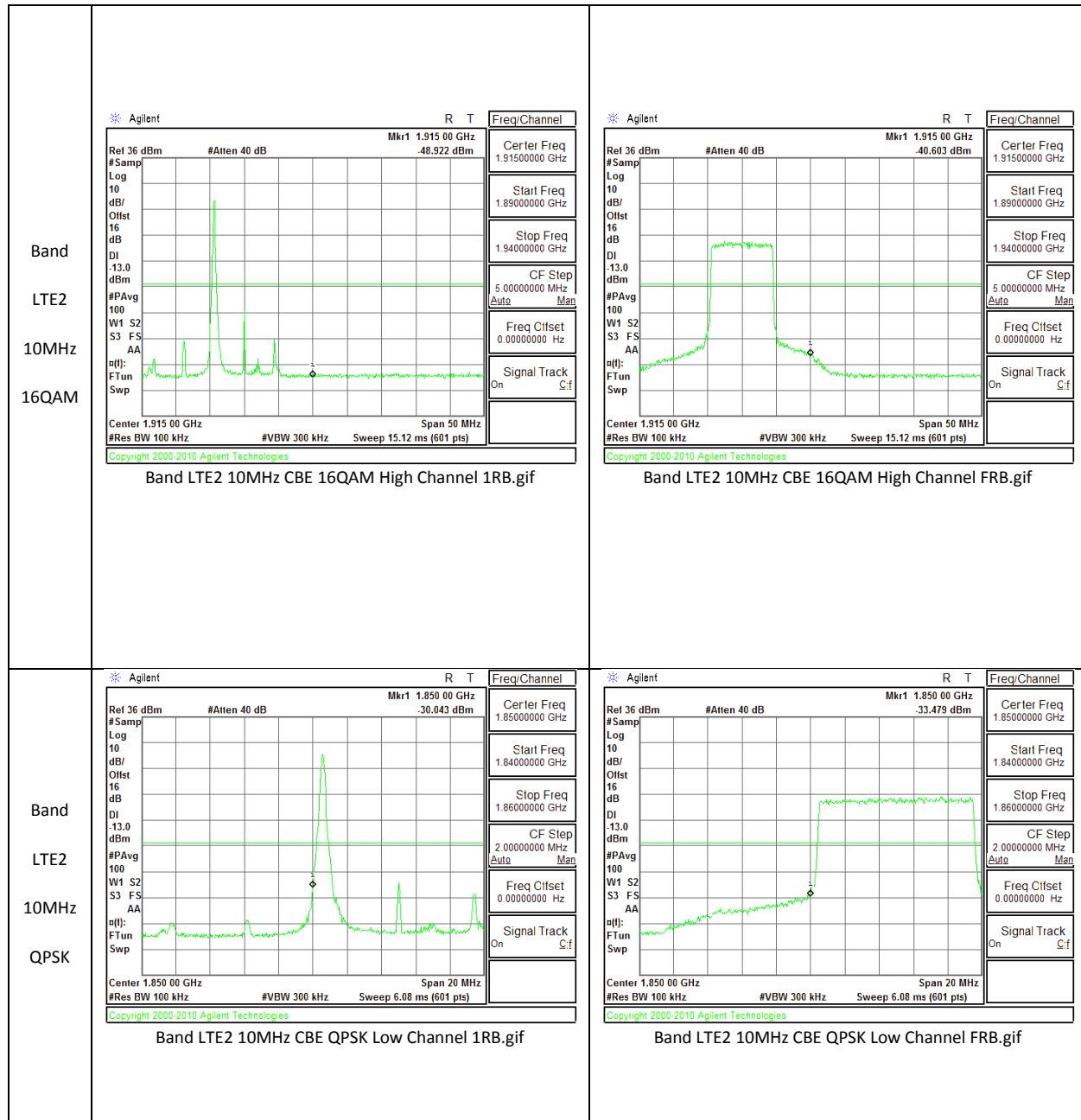


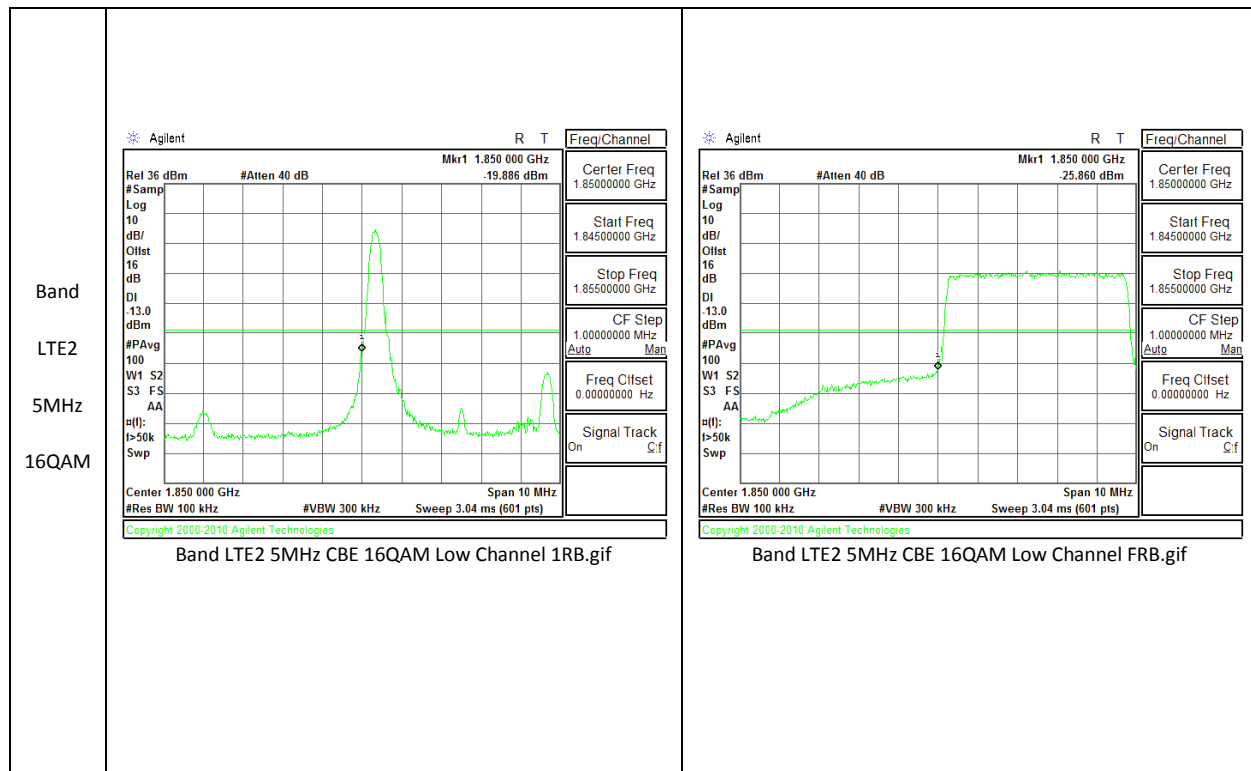
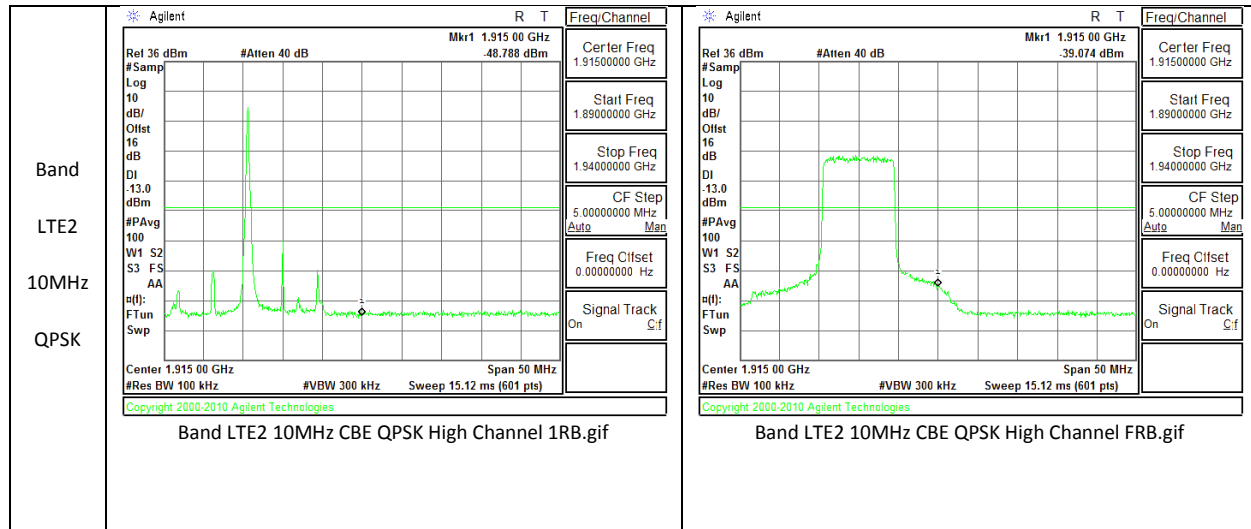


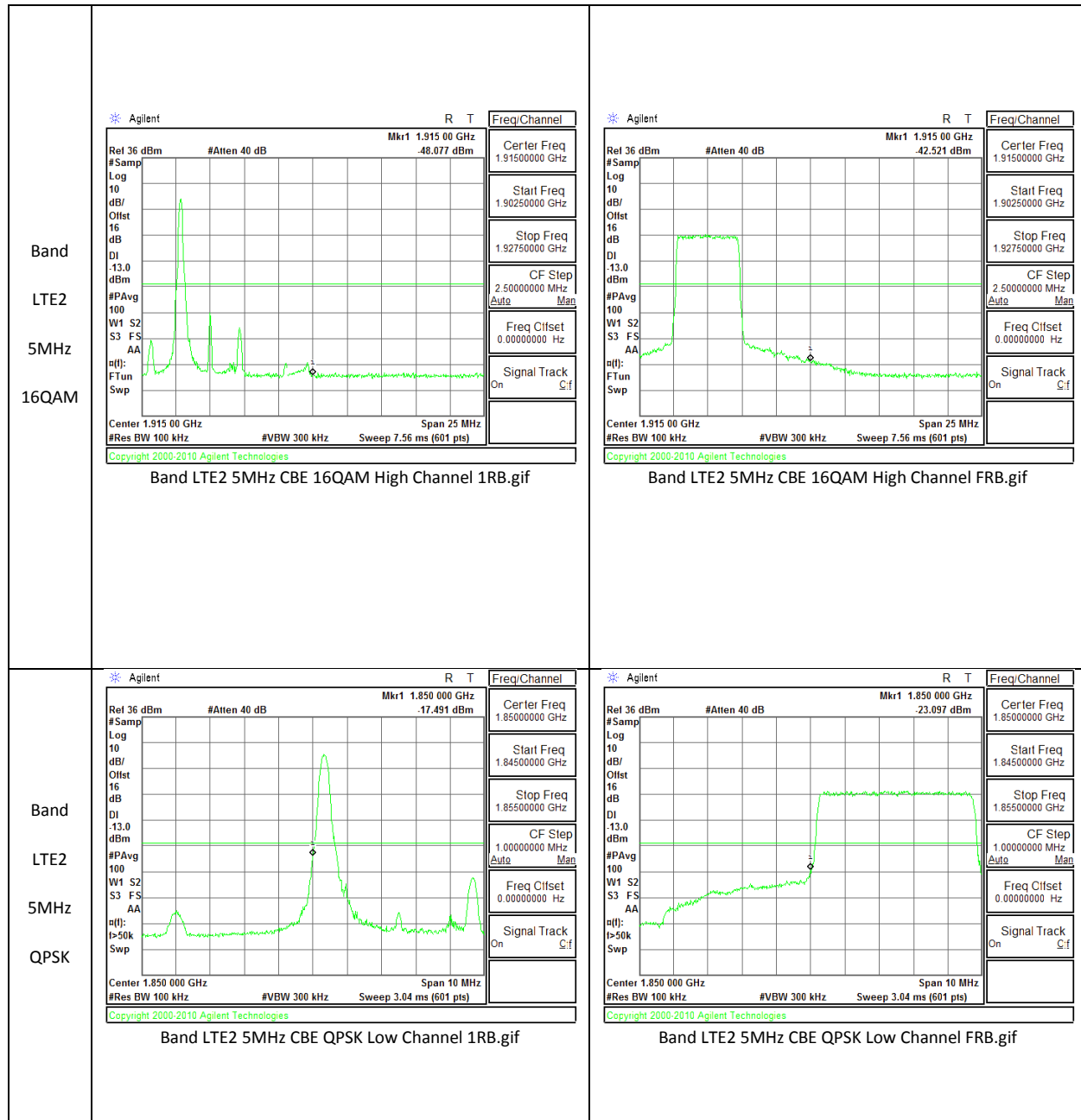


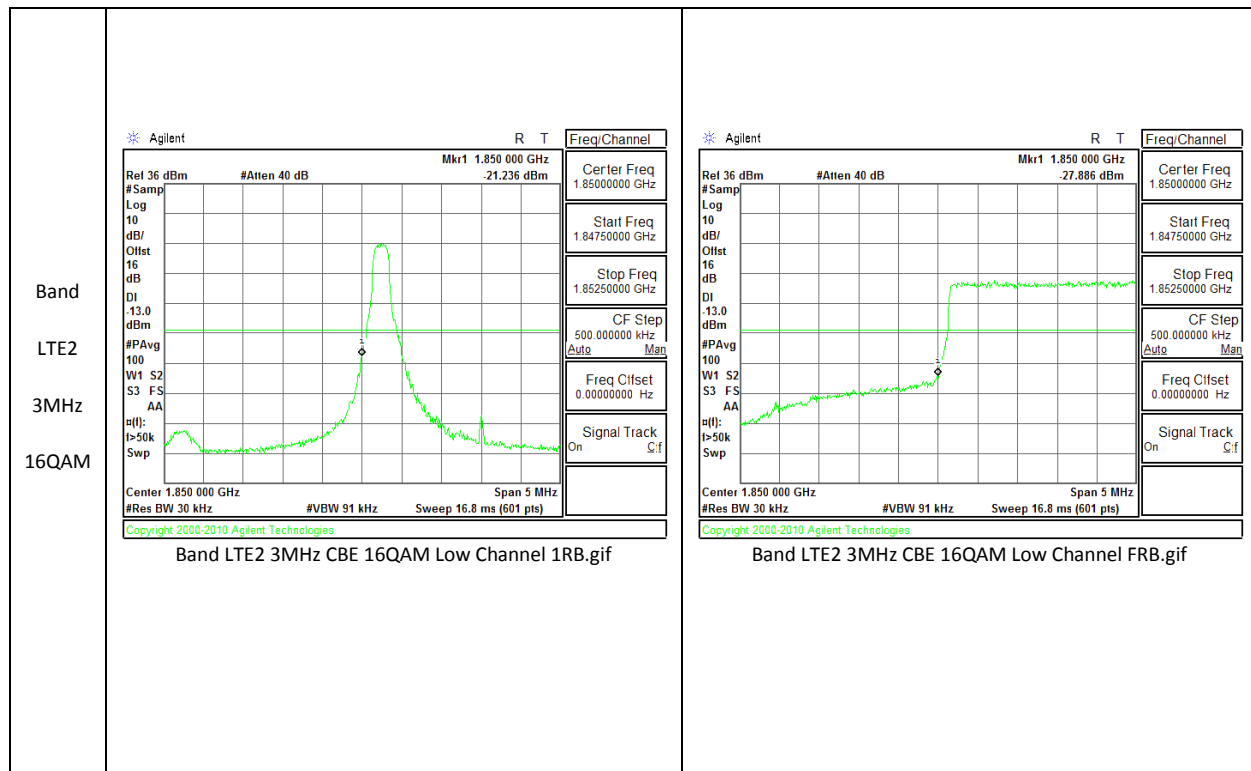
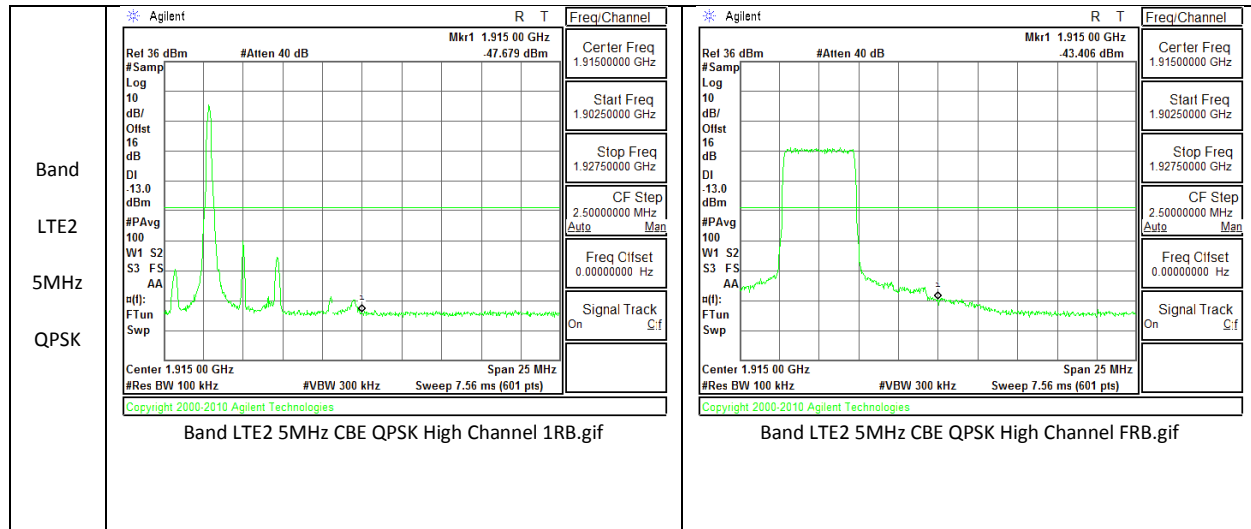


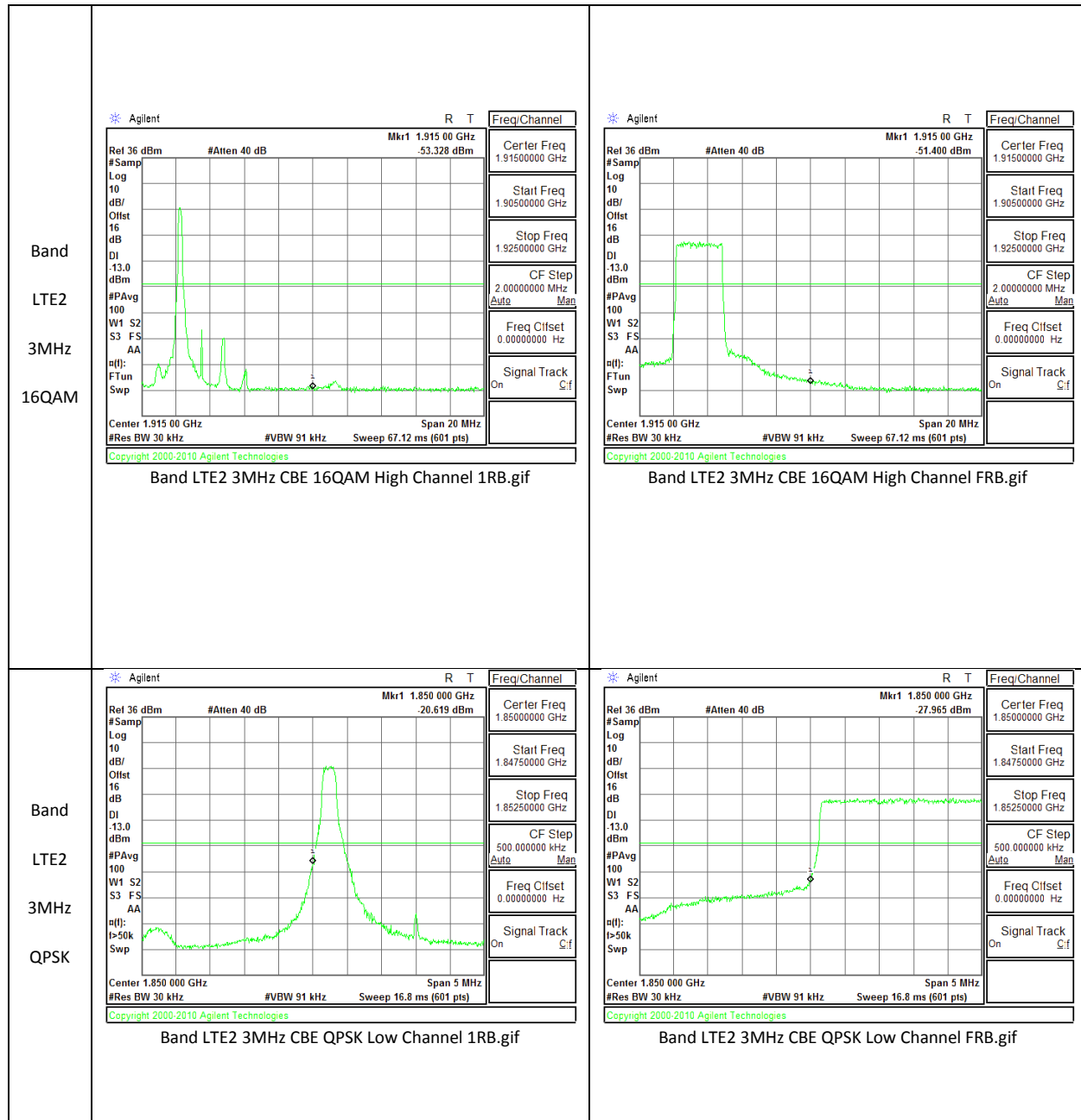


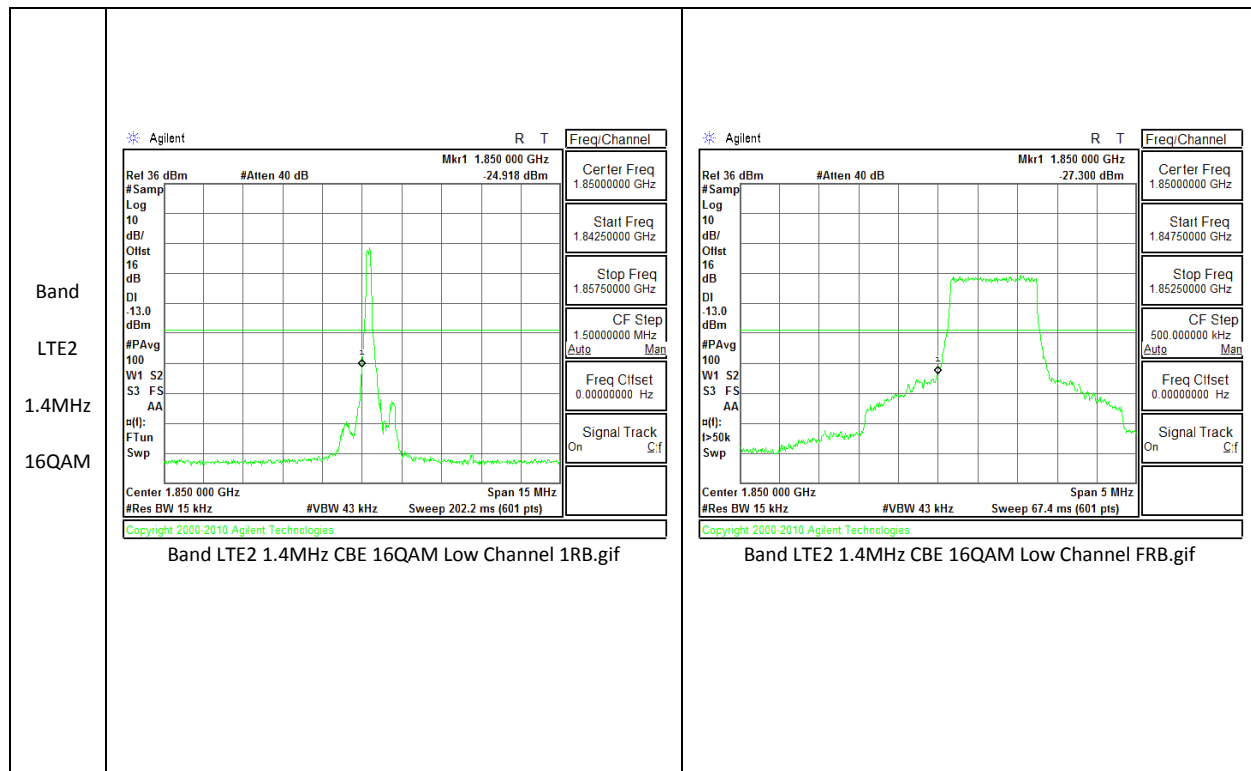
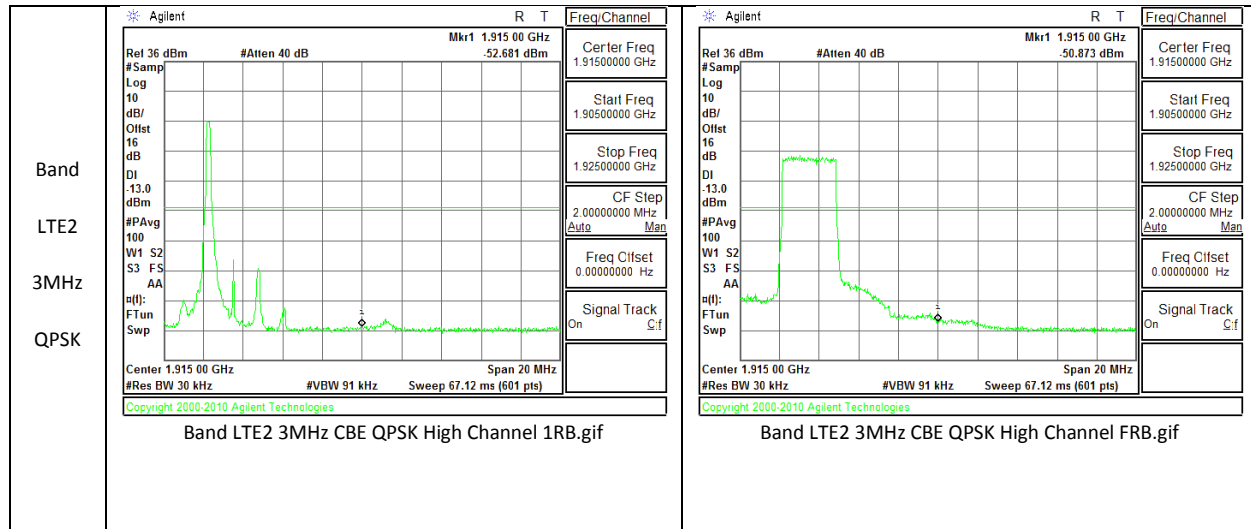


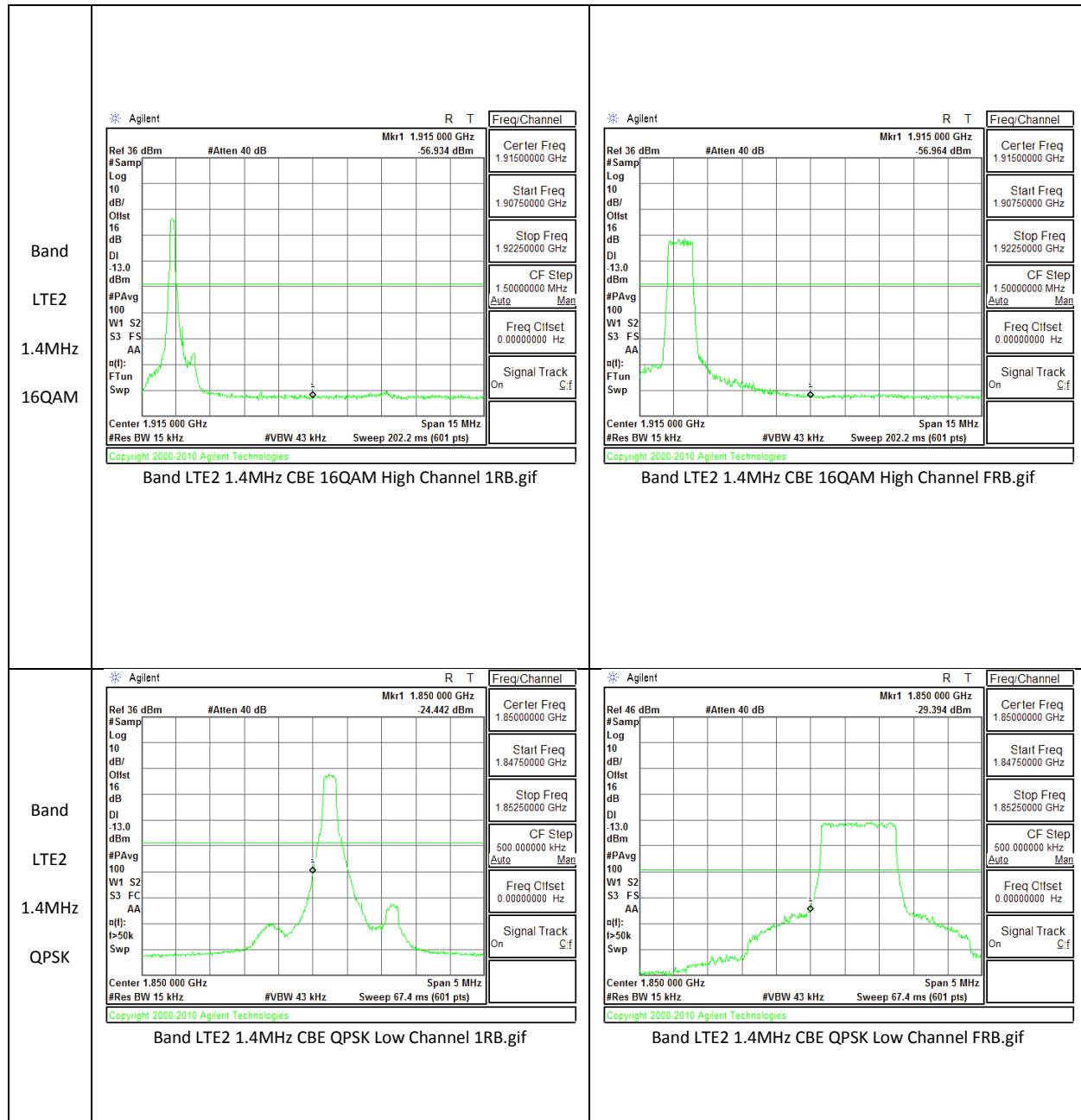


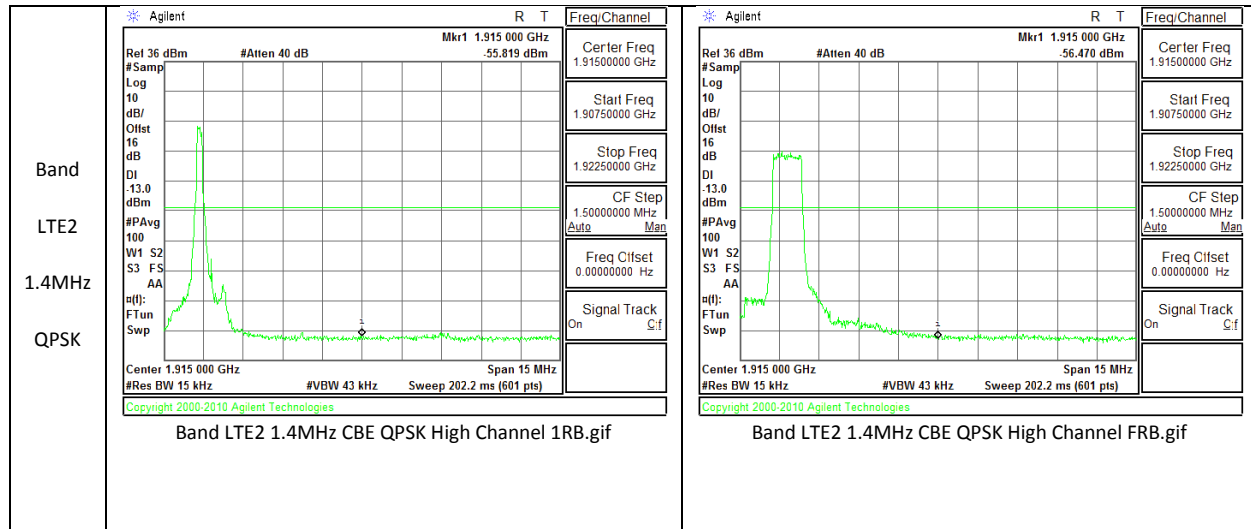




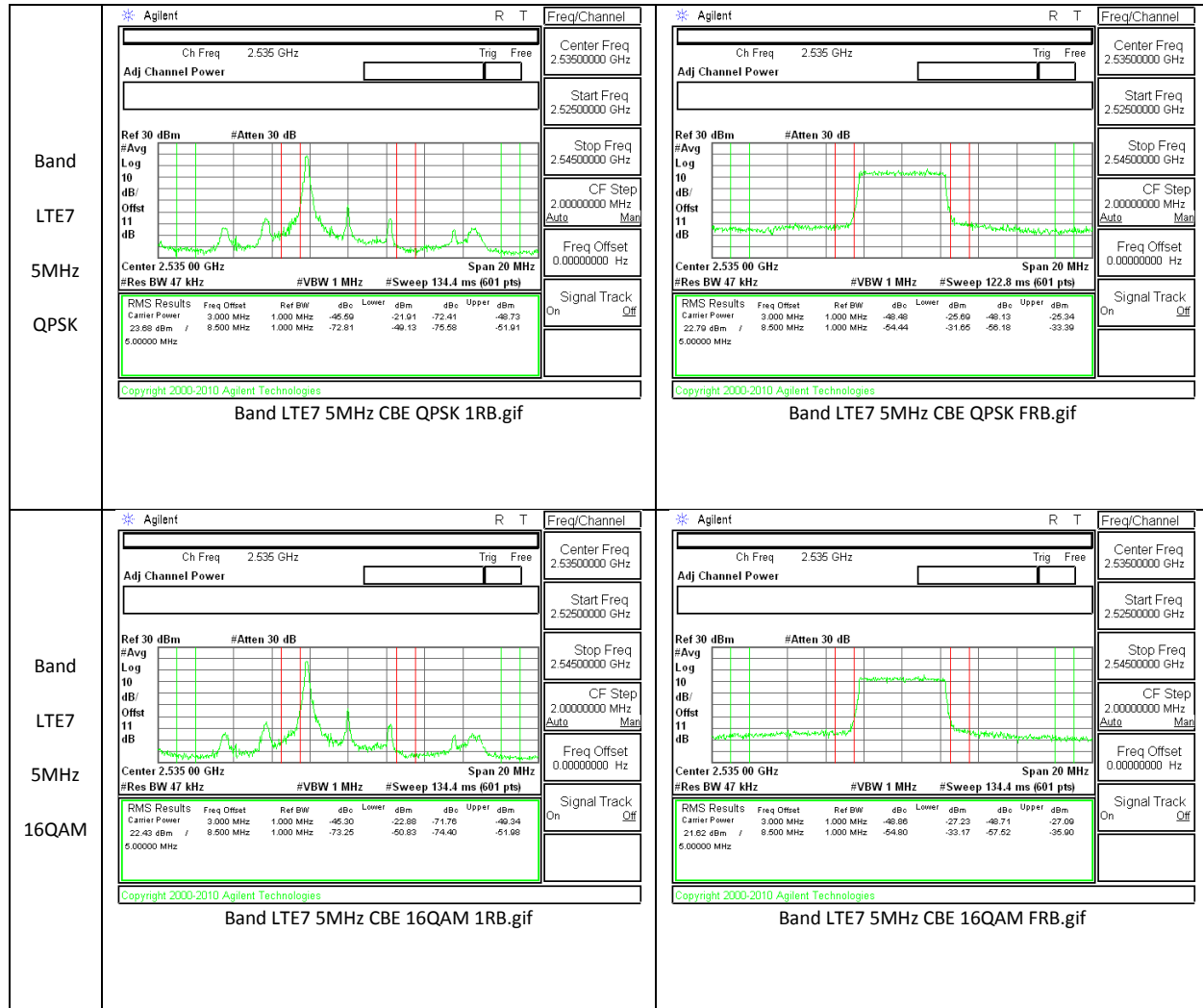


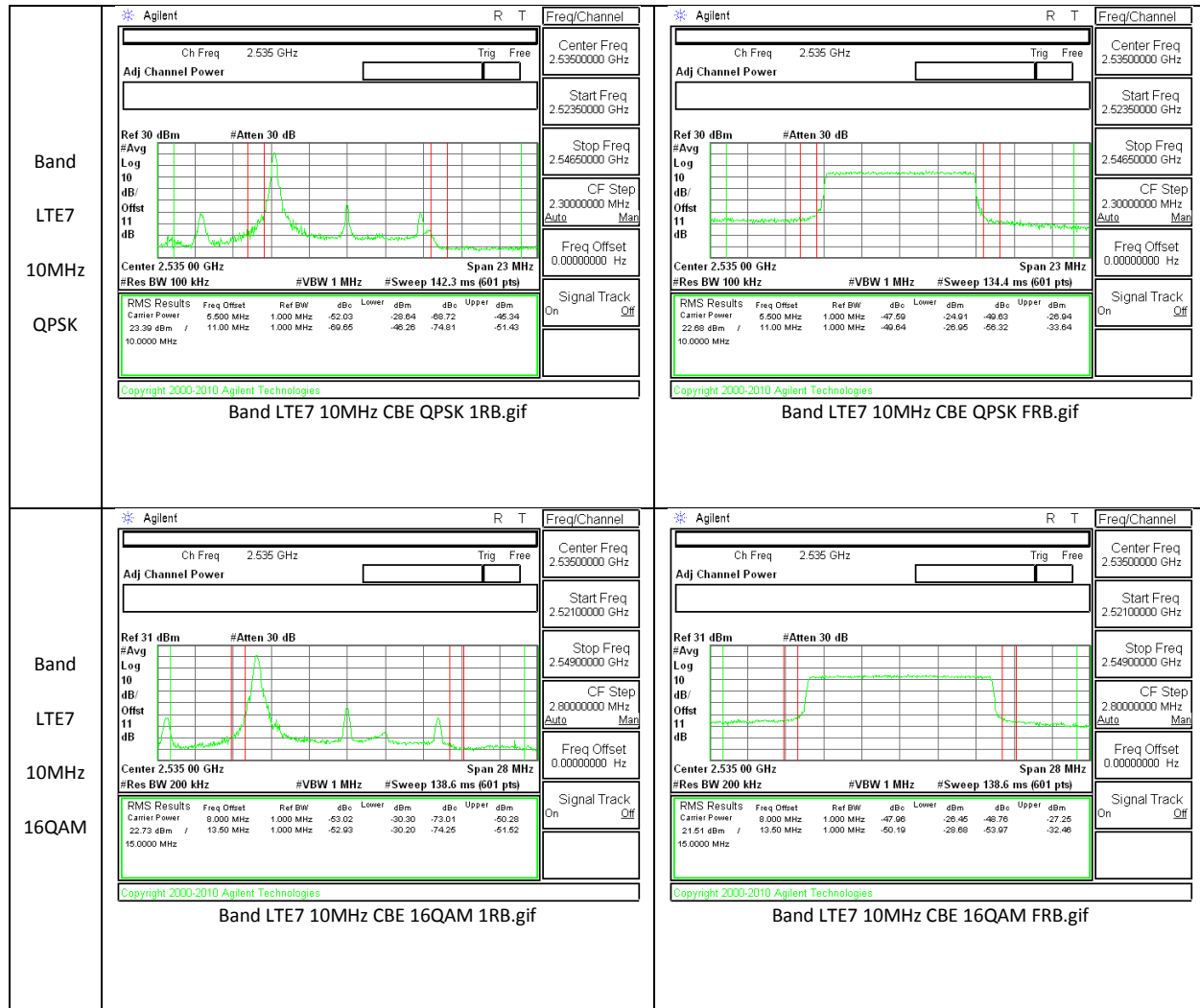


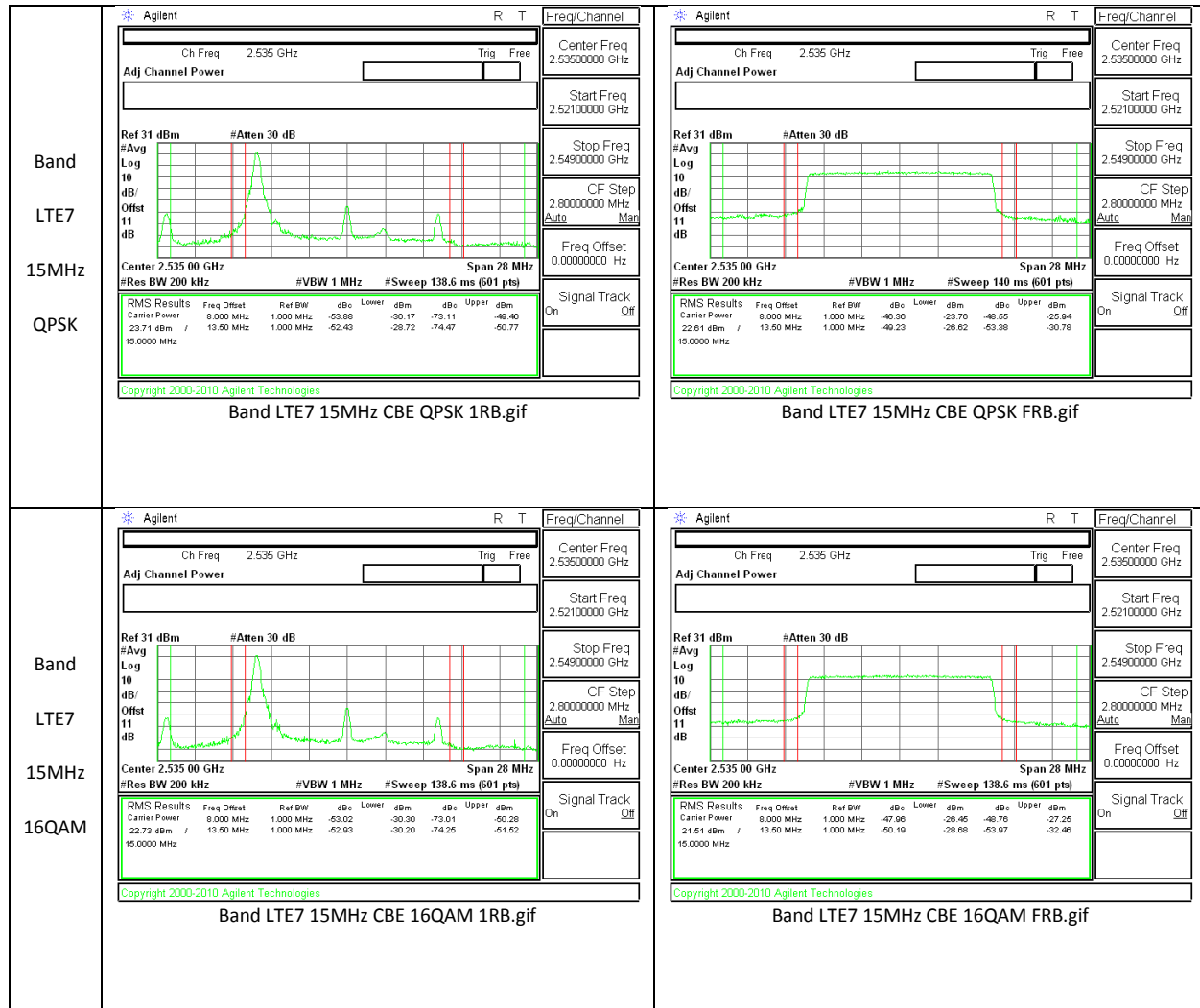


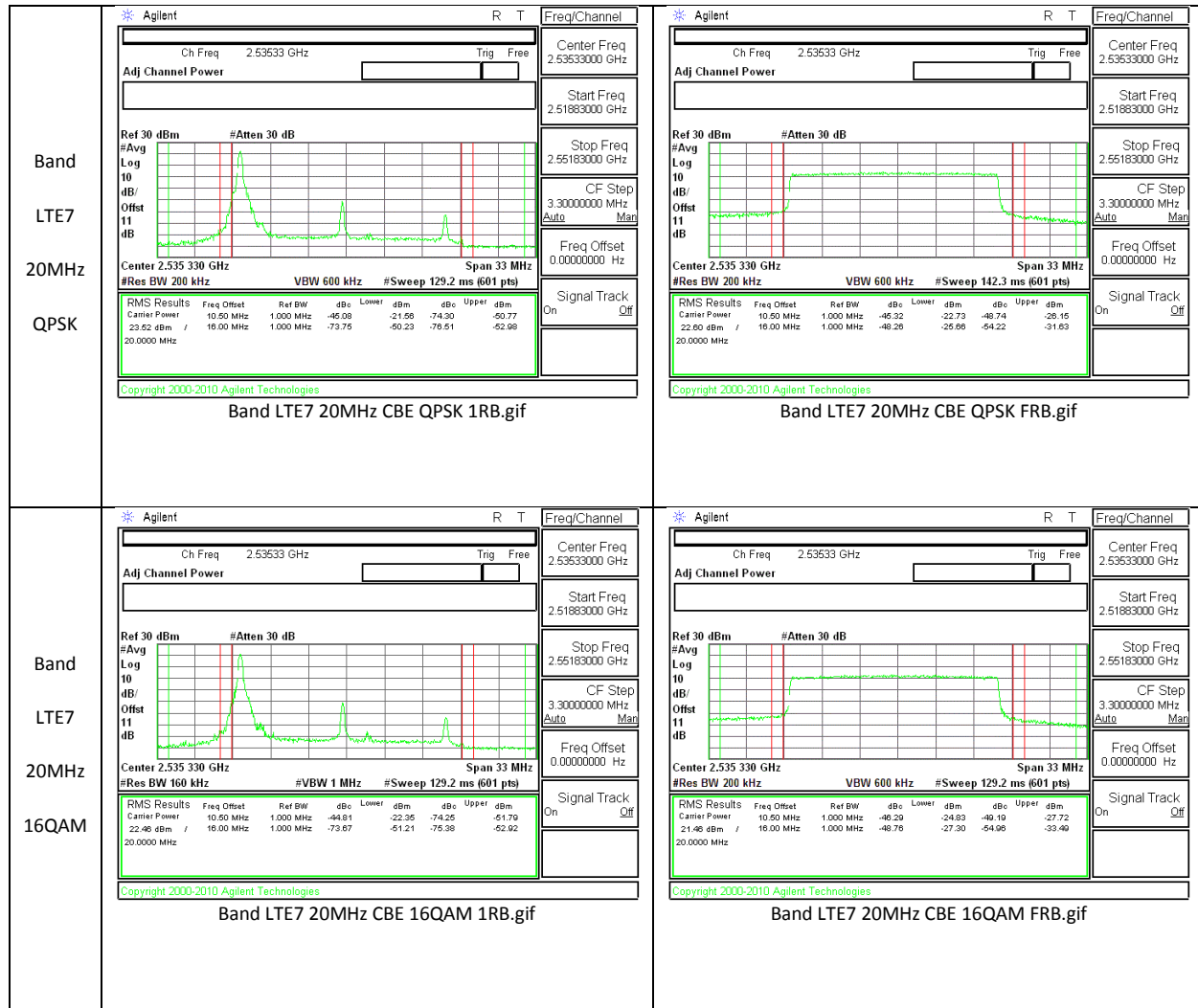


10.2.2. EMISSION MASK PLOTS









10.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238 and §27

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

Per KDB 971168 D01 Power Meas License Digital Systems v02r01

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.

RESULTS

10.3.1. OUT OF BAND EMISSIONS RESULT

Band	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
GSM850	GPRS	824.2	-20.89	-13	-7.89
		836.6	-19.35	-13	-6.35
		848.8	-18.47	-13	-5.47
	EGPRS	824.2	-23.4	-13	-10.4
		836.6	-22.81	-13	-9.81
		848.8	-23.67	-13	-10.67
GSM1900	GPRS	1850.2	-20.05	-13	-7.05
		1880	-18.93	-13	-5.93
		1909.8	-20.88	-13	-7.88
	EGPRS	1850.2	-19.17	-13	-6.17
		1880	-20.4	-13	-7.4
		1909.8	-19.5	-13	-6.5
Band 5	REL99	826.4	-19	-13	-6
		836.6	-20.34	-13	-7.34
		846.6	-20.44	-13	-7.44
	HSDPA	826.4	-19.04	-13	-6.04
		836.6	-20.01	-13	-7.01
		846.6	-18.75	-13	-5.75
Band 2	REL99	1852.4	-18.94	-13	-5.94
		1880	-19.48	-13	-6.48
		1907.6	-20.22	-13	-7.22
	HSDPA	1852.4	-19.8	-13	-6.8
		1880	-20.62	-13	-7.62
		1907.6	-21.13	-13	-8.13
Band 4	REL99	1712.4	-29.38	-13	-16.38
		1732.6	-29.74	-13	-16.74
		1752.6	-29.92	-13	-16.92
	HSDPA	1712.4	-19.53	-13	-6.53
		1732.6	-19.29	-13	-6.29
		1752.6	-18.77	-13	-5.77

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE17	10	QPSK	709	-23.01	-13	-10.01
			710	-23.43	-13	-10.43
			711	-22.66	-13	-9.66
		16QAM	709	-22.69	-13	-9.69
			710	-22.88	-13	-9.88
			711	-22.33	-13	-9.33

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE17	5	QPSK	706.5	-22.25	-13	-9.25
			710	-22.92	-13	-9.92
			713.5	-21.76	-13	-8.76
		16QAM	706.5	-23.07	-13	-10.07
			710	-22.75	-13	-9.75
			713.5	-22.55	-13	-9.55

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE13	10	QPSK	782	-22.7	-13	-9.7
		16QAM	782	-22.87	-13	-9.87

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE13	5	QPSK	779.5	-22.76	-13	-9.76
			782	-23.86	-13	-10.86
			784.5	-22.76	-13	-9.76
		16QAM	779.5	-24.96	-13	-11.96
			782	-23.56	-13	-10.56
			784.5	-23.35	-13	-10.35

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE7	20	QPSK	2510	-29.16	-25	-4.16

			2535	-28.74	-25	-3.74
			2560	-29.02	-25	-4.02
		16QAM	2510	-29	-25	-4
			2535	-29.1	-25	-4.1
			2560	-28.92	-25	-3.92

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE7	15	QPSK	2507.5	-30.68	-25	-5.68
			2535	-27.58	-25	-2.58
			2562.5	-28.97	-25	-3.97
		16QAM	2507.5	-30.24	-25	-5.24
			2535	-30.99	-25	-5.99
			2562.5	-28.49	-25	-3.49

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE7	10	QPSK	2505	-28.09	-25	-3.09
			2535	-27.01	-25	-2.01
			2565	-26.98	-25	-1.98
		16QAM	2505	-29.35	-25	-4.35
			2535	-27.06	-25	-2.06
			2565	-27.11	-25	-2.11

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE7	5	QPSK	2502.5	-36.07	-25	-11.07
			2535	-36.47	-25	-11.47
			2567.5	-36.84	-25	-11.84
		16QAM	2502.5	-35.91	-25	-10.91
			2535	-36.31	-25	-11.31
			2567.5	-34.75	-25	-9.75

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
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LTE5	10	QPSK	829	-30.05	-13	-17.05
			836.5	-28.92	-13	-15.92
			844	-30.06	-13	-17.06
		16QAM	829	-29.02	-13	-16.02
			836.5	-29.35	-13	-16.35
			844	-29.67	-13	-16.67

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE5	5	QPSK	826.5	-28.25	-13	-15.25
			836.5	-30.37	-13	-17.37
			846.5	-30.59	-13	-17.59
		16QAM	826.5	-29.75	-13	-16.75
			836.5	-29.28	-13	-16.28
			846.5	-29.05	-13	-16.05

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE5	3	QPSK	825.5	-28.42	-13	-15.42
			836.5	-28.78	-13	-15.78
			847.5	-31.6	-13	-18.6
		16QAM	825.5	-29.96	-13	-16.96
			836.5	-30.99	-13	-17.99
			847.5	-30.13	-13	-17.13

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE5	1.4	QPSK	824.7	-30.93	-13	-17.93
			836.5	-31.15	-13	-18.15
			848.3	-30.48	-13	-17.48
		16QAM	824.7	-29.87	-13	-16.87
			836.5	-30.27	-13	-17.27
			848.3	-30.07	-13	-17.07

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	20	QPSK	1720	-17.62	-13	-4.62
			1732.5	-17.45	-13	-4.45
			1745	-17.17	-13	-4.17
		16QAM	1720	-16.94	-13	-3.94
			1732.5	-18.12	-13	-5.12
			1745	-16.83	-13	-3.83

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	15	QPSK	1717.5	-17.47	-13	-4.47
			1732.5	-17.37	-13	-4.37
			1747.5	-17.94	-13	-4.94
		16QAM	1717.5	-18.09	-13	-5.09
			1732.5	-17.02	-13	-4.02
			1747.5	-17.66	-13	-4.66

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	10	QPSK	1715	-27.66	-13	-14.66
			1732.5	-29.13	-13	-16.13
			1750	-28.91	-13	-15.91
		16QAM	1715	-28.5	-13	-15.5
			1732.5	-28.02	-13	-15.02
			1750	-28.11	-13	-15.11

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	5	QPSK	1712.5	-27.82	-13	-14.82
			1732.5	-28.5	-13	-15.5
			1752.5	-27.16	-13	-14.16
		16QAM	1712.5	-27.83	-13	-14.83
			1732.5	-28.6	-13	-15.6
			1752.5	-28.08	-13	-15.08

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	3	QPSK	1711.5	-26.67	-13	-13.67
			1732.5	-28.44	-13	-15.44
			1753.5	-28.18	-13	-15.18
		16QAM	1711.5	-26.97	-13	-13.97
			1732.5	-27.08	-13	-14.08
			1753.5	-28.2	-13	-15.2

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	1.4	QPSK	1710.7	-28.78	-13	-15.78
			1732.5	-26.83	-13	-13.83
			1754.3	-28.2	-13	-15.2
		16QAM	1710.7	-27.95	-13	-14.95
			1732.5	-28.05	-13	-15.05
			1754.3	-27.11	-13	-14.11

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	20	QPSK	1860	-18.19	-13	-5.19
			1880	-17.03	-13	-4.03
			1900	-17.05	-13	-4.05
		16QAM	1860	-17.65	-13	-4.65
			1880	-16.04	-13	-3.04
			1900	-16.67	-13	-3.67

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	15	QPSK	1857.5	-20.69	-13	-7.69
			1880	-20.16	-13	-7.16
			1902.5	-19.53	-13	-6.53
		16QAM	1857.5	-20.61	-13	-7.61
			1880	-20.31	-13	-7.31
			1902.5	-19.84	-13	-6.84

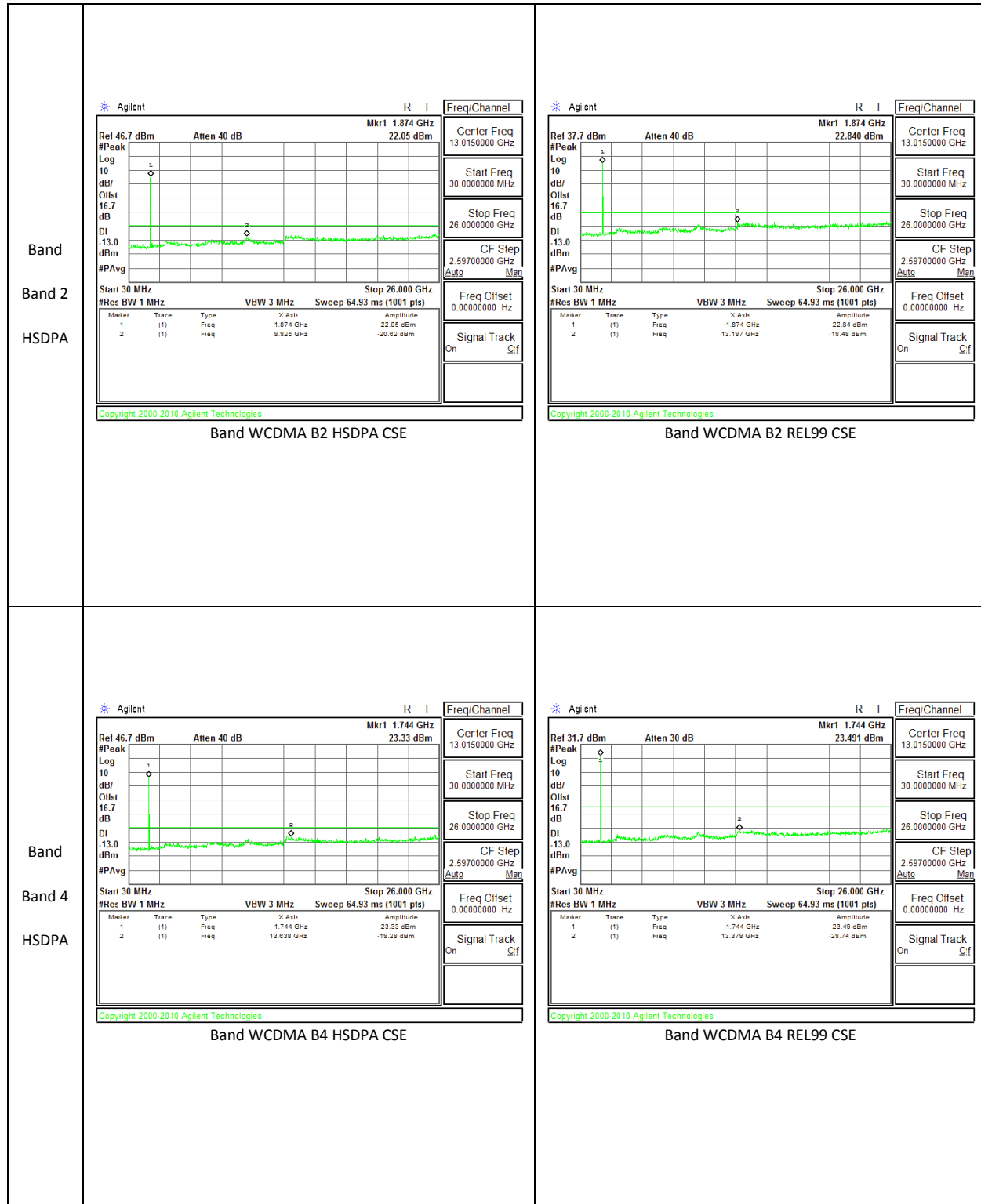
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	10	QPSK	1855	-20.13	-13	-7.13
			1880	-20.03	-13	-7.03
			1905	-20.27	-13	-7.27
		16QAM	1855	-20.95	-13	-7.95
			1880	-20.05	-13	-7.05
			1905	-20.2	-13	-7.2

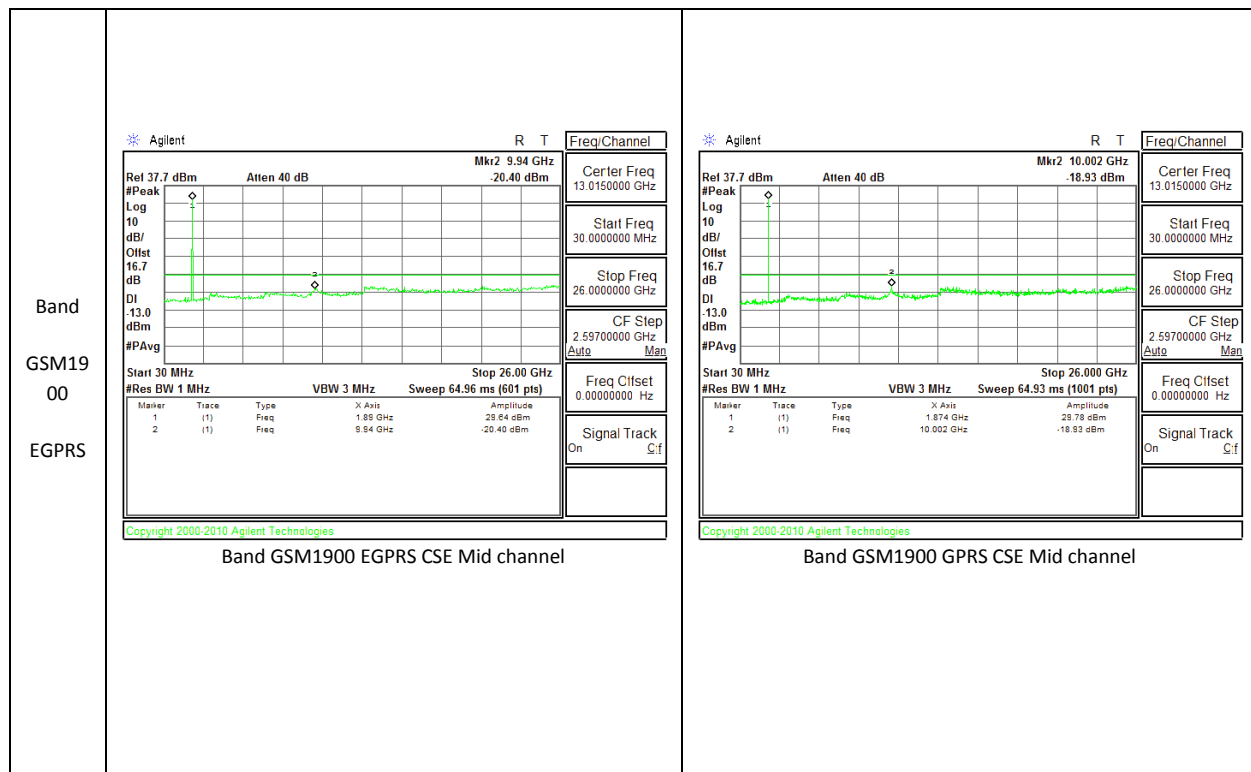
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	5	QPSK	1852.5	-20.54	-13	-7.54
			1880	-21.23	-13	-8.23
			1907.5	-21	-13	-8
		16QAM	1852.5	-20.59	-13	-7.59
			1880	-19.2	-13	-6.2
			1907.5	-21.04	-13	-8.04

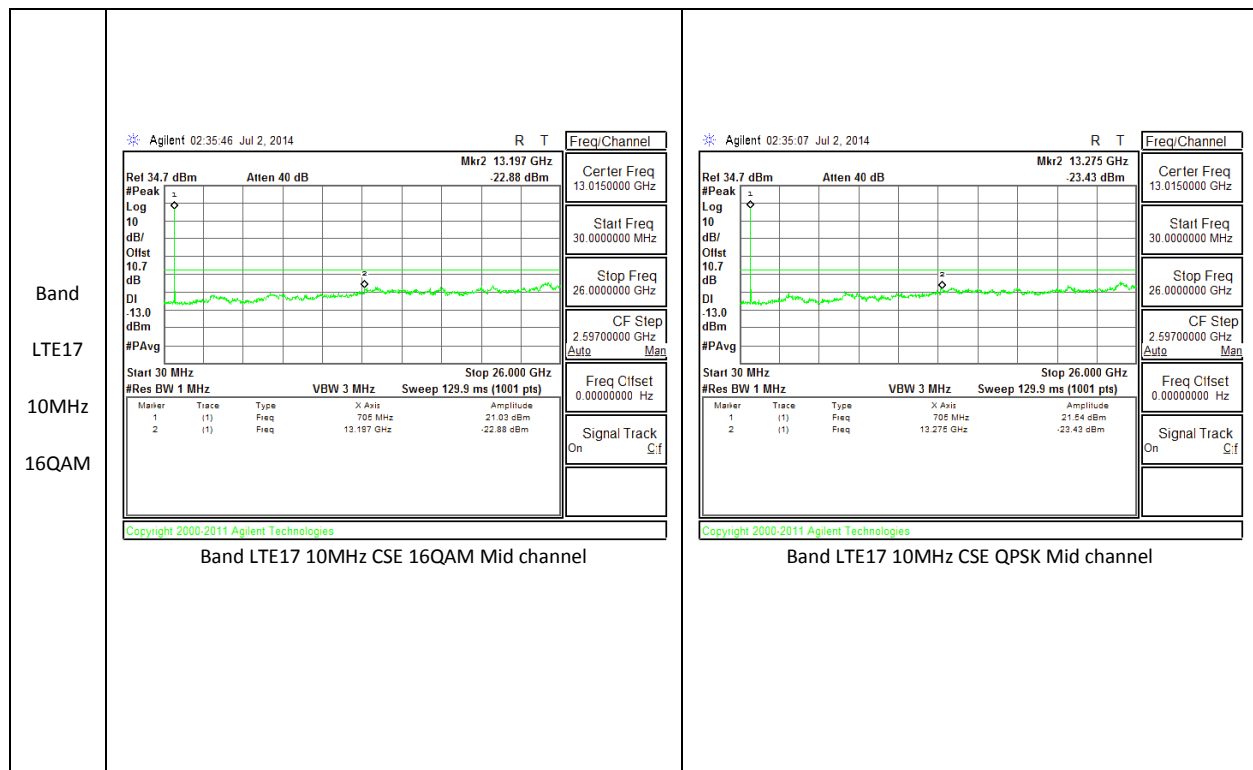
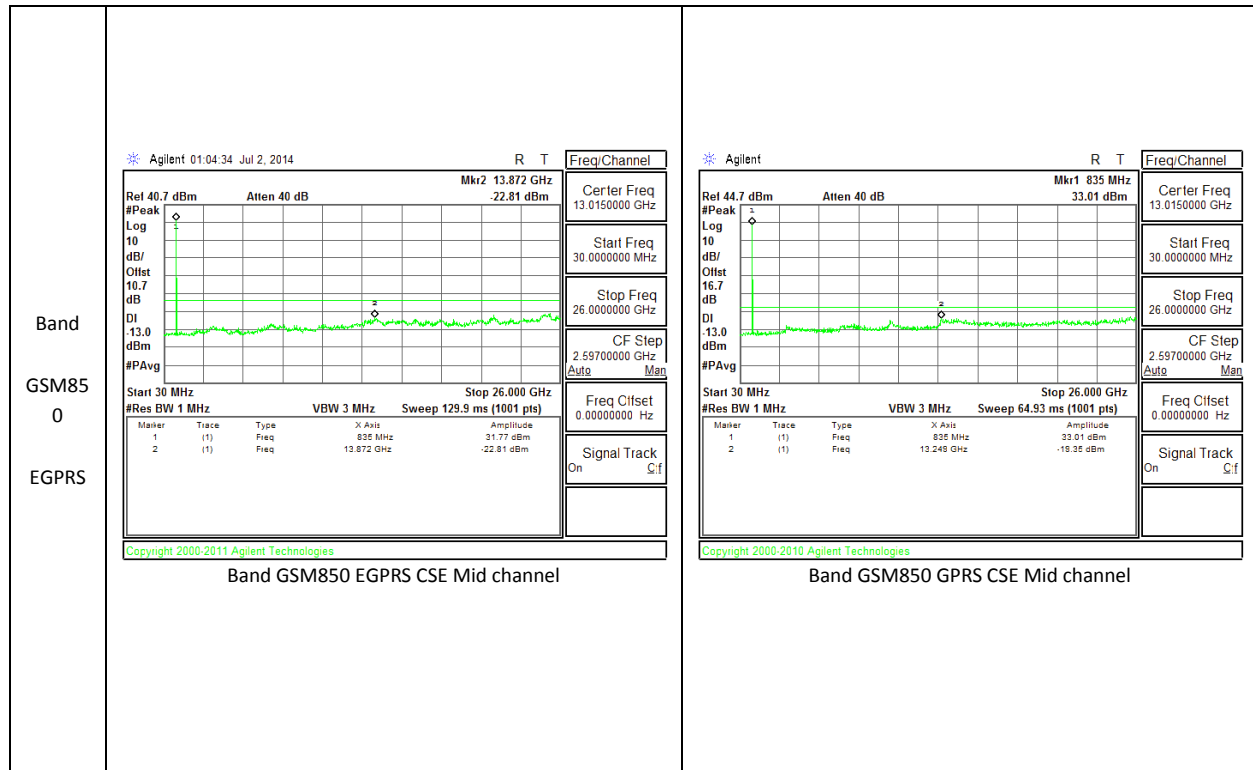
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	3	QPSK	1851.5	-21.79	-13	-8.79
			1880	-20.44	-13	-7.44
			1908.5	-20.87	-13	-7.87
		16QAM	1851.5	-20.66	-13	-7.66
			1880	-20.19	-13	-7.19
			1908.5	-19.85	-13	-6.85

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE2	1.4	QPSK	1850.7	-20.87	-13	-7.87
			1880	-20.3	-13	-7.3
			1909.3	-19.5	-13	-6.5
		16QAM	1850.7	-20.32	-13	-7.32
			1880	-19.89	-13	-6.89
			1909.3	-19.93	-13	-6.93

10.3.2. OUT OF BAND EMISSIONS PLOTS

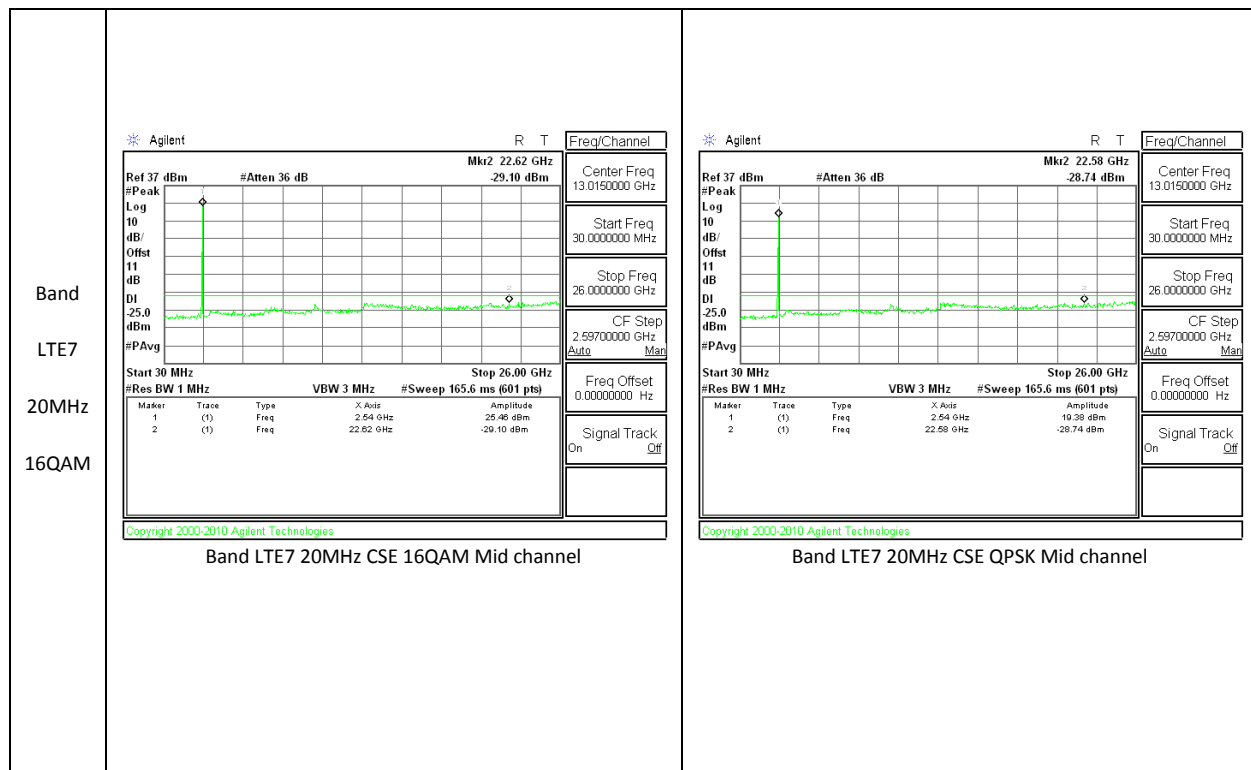
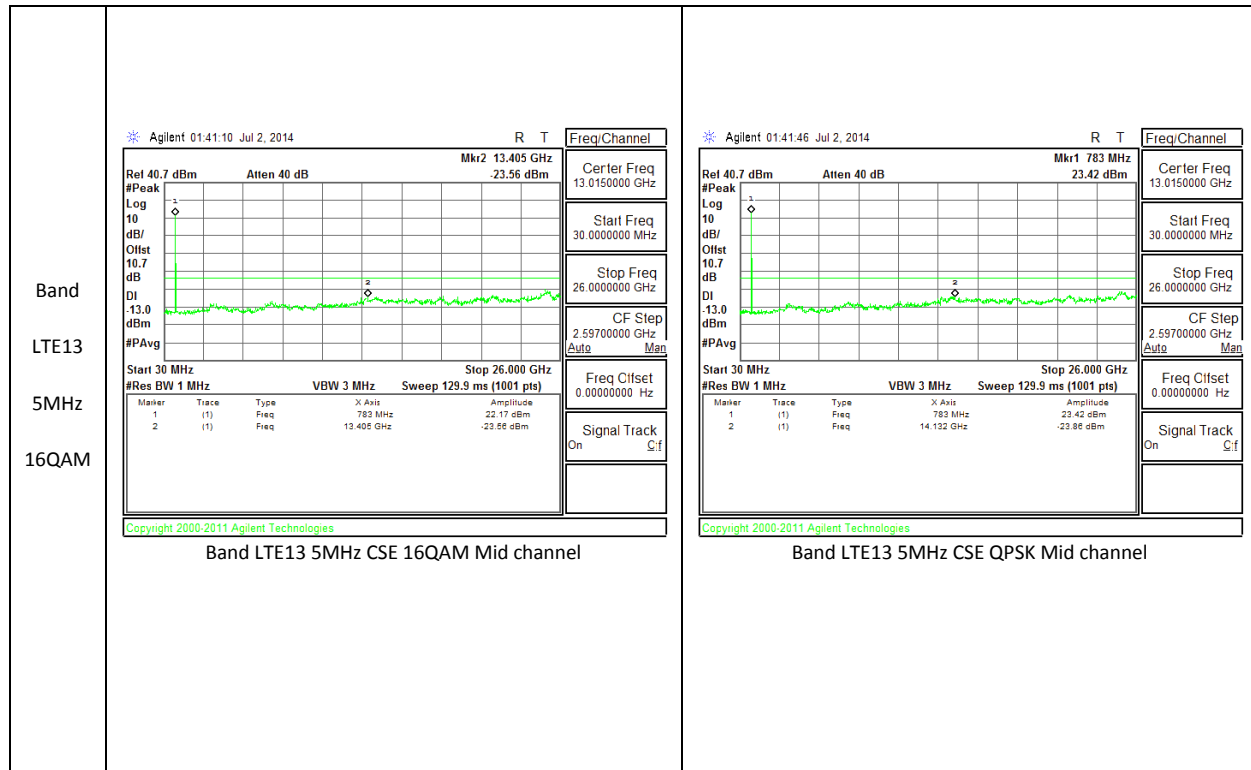


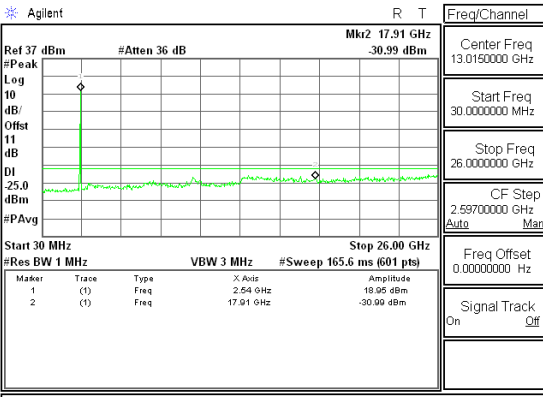
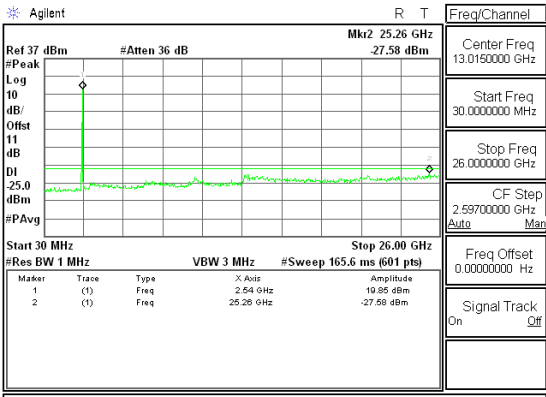
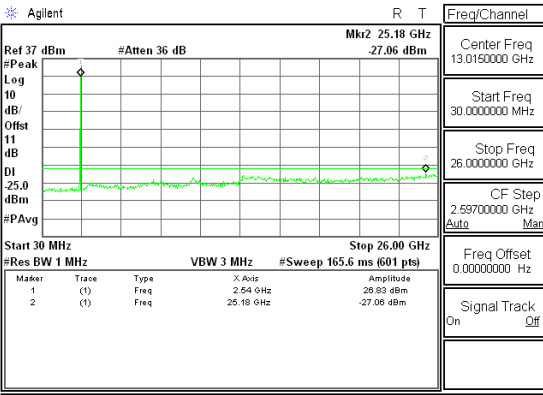
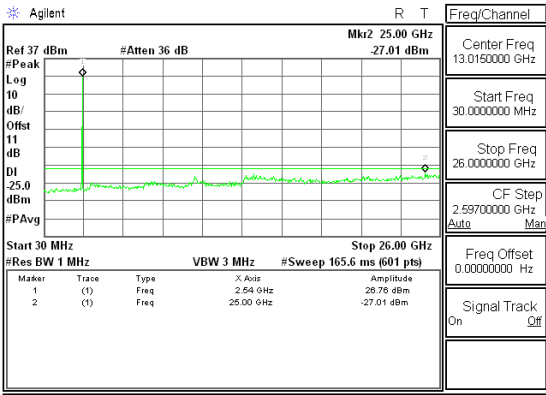


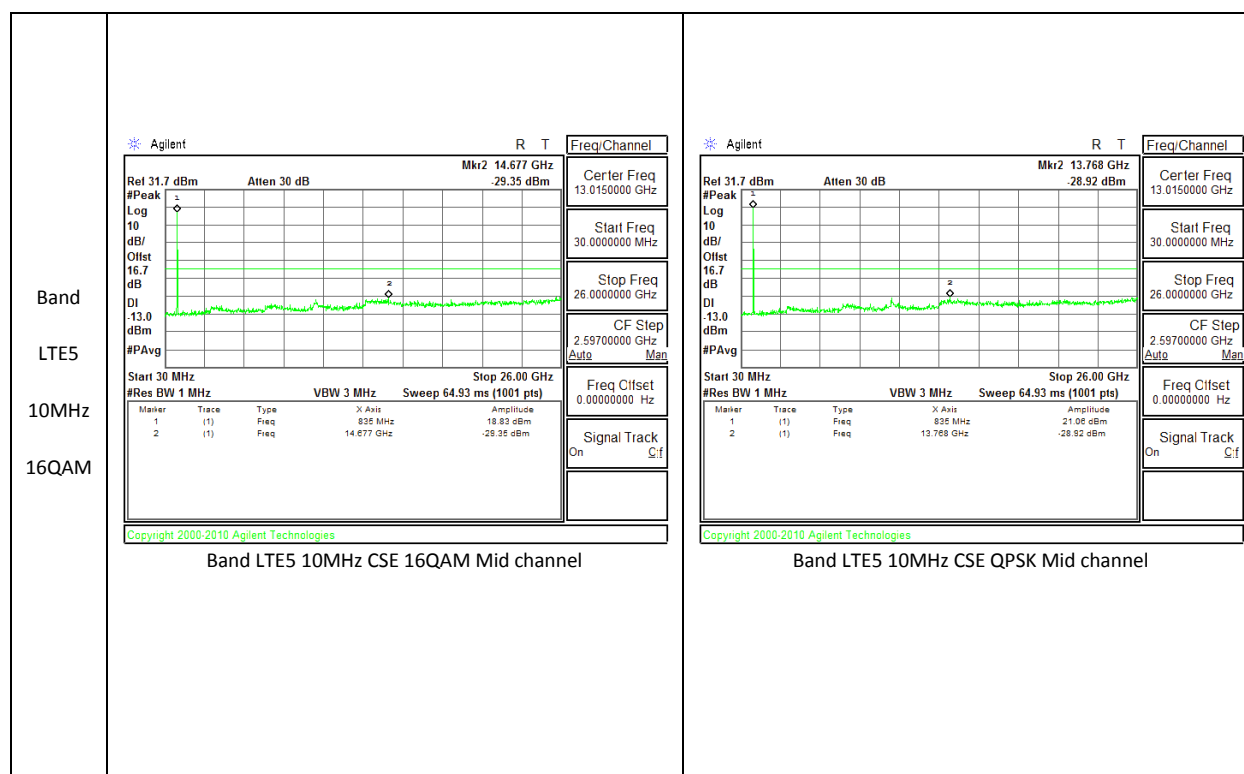
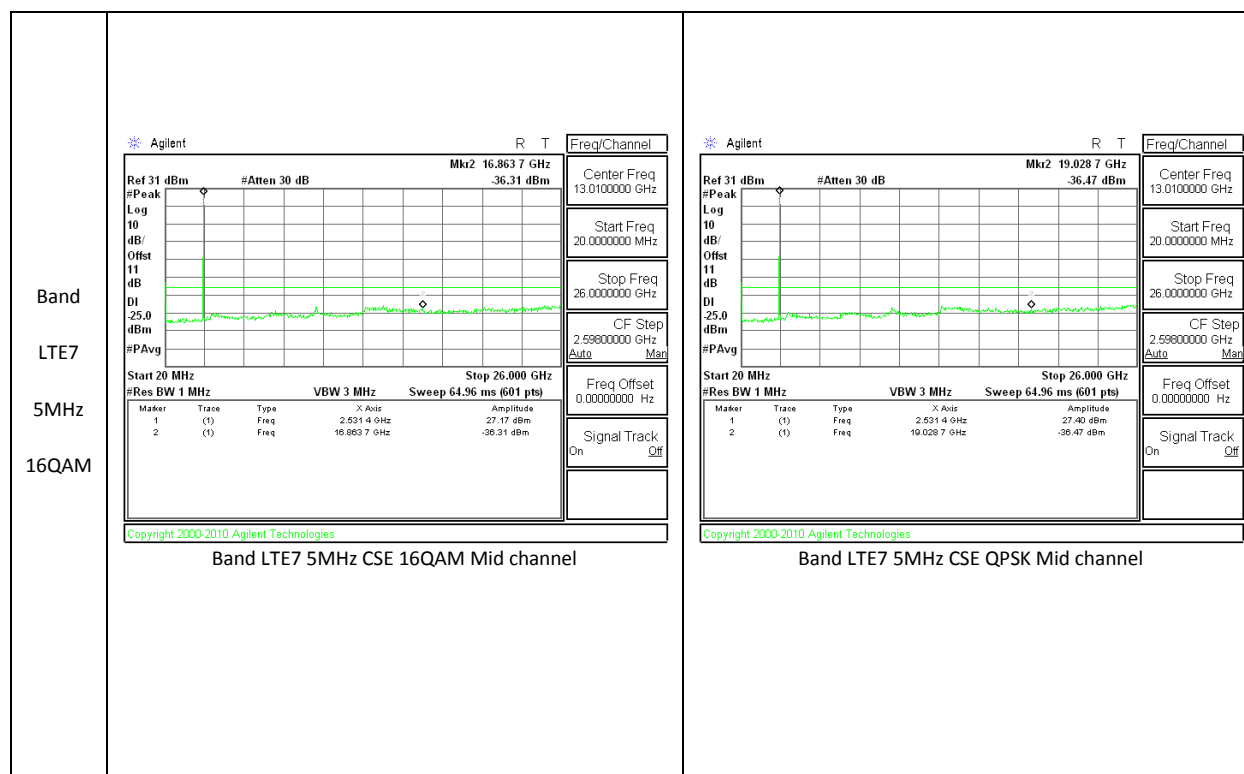


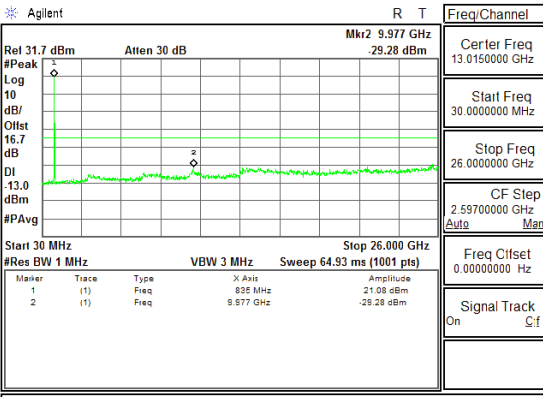
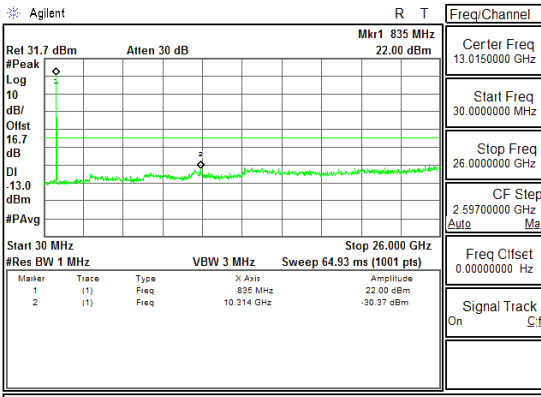
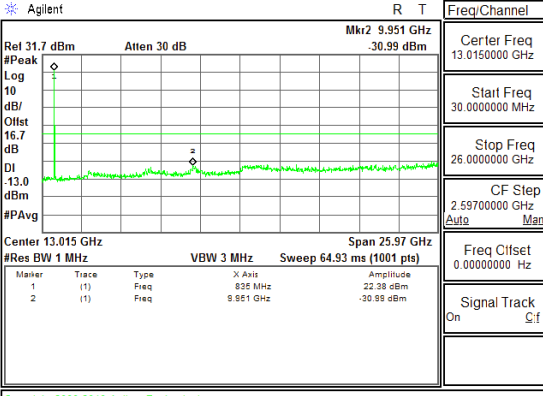
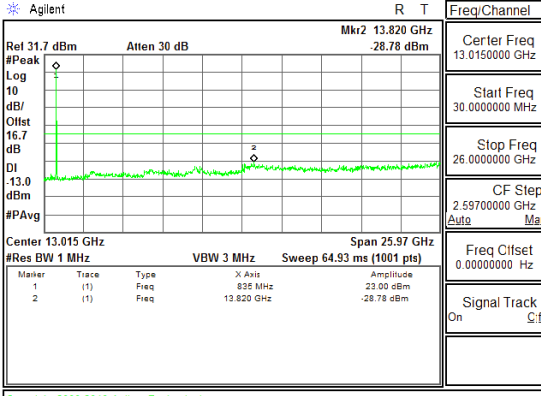
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	Agilent 02:15:14 Jul 2, 2014 R T Freq/Channel Rel 34.7 dBm Atten 40 dB Mkr2 13.924 GHz -22.92 dBm #Peak Log 10 dB/ Offset 10.7 dB DI 13.0 dBm #PAvg Start 30 MHz Stop 26.000 GHz #Res BW 1 MHz VBW 3 MHz Sweep 129.9 ms (1001 pts) <table><tr><td>Marker</td><td>Trace</td><td>Type</td><td>X Axis</td><td>Amplitude</td></tr><tr><td>1</td><td>(1)</td><td>Freq</td><td>705 MHz</td><td>-22.68 dBm</td></tr><tr><td>2</td><td>(1)</td><td>Freq</td><td>13.924 GHz</td><td>-22.92 dBm</td></tr></table> Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.59700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Copyright 2000-2011 Agilent Technologies Band LTE17 5MHz CSE QPSK Mid channel	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	705 MHz	-22.68 dBm	2	(1)	Freq	13.924 GHz	-22.92 dBm
Marker	Trace	Type	X Axis	Amplitude												
1	(1)	Freq	705 MHz	-22.68 dBm												
2	(1)	Freq	13.924 GHz	-22.92 dBm												

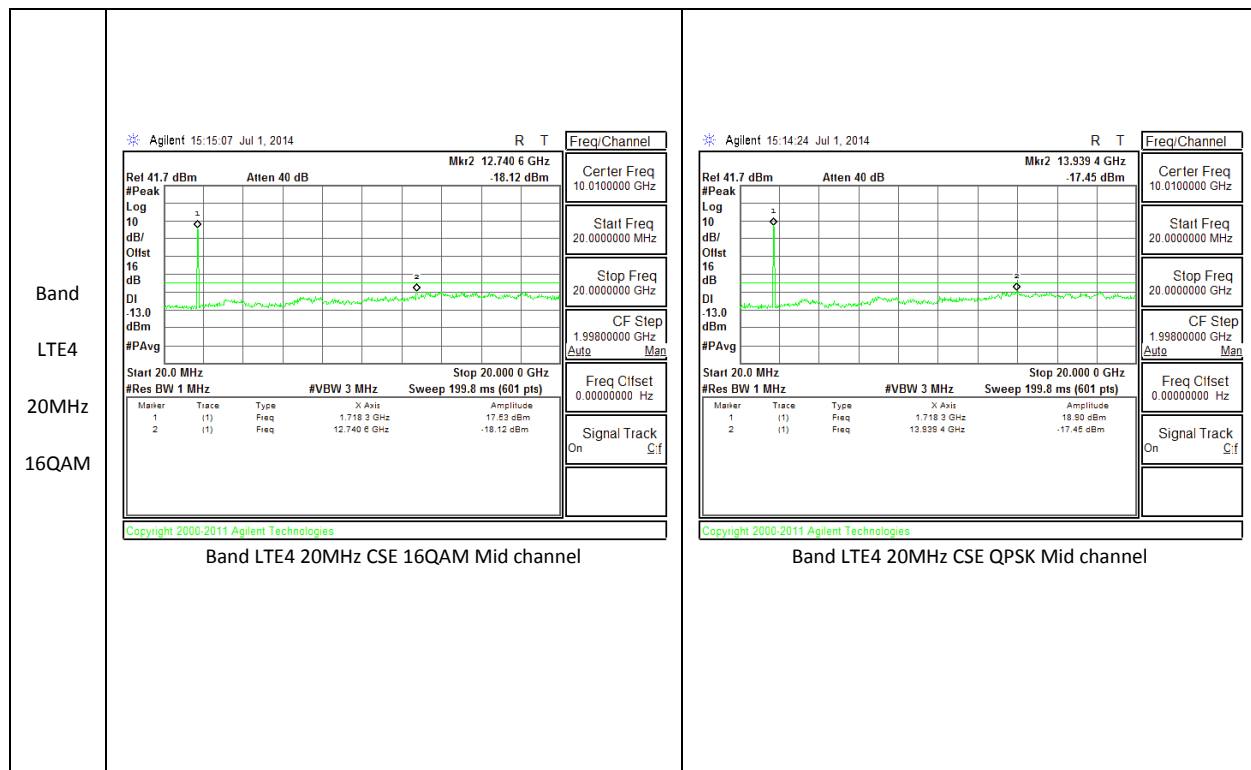
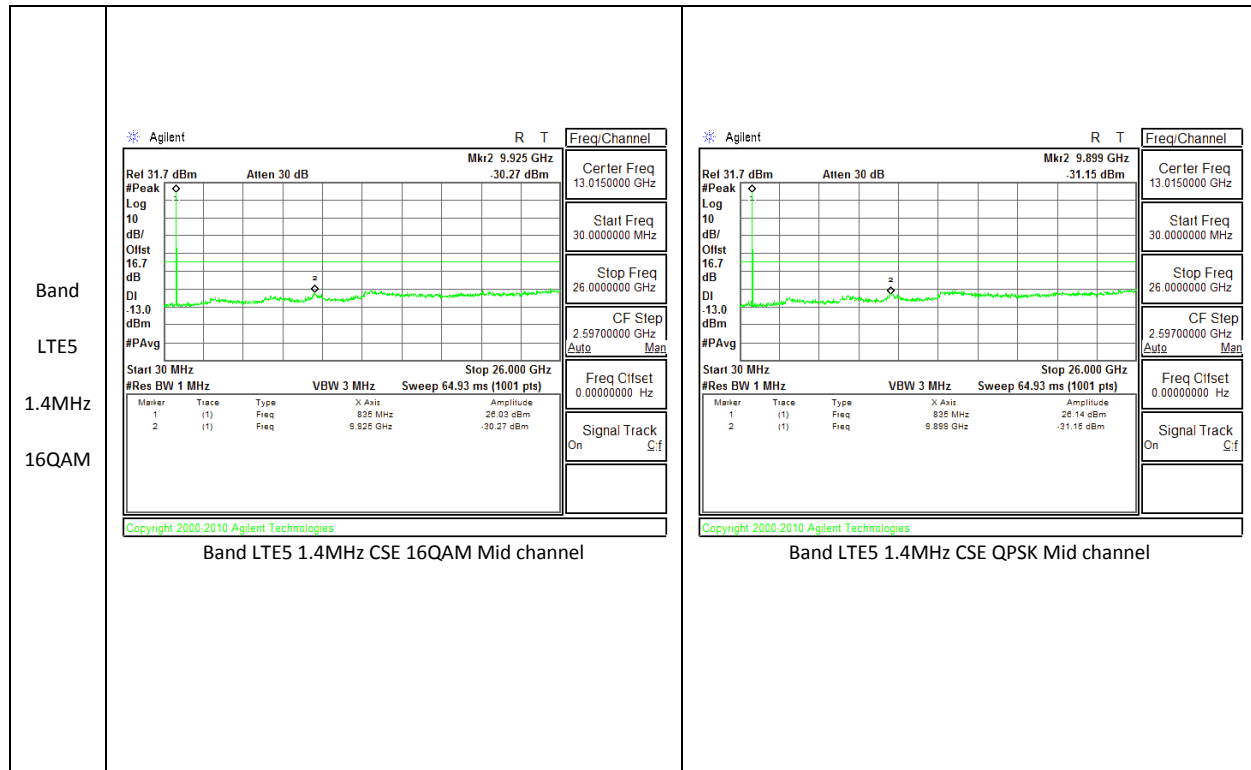
Band LTE13 10MHz 16QAM	Agilent 01:12:41 Jul 2, 2014 R T Freq/Channel Rel 40.7 dBm Atten 40 dB Mkr2 14.002 GHz -22.87 dBm #Peak Log 10 dB/ Offset 10.7 dB DI 13.0 dBm #PAvg Start 30 MHz Stop 26.000 GHz #Res BW 1 MHz VBW 3 MHz Sweep 129.9 ms (1001 pts) <table><tr><td>Marker</td><td>Trace</td><td>Type</td><td>X Axis</td><td>Amplitude</td></tr><tr><td>1</td><td>(1)</td><td>Freq</td><td>783 MHz</td><td>-21.10 dBm</td></tr><tr><td>2</td><td>(1)</td><td>Freq</td><td>14.002 GHz</td><td>-22.87 dBm</td></tr></table> Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.59700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Copyright 2000-2011 Agilent Technologies Band LTE13 10MHz CSE 16QAM High channel	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	783 MHz	-21.10 dBm	2	(1)	Freq	14.002 GHz	-22.87 dBm
Marker	Trace	Type	X Axis	Amplitude												
1	(1)	Freq	783 MHz	-21.10 dBm												
2	(1)	Freq	14.002 GHz	-22.87 dBm												
	Agilent 01:13:14 Jul 2, 2014 R T Freq/Channel Rel 40.7 dBm Atten 40 dB Mkr2 13.846 GHz -22.70 dBm #Peak Log 10 dB/ Offset 10.7 dB DI 13.0 dBm #PAvg Start 30 MHz Stop 26.000 GHz #Res BW 1 MHz VBW 3 MHz Sweep 129.9 ms (1001 pts) <table><tr><td>Marker</td><td>Trace</td><td>Type</td><td>X Axis</td><td>Amplitude</td></tr><tr><td>1</td><td>(1)</td><td>Freq</td><td>783 MHz</td><td>-21.57 dBm</td></tr><tr><td>2</td><td>(1)</td><td>Freq</td><td>13.846 GHz</td><td>-22.70 dBm</td></tr></table> Center Freq 13.0150000 GHz Start Freq 30.0000000 MHz Stop Freq 26.0000000 GHz CF Step 2.59700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Copyright 2000-2011 Agilent Technologies Band LTE13 10MHz CSE QPSK High channel	Marker	Trace	Type	X Axis	Amplitude	1	(1)	Freq	783 MHz	-21.57 dBm	2	(1)	Freq	13.846 GHz	-22.70 dBm
Marker	Trace	Type	X Axis	Amplitude												
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2	(1)	Freq	13.846 GHz	-22.70 dBm												

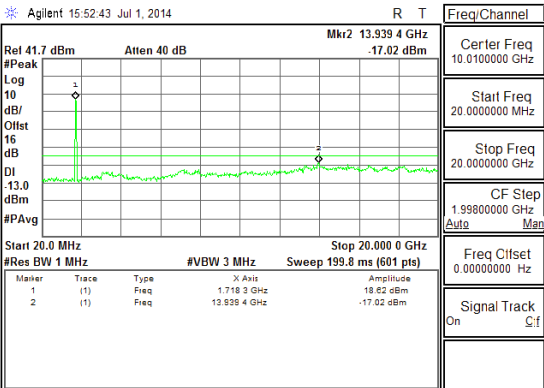
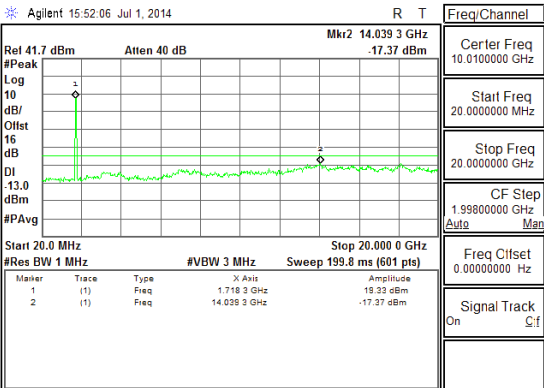
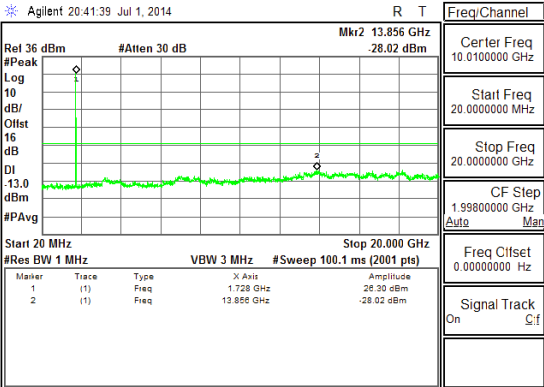
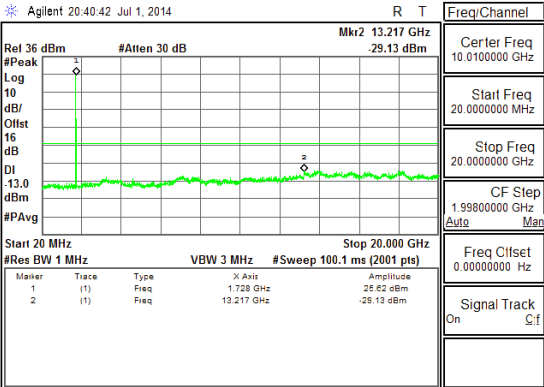


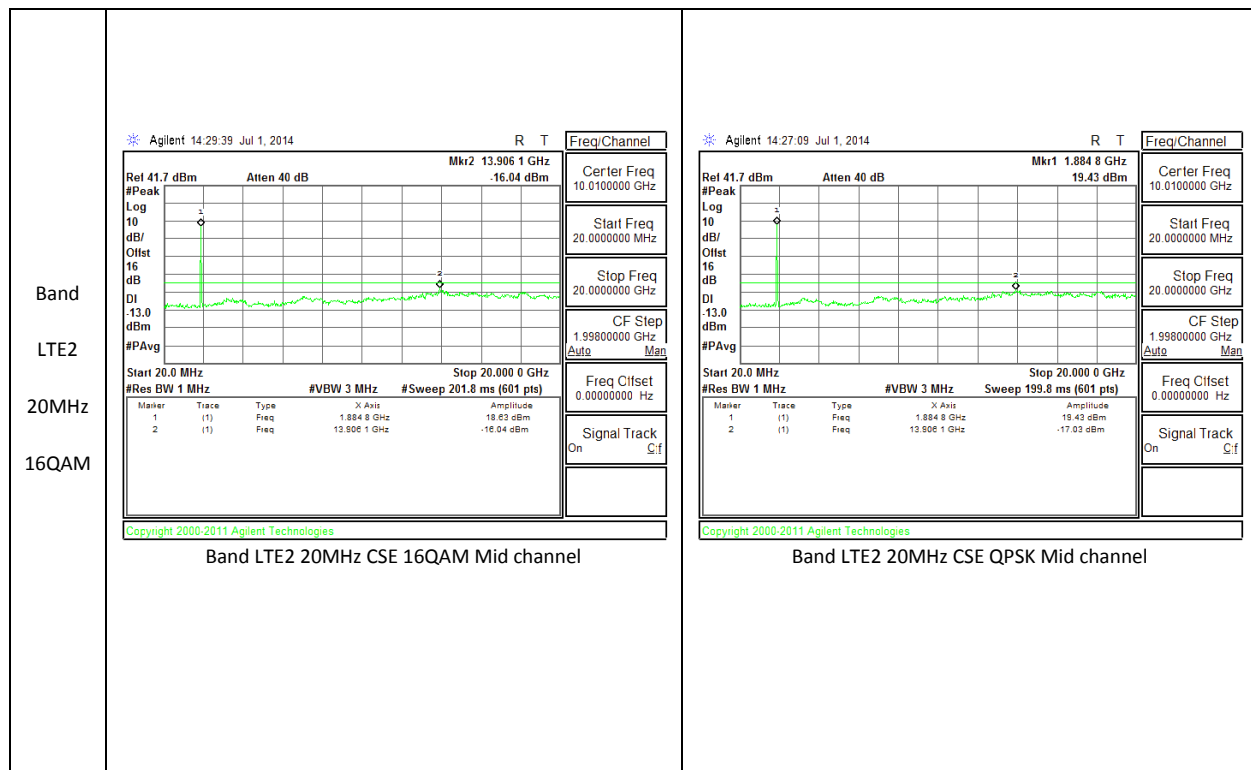
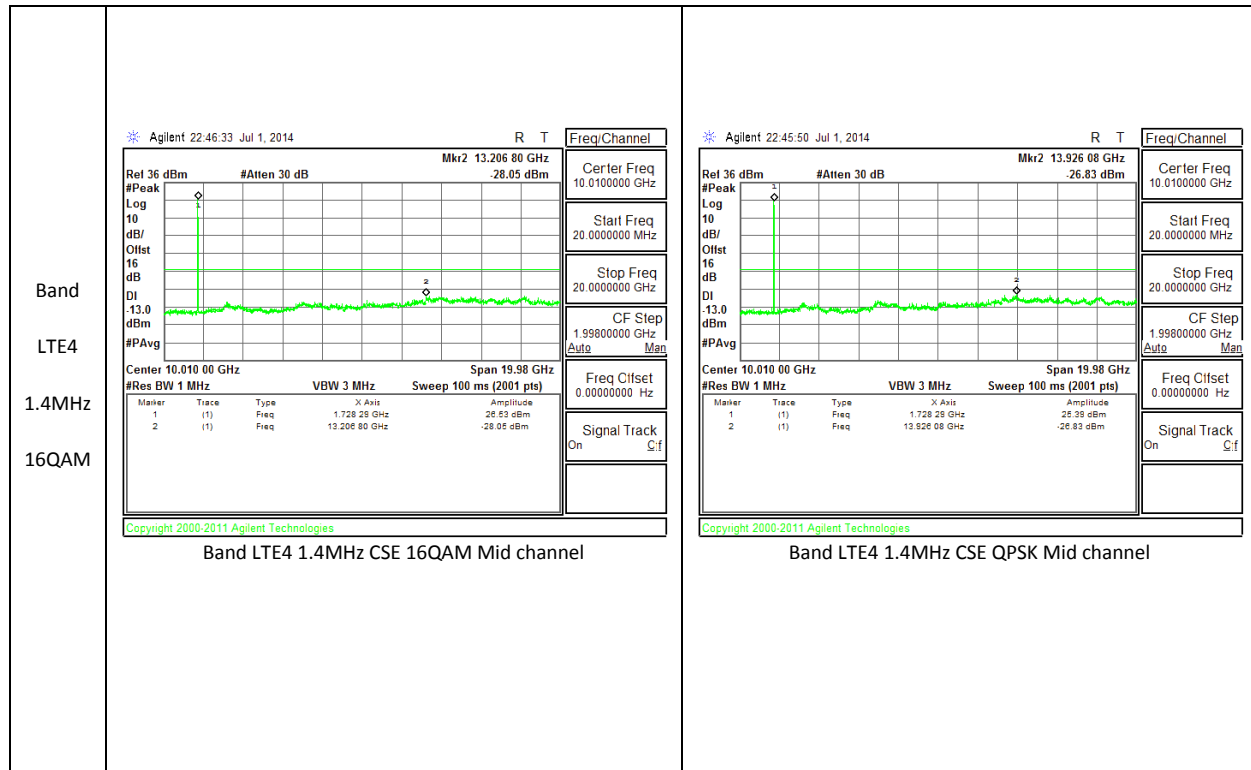
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Band LTE7 10MHz 16QAM	 Copyright 2000-2010 Agilent Technologies Band LTE7 10MHz CSE 16QAM Mid channel	 Copyright 2000-2010 Agilent Technologies Band LTE7 10MHz CSE QPSK Mid channel

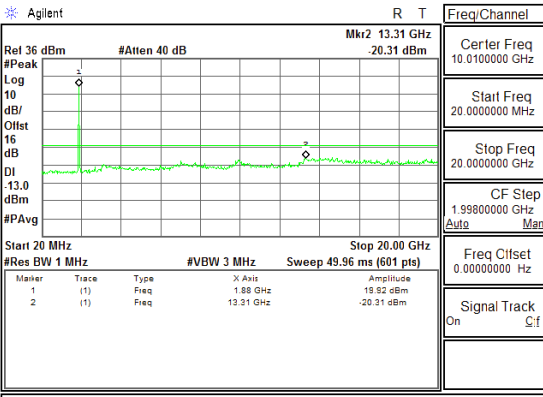
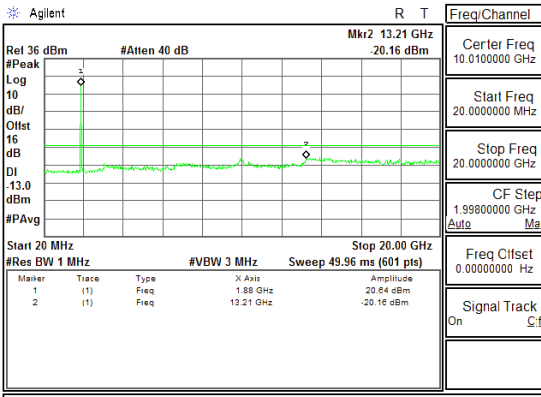
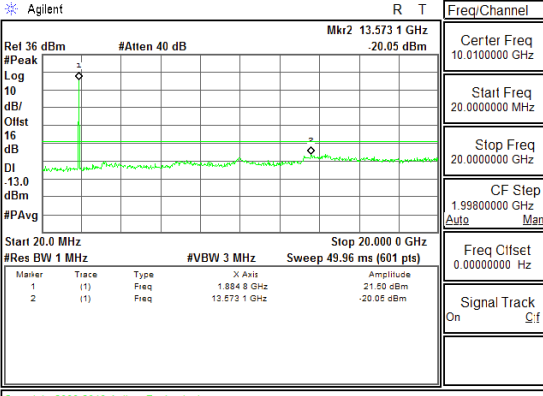
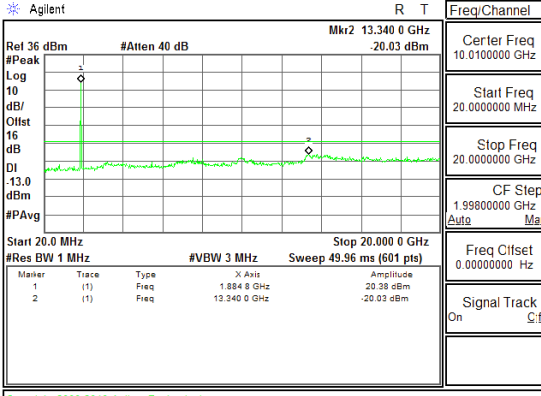


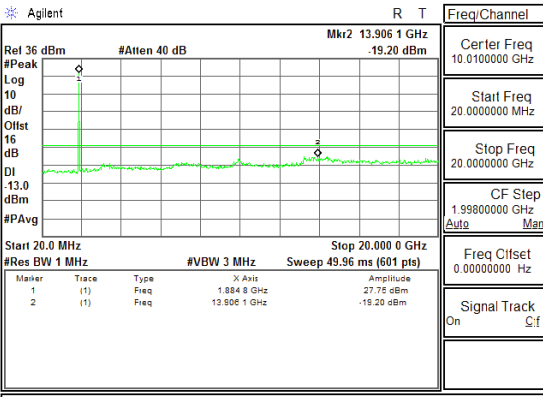
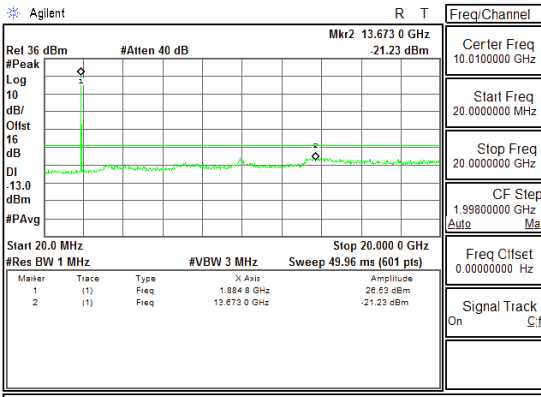
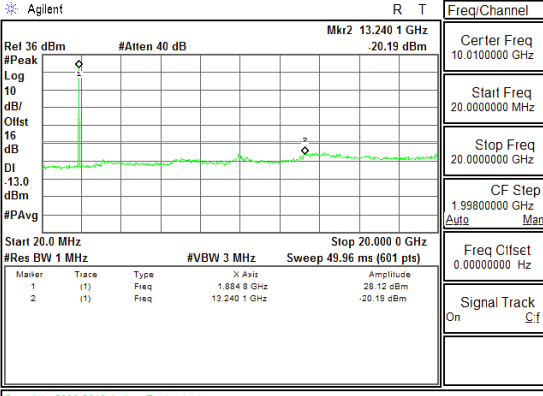
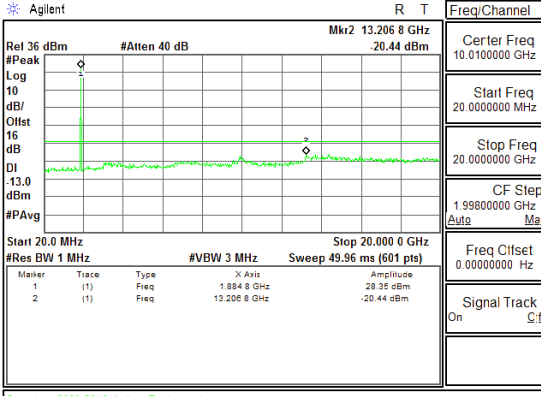
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Band LTE5 3MHz 16QAM	 Copyright 2000-2010 Agilent Technologies Band LTE5 3MHz CSE 16QAM Mid channel	 Copyright 2000-2010 Agilent Technologies Band LTE5 3MHz CSE QPSK Mid channel

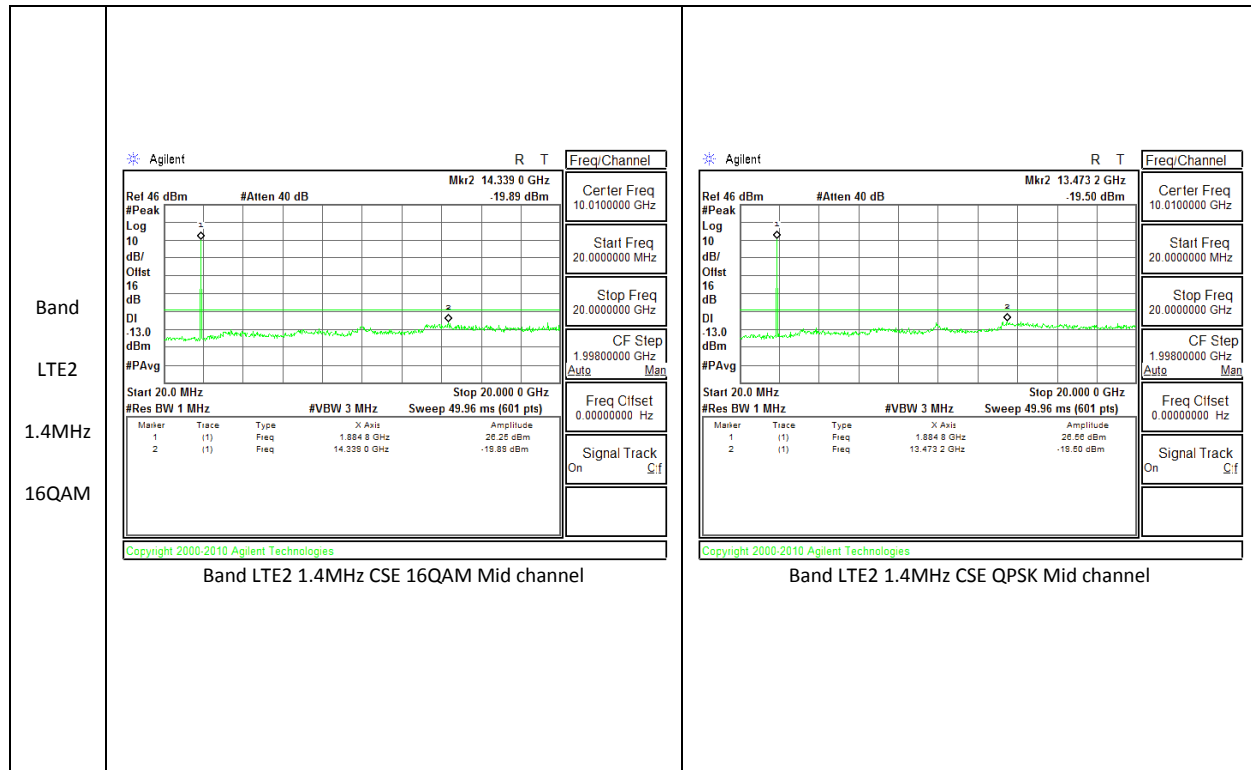


Band LTE4 15MHz 16QAM	 Copyright 2000-2011 Agilent Technologies Band LTE4 15MHz CSE 16QAM Mid channel	 Copyright 2000-2011 Agilent Technologies Band LTE4 15MHz CSE QPSK Mid channel
Band LTE4 10MHz 16QAM	 Copyright 2000-2011 Agilent Technologies Band LTE4 10MHz CSE 16QAM Mid channel	 Copyright 2000-2011 Agilent Technologies Band LTE4 10MHz CSE QPSK Mid channel



Band LTE2 15MHz 16QAM	 Copyright 2000-2010 Agilent Technologies Band LTE2 15MHz CSE 16QAM Mid channel	 Copyright 2000-2010 Agilent Technologies Band LTE2 15MHz CSE QPSK Mid channel
Band LTE2 10MHz 16QAM	 Copyright 2000-2010 Agilent Technologies Band LTE2 10MHz CSE 16QAM Mid channel	 Copyright 2000-2010 Agilent Technologies Band LTE2 10MHz CSE QPSK Mid channel

Band LTE2 5MHz 16QAM	 Copyright 2000-2010 Agilent Technologies Band LTE2 5MHz CSE 16QAM Mid channel	 Copyright 2000-2010 Agilent Technologies Band LTE2 5MHz CSE QPSK Mid channel
Band LTE2 3MHz 16QAM	 Copyright 2000-2010 Agilent Technologies Band LTE2 3MHz CSE 16QAM Mid channel	 Copyright 2000-2010 Agilent Technologies Band LTE2 3MHz CSE QPSK Mid channel



10.4. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235, and §27.54

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.

§27.54 - The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r01

SOP

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°C is reached. Reference power supply voltage for these tests is 3.8Vdc.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case). The test voltage ranges from 3.42 to 4.18 VDC.

RESULTS

See the following pages.

10.4.1. FREQUENCY STABILITY RESULTS

BAND II, Channel 9400 Freq: 1880MHz– MID CHANNEL

Reference Frequency: PC S 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)
3.80	50	1880.000007	0.000	2.5
3.80	40	1880.000006	0.001	2.5
3.80	30	1880.000007	0.000	2.5
3.80	20	1880.000007	0	2.5
3.80	10	1880.000007	0.000	2.5
3.80	0	1880.000008	0.000	2.5
3.80	-10	1880.000006	0.001	2.5
3.80	-20	1880.000006	0.000	2.5
3.80	-30	1880.000007	0.000	2.5

Reference Frequency: PCS Mid Channel 1880 MHz @ 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)
3.80	20	1880.000006	0	2.5
4.18	20	1880.000006	0.000	2.5
3.42	20	1880.000007	-0.001	2.5

BAND V, Channel 4183, Freq: 836.6MHz – MID CHANNEL

Reference Frequency: Cell Mid Channel 836.6 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.600004	-0.001	2.5
3.80	40	836.600002	0.001	2.5
3.80	30	836.599996	0.008	2.5
3.80	20	836.600003	0	2.5
3.80	10	836.600002	0.001	2.5
3.80	0	836.600004	-0.001	2.5
3.80	-10	836.599997	0.007	2.5
3.80	-20	836.600005	-0.002	2.5
3.80	-30	836.600004	-0.001	2.5

Reference Frequency: Mid Channel 836.6 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
			Delta (ppm)	Limit (ppm)
3.80	20	836.599998	0.00000	2.5
4.18	20	836.600003	-0.00574	2.5
3.42	20	836.599997	0.00096	2.5

BAND 4, Freq: 836.6MHz – MID CHANNEL

Reference Frequency: Cell Mid Channel 1732.6 MHz @ 20°C Limit: +/- 2.5 ppm = 4331.500 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1732.600000	0.00346	2.5
3.80	40	1732.600000	0.00346	2.5
3.80	30	1732.600000	0.00346	2.5
3.80	20	1732.600006	0.00000	2.5
3.80	10	1732.600000	0.00346	2.5
3.80	0	1732.600000	0.00346	2.5
3.80	-10	1732.600000	0.00346	2.5
3.80	-20	1732.600000	0.00346	2.5
3.80	-30	1732.600000	0.00346	2.5

Reference Frequency: Cell Mid Channel 1732.6 MHz @ 20°C Limit: +/- 2.5 ppm = 4331.500 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
			Delta (ppm)	Limit (ppm)
3.80	20	1732.600006	0.00000	2.5
4.18	20	1732.600007	-0.00058	2.5
3.42	20	1732.600008	-0.00115	2.5

LTE BAND 7, Channel 21100, Freq: 2535.0MHz – MID CHANNEL

Reference Frequency: Cell Mid Channel 2535.0 MHz @ 20°C Limit: +/- 2.5 ppm = 6337.500 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	2535.000015	-0.009	2.5
3.80	40	2534.999986	0.002	2.5
3.80	30	2535.000013	-0.008	2.5
3.80	20	2534.999992	0	2.5
3.80	10	2535.000014	-0.009	2.5
3.80	0	2535.000014	-0.009	2.5
3.80	-10	2535.000017	-0.010	2.5
3.80	-20	2535.000013	-0.008	2.5
3.80	-30	2535.000016	-0.009	2.5

Reference Frequency: Mid Channel 836.6 MHz @ 20°C Limit: +/- 2.5 ppm = 2091.500 Hz				
Power Supply (Vdc)	Environment Temperature (*C)	Frequency Deviation Measured with Time Elapse		
			Delta (ppm)	Limit (ppm)
3.80	20	2535.000013	0.00000	2.5
4.18	20	2534.999992	0.02579	2.5
3.42	20	2534.999992	0.02568	2.5

LTE BAND 13, Channel 23230 Freq: 782.0MHz– MID CHANNEL

Reference Frequency: Cell Mid Channel 782MHz @ 20°C Limit: to stay +/- 2.5 ppm = 1955.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	781.9999935	0.003	2.5
3.80	40	781.9999959	0.000	2.5
3.80	30	781.999997	-0.002	2.5
3.80	20	781.999996	0	2.5
3.80	10	781.999997	-0.001	2.5
3.80	0	781.9999959	-0.001	2.5
3.80	-10	781.9999957	0.000	2.5
3.80	-20	781.999996	0.000	2.5
3.80	-30	781.999995	0.001	2.5

Reference Frequency: PCS Mid Channel 1880 MHz @ 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)
3.80	20	781.999986	0	2.5
4.18	20	782.000014	-0.015	2.5
3.42	20	781.9999955	-0.005	2.5

LTE BAND 17, Channel 23790 Freq: 710.0MHz– MID CHANNEL

Reference Frequency: Cell Mid Channel 782MHz @ 20°C Limit: to stay +/- 2.5 ppm = 1775.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	710.000004	-0.001	2.5
3.80	40	710.000004	-0.001	2.5
3.80	30	710.000004	-0.001	2.5
3.80	20	710.000004	0	2.5
3.80	10	710.000005	-0.001	2.5
3.80	0	710.000005	-0.003	2.5
3.80	-10	710.000005	-0.002	2.5
3.80	-20	710.000003	0.000	2.5
3.80	-30	710.000004	-0.001	2.5

Reference Frequency: PCS Mid Channel 1880 MHz @ 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)
3.80	20	710.000004	0	2.5
4.18	20	710.000004	0.000	2.5
3.42	20	710.000004	0.000	2.5

11. RADIATED TEST RESULTS

11.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232, §27

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.

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

TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.17

TEST RESULTS

11.1.1. ERP/EIRP Results

Band	Mode	Channel	f(MHz)	ERP / EIRP	
				dBm	mW
Band 2	REL99	9262	1852.4	22.94	196.79
		9400	1880	22.94	196.79
		9538	1907.6	23.7	234.42
	HSDPA	9262	1852.4	22.76	188.8
		9400	1880	22.62	182.81
		9538	1907.6	23.46	221.82

Band	Mode	Channel	f(MHz)	ERP / EIRP	
				dBm	mW
Band 4	REL99	1312	1712.4	24.02	252.35
		1413	1732.6	24.93	311.17
		1513	1752.6	24.71	295.8
	HSDPA	1312	1712.4	23.58	228.03

		1413	1732.6	23.9	245.47
		1513	1752.6	23.85	242.66

Band	Mode	Channel	f(MHz)	ERP / EIRP	
				dBm	mW
Band 5	REL99	4132	826.4	20.371	108.92
		4183	836.6	21.251	133.38
		4233	846.6	21.491	140.96
	HSDPA	4132	826.4	19.841	96.41
		4183	836.6	20.021	100.48
		4233	846.6	20.321	107.67

Band	Mode	Channel	f(MHz)	ERP / EIRP	
				dBm	mW
GSM1900	GPRS	512	1850.2	29.48	887.16
		661	1880	30.23	1054.39
		810	1909.8	28.09	644.17
	EGPRS	512	1850.2	25.705	371.96
		661	1880	27.03	504.66
		810	1909.8	25.022	317.83

Band	Mode	Channel	f(MHz)	ERP / EIRP	
				dBm	mW
GSM850	GPRS	128	824.2	30.397	1095.72
		190	836.6	29.001	794.51
		251	848.8	30.157	1036.81
	EGPRS	128	824.2	28.627	728.95
		190	836.6	27.306	537.77
		251	848.8	28.033	635.77

11.1.2. LTE ERP/EIRP Results

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE17	10	QPSK	1/0	709	14.21	26.36
			1/0	710	14.68	29.38
			1/0	711	15.33	34.12
		16QAM	1/0	709	13.12	20.51
			1/0	710	13.70	23.44
			1/0	711	14.41	27.61

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE17	5	QPSK	1/0	706.5	13.83	24.15
			1/0	710	15.00	31.62
			1/0	713.5	15.83	38.28
		16QAM	1/0	706.5	12.95	19.72
			1/0	710	13.84	24.21
			1/0	713.5	14.71	29.58

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE13	10	QPSK	1/0	782	19.70	93.3
			1/0	782	19.70	93.3
			1/0	782	19.70	93.3
		16QAM	1/0	782	18.53	71.29
			1/0	782	18.53	71.29
			1/0	782	18.53	71.29

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE13	5	QPSK	1/0	779.5	20.20	104.7
			1/0	782	18.96	78.7
			1/0	784.5	20.33	107.9
		16QAM	1/0	779.5	18.90	77.6
			1/0	782	17.99	63.0
			1/0	784.5	19.35	86.1

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE7	20	QPSK	1/0	2510	21.39	137.72
			1/0	2535	21.57	143.55
			1/0	2560	22.02	159.22
		16QAM	1/0	2510	20.99	125.6
			1/0	2535	20.86	121.9
			1/0	2560	21.14	130.02

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE7	15	QPSK	1/0	2507.5	21.63	145.55
			1/0	2535	21.75	149.62
			1/0	2562.5	22.05	160.32
		16QAM	1/0	2507.5	21.14	130.02
			1/0	2535	20.98	125.31
			1/0	2562.5	21.05	127.35

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE7	10	QPSK	1/0	2505	21.38	137.4
			1/0	2535	21.26	133.66
			1/0	2565	22.72	187.07
		16QAM	1/0	2505	21.35	136.46
			1/0	2535	20.52	112.72
			1/0	2565	21.67	146.89

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE7	5	QPSK	1/0	2502.5	21.77	150.31
			1/0	2535	21.37	137.09
			1/0	2567.5	22.38	172.98
		16QAM	1/0	2502.5	21.07	127.94
			1/0	2535	20.29	106.91
			1/0	2567.5	21.15	130.32

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE5	10	QPSK	1/0	829	18.861	76.93
			1/0	836.5	19.171	82.62
			1/0	844	19.731	93.99
		16QAM	1/0	829	18.011	63.26
			1/0	836.5	18.301	67.62
			1/0	844	18.851	76.75

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE5	5	QPSK	1/0	826.5	18.661	73.47
			1/0	836.5	19.201	83.2
			1/0	846.5	18.731	74.66
		16QAM	1/0	826.5	17.671	58.49
			1/0	836.5	18.271	67.16
			1/0	846.5	18.101	64.58

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE5	3	QPSK	1/0	825.5	18.741	74.83
			1/0	836.5	19.021	79.82
			1/0	847.5	18.871	77.11
		16QAM	1/0	825.5	17.571	57.16
			1/0	836.5	18.161	65.48
			1/0	847.5	18.071	64.14

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE5	1.4	QPSK	1/0	824.7	18.061	63.99
			1/0	836.5	19.221	83.58
			1/0	848.3	18.951	78.54
		16QAM	1/0	824.7	17.041	50.59
			1/0	836.5	18.091	64.43
			1/0	848.3	18.011	63.26

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE4	20	QPSK	1/0	1720	22.41	174.18
			1/0	1732.5	23.51	224.39
			1/0	1745	22.63	183.23
		16QAM	1/0	1720	21.83	152.41
			1/0	1732.5	23.27	212.32
			1/0	1745	20.91	123.31

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE4	15	QPSK	1/0	1717.5	22.99	199.07
			1/0	1732.5	23.37	217.27
			1/0	1747.5	22.89	194.54
		16QAM	1/0	1717.5	21.56	143.22
			1/0	1732.5	23.14	206.06
			1/0	1747.5	23.29	213.3

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE4	10	QPSK	1/0	1715	22.59	181.55
			1/0	1732.5	23.34	215.77
			1/0	1750	23.31	214.29
		16QAM	1/0	1715	21.8	151.36
			1/0	1732.5	21.99	158.12
			1/0	1750	23.03	200.91

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE4	5	QPSK	1/0	1712.5	22.03	159.59
			1/0	1732.5	23.09	203.7
			1/0	1752.5	22.98	198.61

		16QAM	1/0	1712.5	22.65	184.08
			1/0	1732.5	22.98	198.61
			1/0	1752.5	22.97	198.15

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE4	3	QPSK	1/0	1711.5	21.33	135.83
			1/0	1732.5	23.16	207.01
			1/0	1753.5	22.87	193.64
		16QAM	1/0	1711.5	22.20	165.96
			1/0	1732.5	22.04	159.96
			1/0	1753.5	22.87	193.64

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE4	1.4	QPSK	1/0	1710.7	21.29	134.59
			1/0	1732.5	23.4	218.78
			1/0	1754.3	22.53	179.06
		16QAM	1/0	1710.7	20.18	104.23
			1/0	1732.5	22.13	163.31
			1/0	1754.3	21.64	145.88

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE2	20	QPSK	1/0	1860	22.92	195.99
			1/0	1880	22.50	178.02
			1/0	1900	23.33	215.31
		16QAM	1/0	1860	23.02	200.56
			1/0	1880	22.69	185.98
			1/0	1900	22.57	180.74

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE2	15	QPSK	1/0	1857.5	23.96	248.89
			1/0	1880	22.6	181.97
			1/0	1902.5	23.97	249.46
		16QAM	1/0	1857.5	22.68	185.35
			1/0	1880	21.62	145.21
			1/0	1902.5	22.55	179.89

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE2	10	QPSK	1/0	1855	23.52	224.91
			1/0	1880	22.92	195.88
			1/0	1905	23.56	226.99
		16QAM	1/0	1855	22.15	164.06
			1/0	1880	21.71	148.25
			1/0	1905	22.36	172.19

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE2	5	QPSK	1/0	1852.5	22.57	180.72
			1/0	1880	22.84	192.31
			1/0	1907.5	24.38	274.16
		16QAM	1/0	1852.5	21.6	144.54
			1/0	1880	21.64	145.88
			1/0	1907.5	22.59	181.55

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE2	3	QPSK	1/0	1851.5	23.83	241.55
			1/0	1880	24.53	283.66
			1/0	1908.5	23.93	247.12

		16QAM	1/0	1851.5	22.59	181.55
			1/0	1880	23.38	217.67
			1/0	1908.5	22.66	184.46

Band	BW (MHz)	Mode	RB/RB Size	f (MHz)	ERP / EIRP	
					dBm	mW
LTE2	1.4	QPSK	1/0	1850.7	24.22	264.24
			1/0	1880	23.15	206.54
			1/0	1909.3	24.219	264.18
		16QAM	1/0	1850.7	23.05	201.84
			1/0	1880	22.51	178.24
			1/0	1909.3	23.65	231.74

11.1.3. ERP/EIRP PLOTS

Band

Band 2

HSDPA

High Frequency Fundamental Measurement

Compliance Certification Services Chamber E

Company:

Project #:

Date:

Test Engineer:

Configuration:

Mode:

Sony

14U17929

06/30/14

T. Oeur

EUT only X position

WCDMA_1900 MHz_HSDPA

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: Horn T72 Substitution, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
1852.40	8.77	V	0.85	7.9	15.82	33.0	-17.2	
1852.40	15.71	H	0.85	7.9	22.76	33.0	-10.2	
Mid Ch								
1880.00	7.87	V	0.85	7.9	14.92	33.0	-18.1	
1880.00	15.57	H	0.85	7.9	22.62	33.0	-10.4	
High Ch								
1907.60	9.49	V	0.85	7.9	16.54	33.0	-16.5	
1907.60	16.41	H	0.85	7.9	23.46	33.0	-9.5	

Rev. 3.17.11

Note: For Band 4 EIRP limit is 30dBm

Band

Band 4

HSDPA

High Frequency Substitution Measurement
UL Verification Services, Inc. Chamber C

Company: Sony
Project #: 14U17927
Date: 7/8/2014
Test Engineer:
Configuration: X axis
Mode: HSDPA B4

Test Equipment:
Receiving: Horn T119, and Chamber C SMA Cables
Substitution: Horn T72 Substitution, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
1712.40	11.13	V	0.9	8.4	18.68	30.0	-11.3	
1712.40	16.03	H	0.9	8.4	23.58	30.0	-6.4	
Mid Ch								
1732.60	9.52	V	0.9	8.4	17.07	30.0	-12.9	
1732.60	16.35	H	0.9	8.4	23.90	30.0	-6.1	
High Ch								
1752.60	8.66	V	0.9	8.6	16.41	30.0	-13.6	
1752.60	16.10	H	0.9	8.6	23.85	30.0	-6.2	

Rev. 3.17.11
Note: For Band 4 EIRP limit is 30dBm

Band

LTE17

10MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company:

Project #:

Date:

Test Engineer:

Configuration:

Mode:

Test Equipment:

Receiving: Horn T185, and Chamber C SMA Cables

Substitution: Horn T72 Substitution, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
709.00	5.19	V	0.85	0.0	4.34	34.8	-30.5	
709.00	13.97	H	0.85	0.0	13.12	34.8	-21.7	
Mid Ch								
710.00	4.44	V	0.85	0.0	3.59	34.8	-31.2	
710.00	14.55	H	0.85	0.0	13.70	34.8	-21.1	
High Ch								
711.00	4.42	V	0.85	0.0	3.57	34.8	-31.2	
711.00	15.26	H	0.85	0.0	14.41	34.8	-20.4	

Rev. 3.17.11

Band

LTE17

10MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/02/14

Test Engineer: T. Oeur

Configuration: EUT only Y position

Mode: LTE B17 10MHz QPSK

Test Equipment:

Receiving: Horn T185, and Chamber C SMA Cables

Substitution: Horn T72 Substitution, 4ft SMA Cable Warehouse

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
709.00	6.00	V	0.85	0.0	5.15	34.8	-29.6	
709.00	15.06	H	0.85	0.0	14.21	34.8	-20.6	
Mid Ch								
710.00	5.31	V	0.85	0.0	4.46	34.8	-30.3	
710.00	15.53	H	0.85	0.0	14.68	34.8	-20.1	
High Ch								
711.00	5.35	V	0.85	0.0	4.50	34.8	-30.3	
711.00	16.18	H	0.85	0.0	15.33	34.8	-19.5	

Rev. 3.17.11

Band LTE17 5MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Chamber C Company: Sony Project #: 14U17929 Date: 07/02/14 Test Engineer: T. Oeur Configuration: EUT only Y position Mode: LTE B17 5MHz QPSK Test Equipment: Receiving: Horn T185, and Chamber C SMA Cables Substitution: Horn T72 Substitution, 4ft SMA Cable Warehouse <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Margin (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td> </tr> <tr> <td>706.50</td> <td>7.29</td> <td>V</td> <td>0.85</td> <td>0.0</td> <td>6.44</td> <td>34.8</td> <td>-28.4</td> <td></td> </tr> <tr> <td>706.50</td> <td>14.68</td> <td>H</td> <td>0.85</td> <td>0.0</td> <td>13.83</td> <td>34.8</td> <td>-21.0</td> <td></td> </tr> <tr> <td colspan="9">Mid Ch</td> </tr> <tr> <td>710.00</td> <td>6.66</td> <td>V</td> <td>0.85</td> <td>0.0</td> <td>5.81</td> <td>34.8</td> <td>-29.0</td> <td></td> </tr> <tr> <td>710.00</td> <td>15.85</td> <td>H</td> <td>0.85</td> <td>0.0</td> <td>15.00</td> <td>34.8</td> <td>-19.8</td> <td></td> </tr> <tr> <td colspan="9">High Ch</td> </tr> <tr> <td>713.50</td> <td>6.83</td> <td>V</td> <td>0.85</td> <td>0.0</td> <td>5.98</td> <td>34.8</td> <td>-28.8</td> <td></td> </tr> <tr> <td>713.50</td> <td>16.68</td> <td>H</td> <td>0.85</td> <td>0.0</td> <td>15.83</td> <td>34.8</td> <td>-19.0</td> <td></td> </tr> </tbody> </table> Rev. 3.17.11	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch									706.50	7.29	V	0.85	0.0	6.44	34.8	-28.4		706.50	14.68	H	0.85	0.0	13.83	34.8	-21.0		Mid Ch									710.00	6.66	V	0.85	0.0	5.81	34.8	-29.0		710.00	15.85	H	0.85	0.0	15.00	34.8	-19.8		High Ch									713.50	6.83	V	0.85	0.0	5.98	34.8	-28.8		713.50	16.68	H	0.85	0.0	15.83	34.8	-19.0	
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Band LTE13 10MHz 16QAM M	High Frequency Substitution Measurement UL Verification Services, Inc. Chamber C Company: Sony Project #: 14U17929 Date: 07/02/14 Test Engineer: T. Oeur Configuration: EUT only Y position Mode: LTE B13 10MHz 16QAM Test Equipment: Receiving: Horn T185, and Chamber C SMA Cables Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 245200 001) Warehouse. <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Margin (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Low Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> <tr> <td>Mid Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>782.00</td> <td>12.99</td> <td>V</td> <td>0.85</td> <td>0.0</td> <td>12.14</td> <td>34.8</td> <td>-22.6</td> <td></td> </tr> <tr> <td>782.00</td> <td>19.38</td> <td>H</td> <td>0.85</td> <td>0.0</td> <td>18.53</td> <td>34.8</td> <td>-16.2</td> <td></td> </tr> <tr> <td>High Ch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> </tbody> </table> Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch															34.8									34.8			Mid Ch									782.00	12.99	V	0.85	0.0	12.14	34.8	-22.6		782.00	19.38	H	0.85	0.0	18.53	34.8	-16.2		High Ch															34.8									34.8		
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Band LTE13 10MHz QPSK	High Frequency Substitution Measurement UL Verification Services, Inc. Chamber C Company: Sony Project #: 14U17929 Date: 07/02/14 Test Engineer: T. Oeur Configuration: EUT only Y position Mode: LTE B13 10MHz QPSK Test Equipment: Receiving: Horn T185, and Chamber C SMA Cables Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 245200 001) Warehouse. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Margin (dB)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td colspan="9">Low Ch</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> <tr> <td colspan="9">Mid Ch</td> </tr> <tr> <td>782.00</td> <td>13.62</td> <td>V</td> <td>0.85</td> <td>0.0</td> <td>12.77</td> <td>34.8</td> <td>-22.0</td> <td></td> </tr> <tr> <td>782.00</td> <td>20.55</td> <td>H</td> <td>0.85</td> <td>0.0</td> <td>19.70</td> <td>34.8</td> <td>-15.1</td> <td></td> </tr> <tr> <td colspan="9">High Ch</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>34.8</td> <td></td> <td></td> </tr> </tbody> </table> Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch															34.8									34.8			Mid Ch									782.00	13.62	V	0.85	0.0	12.77	34.8	-22.0		782.00	20.55	H	0.85	0.0	19.70	34.8	-15.1		High Ch															34.8									34.8		
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Band

LTE7

20MHz

QPSK

High Frequency Substitution Measurement

Compliance Certification Services Chamber C

Company: Sony

Project #: 14U17929

Date: 07/02/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT only, X position

Mode: LTE band 7, 20MHz BW

QPSK, Average, RB1-0

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: T72, 5ft SMA Cable (SN # 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2510.00	4.05	V	0.9	9.5	12.62	33.0	-20.4	
2510.00	12.82	H	0.9	9.5	21.39	33.0	-11.6	
Mid Ch								
2535.00	7.85	V	0.9	9.5	16.45	33.0	-16.6	
2535.00	12.97	H	0.9	9.5	21.57	33.0	-11.4	
High Ch								
2560.00	7.07	V	0.9	9.7	15.87	33.0	-17.1	
2560.00	13.22	H	0.9	9.7	22.02	33.0	-11.0	

Rev. 3.17.11

Band

LTE7

15MHz

16QAM

High Frequency Substitution Measurement
Compliance Certification Services Chamber C

Company: Sony

Project #: 14U17929

Date: 07/02/14

Test Engineer: O. Stoelting

Configuration: EUT only, X position

Mode: LTE band 7, 15MHz BW
16QAM, Average, RB1-0

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: T72, 5ft SMA Cable (SN # 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2507.50	4.77	V	0.9	9.5	13.34	33.0	-19.7	
2507.50	12.57	H	0.9	9.5	21.14	33.0	-11.9	
Mid Ch								
2535.00	7.41	V	0.9	9.5	16.01	33.0	-17.0	
2535.00	12.38	H	0.9	9.5	20.98	33.0	-12.0	
High Ch								
2562.50	4.72	V	0.9	9.5	13.32	33.0	-19.7	
2562.50	12.45	H	0.9	9.5	21.05	33.0	-12.0	

Rev. 3.17.11

Band

LTE7

15MHz

QPSK

High Frequency Substitution Measurement

Compliance Certification Services Chamber C

Company:

Project #:

Date:

Test Engineer:

Configuration:

Mode:

Sony

14U17929

07/02/14

O. Stoelting

EUT only, X position

LTE band 7, 15MHz BW

QPSK, Average, RB1-0

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: T72, 5ft SMA Cable (SN # 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2507.50	5.05	V	0.9	9.5	13.62	33.0	-19.4	
2507.50	13.06	H	0.9	9.5	21.63	33.0	-11.4	
Mid Ch								
2535.00	8.47	V	0.9	9.5	17.07	33.0	-15.9	
2535.00	13.15	H	0.9	9.5	21.75	33.0	-11.3	
High Ch								
2562.50	4.91	V	0.9	9.5	13.51	33.0	-19.5	
2562.50	13.45	H	0.9	9.5	22.05	33.0	-11.0	

Rev. 3.17.11

Band

LTE7

5MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company:

Project #:

Date:

Test Engineer:

Configuration:

Mode:

Sony

14U17929

07/02/14

O. Stoelting

EUT only, X position

LTE Band 7 QPSK, 5MHz

Test Equipment:

Receiving: Horn T119, and Chamber C SMA Cables

Substitution: T72, 5ft SMA Cable (SN # 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
2502.50	5.27	V	0.9	9.5	13.87	33.0	-19.1	
2502.50	13.17	H	0.9	9.5	21.77	33.0	-11.2	
Mid Ch								
2535.00	7.60	V	0.9	9.5	16.20	33.0	-16.8	
2535.00	12.77	H	0.9	9.5	21.37	33.0	-11.6	
High Ch								
2567.50	4.14	V	0.9	9.5	12.74	33.0	-20.3	
2567.50	13.78	H	0.9	9.5	22.38	33.0	-10.6	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

Band

LTE5

10MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/2/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT ONLY/ Y Orientation

Mode: LTE5 10MHz FUND QPSK

Test Equipment:

Receiving: Sunol T185, and 3m Chamber N-type Cable (Setup this one for testing EUT)

Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 245200 001) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
829.00	10.05	V	0.9	0.0	9.15	38.5	-29.3	
829.00	19.76	H	0.9	0.0	18.86	38.5	-19.6	
Mid Ch								
836.50	9.39	V	0.9	0.0	8.49	38.5	-30.0	
836.50	20.07	H	0.9	0.0	19.17	38.5	-19.3	
High Ch								
844.00	8.37	V	0.9	0.0	7.47	38.5	-31.0	
844.00	20.63	H	0.9	0.0	19.73	38.5	-18.7	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

Band

LTE5

5MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/2/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT ONLY/ Y Orientation

Mode: LTE5 5MHz FUND 16QAM

Test Equipment:

Receiving: Sunol T185, and 3m Chamber N-type Cable (Setup this one for testing EUT)

Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 245200 001) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
826.50	8.42	V	0.9	0.0	7.52	38.5	-30.9	
826.50	18.57	H	0.9	0.0	17.67	38.5	-20.8	
Mid Ch								
836.50	8.28	V	0.9	0.0	7.38	38.5	-31.1	
836.50	19.17	H	0.9	0.0	18.27	38.5	-20.2	
High Ch								
846.50	7.41	V	0.9	0.0	6.51	38.5	-31.9	
846.50	19.00	H	0.9	0.0	18.10	38.5	-20.3	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

Band

LTE5

5MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/2/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT ONLY/ Y Orientation

Mode: LTE5 5MHz FUND QPSK

Test Equipment:

Receiving: Sunol T185, and 3m Chamber N-type Cable (Setup this one for testing EUT)

Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 245200 001) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
826.50	8.91	V	0.9	0.0	8.01	38.5	-30.4	
826.50	19.56	H	0.9	0.0	18.66	38.5	-19.8	
Mid Ch								
836.50	8.76	V	0.9	0.0	7.86	38.5	-30.6	
836.50	20.10	H	0.9	0.0	19.20	38.5	-19.2	
High Ch								
846.50	8.08	V	0.9	0.0	7.18	38.5	-31.3	
846.50	19.63	H	0.9	0.0	18.73	38.5	-19.7	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

Band

LTE5

3MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/2/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT ONLY/ Y Orientation

Mode: LTE5 3MHz FUND 16QAM

Test Equipment:

Receiving: Hybrid T185

Substitution: Dipole S/N: 00022117, 5ft SMA Cable (SN# 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
825.50	9.60	V	0.9	0.0	8.70	38.5	-29.7	
825.50	18.47	H	0.9	0.0	17.57	38.5	-20.9	
Mid Ch								
836.50	8.43	V	0.9	0.0	7.53	38.5	-30.9	
836.50	19.06	H	0.9	0.0	18.16	38.5	-20.3	
High Ch								
847.50	8.28	V	0.9	0.0	7.38	38.5	-31.1	
847.50	18.97	H	0.9	0.0	18.07	38.5	-20.4	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

Band

LTE5

3MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/2/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT ONLY/ Y Orientation

Mode: LTE5 3MHz FUND QPSK

Test Equipment:

Receiving: Hybrid T185

Substitution: Dipole S/N: 00022117, 5ft SMA Cable (SN# 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
825.50	9.93	V	0.9	0.0	9.03	38.5	-29.4	
825.50	19.64	H	0.9	0.0	18.74	38.5	-19.7	
Mid Ch								
836.50	9.03	V	0.9	0.0	8.13	38.5	-30.3	
836.50	19.92	H	0.9	0.0	19.02	38.5	-19.4	
High Ch								
847.50	8.77	V	0.9	0.0	7.87	38.5	-30.6	
847.50	19.77	H	0.9	0.0	18.87	38.5	-19.6	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

Band

LTE5

1.4MHz

16QAM

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/2/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT ONLY/ Y Orientation

Mode: LTE5 1.4MHz FUND 16QAM

Test Equipment:

Receiving: Hybrid T185

Substitution: Dipole S/N: 00022117, 5ft SMA Cable (SN# 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.70	9.53	V	0.9	0.0	8.63	38.5	-29.8	
824.70	17.94	H	0.9	0.0	17.04	38.5	-21.4	
Mid Ch								
836.50	8.55	V	0.9	0.0	7.65	38.5	-30.8	
836.50	18.99	H	0.9	0.0	18.09	38.5	-20.4	
High Ch								
848.30	8.25	V	0.9	0.0	7.35	38.5	-31.1	
848.30	18.91	H	0.9	0.0	18.01	38.5	-20.4	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

Band

LTE5

1.4MHz

QPSK

High Frequency Substitution Measurement

UL Verification Services, Inc. Chamber C

Company: Sony

Project #: 14U17929

Date: 07/2/14

Test Engineer: R. Alegre/ Jude S.

Configuration: EUT ONLY/ Y Orientation

Mode: LTE5 1.4MHz FUND QPSK

Test Equipment:

Receiving: Hybrid T185

Substitution: Dipole S/N: 00022117, 5ft SMA Cable (SN# 16795) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.70	10.33	V	0.9	0.0	9.43	38.5	-29.0	
824.70	18.96	H	0.9	0.0	18.06	38.5	-20.4	
Mid Ch								
836.50	9.53	V	0.9	0.0	8.63	38.5	-29.8	
836.50	20.12	H	0.9	0.0	19.22	38.5	-19.2	
High Ch								
848.30	9.41	V	0.9	0.0	8.51	38.5	-29.9	
848.30	19.85	H	0.9	0.0	18.95	38.5	-19.5	

Rev. 3.17.11

Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm

