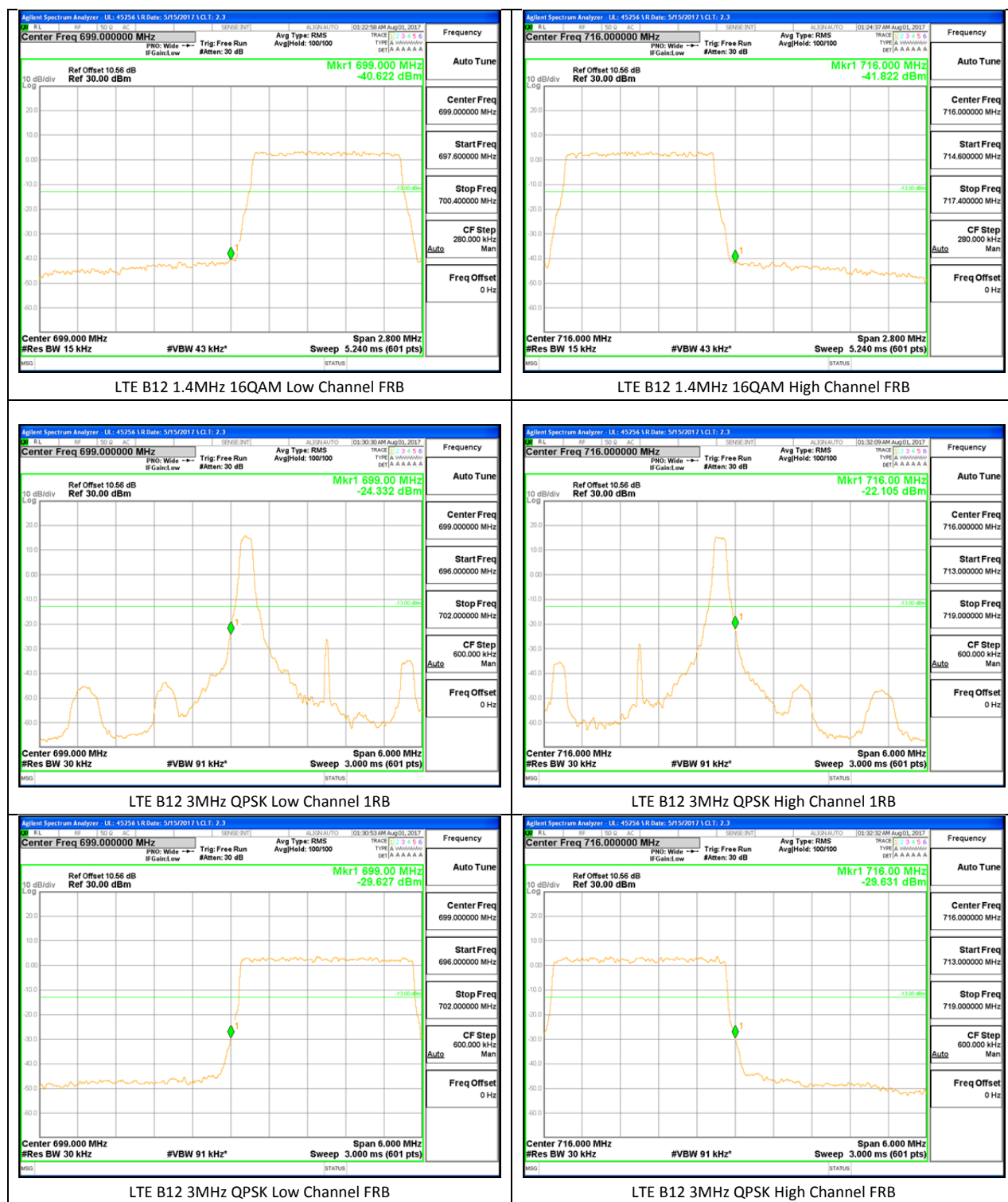
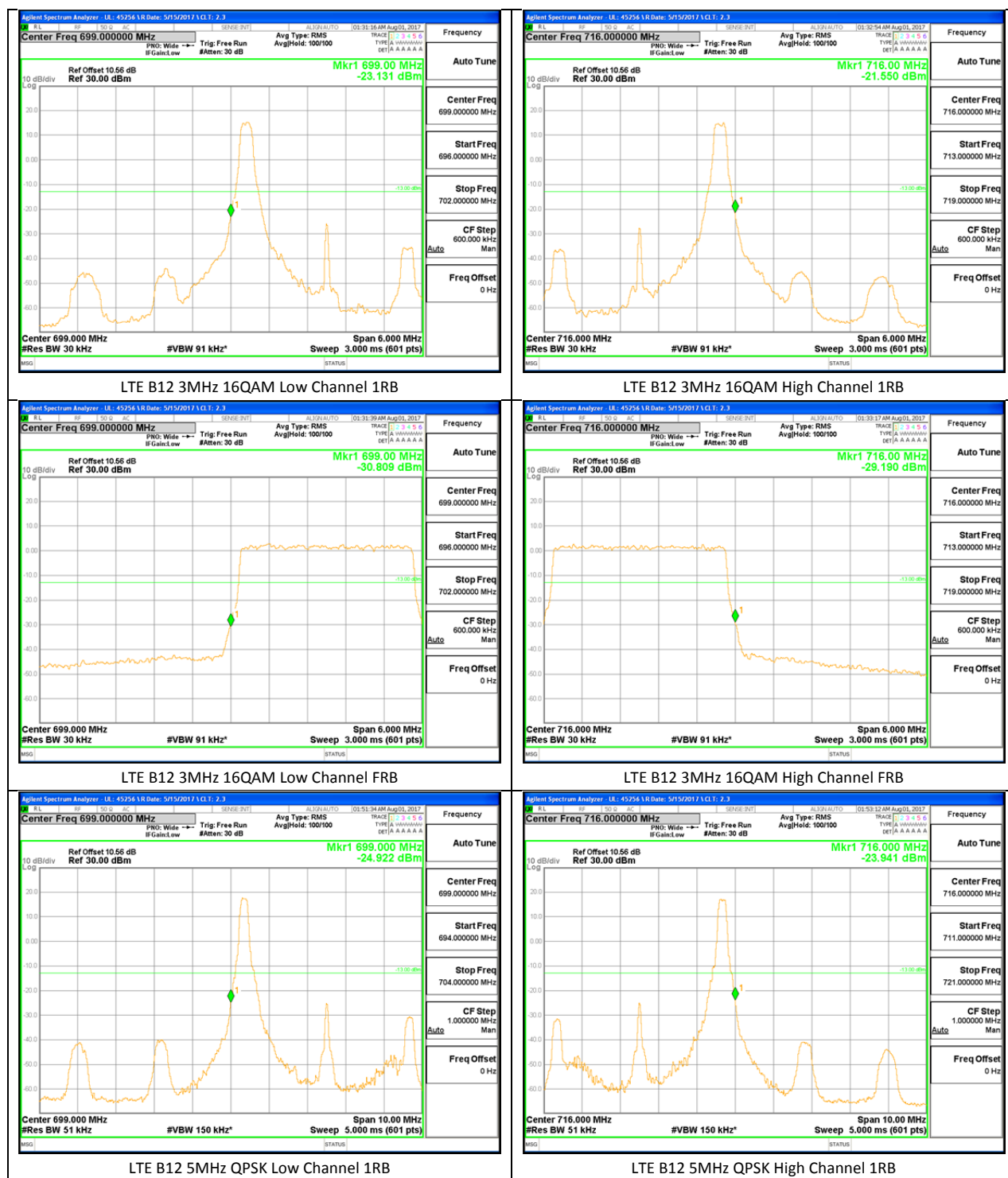
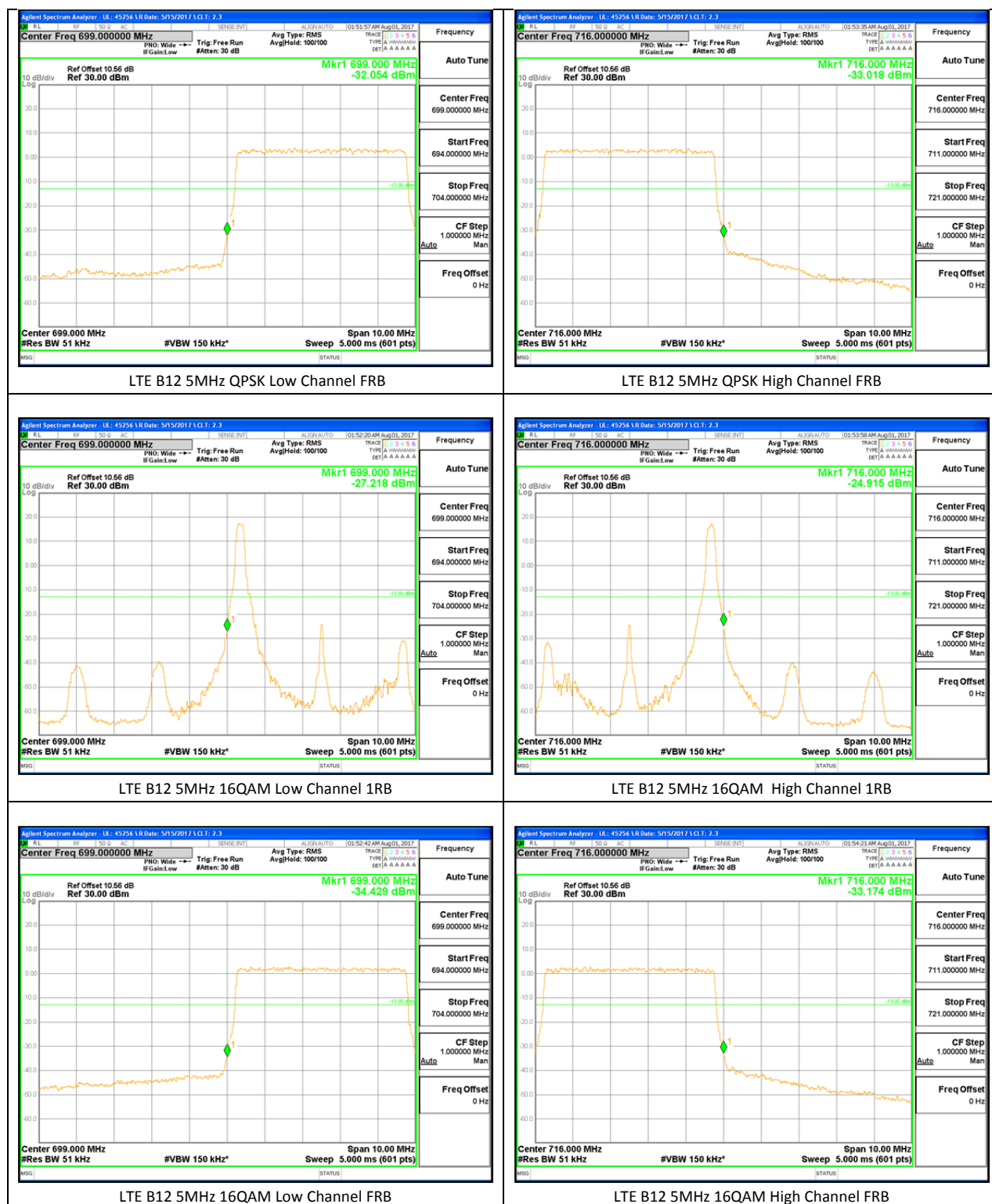
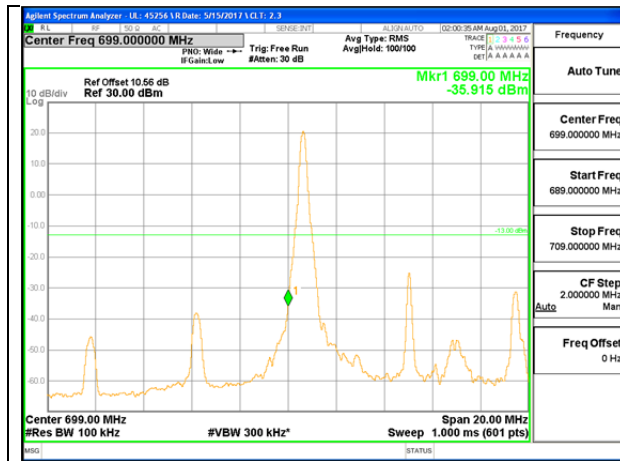


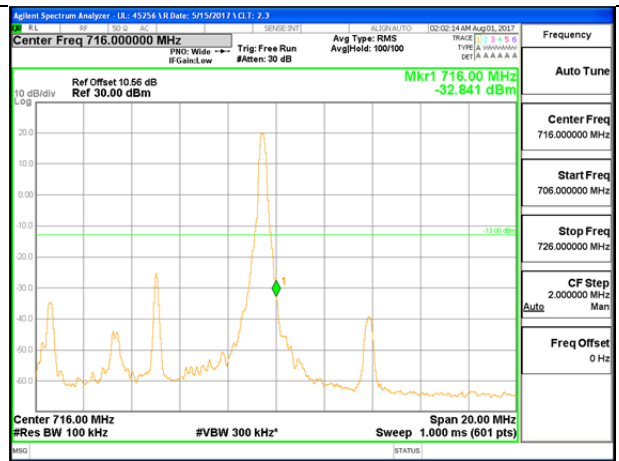




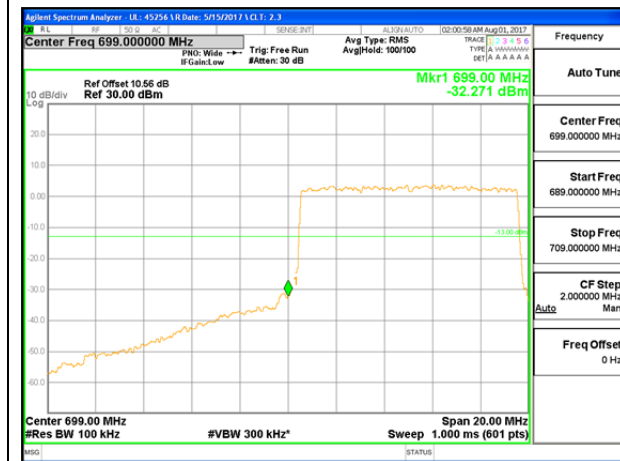




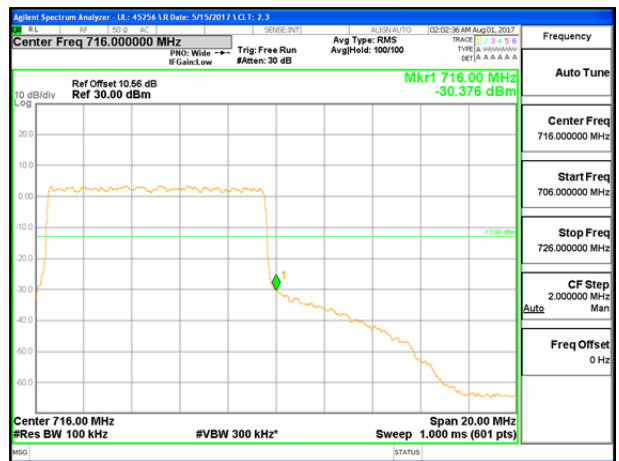
LTE B12 10MHz QPSK Low Channel 1RB



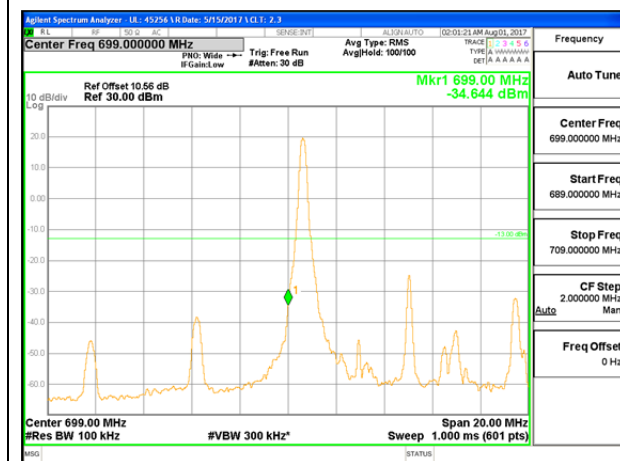
LTE B12 10MHz QPSK High Channel 1RB



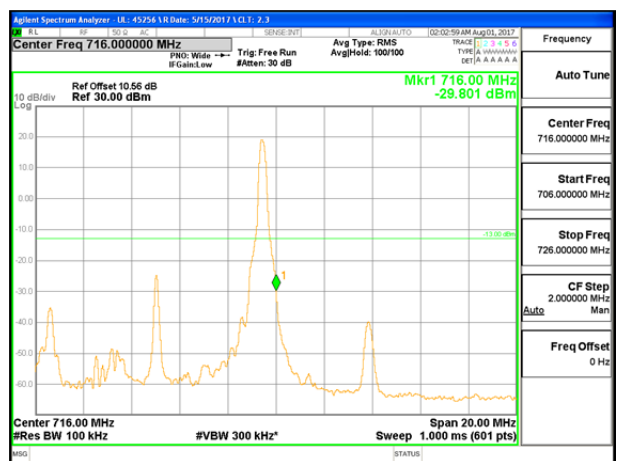
LTE B12 10MHz QPSK Low Channel FRB



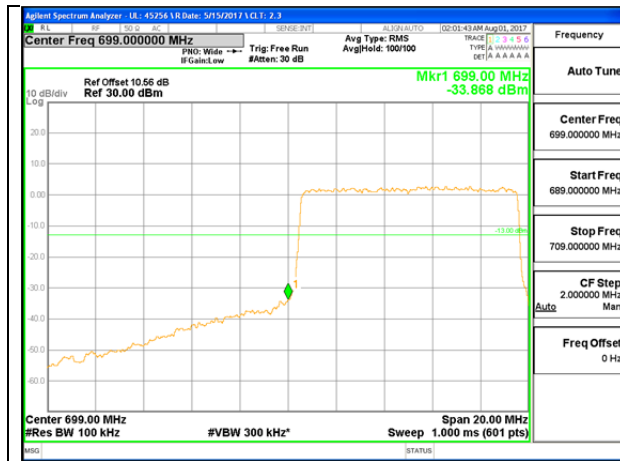
LTE B12 10MHz QPSK High Channel FRB



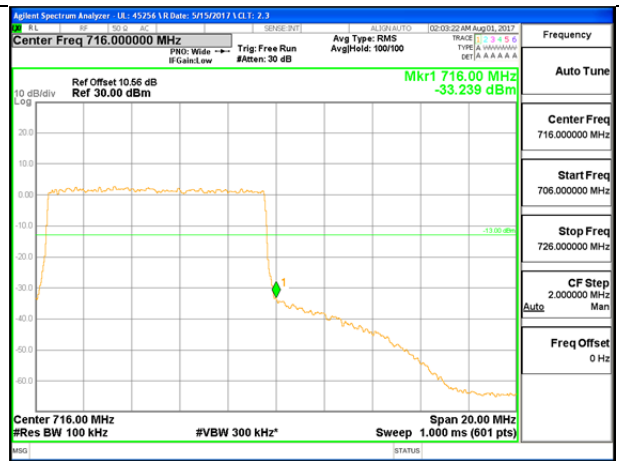
LTE B12 10MHz 16QAM Low Channel 1RB



LTE B12 10MHz 16QAM High Channel 1RB

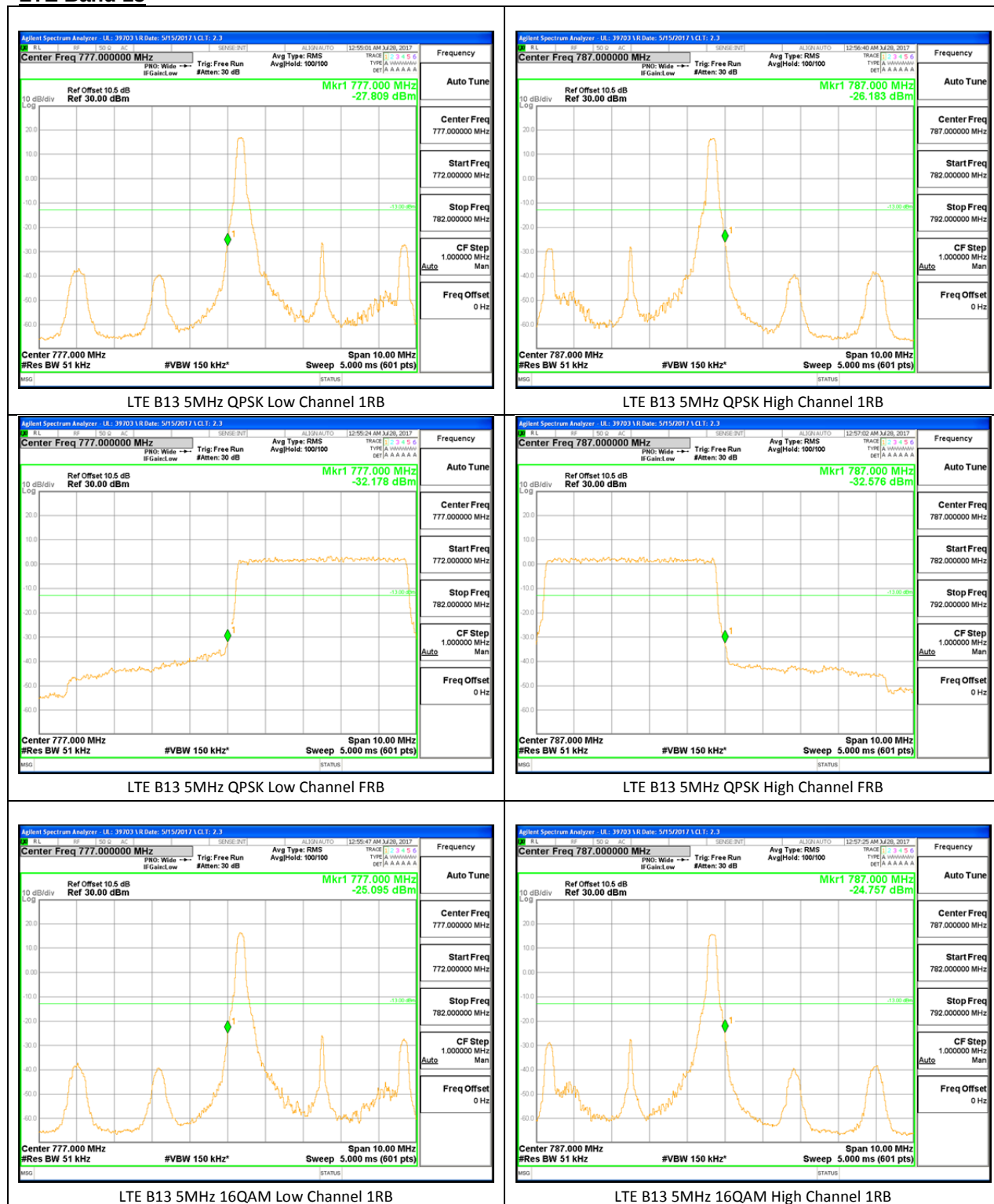


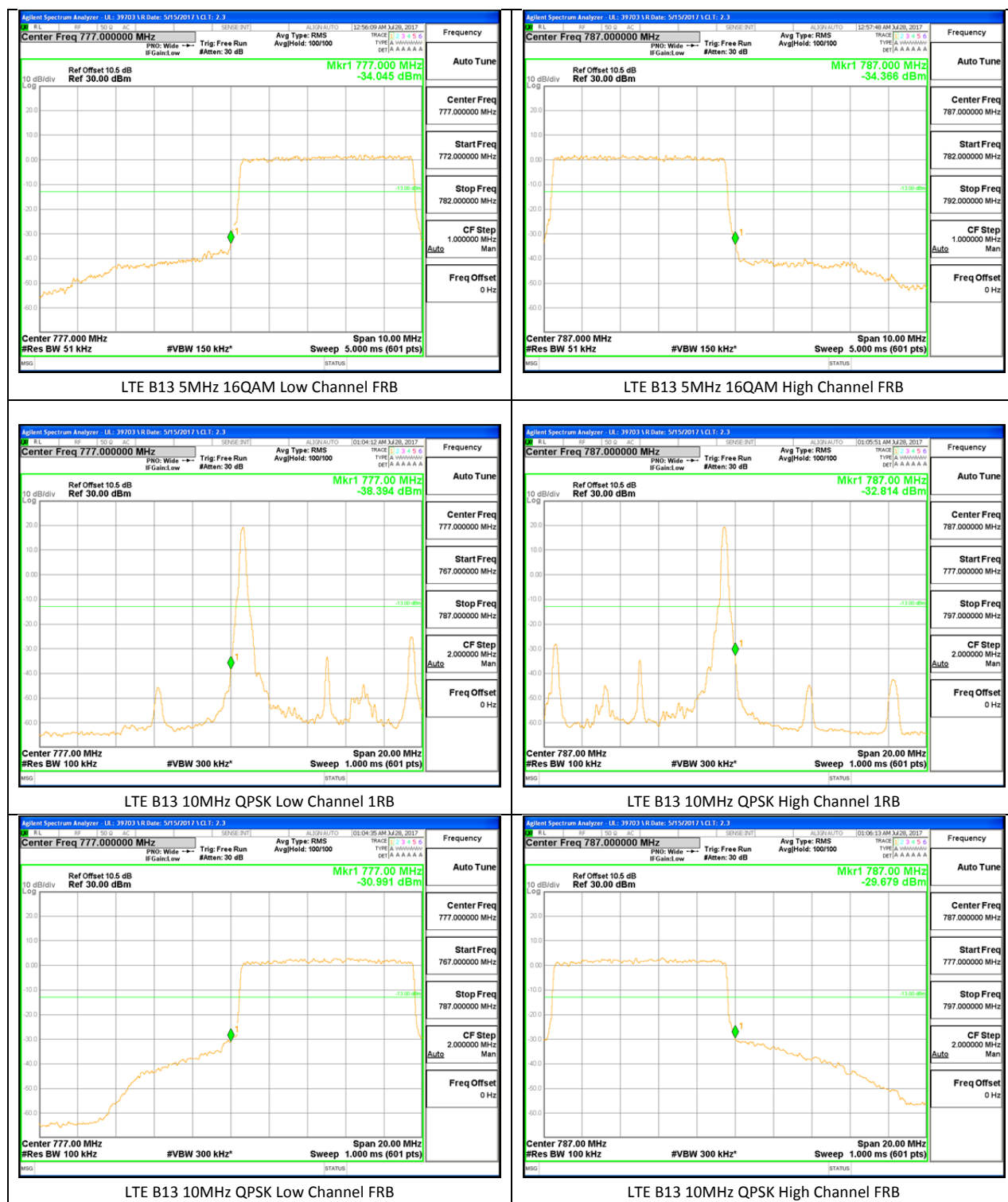
LTE B12 10MHz 16QAM Low Channel FRB

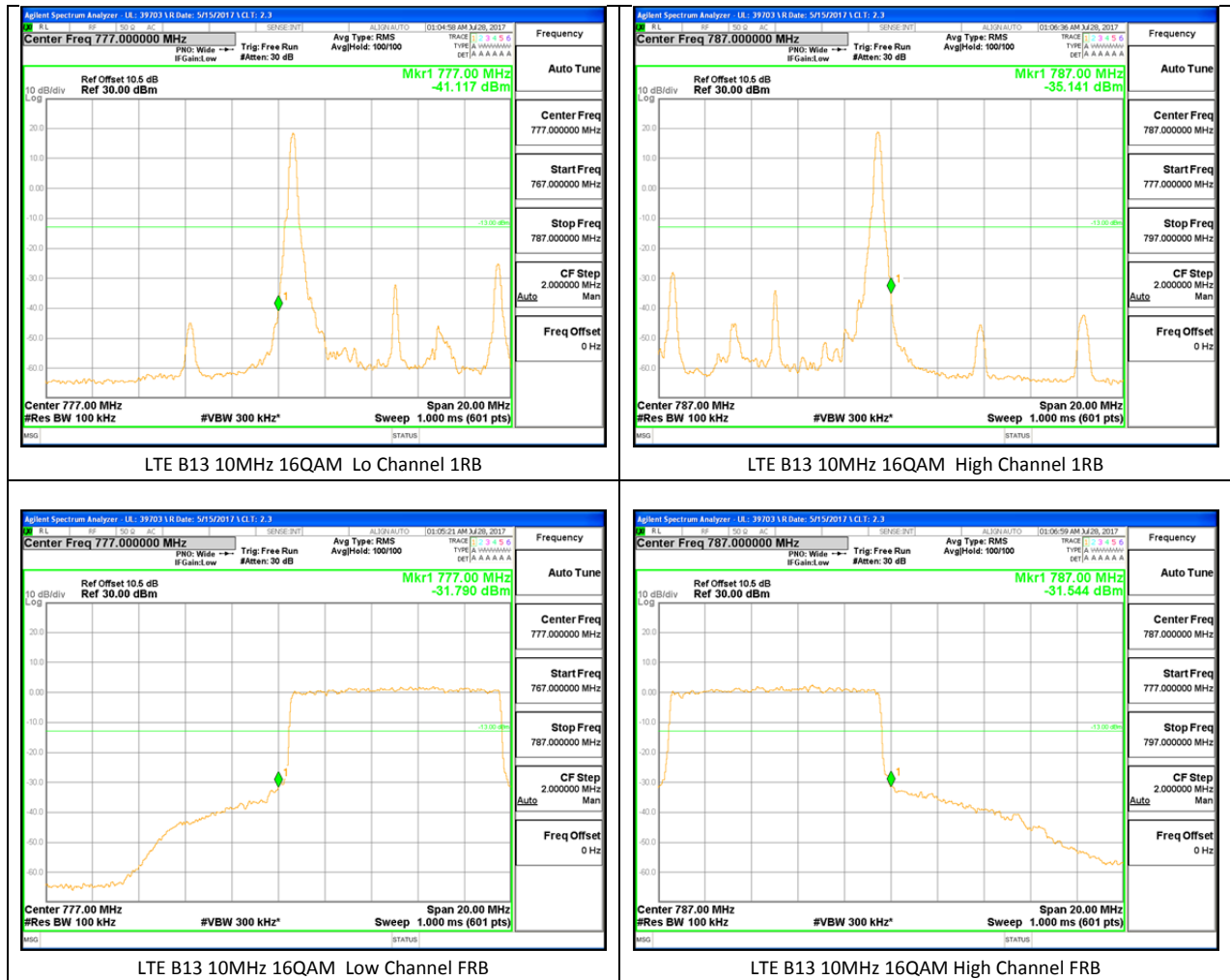


LTE B12 10MHz 16QAM High Channel FRB

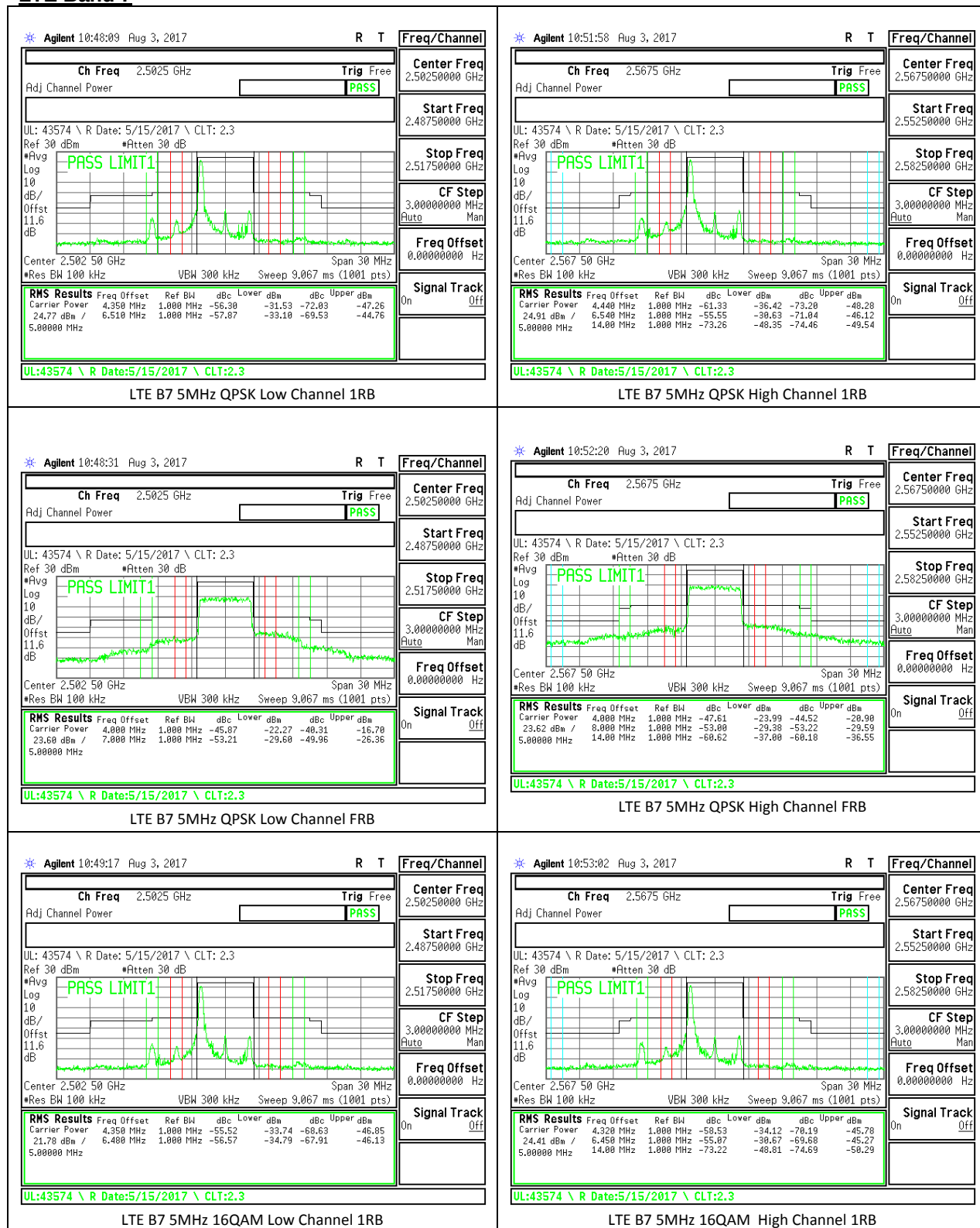
LTE Band 13

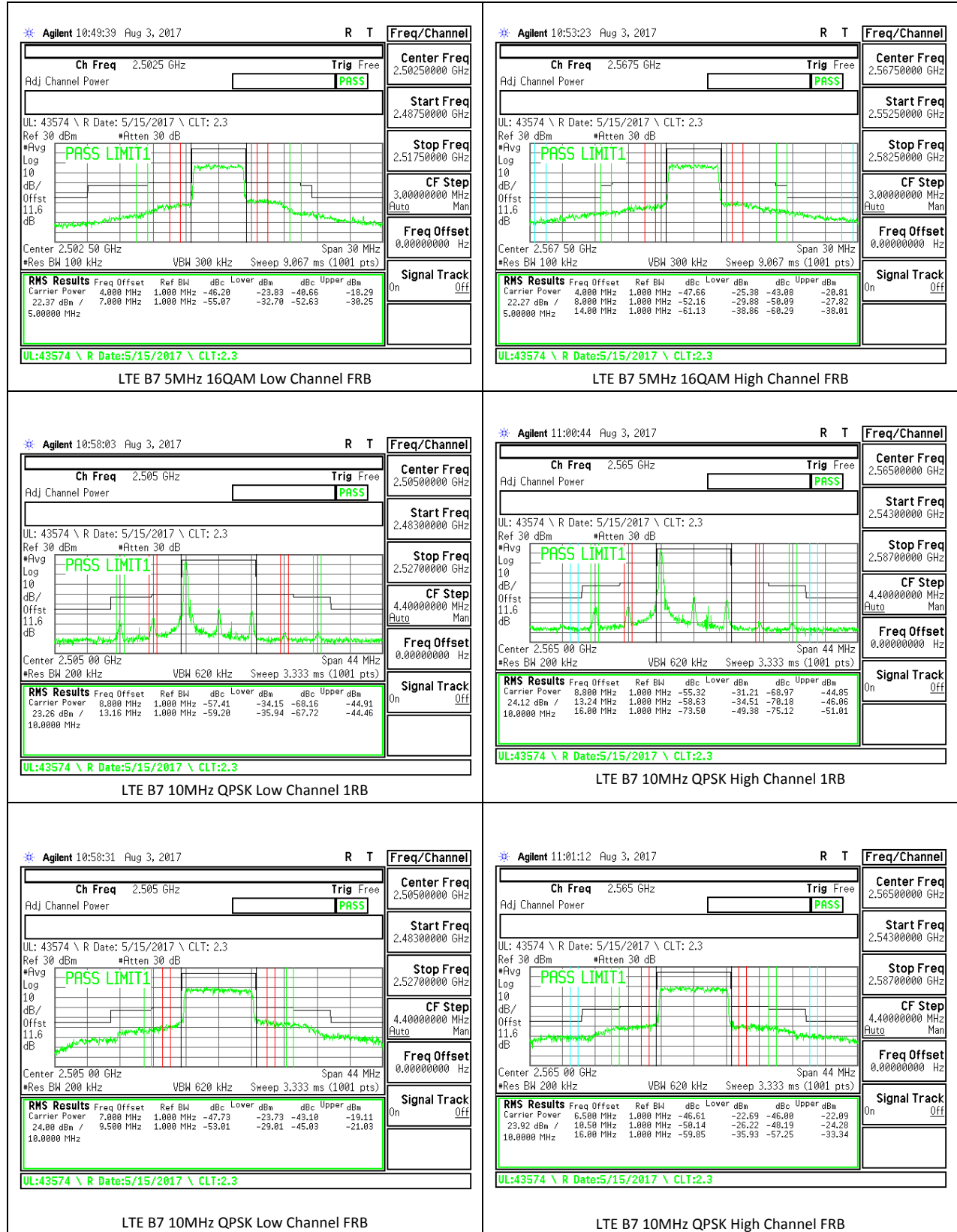


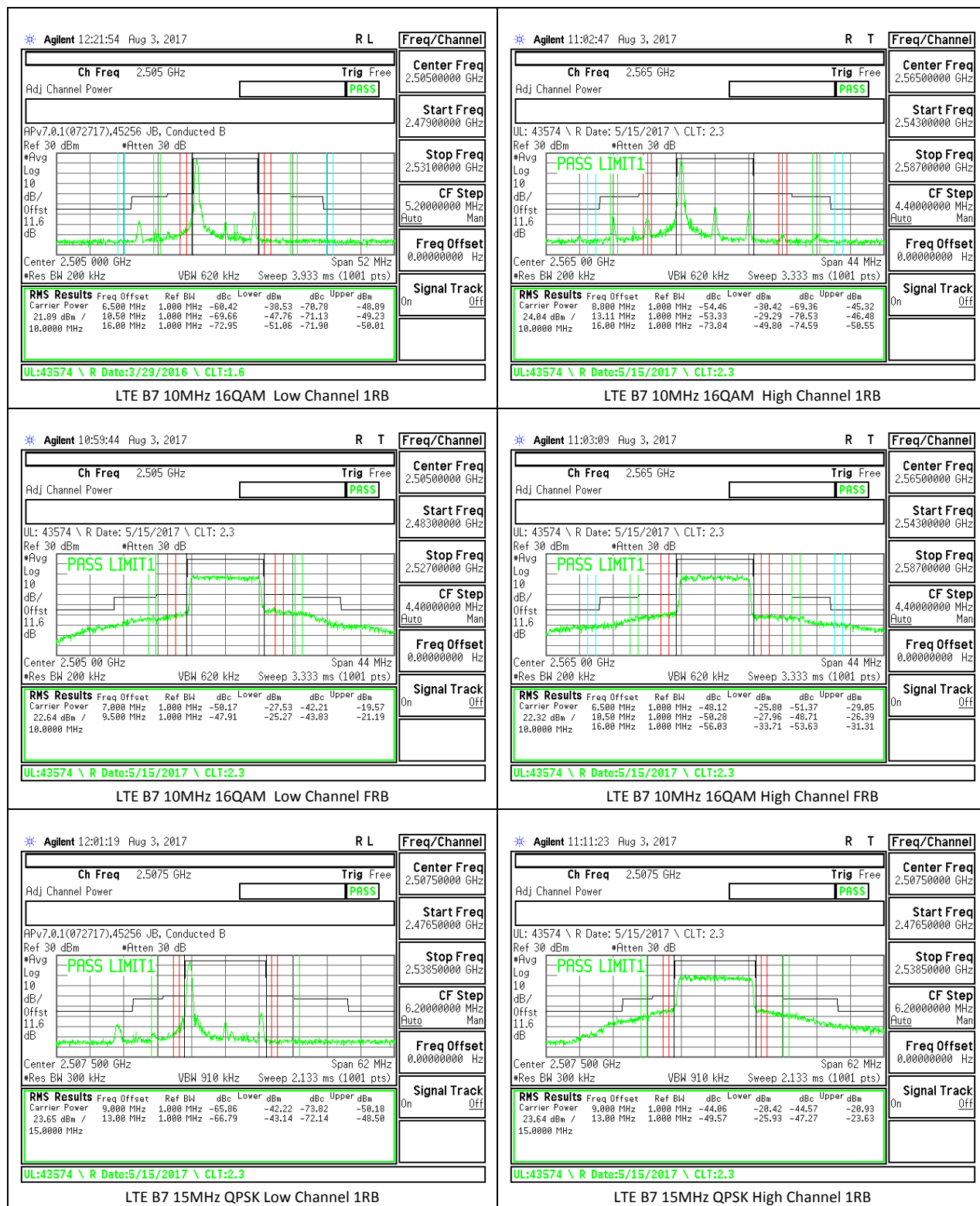


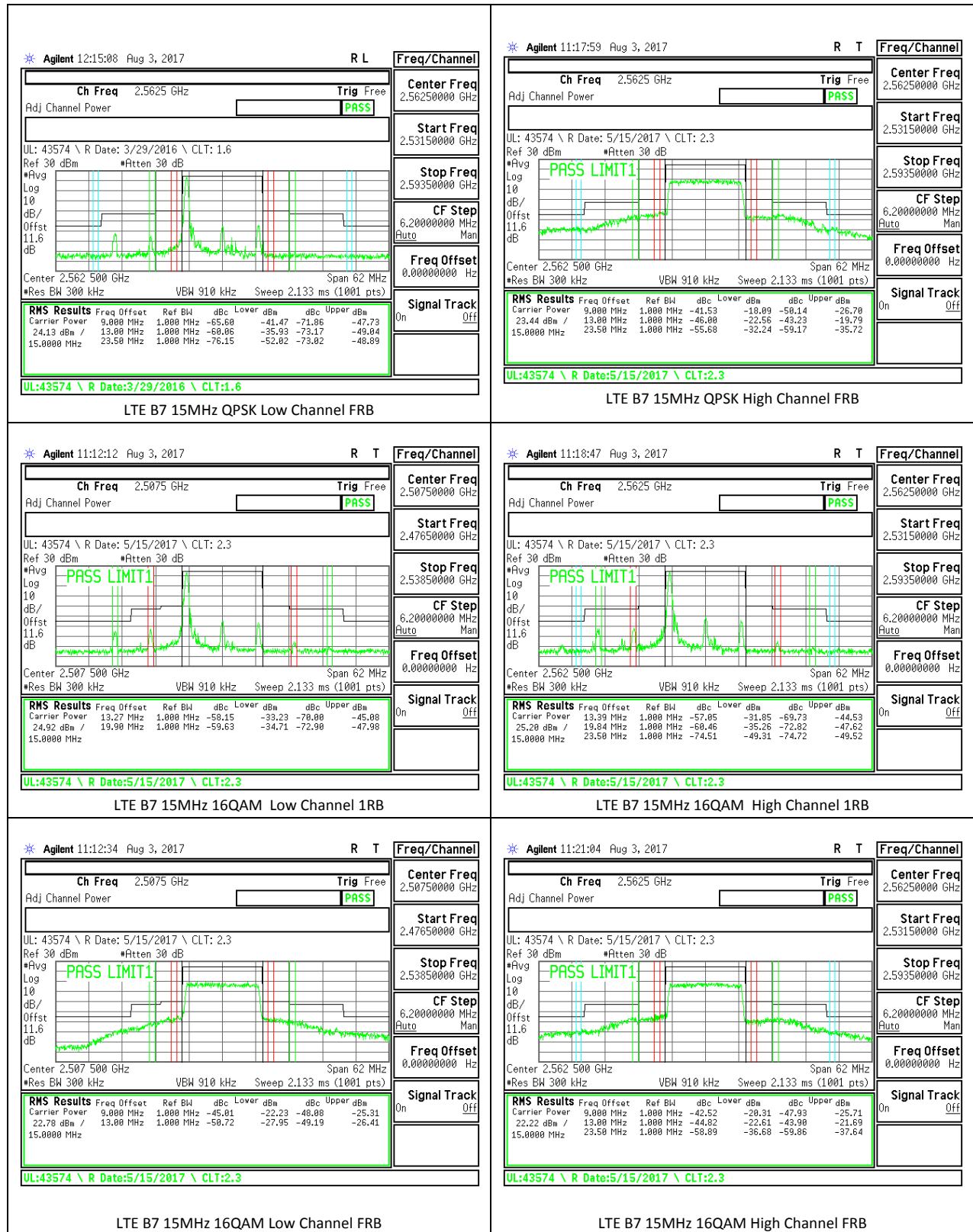


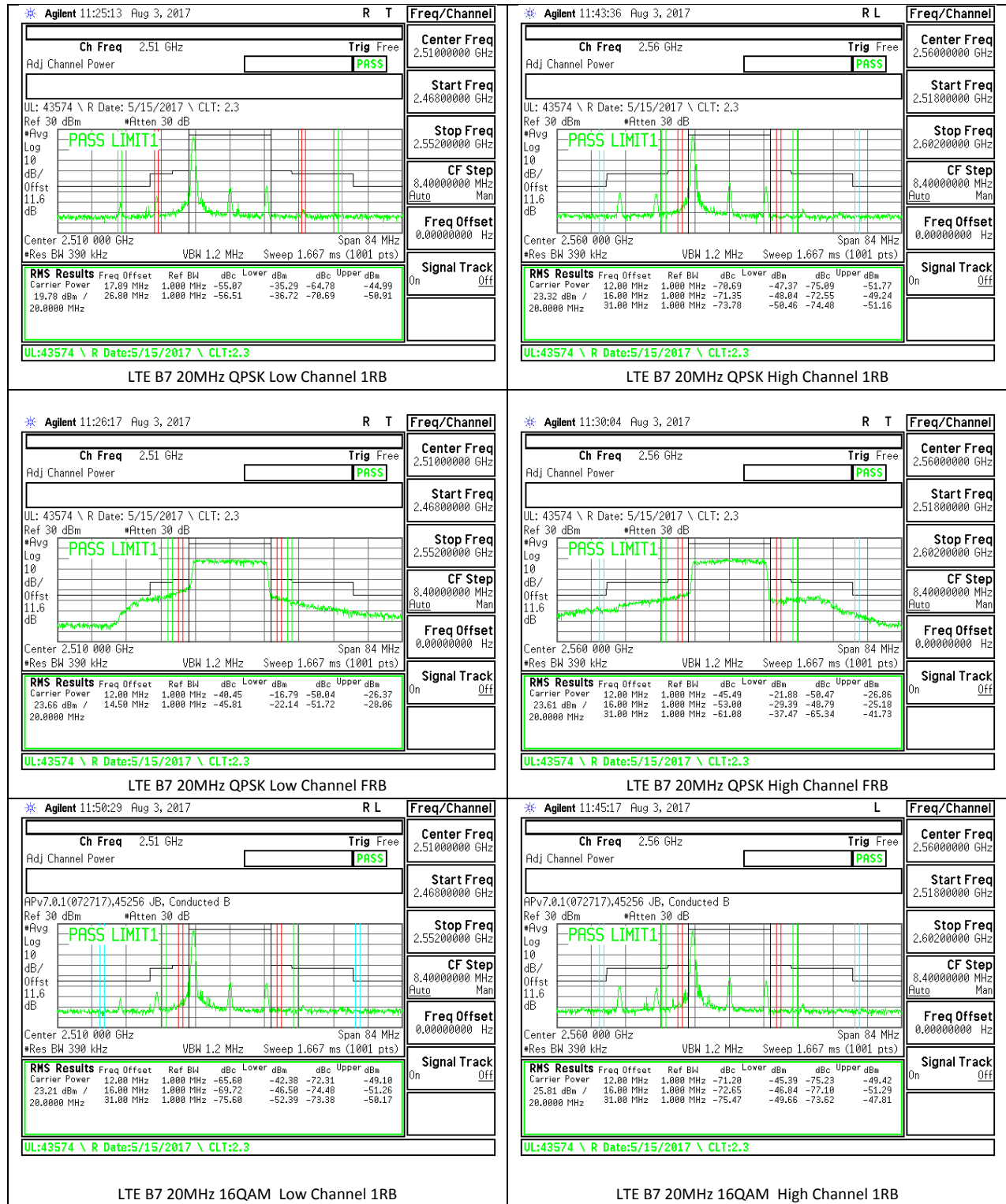
14.2. EMISSION MASK PLOTS LTE Band 7

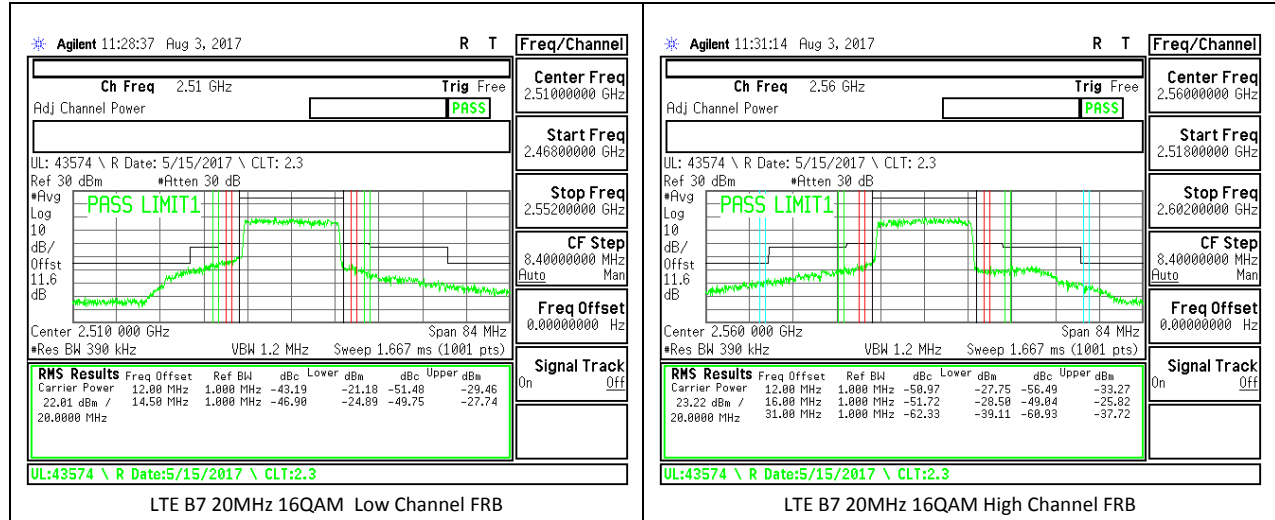




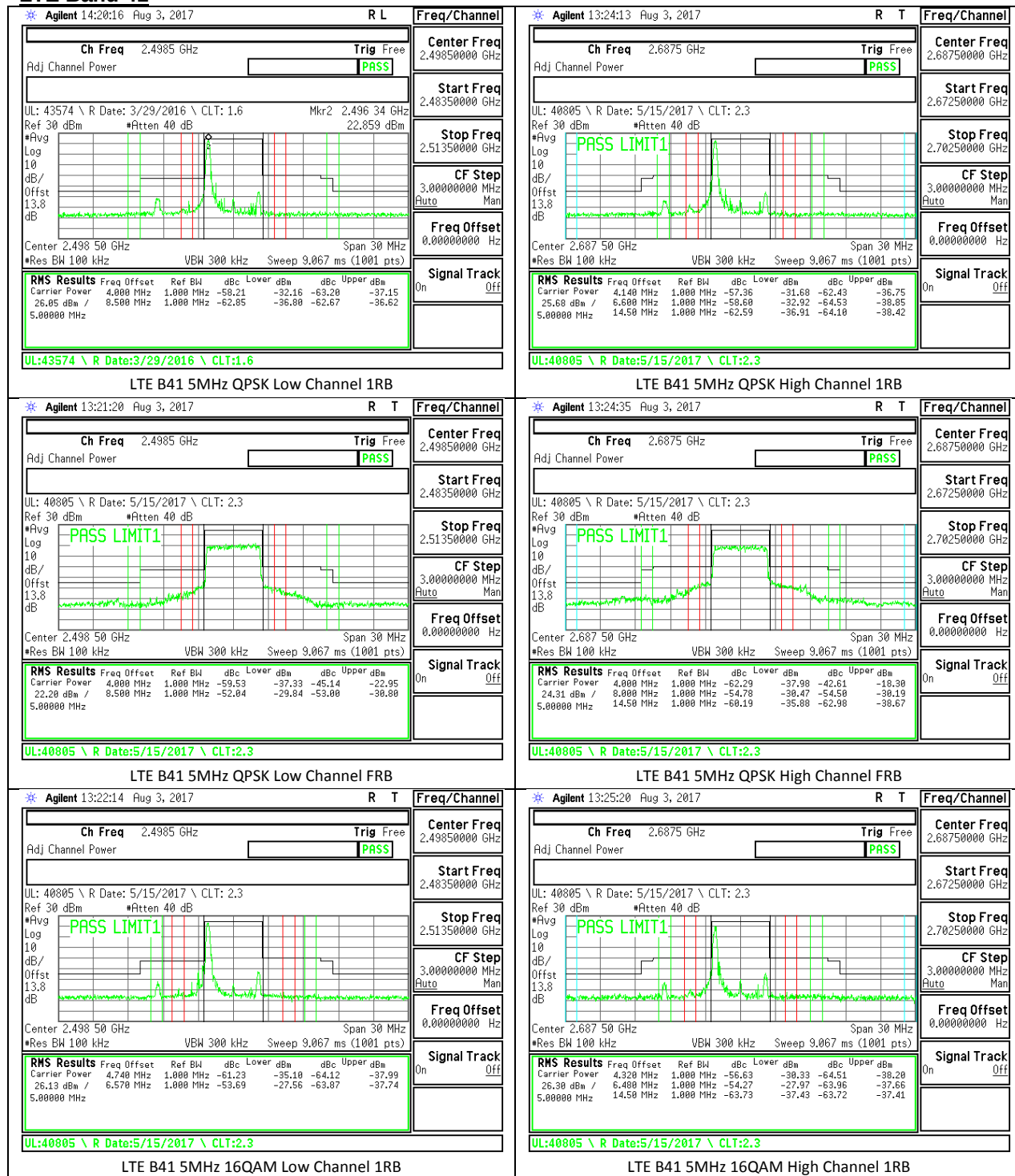


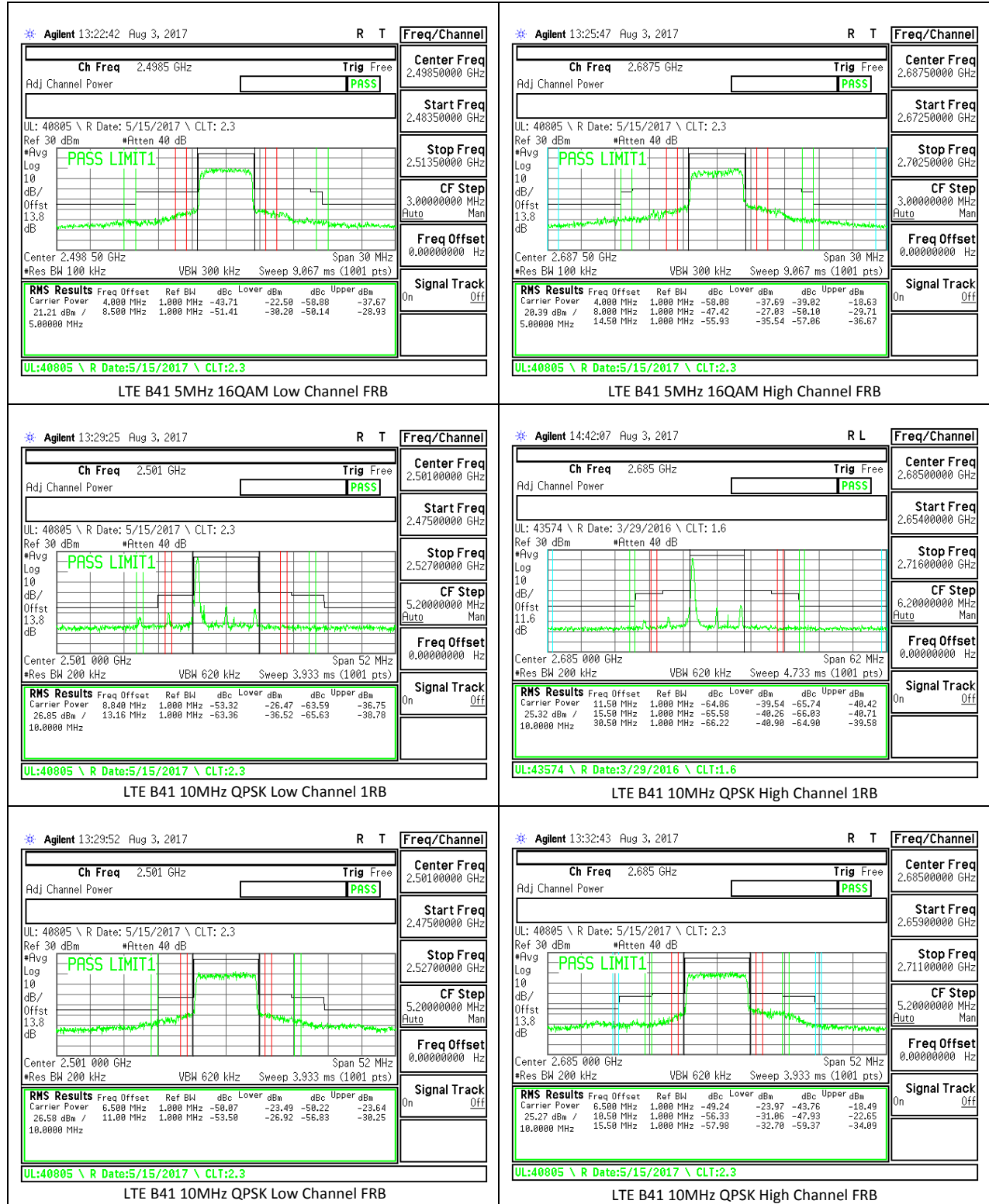


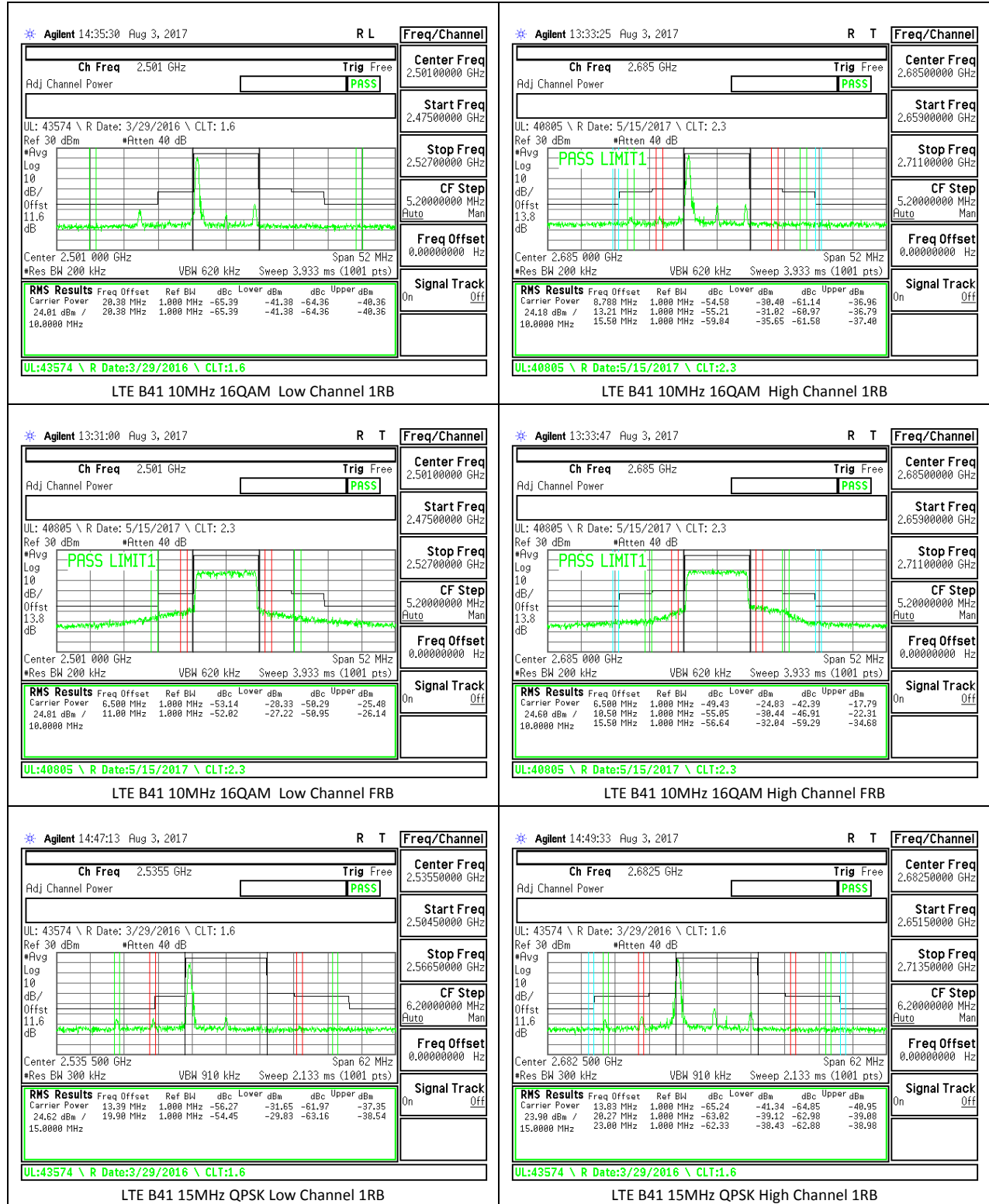


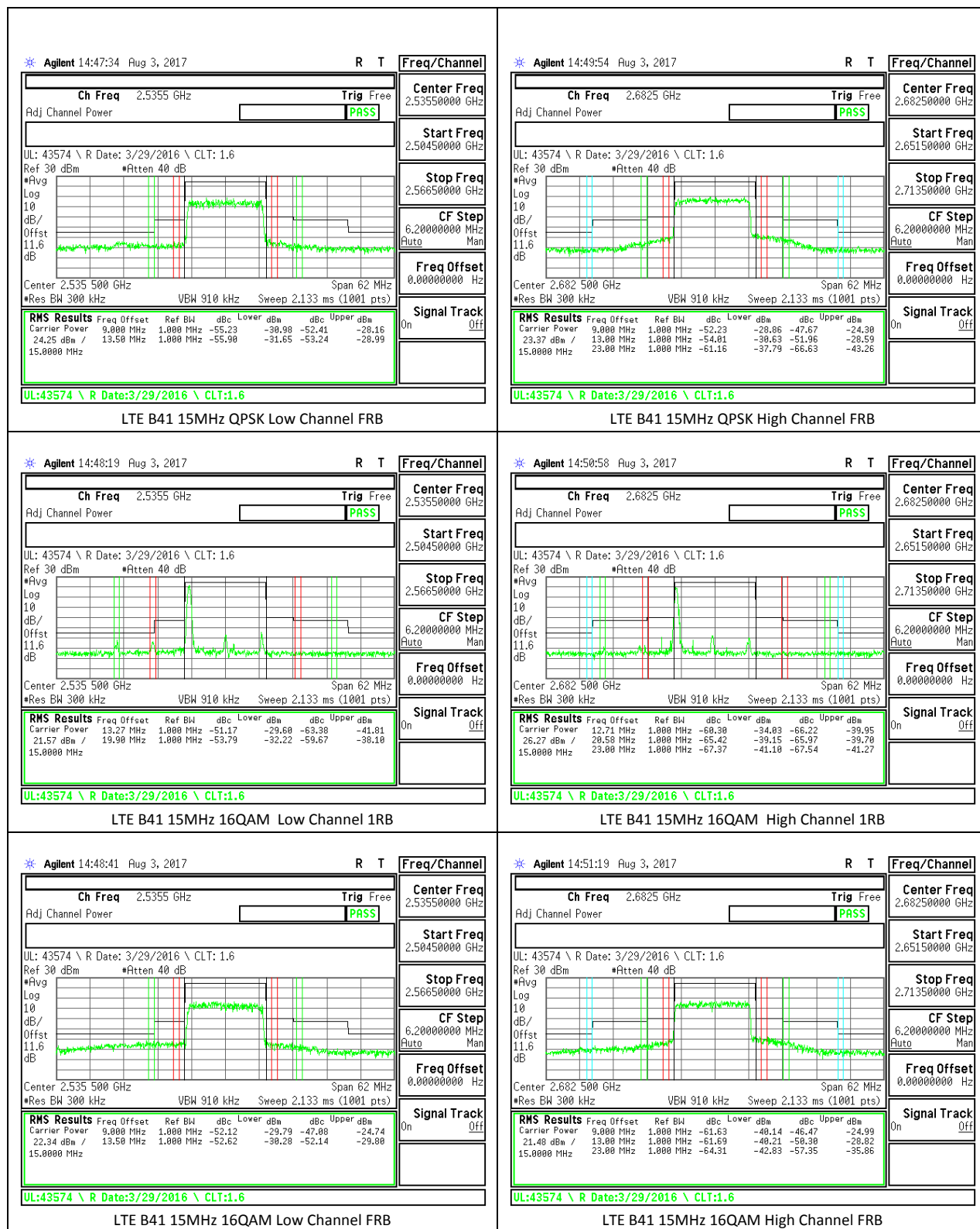


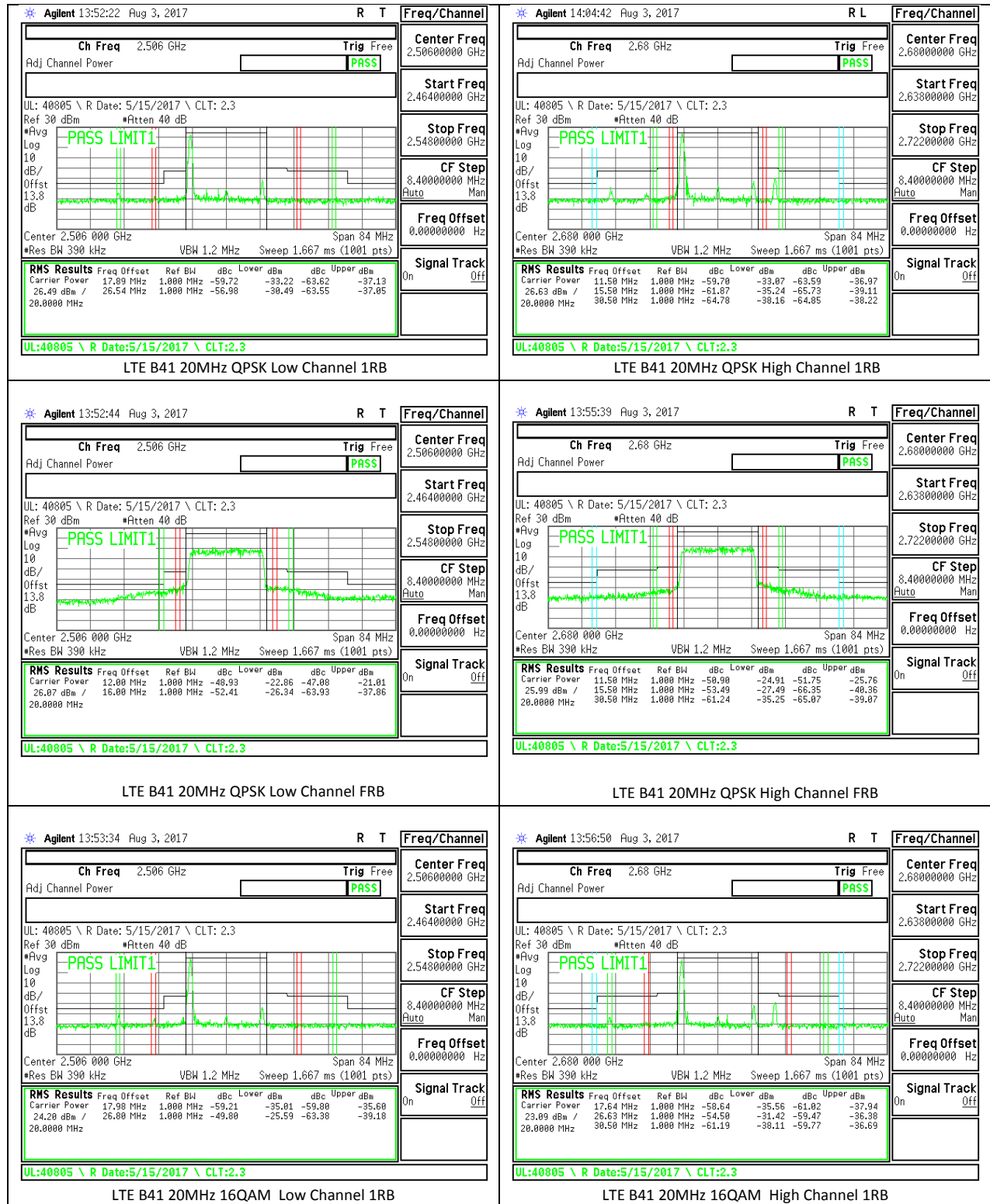
LTE Band 41

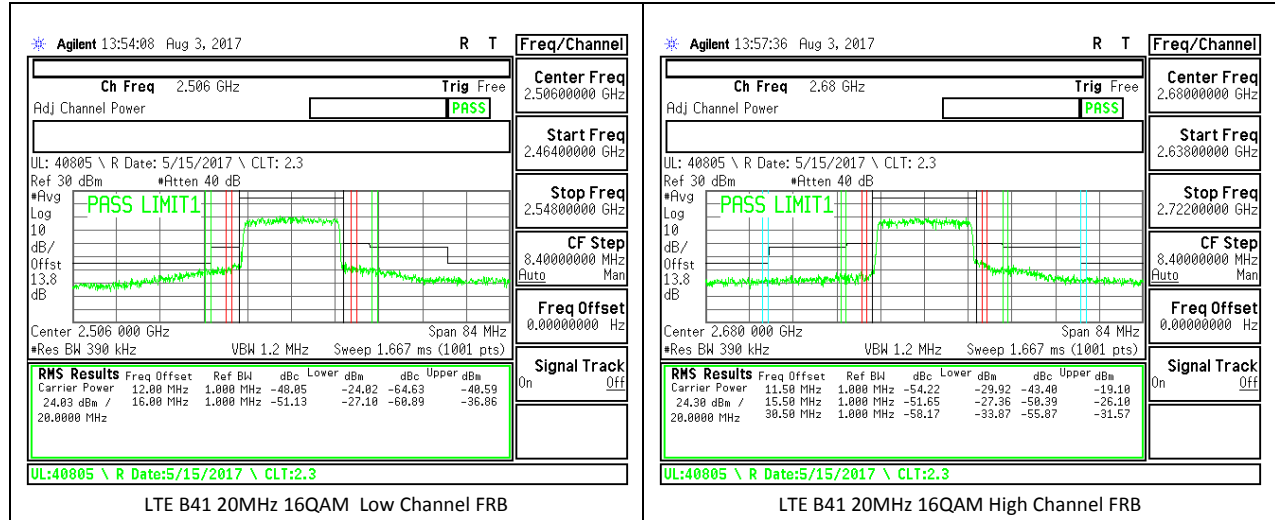












15. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53

FCC LIMITS

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

Part 27: (m)(4) (4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

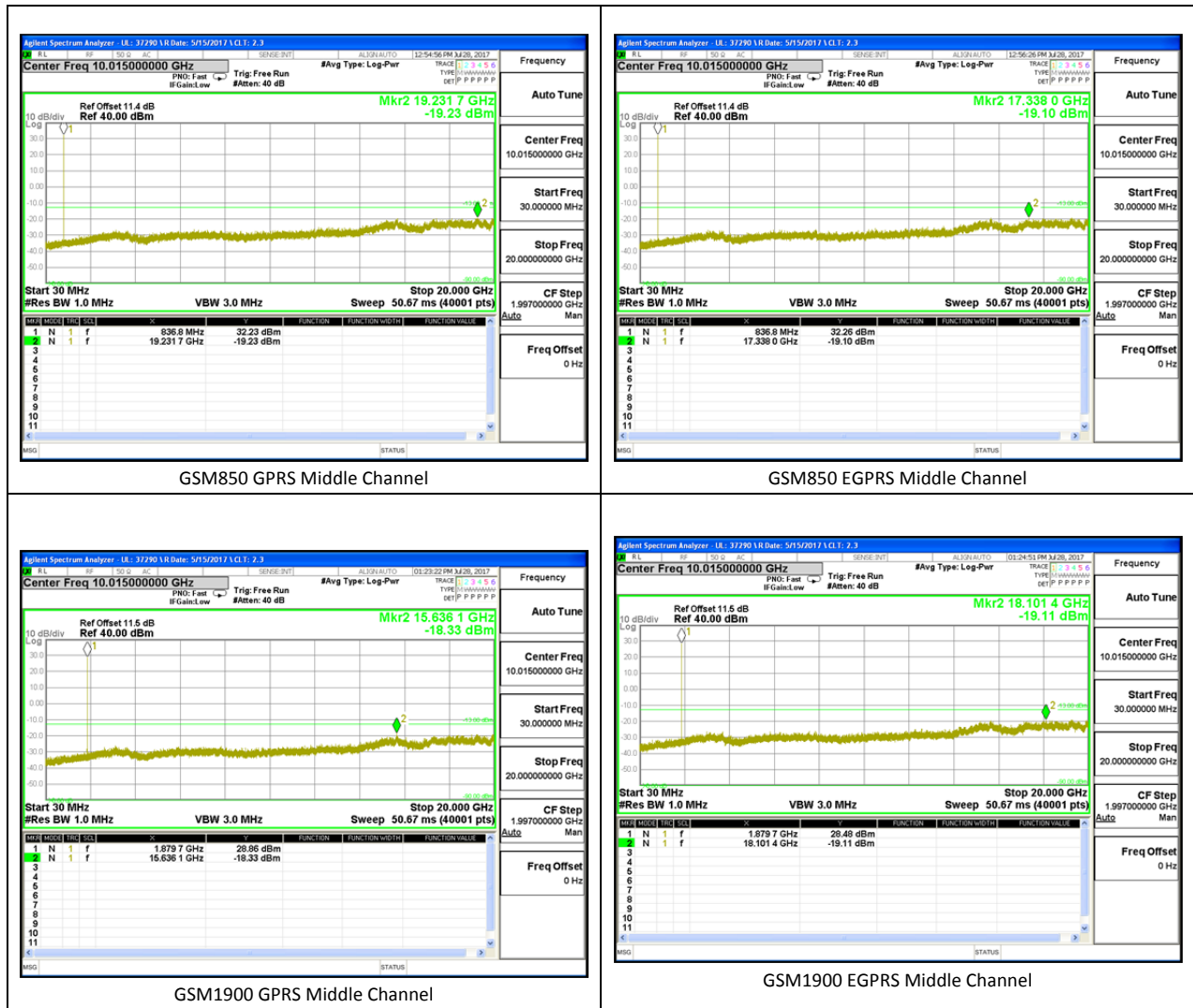
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in a maximum hold mode using a peak detector to ensure that the worst-case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

RESULTS

15.1. OUT OF BAND EMISSIONS RESULT AND PLOTS

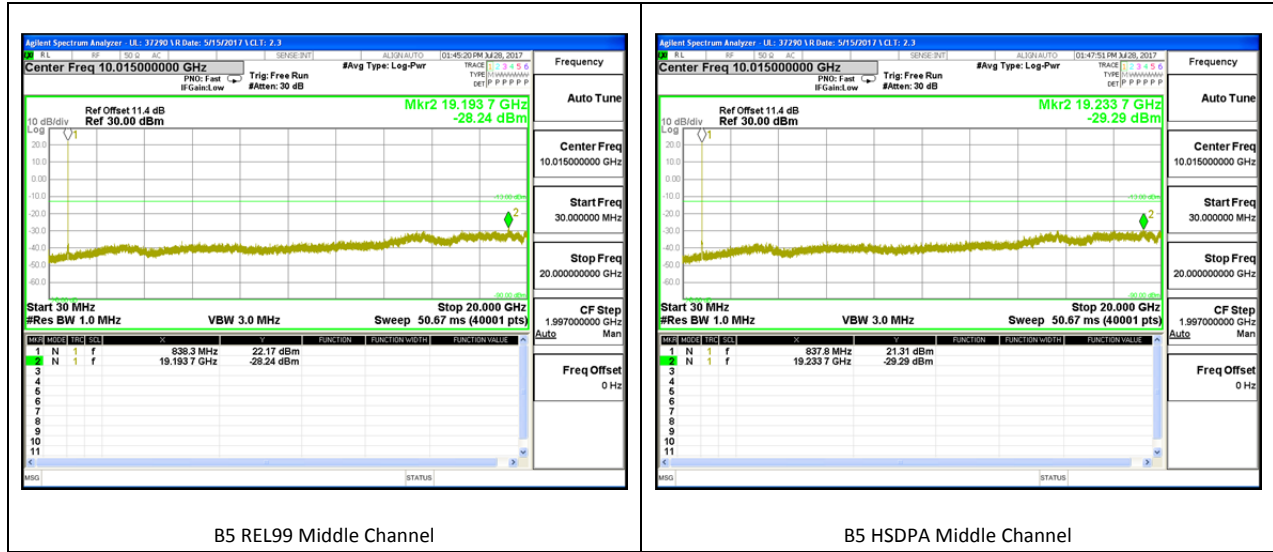
GSM

Band	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
GSM 850	GPRS	824.2	-18.89	-13	-5.89
		836.6	-19.23	-13	-6.23
		848.8	-18.88	-13	-5.88
	EGPRS	824.2	-16.71	-13	-3.71
		836.6	-19.10	-13	-6.10
		848.8	-18.69	-13	-5.69
GSM 1900	GPRS	1850.2	-18.85	-13	-5.85
		1880	-18.33	-13	-5.33
		1909.8	-17.94	-13	-4.94
	EGPRS	1850.2	-18.67	-13	-5.67
		1880	-19.11	-13	-6.11
		1909.8	-18.85	-13	-5.85



WCDMA

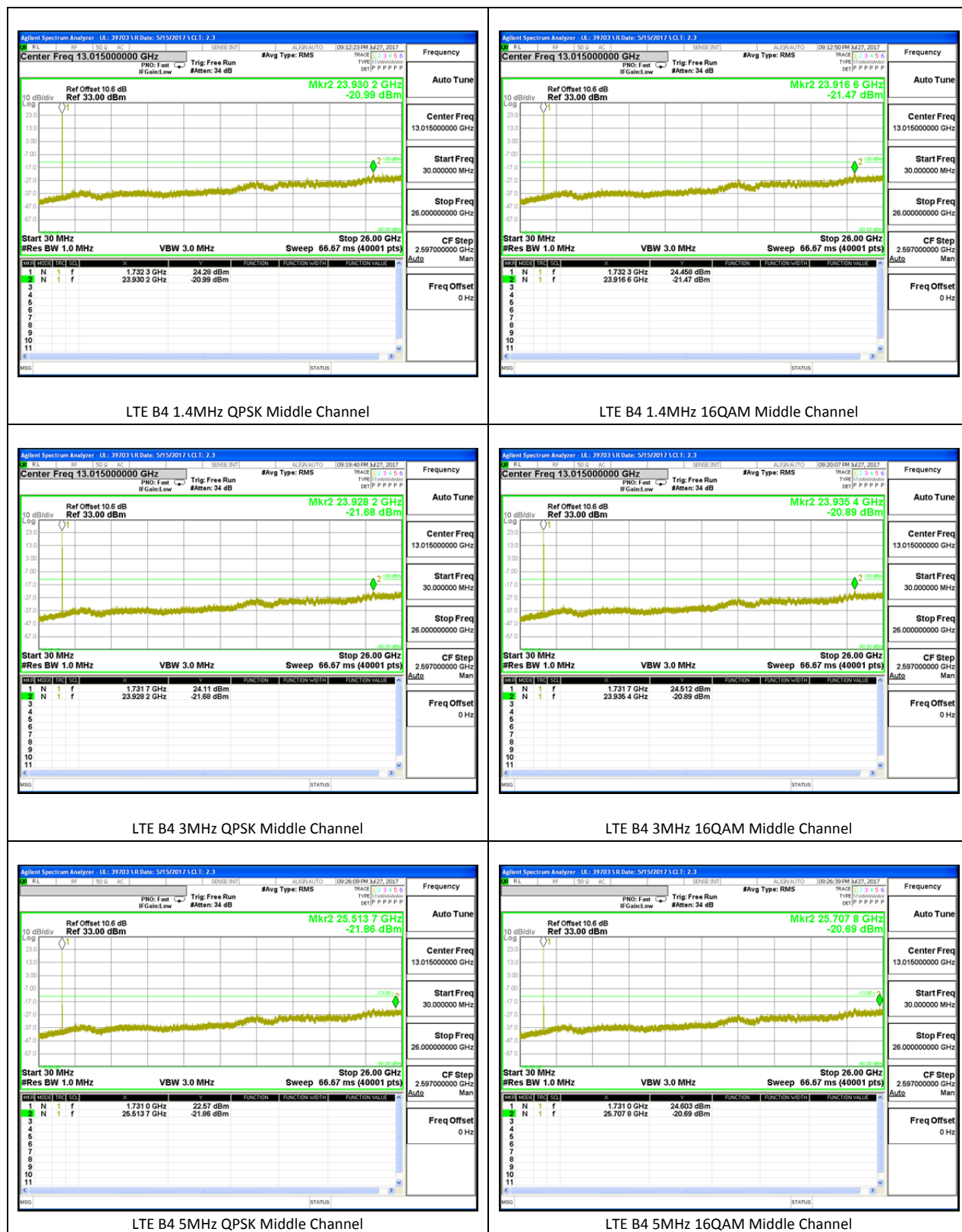
Band	Mode	f (MHz)	Spur (dBm)	99% BW (MHz)	Delta (dB)
Band 5	REL99	826.4	-28.11	-13	-15.11
		836.6	-28.24	-13	-15.24
		846.6	-28.31	-13	-15.31
	HSDPA	826.4	-28.78	-13	-15.78
		836.6	-29.29	-13	-16.29
		846.6	-28.56	-13	-15.56

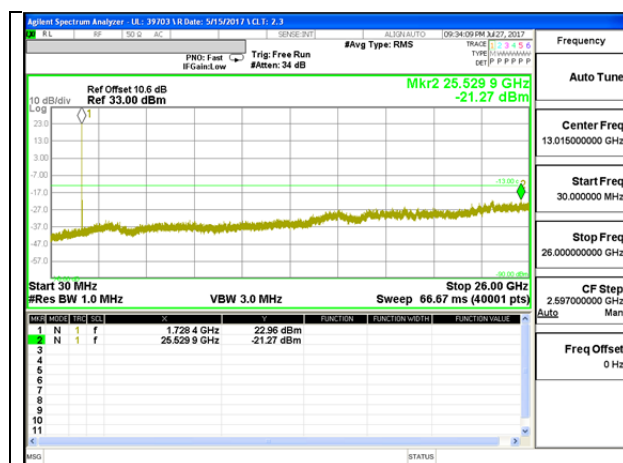


LTE Band 4

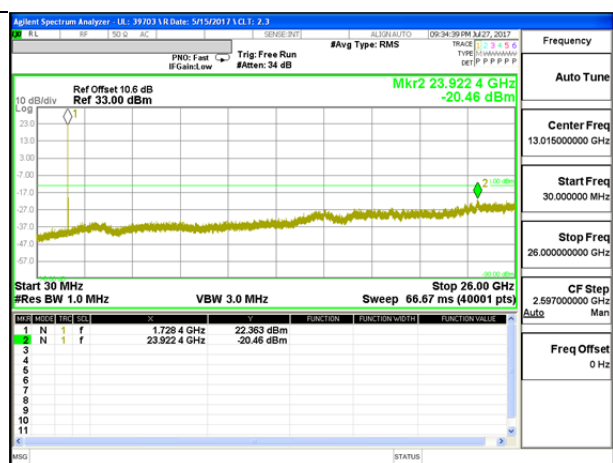
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	1.4	QPSK	1710.7	-21.55	-13	-8.55
			1732.5	-20.99	-13	-7.99
			1754.3	-21.02	-13	-8.02
		16QAM	1710.7	-20.76	-13	-7.76
			1732.5	-21.47	-13	-8.47
			1754.3	-21.52	-13	-8.52
	3	QPSK	1711.5	-21.61	-13	-8.61
			1732.5	-21.68	-13	-8.68
			1753.5	-21.43	-13	-8.43
		16QAM	1711.5	-20.84	-13	-7.84
			1732.5	-20.89	-13	-7.89
			1753.5	-21.24	-13	-8.24
	5	QPSK	1712.5	-21.19	-13	-8.19
			1732.5	-21.86	-13	-8.86
			1752.5	-21.94	-13	-8.94
		16QAM	1712.5	-21.85	-13	-8.85
			1732.5	-20.69	-13	-7.69
			1752.5	-21.76	-13	-8.76
	10	QPSK	1715	-21.38	-13	-8.38
			1732.5	-21.27	-13	-8.27
			1750	-21.34	-13	-8.34
		16QAM	1715	-20.93	-13	-7.93
			1732.5	-20.46	-13	-7.46
			1750	-21.45	-13	-8.45

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE4	15	QPSK	1717.5	-30.39	-13	-17.39
			1732.5	-30.07	-13	-17.07
			1747.5	-30.02	-13	-17.02
		16QAM	1717.5	-30.43	-13	-17.43
			1732.5	-29.91	-13	-16.91
			1747.5	-29.87	-13	-16.87
	20	QPSK	1720	-21.26	-13	-8.26
			1732.5	-21.63	-13	-8.63
			1745	-21.05	-13	-8.05
		16QAM	1720	-21.44	-13	-8.44
			1732.5	-21.95	-13	-8.95
			1745	-20.24	-13	-7.24

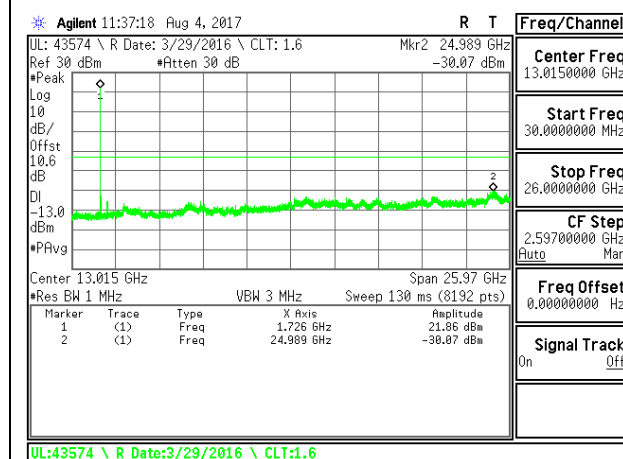




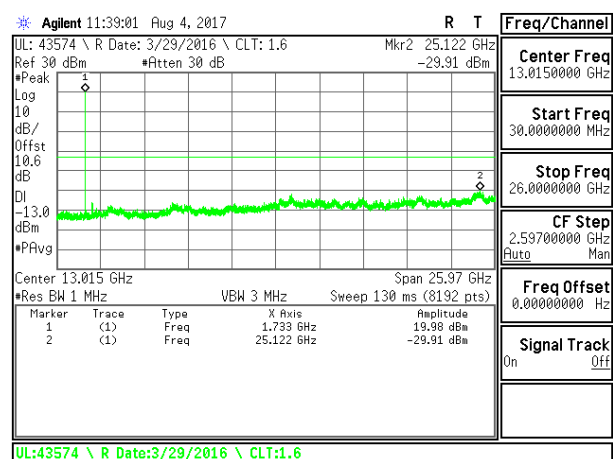
LTE B4 10MHz QPSK Middle Channel



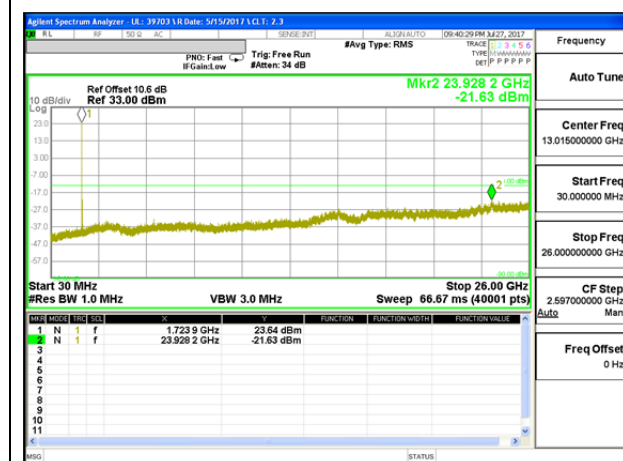
LTE B4 10MHz 16QAM Middle Channel



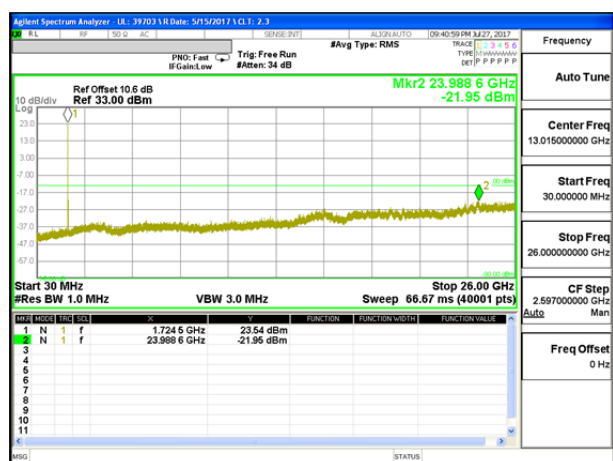
LTE B4 15MHz QPSK Middle Channel



LTE B4 15MHz 16QAM Middle Channel



LTE B4 20MHz QPSK Middle Channel



LTE B4 20MHz 16QAM Middle Channel

LTE Band 5

Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE5	1.4	QPSK	824.7	-33.57	-13	-20.57
			836.5	-33.80	-13	-20.80
			848.3	-33.73	-13	-20.73
		16QAM	824.7	-33.66	-13	-20.66
			836.5	-33.78	-13	-20.78
			848.3	-33.67	-13	-20.67
	3	QPSK	825.5	-33.54	-13	-20.54
			836.5	-33.69	-13	-20.69
			847.5	-33.85	-13	-20.85
		16QAM	825.5	-34.06	-13	-21.06
			836.5	-33.30	-13	-20.3
			847.5	-34.15	-13	-21.15
	5	QPSK	826.5	-21.65	-13	-8.65
			836.5	-21.97	-13	-8.97
			846.5	-21.08	-13	-8.08
		16QAM	826.5	-20.89	-13	-7.89
			836.5	-22.27	-13	-9.27
			846.5	-21.68	-13	-8.68
	10	QPSK	829	-21.5	-13	-8.5
			836.5	-21.21	-13	-8.21
			844	-21.56	-13	-8.56
		16QAM	829	-20.94	-13	-7.94
			836.5	-21.40	-13	-8.4
			844	-21.65	-13	-8.65