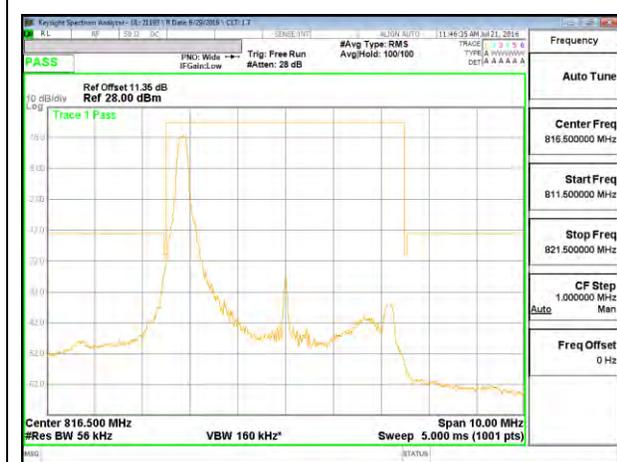


LTE B26 3MHz 16QAM Low Channel 1RB



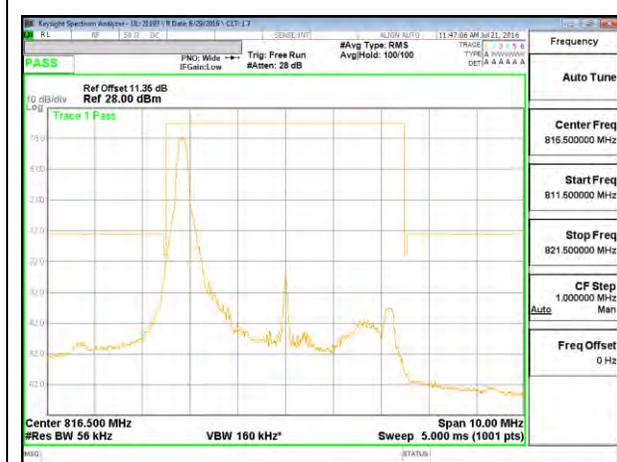
LTE B26 3MHz 16QAM Low Channel FRB



LTE B26 5MHz QPSK Low Channel 1RB



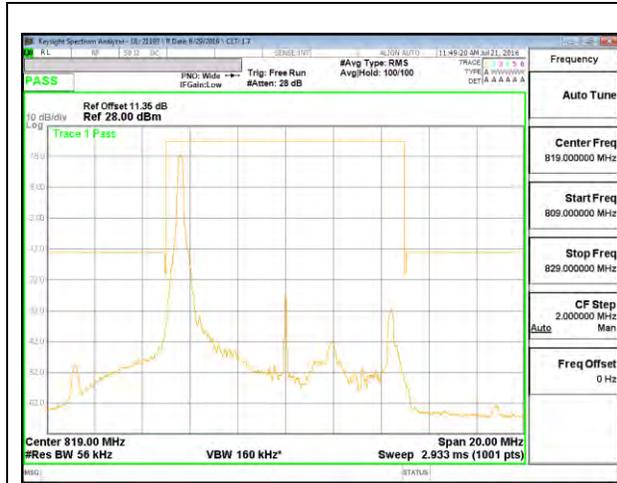
LTE B26 5MHz QPSK Low Channel FRB



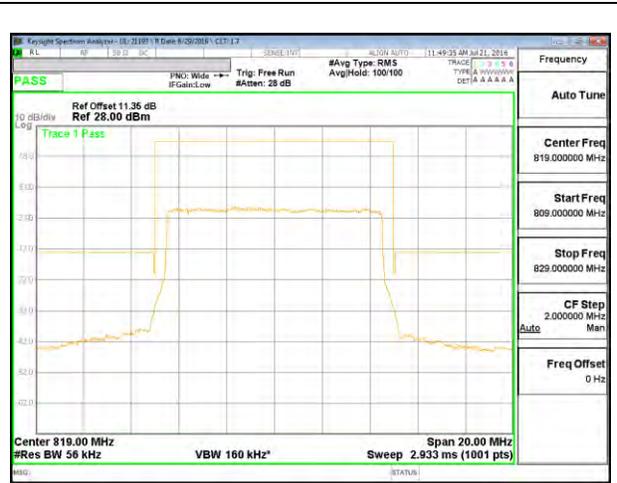
LTE B26 5MHz 16QAM Low Channel 1RB



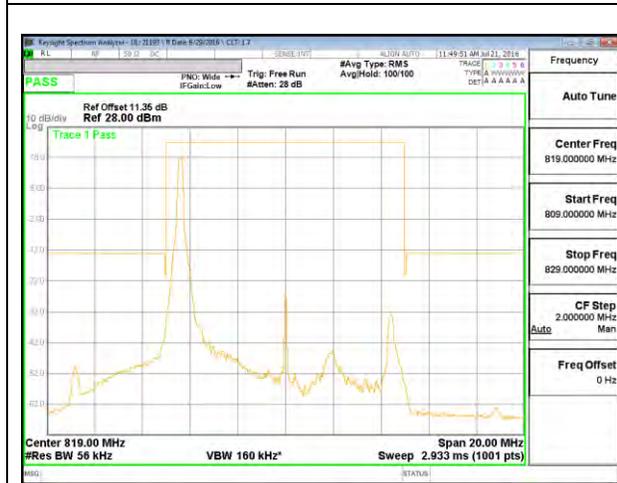
LTE B26 5MHz 16QAM Low Channel FRB



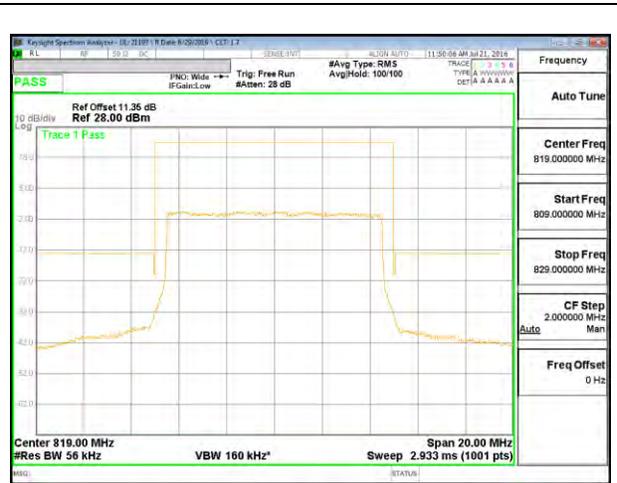
LTE B26 10MHz QPSK Low Channel 1RB



LTE B26 10MHz QPSK Low Channel FRB

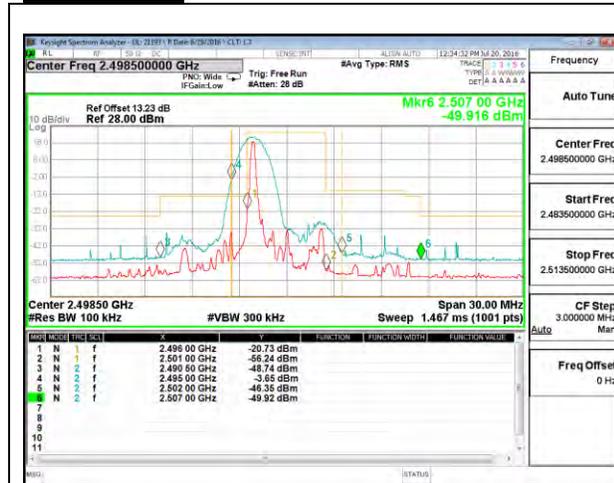


LTE B26 10MHz 16QAM Low Channel 1RB

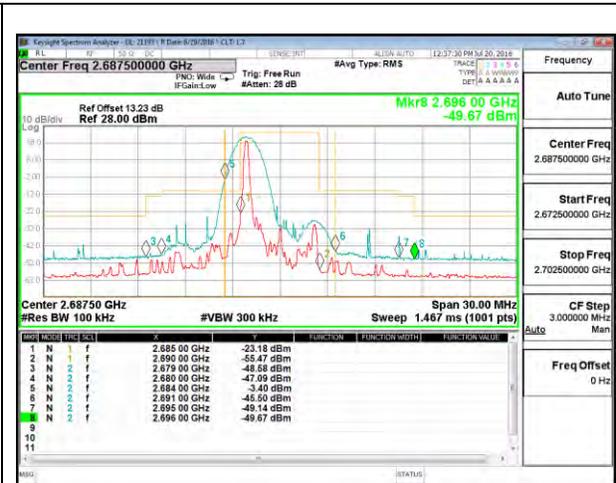


LTE B26 10MHz 16QAM Low Channel FRB

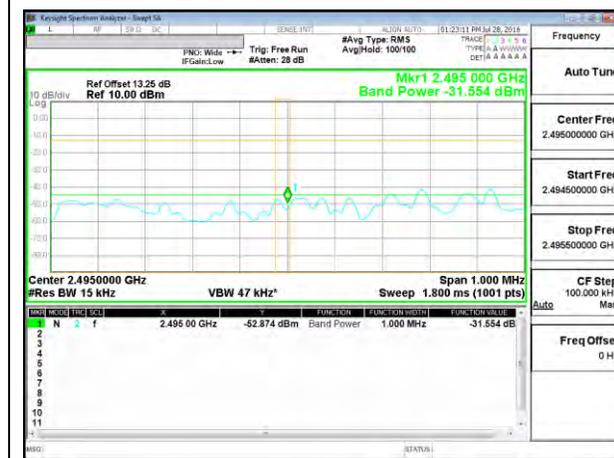
LTE Band 41



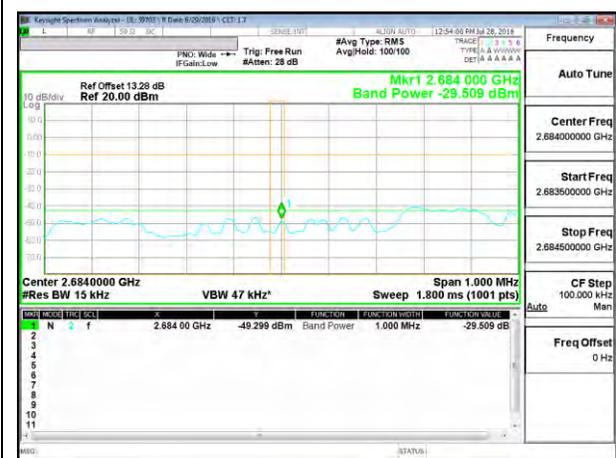
LTE B41 5MHz QPSK Low Channel 1RB



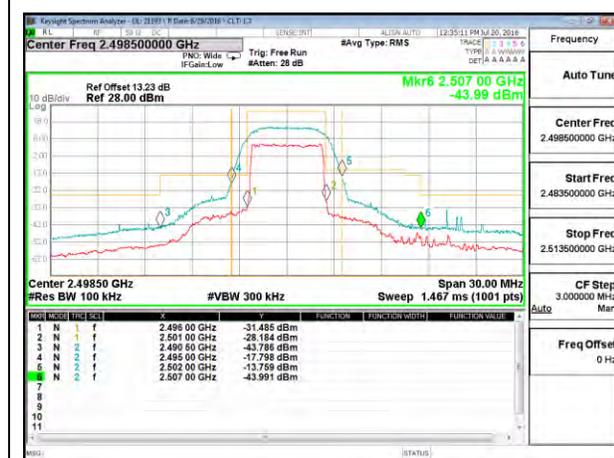
LTE B41 5MHz QPSK High Channel 1RB



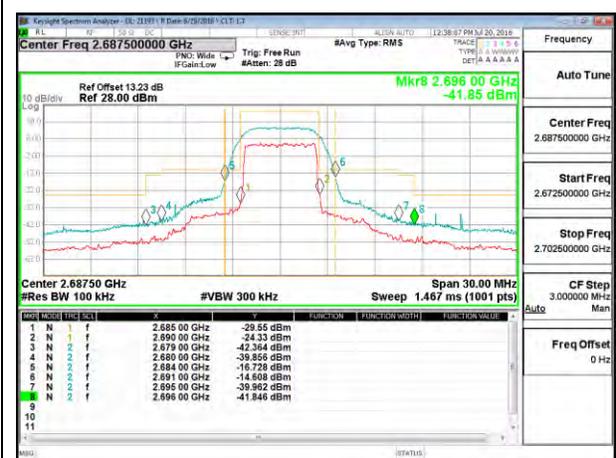
LTE B41 5MHz QPSK Low Channel 1RB at 2.495 GHz



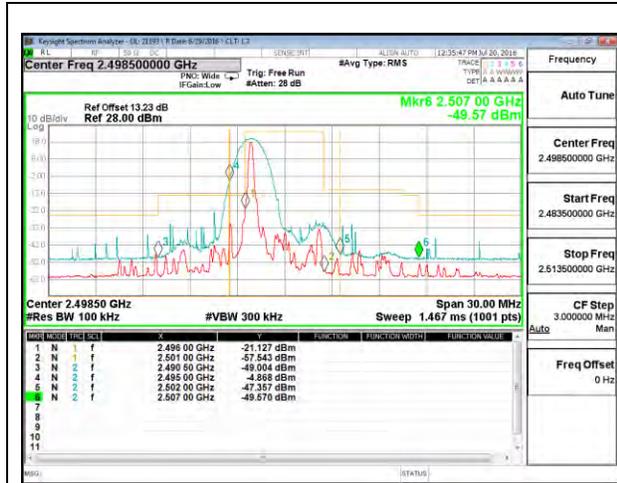
LTE B41 5MHz QPSK High Channel 1RB at 2.684GHz



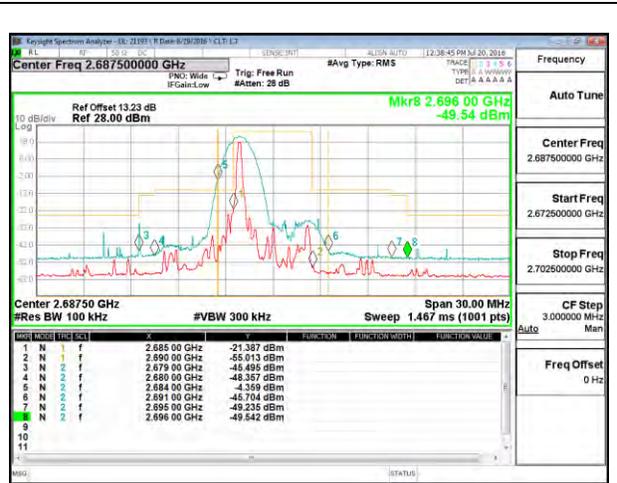
LTE B41 5MHz QPSK Low Channel FRB



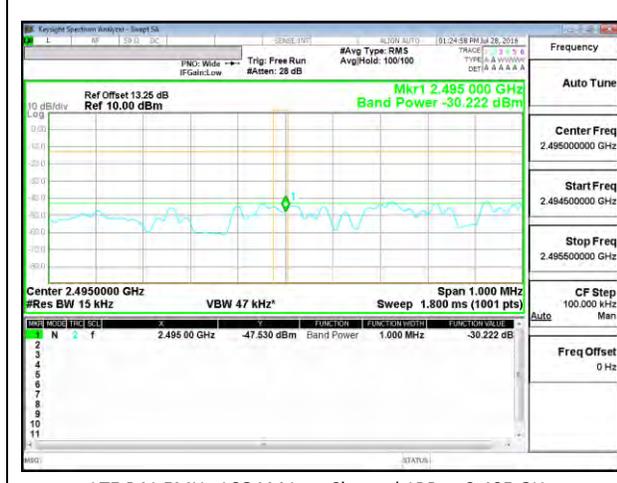
LTE B41 5MHz QPSK High Channel FRB



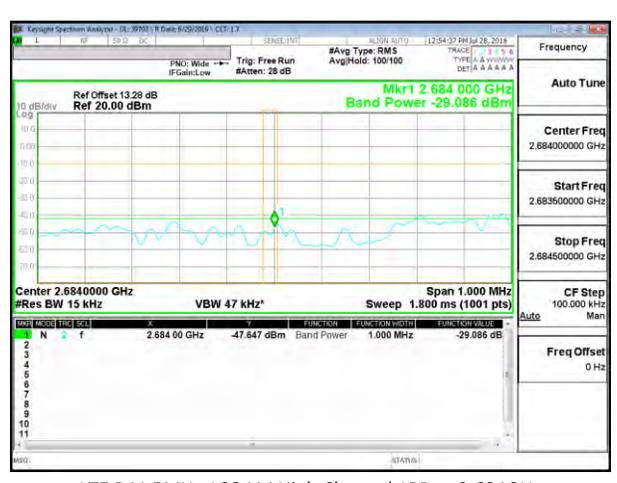
LTE B41 5MHz 16QAM Low Channel 1RB



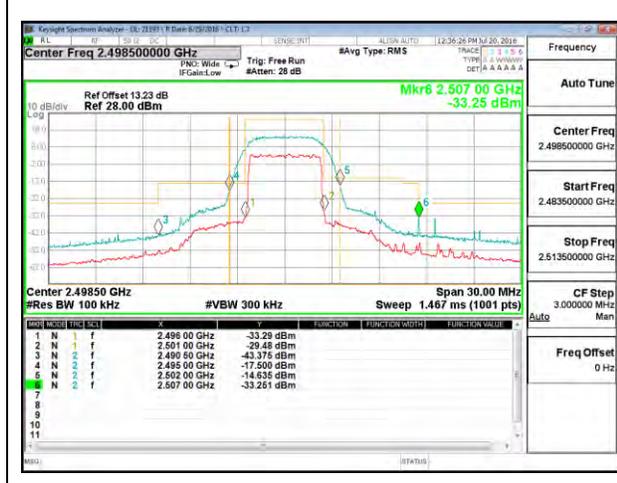
LTE B41 5MHz 16QAM High Channel 1RB



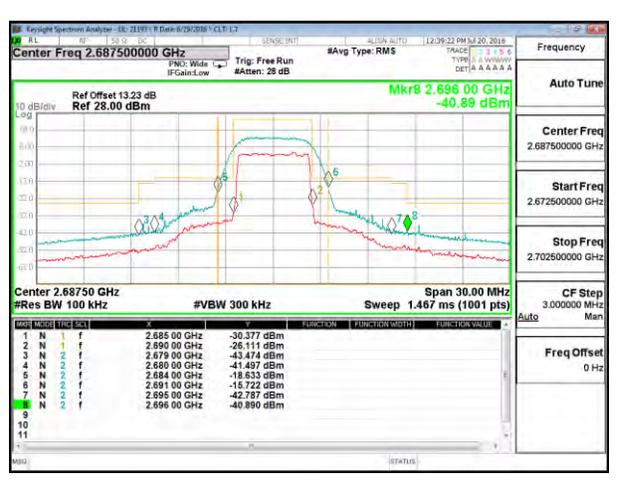
LTE B41 5MHz 16QAM Low Channel 1RB at 2.495 GHz



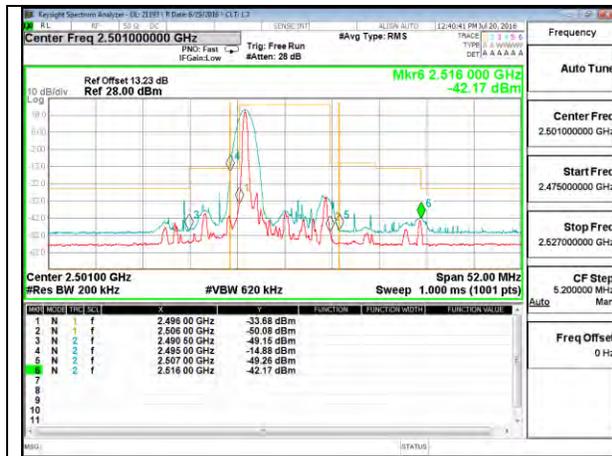
LTE B41 5MHz 16QAM High Channel 1RB at 2.684GHz



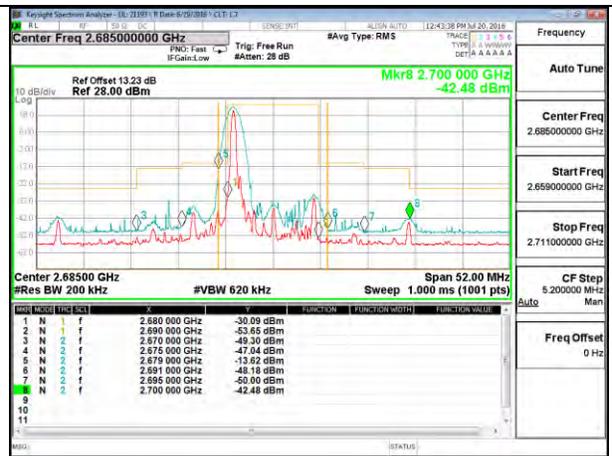
LTE B41 5MHz 16QAM Low Channel FRB



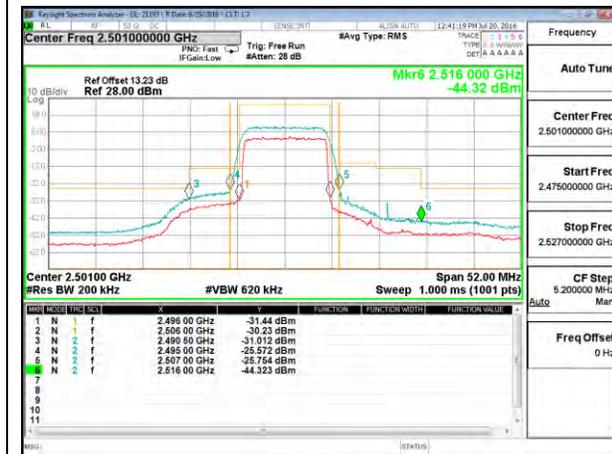
LTE B41 5MHz 16QAM High Channel FRB



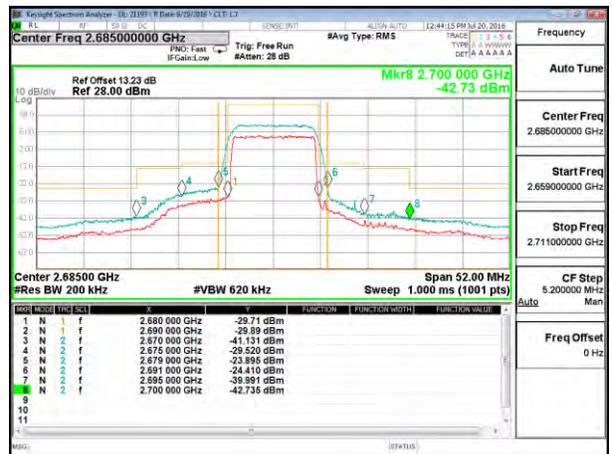
LTE B41 10MHz QPSK Low Channel 1RB



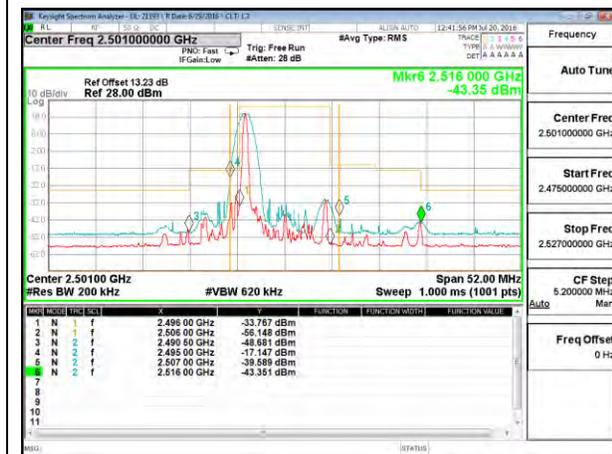
LTE B41 10MHz QPSK High Channel 1RB



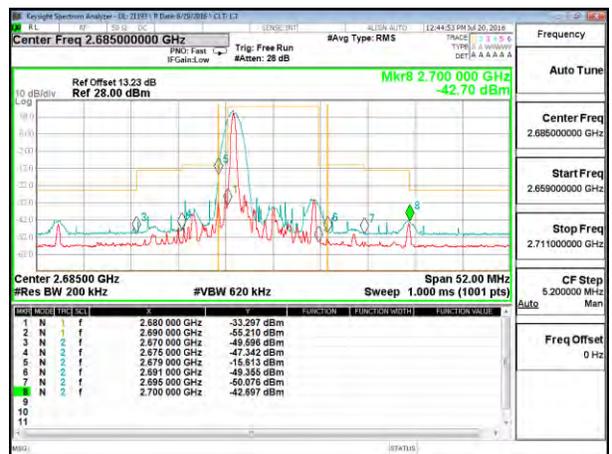
LTE B41 10MHz QPSK Low Channel FRB



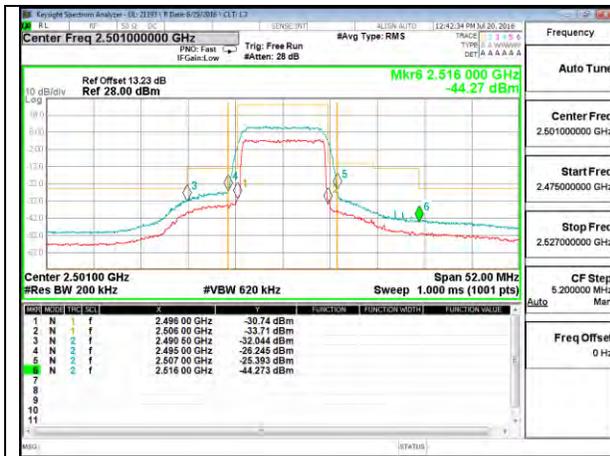
LTE B41 10MHz QPSK High Channel FRB



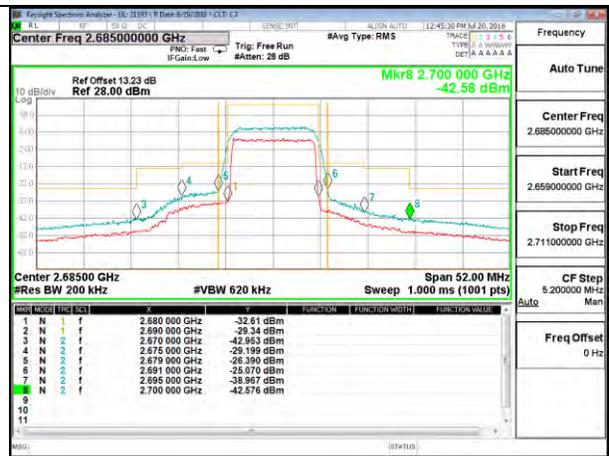
LTE B41 10MHz 16QAM Low Channel 1RB



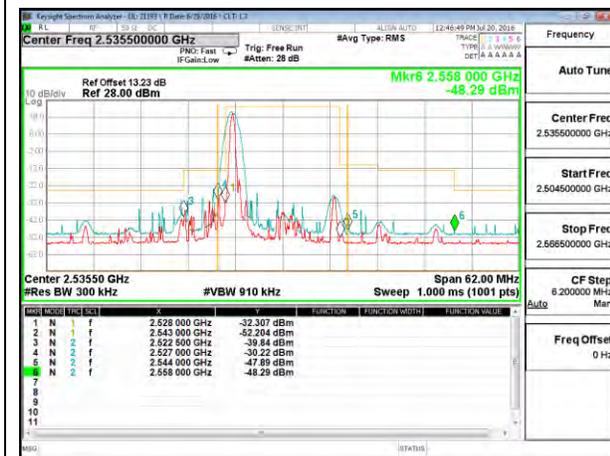
LTE B41 10MHz 16QAM High Channel 1RB



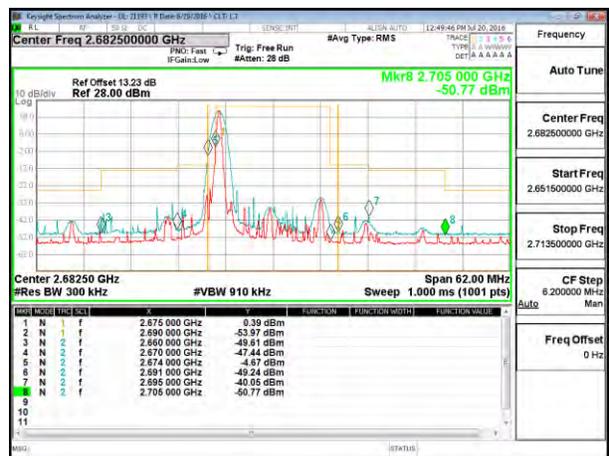
LTE B41 10MHz 16QAM Low Channel FRB



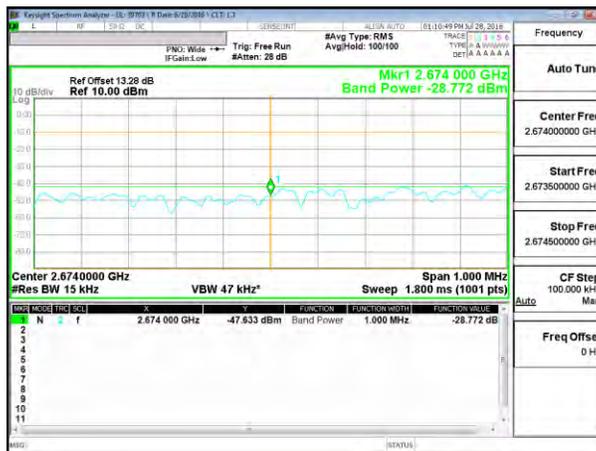
LTE B41 10MHz 16QAM High Channel FRB



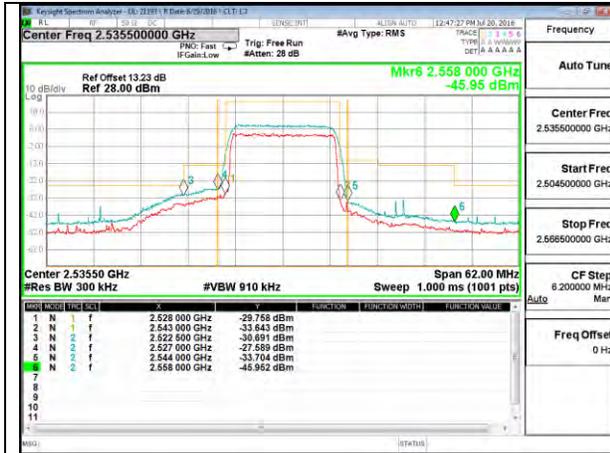
LTE B41 15MHz QPSK Low Channel 1RB



LTE B41 15MHz QPSK High Channel 1RB



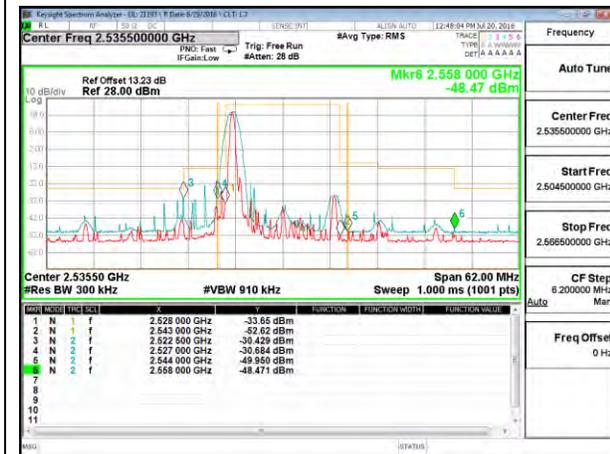
LTE B41 15MHz QPSK High Channel 1RB at 2.674 GHz



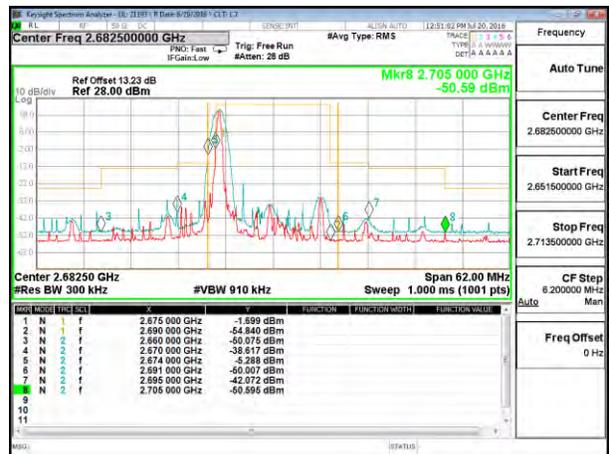
LTE B41 15MHz QPSK Low Channel FRB



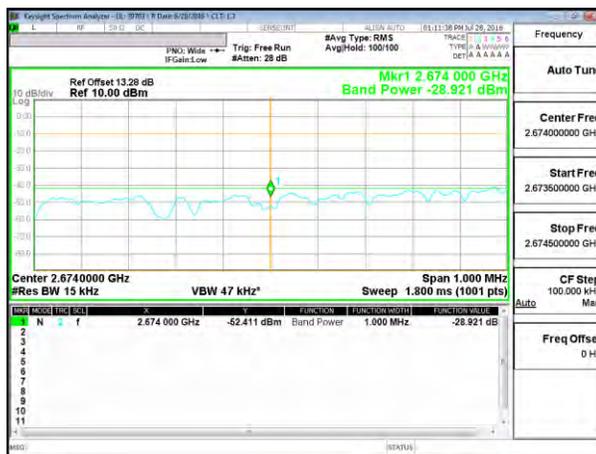
LTE B41 15MHz QPSK High Channel FRB



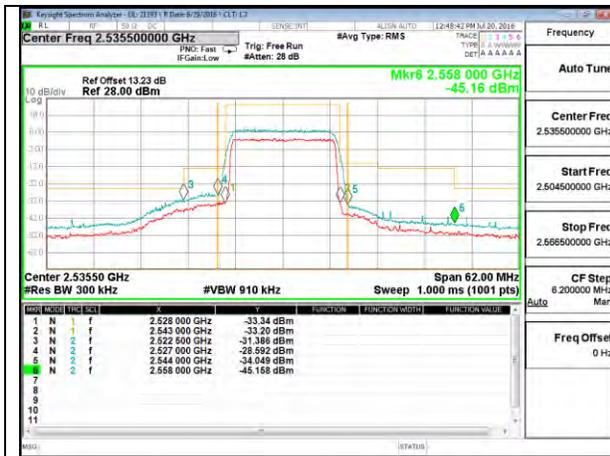
LTE B41 15MHz 16QAM Low Channel 1RB



LTE B41 15MHz 16QAM High Channel 1RB



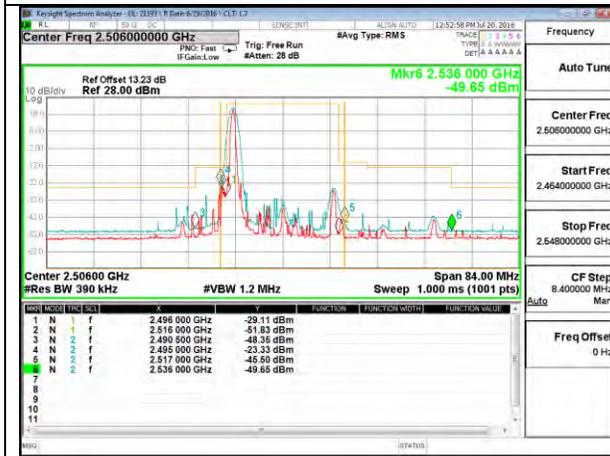
LTE B41 15MHz 16QAM High Channel 1RB 2.674 GHz



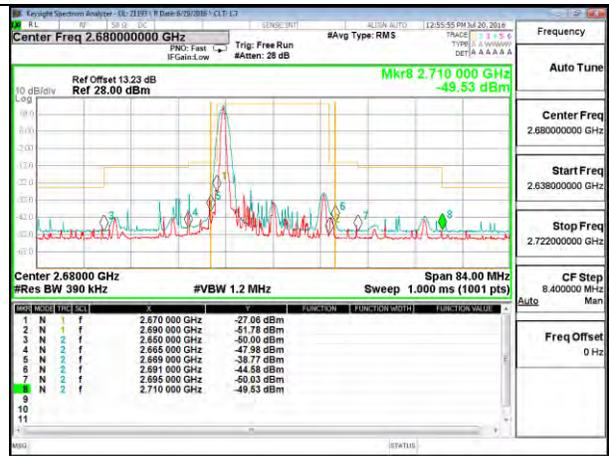
LTE B41 15MHz 16QAM Low Channel FRB



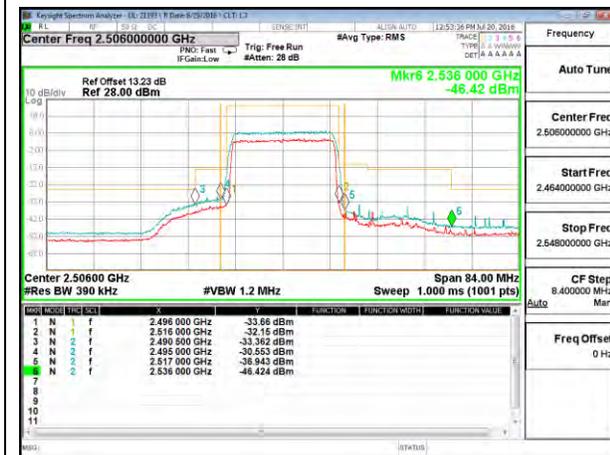
LTE B41 15MHz 16QAM High Channel FRB



LTE B41 20MHz QPSK Low Channel 1RB



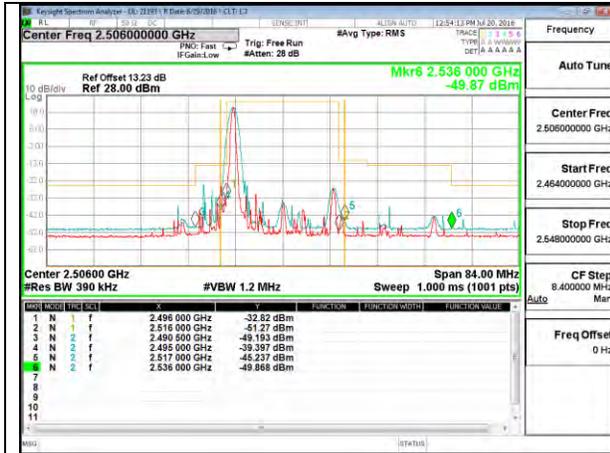
LTE B41 20MHz QPSK High Channel 1RB



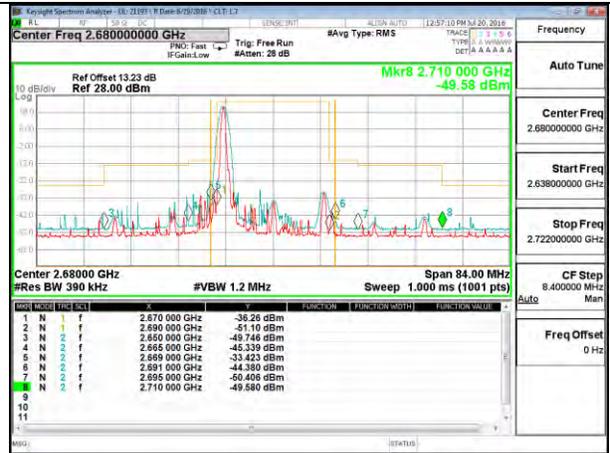
LTE B41 20MHz QPSK Low Channel FRB



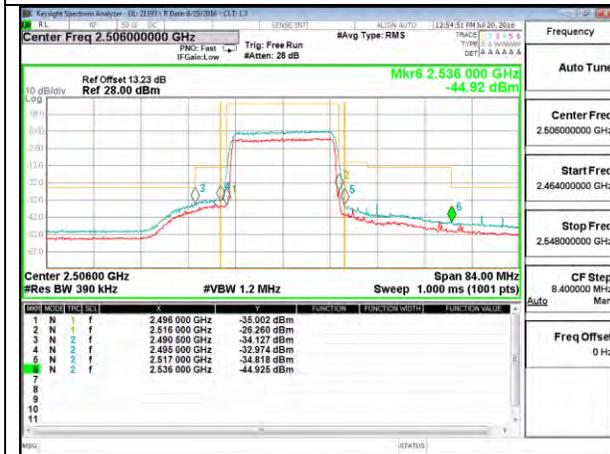
LTE B41 20MHz QPSK High Channel FRB



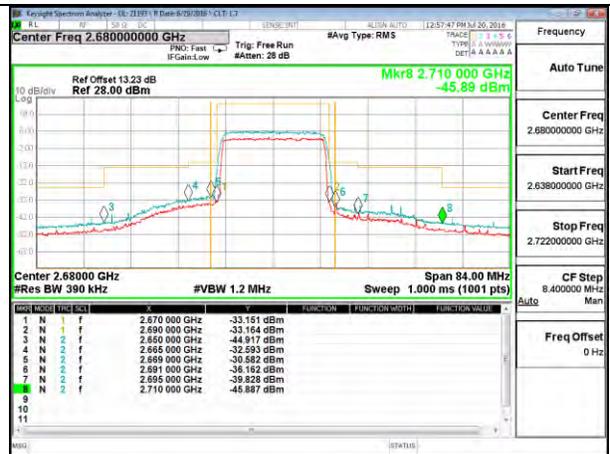
LTE B41 20MHz 16QAM Low Channel 1RB



LTE B41 20MHz 16QAM High Channel 1RB



LTE B41 20MHz 16QAM Low Channel FRB



LTE B41 20MHz 16QAM High Channel FRB

12. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53 and §90.691

LIMITS

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

Part 27: (m)(4) (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

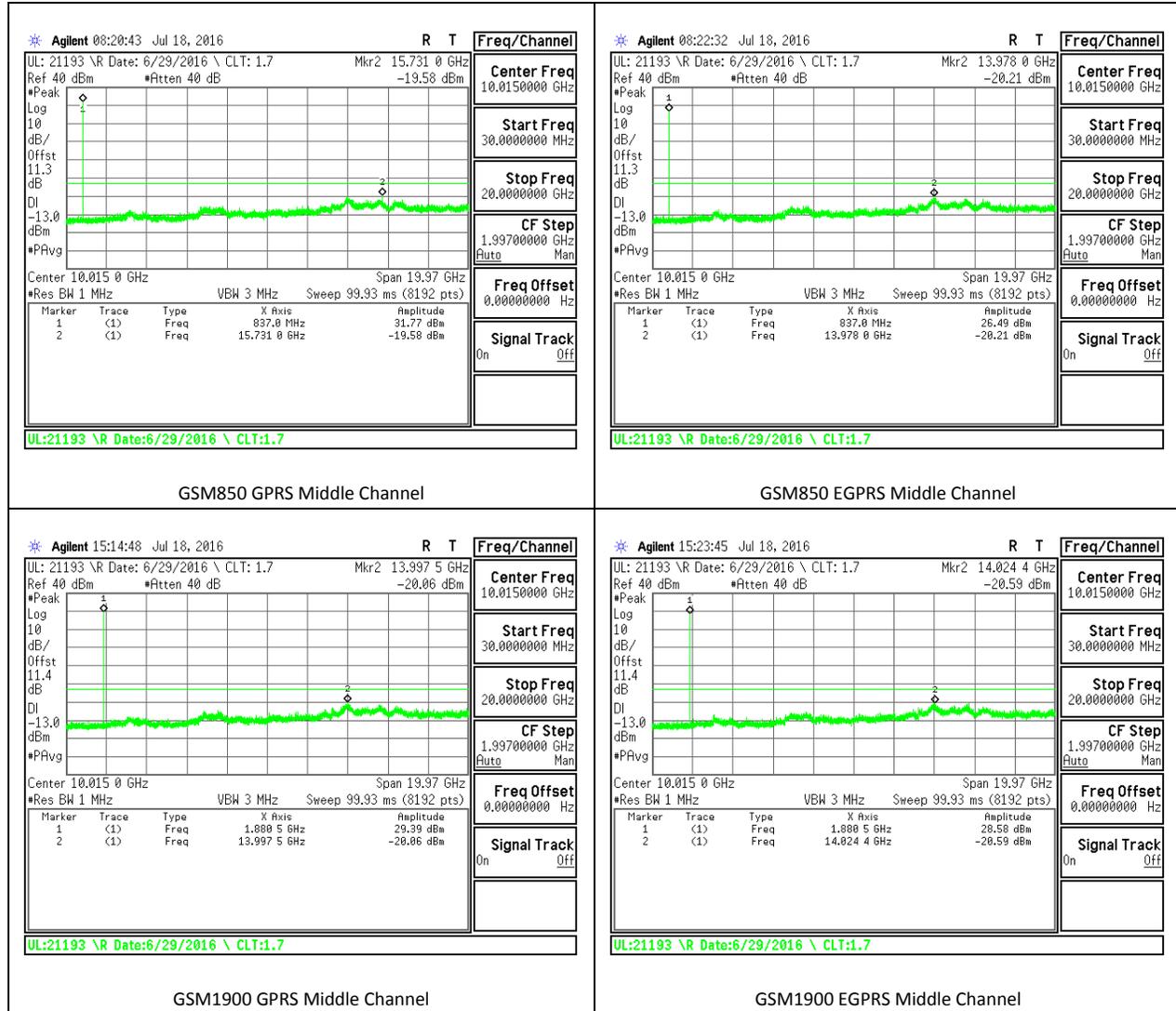
Per KDB 971168 D01 Power Meas License Digital Systems v02r02

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.

12.1. OUT OF BAND EMISSIONS RESULT AND PLOTS

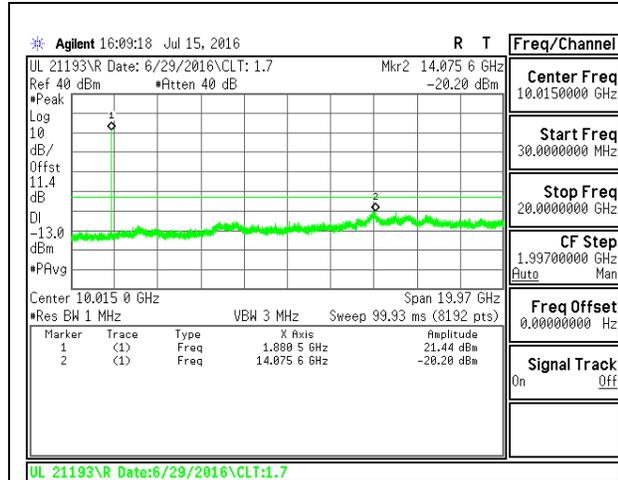
GSM

Band	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
GSM850	GPRS	824.2	-21.02	-13	-8.02
		836.6	-19.58	-13	-6.58
		848.8	-19.87	-13	-6.87
	EGPRS	824.2	-20.03	-13	-7.03
		836.6	-20.21	-13	-7.21
		848.8	-20.8	-13	-7.8
GSM1900	GPRS	1850.2	-20.35	-13	-7.35
		1880	-20.06	-13	-7.06
		1909.8	-20.58	-13	-7.58
	EGPRS	1850.2	-20.19	-13	-7.19
		1880	-20.59	-13	-7.59
		1909.8	-18.74	-13	-5.74

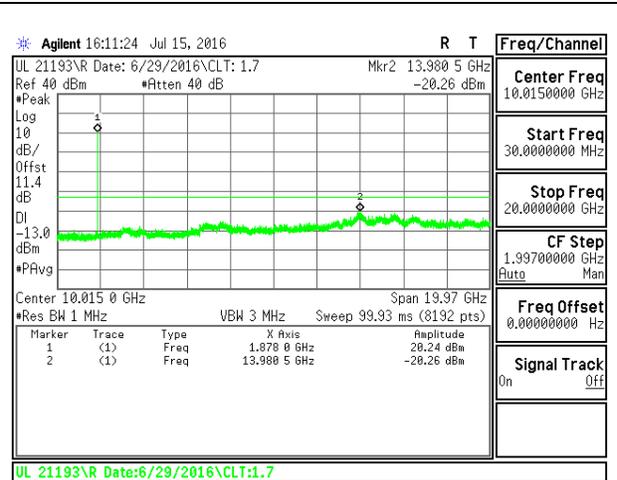


WCDMA

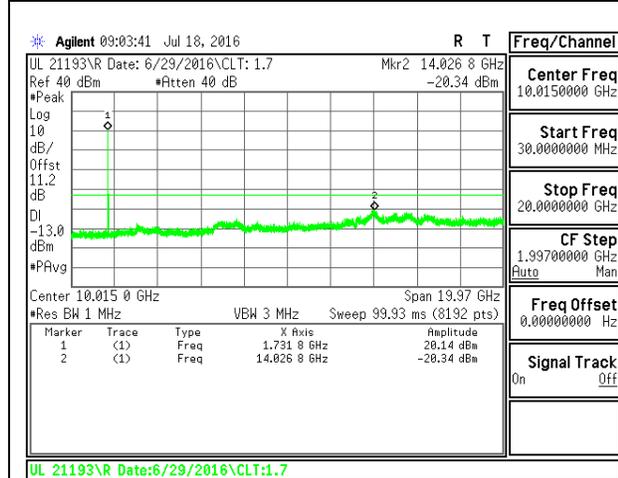
Band	Mode	f (MHz)	Spur (dBm)	99% BW (MHz)	Delta (dB)
Band 2	REL99	1852.4	-20.01	-13	-7.01
		1880	-20.2	-13	-7.2
		1907.6	-17.96	-13	-4.96
	HSDPA	1852.4	-19.86	-13	-6.86
		1880	-20.26	-13	-7.26
		1907.6	-20.22	-13	-7.22
Band 4	REL99	1712.4	-20.09	-13	-7.09
		1732.6	-20.34	-13	-7.34
		1752.6	-20.52	-13	-7.52
	HSDPA	1712.4	-19.3	-13	-6.3
		1732.6	-20.3	-13	-7.3
		1752.6	-20.76	-13	-7.76
Band 5	REL99	826.4	-27.35	-13	-14.35
		836.6	-27.32	-13	-14.32
		846.6	-27.77	-13	-14.77
	HSDPA	826.4	-27.62	-13	-14.62
		836.6	-27.51	-13	-14.51
		846.6	-27.54	-13	-14.54



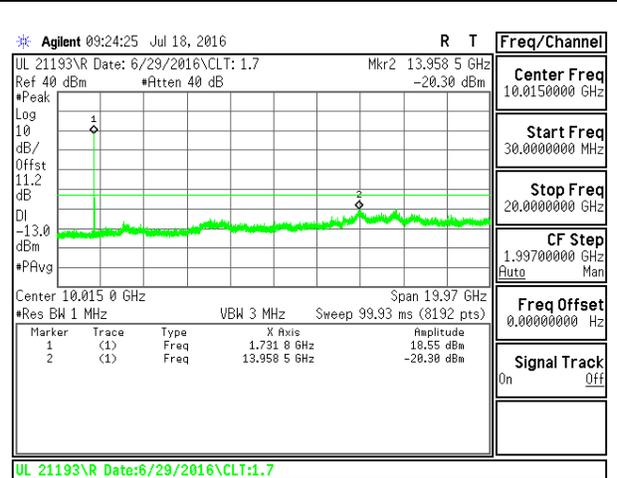
B2 REL99 Middle Channel



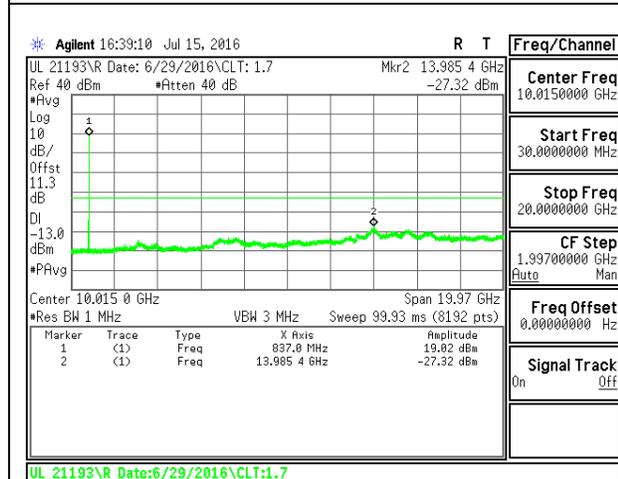
B2 HSDPA Middle Channel



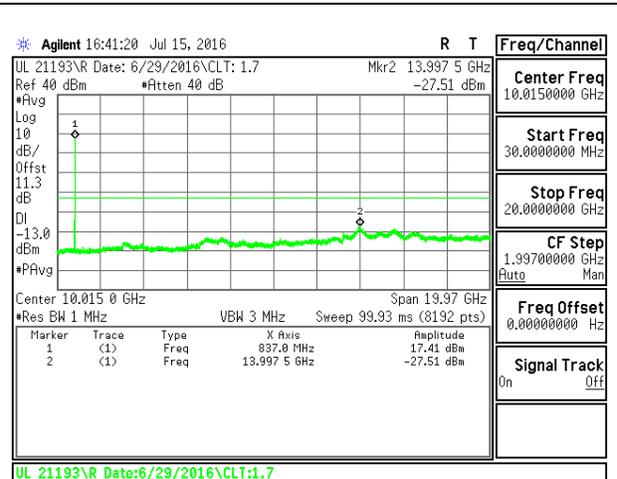
B4 REL99 Middle Channel



B4 HSDPA Middle Channel



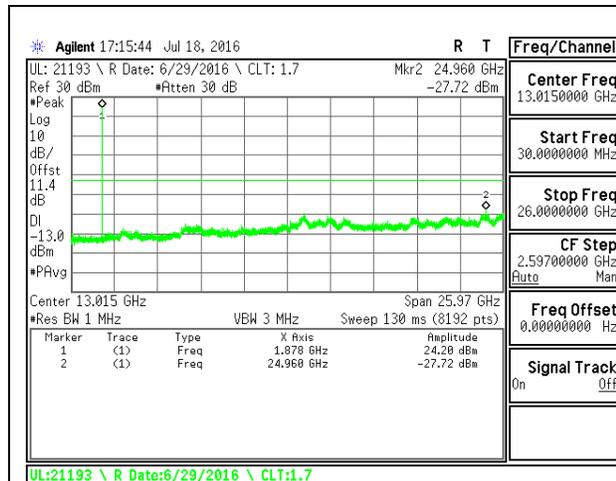
B5 REL99 Middle Channel



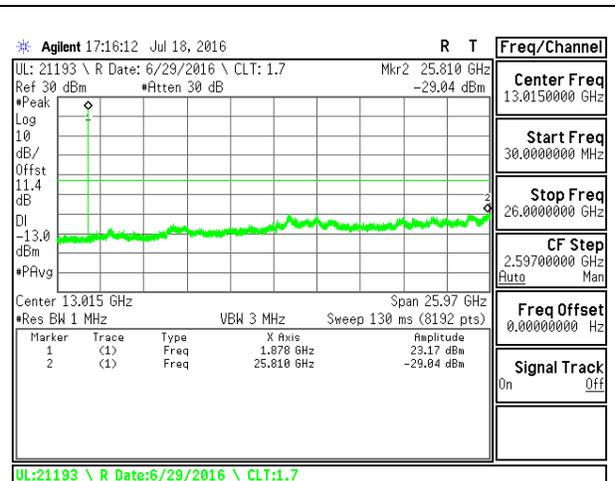
B5 HSDPA Middle Channel

LTE Band 2

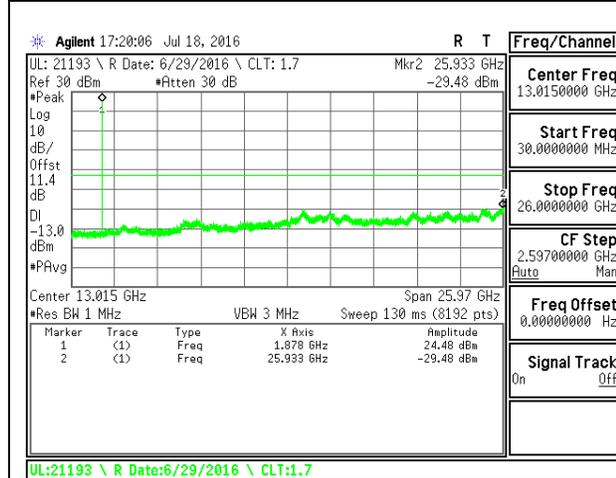
BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	1850.7	-29.74	-13	-16.74
		1880	-27.72	-13	-14.72
		1909.3	-29.32	-13	-16.32
	16QAM	1850.7	-29.08	-13	-16.08
		1880	-29.04	-13	-16.04
		1909.3	-28.76	-13	-15.76
3	QPSK	1851.5	-28.8	-13	-15.8
		1880	-29.48	-13	-16.48
		1908.5	-29.12	-13	-16.12
	16QAM	1851.5	-28.16	-13	-15.16
		1880	-29.49	-13	-16.49
		1908.5	-28.99	-13	-15.99
5	QPSK	1852.5	-29.46	-13	-16.46
		1880	-28.04	-13	-15.04
		1907.5	-29.11	-13	-16.11
	16QAM	1852.5	-28.3	-13	-15.3
		1880	-29.26	-13	-16.26
		1907.5	-27.76	-13	-14.76
10	QPSK	1855	-29.08	-13	-16.08
		1880	-28.84	-13	-15.84
		1905	-29.13	-13	-16.13
	16QAM	1855	-29.11	-13	-16.11
		1880	-29.4	-13	-16.4
		1905	-28.71	-13	-15.71
15	QPSK	1857.5	-29.44	-13	-16.44
		1880	-29.25	-13	-16.25
		1902.5	-29.51	-13	-16.51
	16QAM	1857.5	-27.48	-13	-14.48
		1880	-29.05	-13	-16.05
		1902.5	-28.86	-13	-15.86
20	QPSK	1860	-29.12	-13	-16.12
		1880	-29.28	-13	-16.28
		1900	-29.36	-13	-16.36
	16QAM	1860	-29.71	-13	-16.71
		1880	-28.92	-13	-15.92
		1900	-28.82	-13	-15.82



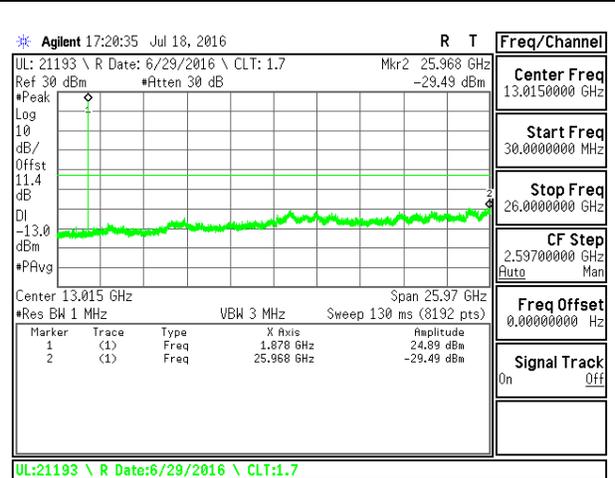
LTE B2 1.4MHz QPSK Middle Channel



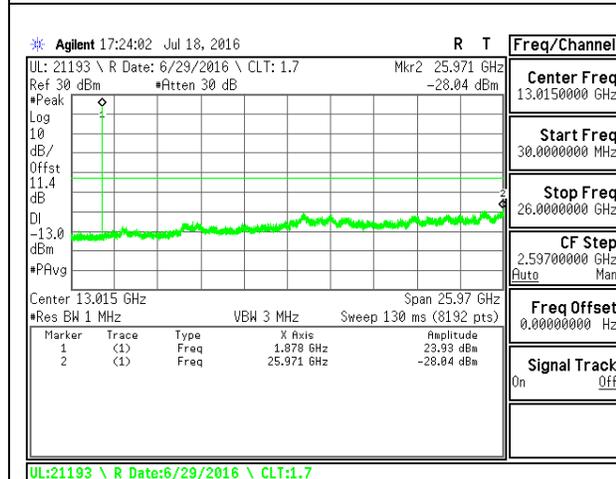
LTE B2 1.4MHz 16QAM Middle Channel



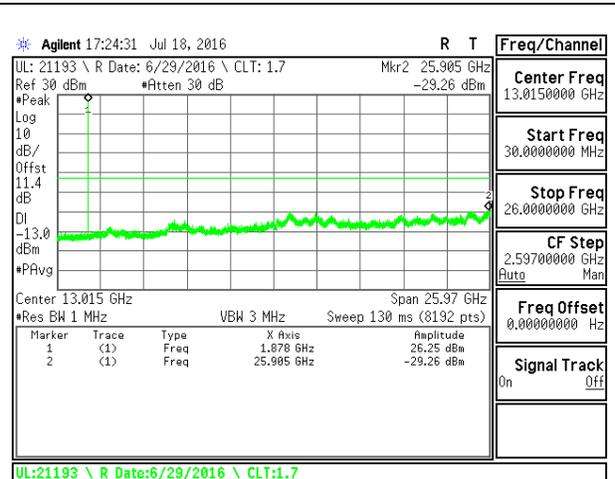
LTE B2 3MHz QPSK Middle Channel



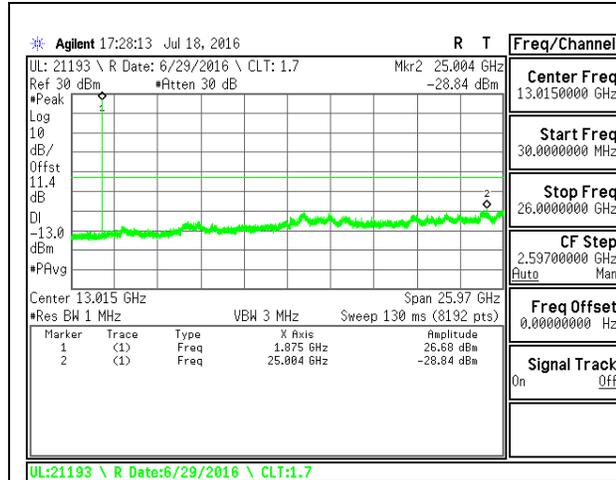
LTE B2 3MHz 16QAM Middle Channel



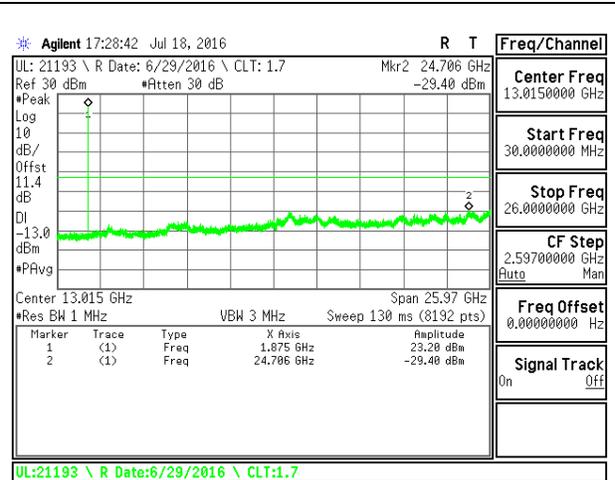
LTE B2 5MHz QPSK Middle Channel



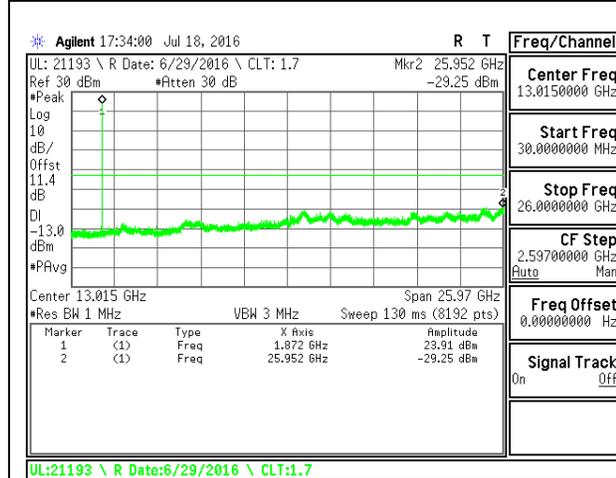
LTE B2 5MHz 16QAM Middle Channel



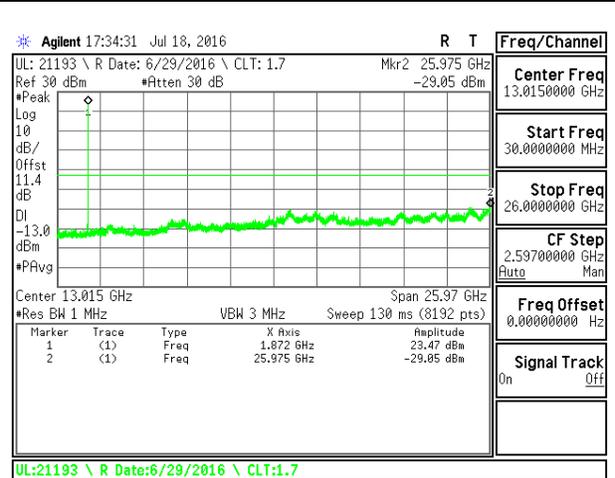
LTE B2 10MHz QPSK Middle Channel



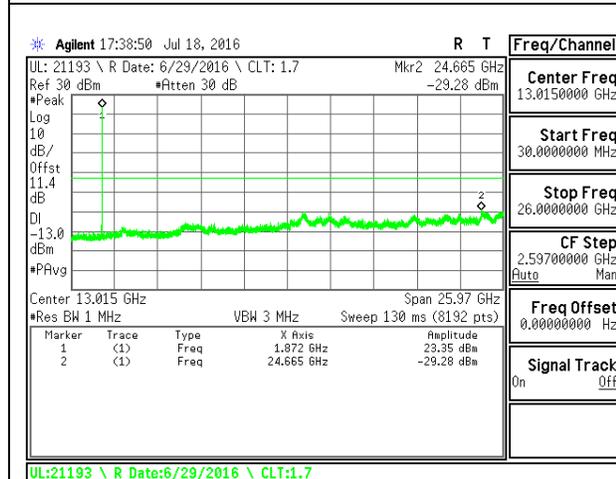
LTE B2 10MHz 16QAM Middle Channel



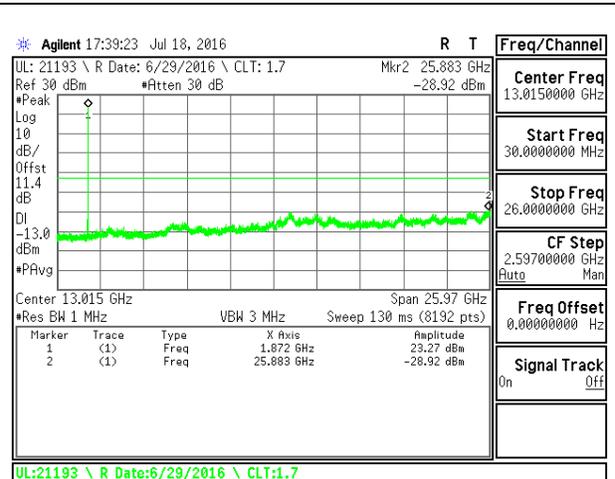
LTE B2 15MHz QPSK Middle Channel



LTE B2 15MHz 16QAM Middle Channel



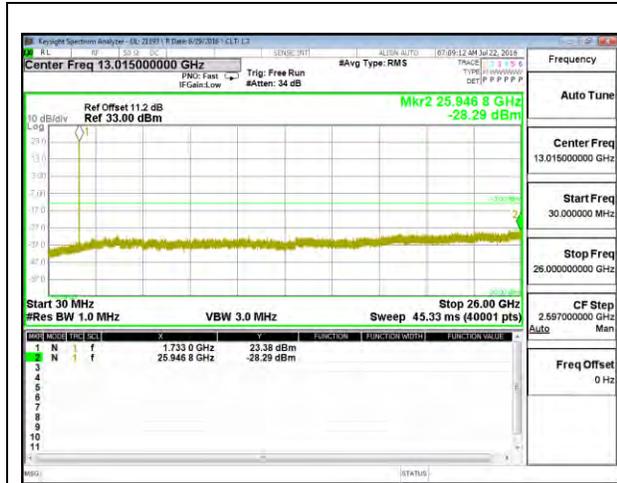
LTE B2 20MHz QPSK Middle Channel



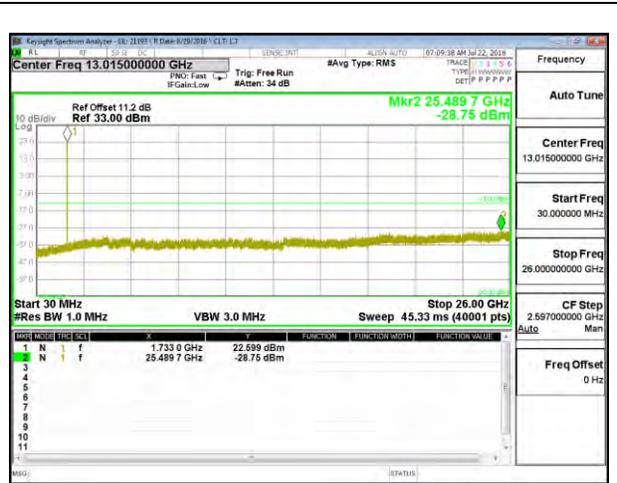
LTE B2 20MHz 16QAM Middle Channel

LTE Band 4

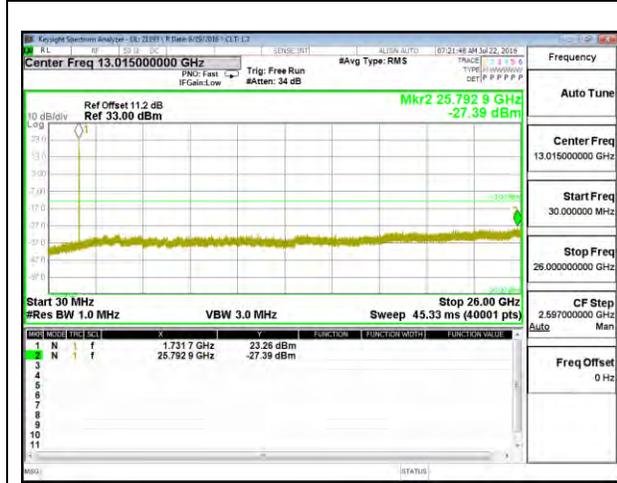
BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	1710.7	-27.26	-13	-14.26
		1732.5	-28.29	-13	-15.29
		1754.3	-27.8	-13	-14.8
	16QAM	1710.7	-27.86	-13	-14.86
		1732.5	-28.75	-13	-15.75
		1754.3	-27.12	-13	-14.12
3	QPSK	1711.5	-28.33	-13	-15.33
		1732.5	-27.39	-13	-14.39
		1753.5	-28.43	-13	-15.43
	16QAM	1711.5	-28.22	-13	-15.22
		1732.5	-27.86	-13	-14.86
		1753.5	-28.24	-13	-15.24
5	QPSK	1712.5	-27.97	-13	-14.97
		1732.5	-28.98	-13	-15.98
		1752.5	-27.62	-13	-14.62
	16QAM	1712.5	-27.18	-13	-14.18
		1732.5	-28.16	-13	-15.16
		1752.5	-27.67	-13	-14.67
10	QPSK	1715	-27.98	-13	-14.98
		1732.5	-27.4	-13	-14.4
		1750	-27.68	-13	-14.68
	16QAM	1715	-28.29	-13	-15.29
		1732.5	-27.94	-13	-14.94
		1750	-28.55	-13	-15.55
15	QPSK	1717.5	-27.23	-13	-14.23
		1732.5	-27.14	-13	-14.14
		1747.5	-27.8	-13	-14.8
	16QAM	1717.5	-27.5	-13	-14.5
		1732.5	-27.35	-13	-14.35
		1747.5	-28.05	-13	-15.05
20	QPSK	1720	-28.64	-13	-15.64
		1732.5	-28.14	-13	-15.14
		1745	-28.35	-13	-15.35
	16QAM	1720	-28.45	-13	-15.45
		1732.5	-27.87	-13	-14.87
		1745	-27.95	-13	-14.95



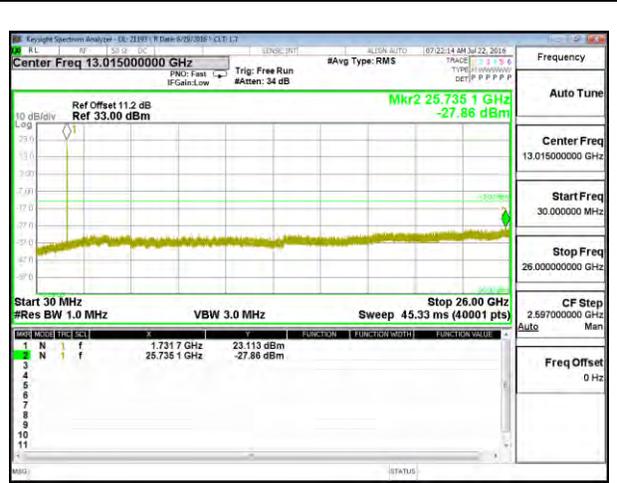
LTE B4 1.4MHz QPSK Middle Channel



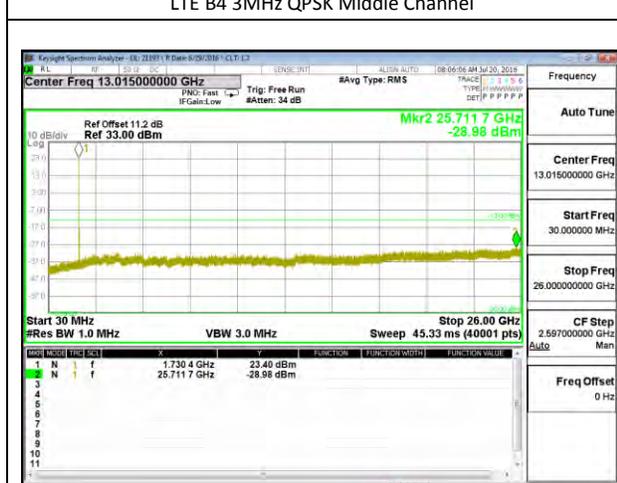
LTE B4 1.4MHz 16QAM Middle Channel



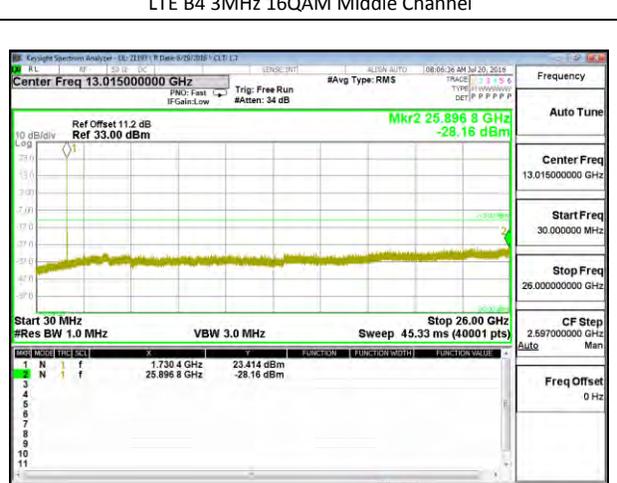
LTE B4 3MHz QPSK Middle Channel



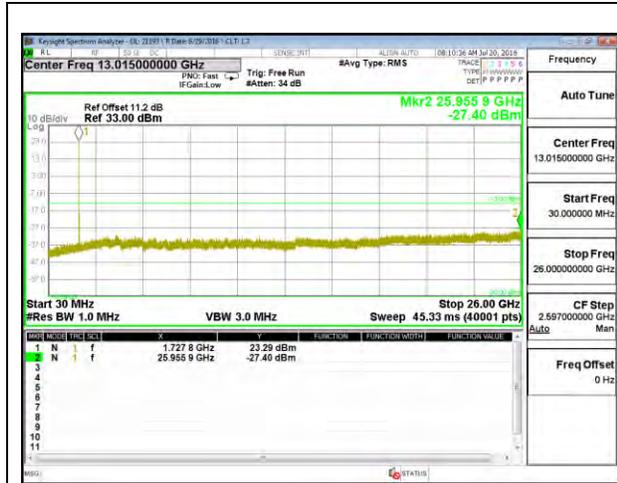
LTE B4 3MHz 16QAM Middle Channel



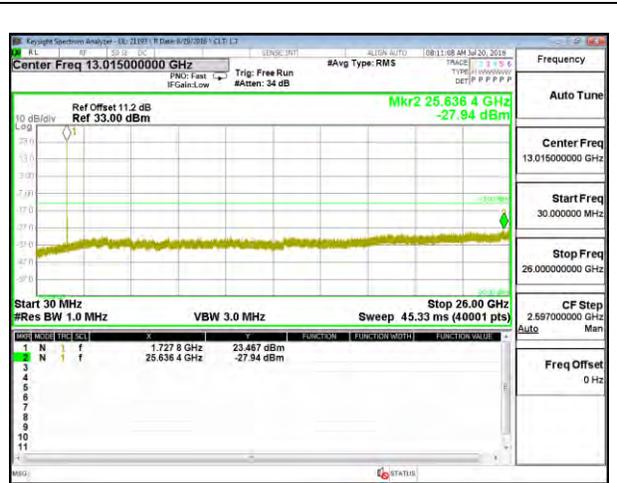
LTE B4 5MHz QPSK Middle Channel



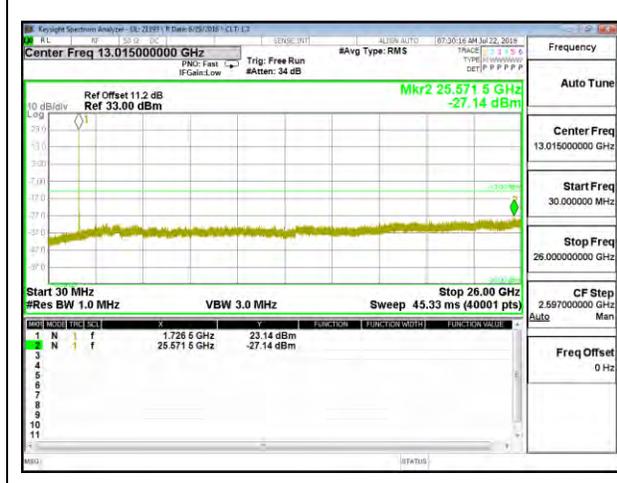
LTE B4 5MHz 16QAM Middle Channel



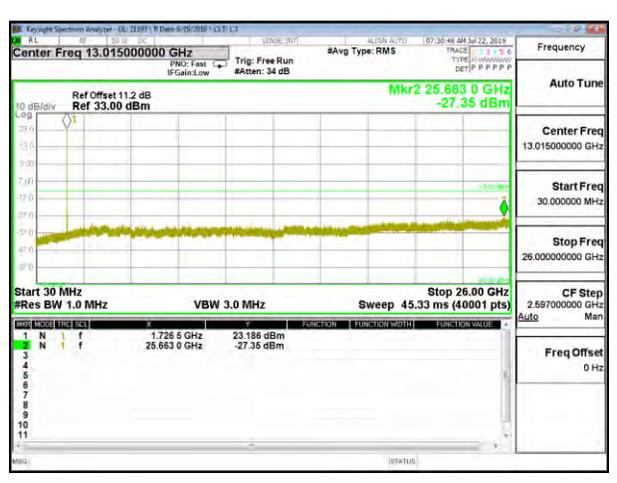
LTE B4 10MHz QPSK Middle Channel



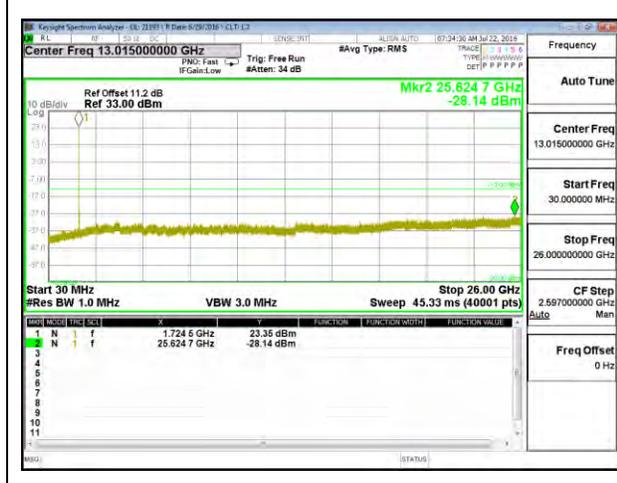
LTE B4 10MHz 16QAM Middle Channel



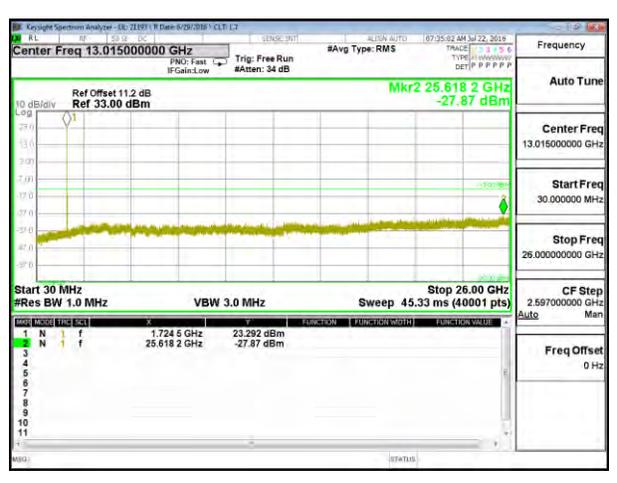
LTE B4 15MHz QPSK Middle Channel



LTE B4 15MHz 16QAM Middle Channel



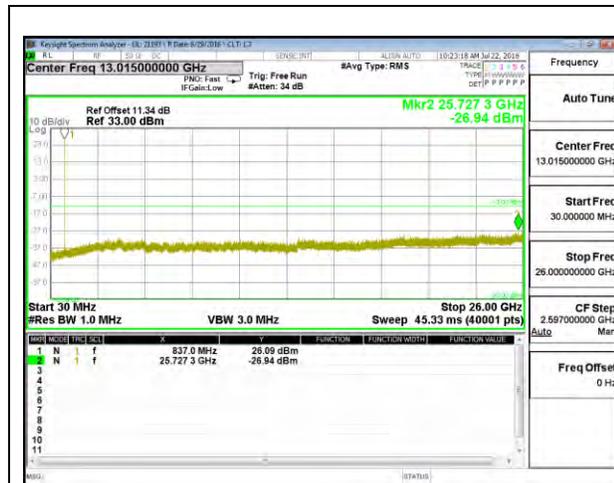
LTE B4 20MHz QPSK Middle Channel



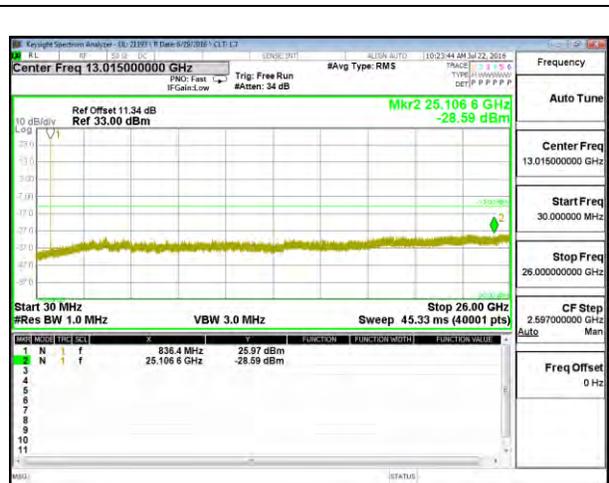
LTE B4 20MHz 16QAM Middle Channel

LTE Band 5

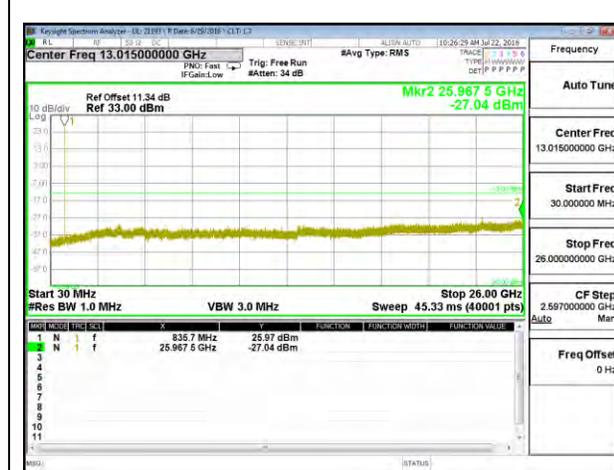
BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	824.7	-27.66	-13	-14.66
		836.5	-26.94	-13	-13.94
		848.3	-27.16	-13	-14.16
	16QAM	824.7	-27.37	-13	-14.37
		836.5	-28.58	-13	-15.58
		848.3	-28.2	-13	-15.2
3	QPSK	825.5	-27.56	-13	-14.56
		836.5	-27.04	-13	-14.04
		847.5	-27.52	-13	-14.52
	16QAM	825.5	-27.22	-13	-14.22
		836.5	-28.05	-13	-15.05
		847.5	-28.28	-13	-15.28
5	QPSK	826.5	-29.14	-13	-16.14
		836.5	-29.19	-13	-16.19
		846.5	-29.38	-13	-16.38
	16QAM	826.5	-28.96	-13	-15.96
		836.5	-28.44	-13	-15.44
		846.5	-28.76	-13	-15.76
10	QPSK	829	-29.21	-13	-16.21
		836.5	-29.37	-13	-16.37
		844	-28.82	-13	-15.82
	16QAM	829	-29.27	-13	-16.27
		836.5	-28.91	-13	-15.91
		844	-29.55	-13	-16.55



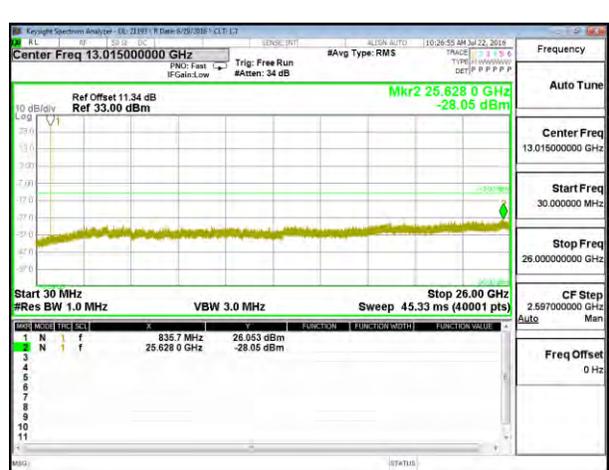
LTE B5 1.4MHz QPSK Middle Channel



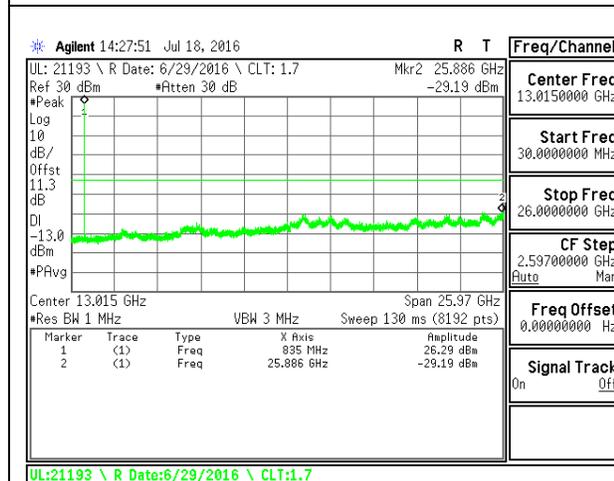
LTE B5 1.4MHz 16QAM Middle Channel



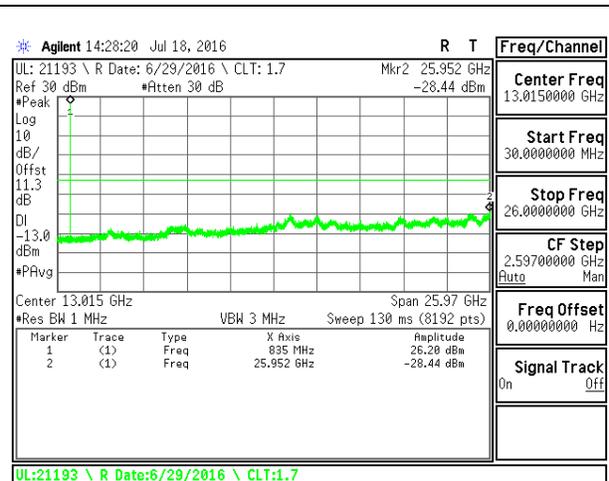
LTE B5 3MHz QPSK Middle Channel



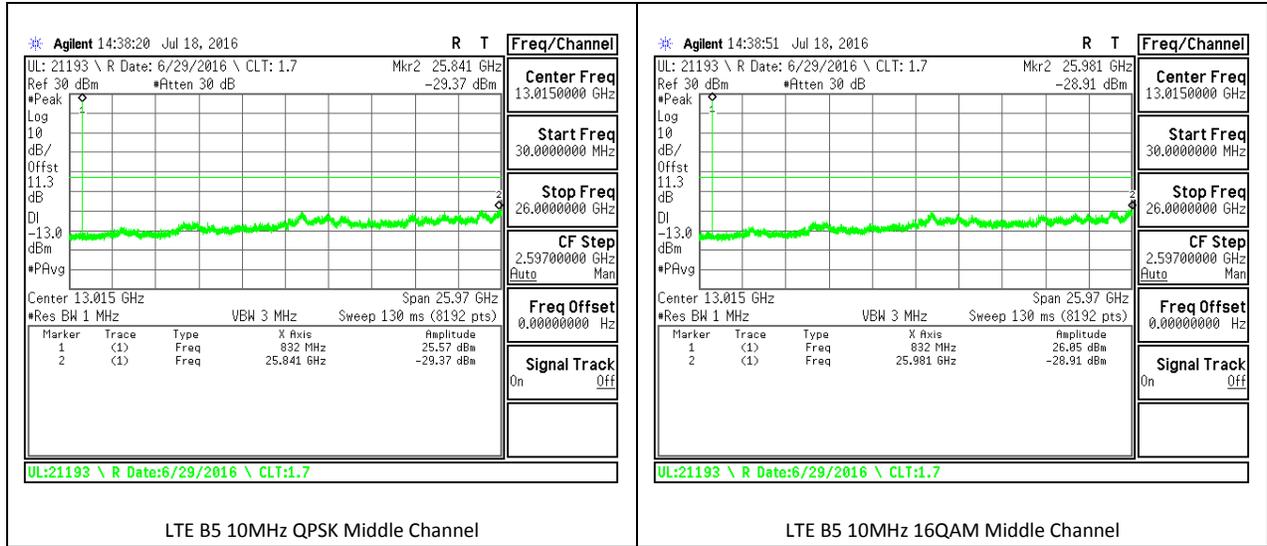
LTE B5 3MHz 16QAM Middle Channel



LTE B5 5MHz QPSK Middle Channel

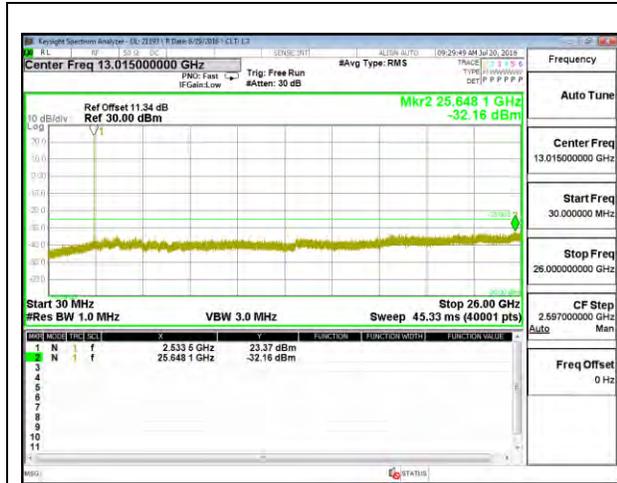


LTE B5 5MHz 16QAM Middle Channel

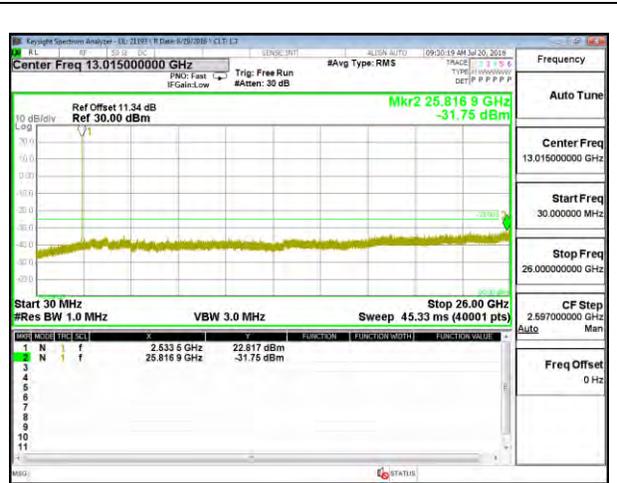


LTE Band 7

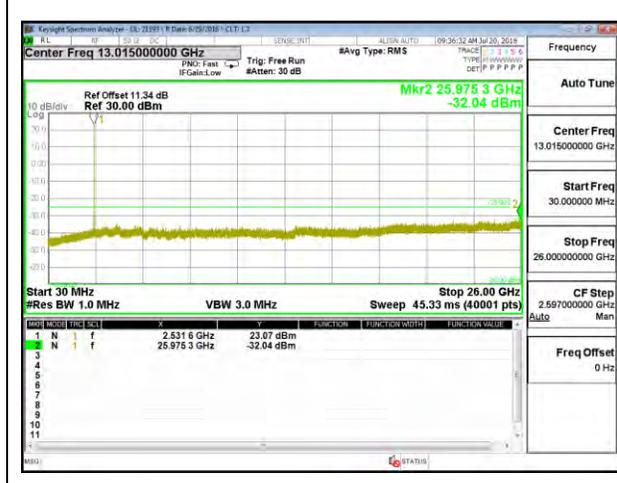
BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
5	QPSK	2502.5	-32.33	-25	-7.33
		2535	-32.16	-25	-7.16
		2567.5	-32.08	-25	-7.08
	16QAM	2502.5	-32.4	-25	-7.4
		2535	-31.75	-25	-6.75
		2567.5	-32.36	-25	-7.36
10	QPSK	2505	-32.05	-25	-7.05
		2535	-32.04	-25	-7.04
		2565	-32.24	-25	-7.24
	16QAM	2505	-32.28	-25	-7.28
		2535	-31.56	-25	-6.56
		2565	-32.18	-25	-7.18
15	QPSK	2507.5	-31.91	-25	-6.91
		2535	-32.27	-25	-7.27
		2562.5	-31.94	-25	-6.94
	16QAM	2507.5	-31.78	-25	-6.78
		2535	-32.35	-25	-7.35
		2562.5	-32.14	-25	-7.14
20	QPSK	2510	-31.35	-25	-6.35
		2535	-31.74	-25	-6.74
		2560	-31.55	-25	-6.55
	16QAM	2510	-31.58	-25	-6.58
		2535	-32.52	-25	-7.52
		2560	-31.91	-25	-6.91



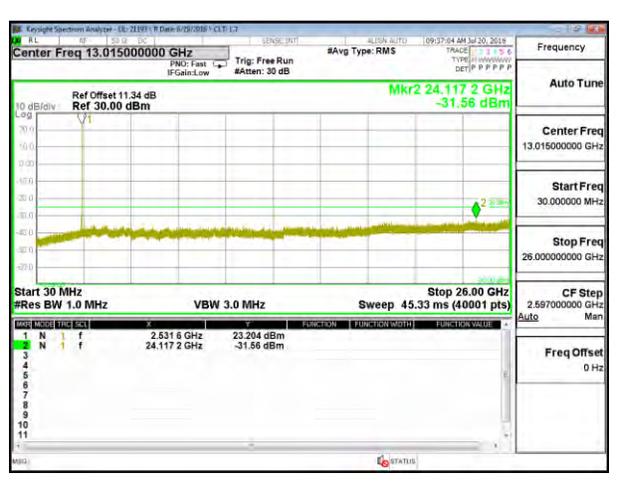
LTE B7 5MHz QPSK Middle Channel



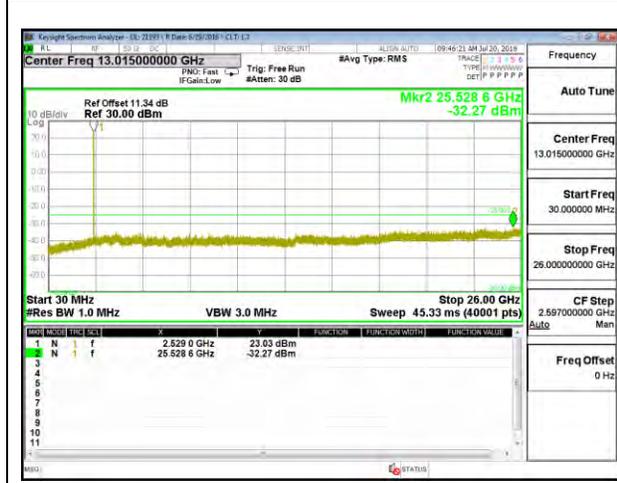
LTE B7 5MHz 16QAM Middle Channel



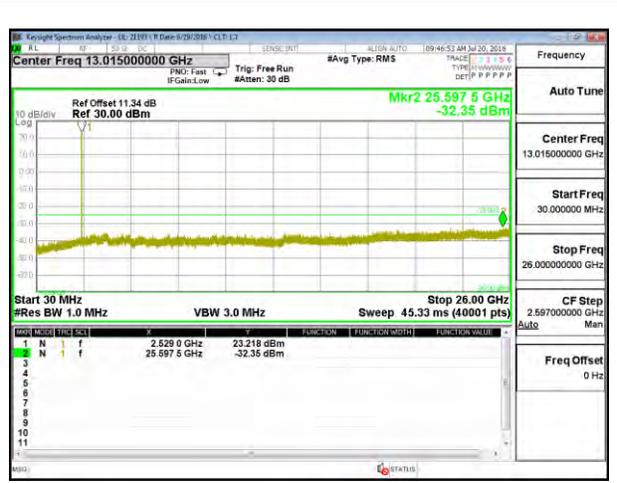
LTE B7 10MHz QPSK Middle Channel



LTE B7 10MHz 16QAM Middle Channel



LTE B7 15MHz QPSK Middle Channel



LTE B7 15MHz 16QAM Middle Channel