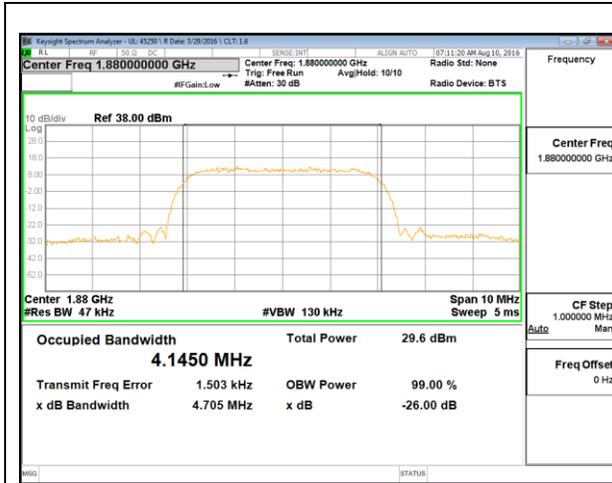
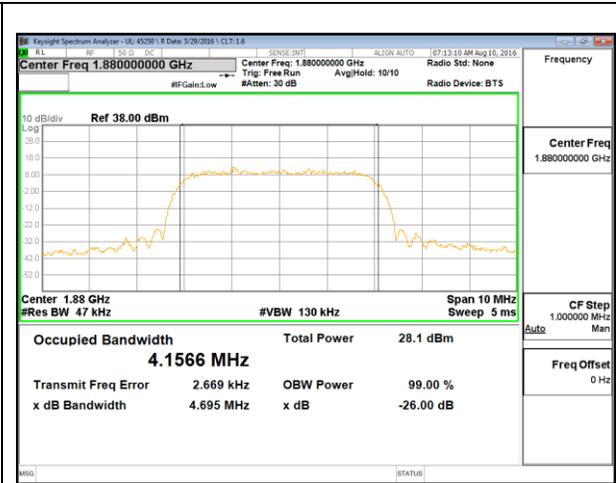


WCDMA

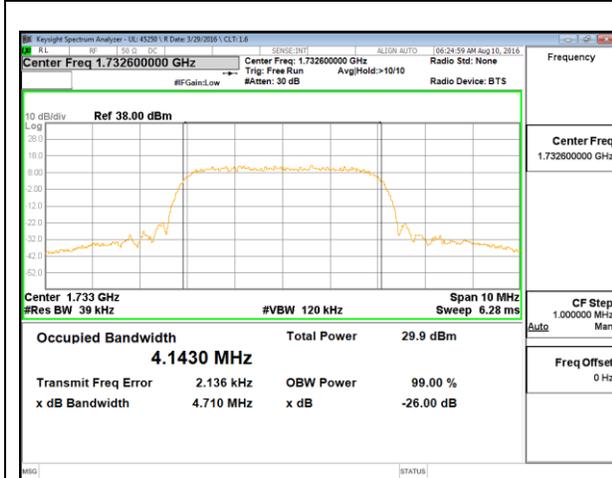
Band	Mode	Channel	f (MHz)	99% BW (MHz)	-26dB (MHz)
Band 2	REL99	9262	1852.4	4.177	4.774
		9400	1880	4.145	4.705
		9538	1907.6	4.156	4.709
	HSDPA	9262	1852.4	4.162	4.724
		9400	1880	4.157	4.695
		9538	1907.6	4.15	4.711
Band 4	REL99	9262	1712.4	4.131	4.697
		9400	1732.6	4.143	4.71
		9538	1752.6	4.14	4.693
	HSDPA	9262	1712.4	4.136	4.679
		9400	1732.6	4.137	4.681
		9538	1752.6	4.136	4.674
Band 5	REL99	4132	826.4	4.132	4.7
		4183	836.6	4.13	4.697
		4233	846.6	4.132	4.697
	HSDPA	4132	826.4	4.113	4.687
		4183	836.6	4.13	4.682
		4233	846.6	4.133	4.72



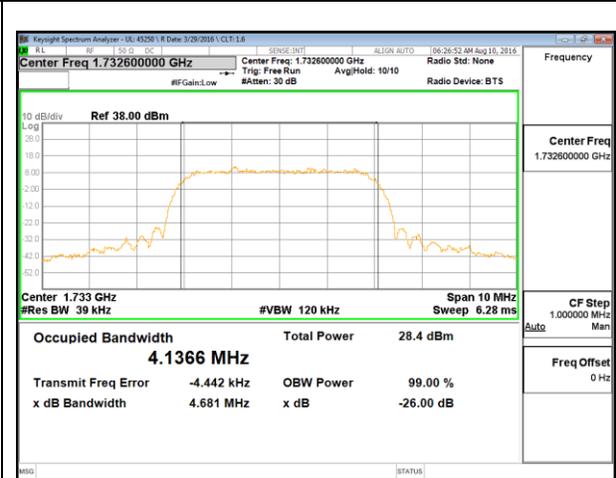
B2 REL99 Middle Channel



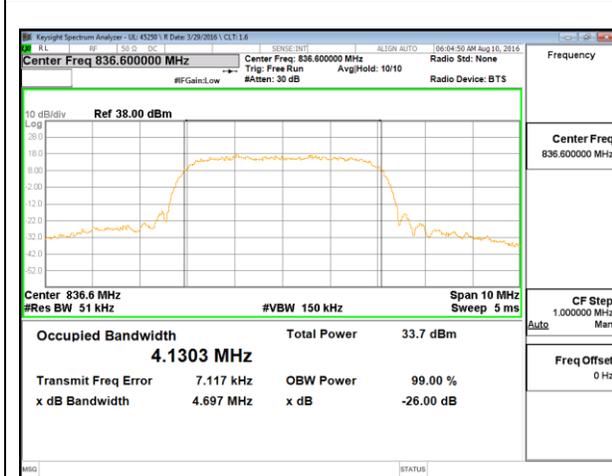
B2 HSDPA Middle Channel



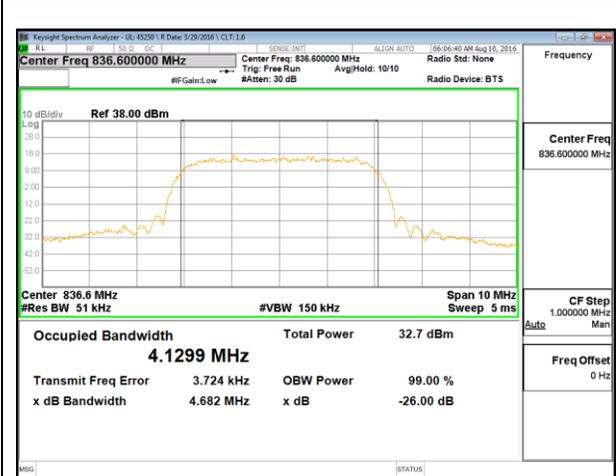
B4 REL99 Middle Channel



B4 HSDPA Middle Channel



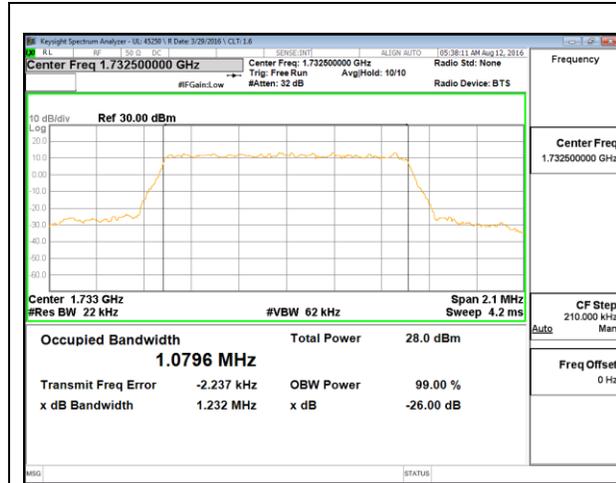
B5 REL99 Middle Channel



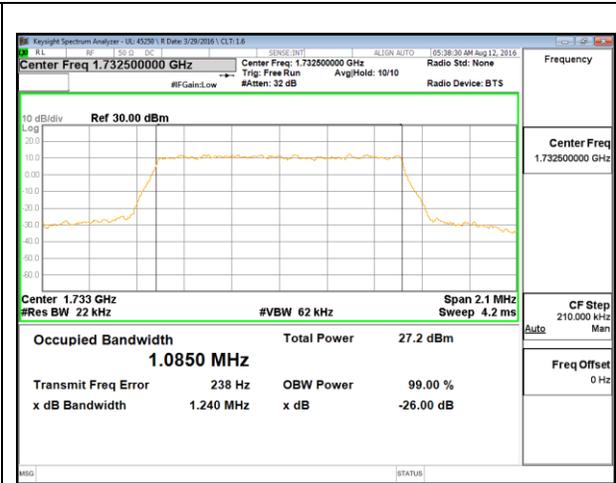
B5 HSDPA Middle Channel

LTE Band 4

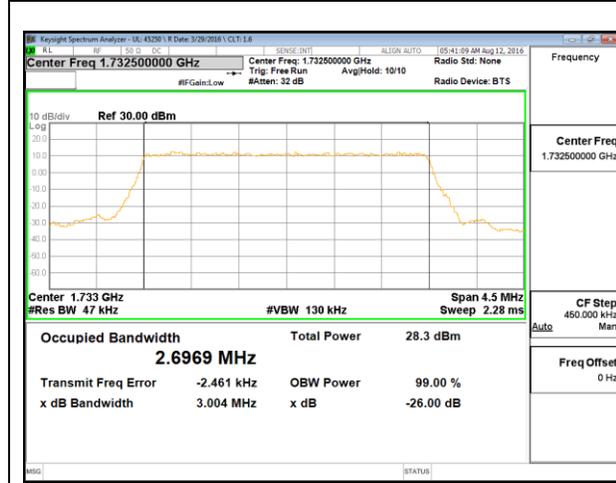
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
1.4	QPSK	6/0	1710.7	1.09	1.24
		6/0	1732.5	1.08	1.23
		6/0	1754.3	1.08	1.24
	16QAM	6/0	1710.7	1.08	1.24
		6/0	1732.5	1.08	1.24
		6/0	1754.3	1.09	1.24
3	QPSK	15/0	1711.5	2.7	2.98
		15/0	1732.5	2.7	3
		15/0	1753.5	2.7	3.01
	16QAM	15/0	1711.5	2.7	3.01
		15/0	1732.5	2.7	3
		15/0	1753.5	2.69	3
5	QPSK	25/0	1712.5	4.5	4.94
		25/0	1732.5	4.5	4.97
		25/0	1752.5	4.48	4.94
	16QAM	25/0	1712.5	4.49	4.98
		25/0	1732.5	4.49	4.93
		25/0	1752.5	4.48	4.93
10	QPSK	50/0	1715	8.97	9.77
		50/0	1732.5	8.96	9.75
		50/0	1750	8.95	9.79
	16QAM	50/0	1715	8.98	9.77
		50/0	1732.5	8.95	9.83
		50/0	1750	8.98	9.79
15	QPSK	75/0	1717.5	13.46	14.65
		75/0	1732.5	13.46	14.63
		75/0	1747.5	13.46	14.71
	16QAM	75/0	1717.5	13.44	14.58
		75/0	1732.5	13.45	14.66
		75/0	1747.5	13.43	14.52
20	QPSK	100/0	1720	17.93	19.25
		100/0	1732.5	17.93	19.38
		100/0	1745	17.92	19.58
	16QAM	100/0	1720	17.9	19.38
		100/0	1732.5	17.9	19.42
		100/0	1745	17.93	19.46



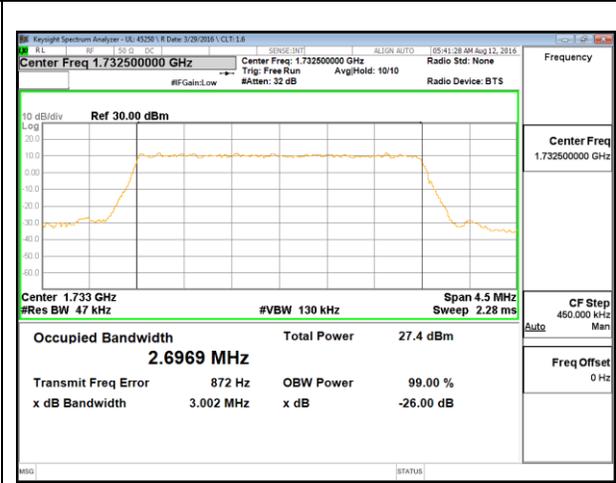
LTE B4 1.4MHz QPSK Middle Channel



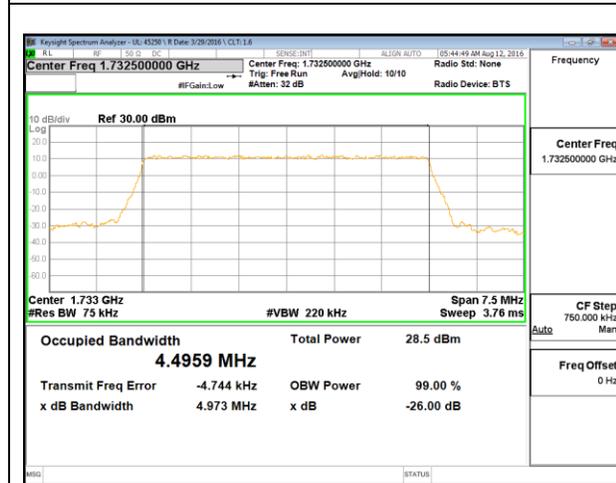
LTE B4 1.4MHz 16QAM Middle Channel



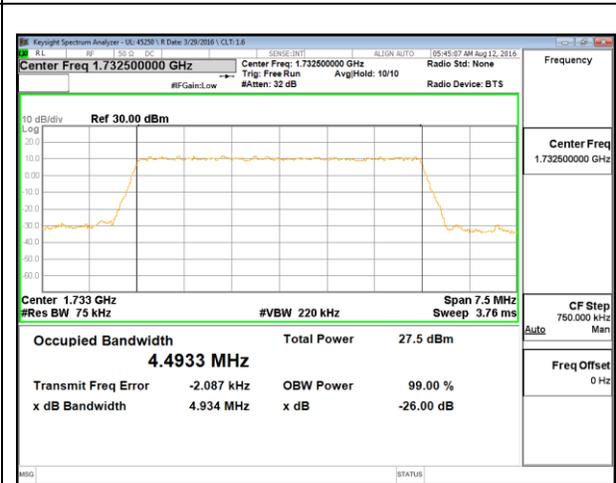
LTE B4 3MHz QPSK Middle Channel



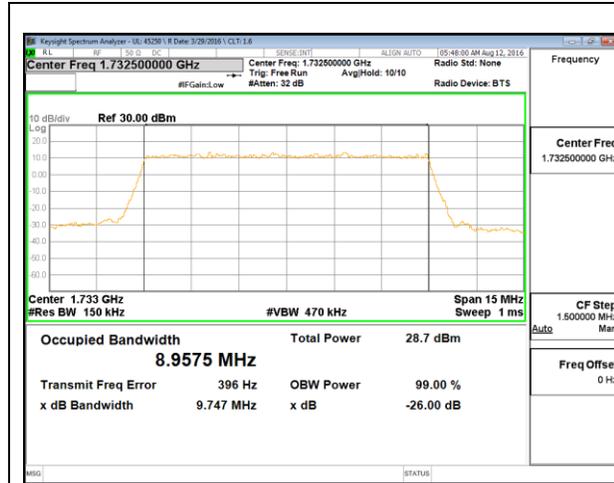
LTE B4 3MHz 16QAM Middle Channel



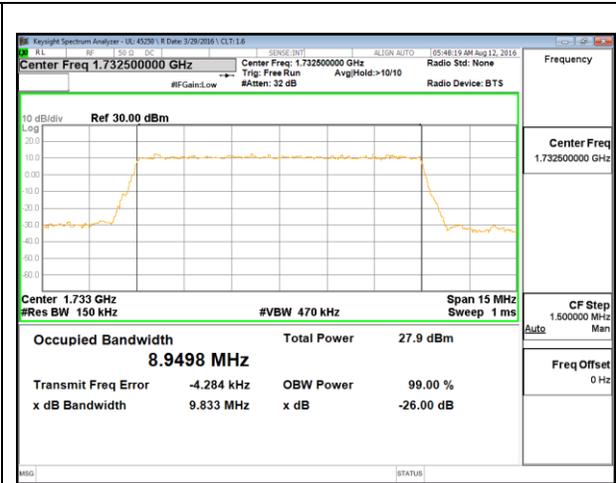
LTE B4 5MHz QPSK Middle Channel



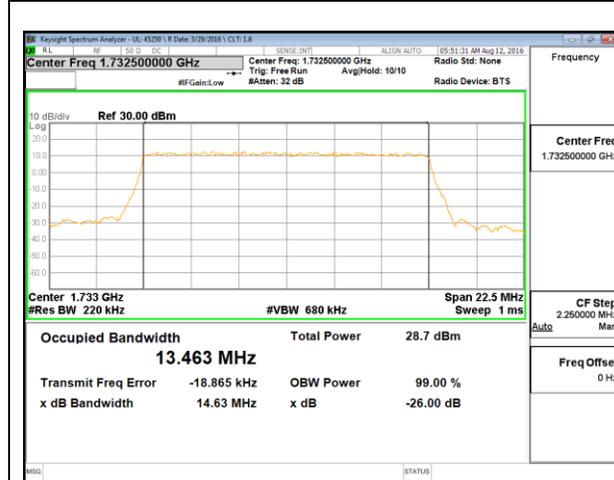
LTE B4 5MHz 16QAM Middle Channel



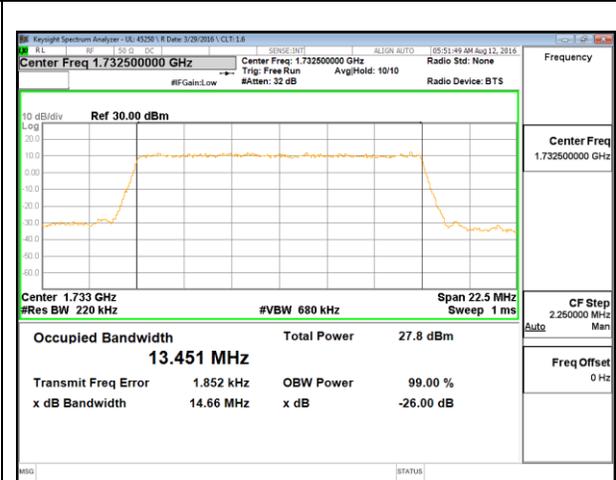
LTE B4 10MHz QPSK Middle Channel



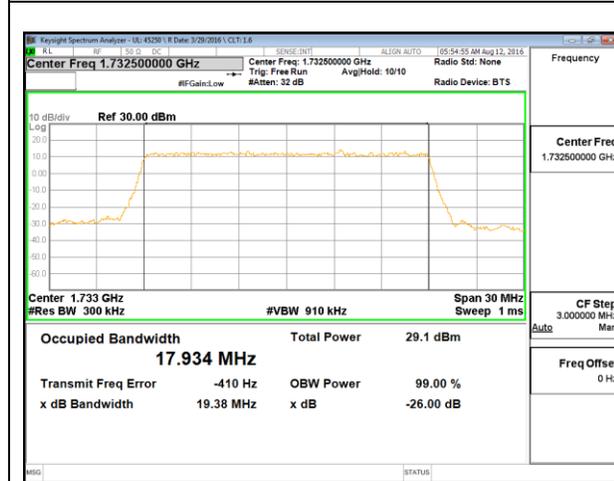
LTE B4 10MHz 16QAM Middle Channel



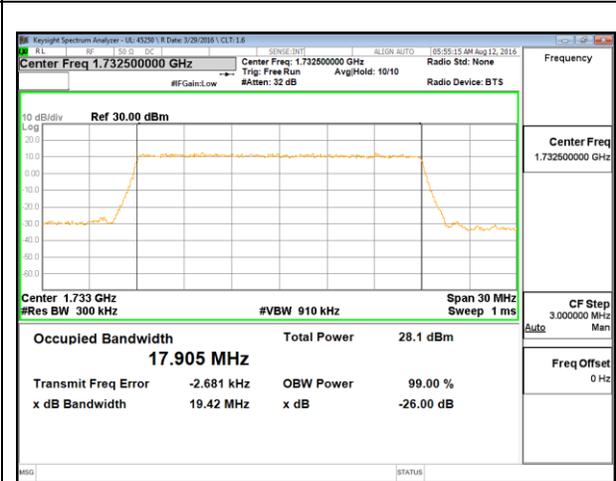
LTE B4 15MHz QPSK Middle Channel



LTE B4 15MHz 16QAM Middle Channel



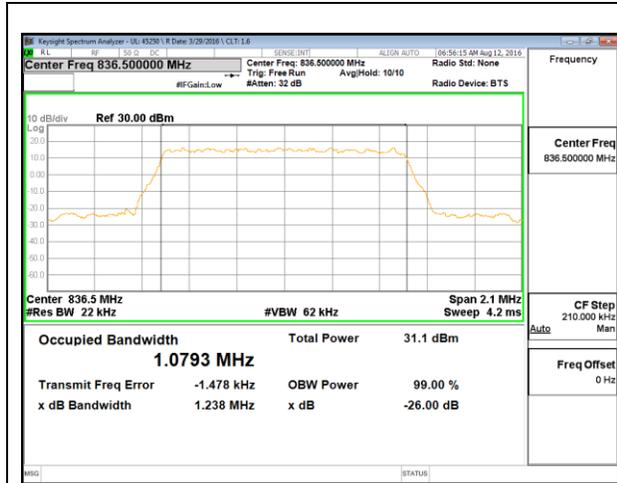
LTE B4 20MHz QPSK Middle Channel



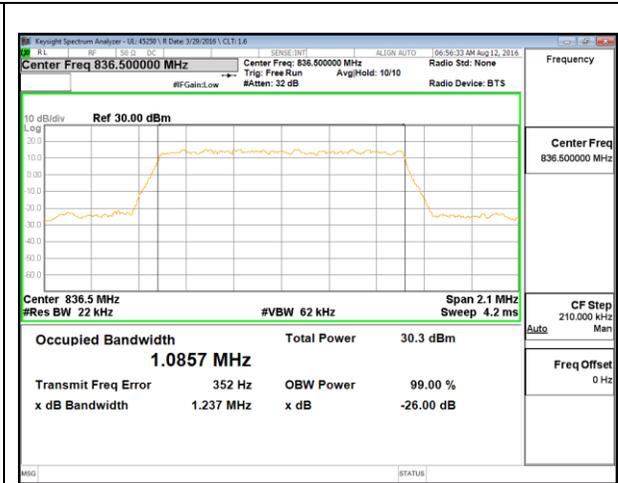
LTE B4 20MHz 16QAM Middle Channel

LTE Band 5

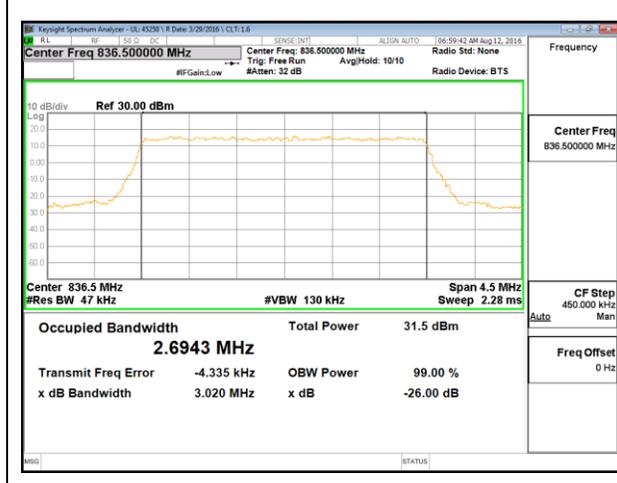
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
1.4	QPSK	6/0	824.7	1.09	1.24
		6/0	836.5	1.08	1.24
		6/0	848.3	1.08	1.24
	16QAM	6/0	824.7	1.08	1.24
		6/0	836.5	1.09	1.24
		6/0	848.3	1.09	1.24
3	QPSK	15/0	825.5	2.7	3
		15/0	836.5	2.69	3.02
		15/0	847.5	2.71	3.03
	16QAM	15/0	825.5	2.7	3
		15/0	836.5	2.7	2.98
		15/0	847.5	2.7	3.02
5	QPSK	25/0	826.5	4.51	4.94
		25/0	836.5	4.5	4.98
		25/0	846.5	4.49	4.95
	16QAM	25/0	826.5	4.5	4.96
		25/0	836.5	4.5	4.93
		25/0	846.5	4.48	4.91
10	QPSK	50/0	829	8.97	9.79
		50/0	836.5	8.98	9.79
		50/0	844	8.95	9.82
	16QAM	50/0	829	8.97	9.75
		50/0	836.5	8.95	9.76
		50/0	844	8.97	9.77



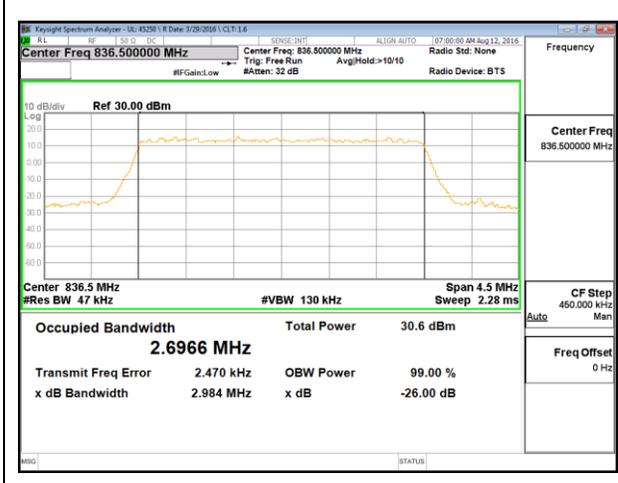
LTE B5 1.4MHz QPSK Middle Channel



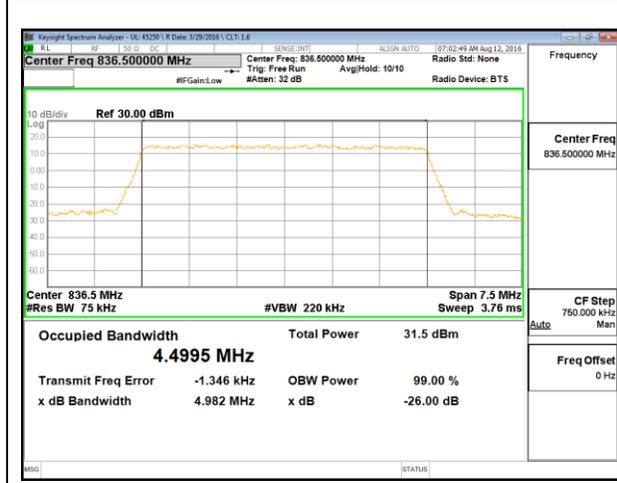
LTE B5 1.4MHz 16QAM Middle Channel



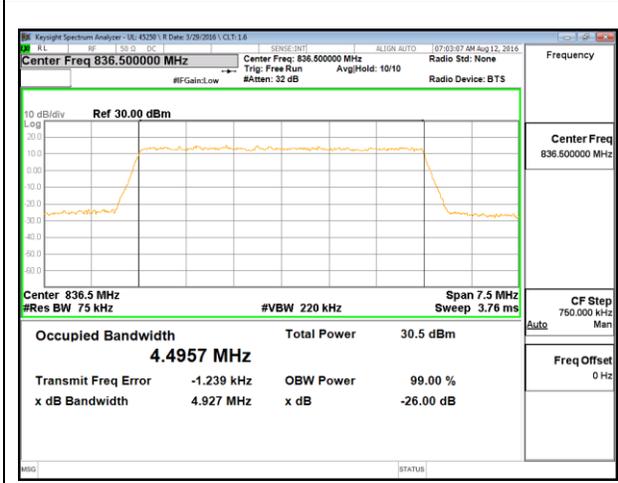
LTE B5 3MHz QPSK Middle Channel



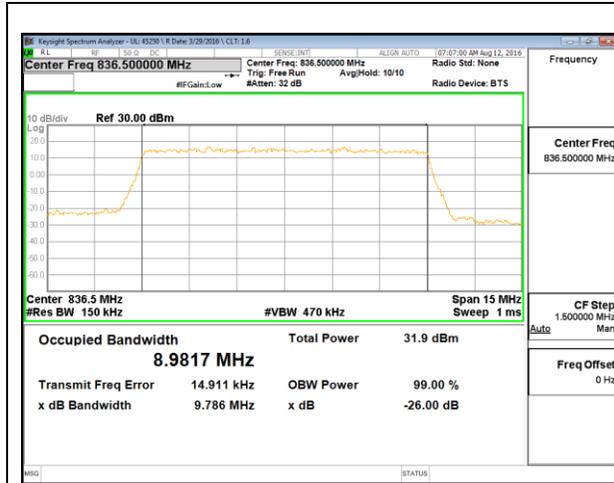
LTE B5 3MHz 16QAM Middle Channel



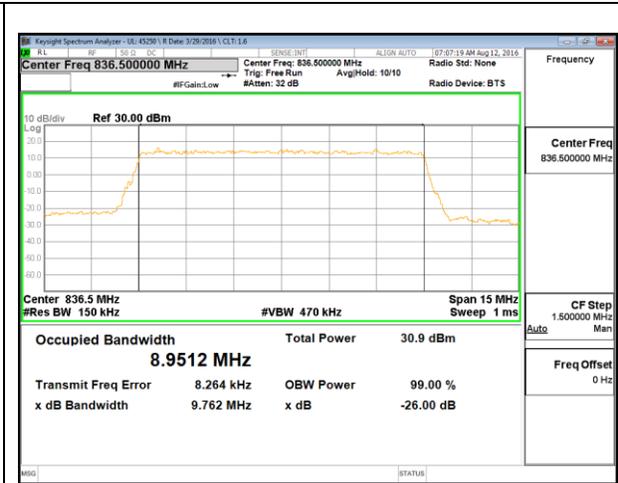
LTE B5 5MHz QPSK Middle Channel



LTE B5 5MHz 16QAM Middle Channel



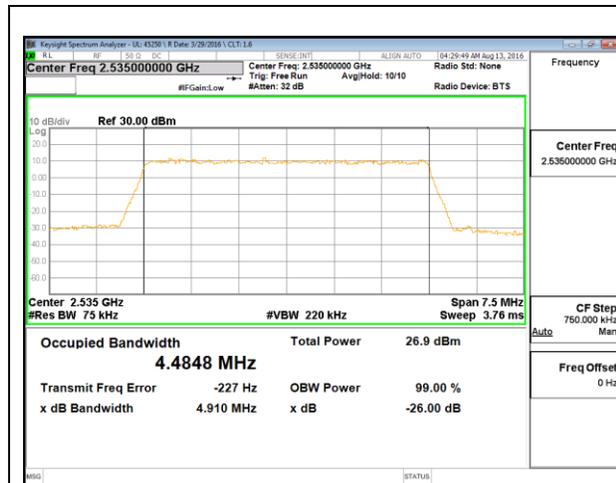
LTE B5 10MHz QPSK Middle Channel



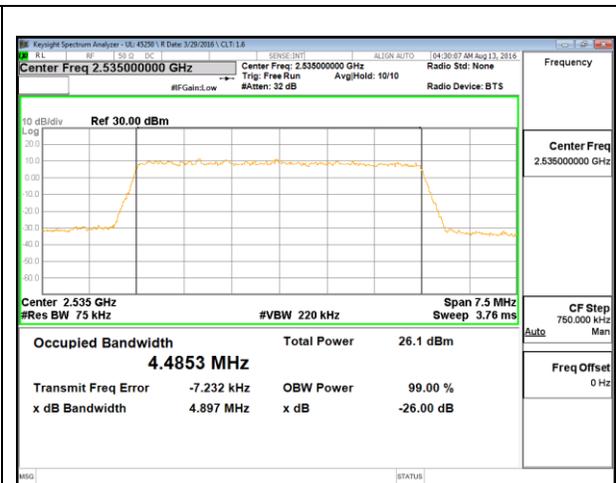
LTE B5 10MHz 16QAM Middle Channel

LTE Band 7

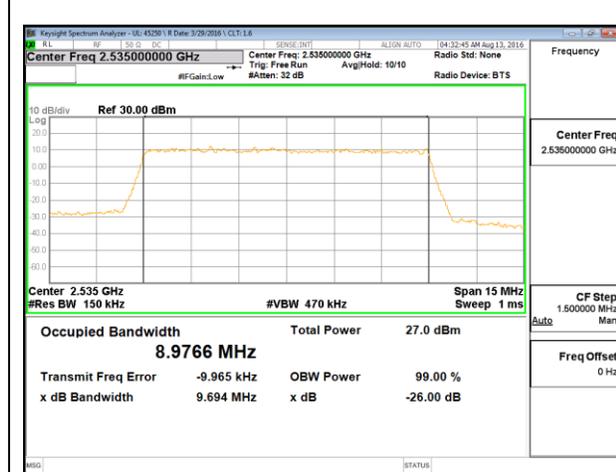
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
5	QPSK	25/0	2502.5	4.49	4.94
		25/0	2535	4.49	4.91
		25/0	2567.5	4.5	4.94
	16QAM	25/0	2502.5	4.5	4.93
		25/0	2535	4.49	4.90
		25/0	2567.5	4.49	4.95
10	QPSK	50/0	2505	8.97	9.78
		50/0	2535	8.98	9.70
		50/0	2565	8.95	9.70
	16QAM	50/0	2505	8.97	9.78
		50/0	2535	8.96	9.69
		50/0	2565	8.97	9.74
15	QPSK	75/0	2507.5	13.45	14.58
		75/0	2535	13.47	14.63
		75/0	2562.5	13.4	14.47
	16QAM	75/0	2507.5	13.44	14.58
		75/0	2535	13.44	14.61
		75/0	2562.5	13.40	14.49
20	QPSK	100/0	2510	17.92	19.28
		100/0	2535	17.95	19.30
		100/0	2560	17.89	19.35
	16QAM	100/0	2510	17.90	19.27
		100/0	2535	17.91	18.70
		100/0	2560	17.82	19.26



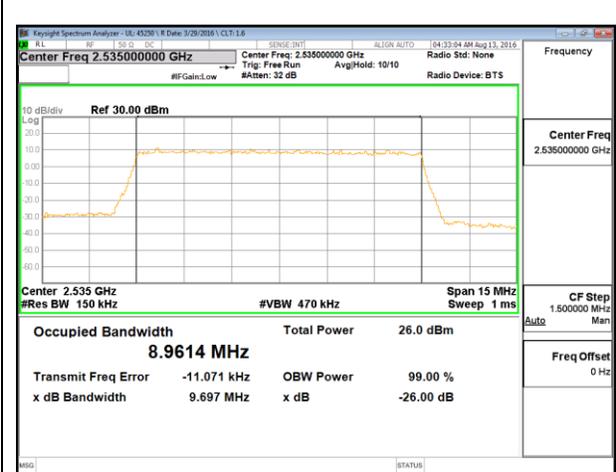
LTE B7 5MHz QPSK Middle Channel



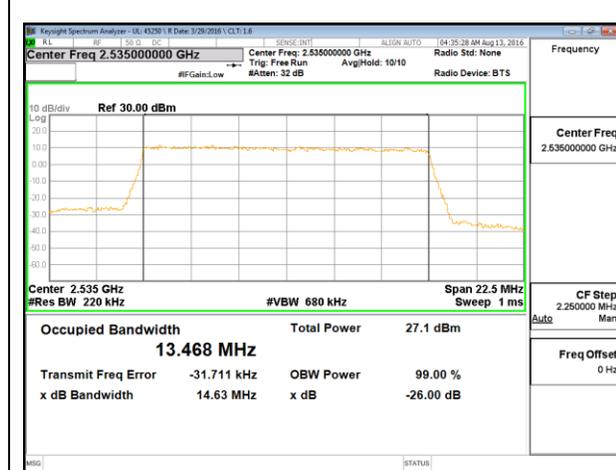
LTE B7 5MHz 16QAM Middle Channel



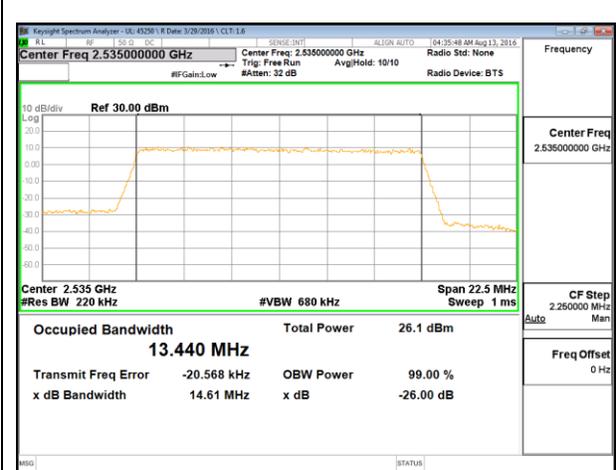
LTE B7 10MHz QPSK Middle Channel



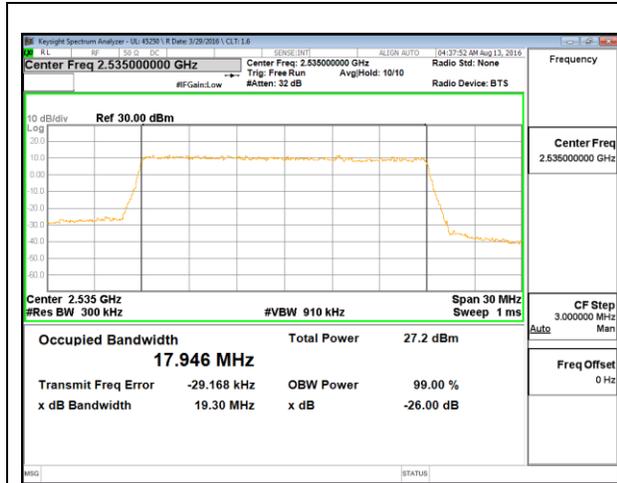
LTE B7 10MHz 16QAM Middle Channel



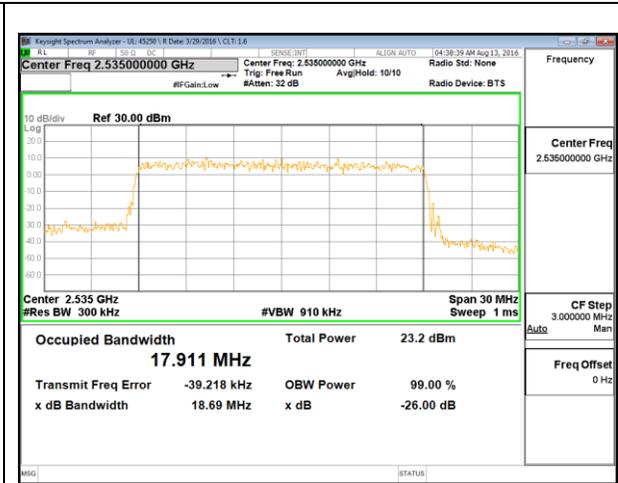
LTE B7 15MHz QPSK Middle Channel



LTE B7 15MHz 16QAM Middle Channel



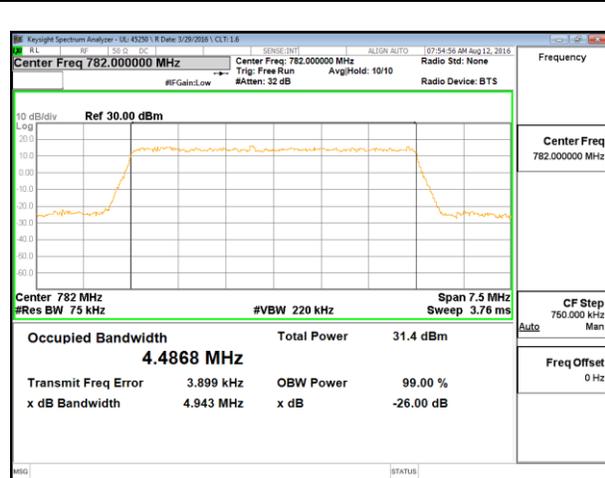
LTE B7 20MHz QPSK Middle Channel



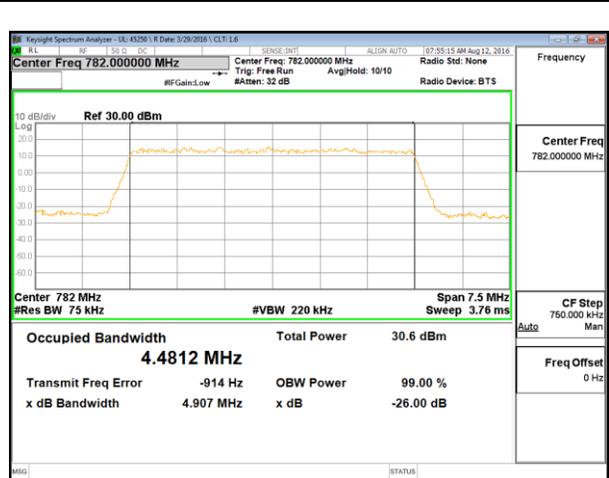
LTE B7 20MHz 16QAM Middle Channel

LTE Band 13

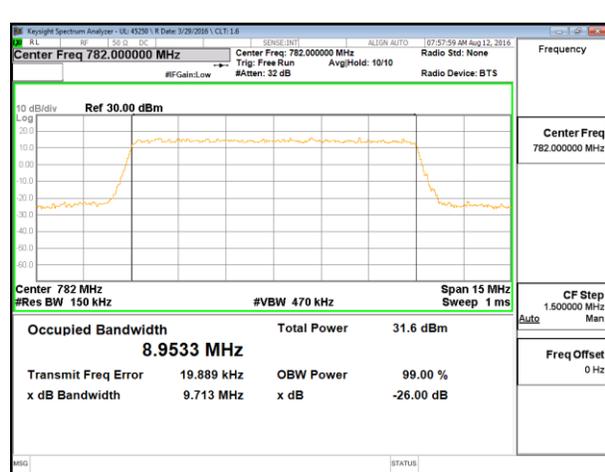
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
5	QPSK	25/0	779.5	4.49	4.93
		25/0	782	4.49	4.94
		25/0	784.5	4.5	4.94
	16QAM	25/0	779.5	4.49	4.93
		25/0	782	4.48	4.91
		25/0	784.5	4.5	4.94
10	QPSK	50/0	-	-	-
		50/0	782	8.95	9.71
		50/0	-	-	-
	16QAM	50/0	-	-	-
		50/0	782	8.97	9.78
		50/0	-	-	-



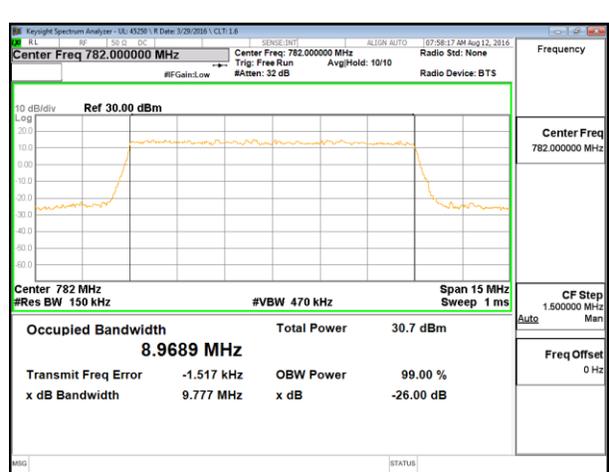
LTE B13 5MHz QPSK Middle Channel



LTE B13 5MHz 16QAM Middle Channel



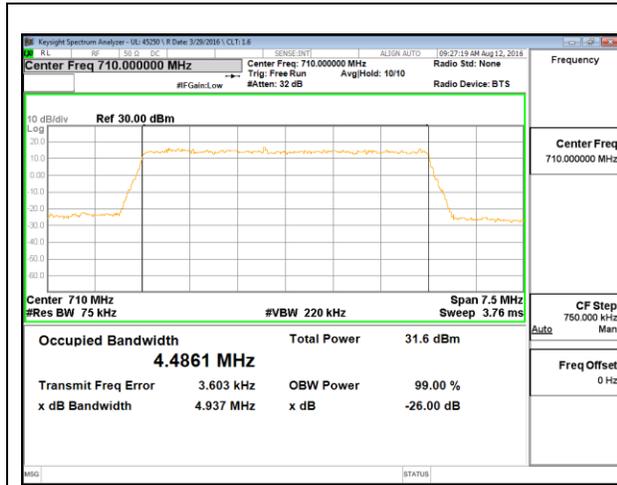
LTE B13 10MHz QPSK Middle Channel



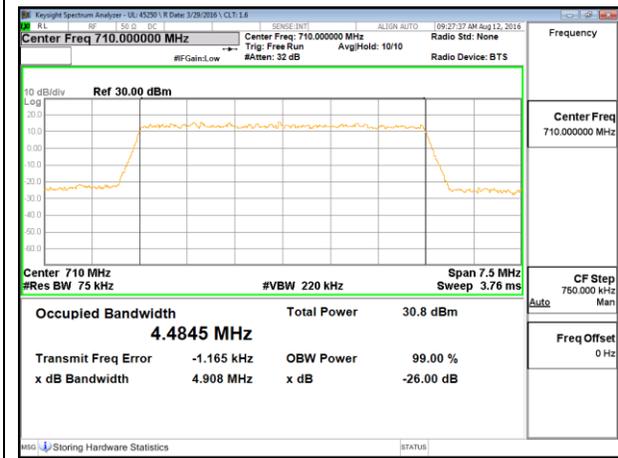
LTE B13 10MHz 16QAM Middle Channel

LTE Band 17

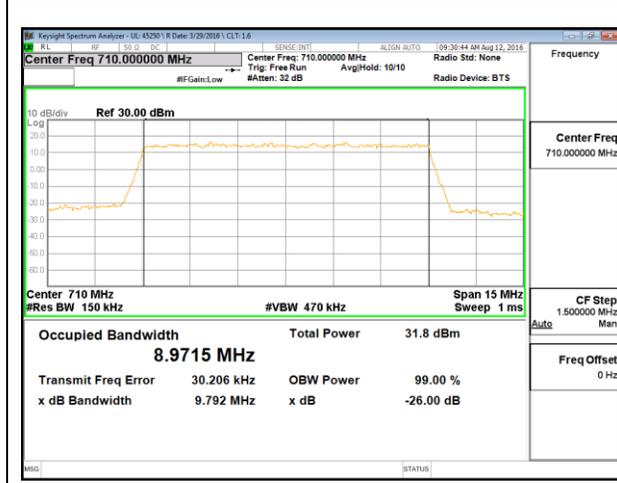
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
5	QPSK	25/0	706.5	4.49	4.94
		25/0	710	4.49	4.94
		25/0	713.5	4.51	4.96
	16QAM	25/0	706.5	4.49	4.92
		25/0	710	4.48	4.91
		25/0	713.5	4.5	4.97
10	QPSK	50/0	709	8.96	9.7
		50/0	710	8.97	9.79
		50/0	711	8.98	9.76
	16QAM	50/0	709	8.96	9.77
		50/0	710	8.96	9.78
		50/0	711	9	9.8



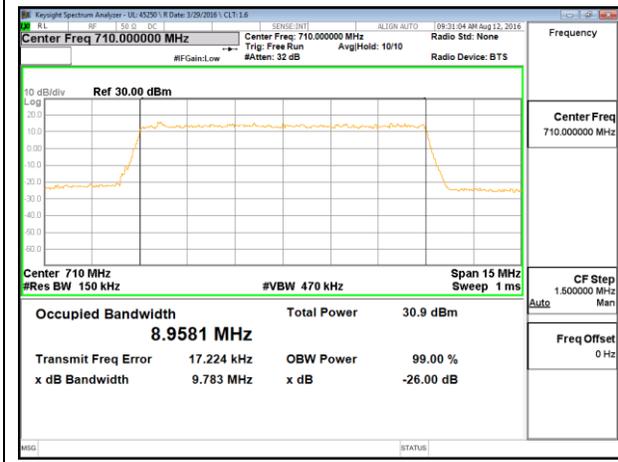
LTE B17 5MHz QPSK Middle Channel



LTE B17 5MHz 16QAM Middle Channel



LTE B17 10MHz QPSK Middle Channel



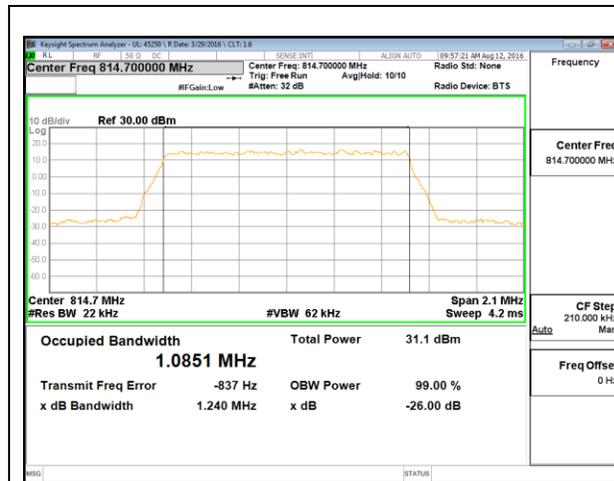
LTE B17 10MHz 16QAM Middle Channel

LTE Band 26-Part 90

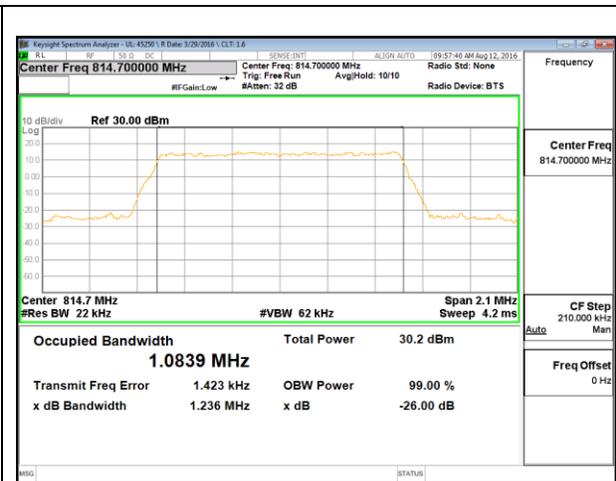
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
1.4	QPSK	6/0	814.7	1.08	1.24
	16QAM	6/0	814.7	1.08	1.24
3	QPSK	15/0	815.5	2.7	2.99
	16QAM	15/0	815.5	2.7	3.04
5	QPSK	25/0	816.5	4.51	5.62
	16QAM	25/0	816.5	4.5	4.97
10	QPSK	50/0	819	8.96	9.68
	16QAM	50/0	819	8.96	9.79

LTE Band 26-Part 22

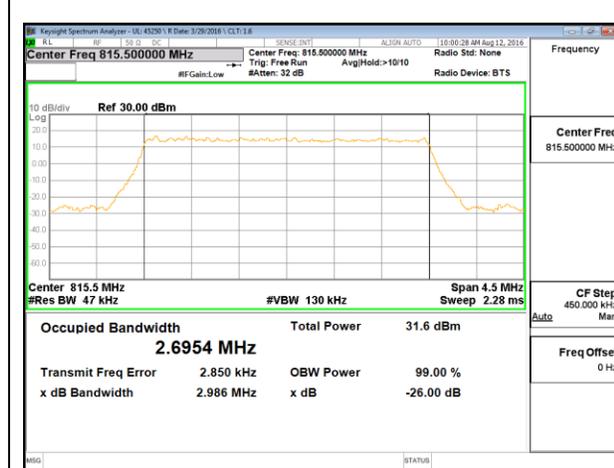
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
1.4	QPSK	6/0	831.5	1.08	1.24
		6/0	848.3	1.08	1.24
	16QAM	6/0	831.5	1.09	1.24
		6/0	848.3	1.09	1.24
3	QPSK	15/0	831.5	2.7	3
		15/0	847.5	2.71	3.12
	16QAM	15/0	831.5	2.7	3
		15/0	847.5	2.7	3.02
5	QPSK	25/0	831.5	4.5	4.95
		25/0	846.5	4.48	4.93
	16QAM	25/0	831.5	4.49	4.94
		25/0	846.5	4.49	4.89
10	QPSK	50/0	831.5	8.98	9.74
		50/0	844	8.95	9.78
	16QAM	50/0	831.5	8.97	9.73
		50/0	844	8.99	9.78
15	QPSK	75/0	836.5	13.43	14.63
		75/0	841.5	13.43	14.66
	16QAM	75/0	836.5	13.45	14.68
		75/0	841.5	13.45	14.59



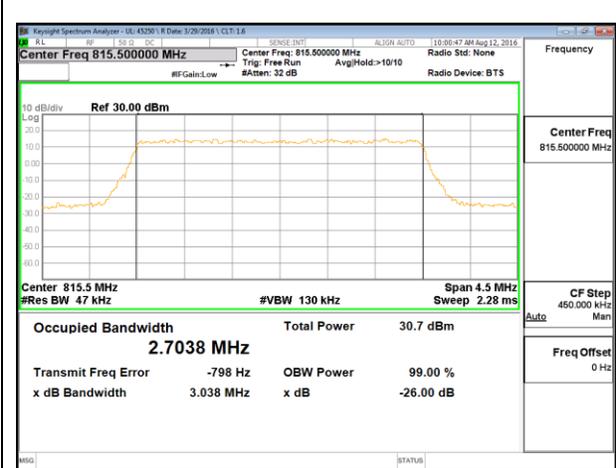
LTE B26 1.4MHz QPSK Middle Channel



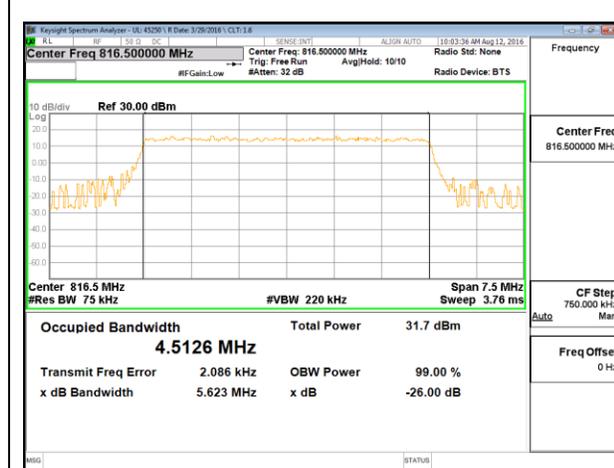
LTE B26 1.4MHz 16QAM Middle Channel



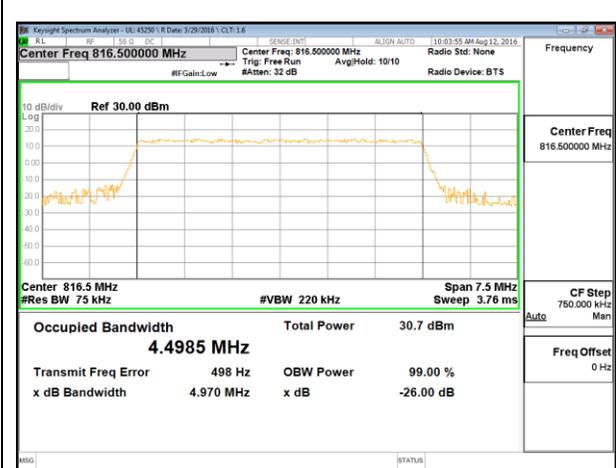
LTE B26 3MHz QPSK Middle Channel



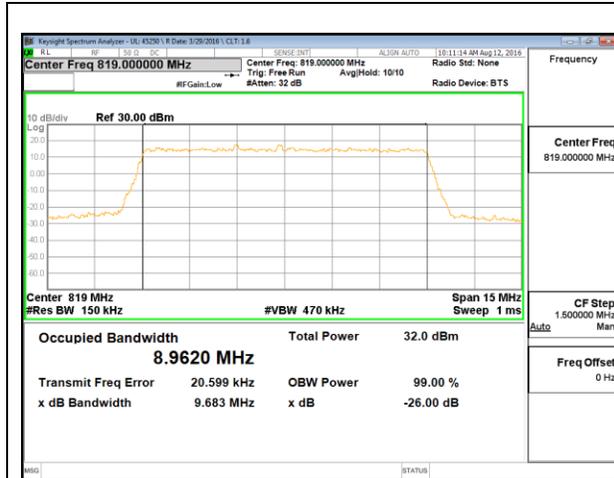
LTE B26 3MHz 16QAM Middle Channel



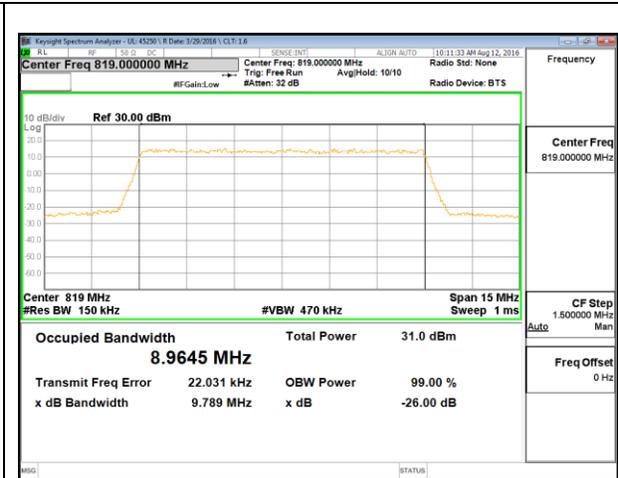
LTE B26 5MHz QPSK Middle Channel



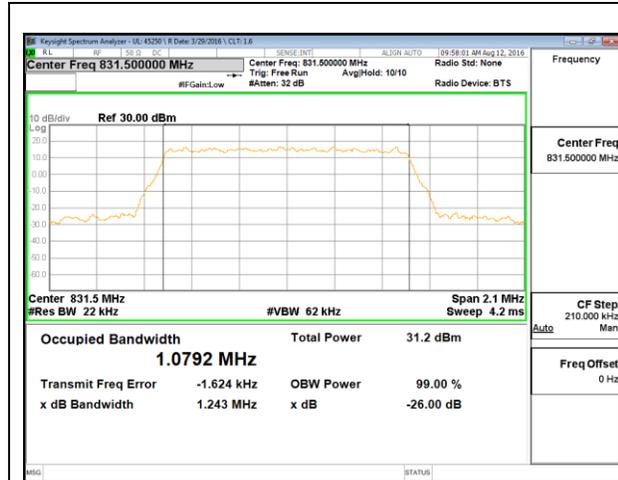
LTE B26 5MHz 16QAM Middle Channel



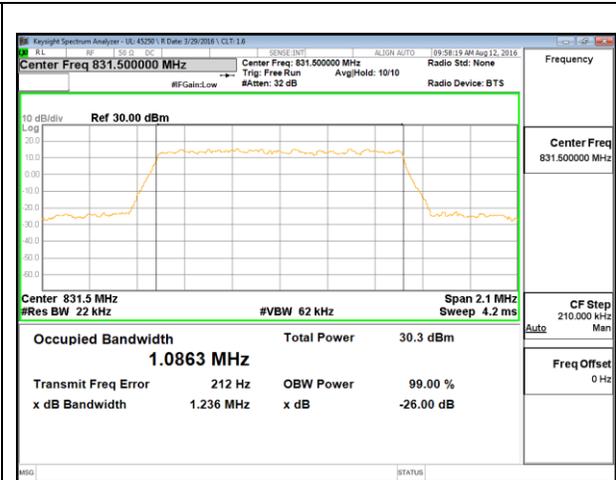
LTE B26 10MHz QPSK Middle Channel



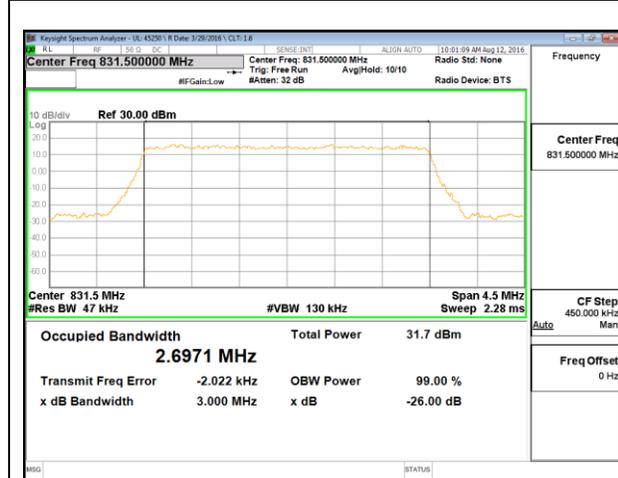
LTE B26 10MHz 16QAM Middle Channel



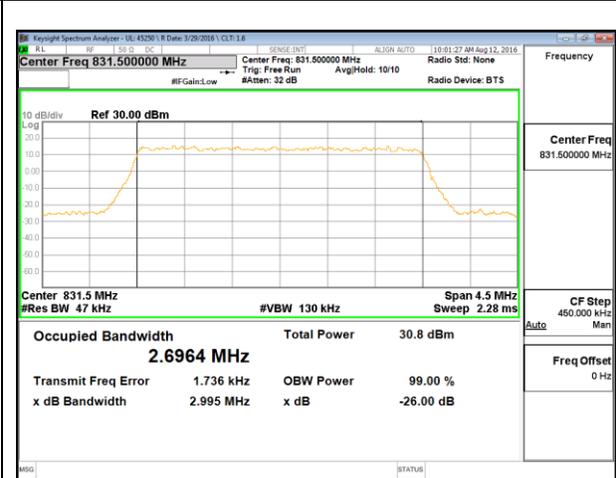
LTE B26 1.4MHz QPSK Middle Channel



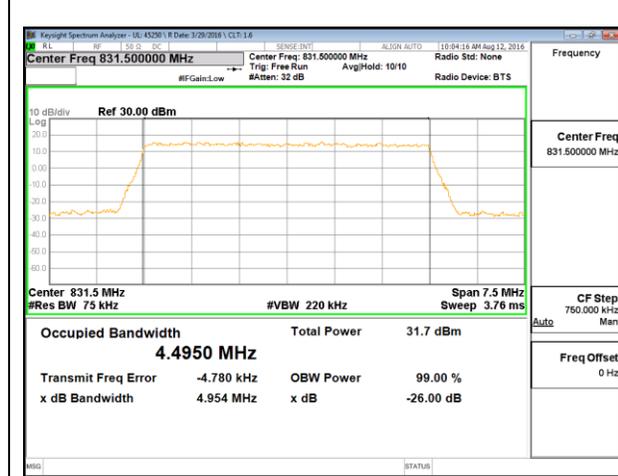
LTE B26 1.4MHz 16QAM Middle Channel



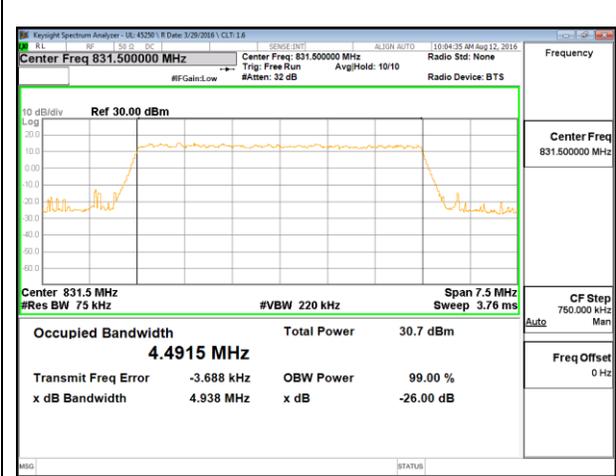
LTE B26 3MHz QPSK Middle Channel



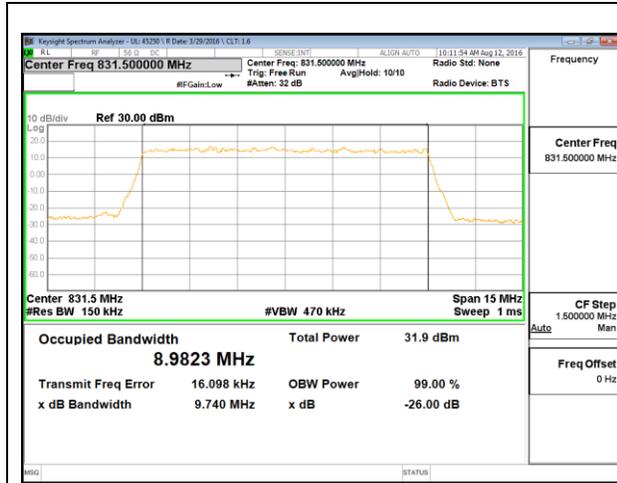
LTE B26 3MHz 16QAM Middle Channel



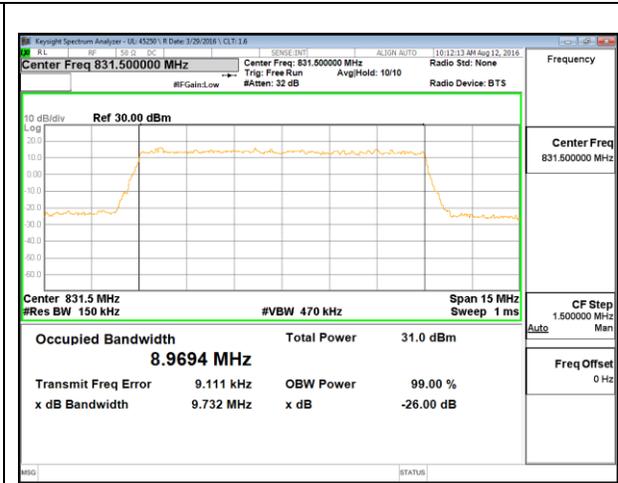
LTE B26 5MHz QPSK Middle Channel



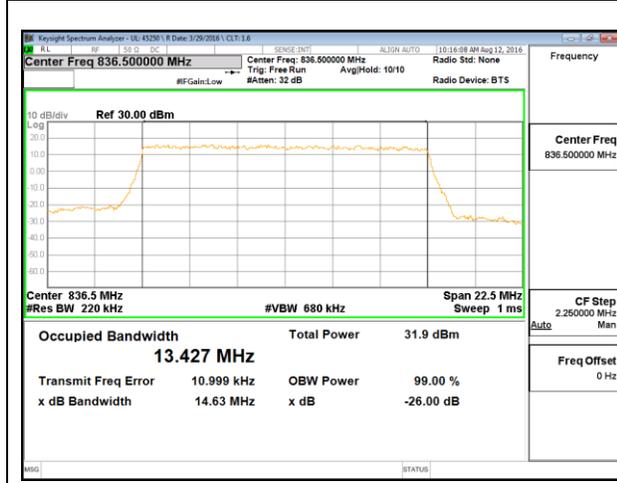
LTE B26 5MHz 16QAM Middle Channel



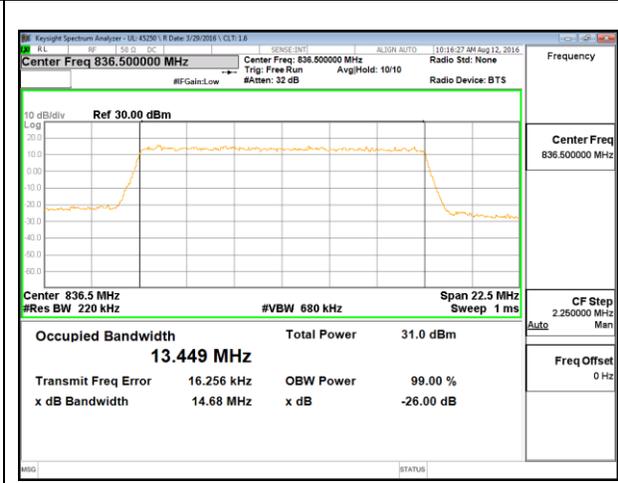
LTE B26 10MHz QPSK Middle Channel



LTE B26 10MHz 16QAM Middle Channel



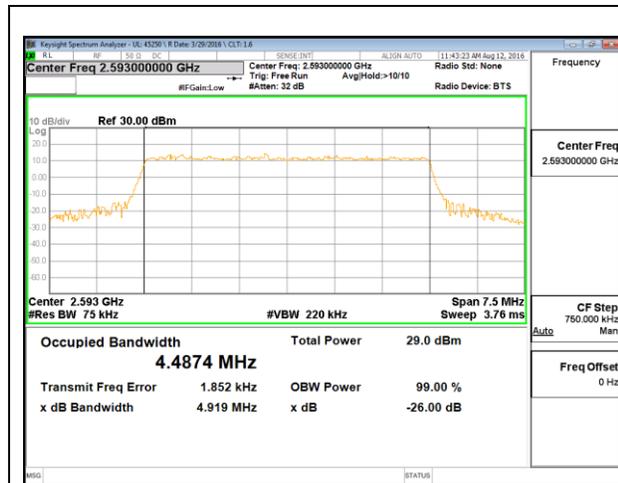
LTE B26 15MHz QPSK Middle Channel



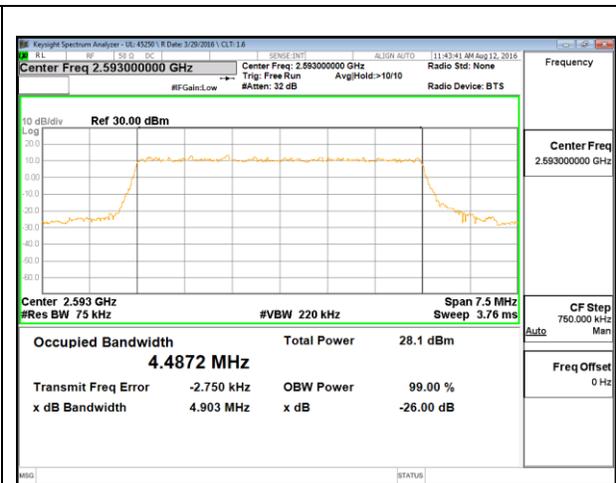
LTE B26 15MHz 16QAM Middle Channel

LTE Band 41

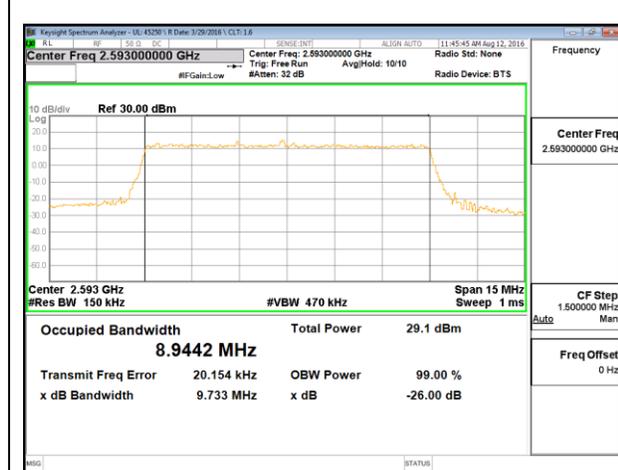
BW(MHz)	Mode	RB/RB Size	f (MHz)	99% BW (MHz)	-26dB BW (MHz)
5	QPSK	25/0	2498.5	4.5	4.89
		25/0	2593	4.49	4.92
		25/0	2687.5	4.49	4.96
	16QAM	25/0	2498.5	4.49	4.92
		25/0	2593	4.49	4.9
		25/0	2687.5	4.49	4.97
10	QPSK	50/0	2501	8.96	9.72
		50/0	2593	8.94	9.73
		50/0	2685	8.97	9.77
	16QAM	50/0	2501	8.98	9.89
		50/0	2593	8.99	9.82
		50/0	2685	8.96	9.97
15	QPSK	75/0	2503.5	13.46	14.61
		75/0	2593	13.46	14.98
		75/0	2682.5	13.45	14.67
	16QAM	75/0	2503.5	13.48	15.11
		75/0	2593	13.47	15.08
		75/0	2682.5	13.45	14.49
20	QPSK	100/0	2506	17.94	19.6
		100/0	2593	17.95	19.7
		100/0	2680	17.9	19.76
	16QAM	100/0	2506	17.93	20.18
		100/0	2593	17.94	20.89
		100/0	2680	17.92	19.5



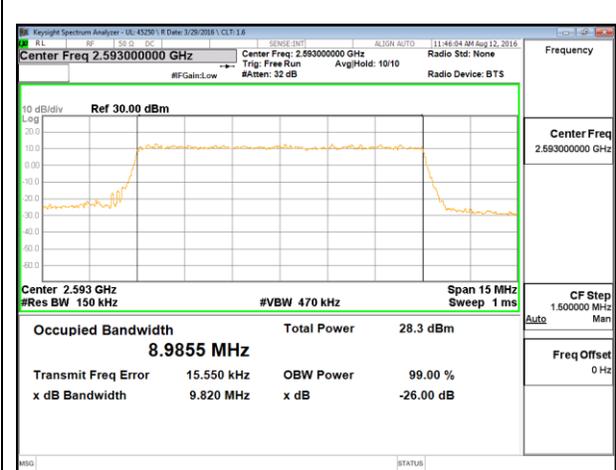
LTE B41 5MHz QPSK Middle Channel



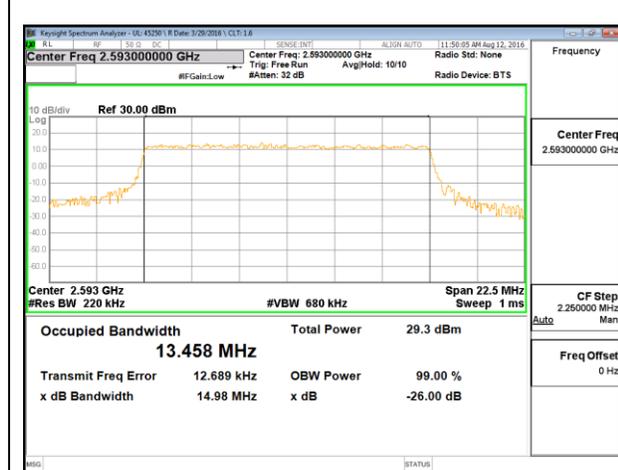
LTE B41 5MHz 16QAM Middle Channel



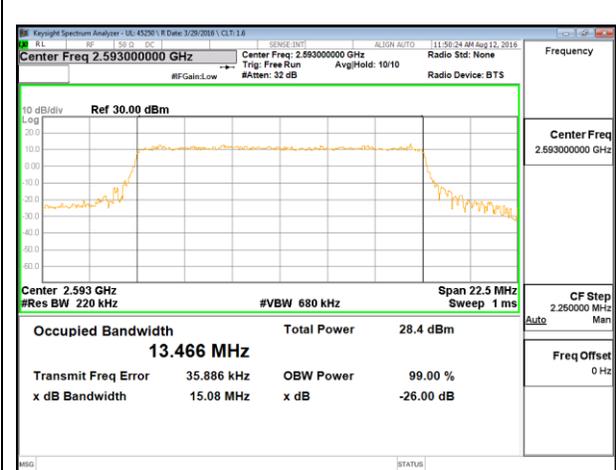
LTE B41 10MHz QPSK Middle Channel



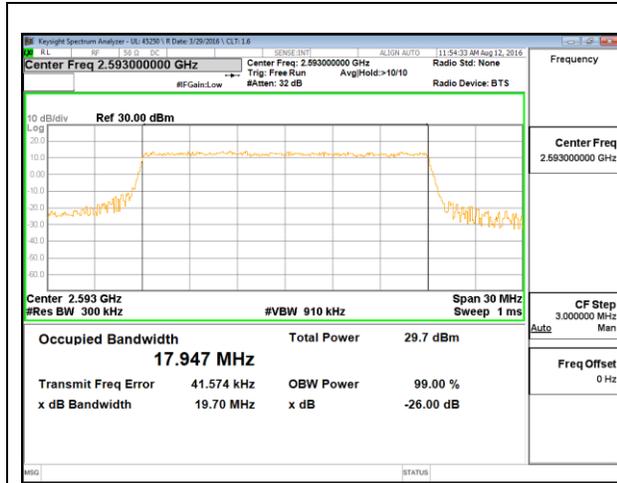
LTE B41 10MHz 16QAM Middle Channel



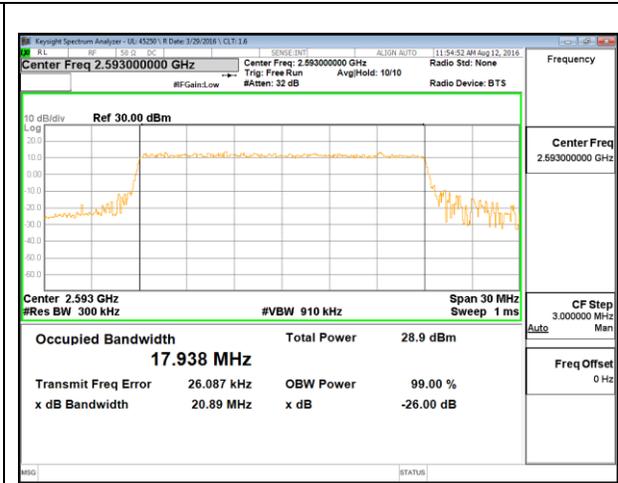
LTE B41 15MHz QPSK Middle Channel



LTE B41 15MHz 16QAM Middle Channel



LTE B41 20MHz QPSK Middle Channel



LTE B41 20MHz 16QAM Middle Channel

11. BAND EDGE EMISSIONS

RULE PART(S)

FCC: §22.359, §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.

Part 90:

(a)(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10} (f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(a)(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz. {NOTE: Use 100 kHz reference bandwidth.}

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

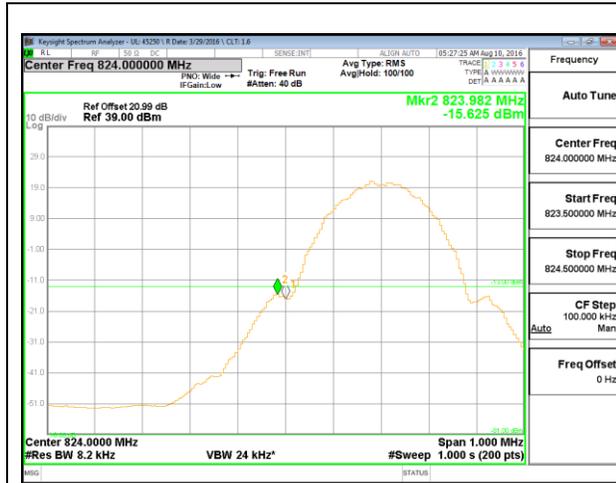
The transmitter output was connected to an Agilent 8960 or a CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

Note : LTE B41 Emission plot

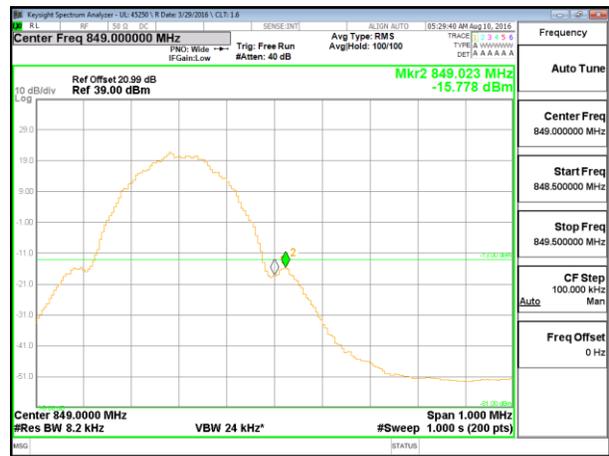
1. RBW: 1MHz for Blue Trace
2. RBW: 2% of OBW for Red Trace

11.1. BAND EDGE PLOTS

GSM



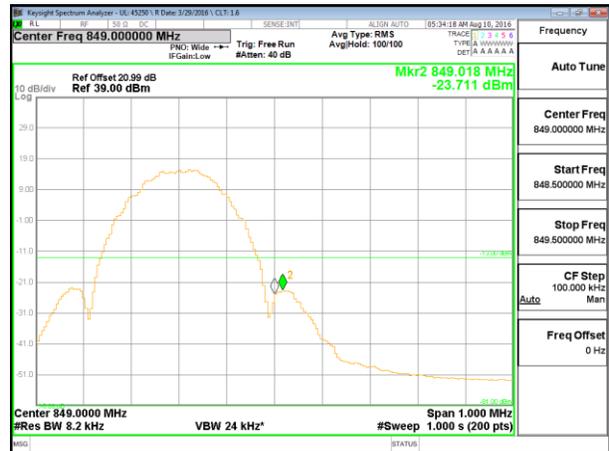
GSM850 GPRS Low Channel



GSM850 GPRS High Channel



GSM850 EGPRS Low Channel



GSM850 EGPRS High Channel