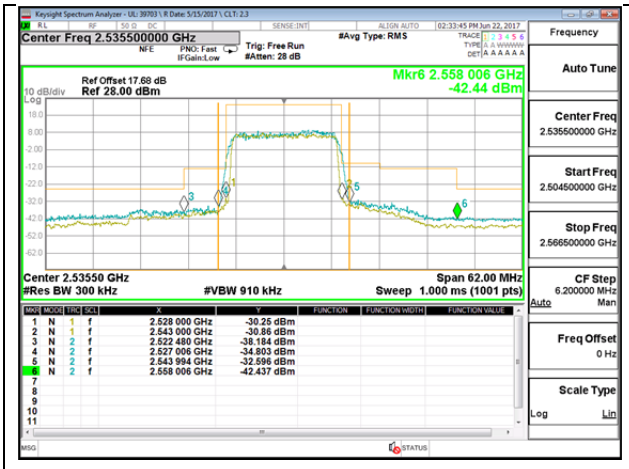
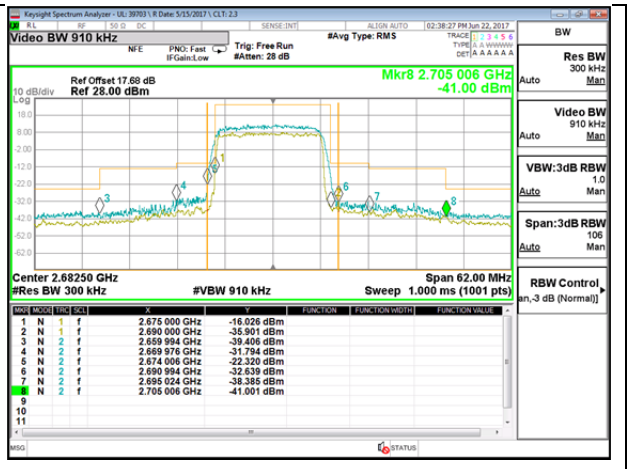
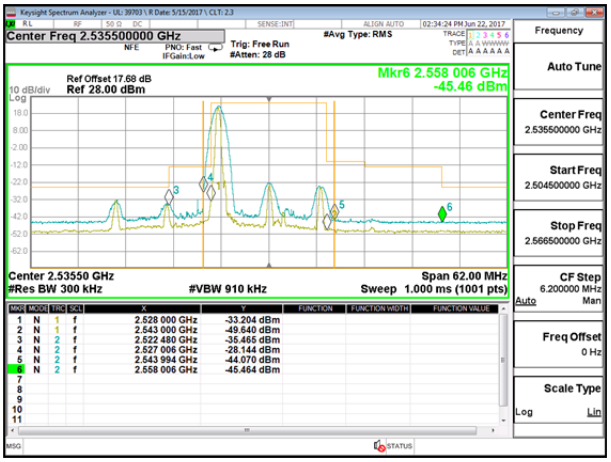


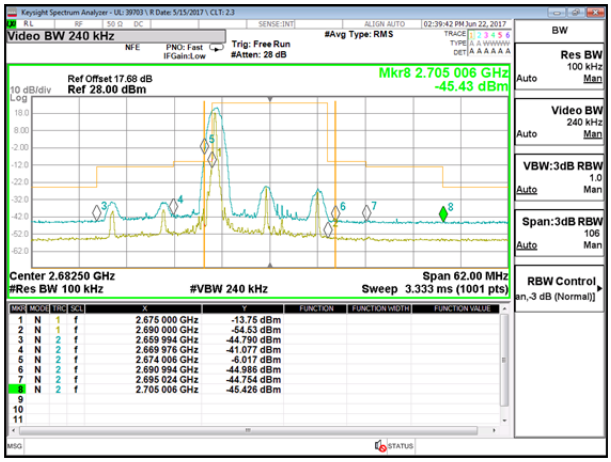
LTE B41 15MHz QPSK Low Channel FRB



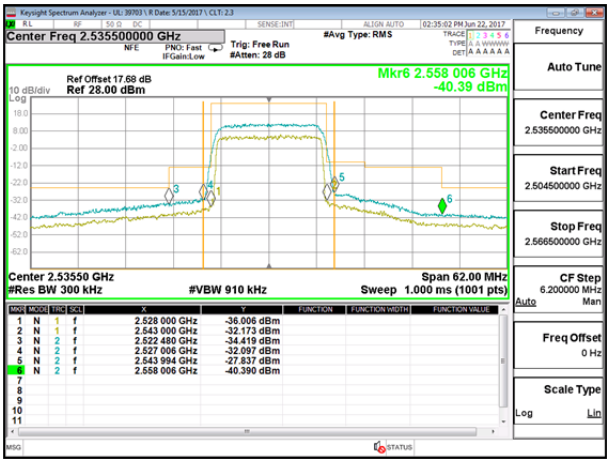
LTE B41 15MHz QPSK High Channel FRB



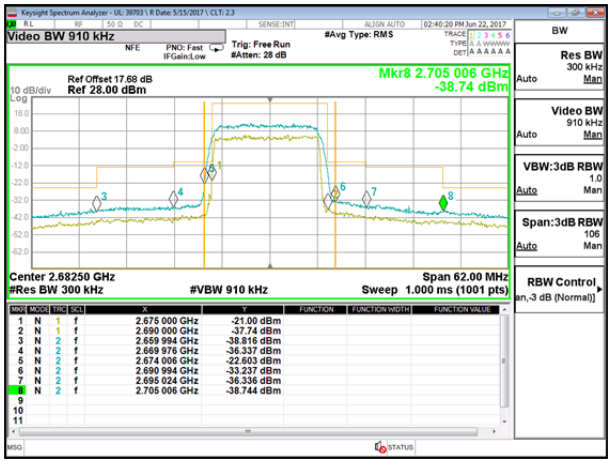
LTE B41 15MHz 16QAM Low Channel 1RB



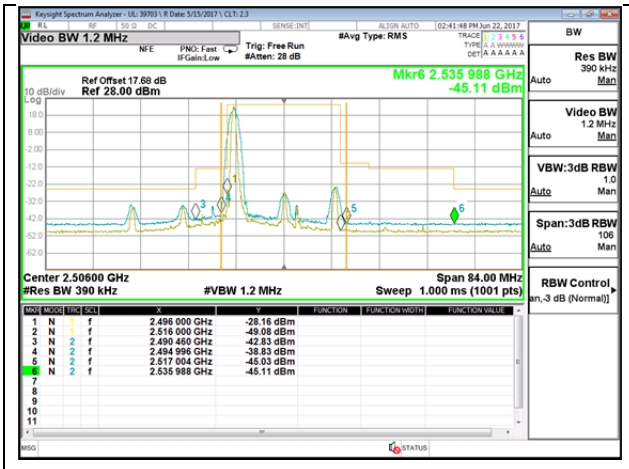
LTE B41 15MHz 16QAM High Channel 1RB



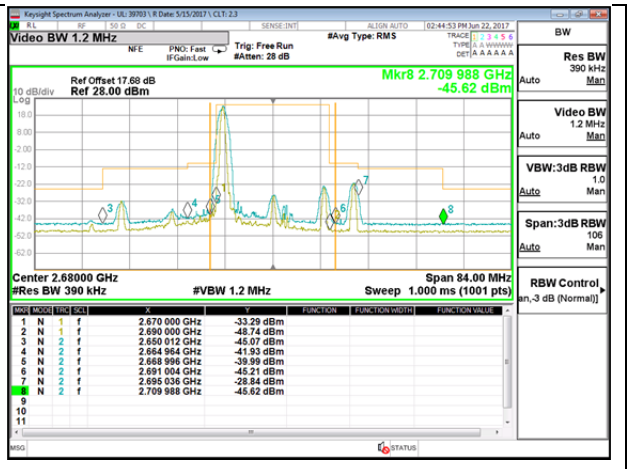
LTE B41 15MHz 16QAM Low Channel FRB



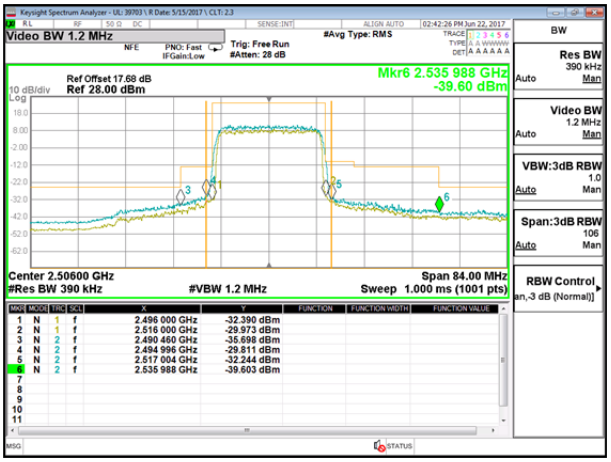
LTE B41 15MHz 16QAM High Channel FRB



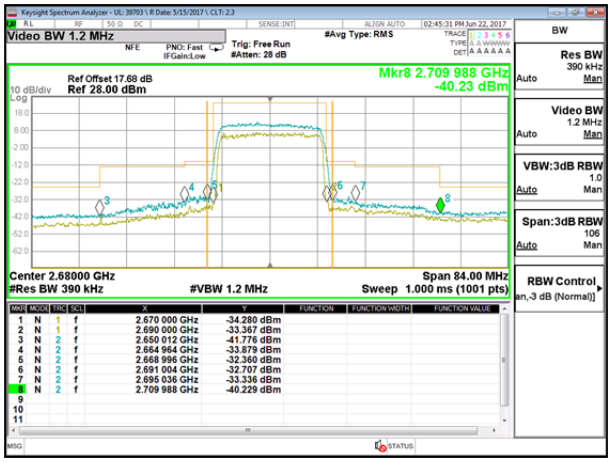
LTE B41 20MHz QPSK Low Channel 1RB



LTE B41 20MHz QPSK High Channel 1RB

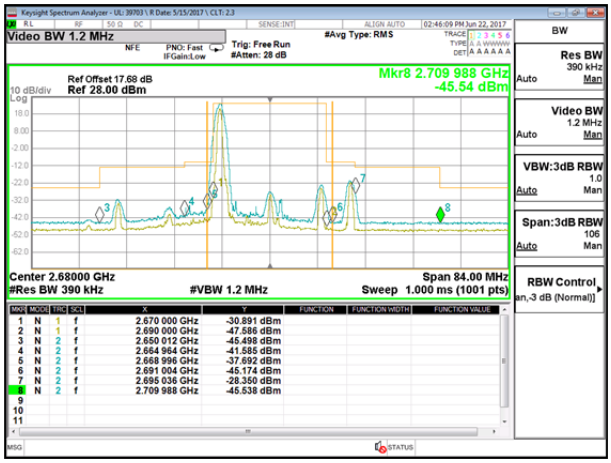


LTE B41 20MHz QPSK Low Channel FRB



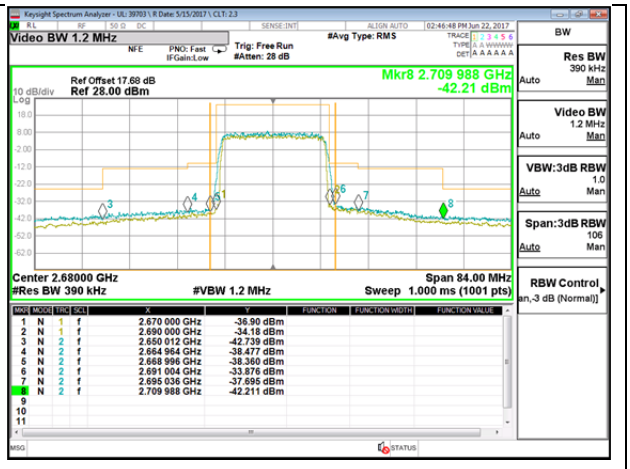
LTE B41 20MHz QPSK High Channel FRB

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

15. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §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 that 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

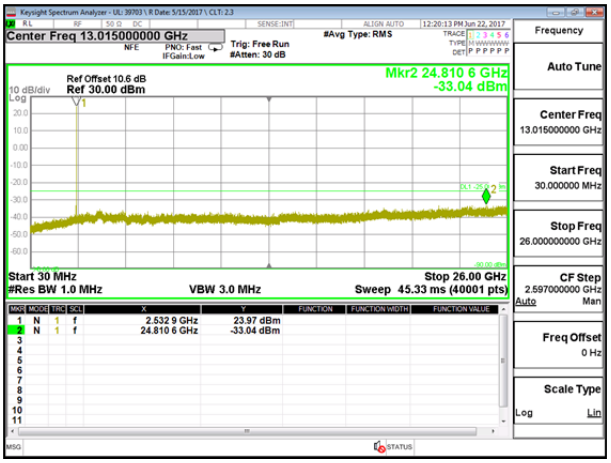
Per KDB 971168 D01 Power Meas License Digital Systems v02r02
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in a maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

RESULTS

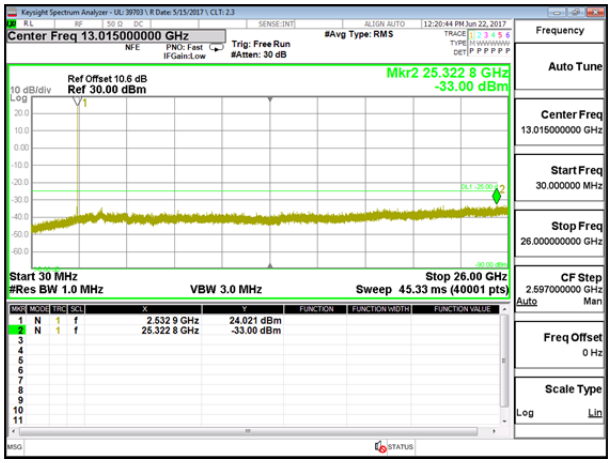
15.1. OUT OF BAND EMISSIONS RESULT AND PLOTS

LTE Band 7

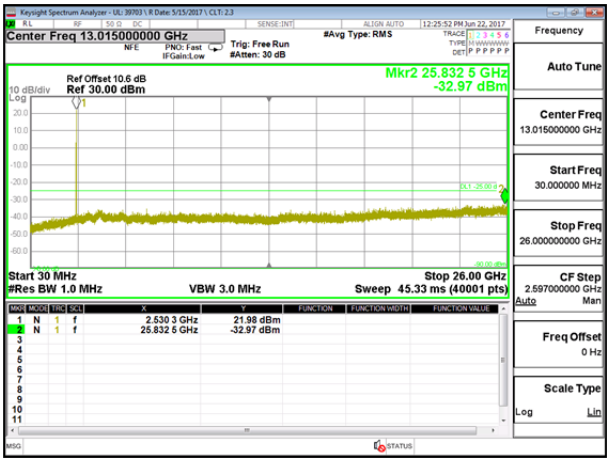
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE7	5	QPSK	2502.5	-32.32	-25	-7.32
			2535	-33.04	-25	-8.04
			2567.5	-32.12	-25	-7.12
		16QAM	2502.5	-33.03	-25	-8.03
			2535	-33	-25	-8
			2567.5	-32.39	-25	-7.39
	10	QPSK	2505	-32.09	-25	-7.09
			2535	-32.97	-25	-7.97
			2565	-32.23	-25	-7.23
		16QAM	2505	-32.33	-25	-7.33
			2535	-33	-25	-8.0
			2565	-32.18	-25	-7.18
	15	QPSK	2507.5	-32.56	-25	-7.56
			2535	-32.89	-25	-7.89
			2562.5	-32.46	-25	-7.46
		16QAM	2507.5	-32.46	-25	-7.46
			2535	-32.09	-25	-7.09
			2562.5	-32.66	-25	-7.66
	20	QPSK	2510	-32.53	-25	-7.53
			2535	-32.71	-25	-7.71
			2560	-32.92	-25	-7.92
		16QAM	2510	-32.43	-25	-7.43
			2535	-32.66	-25	-7.66
			2560	-32.97	-25	-7.97



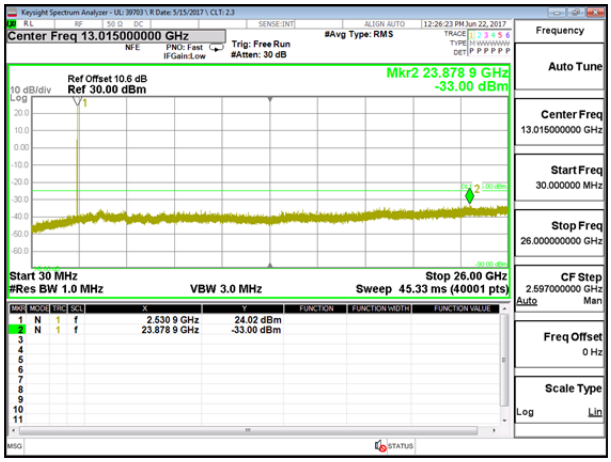
LTE B7 5MHz QPSK Middle Channel



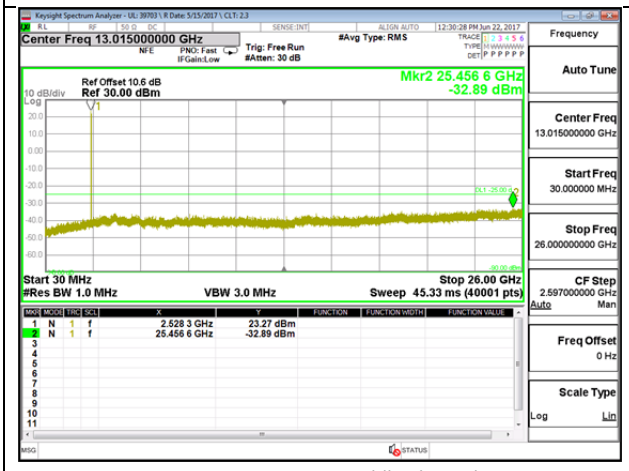
LTE B7 5MHz 16QAM Middle Channel



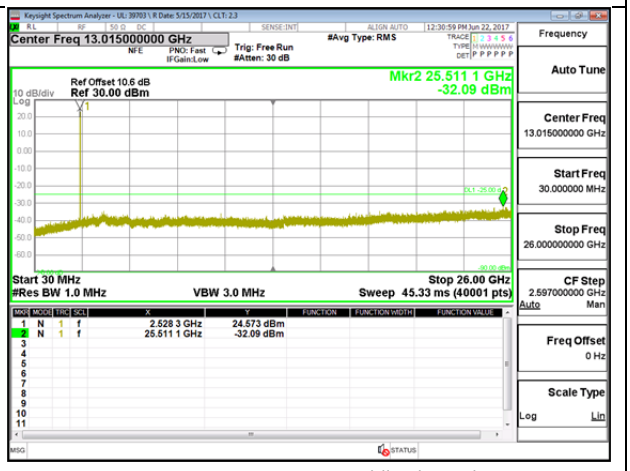
LTE B7 10MHz QPSK Middle Channel



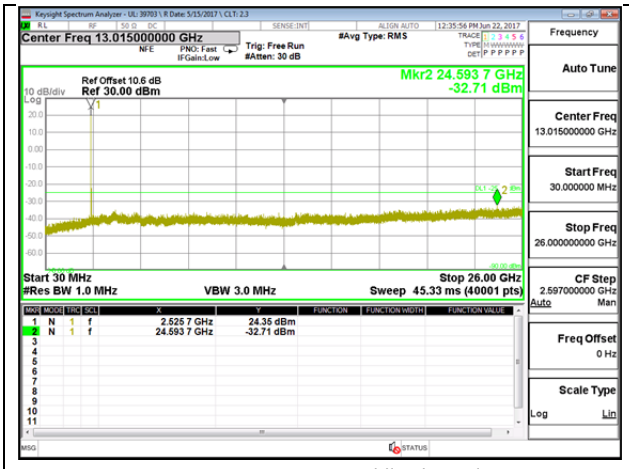
LTE B7 10MHz 16QAM Middle Channel



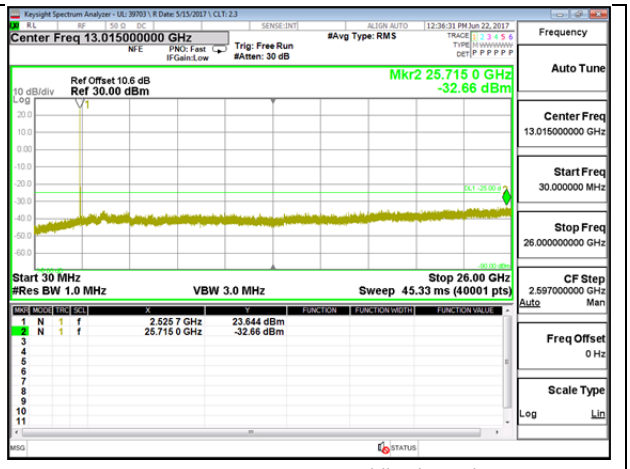
LTE B7 15MHz QPSK Middle Channel



LTE B7 15MHz 16QAM Middle Channel



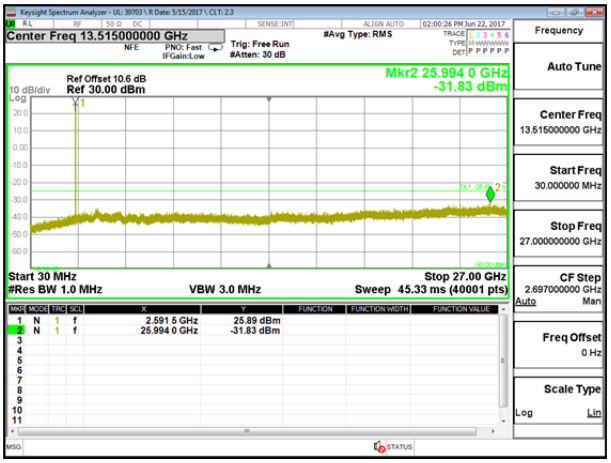
LTE B7 20MHz QPSK Middle Channel



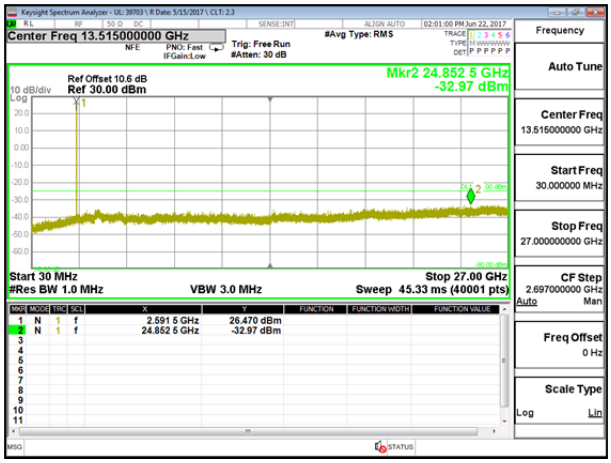
LTE B7 20MHz 16QAM Middle Channel

LTE Band 41

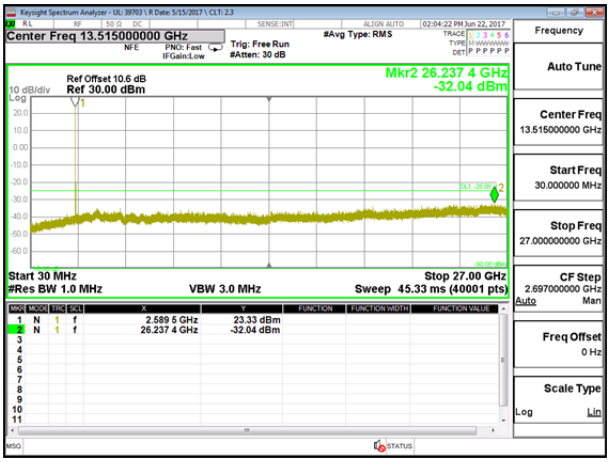
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE41	5	QPSK	2498.5	-32.5	-25	-7.5
			2593	-31.83	-25	-6.83
			2687.5	-32.3	-25	-7.3
		16QAM	2498.5	-31.72	-25	-6.72
			2593	-32.97	-25	-7.97
			2687.5	-32.57	-25	-7.57
	10	QPSK	2501	-32.09	-25	-7.09
			2593	-32.04	-25	-7.04
			2685	-32.22	-25	-7.22
		16QAM	2501	-33.06	-25	-8.06
			2593	-32.53	-25	-7.53
			2685	-32.22	-25	-7.22
	15	QPSK	2503.5	-32.55	-25	-7.55
			2593	-32.48	-25	-7.48
			2682.5	-32.39	-25	-7.39
		16QAM	2503.5	-32.32	-25	-7.32
			2593	-32.47	-25	-7.47
			2682.5	-32.72	-25	-7.72
	20	QPSK	2506	-32.7	-25	-7.7
			2593	-32.5	-25	-7.5
			2680	-32.59	-25	-7.59
		16QAM	2506	-32.28	-25	-7.28
			2593	-32.49	-25	-7.49
			2680	-32.11	-25	-7.11



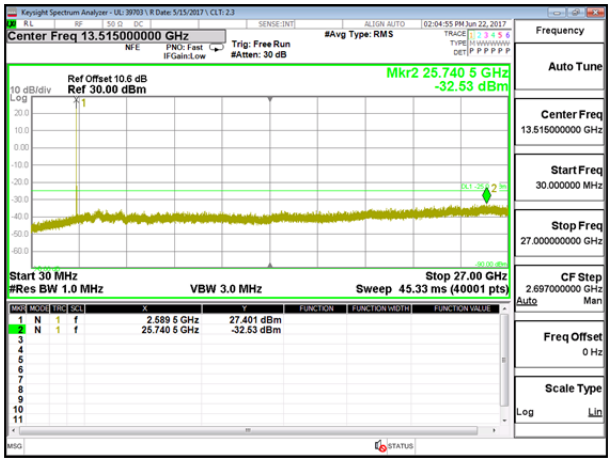
LTE B41 5MHz QPSK Middle Channel



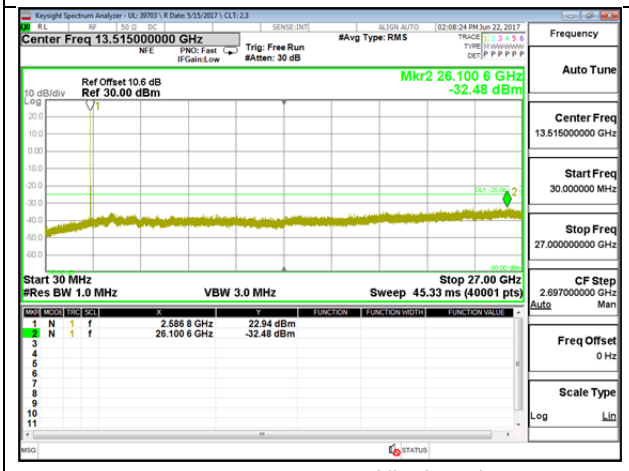
LTE B41 5MHz 16QAM Middle Channel



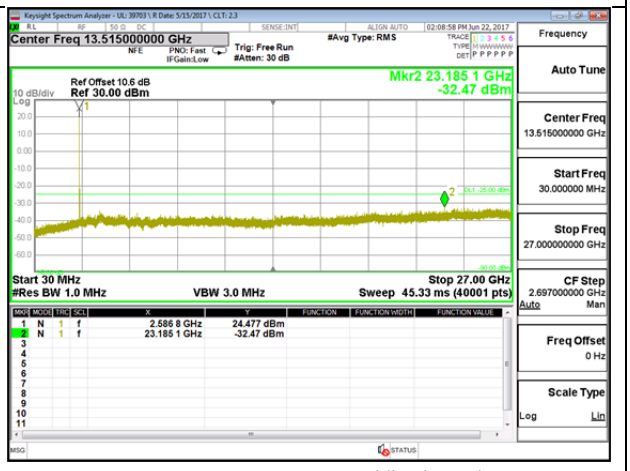
LTE B41 10MHz QPSK Middle Channel



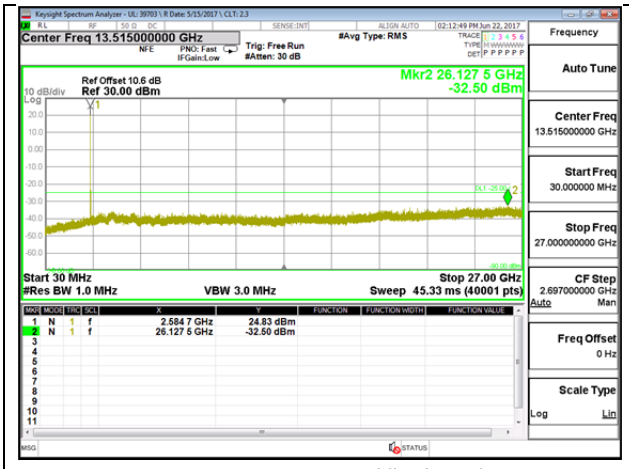
LTE B41 10MHz 16QAM Middle Channel



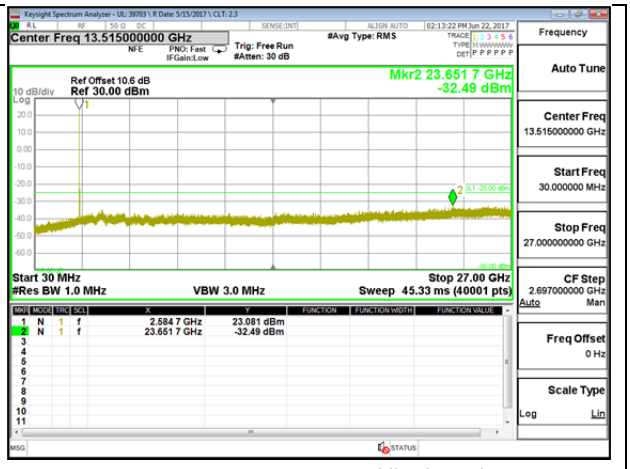
LTE B41 15MHz QPSK Middle Channel



LTE B41 15MHz 16QAM Middle Channel



LTE B41 20MHz QPSK Middle Channel



LTE B41 20MHz 16QAM Middle Channel

16. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, and §27.54

FCC LIMITS

§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 v02r02

Results

Tested By	Oren Stoelting
Date	6/28/17

Note(s):

LTE Band 38 Measured Results
LTE Band 38 (Frequency range: 2570-2620 MHz) is covered by LTE Band 41 (Frequency range: 2496-2690 MHz) and no testing is necessary due to overlapping frequency range.

16.1. FREQUENCY STABILITY RESULTS

LTE Band 7

Reference Frequency: LTE Band 7 Mid Channel		2535	MHz @ 20°C	
		Limit: to stay +- 2.5 ppm =	6337.500	Hz
Power Supply	Environment	Frequency Deviation Measureed with Time Elapse		
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	2535.000014	-0.001	2.5
3.80	40	2534.999988	0.009	2.5
3.80	30	2535.000012	0.000	2.5
3.80	***20***	**2535.000011**	**0**	***2.5***
3.80	10	2535.000008	0.001	2.5
3.80	0	2535.000013	-0.001	2.5
3.80	-10	2535.000013	-0.001	2.5
3.80	-20	2534.999987	0.010	2.5
3.80	-30	2535.000012	0.000	2.5

Reference Frequency: LTE Band 7 Mid Channel		2535	MHz @ 20°C	
		Limit: to stay +- 2.5 ppm =	6337.500	Hz
Power Supply	Environment	Frequency Deviation Measured with Time Elapse		
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	2535.000011	0.000	2.5
4.37	20	2535.000010	0.000	2.5
3.23	20	2535.000011	0.000	2.5

LTE Band 41

Reference Frequency: LTE Band 41 Mid Channel		2593	MHz @ 20°C	
		Limit: to stay +- 2.5 ppm =	6482.500	Hz
Power Supply	Environment	Frequency Deviation Measureed with Time Elapse		
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	2592.999988	0.013	2.5
3.80	40	2593.000017	0.002	2.5
3.80	30	2593.000016	0.002	2.5
3.80	***20***	**2593.000022**	**0**	***2.5***
3.80	10	2593.000012	0.004	2.5
3.80	0	2593.000020	0.001	2.5
3.80	-10	2593.000016	0.002	2.5
3.80	-20	2593.000016	0.002	2.5
3.80	-30	2593.000019	0.001	2.5

Reference Frequency: LTE Band 41 Mid Channel		2593	MHz @ 20°C	
		Limit: to stay +- 2.5 ppm =	6482.500	Hz
Power Supply	Environment	Frequency Deviation Measured with Time Elapse		
(Vdc)	Temperature (°C)	(MHz)	Delta (ppm)	Limit (ppm)
3.80	20	2593.000022	0	2.5
4.37	20	2593.000017	0.002	2.5
3.23	20	2593.000012	0.004	2.5

17. RADIATED TEST RESULTS

17.1. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, and §27.53.

FCC LIMIT

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 that 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

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

17.1.1. SPURIOUS RADIATION PLOTS

LTE Band 7

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 7 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2502.5									
5005.00	-18.9	V	3.0	33.2	1.0	-51.1	-25.0	-26.1	
7507.50	-17.2	V	3.0	32.8	1.0	-49.0	-25.0	-24.0	
10010.00	-17.3	V	3.0	32.8	1.0	-49.1	-25.0	-24.1	
5005.00	-19.8	H	3.0	33.2	1.0	-52.0	-25.0	-27.0	
7507.50	-18.5	H	3.0	32.8	1.0	-50.3	-25.0	-25.3	
10010.00	-18.1	H	3.0	32.8	1.0	-49.8	-25.0	-24.8	
Mid Ch, 2535									
5070.00	-19.2	V	3.0	33.2	1.0	-51.5	-25.0	-26.5	
7605.00	-18.1	V	3.0	32.8	1.0	-50.0	-25.0	-25.0	
10140.00	-17.3	V	3.0	32.7	1.0	-48.9	-25.0	-23.9	
5070.00	-19.7	H	3.0	33.2	1.0	-52.0	-25.0	-27.0	
7605.00	-18.4	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10140.00	-17.5	H	3.0	32.7	1.0	-49.1	-25.0	-24.1	
High Ch, 2567.5									
5135.00	-20.2	V	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7702.50	-18.5	V	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10270.00	-16.2	V	3.0	32.6	1.0	-47.8	-25.0	-22.8	
5135.00	-20.5	H	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7702.50	-18.1	H	3.0	32.8	1.0	-50.0	-25.0	-25.0	
10270.00	-17.5	H	3.0	32.6	1.0	-49.1	-25.0	-24.1	

LTE B7 5MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 7 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2502.5									
5005.00	-18.8	V	3.0	33.2	1.0	-51.0	-25.0	-26.0	
7507.50	-16.2	V	3.0	32.8	1.0	-48.1	-25.0	-23.1	
10010.00	-17.1	V	3.0	32.8	1.0	-48.8	-25.0	-23.8	
5005.00	-19.6	H	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7507.50	-19.3	H	3.0	32.8	1.0	-51.1	-25.0	-26.1	
10010.00	-17.1	H	3.0	32.8	1.0	-48.8	-25.0	-23.8	
Mid Ch, 2535									
5070.00	-19.5	V	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7605.00	-17.7	V	3.0	32.8	1.0	-49.5	-25.0	-24.5	
10140.00	-17.2	V	3.0	32.7	1.0	-48.9	-25.0	-23.9	
5070.00	-20.1	H	3.0	33.2	1.0	-52.3	-25.0	-27.3	
7605.00	-18.4	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10140.00	-16.7	H	3.0	32.7	1.0	-48.4	-25.0	-23.4	
High Ch, 2567.5									
5135.00	-20.3	V	3.0	33.2	1.0	-52.5	-25.0	-27.5	
7702.50	-18.8	V	3.0	32.8	1.0	-50.6	-25.0	-25.6	
10270.00	-17.0	V	3.0	32.6	1.0	-48.6	-25.0	-23.6	
5135.00	-20.3	H	3.0	33.2	1.0	-52.5	-25.0	-27.5	
7702.50	-17.3	H	3.0	32.8	1.0	-49.2	-25.0	-24.2	
10270.00	-17.2	H	3.0	32.6	1.0	-48.8	-25.0	-23.8	

LTE B7 5MHz 16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 7 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2505									
5010.00	-18.4	V	3.0	33.2	1.0	-50.6	-25.0	-25.6	
7515.00	-17.5	V	3.0	32.8	1.0	-49.4	-25.0	-24.4	
10020.00	-17.3	V	3.0	32.8	1.0	-49.1	-25.0	-24.1	
5010.00	-18.7	H	3.0	33.2	1.0	-50.9	-25.0	-25.9	
7515.00	-19.1	H	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10020.00	-17.9	H	3.0	32.8	1.0	-49.6	-25.0	-24.6	
Mid Ch, 2535									
5070.00	-20.0	V	3.0	33.2	1.0	-52.2	-25.0	-27.2	
7605.00	-18.7	V	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10140.00	-16.0	V	3.0	32.7	1.0	-47.7	-25.0	-22.7	
5070.00	-19.4	H	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7605.00	-18.6	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10140.00	-16.8	H	3.0	32.7	1.0	-48.5	-25.0	-23.5	
High Ch, 2565									
5130.00	-20.0	V	3.0	33.2	1.0	-52.2	-25.0	-27.2	
7695.00	-18.6	V	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10260.00	-16.6	V	3.0	32.6	1.0	-48.2	-25.0	-23.2	
5130.00	-20.4	H	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7695.00	-18.6	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10260.00	-17.1	H	3.0	32.6	1.0	-48.7	-25.0	-23.7	

LTE B7 10MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 7 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2505									
5010.00	-19.5	V	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7515.00	-17.9	V	3.0	32.8	1.0	-49.7	-25.0	-24.7	
10020.00	-17.7	V	3.0	32.8	1.0	-49.5	-25.0	-24.5	
5010.00	-19.5	H	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7515.00	-17.6	H	3.0	32.8	1.0	-49.5	-25.0	-24.5	
10020.00	-17.7	H	3.0	32.8	1.0	-49.5	-25.0	-24.5	
Mid Ch, 2535									
5070.00	-19.7	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7605.00	-18.0	V	3.0	32.8	1.0	-49.9	-25.0	-24.9	
10140.00	-16.5	V	3.0	32.7	1.0	-48.2	-25.0	-23.2	
5070.00	-19.7	H	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7605.00	-18.7	H	3.0	32.8	1.0	-50.6	-25.0	-25.6	
10140.00	-17.0	H	3.0	32.7	1.0	-48.7	-25.0	-23.7	
High Ch, 2565									
5130.00	-20.4	V	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7695.00	-19.0	V	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10260.00	-17.1	V	3.0	32.6	1.0	-48.7	-25.0	-23.7	
5130.00	-20.8	H	3.0	33.2	1.0	-53.0	-25.0	-28.0	
7695.00	-18.5	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10260.00	-16.3	H	3.0	32.6	1.0	-47.9	-25.0	-22.9	

LTE B7 10MHz 16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company:	SOMC
Project #:	11785248
Date:	6/21/2017
Test Engineer:	43575 OS
Configuration:	EUT + AC + Headset
Location:	Chamber C
Mode:	LTE_QPSK Band 7 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2507.5									
5015.00	-18.9	V	3.0	33.2	1.0	-51.1	-25.0	-26.1	
7522.50	-17.3	V	3.0	32.8	1.0	-49.2	-25.0	-24.2	
10030.00	-17.1	V	3.0	32.8	1.0	-48.9	-25.0	-23.9	
5015.00	-19.2	H	3.0	33.2	1.0	-51.5	-25.0	-26.5	
7522.50	-18.8	H	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10030.00	-17.0	H	3.0	32.8	1.0	-48.7	-25.0	-23.7	
Mid Ch, 2535									
5070.00	-19.4	V	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7605.00	-18.8	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10140.00	-16.9	V	3.0	32.7	1.0	-48.6	-25.0	-23.6	
5070.00	-19.4	H	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7605.00	-18.0	H	3.0	32.8	1.0	-49.9	-25.0	-24.9	
10140.00	-16.7	H	3.0	32.7	1.0	-48.4	-25.0	-23.4	
High Ch, 2562.5									
5125.00	-20.5	V	3.0	33.2	1.0	-52.7	-25.0	-27.7	
7687.50	-17.9	V	3.0	32.8	1.0	-49.7	-25.0	-24.7	
10250.00	-17.0	V	3.0	32.6	1.0	-48.6	-25.0	-23.6	
5125.00	-19.8	H	3.0	33.2	1.0	-52.0	-25.0	-27.0	
7687.50	-18.6	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10250.00	-16.5	H	3.0	32.6	1.0	-48.1	-25.0	-23.1	

LTE B7 15MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company:	SOMC
Project #:	11785248
Date:	6/21/2017
Test Engineer:	43575 OS
Configuration:	EUT + AC + Headset
Location:	Chamber C
Mode:	LTE_16QAM Band 7 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2507.5									
5015.00	-19.7	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7522.50	-18.4	V	3.0	32.8	1.0	-50.3	-25.0	-25.3	
10030.00	-16.8	V	3.0	32.8	1.0	-48.5	-25.0	-23.5	
5015.00	-19.2	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7522.50	-17.7	H	3.0	32.8	1.0	-49.5	-25.0	-24.5	
10030.00	-17.3	H	3.0	32.8	1.0	-49.1	-25.0	-24.1	
Mid Ch, 2535									
5070.00	-20.0	V	3.0	33.2	1.0	-52.2	-25.0	-27.2	
7605.00	-18.6	V	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10140.00	-16.8	V	3.0	32.7	1.0	-48.5	-25.0	-23.5	
5070.00	-19.7	H	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7605.00	-18.3	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10140.00	-17.4	H	3.0	32.7	1.0	-49.1	-25.0	-24.1	
High Ch, 2562.5									
5125.00	-19.4	V	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7687.50	-18.5	V	3.0	32.8	1.0	-50.3	-25.0	-25.3	
10250.00	-16.5	V	3.0	32.6	1.0	-48.1	-25.0	-23.1	
5125.00	-20.1	H	3.0	33.2	1.0	-52.3	-25.0	-27.3	
7687.50	-18.6	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10250.00	-17.1	H	3.0	32.6	1.0	-48.7	-25.0	-23.7	

LTE B7 15MHz 16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company:	SOMC
Project #:	11785248
Date:	6/21/2017
Test Engineer:	43575 OS
Configuration:	EUT + AC + Headset
Location:	Chamber C
Mode:	LTE_QPSK Band 7 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-19.9	V	3.0	33.2	1.0	-52.1	-25.0	-27.1	
7530.00	-18.2	V	3.0	32.8	1.0	-50.1	-25.0	-25.1	
10040.00	-16.9	V	3.0	32.7	1.0	-48.7	-25.0	-23.7	
5020.00	-19.2	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7530.00	-18.9	H	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10040.00	-16.9	H	3.0	32.7	1.0	-48.7	-25.0	-23.7	
Mid Ch, 2535									
5070.00	-19.7	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7605.00	-18.7	V	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10140.00	-15.9	V	3.0	32.7	1.0	-47.6	-25.0	-22.6	
5070.00	-19.4	H	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7605.00	-18.2	H	3.0	32.8	1.0	-50.1	-25.0	-25.1	
10140.00	-16.9	H	3.0	32.7	1.0	-48.6	-25.0	-23.6	
High Ch, 2560									
5120.00	-20.2	V	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7680.00	-19.0	V	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10240.00	-16.5	V	3.0	32.6	1.0	-48.1	-25.0	-23.1	
5120.00	-20.3	H	3.0	33.2	1.0	-52.5	-25.0	-27.5	
7680.00	-17.9	H	3.0	32.8	1.0	-49.7	-25.0	-24.7	
10240.00	-16.9	H	3.0	32.6	1.0	-48.6	-25.0	-23.6	

LTE B7 20MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company:	SOMC
Project #:	11785248
Date:	6/21/2017
Test Engineer:	43575 OS
Configuration:	EUT + AC + Headset
Location:	Chamber C
Mode:	LTE_16QAM Band 7 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-18.3	V	3.0	33.2	1.0	-50.6	-25.0	-25.6	
7530.00	-15.4	V	3.0	32.8	1.0	-47.3	-25.0	-22.3	
10040.00	-15.5	V	3.0	32.7	1.0	-47.2	-25.0	-22.2	
5020.00	-17.9	H	3.0	33.2	1.0	-50.1	-25.0	-25.1	
7530.00	-16.9	H	3.0	32.8	1.0	-48.7	-25.0	-23.7	
10040.00	-15.1	H	3.0	32.7	1.0	-46.8	-25.0	-21.8	
Mid Ch, 2535									
5070.00	-17.5	V	3.0	33.2	1.0	-49.7	-25.0	-24.7	
7605.00	-16.0	V	3.0	32.8	1.0	-47.9	-25.0	-22.9	
10140.00	-13.9	V	3.0	32.7	1.0	-45.6	-25.0	-20.6	
5070.00	-18.4	H	3.0	33.2	1.0	-50.6	-25.0	-25.6	
7605.00	-16.1	H	3.0	32.8	1.0	-47.9	-25.0	-22.9	
10140.00	-14.9	H	3.0	32.7	1.0	-46.6	-25.0	-21.6	
High Ch, 2560									
5120.00	-19.1	V	3.0	33.2	1.0	-51.3	-25.0	-26.3	
7680.00	-16.4	V	3.0	32.8	1.0	-48.2	-25.0	-23.2	
10240.00	-14.8	V	3.0	32.6	1.0	-46.5	-25.0	-21.5	
5120.00	-18.6	H	3.0	33.2	1.0	-50.8	-25.0	-25.8	
7680.00	-15.6	H	3.0	32.8	1.0	-47.5	-25.0	-22.5	
10240.00	-15.0	H	3.0	32.6	1.0	-46.6	-25.0	-21.6	

LTE B7 20MHz 16QAM

LTE Band 41

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 41 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.5									
4997.00	-19.6	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7495.50	-18.6	V	3.0	32.8	1.0	-50.4	-25.0	-25.4	
9994.00	-17.4	V	3.0	32.8	1.0	-49.2	-25.0	-24.2	
4997.00	-19.3	H	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7495.50	-18.8	H	3.0	32.8	1.0	-50.6	-25.0	-25.6	
9994.00	-17.3	H	3.0	32.8	1.0	-49.0	-25.0	-24.0	
Mid Ch, 2593									
5186.00	-20.4	V	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7779.00	-19.1	V	3.0	32.8	1.0	-51.0	-25.0	-26.0	
10372.00	-16.6	V	3.0	32.5	1.0	-48.1	-25.0	-23.1	
5186.00	-20.4	H	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7779.00	-17.8	H	3.0	32.8	1.0	-49.7	-25.0	-24.7	
10372.00	-17.5	H	3.0	32.5	1.0	-49.0	-25.0	-24.0	
High Ch, 2687.5									
5375.00	-18.9	V	3.0	33.1	1.0	-51.1	-25.0	-26.1	
8062.50	-17.7	V	3.0	32.8	1.0	-49.6	-25.0	-24.6	
10750.00	-15.5	V	3.0	32.3	1.0	-46.8	-25.0	-21.8	
5375.00	-20.3	H	3.0	33.1	1.0	-52.4	-25.0	-27.4	
8062.50	-16.9	H	3.0	32.8	1.0	-48.7	-25.0	-23.7	
10750.00	-15.7	H	3.0	32.3	1.0	-46.9	-25.0	-21.9	

LTE B41 5MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 41 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.5									
4997.00	-18.9	V	3.0	33.2	1.0	-51.2	-25.0	-26.2	
7495.50	-19.4	V	3.0	32.8	1.0	-51.2	-25.0	-26.2	
9994.00	-16.8	V	3.0	32.8	1.0	-48.6	-25.0	-23.6	
4997.00	-16.8	H	3.0	33.2	1.0	-49.1	-25.0	-24.1	
7495.50	-18.8	H	3.0	32.8	1.0	-50.6	-25.0	-25.6	
9994.00	-17.4	H	3.0	32.8	1.0	-49.2	-25.0	-24.2	
Mid Ch, 2593									
5186.00	-20.9	V	3.0	33.2	1.0	-53.1	-25.0	-28.1	
7779.00	-18.6	V	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10372.00	-16.5	V	3.0	32.5	1.0	-48.0	-25.0	-23.0	
5186.00	-20.2	H	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7779.00	-18.6	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10372.00	-17.2	H	3.0	32.5	1.0	-48.7	-25.0	-23.7	
High Ch, 2687.5									
5375.00	-18.5	V	3.0	33.1	1.0	-50.6	-25.0	-25.6	
8062.50	-17.5	V	3.0	32.8	1.0	-49.4	-25.0	-24.4	
10750.00	-16.5	V	3.0	32.3	1.0	-47.7	-25.0	-22.7	
5375.00	-21.4	H	3.0	33.1	1.0	-53.5	-25.0	-28.5	
8062.50	-17.7	H	3.0	32.8	1.0	-49.5	-25.0	-24.5	
10750.00	-16.0	H	3.0	32.3	1.0	-47.3	-25.0	-22.3	

LTE B41 5MHz 16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 41 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-18.0	V	3.0	33.2	1.0	-50.3	-25.0	-25.3	
7503.00	-18.4	V	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10004.00	-16.8	V	3.0	32.8	1.0	-48.5	-25.0	-23.5	
5002.00	-19.0	H	3.0	33.2	1.0	-51.2	-25.0	-26.2	
7503.00	-19.1	H	3.0	32.8	1.0	-51.0	-25.0	-26.0	
10004.00	-17.6	H	3.0	32.8	1.0	-49.4	-25.0	-24.4	
Mid Ch, 2593									
5186.00	-20.4	V	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7779.00	-19.0	V	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10372.00	-17.0	V	3.0	32.5	1.0	-48.5	-25.0	-23.5	
5186.00	-21.0	H	3.0	33.2	1.0	-53.1	-25.0	-28.1	
7779.00	-18.4	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10372.00	-15.9	H	3.0	32.5	1.0	-47.4	-25.0	-22.4	
High Ch, 2685									
5370.00	-20.3	V	3.0	33.1	1.0	-52.4	-25.0	-27.4	
8055.00	-17.4	V	3.0	32.8	1.0	-49.2	-25.0	-24.2	
10740.00	-16.2	V	3.0	32.3	1.0	-47.5	-25.0	-22.5	
5370.00	-21.8	H	3.0	33.1	1.0	-53.9	-25.0	-28.9	
8055.00	-18.4	H	3.0	32.8	1.0	-50.3	-25.0	-25.3	
10740.00	-16.2	H	3.0	32.3	1.0	-47.5	-25.0	-22.5	

LTE B41 10MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 41 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-18.8	V	3.0	33.2	1.0	-51.0	-25.0	-26.0	
7503.00	-19.1	V	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10004.00	-16.7	V	3.0	32.8	1.0	-48.5	-25.0	-23.5	
5002.00	-18.7	H	3.0	33.2	1.0	-51.0	-25.0	-26.0	
7503.00	-19.3	H	3.0	32.8	1.0	-51.1	-25.0	-26.1	
10004.00	-17.3	H	3.0	32.8	1.0	-49.1	-25.0	-24.1	
Mid Ch, 2593									
5186.00	-19.6	V	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7779.00	-18.7	V	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10372.00	-16.8	V	3.0	32.5	1.0	-48.3	-25.0	-23.3	
5186.00	-20.7	H	3.0	33.2	1.0	-52.9	-25.0	-27.9	
7779.00	-18.6	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10372.00	-16.7	H	3.0	32.5	1.0	-48.3	-25.0	-23.3	
High Ch, 2685									
5370.00	-20.5	V	3.0	33.1	1.0	-52.6	-25.0	-27.6	
8055.00	-17.0	V	3.0	32.8	1.0	-48.8	-25.0	-23.8	
10740.00	-15.9	V	3.0	32.3	1.0	-47.2	-25.0	-22.2	
5370.00	-21.5	H	3.0	33.1	1.0	-53.7	-25.0	-28.7	
8055.00	-18.1	H	3.0	32.8	1.0	-50.0	-25.0	-25.0	
10740.00	-16.4	H	3.0	32.3	1.0	-47.7	-25.0	-22.7	

LTE B41 10MHz 16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 41 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503.5									
5007.00	-19.3	V	3.0	33.2	1.0	-51.5	-25.0	-26.5	
7510.50	-19.0	V	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10014.00	-17.1	V	3.0	32.8	1.0	-48.9	-25.0	-23.9	
5007.00	-19.7	H	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7510.50	-18.8	H	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10014.00	-16.9	H	3.0	32.8	1.0	-48.7	-25.0	-23.7	
Mid Ch, 2593									
5186.00	-21.0	V	3.0	33.2	1.0	-53.2	-25.0	-28.2	
7779.00	-17.8	V	3.0	32.8	1.0	-49.6	-25.0	-24.6	
10372.00	-17.1	V	3.0	32.5	1.0	-48.7	-25.0	-23.7	
5186.00	-20.3	H	3.0	33.2	1.0	-52.5	-25.0	-27.5	
7779.00	-19.1	H	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10372.00	-16.8	H	3.0	32.5	1.0	-48.3	-25.0	-23.3	
High Ch, 2682.5									
5365.00	-18.2	V	3.0	33.1	1.0	-50.3	-25.0	-25.3	
8047.50	-17.3	V	3.0	32.8	1.0	-49.1	-25.0	-24.1	
10730.00	-15.6	V	3.0	32.3	1.0	-46.8	-25.0	-21.8	
5365.00	-21.3	H	3.0	33.1	1.0	-53.4	-25.0	-28.4	
8047.50	-18.1	H	3.0	32.8	1.0	-49.9	-25.0	-24.9	
10730.00	-15.8	H	3.0	32.3	1.0	-47.1	-25.0	-22.1	

LTE B41 15MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 41 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503.5									
5007.00	-19.6	V	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7510.50	-18.8	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10014.00	-17.4	V	3.0	32.8	1.0	-49.1	-25.0	-24.1	
5007.00	-19.1	H	3.0	33.2	1.0	-51.3	-25.0	-26.3	
7510.50	-19.2	H	3.0	32.8	1.0	-51.1	-25.0	-26.1	
10014.00	-17.6	H	3.0	32.8	1.0	-49.4	-25.0	-24.4	
Mid Ch, 2593									
5186.00	-21.4	V	3.0	33.2	1.0	-53.6	-25.0	-28.6	
7779.00	-18.0	V	3.0	32.8	1.0	-49.8	-25.0	-24.8	
10372.00	-17.0	V	3.0	32.5	1.0	-48.5	-25.0	-23.5	
5186.00	-21.4	H	3.0	33.2	1.0	-53.6	-25.0	-28.6	
7779.00	-18.4	H	3.0	32.8	1.0	-50.3	-25.0	-25.3	
10372.00	-17.3	H	3.0	32.5	1.0	-48.8	-25.0	-23.8	
High Ch, 2682.5									
5365.00	-16.8	V	3.0	33.1	1.0	-49.0	-25.0	-24.0	
8047.50	-17.5	V	3.0	32.8	1.0	-49.3	-25.0	-24.3	
10730.00	-15.5	V	3.0	32.3	1.0	-46.8	-25.0	-21.8	
5365.00	-21.8	H	3.0	33.1	1.0	-54.0	-25.0	-29.0	
8047.50	-16.9	H	3.0	32.8	1.0	-48.7	-25.0	-23.7	
10730.00	-15.7	H	3.0	32.3	1.0	-47.0	-25.0	-22.0	

LTE B41 15MHz 16QAM

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 41 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2506									
5012.00	-20.2	V	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7518.00	-19.0	V	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10024.00	-16.6	V	3.0	32.8	1.0	-48.3	-25.0	-23.3	
5012.00	-19.2	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7518.00	-18.2	H	3.0	32.8	1.0	-50.0	-25.0	-25.0	
10024.00	-16.5	H	3.0	32.8	1.0	-48.2	-25.0	-23.2	
Mid Ch, 2593									
5186.00	-20.7	V	3.0	33.2	1.0	-52.9	-25.0	-27.9	
7779.00	-18.5	V	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10372.00	-16.5	V	3.0	32.5	1.0	-48.0	-25.0	-23.0	
5186.00	-20.6	H	3.0	33.2	1.0	-52.8	-25.0	-27.8	
7779.00	-18.8	H	3.0	32.8	1.0	-50.6	-25.0	-25.6	
10372.00	-16.5	H	3.0	32.5	1.0	-48.0	-25.0	-23.0	
High Ch, 2680									
5360.00	-20.1	V	3.0	33.1	1.0	-52.3	-25.0	-27.3	
8040.00	-17.9	V	3.0	32.8	1.0	-49.7	-25.0	-24.7	
10720.00	-16.1	V	3.0	32.3	1.0	-47.4	-25.0	-22.4	
5360.00	-18.2	H	3.0	33.1	1.0	-50.4	-25.0	-25.4	
8040.00	-17.6	H	3.0	32.8	1.0	-49.5	-25.0	-24.5	
10720.00	-15.9	H	3.0	32.3	1.0	-47.2	-25.0	-22.2	

LTE B41 20MHz QPSK

UL Verification Services, Inc.
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11785248
Date: 6/21/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 41 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2506									
5012.00	-20.4	V	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7518.00	-17.9	V	3.0	32.8	1.0	-49.8	-25.0	-24.8	
10024.00	-17.0	V	3.0	32.8	1.0	-48.8	-25.0	-23.8	
5012.00	-19.2	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7518.00	-18.5	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10024.00	-17.0	H	3.0	32.8	1.0	-48.7	-25.0	-23.7	
Mid Ch, 2593									
5186.00	-20.9	V	3.0	33.2	1.0	-53.1	-25.0	-28.1	
7779.00	-18.9	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10372.00	-16.4	V	3.0	32.5	1.0	-47.9	-25.0	-22.9	
5186.00	-19.4	H	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7779.00	-18.6	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10372.00	-17.0	H	3.0	32.5	1.0	-48.6	-25.0	-23.6	
High Ch, 2680									
5360.00	-19.5	V	3.0	33.1	1.0	-51.7	-25.0	-26.7	
8040.00	-18.1	V	3.0	32.8	1.0	-49.9	-25.0	-24.9	
10720.00	-15.0	V	3.0	32.3	1.0	-46.3	-25.0	-21.3	
5360.00	-19.3	H	3.0	33.1	1.0	-51.4	-25.0	-26.4	
8040.00	-16.4	H	3.0	32.8	1.0	-48.2	-25.0	-23.2	
10720.00	-15.7	H	3.0	32.3	1.0	-47.0	-25.0	-22.0	

LTE B41 20MHz 16QAM