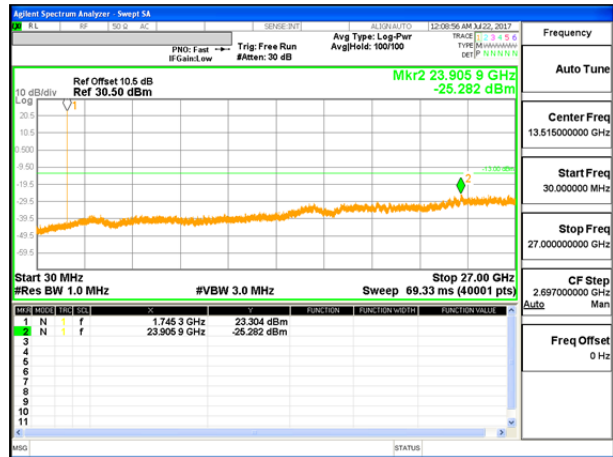


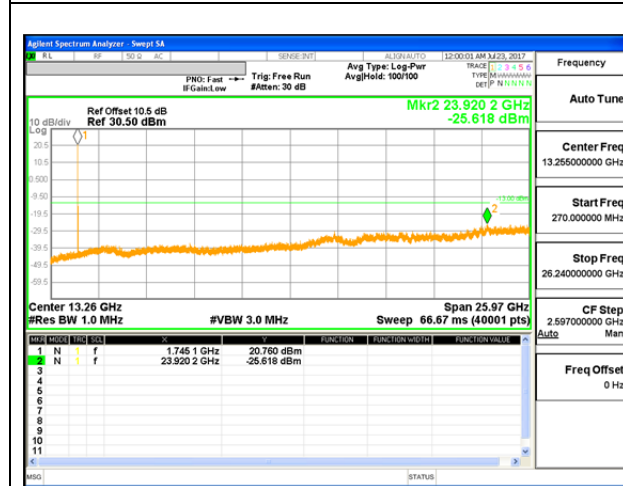
Band	BW (MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
LTE66	15	QPSK	1717.5	-25.282	-13	-12.282
			1745	-25.38	-13	-12.38
			1772.5	-25.723	-13	-12.723
		16QAM	1717.5	-25.849	-13	-12.849
			1745	-24.554	-13	-11.554
			1772.5	-25.79	-13	-12.79
	20	QPSK	1720	-25.316	-13	-12.316
			1745	-25.618	-13	-12.618
			1770	-25.111	-13	-12.111
		16QAM	1720	-25.737	-13	-12.737
			1745	-25.947	-13	-12.947
			1770	-24.87	-13	-11.87



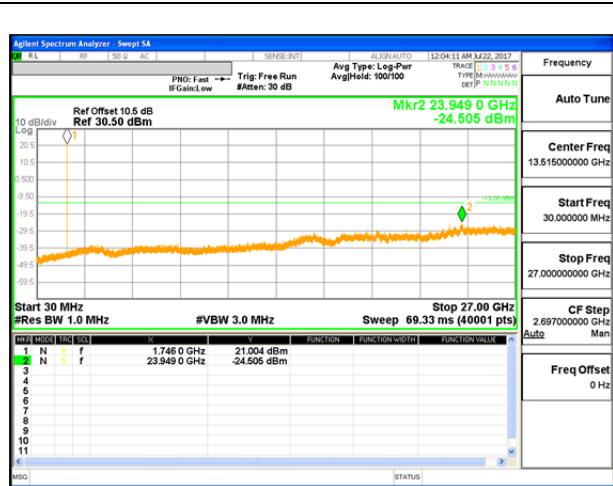
LTE B66 1.4MHz QPSK Middle Channel



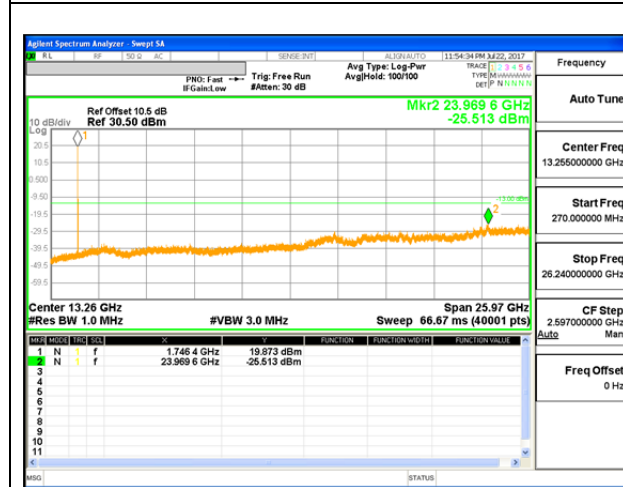
LTE B66 1.4MHz 16QAM Middle Channel



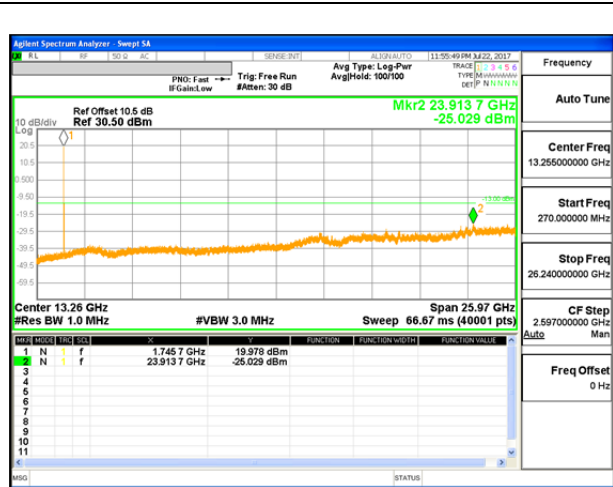
LTE B66 3MHz QPSK Middle Channel



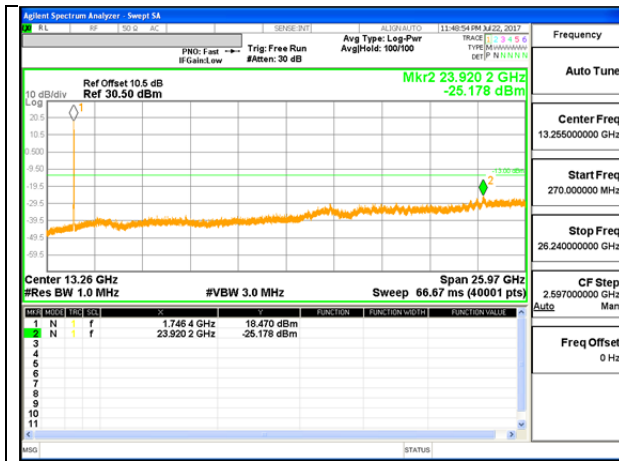
LTE B66 3MHz 16QAM Middle Channel



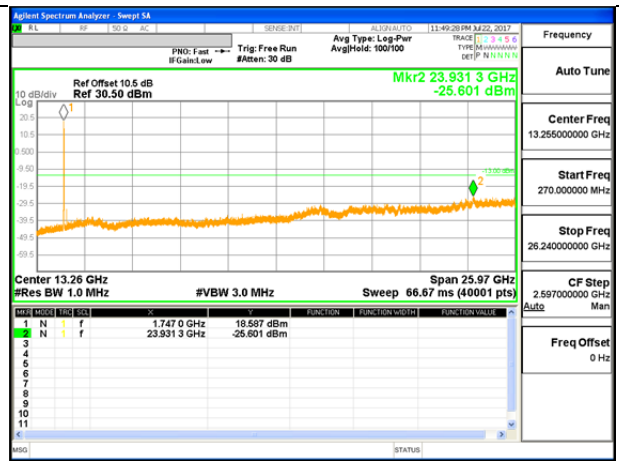
LTE B66 5MHz QPSK Middle Channel



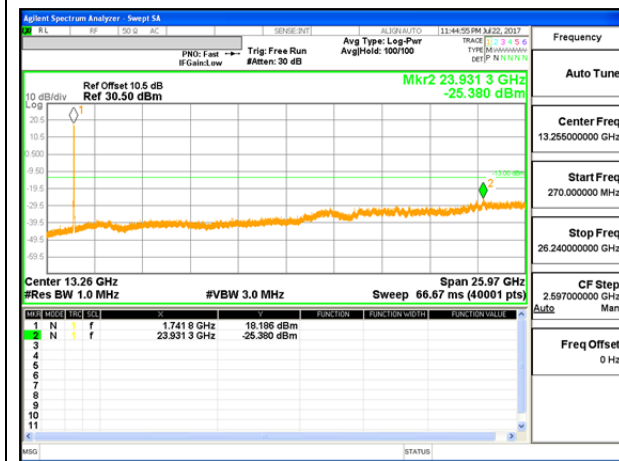
LTE B66 5MHz 16QAM Middle Channel



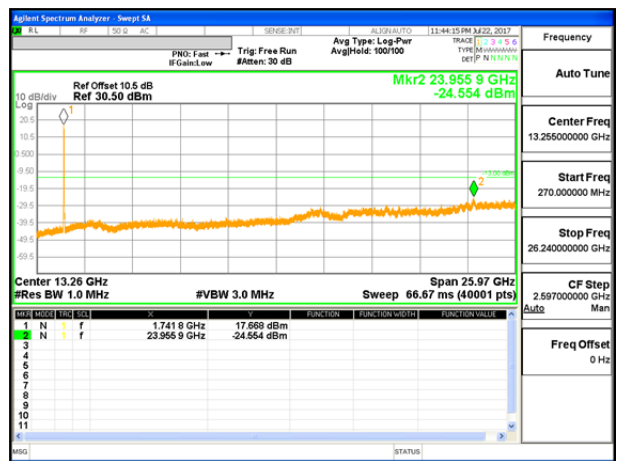
LTE B66 10MHz QPSK Middle Channel



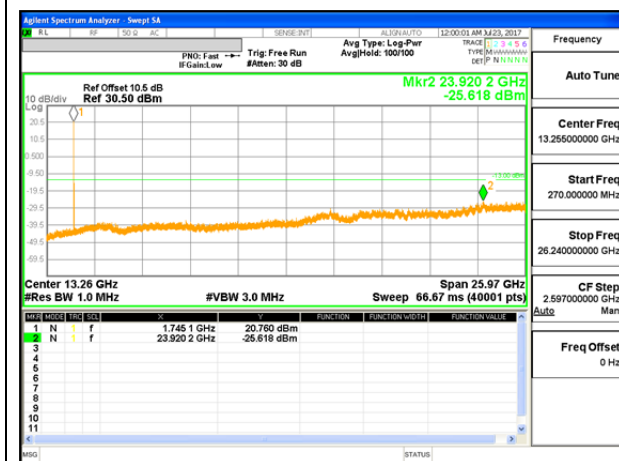
LTE B66 10MHz 16QAM Middle Channel



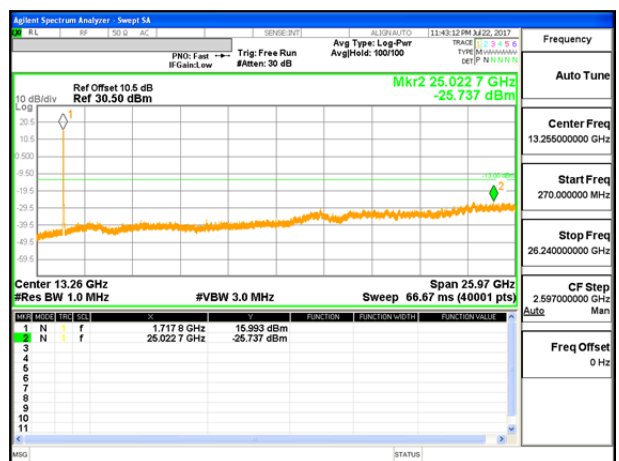
LTE B66 15MHz QPSK Middle Channel



LTE B66 15MHz 16QAM Middle Channel



LTE B66 20MHz QPSK Middle Channel



LTE B66 20MHz 16QAM Middle Channel

18. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235, §27.54 and §90.213

FCC LIMITS

§22.355 - The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

§24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

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

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

Results

Tested By	Oren Stoelting
Date	07/17/2017

Note(s):

GSM 850 Band Measured Results

GSM 850 (Frequency range: 824.2-848.8 MHz) is covered by LTE Band 26 (Frequency range: 814-849 MHz) no testing is necessary due to overlapping frequency range.

GSM 1900 Band Measured Results

GSM 1900 (Frequency range: 1850.2-1909.8 MHz) is covered by LTE Band 25 (Frequency range: 1850-1915 MHz) no testing is necessary due to overlapping frequency range.

WCDMA Band 5 Measured Results

WCDMA Band 5 (Frequency range: 826.4-846.6 MHz) is covered by LTE Band 26 (Frequency range: 814-849 MHz) no testing is necessary due to overlapping frequency range.

WCDMA Band 2 & LTE B2 Measured Results

WCDMA Band 2(Frequency range: 1852.4-1907.6 MHz) & LTE B2(Frequency range: 1850-1910 MHz) is covered by LTE Band 25 (Frequency range: 1850-1915 MHz) no testing is necessary due to overlapping frequency range.

WCDMA Band 4 Measured Results

WCDMA Band 4 (Frequency range: 1712.4-1752.6 MHz) is covered by LTE Band 66 (Frequency range: 1710-1780 MHz) no testing is necessary due to overlapping frequency range.

18.1. 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 (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	55	2535.000014	0.000	2.5
3.85	40	2535.000015	0.000	2.5
3.85	30	2535.000015	0.000	2.5
3.85	20	2535.000015	0	2.5
3.85	10	2535.000014	0.000	2.5
3.85	0	2535.000013	0.001	2.5
3.85	-10	2535.000015	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 (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	20	2535.000015	0	2.5
4.25	20	2535.000014	0.000	2.5
3.65	20	2535.000016	0.000	2.5

LTE Band 12

Reference Frequency: LTE Band 12 Mid Channel				
			707.5	MHz @ 20°C
			Limit: to stay +/- 2.5 ppm =	1768.750 Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	55	707.499990	-0.001	2.5
3.85	40	707.499985	0.007	2.5
3.85	30	707.499989	0.002	2.5
3.85	20	707.499990	0	2.5
3.85	10	707.499988	0.003	2.5
3.85	0	707.499992	-0.003	2.5
3.85	-10	707.499990	0.000	2.5

Reference Frequency: LTE Band 12 Mid Channel				
			707.5	MHz @ 20°C
			Limit: to stay +/- 2.5 ppm =	1768.750 Hz
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	20	707.499990	0	2.5
4.25	20	707.499990	0.000	2.5
3.65	20	707.499987	0.003	2.5

LTE Band 13

Reference Frequency: LTE Band 13 Mid Channel		782	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		1955.000	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	55	781.999989	-0.002	2.5
3.85	40	781.999989	-0.003	2.5
3.85	30	781.999987	-0.001	2.5
3.85	20	781.999987	0	2.5
3.85	10	781.999989	-0.003	2.5
3.85	0	781.999989	-0.003	2.5
3.85	-10	781.999988	-0.002	2.5

Reference Frequency: LTE Band 13 Mid Channel		782	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		1955.000	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	20	781.999987	0	2.5
4.25	20	781.999983	0.004	2.5
3.65	20	781.999989	-0.002	2.5

LTE Band 25

Reference Frequency: LTE Band 25 Mid Channel		1882.5	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		4706.250	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	55	1882.499987	0.000	2.5
3.85	40	1882.499987	0.000	2.5
3.85	30	1882.499986	0.000	2.5
3.85	20	1882.499987	0	2.5
3.85	10	1882.499989	-0.001	2.5
3.85	0	1882.499988	-0.001	2.5
3.85	-10	1882.499988	0.000	2.5

Reference Frequency: LTE Band 25 Mid Channel		1882.5	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		4706.250	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	20	1882.499987	0.000	2.5
4.25	20	1882.499983	0.002	2.5
3.65	20	1882.499985	0.001	2.5

LTE Band 26

Reference Frequency: LTE Band 26 Mid Channel		831.5	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		2078.750	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	55	831.500015	-0.001	2.5
3.85	40	831.500014	0.000	2.5
3.85	30	831.500012	0.002	2.5
3.85	20	831.500014	0	2.5
3.85	10	831.500014	0.001	2.5
3.85	0	831.500015	-0.001	2.5
3.85	-10	831.500013	0.001	2.5

Reference Frequency: LTE Band 26 Mid Channel		831.5	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		2078.750	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	20	831.500014	0	2.5
4.25	20	831.500016	-0.002	2.5
3.65	20	831.500014	0.000	2.5

LTE Band 66

Reference Frequency: LTE Band 4 Mid Channel		1745	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		4362.500	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	55	1745.000014	0.000	2.5
3.85	40	1745.000015	0.000	2.5
3.85	30	1745.000014	0.001	2.5
3.85	20	1745.000015	0	2.5
3.85	10	1745.000015	0.000	2.5
3.85	0	1745.000015	0.000	2.5
3.85	-10	1745.000015	0.000	2.5

Reference Frequency: LTE Band 4 Mid Channel		1745	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		4362.500	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.85	20	1745.000015	0	2.5
4.25	20	1745.000014	0.000	2.5
3.65	20	1745.000016	-0.001	2.5

19. RADIATED TEST RESULTS

19.1. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238, §27.53 and §90.691

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 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

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.

19.1.1. SPURIOUS RADIATION PLOTS

GSM

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/17/2017								
Test Engineer:		37290								
Configuration:		EUT + AC + Headset								
Location:		Chamber C								
Mode:		GPRS 850 MHz Harmonics								
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 824.2										
1648.40	-29.6	V	3.0	36.4	1.0	45.0	-13.0	52.0		
2472.60	-27.1	V	3.0	35.0	1.0	41.1	-13.0	48.1		
3296.80	-25.2	V	3.0	34.3	1.0	58.5	-13.0	45.5		
1648.40	-27.9	H	3.0	36.4	1.0	43.2	-13.0	50.2		
2472.60	-28.0	H	3.0	35.0	1.0	42.0	-13.0	49.0		
3296.80	-27.1	H	3.0	34.3	1.0	60.4	-13.0	47.4		
Mid Ch, 836.6										
1673.20	-28.2	V	3.0	36.3	1.0	43.5	-13.0	50.5		
2509.80	-27.6	V	3.0	34.9	1.0	41.6	-13.0	48.6		
3346.40	-25.3	V	3.0	34.2	1.0	58.5	-13.0	45.5		
1673.20	-27.1	H	3.0	36.3	1.0	42.5	-13.0	49.5		
2509.80	-28.2	H	3.0	34.9	1.0	42.1	-13.0	49.1		
3346.40	-26.2	H	3.0	34.2	1.0	59.5	-13.0	46.5		
High Ch, 848.8										
1697.60	-27.6	V	3.0	36.3	1.0	42.0	-13.0	49.0		
2546.40	-27.7	V	3.0	34.9	1.0	41.6	-13.0	48.6		
3395.20	-26.2	V	3.0	34.2	1.0	59.4	-13.0	46.4		
1697.60	-29.8	H	3.0	36.3	1.0	45.1	-13.0	52.1		
2546.40	-27.1	H	3.0	34.9	1.0	41.9	-13.0	48.9		
3395.20	-27.8	H	3.0	34.2	1.0	60.9	-13.0	47.9		

GSM850 GPRS

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/17/2017								
Test Engineer:		37290								
Configuration:		EUT + AC + Headset								
Location:		Chamber C								
Mode:		EGPRS 850 MHz Harmonics								
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 824.2										
1648.40	-26.2	V	3.0	36.4	1.0	43.5	-13.0	50.5		
2472.60	-27.7	V	3.0	35.0	1.0	41.7	-13.0	48.7		
3296.80	-25.7	V	3.0	34.3	1.0	59.0	-13.0	46.0		
1648.40	-29.8	H	3.0	36.4	1.0	45.2	-13.0	52.2		
2472.60	-27.3	H	3.0	35.0	1.0	41.3	-13.0	48.3		
3296.80	-26.5	H	3.0	34.3	1.0	59.8	-13.0	46.8		
Mid Ch, 836.6										
1673.20	-26.9	V	3.0	36.3	1.0	42.2	-13.0	49.2		
2509.80	-28.4	V	3.0	34.9	1.0	42.3	-13.0	49.3		
3346.40	-24.8	V	3.0	34.2	1.0	58.1	-13.0	45.1		
1673.20	-26.3	H	3.0	36.3	1.0	41.6	-13.0	48.6		
2509.80	-27.7	H	3.0	34.9	1.0	41.6	-13.0	48.6		
3346.40	-26.2	H	3.0	34.2	1.0	59.4	-13.0	46.4		
High Ch, 848.8										
1697.60	-26.2	V	3.0	36.3	1.0	41.5	-13.0	48.5		
2546.40	-26.1	V	3.0	34.9	1.0	40.0	-13.0	47.0		
3395.20	-26.5	V	3.0	34.2	1.0	59.7	-13.0	46.7		
1697.60	-29.9	H	3.0	36.3	1.0	45.2	-13.0	52.2		
2546.40	-26.7	H	3.0	34.9	1.0	40.6	-13.0	47.6		
3395.20	-26.8	H	3.0	34.2	1.0	60.0	-13.0	47.0		

GSM850 EGPRS

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/14/2017								
Test Engineer:		43575 OS								
Configuration:		EUT + AC + Headset								
Location:		Chamber B								
Mode:		GPRS 1900 MHz Harmonics								
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 1850.2										
3700.40	-18.7	V	3.0	38.4	1.0	56.1	-13.0	43.1		
5550.60	-18.8	V	3.0	38.8	1.0	56.5	-13.0	43.5		
7400.80	-18.5	V	3.0	38.3	1.0	55.7	-13.0	42.7		
3700.40	-19.3	H	3.0	38.4	1.0	56.7	-13.0	43.7		
5550.60	-18.5	H	3.0	38.8	1.0	56.3	-13.0	43.3		
7400.80	-18.7	H	3.0	38.3	1.0	56.0	-13.0	43.0		
Mid Ch, 1880										
3760.00	-18.4	V	3.0	38.4	1.0	55.8	-13.0	42.8		
5640.00	-17.9	V	3.0	38.7	1.0	55.7	-13.0	42.7		
7520.00	-18.9	V	3.0	38.2	1.0	56.1	-13.0	43.1		
3760.00	-19.2	H	3.0	38.4	1.0	56.6	-13.0	43.6		
5640.00	-19.1	H	3.0	38.7	1.0	56.8	-13.0	43.8		
7520.00	-17.6	H	3.0	38.2	1.0	54.8	-13.0	41.8		
High Ch, 1909.8										
3819.60	-18.2	V	3.0	38.4	1.0	55.6	-13.0	42.6		
5729.40	-16.1	V	3.0	38.7	1.0	53.8	-13.0	40.8		
7639.20	-17.8	V	3.0	38.1	1.0	54.9	-13.0	41.9		
3819.60	-19.1	H	3.0	38.4	1.0	56.5	-13.0	43.5		
5729.40	-19.3	H	3.0	38.7	1.0	57.1	-13.0	44.1		
7639.20	-16.7	H	3.0	38.1	1.0	53.8	-13.0	40.8		

GSM1900 GPRS

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/14/2017								
Test Engineer:		43575 OS								
Configuration:		EUT + AC + Headset								
Location:		Chamber B								
Mode:		EGPRS 1900 MHz Harmonics								
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 1850.2										
3700.40	-19.5	V	3.0	38.4	1.0	57.0	-13.0	44.0		
5550.60	-18.9	V	3.0	38.8	1.0	56.7	-13.0	43.7		
7400.80	-18.6	V	3.0	38.3	1.0	55.9	-13.0	42.9		
3700.40	-19.8	H	3.0	38.4	1.0	57.2	-13.0	44.2		
5550.60	-18.1	H	3.0	38.8	1.0	55.9	-13.0	42.9		
7400.80	-18.3	H	3.0	38.3	1.0	55.5	-13.0	42.5		
Mid Ch, 1880										
3760.00	-18.3	V	3.0	38.4	1.0	55.8	-13.0	42.8		
5640.00	-19.4	V	3.0	38.7	1.0	57.1	-13.0	44.1		
7520.00	-17.1	V	3.0	38.2	1.0	54.3	-13.0	41.3		
3760.00	-19.3	H	3.0	38.4	1.0	56.7	-13.0	43.7		
5640.00	-18.6	H	3.0	38.7	1.0	56.4	-13.0	43.4		
7520.00	-17.6	H	3.0	38.2	1.0	54.8	-13.0	41.8		
High Ch, 1909.8										
3819.60	-19.0	V	3.0	38.4	1.0	56.4	-13.0	43.4		
5729.40	-19.0	V	3.0	38.7	1.0	56.7	-13.0	43.7		
7639.20	-17.2	V	3.0	38.1	1.0	54.3	-13.0	41.3		
3819.60	-18.8	H	3.0	38.4	1.0	56.2	-13.0	43.2		
5729.40	-17.7	H	3.0	38.7	1.0	55.4	-13.0	42.4		
7639.20	-17.6	H	3.0	38.1	1.0	54.8	-13.0	41.8		

GSM1900 EGPRS

WCDMA

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: Ref99 Band 2 Harmonics

F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4									
3764.80	-18.5	V	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5557.20	-18.0	V	3.0	38.8	1.0	-56.8	-13.0	-42.8	
7409.60	-18.4	V	3.0	38.3	1.0	-55.7	-13.0	-42.7	
3764.80	-20.0	H	3.0	38.4	1.0	-57.4	-13.0	-44.4	
5557.20	-18.3	H	3.0	38.8	1.0	-56.1	-13.0	-43.1	
7409.60	-18.6	H	3.0	38.3	1.0	-55.9	-13.0	-42.9	
Mid Ch, 1880									
3760.00	-18.7	V	3.0	38.4	1.0	-56.1	-13.0	-43.1	
5640.00	-18.7	V	3.0	38.7	1.0	-56.5	-13.0	-43.5	
7520.00	-18.1	V	3.0	38.2	1.0	-55.3	-13.0	-42.3	
3760.00	-19.3	H	3.0	38.4	1.0	-56.7	-13.0	-43.7	
5640.00	-18.6	H	3.0	38.7	1.0	-56.3	-13.0	-43.3	
7520.00	-18.4	H	3.0	38.2	1.0	-55.6	-13.0	-42.6	
High Ch, 1907.6									
3815.20	-18.9	V	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5722.80	-19.1	V	3.0	38.7	1.0	-56.8	-13.0	-43.8	
7630.40	-18.2	V	3.0	38.1	1.0	-55.4	-13.0	-42.4	
3815.20	-19.1	H	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5722.80	-18.0	H	3.0	38.7	1.0	-55.8	-13.0	-42.8	
7630.40	-17.7	H	3.0	38.1	1.0	-54.9	-13.0	-41.9	

B2 REL99

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: HSDPA Band 2 Harmonics

F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4									
3764.80	-18.9	V	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5557.20	-19.1	V	3.0	38.8	1.0	-56.9	-13.0	-43.9	
7409.60	-17.8	V	3.0	38.3	1.0	-55.1	-13.0	-42.1	
3764.80	-19.5	H	3.0	38.4	1.0	-56.9	-13.0	-43.9	
5557.20	-18.5	H	3.0	38.8	1.0	-56.3	-13.0	-43.3	
7409.60	-18.8	H	3.0	38.3	1.0	-56.1	-13.0	-43.1	
Mid Ch, 1880									
3760.00	-18.4	V	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5640.00	-19.3	V	3.0	38.7	1.0	-57.1	-13.0	-44.1	
7520.00	-17.9	V	3.0	38.2	1.0	-55.1	-13.0	-42.1	
3760.00	-18.3	H	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5640.00	-19.5	H	3.0	38.7	1.0	-57.3	-13.0	-44.3	
7520.00	-18.7	H	3.0	38.2	1.0	-55.9	-13.0	-42.9	
High Ch, 1907.6									
3815.20	-18.2	V	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5722.80	-16.1	V	3.0	38.7	1.0	-53.9	-13.0	-40.9	
7630.40	-17.8	V	3.0	38.1	1.0	-54.9	-13.0	-41.9	
3815.20	-19.0	H	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5722.80	-19.8	H	3.0	38.7	1.0	-57.5	-13.0	-44.5	
7630.40	-17.9	H	3.0	38.1	1.0	-55.0	-13.0	-42.0	

B2 HSDPA

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: Ref99 Band 4 Harmonics

F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1712.4									
3424.80	-21.4	V	3.0	38.5	1.0	-58.9	-13.0	-45.9	
5132.20	-18.5	V	3.0	38.8	1.0	-56.3	-13.0	-43.3	
6849.60	-19.0	V	3.0	38.5	1.0	-56.5	-13.0	-43.5	
3424.80	-21.4	H	3.0	38.5	1.0	-58.9	-13.0	-45.9	
5132.20	-19.4	H	3.0	38.8	1.0	-57.2	-13.0	-44.2	
6849.60	-19.0	H	3.0	38.5	1.0	-56.5	-13.0	-43.5	
Mid Ch, 1732.6									
3465.20	-20.8	V	3.0	38.5	1.0	-58.3	-13.0	-45.3	
5197.80	-19.8	V	3.0	38.8	1.0	-57.6	-13.0	-44.6	
6930.40	-17.9	V	3.0	38.5	1.0	-55.4	-13.0	-42.4	
3465.20	-21.6	H	3.0	38.5	1.0	-59.1	-13.0	-46.1	
5197.80	-19.6	H	3.0	38.8	1.0	-57.5	-13.0	-44.5	
6930.40	-17.4	H	3.0	38.5	1.0	-54.9	-13.0	-41.9	
High Ch, 1752.6									
3505.20	-21.3	V	3.0	38.5	1.0	-58.8	-13.0	-45.8	
5257.80	-18.9	V	3.0	38.8	1.0	-56.7	-13.0	-43.7	
7016.40	-18.2	V	3.0	38.5	1.0	-55.7	-13.0	-42.7	
3505.20	-21.7	H	3.0	38.5	1.0	-59.2	-13.0	-46.2	
5257.80	-19.9	H	3.0	38.8	1.0	-57.7	-13.0	-44.7	
7016.40	-18.8	H	3.0	38.5	1.0	-56.3	-13.0	-43.3	

B4 REL99

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: HSDPA Band 4 Harmonics

F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1712.4									
3424.80	-21.8	V	3.0	38.5	1.0	-59.3	-13.0	-46.3	
5132.20	-18.0	V	3.0	38.8	1.0	-55.8	-13.0	-42.8	
6849.60	-19.0	V	3.0	38.5	1.0	-56.5	-13.0	-43.5	
3424.80	-22.0	H	3.0	38.5	1.0	-59.5	-13.0	-46.5	
5132.20	-19.2	H	3.0	38.8	1.0	-57.0	-13.0	-44.0	
6849.60	-17.9	H	3.0	38.5	1.0	-55.4	-13.0	-42.4	
Mid Ch, 1732.6									
3465.20	-21.9	V	3.0	38.5	1.0	-59.3	-13.0	-46.3	
5197.80	-19.1	V	3.0	38.8	1.0	-56.9	-13.0	-43.9	
6930.40	-18.9	V	3.0	38.5	1.0	-56.4	-13.0	-43.4	
3465.20	-21.9	H	3.0	38.5	1.0	-59.4	-13.0	-46.4	
5197.80	-18.4	H	3.0	38.8	1.0	-56.2	-13.0	-43.2	
6930.40	-17.8	H	3.0	38.5	1.0	-55.1	-13.0	-42.1	
High Ch, 1752.6									
3505.20	-21.4	V	3.0	38.5	1.0	-58.8	-13.0	-45.8	
5257.80	-20.3	V	3.0	38.8	1.0	-58.1	-13.0	-45.1	
7016.40	-17.6	V	3.0	38.5	1.0	-55.1	-13.0	-42.1	
3505.20	-21.7	H	3.0	38.5	1.0	-59.1	-13.0	-46.1	
5257.80	-19.9	H	3.0	38.8	1.0	-57.7	-13.0	-44.7	
7016.40	-17.1	H	3.0	38.5	1.0	-54.6	-13.0	-41.6	

B4 HSDPA

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

Company: SOMAC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: Ref99 Band 5 Harmonics

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.4									
1652.80	-30.7	V	3.0	36.4	1.0	-66.0	-13.0	-53.0	
2479.20	-27.6	V	3.0	35.0	1.0	-61.6	-13.0	-48.6	
3305.60	-26.5	V	3.0	34.3	1.0	-59.7	-13.0	-46.7	
1652.80	-29.8	H	3.0	36.4	1.0	-65.1	-13.0	-52.1	
2479.20	-26.8	H	3.0	35.0	1.0	-60.8	-13.0	-47.8	
3305.60	-26.8	H	3.0	34.3	1.0	-60.0	-13.0	-47.0	
Mid Ch, 836.6									
1673.20	-29.7	V	3.0	36.3	1.0	-65.0	-13.0	-52.0	
2509.80	-28.1	V	3.0	34.9	1.0	-62.0	-13.0	-49.0	
3346.40	-24.9	V	3.0	34.2	1.0	-58.1	-13.0	-45.1	
1673.20	-29.4	H	3.0	36.3	1.0	-64.7	-13.0	-51.7	
2509.80	-27.5	H	3.0	34.9	1.0	-61.4	-13.0	-48.4	
3346.40	-26.2	H	3.0	34.2	1.0	-59.4	-13.0	-46.4	
High Ch, 846.6									
1693.20	-26.7	V	3.0	36.3	1.0	-62.0	-13.0	-49.0	
2539.80	-28.3	V	3.0	34.9	1.0	-62.2	-13.0	-49.2	
3386.40	-26.5	V	3.0	34.2	1.0	-59.6	-13.0	-46.6	
1693.20	-27.1	H	3.0	36.3	1.0	-62.4	-13.0	-49.4	
2539.80	-27.4	H	3.0	34.9	1.0	-61.3	-13.0	-48.3	
3386.40	-27.2	H	3.0	34.2	1.0	-60.4	-13.0	-47.4	

B5 REL99

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

Company: SOMAC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: HSDPA Band 5 Harmonics

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.4									
1652.80	-30.6	V	3.0	36.4	1.0	-65.9	-13.0	-52.9	
2479.20	-28.2	V	3.0	35.0	1.0	-62.2	-13.0	-49.2	
3305.60	-26.7	V	3.0	34.3	1.0	-59.4	-13.0	-46.4	
1652.80	-29.4	H	3.0	36.4	1.0	-64.8	-13.0	-51.8	
2479.20	-27.3	H	3.0	35.0	1.0	-61.3	-13.0	-48.3	
3305.60	-26.8	H	3.0	34.3	1.0	-60.1	-13.0	-47.1	
Mid Ch, 836.6									
1673.20	-29.6	V	3.0	36.3	1.0	-64.9	-13.0	-51.9	
2509.80	-27.9	V	3.0	34.9	1.0	-61.8	-13.0	-48.8	
3346.40	-26.7	V	3.0	34.2	1.0	-59.5	-13.0	-46.5	
1673.20	-30.7	H	3.0	36.3	1.0	-66.1	-13.0	-53.1	
2509.80	-28.8	H	3.0	34.9	1.0	-62.7	-13.0	-49.7	
3346.40	-27.1	H	3.0	34.2	1.0	-60.4	-13.0	-47.4	
High Ch, 846.6									
1693.20	-26.9	V	3.0	36.3	1.0	-62.2	-13.0	-49.2	
2539.80	-28.0	V	3.0	34.9	1.0	-61.9	-13.0	-48.9	
3386.40	-26.1	V	3.0	34.2	1.0	-59.2	-13.0	-46.2	
1693.20	-26.4	H	3.0	36.3	1.0	-61.7	-13.0	-48.7	
2539.80	-27.3	H	3.0	34.9	1.0	-61.2	-13.0	-48.2	
3386.40	-25.6	H	3.0	34.2	1.0	-58.8	-13.0	-45.8	

B5 HSDPA

LTE Band 2

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

Company: SOMC
 Project #: 11760905
 Date: 8/9/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 2 Harmonics, 1.4MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-18.9	V	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5552.10	-16.7	V	3.0	38.8	1.0	-54.4	-13.0	-41.4	
7402.80	-17.6	V	3.0	38.3	1.0	-54.9	-13.0	-41.9	
3701.40	-18.6	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5552.10	-17.6	H	3.0	38.8	1.0	-55.4	-13.0	-42.4	
7402.80	-16.6	H	3.0	38.3	1.0	-53.9	-13.0	-40.9	
Mid Ch, 1880									
3760.00	-17.2	V	3.0	38.4	1.0	-54.6	-13.0	-41.6	
5640.00	-17.8	V	3.0	38.7	1.0	-55.5	-13.0	-42.5	
7520.00	-17.4	V	3.0	38.2	1.0	-54.6	-13.0	-41.6	
3760.00	-18.2	H	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5640.00	-18.0	H	3.0	38.7	1.0	-55.8	-13.0	-42.8	
7520.00	-17.2	H	3.0	38.2	1.0	-54.4	-13.0	-41.4	
High Ch, 1909.3									
3818.60	-18.1	V	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5727.90	-17.5	V	3.0	38.7	1.0	-55.2	-13.0	-42.2	
7637.20	-17.2	V	3.0	38.1	1.0	-54.3	-13.0	-41.3	
3818.60	-19.3	H	3.0	38.4	1.0	-56.7	-13.0	-43.7	
5727.90	-16.5	H	3.0	38.7	1.0	-54.2	-13.0	-41.2	
7637.20	-17.0	H	3.0	38.1	1.0	-54.2	-13.0	-41.2	

LTE B2 1.4MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 8/9/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 2 Harmonics, 3MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-17.7	V	3.0	38.4	1.0	-55.2	-13.0	-42.2	
5554.50	-17.1	V	3.0	38.8	1.0	-54.9	-13.0	-41.9	
7406.00	-17.6	V	3.0	38.3	1.0	-54.9	-13.0	-41.9	
3703.00	-18.4	H	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5554.50	-16.9	H	3.0	38.8	1.0	-54.7	-13.0	-41.7	
7406.00	-17.8	H	3.0	38.3	1.0	-55.0	-13.0	-42.0	
Mid Ch, 1880									
3760.00	-17.2	V	3.0	38.4	1.0	-54.6	-13.0	-41.6	
5640.00	-18.0	V	3.0	38.7	1.0	-55.8	-13.0	-42.8	
7520.00	-16.6	V	3.0	38.2	1.0	-53.8	-13.0	-40.8	
3760.00	-18.0	H	3.0	38.4	1.0	-55.4	-13.0	-42.4	
5640.00	-16.8	H	3.0	38.7	1.0	-54.5	-13.0	-41.5	
7520.00	-16.1	H	3.0	38.2	1.0	-53.3	-13.0	-40.3	
High Ch, 1908.5									
3817.00	-18.3	V	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5725.50	-17.3	V	3.0	38.7	1.0	-55.1	-13.0	-42.1	
7634.00	-17.0	V	3.0	38.1	1.0	-54.1	-13.0	-41.1	
3817.00	-24.3	H	3.0	38.4	1.0	-61.7	-13.0	-48.7	
5725.50	-17.4	H	3.0	38.7	1.0	-55.2	-13.0	-42.2	
7634.00	-16.6	H	3.0	38.1	1.0	-53.7	-13.0	-40.7	

LTE B2 3MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 8/9/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 2 Harmonics, 5MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-17.8	V	3.0	38.4	1.0	-55.2	-13.0	-42.2	
5557.50	-16.9	V	3.0	38.8	1.0	-54.6	-13.0	-41.6	
7410.00	-16.7	V	3.0	38.3	1.0	-53.9	-13.0	-40.9	
3705.00	-18.3	H	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5557.50	-17.2	H	3.0	38.8	1.0	-54.8	-13.0	-41.8	
7410.00	-17.8	H	3.0	38.3	1.0	-55.0	-13.0	-42.0	
Mid Ch, 1880									
3760.00	-18.0	V	3.0	38.4	1.0	-55.4	-13.0	-42.4	
5640.00	-17.3	V	3.0	38.7	1.0	-55.1	-13.0	-42.1	
7520.00	-17.3	V	3.0	38.2	1.0	-54.5	-13.0	-41.5	
3760.00	-18.3	H	3.0	38.4	1.0	-56.7	-13.0	-43.7	
5640.00	-16.9	H	3.0	38.7	1.0	-54.7	-13.0	-41.7	
7520.00	-17.4	H	3.0	38.2	1.0	-54.6	-13.0	-41.6	
High Ch, 1907.5									
3815.00	-18.4	V	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5722.50	-17.5	V	3.0	38.7	1.0	-55.3	-13.0	-42.3	
7630.00	-16.8	V	3.0	38.1	1.0	-53.9	-13.0	-40.9	
3815.00	-18.6	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5722.50	-17.1	H	3.0	38.7	1.0	-54.8	-13.0	-41.8	
7630.00	-17.1	H	3.0	38.1	1.0	-54.2	-13.0	-41.2	

LTE B2 5MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 8/9/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 2 Harmonics, 1.4MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-16.9	V	3.0	38.4	1.0	-54.3	-13.0	-41.3	
5552.10	-17.1	V	3.0	38.8	1.0	-54.9	-13.0	-41.9	
7402.80	-16.2	V	3.0	38.3	1.0	-53.5	-13.0	-40.5	
3701.40	-18.5	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5552.10	-16.5	H	3.0	38.8	1.0	-54.2	-13.0	-41.2	
7402.80	-16.9	H	3.0	38.3	1.0	-54.2	-13.0	-41.2	
Mid Ch, 1880									
3760.00	-18.4	V	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5640.00	-17.5	V	3.0	38.7	1.0	-55.2	-13.0	-42.2	
7520.00	-18.0	V	3.0	38.2	1.0	-55.2	-13.0	-42.2	
3760.00	-18.3	H	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5640.00	-17.9	H	3.0	38.7	1.0	-55.6	-13.0	-42.6	
7520.00	-17.7	H	3.0	38.2	1.0	-54.9	-13.0	-41.9	
High Ch, 1909.3									
3818.60	-18.4	V	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5727.90	-17.6	V	3.0	38.7	1.0	-55.3	-13.0	-42.3	
7637.20	-17.2	V	3.0	38.1	1.0	-54.3	-13.0	-41.3	
3818.60	-19.2	H	3.0	38.4	1.0	-56.6	-13.0	-43.6	
5727.90	-17.8	H	3.0	38.7	1.0	-55.5	-13.0	-42.5	
7637.20	-16.8	H	3.0	38.1	1.0	-53.9	-13.0	-40.9	

LTE B2 1.4MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 8/9/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 2 Harmonics, 3MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-18.7	V	3.0	38.4	1.0	-56.1	-13.0	-43.1	
5554.50	-17.6	V	3.0	38.8	1.0	-55.4	-13.0	-42.4	
7406.00	-17.1	V	3.0	38.3	1.0	-54.6	-13.0	-41.6	
3703.00	-18.6	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5554.50	-17.1	H	3.0	38.8	1.0	-54.8	-13.0	-41.8	
7406.00	-17.5	H	3.0	38.3	1.0	-54.7	-13.0	-41.7	
Mid Ch, 1880									
3760.00	-18.0	V	3.0	38.4	1.0	-55.4	-13.0	-42.4	
5640.00	-17.2	V	3.0	38.7	1.0	-55.0	-13.0	-42.0	
7520.00	-17.6	V	3.0	38.2	1.0	-54.8	-13.0	-41.8	
3760.00	-18.0	H	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5640.00	-17.9	H	3.0	38.7	1.0	-55.6	-13.0	-42.6	
7520.00	-17.4	H	3.0	38.2	1.0	-54.6	-13.0	-41.6	
High Ch, 1908.5									
3817.00	-17.9	V	3.0	38.4	1.0	-55.3	-13.0	-42.3	
5725.50	-17.8	V	3.0	38.7	1.0	-55.5	-13.0	-42.5	
7634.00	-16.2	V	3.0	38.2	1.0	-54.8	-13.0	-41.8	
3817.00	-19.0	H	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5725.50	-17.4	H	3.0	38.7	1.0	-55.1	-13.0	-42.1	
7634.00	-17.1	H	3.0	38.1	1.0	-54.2	-13.0	-41.2	

LTE B2 3MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 8/9/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 2 Harmonics, 5MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-18.3	V	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5557.50	-17.2	V	3.0	38.8	1.0	-54.9	-13.0	-41.9	
7410.00	-16.7	V	3.0	38.3	1.0	-54.0	-13.0	-41.0	
3705.00	-18.5	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5557.50	-17.6	H	3.0	38.8	1.0	-55.3	-13.0	-42.3	
7410.00	-16.8	H	3.0	38.3	1.0	-54.0	-13.0	-41.0	
Mid Ch, 1880									
3760.00	-17.7	V	3.0	38.4	1.0	-55.1	-13.0	-42.1	
5640.00	-18.0	V	3.0	38.7	1.0	-55.8	-13.0	-42.8	
7520.00	-17.3	V	3.0	38.2	1.0	-54.5	-13.0	-41.5	
3760.00	-18.9	H	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5640.00	-17.2	H	3.0	38.7	1.0	-55.0	-13.0	-42.0	
7520.00	-17.4	H	3.0	38.2	1.0	-54.6	-13.0	-41.6	
High Ch, 1907.5									
3815.00	-18.0	V	3.0	38.4	1.0	-55.4	-13.0	-42.4	
5722.50	-17.1	V	3.0	38.7	1.0	-54.8	-13.0	-41.8	
7630.00	-16.1	V	3.0	38.1	1.0	-53.3	-13.0	-40.3	
3815.00	-17.1	H	3.0	38.4	1.0	-54.5	-13.0	-41.5	
5722.50	-17.9	H	3.0	38.7	1.0	-55.6	-13.0	-42.6	
7630.00	-16.4	H	3.0	38.1	1.0	-53.6	-13.0	-40.6	

LTE B2 5MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 8/9/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber B
Mode: LTE_QPSK Band 2 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-17.7	V	3.0	38.4	1.0	-55.1	-13.0	-42.1	
5965.00	-17.0	V	3.0	38.8	1.0	-54.7	-13.0	-41.7	
7420.00	-17.5	V	3.0	38.3	1.0	-54.8	-13.0	-41.8	
3710.00	-18.2	H	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5965.00	-17.1	H	3.0	38.8	1.0	-54.9	-13.0	-41.9	
7420.00	-17.2	H	3.0	38.3	1.0	-54.5	-13.0	-41.5	
Mid Ch, 1880									
3760.00	-17.5	V	3.0	38.4	1.0	-54.9	-13.0	-41.9	
5640.00	-18.5	V	3.0	38.7	1.0	-56.3	-13.0	-43.3	
7520.00	-17.7	V	3.0	38.2	1.0	-54.9	-13.0	-41.9	
3760.00	-18.8	H	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5640.00	-17.6	H	3.0	38.7	1.0	-55.3	-13.0	-42.3	
7520.00	-17.2	H	3.0	38.2	1.0	-54.4	-13.0	-41.4	
High Ch, 1905									
3810.00	-18.3	V	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5715.00	-16.9	V	3.0	38.7	1.0	-54.6	-13.0	-41.6	
7620.00	-16.1	V	3.0	38.1	1.0	-53.2	-13.0	-40.2	
3810.00	-18.3	H	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5715.00	-16.7	H	3.0	38.7	1.0	-54.4	-13.0	-41.4	
7620.00	-16.8	H	3.0	38.1	1.0	-54.0	-13.0	-41.0	

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

Company: SOMC
Project #: 11760905
Date: 8/9/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber B
Mode: LTE_16QAM Band 2 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855									
3710.00	-17.9	V	3.0	38.4	1.0	-55.3	-13.0	-42.3	
5965.00	-17.3	V	3.0	38.8	1.0	-55.0	-13.0	-42.0	
7420.00	-18.1	V	3.0	38.3	1.0	-55.4	-13.0	-42.4	
3710.00	-18.5	H	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5965.00	-17.3	H	3.0	38.8	1.0	-55.0	-13.0	-42.0	
7420.00	-17.6	H	3.0	38.3	1.0	-54.8	-13.0	-41.8	
Mid Ch, 1880									
3760.00	-18.2	V	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5640.00	-18.0	V	3.0	38.7	1.0	-55.7	-13.0	-42.7	
7520.00	-17.8	V	3.0	38.2	1.0	-54.7	-13.0	-41.7	
3760.00	-18.7	H	3.0	38.4	1.0	-56.1	-13.0	-43.1	
5640.00	-17.9	H	3.0	38.7	1.0	-55.6	-13.0	-42.6	
7520.00	-17.2	H	3.0	38.2	1.0	-54.4	-13.0	-41.4	
High Ch, 1905									
3810.00	-18.1	V	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5715.00	-17.6	V	3.0	38.7	1.0	-55.3	-13.0	-42.3	
7620.00	-17.3	V	3.0	38.1	1.0	-54.4	-13.0	-41.4	
3810.00	-18.4	H	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5715.00	-18.0	H	3.0	38.7	1.0	-55.7	-13.0	-42.7	
7620.00	-16.1	H	3.0	38.1	1.0	-53.2	-13.0	-40.2	

LTE B2 10MHz QPSK

LTE B2 10MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 8/9/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber B
Mode: LTE_QPSK Band 2 Harmonics, 15MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-18.1	V	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5572.50	-16.8	V	3.0	38.8	1.0	-54.5	-13.0	-41.5	
7430.00	-17.4	V	3.0	38.3	1.0	-54.7	-13.0	-41.7	
3715.00	-18.2	H	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5572.50	-17.0	H	3.0	38.8	1.0	-54.8	-13.0	-41.8	
7430.00	-18.0	H	3.0	38.3	1.0	-55.2	-13.0	-42.2	
Mid Ch, 1880									
3760.00	-18.0	V	3.0	38.4	1.0	-55.4	-13.0	-42.4	
5640.00	-17.3	V	3.0	38.7	1.0	-55.1	-13.0	-42.1	
7520.00	-17.1	V	3.0	38.2	1.0	-54.3	-13.0	-41.3	
3760.00	-19.0	H	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5640.00	-18.0	H	3.0	38.7	1.0	-55.7	-13.0	-42.7	
7520.00	-16.8	H	3.0	38.2	1.0	-53.9	-13.0	-40.9	
High Ch, 1902.5									
3805.00	-18.3	V	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5707.50	-17.6	V	3.0	38.7	1.0	-54.4	-13.0	-41.4	
7610.00	-16.2	V	3.0	38.1	1.0	-53.4	-13.0	-40.4	
3805.00	-18.6	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5707.50	-17.1	H	3.0	38.7	1.0	-54.8	-13.0	-41.8	
7610.00	-17.0	H	3.0	38.1	1.0	-54.2	-13.0	-41.2	

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

Company: SOMC
Project #: 11760905
Date: 8/9/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber B
Mode: LTE_16QAM Band 2 Harmonics, 15MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5									
3715.00	-17.4	V	3.0	38.4	1.0	-54.8	-13.0	-41.8	
5572.50	-16.4	V	3.0	38.8	1.0	-54.2	-13.0	-41.2	
7430.00	-17.8	V	3.0	38.3	1.0	-55.1	-13.0	-42.1	
3715.00	-18.8	H	3.0	38.4	1.0	-56.2	-13.0	-43.2	
5572.50	-17.3	H	3.0	38.8	1.0	-55.0	-13.0	-42.0	
7430.00	-18.1	H	3.0	38.3	1.0	-55.4	-13.0	-42.4	
Mid Ch, 1880									
3760.00	-18.5	V	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5640.00	-17.8	V	3.0	38.7	1.0	-55.6	-13.0	-42.6	
7520.00	-17.2	V	3.0	38.2	1.0	-54.4	-13.0	-41.4	
3760.00	-18.7	H	3.0	38.4	1.0	-56.1	-13.0	-43.1	
5640.00	-17.3	H	3.0	38.7	1.0	-55.1	-13.0	-42.1	
7520.00	-17.7	H	3.0	38.2	1.0	-54.8	-13.0	-41.8	
High Ch, 1902.5									
3805.00	-18.1	V	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5707.50	-17.9	V	3.0	38.7	1.0	-54.6	-13.0	-41.6	
7610.00	-16.9	V	3.0	38.1	1.0	-54.0	-13.0	-41.0	
3805.00	-18.2	H	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5707.50	-16.9	H	3.0	38.7	1.0	-54.7	-13.0	-41.7	
7610.00	-16.5	H	3.0	38.1	1.0	-53.6	-13.0	-40.6	

LTE B2 15MHz QPSK

LTE B2 15MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 8/9/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber B
Mode: LTE_QPSK Band 2 Harmonics, 20MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-17.9	V	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5980.00	-16.3	V	3.0	38.8	1.0	-54.1	-13.0	-41.1	
7440.00	-18.6	V	3.0	38.2	1.0	-55.9	-13.0	-42.9	
3720.00	-18.6	H	3.0	38.4	1.0	-56.1	-13.0	-43.1	
5980.00	-17.5	H	3.0	38.8	1.0	-55.3	-13.0	-42.3	
7440.00	-17.6	H	3.0	38.2	1.0	-54.9	-13.0	-41.9	
Mid Ch, 1880									
3760.00	-18.6	V	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5640.00	-18.2	V	3.0	38.7	1.0	-55.9	-13.0	-42.9	
7520.00	-17.0	V	3.0	38.2	1.0	-54.2	-13.0	-41.2	
3760.00	-18.2	H	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5640.00	-18.4	H	3.0	38.7	1.0	-56.1	-13.0	-43.1	
7520.00	-17.4	H	3.0	38.2	1.0	-54.6	-13.0	-41.6	
High Ch, 1900									
3800.00	-18.2	V	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5700.00	-17.5	V	3.0	38.7	1.0	-55.2	-13.0	-42.2	
7600.00	-17.5	V	3.0	38.2	1.0	-54.7	-13.0	-41.7	
3800.00	-17.5	H	3.0	38.4	1.0	-54.9	-13.0	-41.9	
5700.00	-17.5	H	3.0	38.7	1.0	-55.2	-13.0	-42.2	
7600.00	-16.7	H	3.0	38.2	1.0	-53.8	-13.0	-40.8	

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

Company: SOMC
Project #: 11760905
Date: 8/9/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber B
Mode: LTE_16QAM Band 2 Harmonics, 20MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1860									
3720.00	-17.6	V	3.0	38.4	1.0	-55.0	-13.0	-42.0	
5980.00	-17.5	V	3.0	38.8	1.0	-55.2	-13.0	-42.2	
7440.00	-18.3	V	3.0	38.2	1.0	-55.5	-13.0	-42.5	
3720.00	-18.8	H	3.0	38.4	1.0	-56.2	-13.0	-43.2	
5980.00	-16.9	H	3.0	38.8	1.0	-54.7	-13.0	-41.7	
7440.00	-16.9	H	3.0	38.2	1.0	-54.1	-13.0	-41.1	
Mid Ch, 1880									
3760.00	-18.4	V	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5640.00	-17.1	V	3.0	38.7	1.0	-54.8	-13.0	-41.8	
7520.00	-17.8	V	3.0	38.2	1.0	-55.0	-13.0	-42.0	
3760.00	-17.6	H	3.0	38.4	1.0	-55.0	-13.0	-42.0	
5640.00	-17.2	H	3.0	38.7	1.0	-54.9	-13.0	-41.9	
7520.00	-17.6	H	3.0	38.2	1.0	-54.8	-13.0	-41.8	
High Ch, 1900									
3800.00	-17.9	V	3.0	38.4	1.0	-55.3	-13.0	-42.3	
5700.00	-17.1	V	3.0	38.7	1.0	-54.8	-13.0	-41.8	
7600.00	-16.5	V	3.0	38.2	1.0	-53.7	-13.0	-40.7	
3800.00	-18.1	H	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5700.00	-17.8	H	3.0	38.7	1.0	-55.5	-13.0	-42.5	
7600.00	-17.1	H	3.0	38.2	1.0	-54.2	-13.0	-41.2	

LTE B2 20MHz QPSK

LTE B2 20MHz 16QAM

LTE Band 7

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2902.5									
5005.00	-19.6	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7507.50	-19.3	V	3.0	32.8	1.0	-51.2	-25.0	-26.2	
10010.00	-18.9	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
5005.00	-18.9	H	3.0	33.2	1.0	-51.2	-25.0	-26.2	
7507.50	-18.8	H	3.0	32.8	1.0	-50.6	-25.0	-25.6	
10010.00	-17.8	H	3.0	32.8	1.0	-49.6	-25.0	-24.6	
Mid Ch, 2535									
5070.00	-21.0	V	3.0	33.2	1.0	-53.2	-25.0	-28.2	
7605.00	-19.0	V	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10140.00	-19.9	V	3.0	32.7	1.0	-51.5	-25.0	-26.5	
5070.00	-20.2	H	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7605.00	-18.2	H	3.0	32.8	1.0	-50.1	-25.0	-25.1	
10140.00	-18.9	H	3.0	32.7	1.0	-50.6	-25.0	-25.6	
High Ch, 2567.5									
5135.00	-20.5	V	3.0	33.2	1.0	-52.7	-25.0	-27.7	
7702.50	-18.0	V	3.0	32.8	1.0	-49.9	-25.0	-24.9	
10270.00	-19.3	V	3.0	32.6	1.0	-50.9	-25.0	-25.9	
5135.00	-18.8	H	3.0	33.2	1.0	-51.0	-25.0	-26.0	
7702.50	-19.8	H	3.0	32.8	1.0	-51.6	-25.0	-26.6	
10270.00	-18.5	H	3.0	32.6	1.0	-50.1	-25.0	-25.1	

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2902.5									
5005.00	-19.7	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7507.50	-19.4	V	3.0	32.8	1.0	-51.2	-25.0	-26.2	
10010.00	-20.2	V	3.0	32.8	1.0	-52.0	-25.0	-27.0	
5005.00	-19.8	H	3.0	33.2	1.0	-52.1	-25.0	-27.1	
7507.50	-19.0	H	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10010.00	-19.7	H	3.0	32.8	1.0	-51.4	-25.0	-26.4	
Mid Ch, 2535									
5070.00	-20.6	V	3.0	33.2	1.0	-52.8	-25.0	-27.8	
7605.00	-19.6	V	3.0	32.8	1.0	-51.4	-25.0	-26.4	
10140.00	-19.2	V	3.0	32.7	1.0	-50.9	-25.0	-25.9	
5070.00	-20.2	H	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7605.00	-18.3	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10140.00	-20.0	H	3.0	32.7	1.0	-51.7	-25.0	-26.7	
High Ch, 2567.5									
5135.00	-19.3	V	3.0	33.2	1.0	-51.5	-25.0	-26.5	
7702.50	-19.9	V	3.0	32.8	1.0	-51.7	-25.0	-26.7	
10270.00	-19.7	V	3.0	32.6	1.0	-51.3	-25.0	-26.3	
5135.00	-19.0	H	3.0	33.2	1.0	-51.2	-25.0	-26.2	
7702.50	-18.6	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10270.00	-18.5	H	3.0	32.6	1.0	-50.1	-25.0	-25.1	

LTE B7 5MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2905									
5010.00	-19.7	V	3.0	33.2	1.0	-52.0	-25.0	-27.0	
7515.00	-18.8	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10020.00	-19.2	V	3.0	32.8	1.0	-51.0	-25.0	-26.0	
5010.00	-19.1	H	3.0	33.2	1.0	-51.3	-25.0	-26.3	
7515.00	-18.7	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10020.00	-18.2	H	3.0	32.8	1.0	-50.0	-25.0	-25.0	
Mid Ch, 2535									
5070.00	-20.3	V	3.0	33.2	1.0	-52.5	-25.0	-27.5	
7605.00	-19.0	V	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10140.00	-19.9	V	3.0	32.7	1.0	-51.6	-25.0	-26.6	
5070.00	-20.2	H	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7605.00	-18.9	H	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10140.00	-19.3	H	3.0	32.7	1.0	-51.0	-25.0	-26.0	
High Ch, 2565									
5130.00	-19.7	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7695.00	-19.4	V	3.0	32.8	1.0	-51.3	-25.0	-26.3	
10260.00	-19.4	V	3.0	32.6	1.0	-51.0	-25.0	-26.0	
5130.00	-19.5	H	3.0	33.2	1.0	-52.1	-25.0	-27.1	
7695.00	-18.7	H	3.0	32.8	1.0	-50.6	-25.0	-25.6	
10260.00	-18.7	H	3.0	32.6	1.0	-50.3	-25.0	-25.3	

LTE B7 5MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2905									
5010.00	-19.6	V	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7515.00	-19.3	V	3.0	32.8	1.0	-51.2	-25.0	-26.2	
10020.00	-19.9	V	3.0	32.8	1.0	-51.6	-25.0	-26.6	
5010.00	-19.2	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7515.00	-18.0	H	3.0	32.8	1.0	-49.8	-25.0	-24.8	
10020.00	-19.0	H	3.0	32.8	1.0	-50.7	-25.0	-25.7	
Mid Ch, 2535									
5070.00	-20.4	V	3.0	33.2	1.0	-52.7	-25.0	-27.7	
7605.00	-18.9	V	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10140.00	-19.6	V	3.0	32.7	1.0	-51.3	-25.0	-26.3	
5070.00	-20.2	H	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7605.00	-19.1	H	3.0	32.8	1.0	-51.0	-25.0	-26.0	
10140.00	-18.9	H	3.0	32.7	1.0	-50.6	-25.0	-25.6	
High Ch, 2565									
5130.00	-20.2	V	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7695.00	-19.5	V	3.0	32.8	1.0	-51.3	-25.0	-26.3	
10260.00	-19.0	V	3.0	32.6	1.0	-51.0	-25.0	-26.0	
5130.00	-19.0	H	3.0	33.2	1.0	-51.2	-25.0	-26.2	
7695.00	-19.1	H	3.0	32.8	1.0	-51.0	-25.0	-26.0	
10260.00	-19.0	H	3.0	32.6	1.0	-50.6	-25.0	-25.6	

LTE B7 10MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2907.5									
5015.00	-18.5	V	3.0	33.2	1.0	-50.7	-25.0	-25.7	
7522.50	-18.1	V	3.0	32.8	1.0	-49.9	-25.0	-24.9	
10030.00	-19.4	V	3.0	32.8	1.0	-51.1	-25.0	-26.1	
5015.00	-18.6	H	3.0	33.2	1.0	-50.8	-25.0	-25.8	
7522.50	-18.3	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10030.00	-18.2	H	3.0	32.8	1.0	-49.5	-25.0	-24.9	
Mid Ch, 2535									
5070.00	-20.2	V	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7605.00	-19.0	V	3.0	32.8	1.0	-49.8	-25.0	-24.8	
10140.00	-19.1	V	3.0	32.7	1.0	-50.7	-25.0	-25.7	
5070.00	-20.3	H	3.0	33.2	1.0	-52.5	-25.0	-27.5	
7605.00	-18.2	H	3.0	32.8	1.0	-50.1	-25.0	-25.1	
10140.00	-19.5	H	3.0	32.7	1.0	-51.2	-25.0	-26.2	
High Ch, 2562.5									
5125.00	-19.5	V	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7687.50	-18.6	V	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10250.00	-19.1	V	3.0	32.6	1.0	-50.7	-25.0	-25.7	
5125.00	-19.2	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7687.50	-19.1	H	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10250.00	-19.1	H	3.0	32.6	1.0	-50.7	-25.0	-25.7	

LTE B7 10MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2907.5									
5015.00	-19.4	V	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7522.50	-19.3	V	3.0	32.8	1.0	-51.2	-25.0	-26.2	
10030.00	-18.7	V	3.0	32.8	1.0	-50.4	-25.0	-25.4	
5015.00	-19.4	H	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7522.50	-18.2	H	3.0	32.8	1.0	-50.0	-25.0	-25.0	
10030.00	-18.7	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
Mid Ch, 2535									
5070.00	-20.4	V	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7605.00	-18.2	V	3.0	32.8	1.0	-50.1	-25.0	-25.1	
10140.00	-19.4	V	3.0	32.7	1.0	-51.1	-25.0	-26.1	
5070.00	-20.1	H	3.0	33.2	1.0	-52.3	-25.0	-27.3	
7605.00	-18.6	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10140.00	-19.0	H	3.0	32.7	1.0	-50.7	-25.0	-25.7	
High Ch, 2562.5									
5125.00	-19.6	V	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7687.50	-19.0	V	3.0	32.8	1.0	-50.9	-25.0	-25.9	
10250.00	-18.7	V	3.0	32.6	1.0	-50.3	-25.0	-25.3	
5125.00	-19.6	H	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7687.50	-17.8	H	3.0	32.8	1.0	-49.6	-25.0	-24.6	
10250.00	-18.2	H	3.0	32.6	1.0	-49.8	-25.0	-24.8	

LTE B7 15MHz QPSK

LTE B7 15MHz 16QAM

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		SOMC							
Project #:		11760905							
Date:		7/17/2017							
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)	ESRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-19.3	V	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7520.00	-19.1	V	3.0	32.8	1.0	-51.0	-25.0	-26.0	
10040.00	-18.8	V	3.0	32.7	1.0	-50.5	-25.0	-25.5	
5020.00	-19.9	H	3.0	33.2	1.0	-52.1	-25.0	-27.1	
7520.00	-18.8	H	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10040.00	-19.3	H	3.0	32.7	1.0	-51.1	-25.0	-26.1	
Mid Ch, 2535									
5070.00	-20.5	V	3.0	33.2	1.0	-52.7	-25.0	-27.7	
7605.00	-19.3	V	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10140.00	-19.3	V	3.0	32.7	1.0	-51.0	-25.0	-26.0	
5070.00	-19.9	H	3.0	33.2	1.0	-52.1	-25.0	-27.1	
7605.00	-18.7	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10140.00	-19.0	H	3.0	32.7	1.0	-50.7	-25.0	-25.7	
High Ch, 2560									
5120.00	-19.5	V	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7680.00	-18.9	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10240.00	-18.4	V	3.0	32.6	1.0	-50.0	-25.0	-25.0	
5120.00	-20.2	H	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7680.00	-19.2	H	3.0	32.8	1.0	-51.1	-25.0	-26.1	
10240.00	-19.1	H	3.0	32.6	1.0	-50.7	-25.0	-25.7	

LTE B7 20MHz QPSK

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		SOMC							
Project #:		11760905							
Date:		7/17/2017							
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)	ESRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-18.6	V	3.0	33.2	1.0	-50.8	-25.0	-25.8	
7520.00	-16.1	V	3.0	32.8	1.0	-48.0	-25.0	-23.0	
10040.00	-17.3	V	3.0	32.7	1.0	-49.0	-25.0	-24.0	
5020.00	-17.8	H	3.0	33.2	1.0	-50.1	-25.0	-25.1	
7520.00	-16.7	H	3.0	32.8	1.0	-48.6	-25.0	-23.6	
10040.00	-17.3	H	3.0	32.7	1.0	-49.0	-25.0	-24.0	
Mid Ch, 2535									
5070.00	-17.7	V	3.0	33.2	1.0	-50.0	-25.0	-25.0	
7605.00	-15.9	V	3.0	32.8	1.0	-47.1	-25.0	-22.1	
10140.00	-17.9	V	3.0	32.7	1.0	-49.5	-25.0	-24.5	
5070.00	-19.1	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7605.00	-16.6	H	3.0	32.8	1.0	-48.4	-25.0	-23.4	
10140.00	-16.7	H	3.0	32.7	1.0	-48.4	-25.0	-23.4	
High Ch, 2560									
5120.00	-18.1	V	3.0	33.2	1.0	-50.3	-25.0	-25.3	
7680.00	-16.7	V	3.0	32.8	1.0	-48.6	-25.0	-23.6	
10240.00	-17.1	V	3.0	32.6	1.0	-48.7	-25.0	-23.7	
5120.00	-17.9	H	3.0	33.2	1.0	-50.1	-25.0	-25.1	
7680.00	-17.4	H	3.0	32.8	1.0	-49.3	-25.0	-24.3	
10240.00	-17.2	H	3.0	32.6	1.0	-48.8	-25.0	-23.8	

LTE B7 20MHz 16QAM

LTE Band 12

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

Company: SOMC
Project #: 11760905
Date: 7/25/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 12 Harmonics, 14MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 699.7									
1399.40	-18.3	V	3.0	36.5	1.0	-53.9	-13.0	-40.9	
2099.10	-20.7	V	3.0	35.6	1.0	-55.3	-13.0	-42.3	
2798.80	-21.7	V	3.0	34.7	1.0	-55.4	-13.0	-42.4	
1399.40	-18.9	H	3.0	36.5	1.0	-54.4	-13.0	-41.4	
2099.10	-22.3	H	3.0	35.6	1.0	-56.9	-13.0	-43.9	
2798.80	-21.7	H	3.0	34.7	1.0	-55.4	-13.0	-42.4	
Mid Ch, 707.5									
1415.00	-12.6	V	3.0	36.5	1.0	-48.1	-13.0	-35.1	
2122.50	-17.9	V	3.0	35.6	1.0	-52.4	-13.0	-39.4	
2830.00	-17.9	V	3.0	34.7	1.0	-51.6	-13.0	-38.6	
1415.00	-17.0	H	3.0	36.5	1.0	-52.5	-13.0	-39.5	
2122.50	-21.3	H	3.0	35.6	1.0	-56.0	-13.0	-43.0	
2830.00	-22.4	H	3.0	34.7	1.0	-56.1	-13.0	-43.1	
High Ch, 715.3									
1430.60	-16.3	V	3.0	36.5	1.0	-51.8	-13.0	-38.8	
2145.90	-22.1	V	3.0	35.6	1.0	-56.7	-13.0	-43.7	
2861.20	-21.7	V	3.0	34.7	1.0	-55.4	-13.0	-42.4	
1430.60	-17.5	H	3.0	36.5	1.0	-53.1	-13.0	-40.1	
2145.90	-20.9	H	3.0	35.6	1.0	-55.9	-13.0	-42.5	
2861.20	-22.3	H	3.0	34.7	1.0	-56.0	-13.0	-43.0	

LTE B12 1.4MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/25/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 12 Harmonics, 3MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 700.5									
1401.00	-15.2	V	3.0	36.5	1.0	-50.8	-13.0	-37.8	
2101.50	-20.7	V	3.0	35.6	1.0	-55.4	-13.0	-42.4	
2802.00	-21.5	V	3.0	34.7	1.0	-55.2	-13.0	-42.2	
1401.00	-15.0	H	3.0	36.5	1.0	-50.5	-13.0	-37.5	
2101.50	-22.0	H	3.0	35.6	1.0	-56.7	-13.0	-43.7	
2802.00	-22.7	H	3.0	34.7	1.0	-55.9	-13.0	-42.9	
Mid Ch, 707.5									
1415.00	-13.3	V	3.0	36.5	1.0	-48.8	-13.0	-35.8	
2122.50	-18.8	V	3.0	35.6	1.0	-53.4	-13.0	-40.4	
2830.00	-20.9	V	3.0	34.7	1.0	-54.6	-13.0	-41.6	
1415.00	-18.7	H	3.0	36.5	1.0	-54.2	-13.0	-41.2	
2122.50	-18.6	H	3.0	35.6	1.0	-53.2	-13.0	-40.2	
2830.00	-22.4	H	3.0	34.7	1.0	-56.1	-13.0	-43.1	
High Ch, 714.5									
1429.00	-16.6	V	3.0	36.5	1.0	-52.1	-13.0	-39.1	
2143.50	-18.6	V	3.0	35.6	1.0	-53.1	-13.0	-40.1	
2858.00	-21.8	V	3.0	34.7	1.0	-54.4	-13.0	-41.4	
1429.00	-16.3	H	3.0	36.5	1.0	-51.8	-13.0	-38.8	
2143.50	-22.0	H	3.0	35.6	1.0	-56.5	-13.0	-43.5	
2858.00	-21.9	H	3.0	34.7	1.0	-55.6	-13.0	-42.6	

LTE B12 3MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/14/2017
Test Engineer: 37290
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 12 Harmonics, 5MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 701.5									
1403.00	-32.3	V	3.0	36.5	1.0	-67.7	-13.0	-54.7	
2104.50	-27.1	V	3.0	35.6	1.0	-61.8	-13.0	-48.8	
2806.00	-26.2	V	3.0	34.7	1.0	-59.9	-13.0	-46.9	
1403.00	-32.9	H	3.0	36.5	1.0	-68.5	-13.0	-55.5	
2104.50	-27.2	H	3.0	35.6	1.0	-61.9	-13.0	-48.9	
2806.00	-28.0	H	3.0	34.7	1.0	-61.7	-13.0	-48.7	
Mid Ch, 707.5									
1415.00	-31.3	V	3.0	36.5	1.0	-66.8	-13.0	-53.8	
2122.50	-28.2	V	3.0	35.6	1.0	-60.8	-13.0	-47.8	
2830.00	-28.0	V	3.0	34.7	1.0	-61.7	-13.0	-48.7	
1415.00	-30.8	H	3.0	36.5	1.0	-66.3	-13.0	-53.3	
2122.50	-27.3	H	3.0	35.6	1.0	-61.9	-13.0	-48.9	
2830.00	-27.8	H	3.0	34.7	1.0	-61.5	-13.0	-48.5	
High Ch, 713.5									
1427.00	-30.5	V	3.0	36.5	1.0	-66.0	-13.0	-53.0	
2140.50	-26.5	V	3.0	35.6	1.0	-61.0	-13.0	-48.0	
2854.00	-26.6	V	3.0	34.7	1.0	-60.3	-13.0	-47.3	
1427.00	-32.5	H	3.0	36.5	1.0	-68.0	-13.0	-55.0	
2140.50	-26.8	H	3.0	35.6	1.0	-61.4	-13.0	-48.4	
2854.00	-28.1	H	3.0	34.7	1.0	-61.8	-13.0	-48.8	

LTE B12 5MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/25/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 12 Harmonics, 14MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 699.7									
1399.40	-17.6	V	3.0	36.5	1.0	-53.1	-13.0	-40.1	
2099.10	-21.5	V	3.0	35.6	1.0	-56.2	-13.0	-43.2	
2798.80	-21.5	V	3.0	34.7	1.0	-55.2	-13.0	-42.2	
1399.40	-19.5	H	3.0	36.5	1.0	-56.0	-13.0	-43.0	
2099.10	-22.3	H	3.0	35.6	1.0	-56.9	-13.0	-43.9	
2798.80	-22.3	H	3.0	34.7	1.0	-56.1	-13.0	-43.1	
Mid Ch, 707.5									
1415.00	-11.9	V	3.0	36.5	1.0	-47.4	-13.0	-34.4	
2122.50	-19.3	V	3.0	35.6	1.0	-53.9	-13.0	-40.9	
2830.00	-19.3	V	3.0	34.7	1.0	-53.0	-13.0	-40.0	
1415.00	-17.2	H	3.0	36.5	1.0	-52.7	-13.0	-39.7	
2122.50	-21.3	H	3.0	35.6	1.0	-55.9	-13.0	-42.9	
2830.00	-21.7	H	3.0	34.7	1.0	-55.4	-13.0	-42.4	
High Ch, 715.3									
1430.60	-18.7	V	3.0	36.5	1.0	-54.3	-13.0	-41.3	
2145.90	-21.5	V	3.0	35.6	1.0	-56.1	-13.0	-43.1	
2861.20	-21.3	V	3.0	34.7	1.0	-55.0	-13.0	-42.0	
1430.60	-17.4	H	3.0	36.5	1.0	-52.9	-13.0	-39.9	
2145.90	-22.1	H	3.0	35.6	1.0	-56.7	-13.0	-43.7	
2861.20	-22.5	H	3.0	34.7	1.0	-56.2	-13.0	-43.2	

LTE B12 1.4MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/25/2017
Test Engineer: 43575 OS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 12 Harmonics, 3MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 700.5									
1401.00	-16.1	V	3.0	36.5	1.0	-51.6	-13.0	-38.6	
2101.50	-21.3	V	3.0	35.6	1.0	-56.0	-13.0	-43.0	
2802.00	-21.6	V	3.0	34.7	1.0	-55.3	-13.0	-42.3	
1401.00	-15.0	H	3.0	36.5	1.0	-50.5	-13.0	-37.5	
2101.50	-22.0	H	3.0	35.6	1.0	-56.6	-13.0	-43.6	
2802.00	-22.7	H	3.0	34.7	1.0	-56.0	-13.0	-43.0	
Mid Ch, 707.5									
1415.00	-14.1	V	3.0	36.5	1.0	-49.6	-13.0	-36.6	
2122.50	-15.8	V	3.0	35.6	1.0	-50.4	-13.0	-37.4	
2830.00	-21.3	V	3.0	34.7	1.0	-54.6	-13.0	-41.6	
1415.00	-18.2	H	3.0	36.5	1.0	-53.8	-13.0	-40.8	
2122.50	-18.8	H	3.0	35.6	1.0	-53.4	-13.0	-40.4	
2830.00	-22.0	H	3.0	34.7	1.0	-55.7	-13.0	-42.7	
High Ch, 714.5									
1429.00	-16.7	V	3.0	36.5	1.0	-52.2	-13.0	-39.2	
2143.50	-19.8	V	3.0	35.6	1.0	-54.4	-13.0	-41.4	
2858.00	-21.4	V	3.0	34.7	1.0	-54.4	-13.0	-41.4	
1429.00	-16.6	H	3.0	36.5	1.0	-52.2	-13.0	-39.2	
2143.50	-21.0	H	3.0	35.6	1.0	-55.6	-13.0	-42.6	
2858.00	-22.2	H	3.0	34.7	1.0	-55.9	-13.0	-42.9	

LTE B12 3MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/14/2017
Test Engineer: 37290
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 12 Harmonics, 5MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 701.5									
1403.00	-33.3	V	3.0	36.5	1.0	-68.8	-13.0	-55.8	
2104.50	-26.5	V	3.0	35.6	1.0	-61.2	-13.0	-48.2	
2806.00	-27.0	V	3.0	34.7	1.0	-60.7	-13.0	-47.7	
1403.00	-32.0	H	3.0	36.5	1.0	-67.5	-13.0	-54.5	
2104.50	-27.5	H	3.0	35.6	1.0	-62.2	-13.0	-49.2	
2806.00	-27.2	H	3.0	34.7	1.0	-60.9	-13.0	-47.9	
Mid Ch, 707.5									
1415.00	-32.1	V	3.0	36.5	1.0	-67.6	-13.0	-54.6	
2122.50	-28.0	V	3.0	35.6	1.0	-62.6	-13.0	-49.6	
2830.00	-26.8	V	3.0	34.7	1.0	-60.5	-13.0	-47.5	
1415.00	-31.1	H	3.0	36.5	1.0	-66.7	-13.0	-53.7	
2122.50	-28.1	H	3.0	35.6	1.0	-62.8	-13.0	-49.8	
2830.00	-27.3	H	3.0	34.7	1.0	-61.0	-13.0	-48.0	
High Ch, 713.5									
1427.00	-32.3	V	3.0	36.5	1.0	-67.8	-13.0	-54.8	
2140.50	-27.4	V	3.0	35.6	1.0	-61.9	-13.0	-48.9	
2854.00	-26.0	V	3.0	34.7	1.0	-59.7	-13.0	-46.7	
1427.00	-32.1	H	3.0	36.5	1.0	-67.7	-13.0	-54.7	
2140.50	-28.3	H	3.0	35.6	1.0	-62.9	-13.0	-49.9	
2854.00	-27.9	H	3.0	34.7	1.0	-61.6	-13.0	-48.6	

LTE B12 5MHz 16QAM

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		SOMC							
Project #:		11760905							
Date:		7/14/2017							
Test Engineer:		37290							
Configuration:		EUT + AC + Headset							
Location:		Chamber C							
Mode:		LTE_16QAM Band 12 Harmonics, 15MHz Bandwidth							
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	ESRP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 706.5									
1413.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2119.50	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2826.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7	
1413.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2119.50	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2826.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7	
Mid Ch, 707.5									
1415.00	-32.2	V	3.0	36.5	1.0	-67.7	-13.0	-54.7	
2122.50	-27.5	V	3.0	35.6	1.0	-62.1	-13.0	-49.1	
2830.00	-26.7	V	3.0	34.7	1.0	-60.4	-13.0	-47.4	
1415.00	-31.9	H	3.0	36.5	1.0	-67.4	-13.0	-54.4	
2122.50	-27.6	H	3.0	35.6	1.0	-62.2	-13.0	-49.2	
2830.00	-26.7	H	3.0	34.7	1.0	-60.4	-13.0	-47.4	
High Ch, 708.5									
1417.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2125.50	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2834.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7	
1417.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2125.50	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2834.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7	

LTE B12 10MHz QPSK

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		SOMC							
Project #:		11760905							
Date:		7/14/2017							
Test Engineer:		37290							
Configuration:		EUT + AC + Headset							
Location:		Chamber C							
Mode:		LTE_QPSK Band 12 Harmonics, 10MHz Bandwidth							
f	SG reading	Ant. Pol.	Distance	Preamp	Filter	ESRP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 704									
1408.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2112.00	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2816.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7	
1408.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2112.00	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2816.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7	
Mid Ch, 707.5									
1415.00	-32.4	V	3.0	36.5	1.0	-68.0	-13.0	-55.0	
2122.50	-27.4	V	3.0	35.6	1.0	-62.1	-13.0	-49.1	
2830.00	-25.4	V	3.0	34.7	1.0	-59.1	-13.0	-46.1	
1415.00	-31.6	H	3.0	36.5	1.0	-67.2	-13.0	-54.2	
2122.50	-27.4	H	3.0	35.6	1.0	-62.0	-13.0	-49.0	
2830.00	-27.2	H	3.0	34.7	1.0	-60.9	-13.0	-47.9	
High Ch, 711									
1422.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2133.00	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2844.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7	
1422.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5	
2133.00	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6	
2844.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7	

LTE B12 10MHz 16QAM

LTE Band 13

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_QPSK Band 13 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 779.5									
1559.00	-30.0	V	3.0	36.5	1.0	-65.5	-40.0	-25.5	
2338.50	-27.0	V	3.0	35.2	1.0	-61.2	-13.0	-48.2	
3118.00	-24.1	V	3.0	34.5	1.0	-57.6	-13.0	-44.6	
1559.00	-27.0	H	3.0	36.5	1.0	-62.5	-40.0	-22.5	
2338.50	-26.4	H	3.0	35.2	1.0	-60.6	-13.0	-47.6	
3118.00	-25.2	H	3.0	34.5	1.0	-58.7	-13.0	-45.7	
Mid Ch, 782									
1564.00	-29.9	V	3.0	36.5	1.0	-65.4	-40.0	-25.4	
2346.00	-25.2	V	3.0	35.2	1.0	-59.4	-13.0	-46.4	
3128.00	-24.6	V	3.0	34.4	1.0	-58.1	-13.0	-45.1	
1564.00	-30.0	H	3.0	36.5	1.0	-65.5	-40.0	-25.5	
2346.00	-26.0	H	3.0	35.2	1.0	-60.2	-13.0	-47.2	
3128.00	-22.6	H	3.0	34.4	1.0	-56.0	-13.0	-43.0	
High Ch, 784.5									
1569.00	-27.4	V	3.0	36.5	1.0	-62.9	-40.0	-22.9	
2353.50	-25.1	V	3.0	35.2	1.0	-59.3	-13.0	-46.3	
3138.00	-22.7	V	3.0	34.4	1.0	-56.1	-13.0	-43.1	
1569.00	-30.0	H	3.0	36.5	1.0	-65.5	-40.0	-25.5	
2353.50	-27.0	H	3.0	35.2	1.0	-61.2	-13.0	-48.2	
3138.00	-24.1	H	3.0	34.4	1.0	-57.6	-13.0	-44.6	

LTE B13 5MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_16QAM Band 13 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 779.5									
1559.00	-29.7	V	3.0	36.5	1.0	-65.2	-40.0	-25.2	
2338.50	-26.2	V	3.0	35.2	1.0	-60.4	-13.0	-47.4	
3118.00	-23.9	V	3.0	34.5	1.0	-57.4	-13.0	-44.4	
1559.00	-28.9	H	3.0	36.5	1.0	-64.5	-40.0	-24.5	
2338.50	-27.3	H	3.0	35.2	1.0	-61.6	-13.0	-48.6	
3118.00	-23.7	H	3.0	34.5	1.0	-57.1	-13.0	-44.1	
Mid Ch, 782									
1564.00	-28.7	V	3.0	36.5	1.0	-64.2	-40.0	-24.2	
2346.00	-25.4	V	3.0	35.2	1.0	-59.6	-13.0	-46.6	
3128.00	-22.5	V	3.0	34.4	1.0	-56.0	-13.0	-43.0	
1564.00	-31.1	H	3.0	36.5	1.0	-66.6	-40.0	-26.6	
2346.00	-26.8	H	3.0	35.2	1.0	-61.0	-13.0	-48.0	
3128.00	-24.6	H	3.0	34.4	1.0	-58.0	-13.0	-45.0	
High Ch, 784.5									
1569.00	-30.7	V	3.0	36.5	1.0	-66.2	-40.0	-26.2	
2353.50	-26.1	V	3.0	35.2	1.0	-60.3	-13.0	-47.3	
3138.00	-24.1	V	3.0	34.4	1.0	-57.5	-13.0	-44.5	
1569.00	-30.9	H	3.0	36.5	1.0	-66.4	-40.0	-26.4	
2353.50	-25.4	H	3.0	35.2	1.0	-59.6	-13.0	-46.6	
3138.00	-24.4	H	3.0	34.4	1.0	-57.8	-13.0	-44.8	

LTE B13 5MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_QPSK Band 13 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Mid Ch, 782									
1564.00	-31.7	V	3.0	36.5	1.0	-67.2	-40.0	-27.2	
2346.00	-28.5	V	3.0	35.2	1.0	-62.7	-13.0	-49.7	
3128.00	-26.5	V	3.0	34.4	1.0	-59.9	-13.0	-46.9	
1564.00	-31.5	H	3.0	36.5	1.0	-67.1	-40.0	-27.1	
2346.00	-28.4	H	3.0	35.2	1.0	-62.6	-13.0	-49.6	
3128.00	-27.0	H	3.0	34.4	1.0	-60.4	-13.0	-47.4	

LTE B13 10MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_16QAM Band 13 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Mid Ch, 782									
1564.00	-30.4	V	3.0	36.5	1.0	-65.9	-40.0	-25.9	
2346.00	-29.0	V	3.0	35.2	1.0	-63.3	-13.0	-50.3	
3128.00	-26.5	V	3.0	34.4	1.0	-59.9	-13.0	-46.9	
1564.00	-32.2	H	3.0	36.5	1.0	-67.7	-40.0	-27.7	
2346.00	-28.1	H	3.0	35.2	1.0	-62.3	-13.0	-49.3	
3128.00	-26.9	H	3.0	34.4	1.0	-60.3	-13.0	-47.3	

LTE B13 10MHz 16QAM

LTE Band 17

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/14/2017								
Test Engineer:		37290								
Configuration:		EUT + AC + Headset								
Location:		Chamber C								
Mode:		LTE_QPSK Band 17 Harmonics, 5MHz Bandwidth								
f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch. 706.5										
1413.00	-32.2	V	3.0	36.5	1.0	-67.8	-13.0	-54.8		
2119.50	-27.2	V	3.0	35.6	1.0	-61.8	-13.0	-48.8		
2826.00	-26.1	V	3.0	34.7	1.0	-59.8	-13.0	-46.8		
1413.00	-33.0	H	3.0	36.5	1.0	-68.8	-13.0	-55.8		
2119.50	-27.2	H	3.0	35.6	1.0	-61.8	-13.0	-48.8		
2826.00	-28.0	H	3.0	34.7	1.0	-61.7	-13.0	-48.7		
Mid Ch. 710										
1420.00	-31.3	V	3.0	36.5	1.0	-66.8	-13.0	-53.8		
2130.00	-26.2	V	3.0	35.6	1.0	-60.8	-13.0	-47.8		
2840.00	-28.0	V	3.0	34.7	1.0	-61.7	-13.0	-48.7		
1420.00	-30.8	H	3.0	36.5	1.0	-66.3	-13.0	-53.3		
2130.00	-27.3	H	3.0	35.6	1.0	-61.9	-13.0	-48.9		
2840.00	-27.8	H	3.0	34.7	1.0	-61.5	-13.0	-48.5		
High Ch. 713.5										
1427.00	-30.5	V	3.0	36.5	1.0	-66.0	-13.0	-53.0		
2140.50	-26.5	V	3.0	35.6	1.0	-61.0	-13.0	-48.0		
2854.00	-26.6	V	3.0	34.7	1.0	-60.3	-13.0	-47.3		
1427.00	-32.5	H	3.0	36.5	1.0	-68.0	-13.0	-55.0		
2140.50	-26.8	H	3.0	35.6	1.0	-61.4	-13.0	-48.4		
2854.00	-28.1	H	3.0	34.7	1.0	-61.8	-13.0	-48.8		

LTE B17 5MHz QPSK

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/14/2017								
Test Engineer:		37290								
Configuration:		EUT + AC + Headset								
Location:		Chamber C								
Mode:		LTE_QPSK Band 17 Harmonics, 10MHz Bandwidth								
f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch. 709										
1418.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2127.00	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2836.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7		
1418.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2127.00	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2836.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7		
Mid Ch. 710										
1420.00	-32.4	V	3.0	36.5	1.0	-68.0	-13.0	-55.0		
2130.00	-27.5	V	3.0	35.6	1.0	-62.1	-13.0	-49.1		
2840.00	-25.4	V	3.0	34.7	1.0	-61.1	-13.0	-48.1		
1420.00	-31.7	H	3.0	36.5	1.0	-67.2	-13.0	-54.2		
2130.00	-27.4	H	3.0	35.6	1.0	-62.0	-13.0	-49.0		
2840.00	-27.2	H	3.0	34.7	1.0	-60.9	-13.0	-47.9		
High Ch. 711										
1422.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2133.00	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2844.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7		
1422.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2133.00	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2844.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7		

LTE B17 10MHz QPSK

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/14/2017								
Test Engineer:		37290								
Configuration:		EUT + AC + Headset								
Location:		Chamber C								
Mode:		LTE_16QAM Band 17 Harmonics, 5MHz Bandwidth								
f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch. 706.5										
1413.00	-33.3	V	3.0	36.5	1.0	-68.8	-13.0	-55.8		
2119.50	-26.6	V	3.0	35.6	1.0	-61.2	-13.0	-48.2		
2826.00	-26.9	V	3.0	34.7	1.0	-60.6	-13.0	-47.6		
1413.00	-32.0	H	3.0	36.5	1.0	-67.5	-13.0	-54.5		
2119.50	-27.5	H	3.0	35.6	1.0	-62.1	-13.0	-49.1		
2826.00	-27.2	H	3.0	34.7	1.0	-60.9	-13.0	-47.9		
Mid Ch. 710										
1420.00	-32.1	V	3.0	36.5	1.0	-67.6	-13.0	-54.6		
2130.00	-28.0	V	3.0	35.6	1.0	-62.6	-13.0	-49.6		
2840.00	-26.7	V	3.0	34.7	1.0	-60.4	-13.0	-47.4		
1420.00	-31.1	H	3.0	36.5	1.0	-66.7	-13.0	-53.7		
2130.00	-28.1	H	3.0	35.6	1.0	-62.7	-13.0	-49.7		
2840.00	-27.3	H	3.0	34.7	1.0	-61.0	-13.0	-48.0		
High Ch. 713.5										
1427.00	-32.3	V	3.0	36.5	1.0	-67.9	-13.0	-54.9		
2140.50	-27.4	V	3.0	35.6	1.0	-61.9	-13.0	-48.9		
2854.00	-26.0	V	3.0	34.7	1.0	-59.6	-13.0	-46.6		
1427.00	-32.2	H	3.0	36.5	1.0	-67.7	-13.0	-54.7		
2140.50	-28.3	H	3.0	35.6	1.0	-62.9	-13.0	-49.9		
2854.00	-27.8	H	3.0	34.7	1.0	-61.5	-13.0	-48.5		

LTE B17 5MHz 16QAM

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company:		SOMC								
Project #:		11760905								
Date:		7/14/2017								
Test Engineer:		37290								
Configuration:		EUT + AC + Headset								
Location:		Chamber C								
Mode:		LTE_16QAM Band 17 Harmonics, 10MHz Bandwidth								
f MHz	SG reading (dBm)	Ant. Pol. (HV)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch. 709										
1418.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2127.00	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2836.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7		
1418.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2127.00	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2836.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7		
Mid Ch. 710										
1420.00	-32.2	V	3.0	36.5	1.0	-67.7	-13.0	-54.7		
2130.00	-27.5	V	3.0	35.6	1.0	-62.1	-13.0	-49.1		
2840.00	-26.6	V	3.0	34.7	1.0	-60.3	-13.0	-47.3		
1420.00	-31.9	H	3.0	36.5	1.0	-67.4	-13.0	-54.4		
2130.00	-27.6	H	3.0	35.6	1.0	-62.2	-13.0	-49.2		
2840.00	-26.6	H	3.0	34.7	1.0	-60.3	-13.0	-47.3		
High Ch. 711										
1422.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2133.00	0.0	V	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2844.00	0.0	V	3.0	34.7	1.0	-33.7	-13.0	-20.7		
1422.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5		
2133.00	0.0	H	3.0	35.6	1.0	-34.6	-13.0	-21.6		
2844.00	0.0	H	3.0	34.7	1.0	-33.7	-13.0	-20.7		

LTE B17 10MHz 16QAM

LTE Band 25

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 25 Harmonics, 1.4MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-20.2	V	3.0	38.4	1.0	-57.6	-13.0	-44.6	
5552.10	-19.3	V	3.0	38.8	1.0	-57.0	-13.0	-44.0	
7402.80	-18.2	V	3.0	38.3	1.0	-55.4	-13.0	-42.4	
3701.40	-19.0	H	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5552.10	-18.4	H	3.0	38.8	1.0	-56.2	-13.0	-43.2	
7402.80	-18.1	H	3.0	38.3	1.0	-55.4	-13.0	-42.4	
Mid Ch, 1882.5									
3765.00	-19.3	V	3.0	38.4	1.0	-56.7	-13.0	-43.7	
5647.50	-18.5	V	3.0	38.7	1.0	-56.2	-13.0	-43.2	
7530.00	-17.4	V	3.0	38.2	1.0	-54.6	-13.0	-41.6	
3765.00	-18.9	H	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5647.50	-19.2	H	3.0	38.7	1.0	-57.0	-13.0	-44.0	
7530.00	-17.3	H	3.0	38.2	1.0	-54.5	-13.0	-41.5	
High Ch, 1914.3									
3828.60	-18.1	V	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5742.90	-18.4	V	3.0	38.7	1.0	-56.1	-13.0	-43.1	
7657.20	-18.1	V	3.0	38.1	1.0	-55.2	-13.0	-42.2	
3828.60	-19.2	H	3.0	38.4	1.0	-56.6	-13.0	-43.6	
5742.90	-19.4	H	3.0	38.7	1.0	-57.1	-13.0	-44.1	
7657.20	-17.0	H	3.0	38.1	1.0	-54.1	-13.0	-41.1	

LTE B25 1.4MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 25 Harmonics, 3MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-18.3	V	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5554.50	-19.0	V	3.0	38.8	1.0	-56.8	-13.0	-43.8	
7406.00	-19.1	V	3.0	38.3	1.0	-56.4	-13.0	-43.4	
3703.00	-19.8	H	3.0	38.4	1.0	-57.2	-13.0	-44.2	
5554.50	-18.7	H	3.0	38.8	1.0	-56.5	-13.0	-43.5	
7406.00	-18.6	H	3.0	38.3	1.0	-55.8	-13.0	-42.8	
Mid Ch, 1882.5									
3765.00	-18.5	V	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5647.50	-18.4	V	3.0	38.7	1.0	-56.2	-13.0	-43.2	
7530.00	-18.5	V	3.0	38.2	1.0	-55.7	-13.0	-42.7	
3765.00	-18.3	H	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5647.50	-18.6	H	3.0	38.7	1.0	-56.4	-13.0	-43.4	
7530.00	-17.3	H	3.0	38.2	1.0	-54.5	-13.0	-41.5	
High Ch, 1913.5									
3827.00	-18.4	V	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5740.50	-18.0	V	3.0	38.7	1.0	-53.7	-13.0	-40.7	
7654.00	-18.3	V	3.0	38.1	1.0	-54.4	-13.0	-41.4	
3827.00	-19.5	H	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5740.50	-18.5	H	3.0	38.7	1.0	-56.2	-13.0	-43.2	
7654.00	-17.6	H	3.0	38.1	1.0	-54.8	-13.0	-41.8	

LTE B25 3MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 25 Harmonics, 5MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-18.2	V	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5557.50	-18.6	V	3.0	38.8	1.0	-56.4	-13.0	-43.4	
7410.00	-18.9	V	3.0	38.3	1.0	-56.2	-13.0	-43.2	
3705.00	-19.4	H	3.0	38.4	1.0	-56.9	-13.0	-43.9	
5557.50	-18.7	H	3.0	38.8	1.0	-56.4	-13.0	-43.4	
7410.00	-17.9	H	3.0	38.3	1.0	-55.2	-13.0	-42.2	
Mid Ch, 1882.5									
3765.00	-18.5	V	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5647.50	-18.6	V	3.0	38.7	1.0	-56.4	-13.0	-43.4	
7530.00	-17.2	V	3.0	38.2	1.0	-54.4	-13.0	-41.4	
3765.00	-19.0	H	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5647.50	-18.6	H	3.0	38.7	1.0	-56.4	-13.0	-43.4	
7530.00	-18.2	H	3.0	38.2	1.0	-55.4	-13.0	-42.4	
High Ch, 1912.5									
3825.00	-17.9	V	3.0	38.4	1.0	-55.3	-13.0	-42.3	
5737.50	-19.0	V	3.0	38.7	1.0	-56.7	-13.0	-43.7	
7656.00	-17.8	V	3.0	38.1	1.0	-54.9	-13.0	-41.9	
3825.00	-19.4	H	3.0	38.4	1.0	-56.8	-13.0	-43.8	
5737.50	-17.5	H	3.0	38.7	1.0	-55.2	-13.0	-42.2	
7656.00	-17.6	H	3.0	38.1	1.0	-54.7	-13.0	-41.7	

LTE B25 5MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 25 Harmonics, 1.4MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.7									
3701.40	-19.8	V	3.0	38.4	1.0	-57.3	-13.0	-44.3	
5552.10	-18.5	V	3.0	38.8	1.0	-56.3	-13.0	-43.3	
7402.80	-18.7	V	3.0	38.3	1.0	-56.0	-13.0	-43.0	
3701.40	-18.9	H	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5552.10	-17.3	H	3.0	38.8	1.0	-55.0	-13.0	-42.0	
7402.80	-18.0	H	3.0	38.3	1.0	-55.3	-13.0	-42.3	
Mid Ch, 1882.5									
3765.00	-17.7	V	3.0	38.4	1.0	-55.2	-13.0	-42.2	
5647.50	-19.1	V	3.0	38.7	1.0	-56.8	-13.0	-43.8	
7530.00	-18.7	V	3.0	38.2	1.0	-55.9	-13.0	-42.9	
3765.00	-20.0	H	3.0	38.4	1.0	-57.4	-13.0	-44.4	
5647.50	-19.7	H	3.0	38.7	1.0	-57.4	-13.0	-44.4	
7530.00	-18.0	H	3.0	38.2	1.0	-55.2	-13.0	-42.2	
High Ch, 1914.3									
3828.60	-18.6	V	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5742.90	-16.7	V	3.0	38.7	1.0	-54.4	-13.0	-41.4	
7657.20	-18.1	V	3.0	38.1	1.0	-55.3	-13.0	-42.3	
3828.60	-19.7	H	3.0	38.4	1.0	-57.1	-13.0	-44.1	
5742.90	-19.0	H	3.0	38.7	1.0	-56.7	-13.0	-43.7	
7657.20	-17.1	H	3.0	38.1	1.0	-54.2	-13.0	-41.2	

LTE B25 1.4MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 25 Harmonics, 3MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.5									
3703.00	-19.3	V	3.0	38.4	1.0	-56.7	-13.0	-43.7	
5554.50	-18.8	V	3.0	38.8	1.0	-56.6	-13.0	-43.6	
7406.00	-17.9	V	3.0	38.3	1.0	-55.1	-13.0	-42.1	
3703.00	-19.1	H	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5554.50	-18.7	H	3.0	38.8	1.0	-56.4	-13.0	-43.4	
7406.00	-18.2	H	3.0	38.3	1.0	-55.5	-13.0	-42.5	
Mid Ch, 1882.5									
3765.00	-19.2	V	3.0	38.4	1.0	-56.6	-13.0	-43.6	
5647.50	-17.5	V	3.0	38.7	1.0	-55.2	-13.0	-42.2	
7530.00	-18.3	V	3.0	38.2	1.0	-55.5	-13.0	-42.5	
3765.00	-19.0	H	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5647.50	-18.6	H	3.0	38.7	1.0	-56.4	-13.0	-43.4	
7530.00	-17.8	H	3.0	38.2	1.0	-55.0	-13.0	-42.0	
High Ch, 1913.5									
3827.00	-19.1	V	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5740.50	-18.1	V	3.0	38.7	1.0	-55.8	-13.0	-42.8	
7654.00	-18.1	V	3.0	38.1	1.0	-56.1	-13.0	-43.1	
3827.00	-18.5	H	3.0	38.4	1.0	-55.8	-13.0	-42.8	
5740.50	-19.2	H	3.0	38.7	1.0	-56.9	-13.0	-43.9	
7654.00	-16.9	H	3.0	38.1	1.0	-54.0	-13.0	-41.0	

LTE B25 3MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 25 Harmonics, 5MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.5									
3705.00	-19.3	V	3.0	38.4	1.0	-56.7	-13.0	-43.7	
5557.50	-18.7	V	3.0	38.8	1.0	-56.5	-13.0	-43.5	
7410.00	-18.8	V	3.0	38.3	1.0	-56.1	-13.0	-43.1	
3705.00	-19.4	H	3.0	38.4	1.0	-56.8	-13.0	-43.8	
5557.50	-18.6	H	3.0	38.8	1.0	-56.4	-13.0	-43.4	
7410.00	-18.0	H	3.0	38.3	1.0	-55.2	-13.0	-42.2	
Mid Ch, 1882.5									
3765.00	-17.6	V	3.0	38.4	1.0	-55.0	-13.0	-42.0	
5647.50	-18.9	V	3.0	38.7	1.0	-56.6	-13.0	-43.6	
7530.00	-18.4	V	3.0	38.2	1.0	-55.6	-13.0	-42.6	
3765.00	-18.7	H	3.0	38.4	1.0	-56.2	-13.0	-43.2	
5647.50	-18.7	H	3.0	38.7	1.0	-56.5	-13.0	-43.5	
7530.00	-17.1	H	3.0	38.2	1.0	-54.3	-13.0	-41.3	
High Ch, 1912.5									
3825.00	-19.0	V	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5737.50	-19.0	V	3.0	38.7	1.0	-56.7	-13.0	-43.7	
7656.00	-17.8	V	3.0	38.1	1.0	-54.9	-13.0	-41.9	
3825.00	-19.5	H	3.0	38.4	1.0	-56.9	-13.0	-43.9	
5737.50	-18.9	H	3.0	38.7	1.0	-56.6	-13.0	-43.6	
7656.00	-17.3	H	3.0	38.1	1.0	-54.4	-13.0	-41.4	

LTE B25 5MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 25 Harmonics, 10MHz Bandwidth

F	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1855									
3710.00	-19.5	V	3.0	38.4	1.0	-56.9	-13.0	-43.9	
5965.00	-18.4	V	3.0	38.8	1.0	-56.2	-13.0	-43.2	
7420.00	-17.4	V	3.0	38.3	1.0	-54.6	-13.0	-41.6	
3710.00	-18.9	H	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5965.00	-19.0	H	3.0	38.8	1.0	-56.7	-13.0	-43.7	
7420.00	-18.3	H	3.0	38.3	1.0	-55.6	-13.0	-42.6	
Mid Ch, 1882.5									
3765.00	-19.2	V	3.0	38.4	1.0	-56.7	-13.0	-43.7	
5647.50	-18.5	V	3.0	38.7	1.0	-56.2	-13.0	-43.2	
7530.00	-18.0	V	3.0	38.2	1.0	-55.2	-13.0	-42.2	
3765.00	-19.4	H	3.0	38.4	1.0	-56.8	-13.0	-43.8	
5647.50	-19.2	H	3.0	38.7	1.0	-57.0	-13.0	-44.0	
7530.00	-18.7	H	3.0	38.2	1.0	-55.9	-13.0	-42.9	
High Ch, 1910									
3820.00	-18.2	V	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5730.00	-17.8	V	3.0	38.7	1.0	-55.6	-13.0	-42.6	
7640.00	-18.0	V	3.0	38.1	1.0	-55.1	-13.0	-42.1	
3820.00	-19.5	H	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5730.00	-18.9	H	3.0	38.7	1.0	-56.6	-13.0	-43.6	
7640.00	-17.6	H	3.0	38.1	1.0	-54.7	-13.0	-41.7	

LTE B25 10MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 25 Harmonics, 10MHz Bandwidth

F	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1855									
3710.00	-18.6	V	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5965.00	-18.6	V	3.0	38.8	1.0	-56.4	-13.0	-43.4	
7420.00	-18.2	V	3.0	38.3	1.0	-55.4	-13.0	-42.4	
3710.00	-19.5	H	3.0	38.4	1.0	-56.9	-13.0	-43.9	
5965.00	-18.9	H	3.0	38.8	1.0	-56.7	-13.0	-43.7	
7420.00	-16.9	H	3.0	38.3	1.0	-54.1	-13.0	-41.1	
Mid Ch, 1882.5									
3765.00	-19.1	V	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5647.50	-19.1	V	3.0	38.7	1.0	-56.8	-13.0	-43.8	
7530.00	-17.5	V	3.0	38.2	1.0	-54.7	-13.0	-41.7	
3765.00	-18.7	H	3.0	38.4	1.0	-56.1	-13.0	-43.1	
5647.50	-19.0	H	3.0	38.7	1.0	-56.8	-13.0	-43.8	
7530.00	-17.4	H	3.0	38.2	1.0	-54.6	-13.0	-41.6	
High Ch, 1910									
3820.00	-19.2	V	3.0	38.4	1.0	-56.6	-13.0	-43.6	
5730.00	-19.3	V	3.0	38.7	1.0	-57.1	-13.0	-44.1	
7640.00	-17.2	V	3.0	38.1	1.0	-54.4	-13.0	-41.4	
3820.00	-19.0	H	3.0	38.4	1.0	-56.4	-13.0	-43.4	
5730.00	-18.2	H	3.0	38.7	1.0	-55.9	-13.0	-42.9	
7640.00	-16.6	H	3.0	38.1	1.0	-53.7	-13.0	-40.7	

LTE B25 10MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 25 Harmonics, 15MHz Bandwidth

F	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1857.5									
3715.00	-18.8	V	3.0	38.4	1.0	-56.2	-13.0	-43.2	
5572.50	-18.4	V	3.0	38.8	1.0	-56.2	-13.0	-43.2	
7430.00	-17.6	V	3.0	38.3	1.0	-54.8	-13.0	-41.8	
3715.00	-18.8	H	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5572.50	-18.9	H	3.0	38.8	1.0	-56.7	-13.0	-43.7	
7430.00	-17.4	H	3.0	38.3	1.0	-54.7	-13.0	-41.7	
Mid Ch, 1882.5									
3765.00	-18.7	V	3.0	38.4	1.0	-56.1	-13.0	-43.1	
5647.50	-18.8	V	3.0	38.7	1.0	-56.6	-13.0	-43.6	
7530.00	-18.2	V	3.0	38.2	1.0	-55.4	-13.0	-42.4	
3765.00	-19.1	H	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5647.50	-18.7	H	3.0	38.7	1.0	-56.4	-13.0	-43.4	
7530.00	-18.0	H	3.0	38.2	1.0	-55.2	-13.0	-42.2	
High Ch, 1907.5									
3815.00	-19.1	V	3.0	38.4	1.0	-56.5	-13.0	-43.5	
5722.50	-18.2	V	3.0	38.7	1.0	-55.9	-13.0	-42.9	
7630.00	-18.1	V	3.0	38.1	1.0	-55.3	-13.0	-42.3	
3815.00	-18.5	H	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5722.50	-18.2	H	3.0	38.7	1.0	-55.9	-13.0	-42.9	
7630.00	-17.9	H	3.0	38.1	1.0	-55.0	-13.0	-42.0	

LTE B25 15MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 25 Harmonics, 15MHz Bandwidth

F	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1857.5									
3715.00	-19.2	V	3.0	38.4	1.0	-56.6	-13.0	-43.6	
5572.50	-18.3	V	3.0	38.8	1.0	-56.0	-13.0	-43.0	
7430.00	-18.6	V	3.0	38.3	1.0	-55.9	-13.0	-42.9	
3715.00	-19.7	H	3.0	38.4	1.0	-57.2	-13.0	-44.2	
5572.50	-18.6	H	3.0	38.8	1.0	-56.4	-13.0	-43.4	
7430.00	-17.4	H	3.0	38.3	1.0	-54.6	-13.0	-41.6	
Mid Ch, 1882.5									
3765.00	-19.2	V	3.0	38.4	1.0	-56.6	-13.0	-43.6	
5647.50	-18.4	V	3.0	38.7	1.0	-56.2	-13.0	-43.2	
7530.00	-18.1	V	3.0	38.2	1.0	-55.3	-13.0	-42.3	
3765.00	-19.4	H	3.0	38.4	1.0	-56.8	-13.0	-43.8	
5647.50	-19.4	H	3.0	38.7	1.0	-57.1	-13.0	-44.1	
7530.00	-18.0	H	3.0	38.2	1.0	-55.2	-13.0	-42.2	
High Ch, 1907.5									
3815.00	-18.8	V	3.0	38.4	1.0	-56.2	-13.0	-43.2	
5722.50	-18.2	V	3.0	38.7	1.0	-55.9	-13.0	-42.9	
7630.00	-16.8	V	3.0	38.1	1.0	-53.9	-13.0	-40.9	
3815.00	-19.4	H	3.0	38.4	1.0	-56.8	-13.0	-43.8	
5722.50	-18.3	H	3.0	38.7	1.0	-56.0	-13.0	-43.0	
7630.00	-17.6	H	3.0	38.1	1.0	-54.7	-13.0	-41.7	

LTE B25 15MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_QPSK Band 25 Harmonics, 20MHz Bandwidth

F	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1860									
3720.00	-18.9	V	3.0	38.4	1.0	-56.3	-13.0	-43.3	
5980.00	-18.5	V	3.0	38.8	1.0	-56.3	-13.0	-43.3	
7440.00	-17.6	V	3.0	38.2	1.0	-55.6	-13.0	-42.6	
3720.00	-19.6	H	3.0	38.4	1.0	-57.0	-13.0	-44.0	
5980.00	-17.3	H	3.0	38.8	1.0	-55.0	-13.0	-42.0	
7440.00	-18.7	H	3.0	38.2	1.0	-56.0	-13.0	-43.0	
Mid Ch, 1882.5									
3765.00	-18.1	V	3.0	38.4	1.0	-55.6	-13.0	-42.6	
5647.50	-19.5	V	3.0	38.7	1.0	-57.3	-13.0	-44.3	
7530.00	-17.7	V	3.0	38.2	1.0	-54.8	-13.0	-41.8	
3765.00	-19.1	H	3.0	38.4	1.0	-56.9	-13.0	-43.9	
5647.50	-18.8	H	3.0	38.7	1.0	-56.5	-13.0	-43.5	
7530.00	-17.9	H	3.0	38.2	1.0	-55.1	-13.0	-42.1	
High Ch, 1905									
3810.00	-18.6	V	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5715.00	-19.2	V	3.0	38.7	1.0	-56.9	-13.0	-43.9	
7620.00	-17.7	V	3.0	38.1	1.0	-54.9	-13.0	-41.9	
3810.00	-18.6	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5715.00	-19.5	H	3.0	38.7	1.0	-57.2	-13.0	-44.2	
7620.00	-17.0	H	3.0	38.1	1.0	-54.1	-13.0	-41.1	

LTE B25 20MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 43575 OS
 Configuration: EUT + AC + Headset
 Location: Chamber B
 Mode: LTE_16QAM Band 25 Harmonics, 20MHz Bandwidth

F	SG reading	Ant. Pol.	Distance	Preamp	Filter	ERP	Limit	Delta	Notes
MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
Low Ch, 1860									
3720.00	-18.5	V	3.0	38.4	1.0	-55.9	-13.0	-42.9	
5980.00	-18.3	V	3.0	38.8	1.0	-56.1	-13.0	-43.1	
7440.00	-17.6	V	3.0	38.2	1.0	-54.9	-13.0	-41.9	
3720.00	-18.8	H	3.0	38.4	1.0	-56.2	-13.0	-43.2	
5980.00	-18.3	H	3.0	38.8	1.0	-56.1	-13.0	-43.1	
7440.00	-17.5	H	3.0	38.2	1.0	-54.7	-13.0	-41.7	
Mid Ch, 1882.5									
3765.00	-18.2	V	3.0	38.4	1.0	-55.7	-13.0	-42.7	
5647.50	-18.6	V	3.0	38.7	1.0	-56.3	-13.0	-43.3	
7530.00	-17.9	V	3.0	38.2	1.0	-55.1	-13.0	-42.1	
3765.00	-18.6	H	3.0	38.4	1.0	-56.0	-13.0	-43.0	
5647.50	-18.6	H	3.0	38.7	1.0	-56.4	-13.0	-43.4	
7530.00	-17.4	H	3.0	38.2	1.0	-54.6	-13.0	-41.6	
High Ch, 1905									
3810.00	-18.1	V	3.0	38.4	1.0	-55.5	-13.0	-42.5	
5715.00	-18.6	V	3.0	38.7	1.0	-56.3	-13.0	-43.3	
7620.00	-17.0	V	3.0	38.1	1.0	-54.2	-13.0	-41.2	
3810.00	-18.8	H	3.0	38.4	1.0	-56.2	-13.0	-43.2	
5715.00	-19.0	H	3.0	38.7	1.0	-56.7	-13.0	-43.7	
7620.00	-16.6	H	3.0	38.1	1.0	-53.7	-13.0	-40.7	

LTE Band 26

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

Company: SOMC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_QPSK Band 26 Harmonics, 1.4MHz 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, B14.7									
1629.40	-29.8	V	3.0	36.4	1.0	-65.2	-13.0	-52.2	
2444.10	-27.2	V	3.0	35.0	1.0	-61.2	-13.0	-48.2	
3258.80	-25.8	V	3.0	34.3	1.0	-59.1	-13.0	-46.1	
1629.40	-29.4	H	3.0	36.4	1.0	-64.8	-13.0	-51.8	
2444.10	-25.6	H	3.0	35.0	1.0	-59.6	-13.0	-46.6	
3258.80	-27.0	H	3.0	34.3	1.0	-60.3	-13.0	-47.3	
Mid Ch, B31.5									
1963.00	-29.7	V	3.0	36.3	1.0	-65.1	-13.0	-52.1	
2494.50	-28.7	V	3.0	34.9	1.0	-62.6	-13.0	-49.6	
3326.00	-25.6	V	3.0	34.2	1.0	-58.8	-13.0	-45.8	
1963.00	-31.0	H	3.0	36.3	1.0	-66.4	-13.0	-53.4	
2494.50	-29.1	H	3.0	34.9	1.0	-63.1	-13.0	-50.1	
3326.00	-26.2	H	3.0	34.2	1.0	-59.5	-13.0	-46.5	
High Ch, B48.3									
1696.60	-29.1	V	3.0	36.3	1.0	-64.4	-13.0	-51.4	
2544.90	-27.7	V	3.0	34.9	1.0	-61.6	-13.0	-48.6	
3393.20	-26.5	V	3.0	34.2	1.0	-59.7	-13.0	-46.7	
1696.60	-29.4	H	3.0	36.3	1.0	-64.7	-13.0	-51.7	
2544.90	-26.6	H	3.0	34.9	1.0	-60.5	-13.0	-47.5	
3393.20	-25.5	H	3.0	34.2	1.0	-58.7	-13.0	-45.7	

LTE B26 1.4MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_16QAM Band 26 Harmonics, 1.4MHz 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, B14.7									
1629.40	-29.6	V	3.0	36.4	1.0	-65.0	-13.0	-52.0	
2444.10	-26.8	V	3.0	35.0	1.0	-60.8	-13.0	-47.8	
3258.80	-25.7	V	3.0	34.3	1.0	-59.0	-13.0	-46.0	
1629.40	-29.2	H	3.0	36.4	1.0	-64.6	-13.0	-51.6	
2444.10	-25.3	H	3.0	35.0	1.0	-59.3	-13.0	-46.3	
3258.80	-26.6	H	3.0	34.3	1.0	-59.9	-13.0	-46.9	
Mid Ch, B31.5									
1963.00	-30.3	V	3.0	36.3	1.0	-65.6	-13.0	-52.6	
2494.50	-29.1	V	3.0	34.9	1.0	-63.0	-13.0	-50.0	
3326.00	-25.8	V	3.0	34.2	1.0	-59.0	-13.0	-46.0	
1963.00	-31.3	H	3.0	36.3	1.0	-66.6	-13.0	-53.6	
2494.50	-29.4	H	3.0	34.9	1.0	-63.3	-13.0	-50.3	
3326.00	-26.9	H	3.0	34.2	1.0	-60.1	-13.0	-47.1	
High Ch, B48.3									
1696.60	-28.6	V	3.0	36.3	1.0	-63.9	-13.0	-50.9	
2544.90	-27.2	V	3.0	34.9	1.0	-61.1	-13.0	-48.1	
3393.20	-26.3	V	3.0	34.2	1.0	-59.5	-13.0	-46.5	
1696.60	-29.3	H	3.0	36.3	1.0	-64.5	-13.0	-51.5	
2544.90	-26.2	H	3.0	34.9	1.0	-60.2	-13.0	-47.2	
3393.20	-25.5	H	3.0	34.2	1.0	-58.6	-13.0	-45.6	

LTE B26 1.4MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_QPSK Band 26 Harmonics, 3MHz 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, B15.5									
1631.00	-30.5	V	3.0	36.4	1.0	-65.9	-13.0	-52.9	
2446.50	-27.6	V	3.0	35.0	1.0	-61.6	-13.0	-48.6	
3262.00	-26.2	V	3.0	34.3	1.0	-59.5	-13.0	-46.5	
1631.00	-29.9	H	3.0	36.4	1.0	-65.3	-13.0	-52.3	
2446.50	-25.8	H	3.0	35.0	1.0	-59.9	-13.0	-46.9	
3262.00	-27.3	H	3.0	34.3	1.0	-60.6	-13.0	-47.6	
Mid Ch, B31.5									
1963.00	-29.4	V	3.0	36.3	1.0	-64.7	-13.0	-51.7	
2494.50	-28.4	V	3.0	34.9	1.0	-62.4	-13.0	-49.4	
3326.00	-24.8	V	3.0	34.2	1.0	-58.0	-13.0	-45.0	
1963.00	-31.0	H	3.0	36.3	1.0	-66.3	-13.0	-53.3	
2494.50	-28.7	H	3.0	34.9	1.0	-62.6	-13.0	-49.6	
3326.00	-26.0	H	3.0	34.2	1.0	-59.3	-13.0	-46.3	
High Ch, B47.5									
1695.00	-29.3	V	3.0	36.3	1.0	-64.6	-13.0	-51.6	
2542.50	-27.8	V	3.0	34.9	1.0	-61.7	-13.0	-48.7	
3396.00	-26.7	V	3.0	34.2	1.0	-59.9	-13.0	-46.9	
1695.00	-29.5	H	3.0	36.3	1.0	-65.2	-13.0	-52.2	
2542.50	-27.1	H	3.0	34.9	1.0	-61.0	-13.0	-48.0	
3396.00	-26.2	H	3.0	34.2	1.0	-59.4	-13.0	-46.4	

LTE B26 3MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_16QAM Band 26 Harmonics, 3MHz 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, B15.5									
1631.00	-30.2	V	3.0	36.4	1.0	-65.6	-13.0	-52.6	
2446.50	-26.9	V	3.0	35.0	1.0	-60.9	-13.0	-47.9	
3262.00	-25.9	V	3.0	34.3	1.0	-59.7	-13.0	-46.7	
1631.00	-29.8	H	3.0	36.4	1.0	-65.2	-13.0	-52.2	
2446.50	-25.3	H	3.0	35.0	1.0	-59.3	-13.0	-46.3	
3262.00	-27.0	H	3.0	34.3	1.0	-60.3	-13.0	-47.3	
Mid Ch, B31.5									
1963.00	-28.8	V	3.0	36.3	1.0	-64.1	-13.0	-51.1	
2494.50	-27.9	V	3.0	34.9	1.0	-61.8	-13.0	-48.8	
3326.00	-24.2	V	3.0	34.2	1.0	-57.4	-13.0	-44.4	
1963.00	-30.2	H	3.0	36.3	1.0	-65.6	-13.0	-52.6	
2494.50	-28.3	H	3.0	34.9	1.0	-62.3	-13.0	-49.3	
3326.00	-25.6	H	3.0	34.2	1.0	-58.8	-13.0	-45.8	
High Ch, B47.5									
1695.00	-28.5	V	3.0	36.3	1.0	-63.8	-13.0	-50.8	
2542.50	-27.3	V	3.0	34.9	1.0	-61.2	-13.0	-48.2	
3396.00	-26.5	V	3.0	34.2	1.0	-59.7	-13.0	-46.7	
1695.00	-29.9	H	3.0	36.3	1.0	-65.2	-13.0	-52.2	
2542.50	-26.3	H	3.0	34.9	1.0	-60.2	-13.0	-47.2	
3396.00	-26.2	H	3.0	34.2	1.0	-59.4	-13.0	-46.4	

LTE B26 3MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_QPSK Band 26 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, B16.5									
1633.00	-30.4	V	3.0	36.4	1.0	-65.8	-13.0	-52.8	
2449.50	-27.5	V	3.0	35.0	1.0	-61.5	-13.0	-48.5	
3266.00	-26.3	V	3.0	34.3	1.0	-59.6	-13.0	-46.6	
1633.00	-29.6	H	3.0	36.4	1.0	-65.0	-13.0	-52.0	
2449.50	-25.8	H	3.0	35.0	1.0	-59.8	-13.0	-46.8	
3266.00	-27.4	H	3.0	34.3	1.0	-60.7	-13.0	-47.7	
Mid Ch, B31.5									
1963.00	-29.1	V	3.0	36.3	1.0	-64.5	-13.0	-51.5	
2494.50	-28.1	V	3.0	34.9	1.0	-62.1	-13.0	-49.1	
3326.00	-25.2	V	3.0	34.2	1.0	-58.4	-13.0	-45.4	
1963.00	-31.1	H	3.0	36.3	1.0	-66.5	-13.0	-53.5	
2494.50	-28.5	H	3.0	34.9	1.0	-62.4	-13.0	-49.4	
3326.00	-25.9	H	3.0	34.2	1.0	-59.1	-13.0	-46.1	
High Ch, B46.5									
1693.00	-29.4	V	3.0	36.3	1.0	-64.7	-13.0	-51.7	
2539.50	-28.3	V	3.0	34.9	1.0	-62.2	-13.0	-49.2	
3386.00	-26.8	V	3.0	34.2	1.0	-60.0	-13.0	-47.0	
1693.00	-30.2	H	3.0	36.3	1.0	-65.5	-13.0	-52.5	
2539.50	-27.2	H	3.0	34.9	1.0	-61.2	-13.0	-48.2	
3386.00	-26.0	H	3.0	34.2	1.0	-59.1	-13.0	-46.1	

LTE B26 5MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/17/2017
 Test Engineer: 37290
 Configuration: EUT + AC + Headset
 Location: Chamber C
 Mode: LTE_16QAM Band 26 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, B16.5									
1633.00	-30.1	V	3.0	36.4	1.0	-65.5	-13.0	-52.5	
2449.50	-27.5	V	3.0	35.0	1.0	-61.5	-13.0	-48.5	
3266.00	-26.3	V	3.0	34.3	1.0	-59.6	-13.0	-46.6	
1633.00	-29.8	H	3.0	36.4	1.0	-65.2	-13.0	-52.2	
2449.50	-25.8	H	3.0	35.0	1.0	-59.8	-13.0	-46.8	
3266.00	-27.4	H	3.0	34.3	1.0	-60.7	-13.0	-47.7	
Mid Ch, B31.5									
1963.00	-29.4	V	3.0	36.3	1.0	-64.7	-13.0	-51.7	
2494.50	-28.5	V	3.0	34.9	1.0	-62.5	-13.0	-49.5	
3326.00	-25.3	V	3.0	34.2	1.0	-58.5	-13.0	-45.5	
1963.00	-31.3	H	3.0	36.3	1.0	-66.6	-13.0	-53.6	
2494.50	-28.5	H	3.0	34.9	1.0	-62.4	-13.0	-49.4	
3326.00	-25.5	H	3.0	34.2	1.0	-58.7	-13.0	-45.7	
High Ch, B46.5									
1693.00	-29.8	V	3.0	36.3	1.0	-65.1	-13.0	-52.1	
2539.50	-27.8	V	3.0	34.9	1.0	-61.7	-13.0	-48.7	
3386.00	-27.0	V	3.0	34.2	1.0	-60.2	-13.0	-47.2	
1693.00	-30.3	H	3.0	36.3	1.0	-65.6	-13.0	-52.6	
2539.50	-27.2	H	3.0	34.9	1.0	-61.1	-13.0	-48.1	
3386.00	-26.2	H	3.0	34.2	1.0	-59.4	-13.0	-46.4	

LTE B26 5MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 37290
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 26 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 819									
1638.00	-30.5	V	3.0	36.4	1.0	-65.9	-13.0	-52.9	
2457.00	-27.7	V	3.0	35.0	1.0	-61.7	-13.0	-48.7	
3276.00	-26.4	V	3.0	34.3	1.0	-59.7	-13.0	-46.7	
1638.00	-30.1	H	3.0	36.4	1.0	-65.5	-13.0	-52.5	
2457.00	-26.3	H	3.0	35.0	1.0	-60.3	-13.0	-47.3	
3276.00	-27.6	H	3.0	34.3	1.0	-60.8	-13.0	-47.8	
Mid Ch, 831.5									
1663.00	-29.7	V	3.0	36.3	1.0	-65.0	-13.0	-52.0	
2494.50	-28.6	V	3.0	34.9	1.0	-62.6	-13.0	-49.6	
3326.00	-25.3	V	3.0	34.2	1.0	-58.6	-13.0	-45.6	
1663.00	-31.5	H	3.0	36.3	1.0	-66.8	-13.0	-53.8	
2494.50	-28.8	H	3.0	34.9	1.0	-62.8	-13.0	-49.8	
3326.00	-26.0	H	3.0	34.2	1.0	-59.3	-13.0	-46.3	
High Ch, 844									
1688.00	-30.0	V	3.0	36.3	1.0	-65.3	-13.0	-52.3	
2532.00	-28.3	V	3.0	34.9	1.0	-62.7	-13.0	-49.7	
3376.00	-27.1	V	3.0	34.2	1.0	-60.3	-13.0	-47.3	
1688.00	-30.5	H	3.0	36.3	1.0	-65.8	-13.0	-52.8	
2532.00	-27.7	H	3.0	34.9	1.0	-61.6	-13.0	-48.6	
3376.00	-26.3	H	3.0	34.2	1.0	-59.5	-13.0	-46.5	

LTE B26 10MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 37290
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 26 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 819									
1638.00	-29.8	V	3.0	36.4	1.0	-65.2	-13.0	-52.2	
2457.00	-28.1	V	3.0	35.0	1.0	-62.1	-13.0	-49.1	
3276.00	-27.2	V	3.0	34.3	1.0	-60.5	-13.0	-47.5	
1638.00	-30.0	H	3.0	36.4	1.0	-65.4	-13.0	-52.4	
2457.00	-26.9	H	3.0	35.0	1.0	-60.9	-13.0	-47.9	
3276.00	-27.6	H	3.0	34.3	1.0	-60.9	-13.0	-47.9	
Mid Ch, 831.5									
1663.00	-30.4	V	3.0	36.3	1.0	-65.8	-13.0	-52.8	
2494.50	-27.0	V	3.0	34.9	1.0	-61.0	-13.0	-48.0	
3326.00	-25.5	V	3.0	34.2	1.0	-58.8	-13.0	-45.8	
1663.00	-30.1	H	3.0	36.3	1.0	-65.5	-13.0	-52.5	
2494.50	-28.3	H	3.0	34.9	1.0	-62.2	-13.0	-49.2	
3326.00	-26.7	H	3.0	34.2	1.0	-60.0	-13.0	-47.0	
High Ch, 844									
1688.00	-30.0	V	3.0	36.3	1.0	-65.3	-13.0	-52.3	
2532.00	-28.7	V	3.0	34.9	1.0	-62.6	-13.0	-49.6	
3376.00	-26.0	V	3.0	34.2	1.0	-58.2	-13.0	-45.2	
1688.00	-32.2	H	3.0	36.3	1.0	-67.5	-13.0	-54.5	
2532.00	-28.1	H	3.0	34.9	1.0	-62.0	-13.0	-49.0	
3376.00	-27.8	H	3.0	34.2	1.0	-61.0	-13.0	-48.0	

LTE B26 10MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 37290
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 26 Harmonics, 15MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 831.5									
1663.00	-29.6	V	3.0	36.3	1.0	-64.3	-13.0	-51.3	
2494.50	-27.6	V	3.0	34.9	1.0	-61.6	-13.0	-48.6	
3326.00	-25.8	V	3.0	34.2	1.0	-59.1	-13.0	-46.1	
1663.00	-30.7	H	3.0	36.3	1.0	-66.0	-13.0	-53.0	
2494.50	-27.6	H	3.0	34.9	1.0	-61.9	-13.0	-48.9	
3326.00	-26.9	H	3.0	34.2	1.0	-60.2	-13.0	-47.2	
Mid Ch, 836.5									
1673.00	-29.6	V	3.0	36.3	1.0	-64.9	-13.0	-51.9	
2509.50	-28.2	V	3.0	34.9	1.0	-62.1	-13.0	-49.1	
3346.00	-26.3	V	3.0	34.2	1.0	-59.5	-13.0	-46.5	
1673.00	-29.7	H	3.0	36.3	1.0	-65.0	-13.0	-52.0	
2509.50	-27.1	H	3.0	34.9	1.0	-61.0	-13.0	-48.0	
3346.00	-26.3	H	3.0	34.2	1.0	-59.6	-13.0	-46.6	
High Ch, 841.5									
1683.00	-28.7	V	3.0	36.3	1.0	-64.0	-13.0	-51.0	
2524.50	-28.9	V	3.0	34.9	1.0	-62.9	-13.0	-49.9	
3366.00	-25.6	V	3.0	34.2	1.0	-58.8	-13.0	-45.8	
1683.00	-30.2	H	3.0	36.3	1.0	-65.9	-13.0	-52.9	
2524.50	-29.2	H	3.0	34.9	1.0	-63.1	-13.0	-50.1	
3366.00	-26.6	H	3.0	34.2	1.0	-60.8	-13.0	-47.8	

LTE B26 15MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 37290
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 26 Harmonics, 15MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 831.5									
1663.00	-28.6	V	3.0	36.3	1.0	-64.0	-13.0	-51.0	
2494.50	-28.1	V	3.0	34.9	1.0	-62.1	-13.0	-49.1	
3326.00	-25.5	V	3.0	34.2	1.0	-58.7	-13.0	-45.7	
1663.00	-30.8	H	3.0	36.3	1.0	-66.1	-13.0	-53.1	
2494.50	-26.8	H	3.0	34.9	1.0	-60.8	-13.0	-47.8	
3326.00	-26.5	H	3.0	34.2	1.0	-59.8	-13.0	-46.8	
Mid Ch, 836.5									
1673.00	-29.4	V	3.0	36.3	1.0	-64.7	-13.0	-51.7	
2509.50	-28.4	V	3.0	34.9	1.0	-62.3	-13.0	-49.3	
3346.00	-26.4	V	3.0	34.2	1.0	-59.7	-13.0	-46.7	
1673.00	-28.8	H	3.0	36.3	1.0	-64.2	-13.0	-51.2	
2509.50	-28.4	H	3.0	34.9	1.0	-62.3	-13.0	-49.3	
3346.00	-27.2	H	3.0	34.2	1.0	-60.5	-13.0	-47.5	
High Ch, 841.5									
1683.00	-30.2	V	3.0	36.3	1.0	-65.5	-13.0	-52.5	
2524.50	-29.7	V	3.0	34.9	1.0	-63.6	-13.0	-50.6	
3366.00	-25.7	V	3.0	34.2	1.0	-58.9	-13.0	-45.9	
1683.00	-30.6	H	3.0	36.3	1.0	-65.9	-13.0	-52.9	
2524.50	-29.2	H	3.0	34.9	1.0	-63.1	-13.0	-50.1	
3366.00	-28.1	H	3.0	34.2	1.0	-61.3	-13.0	-48.3	

LTE B26 15MHz 16QAM

LTE Band 41

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.5									
4997.00	-27.1	V	3.0	33.2	1.0	-59.3	-25.0	-34.3	
7495.50	-24.2	V	3.0	32.8	1.0	-56.0	-25.0	-31.0	
9994.00	-24.2	V	3.0	32.8	1.0	-56.0	-25.0	-31.0	
4997.00	-26.2	H	3.0	33.2	1.0	-58.4	-25.0	-33.4	
7495.50	-26.1	H	3.0	32.8	1.0	-58.0	-25.0	-33.0	
9994.00	-26.1	H	3.0	32.8	1.0	-57.8	-25.0	-32.8	
Mid Ch, 2593									
5186.00	-18.2	V	3.0	33.2	1.0	-50.4	-25.0	-25.4	
7779.00	-24.3	V	3.0	32.8	1.0	-56.2	-25.0	-31.2	
10372.00	-25.8	V	3.0	32.5	1.0	-57.3	-25.0	-32.3	
5186.00	-13.5	H	3.0	33.2	1.0	-45.7	-25.0	-20.7	
7779.00	-24.8	H	3.0	32.8	1.0	-56.7	-25.0	-31.7	
10372.00	-25.0	H	3.0	32.5	1.0	-56.5	-25.0	-31.5	
High Ch, 2687.5									
5375.00	-17.5	V	3.0	33.1	1.0	-49.6	-25.0	-24.6	
8062.50	-23.0	V	3.0	32.8	1.0	-54.8	-25.0	-29.8	
10750.00	-23.8	V	3.0	32.3	1.0	-55.1	-25.0	-30.1	
5375.00	-14.0	H	3.0	33.1	1.0	-46.1	-25.0	-21.1	
8062.50	-24.0	H	3.0	32.8	1.0	-55.8	-25.0	-30.8	
10750.00	-24.4	H	3.0	32.3	1.0	-55.7	-25.0	-30.7	

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.5									
4997.00	-26.9	V	3.0	33.2	1.0	-59.1	-25.0	-34.1	
7495.50	-25.7	V	3.0	32.8	1.0	-57.6	-25.0	-32.6	
9994.00	-26.2	V	3.0	32.8	1.0	-58.0	-25.0	-33.0	
4997.00	-26.0	H	3.0	33.2	1.0	-58.2	-25.0	-33.2	
7495.50	-25.2	H	3.0	32.8	1.0	-57.0	-25.0	-32.0	
9994.00	-25.8	H	3.0	32.8	1.0	-57.6	-25.0	-32.6	
Mid Ch, 2593									
5186.00	-18.1	V	3.0	33.2	1.0	-50.3	-25.0	-25.3	
7779.00	-24.7	V	3.0	32.8	1.0	-56.5	-25.0	-31.5	
10372.00	-25.3	V	3.0	32.5	1.0	-56.9	-25.0	-31.9	
5186.00	-11.5	H	3.0	33.2	1.0	-43.6	-25.0	-18.6	
7779.00	-25.2	H	3.0	32.8	1.0	-57.1	-25.0	-32.1	
10372.00	-25.2	H	3.0	32.5	1.0	-56.8	-25.0	-31.8	
High Ch, 2687.5									
5375.00	-18.3	V	3.0	33.1	1.0	-50.5	-25.0	-25.5	
8062.50	-23.6	V	3.0	32.8	1.0	-55.5	-25.0	-30.5	
10750.00	-23.7	V	3.0	32.3	1.0	-55.0	-25.0	-30.0	
5375.00	-17.0	H	3.0	33.1	1.0	-49.1	-25.0	-24.1	
8062.50	-23.8	H	3.0	32.8	1.0	-55.6	-25.0	-30.6	
10750.00	-24.3	H	3.0	32.3	1.0	-55.6	-25.0	-30.6	

LTE B41 5MHz QPSK

LTE B41 5MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-26.5	V	3.0	33.2	1.0	-58.7	-25.0	-33.7	
7500.00	-25.2	V	3.0	32.8	1.0	-57.1	-25.0	-32.1	
10004.00	-25.4	V	3.0	32.8	1.0	-57.1	-25.0	-32.1	
5002.00	-25.9	H	3.0	33.2	1.0	-58.1	-25.0	-33.1	
7500.00	-25.9	H	3.0	32.8	1.0	-57.8	-25.0	-32.8	
10004.00	-25.9	H	3.0	32.8	1.0	-57.7	-25.0	-32.7	
Mid Ch, 2593									
5186.00	-18.0	V	3.0	33.2	1.0	-50.2	-25.0	-25.2	
7779.00	-23.5	V	3.0	32.8	1.0	-55.3	-25.0	-30.3	
10372.00	-24.7	V	3.0	32.5	1.0	-56.3	-25.0	-31.3	
5186.00	-16.4	H	3.0	33.2	1.0	-48.6	-25.0	-23.6	
7779.00	-24.6	H	3.0	32.8	1.0	-56.4	-25.0	-31.4	
10372.00	-23.8	H	3.0	32.5	1.0	-55.3	-25.0	-30.3	
High Ch, 2685									
5370.00	-26.5	V	3.0	33.1	1.0	-58.6	-25.0	-33.6	
8055.00	-24.6	V	3.0	32.8	1.0	-56.5	-25.0	-31.5	
10740.00	-24.9	V	3.0	32.3	1.0	-56.2	-25.0	-31.2	
5370.00	-25.3	H	3.0	33.1	1.0	-57.5	-25.0	-32.5	
8055.00	-24.2	H	3.0	32.8	1.0	-56.0	-25.0	-31.0	
10740.00	-23.3	H	3.0	32.3	1.0	-54.6	-25.0	-29.6	

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-25.0	V	3.0	33.2	1.0	-57.3	-25.0	-32.3	
7500.00	-25.0	V	3.0	32.8	1.0	-56.8	-25.0	-31.8	
10004.00	-24.6	V	3.0	32.8	1.0	-56.4	-25.0	-31.4	
5002.00	-26.7	H	3.0	33.2	1.0	-58.9	-25.0	-33.9	
7500.00	-24.7	H	3.0	32.8	1.0	-56.6	-25.0	-31.6	
10004.00	-26.4	H	3.0	32.8	1.0	-58.2	-25.0	-33.2	
Mid Ch, 2593									
5186.00	-15.4	V	3.0	33.2	1.0	-47.5	-25.0	-22.5	
7779.00	-24.2	V	3.0	32.8	1.0	-56.0	-25.0	-31.0	
10372.00	-24.9	V	3.0	32.5	1.0	-56.5	-25.0	-31.5	
5186.00	-13.9	H	3.0	33.2	1.0	-46.1	-25.0	-21.1	
7779.00	-24.2	H	3.0	32.8	1.0	-56.1	-25.0	-31.1	
10372.00	-24.8	H	3.0	32.5	1.0	-56.3	-25.0	-31.3	
High Ch, 2685									
5370.00	-26.3	V	3.0	33.1	1.0	-58.5	-25.0	-33.5	
8055.00	-23.5	V	3.0	32.8	1.0	-55.3	-25.0	-30.3	
10740.00	-23.6	V	3.0	32.3	1.0	-54.8	-25.0	-29.8	
5370.00	-25.9	H	3.0	33.1	1.0	-58.1	-25.0	-33.1	
8055.00	-26.1	H	3.0	32.8	1.0	-57.9	-25.0	-32.9	
10740.00	-26.8	H	3.0	32.3	1.0	-58.1	-25.0	-33.1	

LTE B41 10MHz QPSK

LTE B41 10MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503.5									
5007.00	-28.1	V	3.0	33.2	1.0	-58.3	-25.0	-33.3	
7510.50	-25.5	V	3.0	32.8	1.0	-57.4	-25.0	-32.4	
10014.00	-23.4	V	3.0	32.8	1.0	-55.1	-25.0	-30.1	
5007.00	-26.4	H	3.0	33.2	1.0	-58.6	-25.0	-33.6	
7510.50	-25.0	H	3.0	32.8	1.0	-56.8	-25.0	-31.8	
10014.00	-25.2	H	3.0	32.8	1.0	-57.0	-25.0	-32.0	
Mid Ch, 2593									
5186.00	-18.2	V	3.0	33.2	1.0	-50.4	-25.0	-25.4	
7779.00	-24.2	V	3.0	32.8	1.0	-56.1	-25.0	-31.1	
10372.00	-25.5	V	3.0	32.5	1.0	-57.1	-25.0	-32.1	
5186.00	-16.2	H	3.0	33.2	1.0	-48.4	-25.0	-23.4	
7779.00	-24.0	H	3.0	32.8	1.0	-55.8	-25.0	-30.8	
10372.00	-24.7	H	3.0	32.5	1.0	-56.2	-25.0	-31.2	
High Ch, 2682.5									
5365.00	-16.4	V	3.0	33.1	1.0	-48.6	-25.0	-23.6	
8047.50	-25.0	V	3.0	32.8	1.0	-56.8	-25.0	-31.8	
10730.00	-25.1	V	3.0	32.3	1.0	-56.4	-25.0	-31.4	
5365.00	-18.7	H	3.0	33.1	1.0	-50.9	-25.0	-25.9	
8047.50	-23.7	H	3.0	32.8	1.0	-55.6	-25.0	-30.6	
10730.00	-23.2	H	3.0	32.3	1.0	-54.5	-25.0	-29.5	

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503.5									
5007.00	-26.4	V	3.0	33.2	1.0	-58.6	-25.0	-33.6	
7510.50	-24.2	V	3.0	32.8	1.0	-56.0	-25.0	-31.0	
10014.00	-23.1	V	3.0	32.8	1.0	-54.9	-25.0	-29.9	
5007.00	-25.4	H	3.0	33.2	1.0	-57.7	-25.0	-32.7	
7510.50	-26.1	H	3.0	32.8	1.0	-57.9	-25.0	-32.9	
10014.00	-26.5	H	3.0	32.8	1.0	-58.2	-25.0	-33.2	
Mid Ch, 2593									
5186.00	-14.5	V	3.0	33.2	1.0	-46.6	-25.0	-21.6	
7779.00	-23.3	V	3.0	32.8	1.0	-55.1	-25.0	-30.1	
10372.00	-25.2	V	3.0	32.5	1.0	-56.7	-25.0	-31.7	
5186.00	-12.8	H	3.0	33.2	1.0	-45.0	-25.0	-20.0	
7779.00	-24.2	H	3.0	32.8	1.0	-56.0	-25.0	-31.0	
10372.00	-23.6	H	3.0	32.5	1.0	-55.1	-25.0	-30.1	
High Ch, 2682.5									
5365.00	-17.8	V	3.0	33.1	1.0	-50.0	-25.0	-25.0	
8047.50	-23.6	V	3.0	32.8	1.0	-55.5	-25.0	-30.5	
10730.00	-23.4	V	3.0	32.3	1.0	-54.7	-25.0	-29.7	
5365.00	-13.6	H	3.0	33.1	1.0	-45.8	-25.0	-20.8	
8047.50	-23.3	H	3.0	32.8	1.0	-55.1	-25.0	-30.1	
10730.00	-24.1	H	3.0	32.3	1.0	-54.4	-25.0	-29.4	

LTE B41 15MHz QPSK

LTE B41 15MHz 16QAM

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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	-25.7	V	3.0	33.2	1.0	-57.9	-25.0	-32.9	
7518.00	-24.1	V	3.0	32.8	1.0	-55.9	-25.0	-30.9	
10024.00	-25.5	V	3.0	32.8	1.0	-57.2	-25.0	-32.2	
5012.00	-26.1	H	3.0	33.2	1.0	-58.4	-25.0	-33.4	
7518.00	-25.2	H	3.0	32.8	1.0	-57.0	-25.0	-32.0	
10024.00	-25.9	H	3.0	32.8	1.0	-57.7	-25.0	-32.7	
Mid Ch, 2593									
5186.00	-26.6	V	3.0	33.2	1.0	-58.8	-25.0	-33.8	
7779.00	-24.9	V	3.0	32.8	1.0	-56.8	-25.0	-31.8	
10372.00	-26.1	V	3.0	32.5	1.0	-57.6	-25.0	-32.6	
5186.00	-25.4	H	3.0	33.2	1.0	-57.5	-25.0	-32.5	
7779.00	-23.3	H	3.0	32.8	1.0	-55.1	-25.0	-30.1	
10372.00	-25.3	H	3.0	32.5	1.0	-56.8	-25.0	-31.8	
High Ch, 2680									
5360.00	-25.4	V	3.0	33.1	1.0	-57.6	-25.0	-32.6	
8040.00	-21.5	V	3.0	32.8	1.0	-56.3	-25.0	-30.3	
10720.00	-23.9	V	3.0	32.3	1.0	-55.2	-25.0	-30.2	
5360.00	-24.9	H	3.0	33.1	1.0	-57.1	-25.0	-32.1	
8040.00	-23.0	H	3.0	32.8	1.0	-54.8	-25.0	-29.8	
10720.00	-24.7	H	3.0	32.3	1.0	-56.0	-25.0	-31.0	

LTE B41 20MHz QPSK

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

Company: SOMC
 Project #: 11760905
 Date: 7/14/2017
 Test Engineer: 37290
 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	-26.4	V	3.0	33.2	1.0	-58.6	-25.0	-33.6	
7518.00	-26.1	V	3.0	32.8	1.0	-58.0	-25.0	-33.0	
10024.00	-27.8	V	3.0	32.8	1.0	-59.6	-25.0	-34.6	
5012.00	-26.5	H	3.0	33.2	1.0	-58.7	-25.0	-33.7	
7518.00	-25.9	H	3.0	32.8	1.0	-57.7	-25.0	-32.7	
10024.00	-26.4	H	3.0	32.8	1.0	-58.2	-25.0	-33.2	
Mid Ch, 2593									
5186.00	-25.2	V	3.0	33.2	1.0	-57.4	-25.0	-32.4	
7779.00	-25.3	V	3.0	32.8	1.0	-57.1	-25.0	-32.1	
10372.00	-24.6	V	3.0	32.5	1.0	-56.2	-25.0	-31.2	
5186.00	-24.9	H	3.0	33.2	1.0	-57.1	-25.0	-32.1	
7779.00	-24.1	H	3.0	32.8	1.0	-56.0	-25.0	-31.0	
10372.00	-23.2	H	3.0	32.5	1.0	-54.8	-25.0	-29.8	
High Ch, 2680									
5360.00	-26.8	V	3.0	33.1	1.0	-59.0	-25.0	-34.0	
8040.00	-24.2	V	3.0	32.8	1.0	-56.0	-25.0	-31.0	
10720.00	-24.1	V	3.0	32.3	1.0	-55.3	-25.0	-30.3	
5360.00	-24.7	H	3.0	33.1	1.0	-56.8	-25.0	-31.8	
8040.00	-24.2	H	3.0	32.8	1.0	-56.1	-25.0	-31.1	
10720.00	-24.3	H	3.0	32.3	1.0	-55.6	-25.0	-30.6	

LTE B41 20MHz 16QAM

LTE Band 66

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: SOMC										
Project #: 11760905										
Date: 7/17/2017										
Test Engineer: 43575 OS										
Configuration: EUT + HS + Charger										
Location: Chamber C										
Mode: LTE_QPSK Band 66 Harmonics, 1.4MHz Bandwidth										
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 1710.7MHz										
3421.40	-19.5	V	3.0	35.4	1.0	-54.6	-13.0	-41.6		
5132.10	-16.1	V	3.0	35.4	1.0	-50.5	-13.0	-37.5		
6842.80	-14.3	V	3.0	35.7	1.0	-49.0	-13.0	-36.0		
3421.40	-19.2	H	3.0	36.1	1.0	-54.2	-13.0	-41.2		
5132.10	-14.7	H	3.0	35.4	1.0	-49.2	-13.0	-36.2		
6842.80	-13.2	H	3.0	35.7	1.0	-47.9	-13.0	-34.9		
Mid Ch, 1745MHz										
3490.00	-19.5	V	3.0	36.0	1.0	-54.5	-13.0	-41.5		
5235.00	-16.9	V	3.0	35.4	1.0	-51.3	-13.0	-38.3		
6980.00	-15.9	V	3.0	35.7	1.0	-50.6	-13.0	-37.6		
3490.00	-19.2	H	3.0	36.0	1.0	-54.2	-13.0	-41.2		
5235.00	-15.9	H	3.0	35.4	1.0	-50.3	-13.0	-37.3		
6980.00	-14.1	H	3.0	35.7	1.0	-48.8	-13.0	-35.8		
High Ch, 1779.3MHz										
3558.00	-18.8	V	3.0	36.0	1.0	-53.8	-13.0	-40.8		
5337.90	-16.7	V	3.0	35.4	1.0	-51.1	-13.0	-38.1		
7117.20	-14.2	V	3.0	35.7	1.0	-48.9	-13.0	-35.9		
3558.00	-19.1	H	3.0	36.0	1.0	-54.1	-13.0	-41.1		
5337.90	-16.4	H	3.0	35.4	1.0	-50.8	-13.0	-37.8		
7117.20	-12.9	H	3.0	35.7	1.0	-47.6	-13.0	-34.6		

LTE B66 1.4MHz QPSK

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: SOMC										
Project #: 11760905										
Date: 7/17/2017										
Test Engineer: 43575 OS										
Configuration: EUT + HS + Charger										
Location: Chamber C										
Mode: LTE_16QAM Band 66 Harmonics, 1.4MHz Bandwidth										
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 1710.7MHz										
3421.40	-19.4	V	3.0	36.1	1.0	-54.4	-13.0	-41.4		
5132.10	-16.4	V	3.0	35.4	1.0	-50.9	-13.0	-37.9		
6842.80	-14.4	V	3.0	35.7	1.0	-49.1	-13.0	-36.1		
3421.40	-19.1	H	3.0	36.1	1.0	-54.2	-13.0	-41.2		
5132.10	-15.7	H	3.0	35.4	1.0	-50.1	-13.0	-37.1		
6842.80	-12.4	H	3.0	35.7	1.0	-47.1	-13.0	-34.1		
Mid Ch, 1745MHz										
3490.00	-19.4	V	3.0	36.0	1.0	-53.5	-13.0	-40.5		
5235.00	-16.2	V	3.0	35.4	1.0	-50.6	-13.0	-37.6		
6980.00	-15.0	V	3.0	35.7	1.0	-49.7	-13.0	-36.7		
3490.00	-19.0	H	3.0	36.0	1.0	-54.0	-13.0	-41.0		
5235.00	-15.9	H	3.0	35.4	1.0	-50.4	-13.0	-37.4		
6980.00	-14.1	H	3.0	35.7	1.0	-48.8	-13.0	-35.8		
High Ch, 1779.3MHz										
3558.00	-19.0	V	3.0	36.0	1.0	-54.0	-13.0	-41.0		
5337.90	-16.5	V	3.0	35.4	1.0	-51.0	-13.0	-38.0		
7117.20	-14.6	V	3.0	35.7	1.0	-49.3	-13.0	-36.3		
3558.00	-19.2	H	3.0	36.0	1.0	-54.2	-13.0	-41.2		
5337.90	-14.9	H	3.0	35.4	1.0	-49.4	-13.0	-36.4		
7117.20	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8		

LTE B66 1.4MHz 16QAM

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: SOMC										
Project #: 11760905										
Date: 7/17/2017										
Test Engineer: 43575 OS										
Configuration: EUT + HS + Charger										
Location: Chamber C										
Mode: LTE_QPSK Band 66 Harmonics, 3MHz Bandwidth										
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 1711.5MHz										
3423.00	-18.6	V	3.0	36.1	1.0	-53.7	-13.0	-40.7		
5134.50	-15.8	V	3.0	35.4	1.0	-50.3	-13.0	-37.3		
6846.00	-14.6	V	3.0	35.7	1.0	-49.2	-13.0	-36.2		
3423.00	-19.6	H	3.0	36.1	1.0	-54.7	-13.0	-41.7		
5134.50	-16.3	H	3.0	35.4	1.0	-50.8	-13.0	-37.8		
6846.00	-13.0	H	3.0	35.7	1.0	-47.7	-13.0	-34.7		
Mid Ch, 1745MHz										
3490.00	-19.0	V	3.0	36.0	1.0	-54.0	-13.0	-41.0		
5235.00	-16.5	V	3.0	35.4	1.0	-50.9	-13.0	-37.9		
6980.00	-15.2	V	3.0	35.7	1.0	-49.9	-13.0	-36.9		
3490.00	-19.2	H	3.0	36.0	1.0	-54.2	-13.0	-41.2		
5235.00	-15.4	H	3.0	35.4	1.0	-49.9	-13.0	-36.9		
6980.00	-13.9	H	3.0	35.7	1.0	-48.6	-13.0	-35.6		
High Ch, 1778.5MHz										
3557.00	-18.9	V	3.0	36.0	1.0	-53.9	-13.0	-40.9		
5335.50	-16.6	V	3.0	35.4	1.0	-51.0	-13.0	-38.0		
7114.00	-14.1	V	3.0	35.7	1.0	-48.9	-13.0	-35.9		
3557.00	-19.2	H	3.0	36.0	1.0	-54.2	-13.0	-41.2		
5335.50	-16.7	H	3.0	35.4	1.0	-51.1	-13.0	-38.1		
7114.00	-13.0	H	3.0	35.7	1.0	-47.6	-13.0	-34.6		

LTE B66 3MHz QPSK

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: SOMC										
Project #: 11760905										
Date: 7/17/2017										
Test Engineer: 43575 OS										
Configuration: EUT + HS + Charger										
Location: Chamber C										
Mode: LTE_16QAM Band 66 Harmonics, 3MHz Bandwidth										
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 1711.5MHz										
3423.00	-19.5	V	3.0	36.1	1.0	-54.6	-13.0	-41.6		
5134.50	-16.4	V	3.0	35.4	1.0	-50.9	-13.0	-37.9		
6846.00	-14.5	V	3.0	35.7	1.0	-49.2	-13.0	-36.2		
3423.00	-19.1	H	3.0	36.1	1.0	-54.1	-13.0	-41.1		
5134.50	-14.9	H	3.0	35.4	1.0	-49.3	-13.0	-36.3		
6846.00	-13.4	H	3.0	35.7	1.0	-48.0	-13.0	-35.0		
Mid Ch, 1745MHz										
3490.00	-18.5	V	3.0	36.0	1.0	-53.6	-13.0	-40.6		
5235.00	-16.9	V	3.0	35.4	1.0	-51.3	-13.0	-38.3		
6980.00	-14.8	V	3.0	35.7	1.0	-49.5	-13.0	-36.5		
3490.00	-19.5	H	3.0	36.0	1.0	-54.5	-13.0	-41.5		
5235.00	-16.0	H	3.0	35.4	1.0	-50.4	-13.0	-37.4		
6980.00	-13.5	H	3.0	35.7	1.0	-48.2	-13.0	-35.2		
High Ch, 1778.5MHz										
3557.00	-19.3	V	3.0	36.0	1.0	-54.3	-13.0	-41.3		
5335.50	-15.9	V	3.0	35.4	1.0	-50.4	-13.0	-37.4		
7114.00	-14.0	V	3.0	35.7	1.0	-48.7	-13.0	-35.7		
3557.00	-19.3	H	3.0	36.0	1.0	-54.3	-13.0	-41.3		
5335.50	-16.0	H	3.0	35.4	1.0	-50.5	-13.0	-37.5		
7114.00	-13.6	H	3.0	35.7	1.0	-48.3	-13.0	-35.3		

LTE B66 3MHz 16QAM

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: SOMC										
Project #: 11760905										
Date: 7/17/2017										
Test Engineer: 43575 OS										
Configuration: EUT + HS + Charger										
Location: Chamber C										
Mode: LTE_QPSK Band 66 Harmonics, 5MHz Bandwidth										
F Mhz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 1712.5MHz										
3425.00	-18.8	V	3.0	36.1	1.0	-53.9	-13.0	-40.9		
5137.50	-15.8	V	3.0	35.4	1.0	-50.2	-13.0	-37.2		
6850.00	-14.1	V	3.0	35.7	1.0	-48.8	-13.0	-35.8		
3425.00	-18.5	H	3.0	36.1	1.0	-53.6	-13.0	-40.6		
5137.50	-15.3	H	3.0	35.4	1.0	-49.7	-13.0	-36.7		
6850.00	-13.4	H	3.0	35.7	1.0	-48.1	-13.0	-35.1		
Mid Ch, 1745MHz										
3490.00	-18.9	V	3.0	36.0	1.0	-53.9	-13.0	-40.9		
5235.00	-16.4	V	3.0	35.4	1.0	-50.8	-13.0	-37.8		
6980.00	-14.3	V	3.0	35.7	1.0	-49.0	-13.0	-36.0		
3490.00	-19.6	H	3.0	36.0	1.0	-54.6	-13.0	-41.6		
5235.00	-15.2	H	3.0	35.4	1.0	-49.6	-13.0	-36.6		
6980.00	-13.8	H	3.0	35.7	1.0	-48.5	-13.0	-35.5		
High Ch, 1777.5MHz										
3555.00	-19.6	V	3.0	36.0	1.0	-54.5	-13.0	-41.5		
5332.50	-17.9	V	3.0	35.4	1.0	-52.3	-13.0	-39.3		
7110.00	-14.6	V	3.0	35.7	1.0	-49.3	-13.0	-36.3		
3555.00	-19.8	H	3.0	36.0	1.0	-54.8	-13.0	-41.8		
5332.50	-16.0	H	3.0	35.4	1.0	-50.4	-13.0	-37.4		
7110.00	-12.5	H	3.0	35.7	1.0	-47.2	-13.0	-34.2		

LTE B66 5MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + Charger
Location: Chamber C
Mode: LTE_QPSK Band 66 Harmonics, 10MHz Bandwidth

F (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1715MHz									
3430.00	-19.3	V	3.0	35.4	1.0	-50.3	-13.0	-37.3	
5145.00	-15.9	V	3.0	35.4	1.0	-48.7	-13.0	-35.7	
6860.00	-13.0	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3430.00	-18.5	H	3.0	35.1	1.0	-53.5	-13.0	-40.5	
5145.00	-14.3	H	3.0	35.4	1.0	-48.7	-13.0	-35.7	
6860.00	-13.5	H	3.0	35.7	1.0	-48.2	-13.0	-35.2	
Mid Ch, 1745MHz									
3490.00	-19.4	V	3.0	36.0	1.0	-54.4	-13.0	-41.4	
5235.00	-15.5	V	3.0	35.4	1.0	-49.9	-13.0	-36.9	
6980.00	-14.7	V	3.0	35.7	1.0	-49.4	-13.0	-36.4	
3490.00	-18.4	H	3.0	36.0	1.0	-53.4	-13.0	-40.4	
5235.00	-15.9	H	3.0	35.4	1.0	-50.3	-13.0	-37.3	
6980.00	-13.9	H	3.0	35.7	1.0	-48.6	-13.0	-35.6	
High Ch, 1775MHz									
3550.00	-17.5	V	3.0	36.0	1.0	-52.4	-13.0	-39.4	
5325.00	-16.5	V	3.0	35.4	1.0	-50.9	-13.0	-37.9	
7100.00	-14.3	V	3.0	35.7	1.0	-49.4	-13.0	-36.4	
3550.00	-19.6	H	3.0	36.0	1.0	-54.5	-13.0	-41.5	
5325.00	-17.2	H	3.0	35.4	1.0	-51.7	-13.0	-38.7	
7100.00	-13.7	H	3.0	35.7	1.0	-48.4	-13.0	-35.4	

LTE B66 10MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + Charger
Location: Chamber C
Mode: LTE_16QAM Band 66 Harmonics, 10MHz Bandwidth

F (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1715MHz									
3430.00	-19.2	V	3.0	36.1	1.0	-54.3	-13.0	-41.3	
5145.00	-14.5	V	3.0	35.4	1.0	-48.9	-13.0	-35.9	
6860.00	-12.8	V	3.0	35.7	1.0	-48.4	-13.0	-35.4	
3430.00	-19.3	H	3.0	36.1	1.0	-54.3	-13.0	-41.3	
5145.00	-15.8	H	3.0	35.4	1.0	-50.3	-13.0	-37.3	
6860.00	-12.5	H	3.0	35.7	1.0	-47.2	-13.0	-34.2	
Mid Ch, 1745MHz									
3490.00	-19.3	V	3.0	36.0	1.0	-54.3	-13.0	-41.3	
5235.00	-16.5	V	3.0	35.4	1.0	-50.9	-13.0	-37.9	
6980.00	-15.3	V	3.0	35.7	1.0	-49.0	-13.0	-36.0	
3490.00	-19.5	H	3.0	36.0	1.0	-54.5	-13.0	-41.5	
5235.00	-16.4	H	3.0	35.4	1.0	-50.8	-13.0	-37.8	
6980.00	-14.5	H	3.0	35.7	1.0	-49.2	-13.0	-36.2	
High Ch, 1775MHz									
3550.00	-17.6	V	3.0	36.0	1.0	-52.6	-13.0	-39.6	
5325.00	-16.6	V	3.0	35.4	1.0	-51.1	-13.0	-38.1	
7100.00	-13.5	V	3.0	35.7	1.0	-48.2	-13.0	-35.2	
3550.00	-19.3	H	3.0	36.0	1.0	-54.3	-13.0	-41.3	
5325.00	-16.6	H	3.0	35.4	1.0	-51.0	-13.0	-38.0	
7100.00	-12.6	H	3.0	35.7	1.0	-47.3	-13.0	-34.3	

LTE B66 10MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + Charger
Location: Chamber C
Mode: LTE_QPSK Band 66 Harmonics, 15MHz Bandwidth

F (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5MHz									
3435.00	-19.5	V	3.0	36.1	1.0	-54.5	-13.0	-41.5	
5152.50	-15.5	V	3.0	35.4	1.0	-50.0	-13.0	-37.0	
6870.00	-14.4	V	3.0	35.7	1.0	-49.1	-13.0	-36.1	
3435.00	-19.4	H	3.0	36.1	1.0	-54.5	-13.0	-41.5	
5152.50	-15.8	H	3.0	35.4	1.0	-50.2	-13.0	-37.2	
6870.00	-13.2	H	3.0	35.7	1.0	-47.9	-13.0	-34.9	
Mid Ch, 1745MHz									
3490.00	-19.2	V	3.0	36.0	1.0	-54.2	-13.0	-41.2	
5235.00	-16.4	V	3.0	35.4	1.0	-50.8	-13.0	-37.8	
6980.00	-14.9	V	3.0	35.7	1.0	-49.6	-13.0	-36.6	
3490.00	-19.0	H	3.0	36.0	1.0	-54.0	-13.0	-41.0	
5235.00	-15.7	H	3.0	35.4	1.0	-50.1	-13.0	-37.1	
6980.00	-14.5	H	3.0	35.7	1.0	-49.2	-13.0	-36.2	
High Ch, 1772.5MHz									
3545.00	-19.2	V	3.0	36.0	1.0	-54.2	-13.0	-41.2	
5317.50	-16.7	V	3.0	35.4	1.0	-51.2	-13.0	-38.2	
7090.00	-13.3	V	3.0	35.7	1.0	-48.0	-13.0	-35.0	
3545.00	-18.4	H	3.0	36.0	1.0	-53.4	-13.0	-40.4	
5317.50	-17.4	H	3.0	35.4	1.0	-51.8	-13.0	-38.8	
7090.00	-13.8	H	3.0	35.7	1.0	-48.5	-13.0	-35.5	

LTE B66 15MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + Charger
Location: Chamber C
Mode: LTE_16QAM Band 66 Harmonics, 15MHz Bandwidth

F (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5MHz									
3435.00	-18.3	V	3.0	36.1	1.0	-53.3	-13.0	-40.3	
5152.50	-14.9	V	3.0	35.4	1.0	-49.3	-13.0	-36.3	
6870.00	-14.1	V	3.0	35.7	1.0	-48.7	-13.0	-35.7	
3435.00	-19.5	H	3.0	36.1	1.0	-54.5	-13.0	-41.5	
5152.50	-15.4	H	3.0	35.4	1.0	-49.9	-13.0	-36.9	
6870.00	-12.8	H	3.0	35.7	1.0	-47.5	-13.0	-34.5	
Mid Ch, 1745MHz									
3490.00	-18.0	V	3.0	36.0	1.0	-53.1	-13.0	-40.1	
5235.00	-16.4	V	3.0	35.4	1.0	-50.8	-13.0	-37.8	
6980.00	-14.7	V	3.0	35.7	1.0	-49.4	-13.0	-36.4	
3490.00	-19.3	H	3.0	36.0	1.0	-54.3	-13.0	-41.3	
5235.00	-15.9	H	3.0	35.4	1.0	-50.3	-13.0	-37.3	
6980.00	-14.6	H	3.0	35.7	1.0	-49.3	-13.0	-36.3	
High Ch, 1772.5MHz									
3545.00	-19.2	V	3.0	36.0	1.0	-54.2	-13.0	-41.2	
5317.50	-16.4	V	3.0	35.4	1.0	-50.9	-13.0	-37.9	
7090.00	-13.8	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3545.00	-17.2	H	3.0	36.0	1.0	-52.2	-13.0	-39.2	
5317.50	-16.8	H	3.0	35.4	1.0	-51.3	-13.0	-38.3	
7090.00	-13.9	H	3.0	35.7	1.0	-48.6	-13.0	-35.6	

LTE B66 15MHz 16QAM

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + Charger
Location: Chamber C
Mode: LTE_QPSK Band 66 Harmonics, 20MHz Bandwidth

F (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5MHz									
3435.00	-19.8	V	3.0	36.1	1.0	-54.8	-13.0	-41.8	
5152.50	-15.8	V	3.0	35.4	1.0	-50.3	-13.0	-37.3	
6870.00	-14.7	V	3.0	35.7	1.0	-49.4	-13.0	-36.4	
3435.00	-19.7	H	3.0	36.1	1.0	-54.7	-13.0	-41.7	
5152.50	-16.0	H	3.0	35.4	1.0	-50.5	-13.0	-37.5	
6870.00	-13.5	H	3.0	35.7	1.0	-48.1	-13.0	-35.1	
Mid Ch, 1745MHz									
3490.00	-19.3	V	3.0	36.0	1.0	-54.4	-13.0	-41.4	
5235.00	-16.6	V	3.0	35.4	1.0	-51.0	-13.0	-38.0	
6980.00	-15.1	V	3.0	35.7	1.0	-49.8	-13.0	-36.8	
3490.00	-19.2	H	3.0	36.0	1.0	-54.2	-13.0	-41.2	
5235.00	-15.9	H	3.0	35.4	1.0	-50.3	-13.0	-37.3	
6980.00	-14.7	H	3.0	35.7	1.0	-49.3	-13.0	-36.3	
High Ch, 1772.5MHz									
3545.00	-19.5	V	3.0	36.0	1.0	-54.4	-13.0	-41.4	
5317.50	-17.0	V	3.0	35.4	1.0	-51.4	-13.0	-38.4	
7090.00	-13.5	V	3.0	35.7	1.0	-48.2	-13.0	-35.2	
3545.00	-18.6	H	3.0	36.0	1.0	-53.6	-13.0	-40.6	
5317.50	-17.6	H	3.0	35.4	1.0	-52.1	-13.0	-39.1	
7090.00	-14.1	H	3.0	35.7	1.0	-48.7	-13.0	-35.7	

LTE B66 20MHz QPSK

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

Company: SOMC
Project #: 11760905
Date: 7/17/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + Charger
Location: Chamber C
Mode: LTE_16QAM Band 66 Harmonics, 20MHz Bandwidth

F (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5MHz									
3435.00	-18.6	V	3.0	36.1	1.0	-53.6	-13.0	-40.6	
5152.50	-15.1	V	3.0	35.4	1.0	-49.6	-13.0	-36.6	
6870.00	-14.3	V	3.0	35.7	1.0	-49.0	-13.0	-36.0	
3435.00	-19.7	H	3.0	36.1	1.0	-54.8	-13.0	-41.8	
5152.50	-15.7	H	3.0	35.4	1.0	-50.2	-13.0	-37.2	
6870.00	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	
Mid Ch, 1745MHz									
3490.00	-18.2	V	3.0	36.0	1.0	-53.2	-13.0	-40.2	
5235.00	-16.6	V	3.0	35.4	1.0	-51.0	-13.0	-38.0	
6980.00	-14.9	V	3.0	35.7	1.0	-49.6	-13.0	-36.6	
3490.00	-19.5	H	3.0	36.0	1.0	-54.5	-13.0	-41.5	
5235.00	-16.1	H	3.0	35.4	1.0	-50.5	-13.0	-37.5	
6980.00	-14.8	H	3.0	35.7	1.0	-49.5	-13.0	-36.5	
High Ch, 1772.5MHz									
3545.00	-19.5	V	3.0	36.0	1.0	-54.4	-13.0	-41.4	
5317.50	-16.7	V	3.0	35.4	1.0	-51.1	-13.0	-38.1	
7090.00	-14.1	V	3.0	35.7	1.0	-48.8	-13.0	-35.8	
3545.00	-17.5	H	3.0	36.0	1.0	-52.4	-13.0	-39.4	
5317.50	-17.1	H	3.0	35.4	1.0	-51.5	-13.0	-38.5	
7090.00	-14.1	H	3.0	35.7	1.0	-48.8	-13.0	-35.8	

LTE B66 20MHz 16QAM