

9.1.2. WCDMA

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: SOMC										
Project #: 12132671										
Date: 2/15/2018										
Test Engineer: 3905 RA										
Configuration: EUT + Support Equipment										
Location: Chamber A										
Mode: Rel99 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, 826.4MHz										
1652.80	-27.5	V	3.0	37.0	1.0	-63.5	-13.0	-50.5		
2479.20	-23.5	V	3.0	36.4	1.0	-58.9	-13.0	-45.9		
3385.60	-21.3	V	3.0	36.1	1.0	-56.4	-13.0	-43.4		
1652.80	-27.9	H	3.0	37.0	1.0	-63.9	-13.0	-50.9		
2479.20	-22.8	H	3.0	36.4	1.0	-58.2	-13.0	-45.2		
3385.60	-21.6	H	3.0	36.1	1.0	-56.8	-13.0	-43.8		
Mid Ch, 836.6MHz										
1673.20	-27.5	V	3.0	37.0	1.0	-63.5	-13.0	-50.5		
2509.80	-23.0	V	3.0	36.4	1.0	-58.4	-13.0	-45.4		
3346.40	-20.7	V	3.0	36.1	1.0	-55.9	-13.0	-42.9		
1673.20	-27.7	H	3.0	37.0	1.0	-63.7	-13.0	-50.7		
2509.80	-22.5	H	3.0	36.4	1.0	-57.9	-13.0	-44.9		
3346.40	-21.6	H	3.0	36.1	1.0	-56.7	-13.0	-43.7		
High Ch, 846.6MHz										
1693.20	-27.3	V	3.0	37.0	1.0	-63.3	-13.0	-50.3		
2539.80	-22.5	V	3.0	36.4	1.0	-57.9	-13.0	-44.9		
3386.40	-21.5	V	3.0	36.1	1.0	-56.5	-13.0	-43.5		
1693.20	-27.3	H	3.0	37.0	1.0	-63.3	-13.0	-50.3		
2539.80	-22.3	H	3.0	36.4	1.0	-57.7	-13.0	-44.7		
3386.40	-21.6	H	3.0	36.1	1.0	-56.6	-13.0	-43.6		

WCDMA Band 5 Rel 99

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: SOMC										
Project #: 12132671										
Date: 2/15/2018										
Test Engineer: 3905 RA										
Configuration: EUT + Support Equipment										
Location: Chamber A										
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, 826.4MHz										
1652.80	-27.4	V	3.0	37.0	1.0	-63.4	-13.0	-50.4		
2479.20	-23.4	V	3.0	36.4	1.0	-58.8	-13.0	-45.8		
3385.60	-21.4	V	3.0	36.1	1.0	-56.6	-13.0	-43.6		
1652.80	-27.8	H	3.0	37.0	1.0	-63.8	-13.0	-50.8		
2479.20	-23.0	H	3.0	36.4	1.0	-58.5	-13.0	-45.5		
3385.60	-21.8	H	3.0	36.1	1.0	-57.0	-13.0	-44.0		
Mid Ch, 836.6MHz										
1673.20	-27.5	V	3.0	37.0	1.0	-63.5	-13.0	-50.5		
2509.80	-22.7	V	3.0	36.4	1.0	-58.1	-13.0	-45.1		
3346.40	-20.5	V	3.0	36.1	1.0	-55.6	-13.0	-42.6		
1673.20	-27.7	H	3.0	37.0	1.0	-63.7	-13.0	-50.7		
2509.80	-22.5	H	3.0	36.4	1.0	-57.9	-13.0	-44.9		
3346.40	-21.5	H	3.0	36.1	1.0	-56.6	-13.0	-43.6		
High Ch, 846.6MHz										
1693.20	-27.3	V	3.0	37.0	1.0	-63.3	-13.0	-50.3		
2539.80	-22.4	V	3.0	36.4	1.0	-57.8	-13.0	-44.8		
3386.40	-21.4	V	3.0	36.1	1.0	-56.5	-13.0	-43.5		
1693.20	-27.2	H	3.0	37.0	1.0	-63.2	-13.0	-50.2		
2539.80	-22.3	H	3.0	36.4	1.0	-57.7	-13.0	-44.7		
3386.40	-21.4	H	3.0	36.1	1.0	-56.5	-13.0	-43.5		

WCDMA Band 5 HSDPA

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

Company: SOMC
Project #: 12132671
Date: 2/15/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
Mode: LTE_QPSK Band 5 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 829MHz									
1658.00	-28.3	V	3.0	37.0	1.0	-64.3	-13.0	-51.3	
2487.00	-23.6	V	3.0	36.4	1.0	-59.0	-13.0	-46.0	
3316.00	-21.3	V	3.0	36.1	1.0	-56.5	-13.0	-43.5	
1658.00	-27.7	H	3.0	37.0	1.0	-63.7	-13.0	-50.7	
2487.00	-23.7	H	3.0	36.4	1.0	-59.2	-13.0	-46.2	
3316.00	-22.4	H	3.0	36.1	1.0	-57.5	-13.0	-44.5	
Mid Ch, 836.5MHz									
1673.00	-27.6	V	3.0	37.0	1.0	-63.6	-13.0	-50.6	
2509.50	-23.0	V	3.0	36.4	1.0	-58.4	-13.0	-45.4	
3346.00	-21.7	V	3.0	36.1	1.0	-56.8	-13.0	-43.8	
1673.00	-27.5	H	3.0	37.0	1.0	-63.5	-13.0	-50.5	
2509.50	-23.7	H	3.0	36.4	1.0	-59.1	-13.0	-46.1	
3346.00	-21.6	H	3.0	36.1	1.0	-56.7	-13.0	-43.7	
High Ch, 844MHz									
1688.00	-28.3	V	3.0	37.0	1.0	-64.3	-13.0	-51.3	
2532.00	-23.3	V	3.0	36.4	1.0	-58.7	-13.0	-45.7	
3376.00	-21.4	V	3.0	36.1	1.0	-56.5	-13.0	-43.5	
1688.00	-27.0	H	3.0	37.0	1.0	-62.9	-13.0	-49.9	
2532.00	-23.8	H	3.0	36.4	1.0	-59.3	-13.0	-46.3	
3376.00	-21.4	H	3.0	36.1	1.0	-56.5	-13.0	-43.5	

LTE B5 10MHz QPSK

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

Company: SOMC
Project #: 12132671
Date: 2/15/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
Mode: LTE_16QAM Band 5 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 829MHz									
1658.00	-28.5	V	3.0	37.0	1.0	-64.5	-13.0	-51.5	
2487.00	-23.8	V	3.0	36.4	1.0	-59.2	-13.0	-46.2	
3316.00	-21.3	V	3.0	36.1	1.0	-56.4	-13.0	-43.4	
1658.00	-27.8	H	3.0	37.0	1.0	-63.8	-13.0	-50.8	
2487.00	-23.8	H	3.0	36.4	1.0	-59.2	-13.0	-46.2	
3316.00	-22.6	H	3.0	36.1	1.0	-57.7	-13.0	-44.7	
Mid Ch, 836.5MHz									
1673.00	-27.7	V	3.0	37.0	1.0	-63.7	-13.0	-50.7	
2509.50	-23.4	V	3.0	36.4	1.0	-58.8	-13.0	-45.8	
3346.00	-21.6	V	3.0	36.1	1.0	-56.8	-13.0	-43.8	
1673.00	-27.4	H	3.0	37.0	1.0	-63.4	-13.0	-50.4	
2509.50	-23.6	H	3.0	36.4	1.0	-59.0	-13.0	-46.0	
3346.00	-21.3	H	3.0	36.1	1.0	-56.4	-13.0	-43.4	
High Ch, 844MHz									
1688.00	-28.1	V	3.0	37.0	1.0	-64.0	-13.0	-51.0	
2532.00	-23.8	V	3.0	36.4	1.0	-59.2	-13.0	-46.2	
3376.00	-21.5	V	3.0	36.1	1.0	-56.6	-13.0	-43.6	
1688.00	-27.1	H	3.0	37.0	1.0	-63.0	-13.0	-50.0	
2532.00	-23.8	H	3.0	36.4	1.0	-59.2	-13.0	-46.2	
3376.00	-21.6	H	3.0	36.1	1.0	-56.7	-13.0	-43.7	

LTE B5 10MHz 16QAM

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

Company: SOMC
Project #: 12132671
Date: 2/15/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
Mode: LTE_QPSK Band 7 Harmonics, 20MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510MHz									
5020.00	-17.3	V	3.0	35.5	1.0	-51.7	-25.0	-26.7	
7530.00	-14.4	V	3.0	35.7	1.0	-49.1	-25.0	-24.1	
10040.00	-11.1	V	3.0	36.0	1.0	-46.1	-25.0	-21.1	
5020.00	-17.4	H	3.0	35.5	1.0	-51.9	-25.0	-26.9	
7530.00	-14.8	H	3.0	35.7	1.0	-49.5	-25.0	-24.5	
10040.00	-11.6	H	3.0	36.0	1.0	-46.6	-25.0	-21.6	
Mid Ch, 2535MHz									
5070.00	-17.0	V	3.0	35.4	1.0	-51.4	-25.0	-26.4	
7605.00	-13.5	V	3.0	35.8	1.0	-48.3	-25.0	-23.3	
10140.00	-11.0	V	3.0	36.0	1.0	-45.9	-25.0	-20.9	
5070.00	-16.9	H	3.0	35.4	1.0	-51.4	-25.0	-26.4	
7605.00	-14.6	H	3.0	35.8	1.0	-49.3	-25.0	-24.3	
10140.00	-11.2	H	3.0	36.0	1.0	-46.2	-25.0	-21.2	
High Ch, 2560MHz									
5120.00	-16.8	V	3.0	35.4	1.0	-51.2	-25.0	-26.2	
7680.00	-14.0	V	3.0	35.8	1.0	-48.7	-25.0	-23.7	
10240.00	-10.9	V	3.0	35.9	1.0	-45.8	-25.0	-20.8	
5120.00	-16.9	H	3.0	35.4	1.0	-51.3	-25.0	-26.3	
7680.00	-14.4	H	3.0	35.8	1.0	-49.1	-25.0	-24.1	
10240.00	-11.3	H	3.0	35.9	1.0	-46.2	-25.0	-21.2	

LTE B7 20MHz QPSK

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

Company: SOMC
Project #: 12132671
Date: 2/15/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
Mode: LTE_16QAM Band 7 Harmonics, 20MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510MHz									
5020.00	-17.1	V	3.0	35.5	1.0	-51.6	-25.0	-26.6	
7530.00	-14.2	V	3.0	35.7	1.0	-48.9	-25.0	-23.9	
10040.00	-10.7	V	3.0	36.0	1.0	-45.7	-25.0	-20.7	
5020.00	-17.1	H	3.0	35.5	1.0	-51.6	-25.0	-26.6	
7530.00	-14.8	H	3.0	35.7	1.0	-49.5	-25.0	-24.5	
10040.00	-11.6	H	3.0	36.0	1.0	-46.6	-25.0	-21.6	
Mid Ch, 2535MHz									
5070.00	-16.9	V	3.0	35.4	1.0	-51.3	-25.0	-26.3	
7605.00	-13.4	V	3.0	35.8	1.0	-48.2	-25.0	-23.2	
10140.00	-11.0	V	3.0	36.0	1.0	-46.0	-25.0	-21.0	
5070.00	-16.9	H	3.0	35.4	1.0	-51.4	-25.0	-26.4	
7605.00	-14.6	H	3.0	35.8	1.0	-49.4	-25.0	-24.4	
10140.00	-11.2	H	3.0	36.0	1.0	-46.2	-25.0	-21.2	
High Ch, 2560MHz									
5120.00	-16.7	V	3.0	35.4	1.0	-51.1	-25.0	-26.1	
7680.00	-13.4	V	3.0	35.8	1.0	-48.1	-25.0	-23.1	
10240.00	-10.5	V	3.0	35.9	1.0	-45.4	-25.0	-20.4	
5120.00	-16.9	H	3.0	35.4	1.0	-51.4	-25.0	-26.4	
7680.00	-14.4	H	3.0	35.8	1.0	-49.2	-25.0	-24.2	
10240.00	-11.4	H	3.0	35.9	1.0	-46.3	-25.0	-21.3	

LTE B7 20MHz 16QAM

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

Company: SOMC
Project #: 12132671
Date: 2/16/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
Mode: LTE_QPSK Band 12 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 704MHz									
1408.00	-29.4	V	3.0	37.4	1.0	-65.8	-13.0	-52.8	
2112.00	-23.4	V	3.0	36.6	1.0	-59.0	-13.0	-46.0	
2816.00	-22.5	V	3.0	36.4	1.0	-57.9	-13.0	-44.9	
1408.00	-29.7	H	3.0	37.4	1.0	-66.0	-13.0	-53.0	
2112.00	-23.3	H	3.0	36.6	1.0	-58.9	-13.0	-45.9	
2816.00	-22.6	H	3.0	36.4	1.0	-58.0	-13.0	-45.0	
Mid Ch, 707.5MHz									
1415.00	-29.6	V	3.0	37.4	1.0	-65.9	-13.0	-52.9	
2122.50	-23.5	V	3.0	36.6	1.0	-59.1	-13.0	-46.1	
2830.00	-22.1	V	3.0	36.4	1.0	-57.5	-13.0	-44.5	
1415.00	-29.6	H	3.0	37.4	1.0	-65.9	-13.0	-52.9	
2122.50	-23.4	H	3.0	36.6	1.0	-59.0	-13.0	-46.0	
2830.00	-22.4	H	3.0	36.4	1.0	-58.2	-13.0	-45.2	
High Ch, 711MHz									
1422.00	-29.8	V	3.0	37.3	1.0	-66.2	-13.0	-53.2	
2133.00	-23.6	V	3.0	36.6	1.0	-59.1	-13.0	-46.1	
2844.00	-22.5	V	3.0	36.4	1.0	-57.9	-13.0	-44.9	
1422.00	-29.8	H	3.0	37.3	1.0	-66.1	-13.0	-53.1	
2133.00	-23.8	H	3.0	36.6	1.0	-59.4	-13.0	-46.4	
2844.00	-23.1	H	3.0	36.4	1.0	-58.5	-13.0	-45.5	

LTE B12 10MHz QPSK

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

Company: SOMC
Project #: 12132671
Date: 2/16/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
Mode: LTE_16QAM Band 12 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 704MHz									
1408.00	-29.6	V	3.0	37.4	1.0	-66.0	-13.0	-53.0	
2112.00	-23.7	V	3.0	36.6	1.0	-59.3	-13.0	-46.3	
2816.00	-23.0	V	3.0	36.4	1.0	-58.4	-13.0	-45.4	
1408.00	-29.9	H	3.0	37.4	1.0	-66.3	-13.0	-53.3	
2112.00	-23.3	H	3.0	36.6	1.0	-58.9	-13.0	-45.9	
2816.00	-22.6	H	3.0	36.4	1.0	-58.0	-13.0	-45.0	
Mid Ch, 707.5MHz									
1415.00	-29.3	V	3.0	37.4	1.0	-65.6	-13.0	-52.6	
2122.50	-23.5	V	3.0	36.6	1.0	-59.1	-13.0	-46.1	
2830.00	-22.0	V	3.0	36.4	1.0	-57.4	-13.0	-44.4	
1415.00	-29.2	H	3.0	37.4	1.0	-65.6	-13.0	-52.6	
2122.50	-23.4	H	3.0	36.6	1.0	-59.0	-13.0	-46.0	
2830.00	-22.8	H	3.0	36.4	1.0	-58.2	-13.0	-45.2	
High Ch, 711MHz									
1422.00	-29.9	V	3.0	37.3	1.0	-66.2	-13.0	-53.2	
2133.00	-23.6	V	3.0	36.6	1.0	-59.2	-13.0	-46.2	
2844.00	-22.5	V	3.0	36.4	1.0	-57.9	-13.0	-44.9	
1422.00	-29.8	H	3.0	37.3	1.0	-66.1	-13.0	-53.1	
2133.00	-23.9	H	3.0	36.6	1.0	-59.4	-13.0	-46.4	
2844.00	-23.1	H	3.0	36.4	1.0	-58.5	-13.0	-45.5	

LTE B12 10MHz 16QAM

9.1.7. LTE BAND 13

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

Company: SOMC
 Project #: 12132671
 Date: 2/16/2018
 Test Engineer: 39005 RA
 Configuration: EUT + Support Equipment
 Location: Chamber A
 Mode: LTE_QPSK Band 13 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 782MHz									
1564.00	0.0	V	3.0	37.1	1.0	-36.1	-13.0	-23.1	
2346.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5	
3128.00	0.0	V	3.0	36.3	1.0	-35.3	-13.0	-22.3	
1564.00	0.0	H	3.0	37.1	1.0	-36.1	-13.0	-23.1	
2346.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5	
3128.00	0.0	H	3.0	36.3	1.0	-35.3	-13.0	-22.3	
Mid Ch, 782MHz									
1564.00	-28.6	V	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-24.2	V	3.0	36.5	1.0	-59.7	-13.0	-46.7	
3128.00	-22.6	V	3.0	36.3	1.0	-57.9	-13.0	-44.9	
1564.00	-28.6	H	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-23.8	H	3.0	36.5	1.0	-59.3	-13.0	-46.3	
3128.00	-22.2	H	3.0	36.3	1.0	-57.5	-13.0	-44.5	
High Ch, 782MHz									
1564.00	0.0	V	3.0	37.1	1.0	-36.1	-13.0	-23.1	
2346.00	0.0	V	3.0	36.5	1.0	-35.5	-13.0	-22.5	
3128.00	0.0	V	3.0	36.3	1.0	-35.3	-13.0	-22.3	
1564.00	0.0	H	3.0	37.1	1.0	-36.1	-13.0	-23.1	
2346.00	0.0	H	3.0	36.5	1.0	-35.5	-13.0	-22.5	
3128.00	0.0	H	3.0	36.3	1.0	-35.3	-13.0	-22.3	

LTE B13 5MHz QPSK

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

Company: SOMC
 Project #: 12132671
 Date: 2/16/2018
 Test Engineer: 39005 RA
 Configuration: EUT + Support Equipment
 Location: Chamber A
 Mode: LTE_16QAM Band 13 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, 779.5									
1564.00	-28.5	V	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-24.3	V	3.0	36.5	1.0	-59.8	-13.0	-46.8	
3128.00	-22.8	V	3.0	36.3	1.0	-58.1	-13.0	-45.1	
1564.00	-28.7	H	3.0	37.1	1.0	-64.8	-13.0	-51.8	
2346.00	-24.0	H	3.0	36.5	1.0	-59.5	-13.0	-46.5	
3128.00	-22.8	H	3.0	36.3	1.0	-58.1	-13.0	-45.1	
Mid Ch, 782MHz									
1564.00	-28.7	V	3.0	37.1	1.0	-64.8	-13.0	-51.8	
2346.00	-24.4	V	3.0	36.5	1.0	-59.8	-13.0	-46.8	
3128.00	-22.8	V	3.0	36.3	1.0	-58.1	-13.0	-45.1	
1564.00	-28.6	H	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-23.9	H	3.0	36.5	1.0	-59.4	-13.0	-46.4	
3128.00	-22.2	H	3.0	36.3	1.0	-57.5	-13.0	-44.5	
High Ch, 784.5									
1564.00	-28.4	V	3.0	37.1	1.0	-64.5	-13.0	-51.5	
2346.00	-24.4	V	3.0	36.5	1.0	-59.9	-13.0	-46.9	
3128.00	-22.2	V	3.0	36.3	1.0	-58.4	-13.0	-45.4	
1564.00	-28.8	H	3.0	37.1	1.0	-64.9	-13.0	-51.9	
2346.00	-24.3	H	3.0	36.5	1.0	-59.8	-13.0	-46.8	
3128.00	-22.4	H	3.0	36.3	1.0	-57.7	-13.0	-44.7	

LTE B13 5MHz 16QAM

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

Company: SOMC
 Project #: 12132671
 Date: 2/16/2018
 Test Engineer: 39005 RA
 Configuration: EUT + Support Equipment
 Location: Chamber A
 Mode: LTE_QPSK Band 13 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Mid Ch, 782MHz									
1564.00	-28.6	V	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-24.2	V	3.0	36.5	1.0	-59.7	-13.0	-46.7	
3128.00	-22.6	V	3.0	36.3	1.0	-57.9	-13.0	-44.9	
1564.00	-28.6	H	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-23.8	H	3.0	36.5	1.0	-59.3	-13.0	-46.3	
3128.00	-22.2	H	3.0	36.3	1.0	-57.5	-13.0	-44.5	

LTE B13 10MHz QPSK

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

Company: SOMC
 Project #: 12132671
 Date: 2/16/2018
 Test Engineer: 39005 RA
 Configuration: EUT + Support Equipment
 Location: Chamber A
 Mode: LTE_16QAM Band 13 Harmonics, 10MHz Bandwidth

F MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Mid Ch, 782MHz									
1564.00	-28.6	V	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-24.2	V	3.0	36.5	1.0	-59.7	-13.0	-46.7	
3128.00	-22.6	V	3.0	36.3	1.0	-57.9	-13.0	-44.9	
1564.00	-28.5	H	3.0	37.1	1.0	-64.7	-13.0	-51.7	
2346.00	-24.2	H	3.0	36.5	1.0	-59.7	-13.0	-46.7	
3128.00	-22.2	H	3.0	36.3	1.0	-57.5	-13.0	-44.5	

LTE B13 10MHz 16QAM

9.1.8. LTE BAND 17

LTE Band 17 (Frequency range: 704-716 MHz) is covered by LTE Band 12 (Frequency range: 699-716 MHz) due to similar frequency range, same maximum tune-up limit and same channel bandwidth (5 & 10 MHz).

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

Company: SOMC
Project #: 12132671
Date: 2/15/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
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, 2506MHz									
5812.00	-17.4	V	3.0	35.5	1.0	-51.8	-25.0	-26.8	
7518.00	-14.6	V	3.0	35.7	1.0	-49.3	-25.0	-24.3	
10024.00	-11.7	V	3.0	36.0	1.0	-46.7	-25.0	-21.7	
5812.00	-17.3	H	3.0	35.5	1.0	-51.7	-25.0	-26.7	
7518.00	-14.0	H	3.0	35.7	1.0	-48.7	-25.0	-23.7	
10024.00	-11.6	H	3.0	36.0	1.0	-46.6	-25.0	-21.6	
Mid Ch, 2593MHz									
5186.00	-17.1	V	3.0	35.4	1.0	-51.5	-25.0	-26.5	
7779.00	-13.6	V	3.0	35.8	1.0	-48.4	-25.0	-23.4	
10372.00	-11.0	V	3.0	35.8	1.0	-45.8	-25.0	-20.8	
5186.00	-16.8	H	3.0	35.4	1.0	-51.2	-25.0	-26.2	
7779.00	-13.8	H	3.0	35.8	1.0	-48.1	-25.0	-23.1	
10372.00	-10.3	H	3.0	35.8	1.0	-45.2	-25.0	-20.2	
High Ch, 2680MHz									
5360.00	-17.4	V	3.0	35.4	1.0	-51.9	-25.0	-26.9	
8040.00	-13.9	V	3.0	35.8	1.0	-48.7	-25.0	-23.7	
10720.00	-10.6	V	3.0	35.7	1.0	-45.3	-25.0	-20.3	
5360.00	-16.3	H	3.0	35.4	1.0	-50.8	-25.0	-25.8	
8040.00	-13.8	H	3.0	35.8	1.0	-48.6	-25.0	-23.6	
10720.00	-10.8	H	3.0	35.7	1.0	-45.5	-25.0	-20.5	

LTE B41 20MHz QPSK

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

Company: SOMC
Project #: 12132671
Date: 2/15/2018
Test Engineer: 39005 RA
Configuration: EUT + Support Equipment
Location: Chamber A
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, 2506MHz									
5812.00	-17.5	V	3.0	35.5	1.0	-51.9	-25.0	-26.9	
7518.00	-14.7	V	3.0	35.7	1.0	-49.5	-25.0	-24.5	
10024.00	-11.5	V	3.0	36.0	1.0	-46.5	-25.0	-21.5	
5812.00	-17.4	H	3.0	35.5	1.0	-51.8	-25.0	-26.8	
7518.00	-14.0	H	3.0	35.7	1.0	-48.7	-25.0	-23.7	
10024.00	-11.5	H	3.0	36.0	1.0	-46.5	-25.0	-21.5	
Mid Ch, 2593MHz									
5186.00	-17.2	V	3.0	35.4	1.0	-51.6	-25.0	-26.6	
7779.00	-13.6	V	3.0	35.8	1.0	-48.4	-25.0	-23.4	
10372.00	-11.1	V	3.0	35.8	1.0	-45.9	-25.0	-20.9	
5186.00	-17.0	H	3.0	35.4	1.0	-51.4	-25.0	-26.4	
7779.00	-13.3	H	3.0	35.8	1.0	-48.1	-25.0	-23.1	
10372.00	-10.3	H	3.0	35.8	1.0	-45.1	-25.0	-20.1	
High Ch, 2680MHz									
5360.00	-17.6	V	3.0	35.4	1.0	-52.0	-25.0	-27.0	
8040.00	-13.9	V	3.0	35.8	1.0	-48.7	-25.0	-23.7	
10720.00	-10.6	V	3.0	35.7	1.0	-45.3	-25.0	-20.3	
5360.00	-16.4	H	3.0	35.4	1.0	-50.9	-25.0	-25.9	
8040.00	-14.2	H	3.0	35.8	1.0	-49.0	-25.0	-24.0	
10720.00	-10.9	H	3.0	35.7	1.0	-45.5	-25.0	-20.5	

LTE B41 20MHz 16QAM