17.2.1. SPURIOUS RADIATION PLOTS

GSM

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: GPRS 850 MHz 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, 824.2									
1648.40	-22.4	V	3.0	37.0	1.0	-58.4	-13.0	-45.4	
2472.60	-33.1	V	3.0	36.4	1.0	-68.5	-13.0	-55.5	
3296.80	-32.1	V	3.0	36.2	1.0	-67.3	-13.0	-54.3	
1648.40	-21.8	H	3.0	37.0	1.0	-57.8	-13.0	-44.8	
2472.60	-34.8	H	3.0	36.4	1.0	-70.2	-13.0	-57.2	
3296.80	-31.7	H	3.0	36.2	1.0	-66.8	-13.0	-53.8	
Mid Ch, 836.6									
1673.20	-20.8	V	3.0	37.0	1.0	-56.8	-13.0	-43.8	
2509.80	-33.0	V	3.0	36.4	1.0	-68.4	-13.0	-55.4	
3346.40	-31.0	V	3.0	36.1	1.0	-66.2	-13.0	-53.2	
1673.20	-23.1	H	3.0	37.0	1.0	-59.1	-13.0	-46.1	
2509.80	-32.9	H	3.0	36.4	1.0	-68.3	-13.0	-55.3	
3346.40	-31.1	H	3.0	36.1	1.0	-66.2	-13.0	-53.2	
High Ch, 848.8									
1697.60	-24.7	V	3.0	37.0	1.0	-60.7	-13.0	-47.7	
2546.40	-32.5	V	3.0	36.4	1.0	-68.0	-13.0	-55.0	
3395.20	-31.5	V	3.0	36.1	1.0	-66.5	-13.0	-53.5	
1697.60	-27.6	H	3.0	37.0	1.0	-63.6	-13.0	-50.6	
2546.40	-34.0	H	3.0	36.4	1.0	-69.4	-13.0	-56.4	
3395.20	-31.3	H	3.0	36.1	1.0	-66.3	-13.0	-53.3	

GSM850 GPRS

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: EGPRS 850 MHz 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, 824.2									
1648.40	-27.9	V	3.0	37.0	1.0	-63.9	-13.0	-50.9	
2472.60	-33.3	V	3.0	36.4	1.0	-68.7	-13.0	-55.7	
3296.80	-32.2	V	3.0	36.2	1.0	-67.3	-13.0	-54.3	
1648.40	-22.0	H	3.0	37.0	1.0	-58.0	-13.0	-45.0	
2472.60	-35.0	H	3.0	36.4	1.0	-70.4	-13.0	-57.4	
3296.80	-32.5	H	3.0	36.2	1.0	-67.6	-13.0	-54.6	
Mid Ch, 836.6									
1673.20	-24.8	V	3.0	37.0	1.0	-60.8	-13.0	-47.8	
2509.80	-33.0	V	3.0	36.4	1.0	-68.4	-13.0	-55.4	
3346.40	-31.0	V	3.0	36.1	1.0	-66.2	-13.0	-53.2	
1673.20	-26.4	H	3.0	37.0	1.0	-62.4	-13.0	-49.4	
2509.80	-34.8	H	3.0	36.4	1.0	-70.2	-13.0	-57.2	
3346.40	-31.3	H	3.0	36.1	1.0	-66.4	-13.0	-53.4	
High Ch, 848.8									
1697.60	-24.4	V	3.0	37.0	1.0	-60.3	-13.0	-47.3	
2546.40	-32.5	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
3395.20	-31.6	V	3.0	36.1	1.0	-66.7	-13.0	-53.7	
1697.60	-30.4	H	3.0	37.0	1.0	-66.3	-13.0	-53.3	
2546.40	-34.1	H	3.0	36.4	1.0	-69.5	-13.0	-56.5	
3395.20	-31.9	H	3.0	36.1	1.0	-67.0	-13.0	-54.0	

GSM850 EGPRS

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: GPRS 1900 MHz 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, 1850.2									
3700.40	-11.7	V	3.0	35.9	1.0	-46.6	-13.0	-33.6	
5550.60	-10.3	V	3.0	35.5	1.0	-44.7	-13.0	-31.7	
7400.80	-8.3	V	3.0	35.7	1.0	-43.0	-13.0	-30.0	
3700.40	-12.8	H	3.0	35.9	1.0	-47.7	-13.0	-34.7	
5550.60	-9.2	H	3.0	35.5	1.0	-43.7	-13.0	-30.7	
7400.80	-7.0	H	3.0	35.7	1.0	-41.7	-13.0	-28.7	
Mid Ch, 1880									
3760.00	-11.8	V	3.0	35.8	1.0	-46.6	-13.0	-33.6	
5640.00	-9.7	V	3.0	35.5	1.0	-44.2	-13.0	-31.2	
7520.00	-8.3	V	3.0	35.7	1.0	-43.1	-13.0	-30.1	
3760.00	-11.9	H	3.0	35.8	1.0	-46.7	-13.0	-33.7	
5640.00	-9.2	H	3.0	35.5	1.0	-43.7	-13.0	-30.7	
7520.00	-6.8	H	3.0	35.7	1.0	-41.5	-13.0	-28.5	
High Ch, 1909.8									
3819.60	-11.1	V	3.0	35.8	1.0	-45.9	-13.0	-32.9	
5729.40	-10.1	V	3.0	35.5	1.0	-44.6	-13.0	-31.6	
7639.20	-8.4	V	3.0	35.8	1.0	-43.2	-13.0	-30.2	
3819.60	-12.1	H	3.0	35.8	1.0	-46.9	-13.0	-33.9	
5729.40	-8.4	H	3.0	35.5	1.0	-42.9	-13.0	-29.9	
7639.20	-6.9	H	3.0	35.8	1.0	-41.6	-13.0	-28.6	

GSM1900 GPRS

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: EGPRS 1900 MHz 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, 1850.2									
3700.40	-12.3	V	3.0	35.9	1.0	-47.2	-13.0	-34.2	
5550.60	-10.7	V	3.0	35.5	1.0	-45.1	-13.0	-32.1	
7400.80	-9.1	V	3.0	35.7	1.0	-43.8	-13.0	-30.8	
3700.40	-13.2	H	3.0	35.9	1.0	-48.1	-13.0	-35.1	
5550.60	-9.5	H	3.0	35.5	1.0	-44.0	-13.0	-31.0	
7400.80	-8.3	H	3.0	35.7	1.0	-43.0	-13.0	-30.0	
Mid Ch, 1880									
3760.00	-12.3	V	3.0	35.8	1.0	-47.1	-13.0	-34.1	
5640.00	-11.5	V	3.0	35.5	1.0	-46.0	-13.0	-33.0	
7520.00	-8.9	V	3.0	35.7	1.0	-43.7	-13.0	-30.7	
3760.00	-12.1	H	3.0	35.8	1.0	-46.9	-13.0	-33.9	
5640.00	-9.4	H	3.0	35.5	1.0	-43.9	-13.0	-30.9	
7520.00	-7.9	H	3.0	35.7	1.0	-42.6	-13.0	-29.6	
High Ch, 1909.8									
3819.60	-12.6	V	3.0	35.8	1.0	-47.3	-13.0	-34.3	
5729.40	-10.5	V	3.0	35.5	1.0	-45.0	-13.0	-32.0	
7639.20	-8.7	V	3.0	35.8	1.0	-43.4	-13.0	-30.4	
3819.60	-13.2	H	3.0	35.8	1.0	-48.0	-13.0	-35.0	
5729.40	-8.9	H	3.0	35.5	1.0	-43.4	-13.0	-30.4	
7639.20	-7.7	H	3.0	35.8	1.0	-42.4	-13.0	-29.4	

GSM1900 EGPRS

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

WCDMA

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: Rel99 Band 2 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, 1852.4MHz									
3704.80	-27.4	V	3.0	35.9	1.0	-62.3	-13.0	-49.3	
5557.20	-26.4	V	3.0	35.5	1.0	-60.9	-13.0	-47.9	
7409.60	-25.1	V	3.0	35.7	1.0	-59.9	-13.0	-46.9	
3704.80	-28.6	H	3.0	35.9	1.0	-63.5	-13.0	-50.5	
5557.20	-26.0	H	3.0	35.5	1.0	-60.5	-13.0	-47.5	
7409.60	-24.1	H	3.0	35.7	1.0	-58.8	-13.0	-45.8	
Mid Ch, 1880MHz									
3760.00	-27.2	V	3.0	35.8	1.0	-62.0	-13.0	-49.0	
5640.00	-25.0	V	3.0	35.5	1.0	-59.5	-13.0	-46.5	
7520.00	-25.1	V	3.0	35.7	1.0	-59.9	-13.0	-46.9	
3760.00	-28.8	H	3.0	35.8	1.0	-63.6	-13.0	-50.6	
5640.00	-24.1	H	3.0	35.5	1.0	-58.6	-13.0	-45.6	
7520.00	-23.5	H	3.0	35.7	1.0	-58.3	-13.0	-45.3	
High Ch, 1907.6MHz									
3815.20	-27.9	V	3.0	35.8	1.0	-62.7	-13.0	-49.7	
5722.80	-26.0	V	3.0	35.5	1.0	-60.5	-13.0	-47.5	
7630.40	-25.0	V	3.0	35.8	1.0	-59.7	-13.0	-46.7	
3815.20	-28.5	H	3.0	35.8	1.0	-63.3	-13.0	-50.3	
5722.80	-24.6	H	3.0	35.5	1.0	-59.1	-13.0	-46.1	
7630.40	-23.1	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	

B2 REL99

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: HSDPA Band 2 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, 1852.4MHz									
3704.80	-28.6	V	3.0	35.9	1.0	-63.4	-13.0	-50.4	
5557.20	-26.4	V	3.0	35.5	1.0	-60.8	-13.0	-47.8	
7409.60	-24.6	V	3.0	35.7	1.0	-59.3	-13.0	-46.3	
3704.80	-29.1	H	3.0	35.9	1.0	-63.9	-13.0	-50.9	
5557.20	-25.9	H	3.0	35.5	1.0	-60.4	-13.0	-47.4	
7409.60	-23.7	H	3.0	35.7	1.0	-58.4	-13.0	-45.4	
Mid Ch, 1880MHz									
3760.00	-28.2	V	3.0	35.8	1.0	-63.0	-13.0	-50.0	
5640.00	-24.7	V	3.0	35.5	1.0	-59.2	-13.0	-46.2	
7520.00	-24.3	V	3.0	35.7	1.0	-59.1	-13.0	-46.1	
3760.00	-29.1	H	3.0	35.8	1.0	-63.9	-13.0	-50.9	
5640.00	-24.1	H	3.0	35.5	1.0	-58.5	-13.0	-45.5	
7520.00	-23.6	H	3.0	35.7	1.0	-58.3	-13.0	-45.3	
High Ch, 1907.6MHz									
3815.20	-28.2	V	3.0	35.8	1.0	-62.9	-13.0	-49.9	
5722.80	-25.6	V	3.0	35.5	1.0	-60.1	-13.0	-47.1	
7630.40	-23.9	V	3.0	35.8	1.0	-58.7	-13.0	-45.7	
3815.20	-28.2	H	3.0	35.8	1.0	-63.0	-13.0	-50.0	
5722.80	-24.7	H	3.0	35.5	1.0	-59.2	-13.0	-46.2	
7630.40	-22.8	H	3.0	35.8	1.0	-57.6	-13.0	-44.6	

B2 HSDPA

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: Rel99 Band 4 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, 1712.4MHz									
3424.80	-29.7	V	3.0	36.1	1.0	-64.7	-13.0	-51.7	
5137.20	-26.2	V	3.0	35.4	1.0	-60.6	-13.0	-47.6	
6849.60	-24.4	V	3.0	35.7	1.0	-59.0	-13.0	-46.0	
3424.80	-29.9	H	3.0	36.1	1.0	-64.9	-13.0	-51.9	
5137.20	-25.5	H	3.0	35.4	1.0	-59.9	-13.0	-46.9	
6849.60	-22.8	H	3.0	35.7	1.0	-57.4	-13.0	-44.4	
Mid Ch, 1732.6MHz									
3465.20	-29.2	V	3.0	36.0	1.0	-64.2	-13.0	-51.2	
5197.80	-25.8	V	3.0	35.4	1.0	-60.2	-13.0	-47.2	
6930.40	-24.9	V	3.0	35.7	1.0	-59.6	-13.0	-46.6	
3465.20	-29.3	H	3.0	36.0	1.0	-64.3	-13.0	-51.3	
5197.80	-24.8	H	3.0	35.4	1.0	-59.2	-13.0	-46.2	
6930.40	-23.3	H	3.0	35.7	1.0	-58.0	-13.0	-45.0	
High Ch, 1752.6MHz									
3505.20	-29.1	V	3.0	36.0	1.0	-64.1	-13.0	-51.1	
5257.80	-24.2	V	3.0	35.4	1.0	-58.7	-13.0	-45.7	
7010.40	-24.7	V	3.0	35.7	1.0	-59.4	-13.0	-46.4	
3505.20	-29.9	H	3.0	36.0	1.0	-64.9	-13.0	-51.9	
5257.80	-25.7	H	3.0	35.4	1.0	-60.1	-13.0	-47.1	
7010.40	-23.7	H	3.0	35.7	1.0	-58.4	-13.0	-45.4	

B4 REL99

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: HSDPA Band 4 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, 1712.4MHz									
3424.80	-29.2	V	3.0	36.1	1.0	-64.3	-13.0	-51.3	
5137.20	-25.5	V	3.0	35.4	1.0	-60.0	-13.0	-47.0	
6849.60	-23.7	V	3.0	35.7	1.0	-58.4	-13.0	-45.4	
3424.80	-29.5	H	3.0	36.1	1.0	-64.6	-13.0	-51.6	
5137.20	-25.2	H	3.0	35.4	1.0	-59.7	-13.0	-46.7	
6849.60	-22.7	H	3.0	35.7	1.0	-57.3	-13.0	-44.3	
Mid Ch, 1732.6MHz									
3465.20	-28.9	V	3.0	36.0	1.0	-63.9	-13.0	-50.9	
5197.80	-25.5	V	3.0	35.4	1.0	-59.9	-13.0	-46.9	
6930.40	-24.5	V	3.0	35.7	1.0	-59.2	-13.0	-46.2	
3465.20	-29.3	H	3.0	36.0	1.0	-64.3	-13.0	-51.3	
5197.80	-24.7	H	3.0	35.4	1.0	-59.1	-13.0	-46.1	
6930.40	-23.4	H	3.0	35.7	1.0	-58.1	-13.0	-45.1	
High Ch, 1752.6MHz									
3505.20	-29.6	V	3.0	36.0	1.0	-64.6	-13.0	-51.6	
5257.80	-25.4	V	3.0	35.4	1.0	-59.9	-13.0	-46.9	
7010.40	-24.7	V	3.0	35.7	1.0	-59.4	-13.0	-46.4	
3505.20	-29.8	H	3.0	36.0	1.0	-64.8	-13.0	-51.8	
5257.80	-25.2	H	3.0	35.4	1.0	-59.6	-13.0	-46.6	
7010.40	-23.8	H	3.0	35.7	1.0	-58.4	-13.0	-45.4	

B4 HSDPA

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
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	-34.1	V	3.0	37.0	1.0	-70.2	-13.0	-57.2	
2479.20	-33.2	V	3.0	36.4	1.0	-68.7	-13.0	-55.7	
3305.60	-32.0	V	3.0	36.1	1.0	-67.1	-13.0	-54.1	
1652.80	-35.9	H	3.0	37.0	1.0	-72.0	-13.0	-59.0	
2479.20	-34.7	H	3.0	36.4	1.0	-70.1	-13.0	-57.1	
3305.60	-32.0	H	3.0	36.1	1.0	-67.1	-13.0	-54.1	
Mid Ch, 836.6MHz									
1673.20	-34.4	V	3.0	37.0	1.0	-70.4	-13.0	-57.4	
2509.80	-32.6	V	3.0	36.4	1.0	-68.0	-13.0	-55.0	
3346.40	-31.0	V	3.0	36.1	1.0	-66.2	-13.0	-53.2	
1673.20	-35.2	H	3.0	37.0	1.0	-71.2	-13.0	-58.2	
2509.80	-34.6	H	3.0	36.4	1.0	-70.0	-13.0	-57.0	
3346.40	-31.2	H	3.0	36.1	1.0	-66.3	-13.0	-53.3	
High Ch, 846.6MHz									
1693.20	-35.0	V	3.0	37.0	1.0	-71.0	-13.0	-58.0	
2539.80	-29.3	V	3.0	36.4	1.0	-64.7	-13.0	-51.7	
3386.40	-31.3	V	3.0	36.1	1.0	-66.4	-13.0	-53.4	
1693.20	-35.1	H	3.0	37.0	1.0	-71.0	-13.0	-58.0	
2539.80	-33.5	H	3.0	36.4	1.0	-68.9	-13.0	-55.9	
3386.40	-31.4	H	3.0	36.1	1.0	-66.5	-13.0	-53.5	

B5 REL99

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
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, 826.4MHz									
1652.80	-37.1	V	3.0	37.0	1.0	-73.2	-13.0	-60.2	
2479.20	-33.5	V	3.0	36.4	1.0	-68.9	-13.0	-55.9	
3305.60	-32.1	V	3.0	36.1	1.0	-67.3	-13.0	-54.3	
1652.80	-37.2	H	3.0	37.0	1.0	-73.3	-13.0	-60.3	
2479.20	-35.0	H	3.0	36.4	1.0	-70.4	-13.0	-57.4	
3305.60	-32.1	H	3.0	36.1	1.0	-67.3	-13.0	-54.3	
Mid Ch, 836.6MHz									
1673.20	-36.9	V	3.0	37.0	1.0	-72.9	-13.0	-59.9	
2509.80	-32.4	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
3346.40	-31.4	V	3.0	36.1	1.0	-66.5	-13.0	-53.5	
1673.20	-37.1	H	3.0	37.0	1.0	-73.1	-13.0	-60.1	
2509.80	-34.8	H	3.0	36.4	1.0	-70.2	-13.0	-57.2	
3346.40	-31.3	H	3.0	36.1	1.0	-66.5	-13.0	-53.5	
High Ch, 846.6MHz									
1693.20	-36.3	V	3.0	37.0	1.0	-72.3	-13.0	-59.3	
2539.80	-32.9	V	3.0	36.4	1.0	-68.3	-13.0	-55.3	
3386.40	-31.6	V	3.0	36.1	1.0	-66.7	-13.0	-53.7	
1693.20	-36.6	H	3.0	37.0	1.0	-72.6	-13.0	-59.6	
2539.80	-34.1	H	3.0	36.4	1.0	-69.6	-13.0	-56.6	
3386.40	-31.6	H	3.0	36.1	1.0	-66.7	-13.0	-53.7	

B5 HSDPA

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 2

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 2 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, 1850.7MHz									
3701.40	-28.4	V	3.0	35.9	1.0	-63.2	-13.0	-50.2	
5552.10	-26.5	V	3.0	35.5	1.0	-60.9	-13.0	-47.9	
7402.80	-24.7	V	3.0	35.7	1.0	-59.4	-13.0	-46.4	
3701.40	-28.8	H	3.0	35.9	1.0	-63.7	-13.0	-50.7	
5552.10	-25.8	H	3.0	35.5	1.0	-60.3	-13.0	-47.3	
7402.80	-23.8	H	3.0	35.7	1.0	-58.6	-13.0	-45.6	
Mid Ch, 1880MHz									
3760.00	-27.5	V	3.0	35.8	1.0	-62.3	-13.0	-49.3	
5640.00	-25.1	V	3.0	35.5	1.0	-59.6	-13.0	-46.6	
7520.00	-25.1	V	3.0	35.7	1.0	-59.8	-13.0	-46.8	
3760.00	-28.9	H	3.0	35.8	1.0	-63.7	-13.0	-50.7	
5640.00	-24.3	H	3.0	35.5	1.0	-58.8	-13.0	-45.8	
7520.00	-23.8	H	3.0	35.7	1.0	-58.5	-13.0	-45.5	
High Ch, 1909.3MHz									
3818.60	-27.2	V	3.0	35.8	1.0	-62.0	-13.0	-49.0	
5727.90	-25.3	V	3.0	35.5	1.0	-59.8	-13.0	-46.8	
7637.20	-24.4	V	3.0	35.8	1.0	-59.1	-13.0	-46.1	
3818.60	-28.7	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5727.90	-24.8	H	3.0	35.5	1.0	-59.3	-13.0	-46.3	
7637.20	-23.3	H	3.0	35.8	1.0	-58.1	-13.0	-45.1	

LTE B2 1.4MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 2 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, 1850.7MHz									
3701.40	-28.6	V	3.0	35.9	1.0	-63.5	-13.0	-50.5	
5552.10	-26.5	V	3.0	35.5	1.0	-61.0	-13.0	-48.0	
7402.80	-24.8	V	3.0	35.7	1.0	-59.5	-13.0	-46.5	
3701.40	-29.1	H	3.0	35.9	1.0	-64.0	-13.0	-51.0	
5552.10	-25.8	H	3.0	35.5	1.0	-60.2	-13.0	-47.2	
7402.80	-23.7	H	3.0	35.7	1.0	-58.4	-13.0	-45.4	
Mid Ch, 1880MHz									
3760.00	-27.8	V	3.0	35.8	1.0	-62.6	-13.0	-49.6	
5640.00	-25.0	V	3.0	35.5	1.0	-59.4	-13.0	-46.4	
7520.00	-25.0	V	3.0	35.7	1.0	-59.7	-13.0	-46.7	
3760.00	-28.9	H	3.0	35.8	1.0	-63.7	-13.0	-50.7	
5640.00	-25.7	H	3.0	35.5	1.0	-60.1	-13.0	-47.1	
7520.00	-23.5	H	3.0	35.7	1.0	-58.2	-13.0	-45.2	
High Ch, 1909.3MHz									
3818.60	-27.7	V	3.0	35.8	1.0	-62.5	-13.0	-49.5	
5727.90	-26.4	V	3.0	35.5	1.0	-60.9	-13.0	-47.9	
7637.20	-24.6	V	3.0	35.8	1.0	-59.4	-13.0	-46.4	
3818.60	-28.6	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5727.90	-23.0	H	3.0	35.5	1.0	-57.5	-13.0	-44.5	
7637.20	-23.3	H	3.0	35.8	1.0	-58.1	-13.0	-45.1	

LTE B2 1.4MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 2 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, 1851.5MHz									
3703.00	-27.2	V	3.0	35.9	1.0	-62.1	-13.0	-49.1	
5554.50	-26.7	V	3.0	35.5	1.0	-61.1	-13.0	-48.1	
7406.00	-25.8	V	3.0	35.7	1.0	-60.6	-13.0	-47.6	
3703.00	-29.1	H	3.0	35.9	1.0	-63.9	-13.0	-50.9	
5554.50	-25.6	H	3.0	35.5	1.0	-60.1	-13.0	-47.1	
7406.00	-23.9	H	3.0	35.7	1.0	-58.6	-13.0	-45.6	
Mid Ch, 1880MHz									
3760.00	-27.0	V	3.0	35.8	1.0	-61.8	-13.0	-48.8	
5640.00	-25.3	V	3.0	35.5	1.0	-59.8	-13.0	-46.8	
7520.00	-25.6	V	3.0	35.7	1.0	-60.4	-13.0	-47.4	
3760.00	-28.8	H	3.0	35.8	1.0	-63.6	-13.0	-50.6	
5640.00	-24.3	H	3.0	35.5	1.0	-58.8	-13.0	-45.8	
7520.00	-23.8	H	3.0	35.7	1.0	-58.5	-13.0	-45.5	
High Ch, 1908.5MHz									
3817.00	-28.1	V	3.0	35.8	1.0	-62.9	-13.0	-49.9	
5725.50	-26.1	V	3.0	35.5	1.0	-60.6	-13.0	-47.6	
7634.00	-25.2	V	3.0	35.8	1.0	-59.9	-13.0	-46.9	
3817.00	-28.4	H	3.0	35.8	1.0	-63.2	-13.0	-50.2	
5725.50	-25.2	H	3.0	35.5	1.0	-59.7	-13.0	-46.7	
7634.00	-23.1	H	3.0	35.8	1.0	-57.8	-13.0	-44.8	

LTE B2 3MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 2 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, 1851.5MHz									
3703.00	-27.7	V	3.0	35.9	1.0	-62.6	-13.0	-49.6	
5554.50	-26.6	V	3.0	35.5	1.0	-61.0	-13.0	-48.0	
7406.00	-25.7	V	3.0	35.7	1.0	-60.5	-13.0	-47.5	
3703.00	-29.2	H	3.0	35.9	1.0	-64.1	-13.0	-51.1	
5554.50	-25.7	H	3.0	35.5	1.0	-60.2	-13.0	-47.2	
7406.00	-23.6	H	3.0	35.7	1.0	-58.3	-13.0	-45.3	
Mid Ch, 1880MHz									
3760.00	-27.1	V	3.0	35.8	1.0	-61.9	-13.0	-48.9	
5640.00	-25.4	V	3.0	35.5	1.0	-59.9	-13.0	-46.9	
7520.00	-25.7	V	3.0	35.7	1.0	-60.4	-13.0	-47.4	
3760.00	-29.0	H	3.0	35.8	1.0	-63.8	-13.0	-50.8	
5640.00	-24.2	H	3.0	35.5	1.0	-58.6	-13.0	-45.6	
7520.00	-23.7	H	3.0	35.7	1.0	-58.5	-13.0	-45.5	
High Ch, 1908.5MHz									
3817.00	-28.2	V	3.0	35.8	1.0	-63.0	-13.0	-50.0	
5725.50	-26.3	V	3.0	35.5	1.0	-60.8	-13.0	-47.8	
7634.00	-25.2	V	3.0	35.8	1.0	-60.0	-13.0	-47.0	
3817.00	-28.7	H	3.0	35.8	1.0	-63.5	-13.0	-50.5	
5725.50	-24.0	H	3.0	35.5	1.0	-58.5	-13.0	-45.5	
7634.00	-23.2	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	

LTE B2 3MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 2 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, 1852.5MHz									
3705.00	-27.8	V	3.0	35.9	1.0	-62.6	-13.0	-49.6	
5557.50	-26.9	V	3.0	35.5	1.0	-61.4	-13.0	-48.4	
7410.00	-25.8	V	3.0	35.7	1.0	-60.5	-13.0	-47.5	
3705.00	-29.2	H	3.0	35.9	1.0	-64.1	-13.0	-51.1	
5557.50	-26.5	H	3.0	35.5	1.0	-60.9	-13.0	-47.9	
7410.00	-25.0	H	3.0	35.7	1.0	-59.7	-13.0	-46.7	
Mid Ch, 1880MHz									
3760.00	-27.0	V	3.0	35.8	1.0	-61.9	-13.0	-48.9	
5640.00	-25.2	V	3.0	35.5	1.0	-59.7	-13.0	-46.7	
7520.00	-25.3	V	3.0	35.7	1.0	-60.1	-13.0	-47.1	
3760.00	-28.6	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5640.00	-24.4	H	3.0	35.5	1.0	-58.9	-13.0	-45.9	
7520.00	-24.7	H	3.0	35.7	1.0	-59.5	-13.0	-46.5	
High Ch, 1907.5MHz									
3815.00	-28.0	V	3.0	35.8	1.0	-62.8	-13.0	-49.8	
5722.50	-25.9	V	3.0	35.5	1.0	-60.4	-13.0	-47.4	
7630.00	-25.1	V	3.0	35.8	1.0	-59.8	-13.0	-46.8	
3815.00	-28.5	H	3.0	35.8	1.0	-63.3	-13.0	-50.3	
5722.50	-25.2	H	3.0	35.5	1.0	-59.7	-13.0	-46.7	
7630.00	-24.1	H	3.0	35.8	1.0	-58.8	-13.0	-45.8	

LTE B2 5MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 2 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, 1852.5MHz									
3705.00	-28.0	V	3.0	35.9	1.0	-62.9	-13.0	-49.9	
5557.50	-26.9	V	3.0	35.5	1.0	-61.4	-13.0	-48.4	
7410.00	-25.8	V	3.0	35.7	1.0	-60.5	-13.0	-47.5	
3705.00	-29.3	H	3.0	35.9	1.0	-64.2	-13.0	-51.2	
5557.50	-26.4	H	3.0	35.5	1.0	-60.9	-13.0	-47.9	
7410.00	-24.9	H	3.0	35.7	1.0	-59.6	-13.0	-46.6	
Mid Ch, 1880MHz									
3760.00	-30.5	V	3.0	35.8	1.0	-65.3	-13.0	-52.3	
5640.00	-25.4	V	3.0	35.5	1.0	-59.9	-13.0	-46.9	
7520.00	-25.4	V	3.0	35.7	1.0	-60.1	-13.0	-47.1	
3760.00	-28.6	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5640.00	-24.8	H	3.0	35.5	1.0	-59.2	-13.0	-46.2	
7520.00	-24.8	H	3.0	35.7	1.0	-59.5	-13.0	-46.5	
High Ch, 1907.5MHz									
3815.00	-28.1	V	3.0	35.8	1.0	-62.8	-13.0	-49.8	
5722.50	-26.1	V	3.0	35.5	1.0	-60.6	-13.0	-47.6	
7630.00	-25.0	V	3.0	35.8	1.0	-59.8	-13.0	-46.8	
3815.00	-28.6	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5722.50	-25.7	H	3.0	35.5	1.0	-60.2	-13.0	-47.2	
7630.00	-24.0	H	3.0	35.8	1.0	-58.8	-13.0	-45.8	

LTE B2 5MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 2 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, 1855MHz									
3710.00	-28.3	V	3.0	35.9	1.0	-63.1	-13.0	-50.1	
5565.00	-26.8	V	3.0	35.5	1.0	-61.2	-13.0	-48.2	
7420.00	-26.2	V	3.0	35.7	1.0	-60.9	-13.0	-47.9	
3710.00	-29.3	H	3.0	35.9	1.0	-64.2	-13.0	-51.2	
5565.00	-26.1	H	3.0	35.5	1.0	-60.5	-13.0	-47.5	
7420.00	-25.3	H	3.0	35.7	1.0	-60.1	-13.0	-47.1	
Mid Ch, 1880MHz									
3760.00	-27.1	V	3.0	35.8	1.0	-62.0	-13.0	-49.0	
5640.00	-25.1	V	3.0	35.5	1.0	-59.6	-13.0	-46.6	
7520.00	-25.6	V	3.0	35.7	1.0	-60.4	-13.0	-47.4	
3760.00	-28.3	H	3.0	35.8	1.0	-63.1	-13.0	-50.1	
5640.00	-24.7	H	3.0	35.5	1.0	-59.2	-13.0	-46.2	
7520.00	-24.5	H	3.0	35.7	1.0	-59.3	-13.0	-46.3	
High Ch, 1905MHz									
3810.00	-27.7	V	3.0	35.8	1.0	-62.5	-13.0	-49.5	
5715.00	-25.7	V	3.0	35.5	1.0	-60.2	-13.0	-47.2	
7620.00	-25.0	V	3.0	35.8	1.0	-59.7	-13.0	-46.7	
3810.00	-28.2	H	3.0	35.8	1.0	-63.0	-13.0	-50.0	
5715.00	-25.1	H	3.0	35.5	1.0	-59.6	-13.0	-46.6	
7620.00	-24.0	H	3.0	35.8	1.0	-58.8	-13.0	-45.8	

LTE B2 10MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 2 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, 1855MHz									
3710.00	-28.1	V	3.0	35.9	1.0	-62.9	-13.0	-49.9	
5565.00	-26.6	V	3.0	35.5	1.0	-61.1	-13.0	-48.1	
7420.00	-26.2	V	3.0	35.7	1.0	-60.9	-13.0	-47.9	
3710.00	-29.4	H	3.0	35.9	1.0	-64.3	-13.0	-51.3	
5565.00	-26.0	H	3.0	35.5	1.0	-60.5	-13.0	-47.5	
7420.00	-25.2	H	3.0	35.7	1.0	-59.9	-13.0	-46.9	
Mid Ch, 1880MHz									
3760.00	-26.8	V	3.0	35.8	1.0	-61.7	-13.0	-48.7	
5640.00	-25.4	V	3.0	35.5	1.0	-59.8	-13.0	-46.8	
7520.00	-25.6	V	3.0	35.7	1.0	-60.3	-13.0	-47.3	
3760.00	-28.8	H	3.0	35.8	1.0	-63.6	-13.0	-50.6	
5640.00	-24.6	H	3.0	35.5	1.0	-59.1	-13.0	-46.1	
7520.00	-24.7	H	3.0	35.7	1.0	-59.4	-13.0	-46.4	
High Ch, 1905MHz									
3810.00	-27.9	V	3.0	35.8	1.0	-62.7	-13.0	-49.7	
5715.00	-25.8	V	3.0	35.5	1.0	-60.3	-13.0	-47.3	
7620.00	-25.2	V	3.0	35.8	1.0	-59.9	-13.0	-46.9	
3810.00	-28.4	H	3.0	35.8	1.0	-63.2	-13.0	-50.2	
5715.00	-25.1	H	3.0	35.5	1.0	-59.6	-13.0	-46.6	
7620.00	-23.9	H	3.0	35.8	1.0	-58.7	-13.0	-45.7	

LTE B2 10MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 2 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5MHz									
3715.00	-28.5	V	3.0	35.8	1.0	-63.3	-13.0	-50.3	
5572.50	-26.3	V	3.0	35.5	1.0	-60.8	-13.0	-47.8	
7430.00	-26.4	V	3.0	35.7	1.0	-61.1	-13.0	-48.1	
3715.00	-29.5	H	3.0	35.8	1.0	-64.3	-13.0	-51.3	
5572.50	-25.3	H	3.0	35.5	1.0	-59.8	-13.0	-46.8	
7430.00	-24.6	H	3.0	35.7	1.0	-59.3	-13.0	-46.3	
Mid Ch, 1880MHz									
3760.00	-26.9	V	3.0	35.8	1.0	-61.7	-13.0	-48.7	
5640.00	-25.4	V	3.0	35.5	1.0	-59.9	-13.0	-46.9	
7520.00	-25.5	V	3.0	35.7	1.0	-60.2	-13.0	-47.2	
3760.00	-28.3	H	3.0	35.8	1.0	-63.1	-13.0	-50.1	
5640.00	-24.4	H	3.0	35.5	1.0	-58.9	-13.0	-45.9	
7520.00	-24.1	H	3.0	35.7	1.0	-58.8	-13.0	-45.8	
High Ch, 1902.5MHz									
3805.00	-27.6	V	3.0	35.8	1.0	-62.4	-13.0	-49.4	
5707.50	-25.5	V	3.0	35.5	1.0	-60.0	-13.0	-47.0	
7610.00	-25.0	V	3.0	35.8	1.0	-59.7	-13.0	-46.7	
3805.00	-28.7	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5707.50	-24.4	H	3.0	35.5	1.0	-58.9	-13.0	-45.9	
7610.00	-23.1	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	

LTE B2 15MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 2 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1857.5MHz									
3715.00	-28.4	V	3.0	35.8	1.0	-63.3	-13.0	-50.3	
5572.50	-26.2	V	3.0	35.5	1.0	-60.7	-13.0	-47.7	
7430.00	-26.2	V	3.0	35.7	1.0	-60.9	-13.0	-47.9	
3715.00	-29.5	H	3.0	35.8	1.0	-64.3	-13.0	-51.3	
5572.50	-25.3	H	3.0	35.5	1.0	-59.8	-13.0	-46.8	
7430.00	-24.4	H	3.0	35.7	1.0	-59.1	-13.0	-46.1	
Mid Ch, 1880MHz									
3760.00	-27.2	V	3.0	35.8	1.0	-62.0	-13.0	-49.0	
5640.00	-25.4	V	3.0	35.5	1.0	-59.9	-13.0	-46.9	
7520.00	-25.6	V	3.0	35.7	1.0	-60.3	-13.0	-47.3	
3760.00	-28.6	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5640.00	-24.6	H	3.0	35.5	1.0	-59.1	-13.0	-46.1	
7520.00	-24.2	H	3.0	35.7	1.0	-58.9	-13.0	-45.9	
High Ch, 1902.5MHz									
3805.00	-27.8	V	3.0	35.8	1.0	-62.6	-13.0	-49.6	
5707.50	-25.5	V	3.0	35.5	1.0	-60.0	-13.0	-47.0	
7610.00	-24.9	V	3.0	35.8	1.0	-59.7	-13.0	-46.7	
3805.00	-28.6	H	3.0	35.8	1.0	-63.4	-13.0	-50.4	
5707.50	-24.6	H	3.0	35.5	1.0	-59.1	-13.0	-46.1	
7610.00	-23.1	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	

LTE B2 15MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_QPSK Band 2 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, 1860MHz									
3720.00	-28.9	V	3.0	35.8	1.0	-63.7	-13.0	-50.7	
5580.00	-25.8	V	3.0	35.5	1.0	-60.3	-13.0	-47.3	
7440.00	-26.2	V	3.0	35.7	1.0	-60.9	-13.0	-47.9	
3720.00	-29.4	H	3.0	35.8	1.0	-64.3	-13.0	-51.3	
5580.00	-24.9	H	3.0	35.5	1.0	-59.4	-13.0	-46.4	
7440.00	-24.3	H	3.0	35.7	1.0	-59.0	-13.0	-46.0	
Mid Ch, 1880MHz									
3760.00	-28.3	V	3.0	35.8	1.0	-63.1	-13.0	-50.1	
5640.00	-25.2	V	3.0	35.5	1.0	-59.7	-13.0	-46.7	
7520.00	-25.3	V	3.0	35.7	1.0	-60.1	-13.0	-47.1	
3760.00	-28.0	H	3.0	35.8	1.0	-62.8	-13.0	-49.8	
5640.00	-24.3	H	3.0	35.5	1.0	-58.8	-13.0	-45.8	
7520.00	-23.8	H	3.0	35.7	1.0	-58.6	-13.0	-45.6	
High Ch, 1900MHz									
3800.00	-27.3	V	3.0	35.8	1.0	-62.0	-13.0	-49.0	
5700.00	-25.1	V	3.0	35.5	1.0	-59.6	-13.0	-46.6	
7600.00	-24.9	V	3.0	35.8	1.0	-59.7	-13.0	-46.7	
3800.00	-28.4	H	3.0	35.8	1.0	-63.2	-13.0	-50.2	
5700.00	-24.5	H	3.0	35.5	1.0	-59.0	-13.0	-46.0	
7600.00	-22.9	H	3.0	35.8	1.0	-57.7	-13.0	-44.7	

LTE B2 20MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/5/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Adapter
Location: Chamber C
Mode: LTE_16QAM Band 2 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, 1860MHz									
3720.00	-29.1	V	3.0	35.8	1.0	-63.9	-13.0	-50.9	
5580.00	-25.9	V	3.0	35.5	1.0	-60.4	-13.0	-47.4	
7440.00	-26.2	V	3.0	35.7	1.0	-60.9	-13.0	-47.9	
3720.00	-29.7	H	3.0	35.8	1.0	-64.5	-13.0	-51.5	
5580.00	-25.0	H	3.0	35.5	1.0	-59.4	-13.0	-46.4	
7440.00	-24.4	H	3.0	35.7	1.0	-59.1	-13.0	-46.1	
Mid Ch, 1880MHz									
3760.00	-27.5	V	3.0	35.8	1.0	-62.3	-13.0	-49.3	
5640.00	-25.0	V	3.0	35.5	1.0	-59.5	-13.0	-46.5	
7520.00	-25.7	V	3.0	35.7	1.0	-60.4	-13.0	-47.4	
3760.00	-28.5	H	3.0	35.8	1.0	-63.3	-13.0	-50.3	
5640.00	-24.3	H	3.0	35.5	1.0	-58.7	-13.0	-45.7	
7520.00	-23.8	H	3.0	35.7	1.0	-58.6	-13.0	-45.6	
High Ch, 1900MHz									
3800.00	-27.3	V	3.0	35.8	1.0	-62.1	-13.0	-49.1	
5700.00	-25.5	V	3.0	35.5	1.0	-60.0	-13.0	-47.0	
7600.00	-24.9	V	3.0	35.8	1.0	-59.7	-13.0	-46.7	
3800.00	-28.4	H	3.0	35.8	1.0	-63.2	-13.0	-50.2	
5700.00	-24.5	H	3.0	35.5	1.0	-59.0	-13.0	-46.0	
7600.00	-23.0	H	3.0	35.8	1.0	-57.8	-13.0	-44.8	

LTE B2 20MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 4

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 3/13/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 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, 1710.7MHz									
3421.40	-18.0	V	3.0	36.1	1.0	-53.0	-13.0	-40.0	
5132.10	-14.9	V	3.0	35.4	1.0	-49.3	-13.0	-36.3	
6842.80	-13.0	V	3.0	35.7	1.0	-47.6	-13.0	-34.6	
3421.40	-18.5	H	3.0	36.1	1.0	-53.6	-13.0	-40.6	
5132.10	-13.5	H	3.0	35.4	1.0	-47.9	-13.0	-34.9	
6842.80	-12.2	H	3.0	35.7	1.0	-46.9	-13.0	-33.9	
Mid Ch, 1732.5MHz									
3465.00	-18.7	V	3.0	36.0	1.0	-53.7	-13.0	-40.7	
5197.50	-14.4	V	3.0	35.4	1.0	-48.8	-13.0	-35.8	
6930.00	-13.3	V	3.0	35.7	1.0	-48.0	-13.0	-35.0	
3465.00	-20.1	H	3.0	36.0	1.0	-55.1	-13.0	-42.1	
5197.50	-14.4	H	3.0	35.4	1.0	-48.9	-13.0	-35.9	
6930.00	-12.3	H	3.0	35.7	1.0	-47.0	-13.0	-34.0	
High Ch, 1754.3MHz									
3508.60	-18.3	V	3.0	36.0	1.0	-53.3	-13.0	-40.3	
5262.90	-14.3	V	3.0	35.4	1.0	-48.7	-13.0	-35.7	
7017.20	-13.1	V	3.0	35.7	1.0	-47.8	-13.0	-34.8	
3508.60	-19.9	H	3.0	36.0	1.0	-54.9	-13.0	-41.9	
5262.90	-14.0	H	3.0	35.4	1.0	-48.5	-13.0	-35.5	
7017.20	-11.5	H	3.0	35.7	1.0	-46.2	-13.0	-33.2	

LTE B4 1.4MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 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, 1710.7MHz									
3421.40	-17.8	V	3.0	36.1	1.0	-52.9	-13.0	-39.9	
5132.10	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
6842.80	-12.7	V	3.0	35.7	1.0	-47.4	-13.0	-34.4	
3421.40	-18.4	H	3.0	36.1	1.0	-53.4	-13.0	-40.4	
5132.10	-13.5	H	3.0	35.4	1.0	-47.9	-13.0	-34.9	
6842.80	-11.8	H	3.0	35.7	1.0	-46.5	-13.0	-33.5	
Mid Ch, 1732.5MHz									
3465.00	-18.3	V	3.0	36.0	1.0	-53.4	-13.0	-40.4	
5197.50	-15.0	V	3.0	35.4	1.0	-49.4	-13.0	-36.4	
6930.00	-13.0	V	3.0	35.7	1.0	-47.6	-13.0	-34.6	
3465.00	-18.2	H	3.0	36.0	1.0	-53.2	-13.0	-40.2	
5197.50	-14.4	H	3.0	35.4	1.0	-48.9	-13.0	-35.9	
6930.00	-12.1	H	3.0	35.7	1.0	-46.8	-13.0	-33.8	
High Ch, 1754.3MHz									
3508.60	-18.3	V	3.0	36.0	1.0	-53.3	-13.0	-40.3	
5262.90	-14.1	V	3.0	35.4	1.0	-48.5	-13.0	-35.5	
7017.20	-13.0	V	3.0	35.7	1.0	-47.7	-13.0	-34.7	
3508.60	-19.2	H	3.0	36.0	1.0	-54.2	-13.0	-41.2	
5262.90	-14.1	H	3.0	35.4	1.0	-48.5	-13.0	-35.5	
7017.20	-11.4	H	3.0	35.7	1.0	-46.1	-13.0	-33.1	

LTE B4 1.4MHz 16QAM

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 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, 1711.5MHz									
3423.00	-18.5	V	3.0	36.1	1.0	-53.5	-13.0	-40.5	
5134.50	-15.9	V	3.0	35.4	1.0	-50.3	-13.0	-37.3	
6846.00	-14.5	V	3.0	35.7	1.0	-49.2	-13.0	-36.2	
3423.00	-19.2	H	3.0	36.1	1.0	-54.2	-13.0	-41.2	
5134.50	-15.0	H	3.0	35.4	1.0	-49.5	-13.0	-36.5	
6846.00	-12.9	H	3.0	35.7	1.0	-47.5	-13.0	-34.5	
Mid Ch, 1732.5MHz									
3465.00	-18.5	V	3.0	36.0	1.0	-53.5	-13.0	-40.5	
5197.50	-15.8	V	3.0	35.4	1.0	-50.2	-13.0	-37.2	
6930.00	-13.8	V	3.0	35.7	1.0	-48.4	-13.0	-35.4	
3465.00	-19.1	H	3.0	36.0	1.0	-54.1	-13.0	-41.1	
5197.50	-14.6	H	3.0	35.4	1.0	-49.0	-13.0	-36.0	
6930.00	-13.2	H	3.0	35.7	1.0	-47.9	-13.0	-34.9	
High Ch, 1753.5MHz									
3507.00	-18.3	V	3.0	36.0	1.0	-53.3	-13.0	-40.3	
5260.50	-15.4	V	3.0	35.4	1.0	-49.9	-13.0	-36.9	
7014.00	-13.7	V	3.0	35.7	1.0	-48.4	-13.0	-35.4	
3507.00	-19.0	H	3.0	36.0	1.0	-54.0	-13.0	-41.0	
5260.50	-14.8	H	3.0	35.4	1.0	-49.2	-13.0	-36.2	
7014.00	-12.5	H	3.0	35.7	1.0	-47.2	-13.0	-34.2	

LTE B4 3MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 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, 1711.5MHz									
3423.00	-18.1	V	3.0	36.1	1.0	-53.1	-13.0	-40.1	
5134.50	-15.9	V	3.0	35.4	1.0	-50.3	-13.0	-37.3	
6846.00	-14.4	V	3.0	35.7	1.0	-49.1	-13.0	-36.1	
3423.00	-19.0	H	3.0	36.1	1.0	-54.0	-13.0	-41.0	
5134.50	-15.1	H	3.0	35.4	1.0	-49.5	-13.0	-36.5	
6846.00	-13.2	H	3.0	35.7	1.0	-47.9	-13.0	-34.9	
Mid Ch, 1732.5MHz									
3465.00	-18.3	V	3.0	36.0	1.0	-53.4	-13.0	-40.4	
5197.50	-15.6	V	3.0	35.4	1.0	-50.0	-13.0	-37.0	
6930.00	-13.8	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3465.00	-19.2	H	3.0	36.0	1.0	-54.3	-13.0	-41.3	
5197.50	-14.5	H	3.0	35.4	1.0	-48.9	-13.0	-35.9	
6930.00	-12.9	H	3.0	35.7	1.0	-47.6	-13.0	-34.6	
High Ch, 1753.5MHz									
3507.00	-18.0	V	3.0	36.0	1.0	-53.0	-13.0	-40.0	
5260.50	-15.4	V	3.0	35.4	1.0	-49.9	-13.0	-36.9	
7014.00	-13.6	V	3.0	35.7	1.0	-48.3	-13.0	-35.3	
3507.00	-19.2	H	3.0	36.0	1.0	-54.2	-13.0	-41.2	
5260.50	-14.4	H	3.0	35.4	1.0	-48.8	-13.0	-35.8	
7014.00	-12.4	H	3.0	35.7	1.0	-47.1	-13.0	-34.1	

LTE B4 3MHz 16QAM

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 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, 1712.5MHz									
3425.00	-17.7	V	3.0	36.1	1.0	-52.8	-13.0	-39.8	
5137.50	-15.3	V	3.0	35.4	1.0	-49.7	-13.0	-36.7	
6850.00	-14.1	V	3.0	35.7	1.0	-48.8	-13.0	-35.8	
3425.00	-18.2	H	3.0	36.1	1.0	-53.3	-13.0	-40.3	
5137.50	-15.0	H	3.0	35.4	1.0	-49.4	-13.0	-36.4	
6850.00	-13.5	H	3.0	35.7	1.0	-48.1	-13.0	-35.1	
Mid Ch, 1732.5MHz									
3465.00	-17.7	V	3.0	36.0	1.0	-52.7	-13.0	-39.7	
5197.50	-15.1	V	3.0	35.4	1.0	-49.5	-13.0	-36.5	
6930.00	-14.0	V	3.0	35.7	1.0	-48.7	-13.0	-35.7	
3465.00	-18.0	H	3.0	36.0	1.0	-53.0	-13.0	-40.0	
5197.50	-14.9	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
6930.00	-13.2	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	
High Ch, 1752.5MHz									
3505.00	-17.4	V	3.0	36.0	1.0	-52.4	-13.0	-39.4	
5257.50	-14.5	V	3.0	35.4	1.0	-49.0	-13.0	-36.0	
7010.00	-14.1	V	3.0	35.7	1.0	-48.8	-13.0	-35.8	
3505.00	-17.4	H	3.0	36.0	1.0	-52.4	-13.0	-39.4	
5257.50	-14.8	H	3.0	35.4	1.0	-49.2	-13.0	-36.2	
7010.00	-13.0	H	3.0	35.7	1.0	-47.6	-13.0	-34.6	

LTE B4 5MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 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, 1712.5MHz									
3425.00	-17.5	V	3.0	36.1	1.0	-52.6	-13.0	-39.6	
5137.50	-15.0	V	3.0	35.4	1.0	-49.5	-13.0	-36.5	
6850.00	-13.8	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3425.00	-18.3	H	3.0	36.1	1.0	-53.3	-13.0	-40.3	
5137.50	-14.7	H	3.0	35.4	1.0	-49.2	-13.0	-36.2	
6850.00	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	
Mid Ch, 1732.5MHz									
3465.00	-17.9	V	3.0	36.0	1.0	-52.9	-13.0	-39.9	
5197.50	-15.1	V	3.0	35.4	1.0	-49.5	-13.0	-36.5	
6930.00	-14.1	V	3.0	35.7	1.0	-48.8	-13.0	-35.8	
3465.00	-19.0	H	3.0	36.0	1.0	-54.0	-13.0	-41.0	
5197.50	-14.6	H	3.0	35.4	1.0	-49.1	-13.0	-36.1	
6930.00	-12.9	H	3.0	35.7	1.0	-47.6	-13.0	-34.6	
High Ch, 1752.5MHz									
3505.00	-17.2	V	3.0	36.0	1.0	-52.2	-13.0	-39.2	
5257.50	-14.4	V	3.0	35.4	1.0	-48.9	-13.0	-35.9	
7010.00	-14.2	V	3.0	35.7	1.0	-48.9	-13.0	-35.9	
3505.00	-20.2	H	3.0	36.0	1.0	-55.2	-13.0	-42.2	
5257.50	-14.6	H	3.0	35.4	1.0	-49.0	-13.0	-36.0	
7010.00	-12.5	H	3.0	35.7	1.0	-47.2	-13.0	-34.2	

LTE B4 5MHz 16QAM

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 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, 1715MHz									
3430.00	-17.8	V	3.0	36.1	1.0	-52.9	-13.0	-39.9	
5145.00	-14.6	V	3.0	35.4	1.0	-49.0	-13.0	-36.0	
6860.00	-13.9	V	3.0	35.7	1.0	-48.6	-13.0	-35.6	
3430.00	-18.6	H	3.0	36.1	1.0	-53.6	-13.0	-40.6	
5145.00	-13.5	H	3.0	35.4	1.0	-48.0	-13.0	-35.0	
6860.00	-12.6	H	3.0	35.7	1.0	-47.3	-13.0	-34.3	
Mid Ch, 1732.5MHz									
3465.00	-17.8	V	3.0	36.0	1.0	-52.8	-13.0	-39.8	
5197.50	-14.5	V	3.0	35.4	1.0	-48.9	-13.0	-35.9	
6930.00	-13.8	V	3.0	35.7	1.0	-48.4	-13.0	-35.4	
3465.00	-18.5	H	3.0	36.0	1.0	-53.6	-13.0	-40.6	
5197.50	-13.7	H	3.0	35.4	1.0	-48.1	-13.0	-35.1	
6930.00	-12.6	H	3.0	35.7	1.0	-47.3	-13.0	-34.3	
High Ch, 1750MHz									
3500.00	-17.6	V	3.0	36.0	1.0	-52.6	-13.0	-39.6	
5250.00	-14.6	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
7000.00	-13.5	V	3.0	35.7	1.0	-48.2	-13.0	-35.2	
3500.00	-18.5	H	3.0	36.0	1.0	-53.5	-13.0	-40.5	
5250.00	-13.7	H	3.0	35.4	1.0	-48.1	-13.0	-35.1	
7000.00	-10.2	H	3.0	35.7	1.0	-44.9	-13.0	-31.9	

LTE B4 10MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 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, 1715MHz									
3430.00	-18.2	V	3.0	36.1	1.0	-53.2	-13.0	-40.2	
5145.00	-14.3	V	3.0	35.4	1.0	-48.8	-13.0	-35.8	
6860.00	-10.8	V	3.0	35.7	1.0	-45.5	-13.0	-32.5	
3430.00	-18.8	H	3.0	36.1	1.0	-53.8	-13.0	-40.8	
5145.00	-14.8	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
6860.00	-12.9	H	3.0	35.7	1.0	-47.5	-13.0	-34.5	
Mid Ch, 1732.5MHz									
3465.00	-17.9	V	3.0	36.0	1.0	-53.0	-13.0	-40.0	
5197.50	-14.1	V	3.0	35.4	1.0	-48.6	-13.0	-35.6	
6930.00	-13.8	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3465.00	-18.8	H	3.0	36.0	1.0	-53.8	-13.0	-40.8	
5197.50	-14.4	H	3.0	35.4	1.0	-48.8	-13.0	-35.8	
6930.00	-12.6	H	3.0	35.7	1.0	-47.3	-13.0	-34.3	
High Ch, 1750MHz									
3500.00	-17.9	V	3.0	36.0	1.0	-52.9	-13.0	-39.9	
5250.00	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
7000.00	-13.6	V	3.0	35.7	1.0	-48.2	-13.0	-35.2	
3500.00	-18.9	H	3.0	36.0	1.0	-53.9	-13.0	-40.9	
5250.00	-14.0	H	3.0	35.4	1.0	-48.4	-13.0	-35.4	
7000.00	-10.1	H	3.0	35.7	1.0	-44.8	-13.0	-31.8	

LTE B4 10MHz 16QAM

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5MHz									
3435.00	-18.7	V	3.0	36.1	1.0	-53.8	-13.0	-40.8	
5152.50	-14.5	V	3.0	35.4	1.0	-49.0	-13.0	-36.0	
6870.00	-12.7	V	3.0	35.7	1.0	-47.4	-13.0	-34.4	
3435.00	-18.6	H	3.0	36.1	1.0	-53.6	-13.0	-40.6	
5152.50	-14.3	H	3.0	35.4	1.0	-48.7	-13.0	-35.7	
6870.00	-11.9	H	3.0	35.7	1.0	-46.6	-13.0	-33.6	
Mid Ch, 1732.5MHz									
3465.00	-18.7	V	3.0	36.0	1.0	-53.7	-13.0	-40.7	
5197.50	-14.3	V	3.0	35.4	1.0	-48.8	-13.0	-35.8	
6930.00	-14.2	V	3.0	35.7	1.0	-48.9	-13.0	-35.9	
3465.00	-18.4	H	3.0	36.0	1.0	-53.5	-13.0	-40.5	
5197.50	-14.6	H	3.0	35.4	1.0	-49.0	-13.0	-36.0	
6930.00	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	
High Ch, 1747.5MHz									
3495.00	-18.5	V	3.0	36.0	1.0	-53.6	-13.0	-40.6	
5242.50	-14.1	V	3.0	35.4	1.0	-48.5	-13.0	-35.5	
6990.00	-13.0	V	3.0	35.7	1.0	-47.7	-13.0	-34.7	
3495.00	-19.7	H	3.0	36.0	1.0	-54.7	-13.0	-41.7	
5242.50	-14.4	H	3.0	35.4	1.0	-48.8	-13.0	-35.8	
6990.00	-13.2	H	3.0	35.7	1.0	-47.9	-13.0	-34.9	

LTE B4 15MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1717.5MHz									
3435.00	-18.4	V	3.0	36.1	1.0	-53.5	-13.0	-40.5	
5152.50	-14.5	V	3.0	35.4	1.0	-48.9	-13.0	-35.9	
6870.00	-12.0	V	3.0	35.7	1.0	-46.6	-13.0	-33.6	
3435.00	-18.5	H	3.0	36.1	1.0	-53.6	-13.0	-40.6	
5152.50	-14.7	H	3.0	35.4	1.0	-49.1	-13.0	-36.1	
6870.00	-11.8	H	3.0	35.7	1.0	-46.5	-13.0	-33.5	
Mid Ch, 1732.5MHz									
3465.00	-18.2	V	3.0	36.0	1.0	-53.3	-13.0	-40.3	
5197.50	-15.4	V	3.0	35.4	1.0	-49.8	-13.0	-36.8	
6930.00	-13.8	V	3.0	35.7	1.0	-48.4	-13.0	-35.4	
3465.00	-18.4	H	3.0	36.0	1.0	-53.5	-13.0	-40.5	
5197.50	-15.1	H	3.0	35.4	1.0	-49.6	-13.0	-36.6	
6930.00	-12.1	H	3.0	35.7	1.0	-46.8	-13.0	-33.8	
High Ch, 1747.5MHz									
3495.00	-18.3	V	3.0	36.0	1.0	-53.3	-13.0	-40.3	
5242.50	-13.9	V	3.0	35.4	1.0	-48.3	-13.0	-35.3	
6990.00	-12.7	V	3.0	35.7	1.0	-47.4	-13.0	-34.4	
3495.00	-19.4	H	3.0	36.0	1.0	-54.4	-13.0	-41.4	
5242.50	-14.1	H	3.0	35.4	1.0	-48.6	-13.0	-35.6	
6990.00	-13.1	H	3.0	35.7	1.0	-47.7	-13.0	-34.7	

LTE B4 15MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 4 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, 1720MHz									
3440.00	-18.6	V	3.0	36.0	1.0	-53.7	-13.0	-40.7	
5160.00	-15.3	V	3.0	35.4	1.0	-49.8	-13.0	-36.8	
6880.00	-14.4	V	3.0	35.7	1.0	-49.1	-13.0	-36.1	
3440.00	-18.5	H	3.0	36.0	1.0	-53.6	-13.0	-40.6	
5160.00	-15.2	H	3.0	35.4	1.0	-49.6	-13.0	-36.6	
6880.00	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	
Mid Ch, 1732.5MHz									
3465.00	-18.4	V	3.0	36.0	1.0	-53.5	-13.0	-40.5	
5197.50	-15.2	V	3.0	35.4	1.0	-49.6	-13.0	-36.6	
6930.00	-14.3	V	3.0	35.7	1.0	-48.9	-13.0	-35.9	
3465.00	-18.7	H	3.0	36.0	1.0	-53.7	-13.0	-40.7	
5197.50	-15.0	H	3.0	35.4	1.0	-49.5	-13.0	-36.5	
6930.00	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	
High Ch, 1745MHz									
3490.00	-18.6	V	3.0	36.0	1.0	-53.6	-13.0	-40.6	
5235.00	-14.9	V	3.0	35.4	1.0	-49.3	-13.0	-36.3	
6980.00	-13.8	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3490.00	-18.8	H	3.0	36.0	1.0	-53.8	-13.0	-40.8	
5235.00	-15.5	H	3.0	35.4	1.0	-49.9	-13.0	-36.9	
6980.00	-12.9	H	3.0	35.7	1.0	-47.6	-13.0	-34.6	

LTE B4 20MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 4 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, 1720MHz									
3440.00	-18.0	V	3.0	36.0	1.0	-53.1	-13.0	-40.1	
5160.00	-15.3	V	3.0	35.4	1.0	-49.7	-13.0	-36.7	
6880.00	-14.0	V	3.0	35.7	1.0	-48.7	-13.0	-35.7	
3440.00	-18.4	H	3.0	36.0	1.0	-53.5	-13.0	-40.5	
5160.00	-15.3	H	3.0	35.4	1.0	-49.7	-13.0	-36.7	
6880.00	-13.2	H	3.0	35.7	1.0	-47.9	-13.0	-34.9	
Mid Ch, 1732.5MHz									
3465.00	-18.0	V	3.0	36.0	1.0	-53.1	-13.0	-40.1	
5197.50	-14.9	V	3.0	35.4	1.0	-49.4	-13.0	-36.4	
6930.00	-11.9	V	3.0	35.7	1.0	-46.6	-13.0	-33.6	
3465.00	-18.6	H	3.0	36.0	1.0	-53.7	-13.0	-40.7	
5197.50	-14.5	H	3.0	35.4	1.0	-48.9	-13.0	-35.9	
6930.00	-13.2	H	3.0	35.7	1.0	-47.9	-13.0	-34.9	
High Ch, 1745MHz									
3490.00	-18.4	V	3.0	36.0	1.0	-53.4	-13.0	-40.4	
5235.00	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
6980.00	-13.8	V	3.0	35.7	1.0	-48.5	-13.0	-35.5	
3490.00	-18.8	H	3.0	36.0	1.0	-53.8	-13.0	-40.8	
5235.00	-15.4	H	3.0	35.4	1.0	-49.8	-13.0	-36.8	
6980.00	-12.8	H	3.0	35.7	1.0	-47.5	-13.0	-34.5	

LTE B4 20MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 5

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 5 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, 824.7									
1649.40	-29.1	V	3.0	36.4	1.0	-64.5	-13.0	-51.5	
2474.10	-24.5	V	3.0	35.0	1.0	-58.5	-13.0	-45.5	
3298.80	-25.0	V	3.0	34.3	1.0	-58.3	-13.0	-45.3	
1649.40	-27.3	H	3.0	36.4	1.0	-62.7	-13.0	-49.7	
2474.10	-26.6	H	3.0	35.0	1.0	-60.5	-13.0	-47.5	
3298.80	-25.2	H	3.0	34.3	1.0	-58.5	-13.0	-45.5	
Mid Ch, 836.5									
1673.00	-28.8	V	3.0	36.3	1.0	-64.1	-13.0	-51.1	
2509.50	-24.2	V	3.0	34.9	1.0	-58.2	-13.0	-45.2	
3346.00	-25.0	V	3.0	34.2	1.0	-58.2	-13.0	-45.2	
1673.00	-27.2	H	3.0	36.3	1.0	-62.5	-13.0	-49.5	
2509.50	-26.6	H	3.0	34.9	1.0	-60.5	-13.0	-47.5	
3346.00	-25.0	H	3.0	34.2	1.0	-58.2	-13.0	-45.2	
High Ch, 848.3									
1696.60	-28.6	V	3.0	36.3	1.0	-63.9	-13.0	-50.9	
2544.90	-24.5	V	3.0	34.9	1.0	-58.4	-13.0	-45.4	
3393.20	-25.2	V	3.0	34.2	1.0	-58.4	-13.0	-45.4	
1696.60	-27.5	H	3.0	36.3	1.0	-62.8	-13.0	-49.8	
2544.90	-26.7	H	3.0	34.9	1.0	-60.6	-13.0	-47.6	
3393.20	-25.0	H	3.0	34.2	1.0	-58.2	-13.0	-45.2	

LTE B5 1.4MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 5 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, 824.7									
1649.40	-29.0	V	3.0	36.4	1.0	-64.3	-13.0	-51.3	
2474.10	-24.4	V	3.0	35.0	1.0	-58.4	-13.0	-45.4	
3298.80	-24.8	V	3.0	34.3	1.0	-58.1	-13.0	-45.1	
1649.40	-27.1	H	3.0	36.4	1.0	-62.4	-13.0	-49.4	
2474.10	-26.5	H	3.0	35.0	1.0	-60.5	-13.0	-47.5	
3298.80	-25.1	H	3.0	34.3	1.0	-58.4	-13.0	-45.4	
Mid Ch, 836.5									
1673.00	-28.5	V	3.0	36.3	1.0	-63.8	-13.0	-50.8	
2509.50	-24.4	V	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3346.00	-24.6	V	3.0	34.2	1.0	-57.9	-13.0	-44.9	
1673.00	-26.9	H	3.0	36.3	1.0	-62.3	-13.0	-49.3	
2509.50	-26.4	H	3.0	34.9	1.0	-60.4	-13.0	-47.4	
3346.00	-24.9	H	3.0	34.2	1.0	-58.1	-13.0	-45.1	
High Ch, 848.3									
1696.60	-28.5	V	3.0	36.3	1.0	-63.8	-13.0	-50.8	
2544.90	-24.3	V	3.0	34.9	1.0	-58.2	-13.0	-45.2	
3393.20	-25.1	V	3.0	34.2	1.0	-58.2	-13.0	-45.2	
1696.60	-27.7	H	3.0	36.3	1.0	-63.0	-13.0	-50.0	
2544.90	-26.3	H	3.0	34.9	1.0	-60.3	-13.0	-47.3	
3393.20	-24.9	H	3.0	34.2	1.0	-58.0	-13.0	-45.0	

LTE B5 1.4MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 5 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, 825.5									
1651.00	-25.1	V	3.0	36.4	1.0	-60.5	-13.0	-47.5	
2476.50	-24.5	V	3.0	35.0	1.0	-58.4	-13.0	-45.4	
3302.00	-22.2	V	3.0	34.3	1.0	-55.5	-13.0	-42.5	
1651.00	-25.7	H	3.0	36.4	1.0	-61.1	-13.0	-48.1	
2476.50	-24.0	H	3.0	35.0	1.0	-58.0	-13.0	-45.0	
3302.00	-22.7	H	3.0	34.3	1.0	-56.0	-13.0	-43.0	
Mid Ch, 836.5									
1673.00	-24.8	V	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2509.50	-24.5	V	3.0	34.9	1.0	-58.4	-13.0	-45.4	
3346.00	-22.1	V	3.0	34.2	1.0	-55.3	-13.0	-42.3	
1673.00	-25.6	H	3.0	36.3	1.0	-60.9	-13.0	-47.9	
2509.50	-24.2	H	3.0	34.9	1.0	-58.2	-13.0	-45.2	
3346.00	-22.7	H	3.0	34.2	1.0	-55.9	-13.0	-42.9	
High Ch, 847.5									
1695.00	-24.5	V	3.0	36.3	1.0	-59.8	-13.0	-46.8	
2542.50	-21.2	V	3.0	34.9	1.0	-55.1	-13.0	-42.1	
3390.00	-22.1	V	3.0	34.2	1.0	-55.3	-13.0	-42.3	
1695.00	-25.2	H	3.0	36.3	1.0	-60.5	-13.0	-47.5	
2542.50	-24.2	H	3.0	34.9	1.0	-58.1	-13.0	-45.1	
3390.00	-22.5	H	3.0	34.2	1.0	-55.7	-13.0	-42.7	

LTE B5 3MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 5 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, 825.5									
1651.00	-24.7	V	3.0	36.4	1.0	-60.0	-13.0	-47.0	
2476.50	-24.0	V	3.0	35.0	1.0	-58.0	-13.0	-45.0	
3302.00	-19.2	V	3.0	34.3	1.0	-52.4	-13.0	-39.4	
1651.00	-25.4	H	3.0	36.4	1.0	-60.8	-13.0	-47.8	
2476.50	-23.7	H	3.0	35.0	1.0	-57.6	-13.0	-44.6	
3302.00	-22.6	H	3.0	34.3	1.0	-55.9	-13.0	-42.9	
Mid Ch, 836.5									
1673.00	-24.5	V	3.0	36.3	1.0	-59.8	-13.0	-46.8	
2509.50	-24.4	V	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3346.00	-22.0	V	3.0	34.2	1.0	-55.2	-13.0	-42.2	
1673.00	-25.2	H	3.0	36.3	1.0	-60.5	-13.0	-47.5	
2509.50	-23.8	H	3.0	34.9	1.0	-57.8	-13.0	-44.8	
3346.00	-22.5	H	3.0	34.2	1.0	-55.7	-13.0	-42.7	
High Ch, 847.5									
1695.00	-24.4	V	3.0	36.3	1.0	-59.7	-13.0	-46.7	
2542.50	-21.1	V	3.0	34.9	1.0	-55.0	-13.0	-42.0	
3390.00	-22.0	V	3.0	34.2	1.0	-55.2	-13.0	-42.2	
1695.00	-25.0	H	3.0	36.3	1.0	-60.3	-13.0	-47.3	
2542.50	-23.7	H	3.0	34.9	1.0	-57.6	-13.0	-44.6	
3390.00	-22.3	H	3.0	34.2	1.0	-55.5	-13.0	-42.5	

LTE B5 3MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 5 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, 825.5									
1651.00	-24.6	V	3.0	36.4	1.0	-60.0	-13.0	-47.0	
2476.50	-25.0	V	3.0	35.0	1.0	-59.0	-13.0	-46.0	
3302.00	-22.5	V	3.0	34.3	1.0	-55.8	-13.0	-42.8	
1651.00	-25.9	H	3.0	36.4	1.0	-61.2	-13.0	-48.2	
2476.50	-24.6	H	3.0	35.0	1.0	-58.6	-13.0	-45.6	
3302.00	-22.9	H	3.0	34.3	1.0	-56.2	-13.0	-43.2	
Mid Ch, 836.5									
1673.00	-24.3	V	3.0	36.3	1.0	-59.6	-13.0	-46.6	
2509.50	-24.9	V	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3346.00	-22.6	V	3.0	34.2	1.0	-55.8	-13.0	-42.8	
1673.00	-25.6	H	3.0	36.3	1.0	-60.9	-13.0	-47.9	
2509.50	-24.4	H	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3346.00	-22.6	H	3.0	34.2	1.0	-55.8	-13.0	-42.8	
High Ch, 847.5									
1695.00	-24.2	V	3.0	36.3	1.0	-59.5	-13.0	-46.5	
2542.50	-24.7	V	3.0	34.9	1.0	-58.6	-13.0	-45.6	
3390.00	-22.4	V	3.0	34.2	1.0	-55.5	-13.0	-42.5	
1695.00	-25.2	H	3.0	36.3	1.0	-60.4	-13.0	-47.4	
2542.50	-24.2	H	3.0	34.9	1.0	-58.1	-13.0	-45.1	
3390.00	-22.4	H	3.0	34.2	1.0	-55.6	-13.0	-42.6	

LTE B5 5MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 5 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, 825.5									
1651.00	-24.5	V	3.0	36.4	1.0	-59.8	-13.0	-46.8	
2476.50	-24.8	V	3.0	35.0	1.0	-58.7	-13.0	-45.7	
3302.00	-22.2	V	3.0	34.3	1.0	-55.4	-13.0	-42.4	
1651.00	-25.6	H	3.0	36.4	1.0	-61.0	-13.0	-48.0	
2476.50	-24.3	H	3.0	35.0	1.0	-58.3	-13.0	-45.3	
3302.00	-21.8	H	3.0	34.3	1.0	-55.0	-13.0	-42.0	
Mid Ch, 836.5									
1673.00	-24.2	V	3.0	36.3	1.0	-59.5	-13.0	-46.5	
2509.50	-24.6	V	3.0	34.9	1.0	-58.6	-13.0	-45.6	
3346.00	-22.4	V	3.0	34.2	1.0	-55.7	-13.0	-42.7	
1673.00	-25.2	H	3.0	36.3	1.0	-60.6	-13.0	-47.6	
2509.50	-24.2	H	3.0	34.9	1.0	-58.1	-13.0	-45.1	
3346.00	-22.3	H	3.0	34.2	1.0	-55.5	-13.0	-42.5	
High Ch, 847.5									
1695.00	-24.0	V	3.0	36.3	1.0	-59.3	-13.0	-46.3	
2542.50	-24.4	V	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3390.00	-22.1	V	3.0	34.2	1.0	-55.3	-13.0	-42.3	
1695.00	-24.9	H	3.0	36.3	1.0	-60.2	-13.0	-47.2	
2542.50	-24.0	H	3.0	34.9	1.0	-57.9	-13.0	-44.9	
3390.00	-22.2	H	3.0	34.2	1.0	-55.4	-13.0	-42.4	

LTE B5 5MHz 16QAM

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
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, 829									
1658.00	-25.0	V	3.0	36.4	1.0	-60.4	-13.0	-47.4	
2487.00	-24.9	V	3.0	35.0	1.0	-58.8	-13.0	-45.8	
3316.00	-21.6	V	3.0	34.3	1.0	-54.9	-13.0	-41.9	
1658.00	-25.1	H	3.0	36.4	1.0	-60.5	-13.0	-47.5	
2487.00	-24.7	H	3.0	35.0	1.0	-58.7	-13.0	-45.7	
3316.00	-22.3	H	3.0	34.3	1.0	-55.6	-13.0	-42.6	
Mid Ch, 836.5									
1673.00	-24.8	V	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2509.50	-24.7	V	3.0	34.9	1.0	-58.6	-13.0	-45.6	
3346.00	-21.6	V	3.0	34.2	1.0	-54.8	-13.0	-41.8	
1673.00	-24.8	H	3.0	36.3	1.0	-60.2	-13.0	-47.2	
2509.50	-24.6	H	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3346.00	-22.4	H	3.0	34.2	1.0	-55.6	-13.0	-42.6	
High Ch, 844									
1688.00	-24.6	V	3.0	36.3	1.0	-59.9	-13.0	-46.9	
2532.00	-24.6	V	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3376.00	-24.8	V	3.0	34.2	1.0	-58.0	-13.0	-45.0	
1688.00	-24.8	H	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2532.00	-24.5	H	3.0	34.9	1.0	-58.4	-13.0	-45.4	
3376.00	-22.6	H	3.0	34.2	1.0	-55.8	-13.0	-42.8	

LTE B5 10MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
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, 829									
1658.00	-24.9	V	3.0	36.4	1.0	-60.3	-13.0	-47.3	
2487.00	-24.6	V	3.0	35.0	1.0	-58.5	-13.0	-45.5	
3316.00	-21.4	V	3.0	34.3	1.0	-54.7	-13.0	-41.7	
1658.00	-25.0	H	3.0	36.4	1.0	-60.3	-13.0	-47.3	
2487.00	-24.6	H	3.0	35.0	1.0	-58.6	-13.0	-45.6	
3316.00	-22.0	H	3.0	34.3	1.0	-55.2	-13.0	-42.2	
Mid Ch, 836.5									
1673.00	-24.7	V	3.0	36.3	1.0	-60.0	-13.0	-47.0	
2509.50	-24.5	V	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3346.00	-21.1	V	3.0	34.2	1.0	-54.4	-13.0	-41.4	
1673.00	-24.7	H	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2509.50	-24.4	H	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3346.00	-22.2	H	3.0	34.2	1.0	-55.4	-13.0	-42.4	
High Ch, 844									
1688.00	-24.3	V	3.0	36.3	1.0	-59.6	-13.0	-46.6	
2532.00	-24.4	V	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3376.00	-24.6	V	3.0	34.2	1.0	-57.8	-13.0	-44.8	
1688.00	-24.7	H	3.0	36.3	1.0	-60.0	-13.0	-47.0	
2532.00	-24.3	H	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3376.00	-22.4	H	3.0	34.2	1.0	-55.6	-13.0	-42.6	

LTE B5 10MHz 16QAM

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 7

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 7 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2502.5									
5005.00	-17.0	V	3.0	33.2	1.0	-49.3	-25.0	-24.3	
7507.50	-19.1	V	3.0	32.8	1.0	-51.0	-25.0	-26.0	
10010.00	-20.0	V	3.0	32.8	1.0	-51.8	-25.0	-26.8	
5005.00	-18.6	H	3.0	33.2	1.0	-50.8	-25.0	-25.8	
7507.50	-19.1	H	3.0	32.8	1.0	-51.0	-25.0	-26.0	
10010.00	-20.1	H	3.0	32.8	1.0	-51.8	-25.0	-26.8	
Mid Ch, 2535									
5070.00	-20.9	V	3.0	33.2	1.0	-53.1	-25.0	-28.1	
7605.00	-17.6	V	3.0	32.8	1.0	-49.4	-25.0	-24.4	
10140.00	-18.8	V	3.0	32.7	1.0	-50.5	-25.0	-25.5	
5070.00	-20.5	H	3.0	33.2	1.0	-52.7	-25.0	-27.7	
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	-50.5	-25.0	-25.5	
High Ch, 2567.5									
5135.00	-16.8	V	3.0	33.2	1.0	-49.0	-25.0	-24.0	
7702.50	-19.0	V	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10270.00	-18.9	V	3.0	32.6	1.0	-50.5	-25.0	-25.5	
5135.00	-20.5	H	3.0	33.2	1.0	-52.7	-25.0	-27.7	
7702.50	-18.3	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10270.00	-19.5	H	3.0	32.6	1.0	-51.1	-25.0	-26.1	

LTE B7 5MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 7 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2502.5									
5005.00	-15.4	V	3.0	33.2	1.0	-47.6	-25.0	-22.6	
7507.50	-16.1	V	3.0	32.8	1.0	-48.0	-25.0	-23.0	
10010.00	-18.8	V	3.0	32.8	1.0	-50.6	-25.0	-25.6	
5005.00	-20.3	H	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7507.50	-17.0	H	3.0	32.8	1.0	-48.8	-25.0	-23.8	
10010.00	-18.8	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
Mid Ch, 2535									
5070.00	-19.2	V	3.0	33.2	1.0	-51.5	-25.0	-26.5	
7605.00	-15.9	V	3.0	32.8	1.0	-47.7	-25.0	-22.7	
10140.00	-17.6	V	3.0	32.7	1.0	-49.3	-25.0	-24.3	
5070.00	-20.0	H	3.0	33.2	1.0	-52.2	-25.0	-27.2	
7605.00	-16.7	H	3.0	32.8	1.0	-48.5	-25.0	-23.5	
10140.00	-17.8	H	3.0	32.7	1.0	-49.4	-25.0	-24.4	
High Ch, 2567.5									
5135.00	-15.2	V	3.0	33.2	1.0	-47.4	-25.0	-22.4	
7702.50	-16.3	V	3.0	32.8	1.0	-48.2	-25.0	-23.2	
10270.00	-17.4	V	3.0	32.6	1.0	-49.0	-25.0	-24.0	
5135.00	-18.9	H	3.0	33.2	1.0	-51.1	-25.0	-26.1	
7702.50	-17.2	H	3.0	32.8	1.0	-49.0	-25.0	-24.0	
10270.00	-17.4	H	3.0	32.6	1.0	-49.0	-25.0	-24.0	

LTE B7 5MHz 16QAM

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 7 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2502.5									
5005.00	-22.1	V	3.0	33.2	1.0	-54.4	-25.0	-29.4	
7507.50	-19.4	V	3.0	32.8	1.0	-51.3	-25.0	-26.3	
10010.00	-19.9	V	3.0	32.8	1.0	-51.6	-25.0	-26.6	
5005.00	-20.7	H	3.0	33.2	1.0	-52.9	-25.0	-27.9	
7507.50	-19.3	H	3.0	32.8	1.0	-51.1	-25.0	-26.1	
10010.00	-19.8	H	3.0	32.8	1.0	-51.6	-25.0	-26.6	
Mid Ch, 2535									
5070.00	-22.2	V	3.0	33.2	1.0	-54.4	-25.0	-29.4	
7605.00	-19.5	V	3.0	32.8	1.0	-51.3	-25.0	-26.3	
10140.00	-19.7	V	3.0	32.7	1.0	-51.3	-25.0	-26.3	
5070.00	-21.0	H	3.0	33.2	1.0	-53.2	-25.0	-28.2	
7605.00	-19.3	H	3.0	32.8	1.0	-51.2	-25.0	-26.2	
10140.00	-19.5	H	3.0	32.7	1.0	-51.2	-25.0	-26.2	
High Ch, 2567.5									
5135.00	-22.1	V	3.0	33.2	1.0	-54.3	-25.0	-29.3	
7702.50	-19.2	V	3.0	32.8	1.0	-51.1	-25.0	-26.1	
10270.00	-19.6	V	3.0	32.6	1.0	-51.2	-25.0	-26.2	
5135.00	-21.2	H	3.0	33.2	1.0	-53.4	-25.0	-28.4	
7702.50	-19.4	H	3.0	32.8	1.0	-51.2	-25.0	-26.2	
10270.00	-19.5	H	3.0	32.6	1.0	-51.1	-25.0	-26.1	

LTE B7 10MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 7 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2505									
5010.00	-20.3	V	3.0	33.2	1.0	-52.5	-25.0	-27.5	
7515.00	-17.1	V	3.0	32.8	1.0	-48.9	-25.0	-23.9	
10020.00	-18.3	V	3.0	32.8	1.0	-50.1	-25.0	-25.1	
5010.00	-20.4	H	3.0	33.2	1.0	-52.6	-25.0	-27.6	
7515.00	-16.5	H	3.0	32.8	1.0	-48.4	-25.0	-23.4	
10020.00	-17.5	H	3.0	32.8	1.0	-49.2	-25.0	-24.2	
Mid Ch, 2535									
5070.00	-19.5	V	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7605.00	-16.4	V	3.0	32.8	1.0	-48.2	-25.0	-23.2	
10140.00	-17.0	V	3.0	32.7	1.0	-48.7	-25.0	-23.7	
5070.00	-20.1	H	3.0	33.2	1.0	-52.4	-25.0	-27.4	
7605.00	-17.3	H	3.0	32.8	1.0	-49.1	-25.0	-24.1	
10140.00	-17.4	H	3.0	32.7	1.0	-49.0	-25.0	-24.0	
High Ch, 2565									
5130.00	-19.4	V	3.0	33.2	1.0	-51.6	-25.0	-26.6	
7695.00	-16.4	V	3.0	32.8	1.0	-48.2	-25.0	-23.2	
10260.00	-17.0	V	3.0	32.6	1.0	-48.6	-25.0	-23.6	
5130.00	-20.1	H	3.0	33.2	1.0	-52.3	-25.0	-27.3	
7695.00	-17.0	H	3.0	32.8	1.0	-48.8	-25.0	-23.8	
10260.00	-17.2	H	3.0	32.6	1.0	-48.8	-25.0	-23.8	

LTE B7 10MHz 16QAM

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 7 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2507.5									
5015.00	-21.9	V	3.0	33.2	1.0	-54.2	-25.0	-29.2	
7522.50	-18.4	V	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10030.00	-19.8	V	3.0	32.8	1.0	-51.5	-25.0	-26.5	
5015.00	-22.4	H	3.0	33.2	1.0	-54.6	-25.0	-29.6	
7522.50	-18.7	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10030.00	-20.9	H	3.0	32.8	1.0	-52.7	-25.0	-27.7	
Mid Ch, 2535									
5070.00	-21.9	V	3.0	33.2	1.0	-54.1	-25.0	-29.1	
7605.00	-18.6	V	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10140.00	-19.1	V	3.0	32.7	1.0	-50.8	-25.0	-25.8	
5070.00	-21.9	H	3.0	33.2	1.0	-54.1	-25.0	-29.1	
7605.00	-18.4	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, 2562.5									
5125.00	-22.0	V	3.0	33.2	1.0	-54.2	-25.0	-29.2	
7687.50	-18.8	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10250.00	-20.1	V	3.0	32.6	1.0	-51.7	-25.0	-26.7	
5125.00	-21.7	H	3.0	33.2	1.0	-53.9	-25.0	-28.9	
7687.50	-18.4	H	3.0	32.8	1.0	-50.2	-25.0	-25.2	
10250.00	-20.5	H	3.0	32.6	1.0	-52.1	-25.0	-27.1	

LTE B7 15MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 7 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2507.5									
5015.00	-19.8	V	3.0	33.2	1.0	-52.1	-25.0	-27.1	
7522.50	-16.3	V	3.0	32.8	1.0	-48.2	-25.0	-23.2	
10030.00	-18.4	V	3.0	32.8	1.0	-50.1	-25.0	-25.1	
5015.00	-19.3	H	3.0	33.2	1.0	-51.5	-25.0	-26.5	
7522.50	-16.6	H	3.0	32.8	1.0	-48.5	-25.0	-23.5	
10030.00	-18.0	H	3.0	32.8	1.0	-49.8	-25.0	-24.8	
Mid Ch, 2535									
5070.00	-19.6	V	3.0	33.2	1.0	-51.8	-25.0	-26.8	
7605.00	-16.2	V	3.0	32.8	1.0	-48.1	-25.0	-23.1	
10140.00	-17.6	V	3.0	32.7	1.0	-49.3	-25.0	-24.3	
5070.00	-19.5	H	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7605.00	-16.4	H	3.0	32.8	1.0	-48.3	-25.0	-23.3	
10140.00	-17.5	H	3.0	32.7	1.0	-49.2	-25.0	-24.2	
High Ch, 2562.5									
5125.00	-19.8	V	3.0	33.2	1.0	-52.0	-25.0	-27.0	
7687.50	-16.2	V	3.0	32.8	1.0	-48.0	-25.0	-23.0	
10250.00	-17.6	V	3.0	32.6	1.0	-49.2	-25.0	-24.2	
5125.00	-19.2	H	3.0	33.2	1.0	-51.4	-25.0	-26.4	
7687.50	-16.9	H	3.0	32.8	1.0	-48.7	-25.0	-23.7	
10250.00	-18.1	H	3.0	32.6	1.0	-49.8	-25.0	-24.8	

LTE B7 15MHz 16QAM

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_QPSK Band 7 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-21.5	V	3.0	33.2	1.0	-53.7	-25.0	-28.7	
7530.00	-18.7	V	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10040.00	-20.0	V	3.0	32.7	1.0	-51.7	-25.0	-26.7	
5020.00	-21.5	H	3.0	33.2	1.0	-53.8	-25.0	-28.8	
7530.00	-18.6	H	3.0	32.8	1.0	-50.5	-25.0	-25.5	
10040.00	-19.0	H	3.0	32.7	1.0	-50.7	-25.0	-25.7	
Mid Ch, 2535									
5070.00	-21.3	V	3.0	33.2	1.0	-53.5	-25.0	-28.5	
7605.00	-18.8	V	3.0	32.8	1.0	-50.6	-25.0	-25.6	
10140.00	-19.8	V	3.0	32.7	1.0	-51.4	-25.0	-26.4	
5070.00	-21.4	H	3.0	33.2	1.0	-53.6	-25.0	-28.6	
7605.00	-19.0	H	3.0	32.8	1.0	-50.8	-25.0	-25.8	
10140.00	-19.0	H	3.0	32.7	1.0	-50.6	-25.0	-25.6	
High Ch, 2560									
5120.00	-21.2	V	3.0	33.2	1.0	-53.4	-25.0	-28.4	
7680.00	-18.9	V	3.0	32.8	1.0	-50.7	-25.0	-25.7	
10240.00	-19.7	V	3.0	32.6	1.0	-51.4	-25.0	-26.4	
5120.00	-21.5	H	3.0	33.2	1.0	-53.7	-25.0	-28.7	
7680.00	-18.5	H	3.0	32.8	1.0	-50.4	-25.0	-25.4	
10240.00	-19.4	H	3.0	32.6	1.0	-51.0	-25.0	-26.0	

LTE B7 20MHz QPSK

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

Company: SOMC
Project #: 11626381 PY7-08618T
Date: 4/7/2017
Test Engineer: 43574 JS
Configuration: EUT + AC + Headset
Location: Chamber C
Mode: LTE_16QAM Band 7 Harmonics, 20MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2510									
5020.00	-19.5	V	3.0	33.2	1.0	-51.7	-25.0	-26.7	
7530.00	-15.8	V	3.0	32.8	1.0	-47.7	-25.0	-22.7	
10040.00	-14.0	V	3.0	32.7	1.0	-45.7	-25.0	-20.7	
5020.00	-19.0	H	3.0	33.2	1.0	-51.3	-25.0	-26.3	
7530.00	-19.9	H	3.0	32.8	1.0	-51.8	-25.0	-26.8	
10040.00	0.0	H	3.0	32.7	1.0	-31.7	-25.0	-6.7	
Mid Ch, 2535									
5070.00	-19.7	V	3.0	33.2	1.0	-51.9	-25.0	-26.9	
7605.00	-16.0	V	3.0	32.8	1.0	-47.8	-25.0	-22.8	
10140.00	-18.2	V	3.0	32.7	1.0	-49.9	-25.0	-24.9	
5070.00	-19.1	H	3.0	33.2	1.0	-51.3	-25.0	-26.3	
7605.00	-17.2	H	3.0	32.8	1.0	-49.0	-25.0	-24.0	
10140.00	-17.7	H	3.0	32.7	1.0	-49.3	-25.0	-24.3	
High Ch, 2560									
5120.00	-20.9	V	3.0	33.2	1.0	-53.1	-25.0	-28.1	
7680.00	-16.0	V	3.0	32.8	1.0	-47.9	-25.0	-22.9	
10240.00	-18.2	V	3.0	32.6	1.0	-49.8	-25.0	-24.8	
5120.00	-20.5	H	3.0	33.2	1.0	-52.7	-25.0	-27.7	
7680.00	-16.5	H	3.0	32.8	1.0	-48.4	-25.0	-23.4	
10240.00	-17.4	H	3.0	32.6	1.0	-49.0	-25.0	-24.0	

LTE B7 20MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 12

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: LTE_QPSK Band 12 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, 699.7MHz									
1399.40	-33.1	V	3.0	37.4	1.0	-69.5	-13.0	-56.5	
2099.10	-33.8	V	3.0	36.6	1.0	-69.3	-13.0	-56.3	
2798.80	-33.0	V	3.0	36.4	1.0	-68.3	-13.0	-55.3	
1399.40	-35.7	H	3.0	37.4	1.0	-72.0	-13.0	-59.0	
2099.10	-34.7	H	3.0	36.6	1.0	-70.3	-13.0	-57.3	
2798.80	-33.7	H	3.0	36.4	1.0	-69.1	-13.0	-56.1	
Mid Ch, 707.5MHz									
1415.00	-31.8	V	3.0	37.4	1.0	-68.2	-13.0	-55.2	
2122.50	-28.3	V	3.0	36.6	1.0	-63.8	-13.0	-50.8	
2830.00	-32.8	V	3.0	36.4	1.0	-68.2	-13.0	-55.2	
1415.00	-33.9	H	3.0	37.4	1.0	-70.2	-13.0	-57.2	
2122.50	-30.2	H	3.0	36.6	1.0	-65.7	-13.0	-52.7	
2830.00	-33.5	H	3.0	36.4	1.0	-68.9	-13.0	-55.9	
High Ch, 715.3MHz									
1430.60	-33.0	V	3.0	37.3	1.0	-69.4	-13.0	-56.4	
2145.90	-29.9	V	3.0	36.6	1.0	-65.5	-13.0	-52.5	
2861.20	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1430.60	-36.6	H	3.0	37.3	1.0	-73.0	-13.0	-60.0	
2145.90	-32.9	H	3.0	36.6	1.0	-68.4	-13.0	-55.4	
2861.20	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	

LTE B12 1.4MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: LTE_16QAM Band 12 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, 699.7MHz									
1399.40	-33.8	V	3.0	37.4	1.0	-70.2	-13.0	-57.2	
2099.10	-33.9	V	3.0	36.6	1.0	-69.4	-13.0	-56.4	
2798.80	-32.9	V	3.0	36.4	1.0	-68.3	-13.0	-55.3	
1399.40	-35.8	H	3.0	37.4	1.0	-72.1	-13.0	-59.1	
2099.10	-34.7	H	3.0	36.6	1.0	-70.3	-13.0	-57.3	
2798.80	-33.6	H	3.0	36.4	1.0	-69.0	-13.0	-56.0	
Mid Ch, 707.5MHz									
1415.00	-32.8	V	3.0	37.4	1.0	-69.1	-13.0	-56.1	
2122.50	-28.2	V	3.0	36.6	1.0	-63.8	-13.0	-50.8	
2830.00	-32.7	V	3.0	36.4	1.0	-68.1	-13.0	-55.1	
1415.00	-34.5	H	3.0	37.4	1.0	-70.9	-13.0	-57.9	
2122.50	-30.2	H	3.0	36.6	1.0	-65.8	-13.0	-52.8	
2830.00	-33.5	H	3.0	36.4	1.0	-68.8	-13.0	-55.8	
High Ch, 715.3MHz									
1430.60	-33.8	V	3.0	37.3	1.0	-70.1	-13.0	-57.1	
2145.90	-29.9	V	3.0	36.6	1.0	-65.5	-13.0	-52.5	
2861.20	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1430.60	-37.2	H	3.0	37.3	1.0	-73.5	-13.0	-60.5	
2145.90	-33.1	H	3.0	36.6	1.0	-68.7	-13.0	-55.7	
2861.20	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	

LTE B12 1.4MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 700.5MHz									
1401.00	-32.3	V	3.0	37.4	1.0	-68.7	-13.0	-55.7	
2101.50	-33.8	V	3.0	36.6	1.0	-69.3	-13.0	-56.3	
2802.00	-32.9	V	3.0	36.4	1.0	-68.3	-13.0	-55.3	
1401.00	-34.9	H	3.0	37.4	1.0	-71.3	-13.0	-58.3	
2101.50	-34.6	H	3.0	36.6	1.0	-70.2	-13.0	-57.2	
2802.00	-33.7	H	3.0	36.4	1.0	-69.1	-13.0	-56.1	
Mid Ch, 707.5MHz									
1415.00	-32.0	V	3.0	37.4	1.0	-68.3	-13.0	-55.3	
2122.50	-27.5	V	3.0	36.6	1.0	-63.1	-13.0	-50.1	
2830.00	-32.7	V	3.0	36.4	1.0	-68.1	-13.0	-55.1	
1415.00	-33.5	H	3.0	37.4	1.0	-69.8	-13.0	-56.8	
2122.50	-30.2	H	3.0	36.6	1.0	-65.8	-13.0	-52.8	
2830.00	-33.4	H	3.0	36.4	1.0	-68.8	-13.0	-55.8	
High Ch, 714.5MHz									
1429.00	-32.5	V	3.0	37.3	1.0	-68.8	-13.0	-55.8	
2143.50	-29.9	V	3.0	36.6	1.0	-65.4	-13.0	-52.4	
2858.00	-32.5	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
1429.00	-36.8	H	3.0	37.3	1.0	-73.1	-13.0	-60.1	
2143.50	-32.6	H	3.0	36.6	1.0	-68.2	-13.0	-55.2	
2858.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	

LTE B12 3MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 700.5MHz									
1401.00	-32.5	V	3.0	37.4	1.0	-68.9	-13.0	-55.9	
2101.50	-33.9	V	3.0	36.6	1.0	-69.5	-13.0	-56.5	
2802.00	-32.8	V	3.0	36.4	1.0	-68.2	-13.0	-55.2	
1401.00	-35.4	H	3.0	37.4	1.0	-71.8	-13.0	-58.8	
2101.50	-34.6	H	3.0	36.6	1.0	-70.2	-13.0	-57.2	
2802.00	-33.7	H	3.0	36.4	1.0	-69.0	-13.0	-56.0	
Mid Ch, 707.5MHz									
1415.00	-32.6	V	3.0	37.4	1.0	-68.9	-13.0	-55.9	
2122.50	-27.6	V	3.0	36.6	1.0	-63.1	-13.0	-50.1	
2830.00	-32.3	V	3.0	36.4	1.0	-67.6	-13.0	-54.6	
1415.00	-33.7	H	3.0	37.4	1.0	-70.1	-13.0	-57.1	
2122.50	-30.8	H	3.0	36.6	1.0	-66.4	-13.0	-53.4	
2830.00	-33.3	H	3.0	36.4	1.0	-68.7	-13.0	-55.7	
High Ch, 714.5MHz									
1429.00	-32.8	V	3.0	37.3	1.0	-69.1	-13.0	-56.1	
2143.50	-28.8	V	3.0	36.6	1.0	-64.4	-13.0	-51.4	
2858.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1429.00	-36.9	H	3.0	37.3	1.0	-73.3	-13.0	-60.3	
2143.50	-32.8	H	3.0	36.6	1.0	-68.3	-13.0	-55.3	
2858.00	-33.0	H	3.0	36.4	1.0	-68.3	-13.0	-55.3	

LTE B12 3MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 701.5MHz									
1403.00	-31.8	V	3.0	37.4	1.0	-68.1	-13.0	-55.1	
2104.50	-32.5	V	3.0	36.6	1.0	-68.1	-13.0	-55.1	
2806.00	-32.9	V	3.0	36.4	1.0	-68.3	-13.0	-55.3	
1403.00	-35.0	H	3.0	37.4	1.0	-71.3	-13.0	-58.3	
2104.50	-34.0	H	3.0	36.6	1.0	-69.5	-13.0	-56.5	
2806.00	-33.6	H	3.0	36.4	1.0	-69.0	-13.0	-56.0	
Mid Ch, 707.5MHz									
1415.00	-32.6	V	3.0	37.4	1.0	-69.0	-13.0	-56.0	
2122.50	-28.1	V	3.0	36.6	1.0	-63.7	-13.0	-50.7	
2830.00	-32.6	V	3.0	36.4	1.0	-68.0	-13.0	-55.0	
1415.00	-33.8	H	3.0	37.4	1.0	-70.2	-13.0	-57.2	
2122.50	-30.9	H	3.0	36.6	1.0	-66.5	-13.0	-53.5	
2830.00	-32.3	H	3.0	36.4	1.0	-67.7	-13.0	-54.7	
High Ch, 713.5MHz									
1427.00	-33.2	V	3.0	37.3	1.0	-69.6	-13.0	-56.6	
2140.50	-29.5	V	3.0	36.6	1.0	-65.1	-13.0	-52.1	
2854.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1427.00	-36.3	H	3.0	37.3	1.0	-72.6	-13.0	-59.6	
2140.50	-32.5	H	3.0	36.6	1.0	-68.1	-13.0	-55.1	
2854.00	-32.9	H	3.0	36.4	1.0	-68.3	-13.0	-55.3	

LTE B12 5MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 701.5MHz									
1403.00	-32.4	V	3.0	37.4	1.0	-68.8	-13.0	-55.8	
2104.50	-32.7	V	3.0	36.6	1.0	-68.3	-13.0	-55.3	
2806.00	-33.0	V	3.0	36.4	1.0	-68.3	-13.0	-55.3	
1403.00	-35.0	H	3.0	37.4	1.0	-71.3	-13.0	-58.3	
2104.50	-34.2	H	3.0	36.6	1.0	-69.7	-13.0	-56.7	
2806.00	-33.6	H	3.0	36.4	1.0	-69.0	-13.0	-56.0	
Mid Ch, 707.5MHz									
1415.00	-32.5	V	3.0	37.4	1.0	-68.9	-13.0	-55.9	
2122.50	-27.9	V	3.0	36.6	1.0	-63.5	-13.0	-50.5	
2830.00	-32.6	V	3.0	36.4	1.0	-68.0	-13.0	-55.0	
1415.00	-34.1	H	3.0	37.4	1.0	-70.5	-13.0	-57.5	
2122.50	-30.8	H	3.0	36.6	1.0	-66.4	-13.0	-53.4	
2830.00	-33.3	H	3.0	36.4	1.0	-68.7	-13.0	-55.7	
High Ch, 713.5MHz									
1427.00	-33.6	V	3.0	37.3	1.0	-70.0	-13.0	-57.0	
2140.50	-30.4	V	3.0	36.6	1.0	-66.0	-13.0	-53.0	
2854.00	-32.3	V	3.0	36.4	1.0	-67.7	-13.0	-54.7	
1427.00	-36.9	H	3.0	37.3	1.0	-73.2	-13.0	-60.2	
2140.50	-31.7	H	3.0	36.6	1.0	-67.3	-13.0	-54.3	
2854.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	

LTE B12 5MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
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	-31.5	V	3.0	37.4	1.0	-67.9	-13.0	-54.9	
2112.00	-33.2	V	3.0	36.6	1.0	-68.8	-13.0	-55.8	
2816.00	-32.5	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
1408.00	-34.6	H	3.0	37.4	1.0	-71.0	-13.0	-58.0	
2112.00	-34.1	H	3.0	36.6	1.0	-69.7	-13.0	-56.7	
2816.00	-33.5	H	3.0	36.4	1.0	-68.9	-13.0	-55.9	
Mid Ch, 707.5MHz									
1415.00	-32.4	V	3.0	37.4	1.0	-68.8	-13.0	-55.8	
2122.50	-27.9	V	3.0	36.6	1.0	-63.5	-13.0	-50.5	
2830.00	-32.6	V	3.0	36.4	1.0	-68.0	-13.0	-55.0	
1415.00	-34.7	H	3.0	37.4	1.0	-71.0	-13.0	-58.0	
2122.50	-34.1	H	3.0	36.6	1.0	-69.7	-13.0	-56.7	
2830.00	-33.2	H	3.0	36.4	1.0	-68.6	-13.0	-55.6	
High Ch, 711MHz									
1422.00	-32.9	V	3.0	37.3	1.0	-69.2	-13.0	-56.2	
2133.00	-33.2	V	3.0	36.6	1.0	-68.7	-13.0	-55.7	
2844.00	-32.3	V	3.0	36.4	1.0	-67.6	-13.0	-54.6	
1422.00	-34.3	H	3.0	37.3	1.0	-70.6	-13.0	-57.6	
2133.00	-34.1	H	3.0	36.6	1.0	-69.7	-13.0	-56.7	
2844.00	-33.1	H	3.0	36.4	1.0	-68.5	-13.0	-55.5	

LTE B12 10MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
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	-31.9	V	3.0	37.4	1.0	-68.2	-13.0	-55.2	
2112.00	-29.4	V	3.0	36.6	1.0	-65.0	-13.0	-52.0	
2816.00	-32.8	V	3.0	36.4	1.0	-68.1	-13.0	-55.1	
1408.00	-34.4	H	3.0	37.4	1.0	-70.8	-13.0	-57.8	
2112.00	-34.1	H	3.0	36.6	1.0	-69.6	-13.0	-56.6	
2816.00	-33.4	H	3.0	36.4	1.0	-68.8	-13.0	-55.8	
Mid Ch, 707.5MHz									
1415.00	-33.2	V	3.0	37.4	1.0	-69.6	-13.0	-56.6	
2122.50	-28.1	V	3.0	36.6	1.0	-63.7	-13.0	-50.7	
2830.00	-32.6	V	3.0	36.4	1.0	-68.0	-13.0	-55.0	
1415.00	-35.3	H	3.0	37.4	1.0	-71.6	-13.0	-58.6	
2122.50	-34.0	H	3.0	36.6	1.0	-69.6	-13.0	-56.6	
2830.00	-32.9	H	3.0	36.4	1.0	-68.3	-13.0	-55.3	
High Ch, 711MHz									
1422.00	-32.8	V	3.0	37.3	1.0	-69.2	-13.0	-56.2	
2133.00	-33.2	V	3.0	36.6	1.0	-68.8	-13.0	-55.8	
2844.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1422.00	-35.0	H	3.0	37.3	1.0	-71.3	-13.0	-58.3	
2133.00	-34.0	H	3.0	36.6	1.0	-69.5	-13.0	-56.5	
2844.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	

LTE B12 10MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 13

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: LTE_QPSK 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, 779.5MHz									
1559.00	-36.5	V	3.0	37.1	1.0	-72.6	-13.0	-59.6	
2338.50	-33.5	V	3.0	36.5	1.0	-69.0	-13.0	-56.0	
3118.00	-32.2	V	3.0	36.3	1.0	-67.5	-13.0	-54.5	
1559.00	-35.2	H	3.0	37.1	1.0	-71.3	-13.0	-58.3	
2338.50	-34.8	H	3.0	36.5	1.0	-70.3	-13.0	-57.3	
3118.00	-32.2	H	3.0	36.3	1.0	-67.5	-13.0	-54.5	
Mid Ch, 782MHz									
1564.00	-35.4	V	3.0	37.1	1.0	-71.5	-13.0	-58.5	
2346.00	-33.5	V	3.0	36.5	1.0	-69.0	-13.0	-56.0	
3128.00	-31.8	V	3.0	36.3	1.0	-67.1	-13.0	-54.1	
1564.00	-35.7	H	3.0	37.1	1.0	-71.9	-13.0	-58.9	
2346.00	-35.0	H	3.0	36.5	1.0	-70.5	-13.0	-57.5	
3128.00	-32.0	H	3.0	36.3	1.0	-67.3	-13.0	-54.3	
High Ch, 784.5MHz									
1569.00	-35.4	V	3.0	37.1	1.0	-71.6	-13.0	-58.6	
2353.50	-33.6	V	3.0	36.5	1.0	-69.1	-13.0	-56.1	
3138.00	-31.7	V	3.0	36.3	1.0	-67.0	-13.0	-54.0	
1569.00	-35.9	H	3.0	37.1	1.0	-72.1	-13.0	-59.1	
2353.50	-34.7	H	3.0	36.5	1.0	-70.2	-13.0	-57.2	
3138.00	-31.9	H	3.0	36.3	1.0	-67.2	-13.0	-54.2	

LTE B13 5MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
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, 779.5MHz									
1559.00	-36.5	V	3.0	37.1	1.0	-72.7	-13.0	-59.7	
2338.50	-33.4	V	3.0	36.5	1.0	-68.9	-13.0	-55.9	
3118.00	-32.3	V	3.0	36.3	1.0	-67.5	-13.0	-54.5	
1559.00	-35.6	H	3.0	37.1	1.0	-71.8	-13.0	-58.8	
2338.50	-34.7	H	3.0	36.5	1.0	-70.2	-13.0	-57.2	
3118.00	-32.3	H	3.0	36.3	1.0	-67.6	-13.0	-54.6	
Mid Ch, 782MHz									
1564.00	-35.5	V	3.0	37.1	1.0	-71.6	-13.0	-58.6	
2346.00	-33.5	V	3.0	36.5	1.0	-69.0	-13.0	-56.0	
3128.00	-31.6	V	3.0	36.3	1.0	-66.9	-13.0	-53.9	
1564.00	-36.2	H	3.0	37.1	1.0	-72.4	-13.0	-59.4	
2346.00	-34.9	H	3.0	36.5	1.0	-70.4	-13.0	-57.4	
3128.00	-32.0	H	3.0	36.3	1.0	-67.2	-13.0	-54.2	
High Ch, 784.5MHz									
1569.00	-35.8	V	3.0	37.1	1.0	-71.9	-13.0	-58.9	
2353.50	-33.6	V	3.0	36.5	1.0	-69.1	-13.0	-56.1	
3138.00	-31.8	V	3.0	36.3	1.0	-67.1	-13.0	-54.1	
1569.00	-36.4	H	3.0	37.1	1.0	-72.6	-13.0	-59.6	
2353.50	-34.9	H	3.0	36.5	1.0	-70.4	-13.0	-57.4	
3138.00	-31.9	H	3.0	36.3	1.0	-67.2	-13.0	-54.2	

LTE B13 5MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
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	-35.4	V	3.0	37.1	1.0	-71.5	-13.0	-58.5	
2346.00	-33.6	V	3.0	36.5	1.0	-69.0	-13.0	-56.0	
3128.00	-31.9	V	3.0	36.3	1.0	-67.2	-13.0	-54.2	
1564.00	-36.7	H	3.0	37.1	1.0	-72.8	-13.0	-59.8	
2346.00	-34.7	H	3.0	36.5	1.0	-70.2	-13.0	-57.2	
3128.00	-31.9	H	3.0	36.3	1.0	-67.2	-13.0	-54.2	

LTE B13 10MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
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	-35.6	V	3.0	37.1	1.0	-71.7	-13.0	-58.7	
2346.00	-33.6	V	3.0	36.5	1.0	-69.1	-13.0	-56.1	
3128.00	-31.9	V	3.0	36.3	1.0	-67.2	-13.0	-54.2	
1564.00	-37.0	H	3.0	37.1	1.0	-73.1	-13.0	-60.1	
2346.00	-35.0	H	3.0	36.5	1.0	-70.5	-13.0	-57.5	
3128.00	-31.9	H	3.0	36.3	1.0	-67.1	-13.0	-54.1	

LTE B13 10MHz 16QAM

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 17

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: LTE_QPSK Band 17 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, 706.5MHz									
1413.00	-39.0	V	3.0	37.4	1.0	-75.3	-13.0	-62.3	
2119.50	-28.1	V	3.0	36.6	1.0	-63.7	-13.0	-50.7	
2826.00	-32.5	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
1413.00	-33.6	H	3.0	37.4	1.0	-69.9	-13.0	-56.9	
2119.50	-30.6	H	3.0	36.6	1.0	-66.2	-13.0	-53.2	
2826.00	-32.2	H	3.0	36.4	1.0	-67.6	-13.0	-54.6	
Mid Ch, 710MHz									
1420.00	-38.8	V	3.0	37.3	1.0	-75.2	-13.0	-62.2	
2130.00	-28.5	V	3.0	36.6	1.0	-64.0	-13.0	-51.0	
2840.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1420.00	-33.5	H	3.0	37.3	1.0	-69.8	-13.0	-56.8	
2130.00	-30.5	H	3.0	36.6	1.0	-66.0	-13.0	-53.0	
2840.00	-33.0	H	3.0	36.4	1.0	-68.3	-13.0	-55.3	
High Ch, 713.5MHz									
1427.00	-38.0	V	3.0	37.3	1.0	-74.3	-13.0	-61.3	
2140.50	-28.1	V	3.0	36.6	1.0	-63.7	-13.0	-50.7	
2854.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1427.00	-34.4	H	3.0	37.3	1.0	-70.7	-13.0	-57.7	
2140.50	-28.9	H	3.0	36.6	1.0	-64.5	-13.0	-51.5	
2854.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	

LTE B17 5MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: LTE_16QAM Band 17 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, 706.5MHz									
1413.00	-38.9	V	3.0	37.4	1.0	-75.3	-13.0	-62.3	
2119.50	-28.3	V	3.0	36.6	1.0	-63.9	-13.0	-50.9	
2826.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1413.00	-33.9	H	3.0	37.4	1.0	-70.3	-13.0	-57.3	
2119.50	-29.0	H	3.0	36.6	1.0	-64.6	-13.0	-51.6	
2826.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	
Mid Ch, 710MHz									
1420.00	-38.7	V	3.0	37.3	1.0	-75.1	-13.0	-62.1	
2130.00	-26.9	V	3.0	36.6	1.0	-62.5	-13.0	-49.5	
2840.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1420.00	-33.6	H	3.0	37.3	1.0	-69.9	-13.0	-56.9	
2130.00	-30.4	H	3.0	36.6	1.0	-65.9	-13.0	-52.9	
2840.00	-32.3	H	3.0	36.4	1.0	-67.7	-13.0	-54.7	
High Ch, 713.5MHz									
1427.00	-38.6	V	3.0	37.3	1.0	-74.9	-13.0	-61.9	
2140.50	-28.3	V	3.0	36.6	1.0	-63.8	-13.0	-50.8	
2854.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1427.00	-34.2	H	3.0	37.3	1.0	-70.6	-13.0	-57.6	
2140.50	-28.9	H	3.0	36.6	1.0	-64.5	-13.0	-51.5	
2854.00	-33.0	H	3.0	36.4	1.0	-68.3	-13.0	-55.3	

LTE B17 5MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: LTE_QPSK Band 17 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, 709MHz									
1418.00	-39.0	V	3.0	37.4	1.0	-75.3	-13.0	-62.3	
2127.00	-27.7	V	3.0	36.6	1.0	-63.3	-13.0	-50.3	
2836.00	-32.6	V	3.0	36.4	1.0	-68.0	-13.0	-55.0	
1418.00	-33.5	H	3.0	37.4	1.0	-69.8	-13.0	-56.8	
2127.00	-30.3	H	3.0	36.6	1.0	-65.9	-13.0	-52.9	
2836.00	-33.1	H	3.0	36.4	1.0	-68.5	-13.0	-55.5	
Mid Ch, 710MHz									
1420.00	-38.9	V	3.0	37.3	1.0	-75.2	-13.0	-62.2	
2130.00	-29.2	V	3.0	36.6	1.0	-64.8	-13.0	-51.8	
2840.00	-32.4	V	3.0	36.4	1.0	-67.8	-13.0	-54.8	
1420.00	-33.4	H	3.0	37.3	1.0	-69.8	-13.0	-56.8	
2130.00	-30.1	H	3.0	36.6	1.0	-65.7	-13.0	-52.7	
2840.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	
High Ch, 711MHz									
1422.00	-38.9	V	3.0	37.3	1.0	-75.2	-13.0	-62.2	
2133.00	-27.9	V	3.0	36.6	1.0	-63.4	-13.0	-50.4	
2844.00	-32.6	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
1422.00	-34.5	H	3.0	37.3	1.0	-70.8	-13.0	-57.8	
2133.00	-29.6	H	3.0	36.6	1.0	-65.2	-13.0	-52.2	
2844.00	-32.9	H	3.0	36.4	1.0	-68.3	-13.0	-55.3	

LTE B17 10MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/6/2017
Test Engineer: 43575 OS
Configuration: EUT + HS + AC Charger
Location: Chamber C
Mode: LTE_16QAM Band 17 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, 709MHz									
1418.00	-38.9	V	3.0	37.4	1.0	-75.3	-13.0	-62.3	
2127.00	-28.1	V	3.0	36.6	1.0	-63.7	-13.0	-50.7	
2836.00	-32.5	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
1418.00	-34.2	H	3.0	37.4	1.0	-70.6	-13.0	-57.6	
2127.00	-30.1	H	3.0	36.6	1.0	-65.7	-13.0	-52.7	
2836.00	-33.1	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	
Mid Ch, 710MHz									
1420.00	-38.9	V	3.0	37.3	1.0	-75.2	-13.0	-62.2	
2130.00	-29.8	V	3.0	36.6	1.0	-65.4	-13.0	-52.4	
2840.00	-31.7	V	3.0	36.4	1.0	-67.1	-13.0	-54.1	
1420.00	-33.8	H	3.0	37.3	1.0	-70.2	-13.0	-57.2	
2130.00	-30.0	H	3.0	36.6	1.0	-65.5	-13.0	-52.5	
2840.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	
High Ch, 711MHz									
1422.00	-38.9	V	3.0	37.3	1.0	-75.3	-13.0	-62.3	
2133.00	-28.4	V	3.0	36.6	1.0	-64.0	-13.0	-51.0	
2844.00	-32.5	V	3.0	36.4	1.0	-67.9	-13.0	-54.9	
1422.00	-34.7	H	3.0	37.3	1.0	-71.1	-13.0	-58.1	
2133.00	-29.6	H	3.0	36.6	1.0	-65.1	-13.0	-52.1	
2844.00	-33.0	H	3.0	36.4	1.0	-68.4	-13.0	-55.4	

LTE B17 10MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 26

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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, 814.7									
1629.40	-24.7	V	3.0	36.4	1.0	-60.0	-13.0	-47.0	
2444.10	-25.1	V	3.0	35.0	1.0	-59.1	-13.0	-46.1	
3258.80	-20.3	V	3.0	34.3	1.0	-53.6	-13.0	-40.6	
1629.40	-25.0	H	3.0	36.4	1.0	-60.4	-13.0	-47.4	
2444.10	-24.8	H	3.0	35.0	1.0	-58.8	-13.0	-45.8	
3258.80	-21.8	H	3.0	34.3	1.0	-55.1	-13.0	-42.1	
Mid Ch, 831.5									
1663.00	-24.4	V	3.0	36.3	1.0	-59.7	-13.0	-46.7	
2494.50	-25.1	V	3.0	34.9	1.0	-59.1	-13.0	-46.1	
3326.00	-22.2	V	3.0	34.2	1.0	-55.4	-13.0	-42.4	
1663.00	-25.2	H	3.0	36.3	1.0	-60.6	-13.0	-47.6	
2494.50	-24.5	H	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3326.00	-22.0	H	3.0	34.2	1.0	-55.2	-13.0	-42.2	
High Ch, 848.3									
1696.60	-24.1	V	3.0	36.3	1.0	-59.4	-13.0	-46.4	
2544.90	-24.9	V	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3393.20	-19.1	V	3.0	34.2	1.0	-52.3	-13.0	-39.3	
1696.60	-25.0	H	3.0	36.3	1.0	-60.3	-13.0	-47.3	
2544.90	-24.4	H	3.0	34.9	1.0	-58.4	-13.0	-45.4	
3393.20	-22.1	H	3.0	34.2	1.0	-55.3	-13.0	-42.3	

LTE B26 1.4MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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, 814.7									
1629.40	-24.5	V	3.0	36.4	1.0	-59.9	-13.0	-46.9	
2444.10	-24.6	V	3.0	35.0	1.0	-58.6	-13.0	-45.6	
3258.80	-20.0	V	3.0	34.3	1.0	-53.4	-13.0	-40.4	
1629.40	-24.6	H	3.0	36.4	1.0	-60.0	-13.0	-47.0	
2444.10	-24.4	H	3.0	35.0	1.0	-58.4	-13.0	-45.4	
3258.80	-21.6	H	3.0	34.3	1.0	-54.9	-13.0	-41.9	
Mid Ch, 831.5									
1663.00	-24.3	V	3.0	36.3	1.0	-59.6	-13.0	-46.6	
2494.50	-24.8	V	3.0	34.9	1.0	-58.7	-13.0	-45.7	
3326.00	-21.9	V	3.0	34.2	1.0	-55.2	-13.0	-42.2	
1663.00	-25.0	H	3.0	36.3	1.0	-60.3	-13.0	-47.3	
2494.50	-24.4	H	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3326.00	-21.8	H	3.0	34.2	1.0	-55.0	-13.0	-42.0	
High Ch, 848.3									
1696.60	-23.9	V	3.0	36.3	1.0	-59.2	-13.0	-46.2	
2544.90	-24.5	V	3.0	34.9	1.0	-58.4	-13.0	-45.4	
3393.20	-18.9	V	3.0	34.2	1.0	-52.1	-13.0	-39.1	
1696.60	-24.7	H	3.0	36.3	1.0	-60.0	-13.0	-47.0	
2544.90	-24.1	H	3.0	34.9	1.0	-58.0	-13.0	-45.0	
3393.20	-21.6	H	3.0	34.2	1.0	-54.8	-13.0	-41.8	

LTE B26 1.4MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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, 815.5									
1631.00	-25.2	V	3.0	36.4	1.0	-60.5	-13.0	-47.5	
2446.50	-23.9	V	3.0	35.0	1.0	-58.0	-13.0	-45.0	
3262.00	-22.3	V	3.0	34.3	1.0	-55.6	-13.0	-42.6	
1631.00	-25.3	H	3.0	36.4	1.0	-60.7	-13.0	-47.7	
2446.50	-24.1	H	3.0	35.0	1.0	-58.1	-13.0	-45.1	
3262.00	-21.9	H	3.0	34.3	1.0	-55.2	-13.0	-42.2	
Mid Ch, 831.5									
1663.00	-24.9	V	3.0	36.3	1.0	-60.2	-13.0	-47.2	
2494.50	-23.8	V	3.0	34.9	1.0	-57.7	-13.0	-44.7	
3326.00	-22.2	V	3.0	34.2	1.0	-55.5	-13.0	-42.5	
1663.00	-25.0	H	3.0	36.3	1.0	-60.4	-13.0	-47.4	
2494.50	-24.1	H	3.0	34.9	1.0	-58.1	-13.0	-45.1	
3326.00	-22.1	H	3.0	34.2	1.0	-55.4	-13.0	-42.4	
High Ch, 847.5									
1695.00	-24.4	V	3.0	36.3	1.0	-59.7	-13.0	-46.7	
2542.50	-23.6	V	3.0	34.9	1.0	-57.5	-13.0	-44.5	
3390.00	-22.3	V	3.0	34.2	1.0	-55.4	-13.0	-42.4	
1695.00	-24.7	H	3.0	36.3	1.0	-60.0	-13.0	-47.0	
2542.50	-24.0	H	3.0	34.9	1.0	-57.9	-13.0	-44.9	
3390.00	-22.1	H	3.0	34.2	1.0	-55.3	-13.0	-42.3	

LTE B26 3MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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, 815.5									
1631.00	-24.8	V	3.0	36.4	1.0	-60.2	-13.0	-47.2	
2446.50	-23.6	V	3.0	35.0	1.0	-57.6	-13.0	-44.6	
3262.00	-22.0	V	3.0	34.3	1.0	-55.3	-13.0	-42.3	
1631.00	-25.1	H	3.0	36.4	1.0	-60.5	-13.0	-47.5	
2446.50	-23.6	H	3.0	35.0	1.0	-57.7	-13.0	-44.7	
3262.00	-21.6	H	3.0	34.3	1.0	-54.9	-13.0	-41.9	
Mid Ch, 831.5									
1663.00	-24.5	V	3.0	36.3	1.0	-59.8	-13.0	-46.8	
2494.50	-23.5	V	3.0	34.9	1.0	-57.4	-13.0	-44.4	
3326.00	-19.0	V	3.0	34.2	1.0	-52.2	-13.0	-39.2	
1663.00	-24.9	H	3.0	36.3	1.0	-60.3	-13.0	-47.3	
2494.50	-23.7	H	3.0	34.9	1.0	-57.6	-13.0	-44.6	
3326.00	-21.8	H	3.0	34.2	1.0	-55.1	-13.0	-42.1	
High Ch, 847.5									
1695.00	-23.9	V	3.0	36.3	1.0	-59.2	-13.0	-46.2	
2542.50	-23.3	V	3.0	34.9	1.0	-57.2	-13.0	-44.2	
3390.00	-22.0	V	3.0	34.2	1.0	-55.2	-13.0	-42.2	
1695.00	-24.5	H	3.0	36.3	1.0	-59.8	-13.0	-46.8	
2542.50	-23.7	H	3.0	34.9	1.0	-57.6	-13.0	-44.6	
3390.00	-21.9	H	3.0	34.2	1.0	-55.0	-13.0	-42.0	

LTE B26 3MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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, 816.5									
1633.00	-24.5	V	3.0	36.4	1.0	-59.9	-13.0	-46.9	
2449.50	-24.5	V	3.0	35.0	1.0	-58.5	-13.0	-45.5	
3266.00	-21.4	V	3.0	34.3	1.0	-54.7	-13.0	-41.7	
1633.00	-25.3	H	3.0	36.4	1.0	-60.7	-13.0	-47.7	
2449.50	-24.7	H	3.0	35.0	1.0	-58.8	-13.0	-45.8	
3266.00	-23.0	H	3.0	34.3	1.0	-56.3	-13.0	-43.3	
Mid Ch, 831.5									
1663.00	-24.3	V	3.0	36.3	1.0	-59.7	-13.0	-46.7	
2494.50	-24.3	V	3.0	34.9	1.0	-58.2	-13.0	-45.2	
3326.00	-21.5	V	3.0	34.2	1.0	-54.8	-13.0	-41.8	
1663.00	-25.2	H	3.0	36.3	1.0	-60.5	-13.0	-47.5	
2494.50	-24.5	H	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3326.00	-22.7	H	3.0	34.2	1.0	-56.0	-13.0	-43.0	
High Ch, 846.5									
1693.00	-24.5	V	3.0	36.3	1.0	-59.8	-13.0	-46.8	
2539.50	-24.1	V	3.0	34.9	1.0	-58.0	-13.0	-45.0	
3386.00	-22.0	V	3.0	34.2	1.0	-55.1	-13.0	-42.1	
1693.00	-24.8	H	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2539.50	-24.5	H	3.0	34.9	1.0	-58.4	-13.0	-45.4	
3386.00	-22.6	H	3.0	34.2	1.0	-55.8	-13.0	-42.8	

LTE B26 5MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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, 816.5									
1633.00	-24.8	V	3.0	36.4	1.0	-60.2	-13.0	-47.2	
2449.50	-24.8	V	3.0	35.0	1.0	-58.8	-13.0	-45.8	
3266.00	-21.8	V	3.0	34.3	1.0	-55.1	-13.0	-42.1	
1633.00	-25.6	H	3.0	36.4	1.0	-61.0	-13.0	-48.0	
2449.50	-25.2	H	3.0	35.0	1.0	-59.2	-13.0	-46.2	
3266.00	-23.5	H	3.0	34.3	1.0	-56.8	-13.0	-43.8	
Mid Ch, 831.5									
1663.00	-24.8	V	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2494.50	-24.5	V	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3326.00	-22.0	V	3.0	34.2	1.0	-55.2	-13.0	-42.2	
1663.00	-25.4	H	3.0	36.3	1.0	-60.7	-13.0	-47.7	
2494.50	-24.9	H	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3326.00	-23.1	H	3.0	34.2	1.0	-56.4	-13.0	-43.4	
High Ch, 846.5									
1693.00	-24.8	V	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2539.50	-24.4	V	3.0	34.9	1.0	-58.3	-13.0	-45.3	
3386.00	-22.4	V	3.0	34.2	1.0	-55.5	-13.0	-42.5	
1693.00	-25.1	H	3.0	36.3	1.0	-60.4	-13.0	-47.4	
2539.50	-24.9	H	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3386.00	-23.1	H	3.0	34.2	1.0	-56.2	-13.0	-43.2	

LTE B26 5MHz 16QAM

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 819									
1638.00	-24.5	V	3.0	36.4	1.0	-59.9	-13.0	-46.9	
2457.00	-24.9	V	3.0	35.0	1.0	-59.0	-13.0	-46.0	
3276.00	-21.3	V	3.0	34.3	1.0	-54.6	-13.0	-41.6	
1638.00	-25.5	H	3.0	36.4	1.0	-60.9	-13.0	-47.9	
2457.00	-25.0	H	3.0	35.0	1.0	-59.0	-13.0	-46.0	
3276.00	-21.9	H	3.0	34.3	1.0	-55.2	-13.0	-42.2	
Mid Ch, 831.5									
1663.00	-24.9	V	3.0	36.3	1.0	-60.2	-13.0	-47.2	
2494.50	-24.9	V	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3326.00	-22.5	V	3.0	34.2	1.0	-55.7	-13.0	-42.7	
1663.00	-26.1	H	3.0	36.3	1.0	-61.5	-13.0	-48.5	
2494.50	-24.7	H	3.0	34.9	1.0	-58.6	-13.0	-45.6	
3326.00	-22.8	H	3.0	34.2	1.0	-56.1	-13.0	-43.1	
High Ch, 844									
1688.00	-24.1	V	3.0	36.3	1.0	-59.4	-13.0	-46.4	
2532.00	-24.7	V	3.0	34.9	1.0	-58.6	-13.0	-45.6	
3376.00	-21.8	V	3.0	34.2	1.0	-55.0	-13.0	-42.0	
1688.00	-25.0	H	3.0	36.3	1.0	-60.3	-13.0	-47.3	
2532.00	-24.9	H	3.0	34.9	1.0	-58.9	-13.0	-45.9	
3376.00	-22.3	H	3.0	34.2	1.0	-55.5	-13.0	-42.5	

LTE B26 10MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 819									
1638.00	-24.3	V	3.0	36.4	1.0	-59.7	-13.0	-46.7	
2457.00	-24.6	V	3.0	35.0	1.0	-58.6	-13.0	-45.6	
3276.00	-21.0	V	3.0	34.3	1.0	-54.3	-13.0	-41.3	
1638.00	-25.2	H	3.0	36.4	1.0	-60.6	-13.0	-47.6	
2457.00	-24.7	H	3.0	35.0	1.0	-58.8	-13.0	-45.8	
3276.00	-21.5	H	3.0	34.3	1.0	-54.8	-13.0	-41.8	
Mid Ch, 831.5									
1663.00	-24.5	V	3.0	36.3	1.0	-59.9	-13.0	-46.9	
2494.50	-24.6	V	3.0	34.9	1.0	-58.6	-13.0	-45.6	
3326.00	-22.1	V	3.0	34.2	1.0	-55.3	-13.0	-42.3	
1663.00	-25.8	H	3.0	36.3	1.0	-61.2	-13.0	-48.2	
2494.50	-23.4	H	3.0	34.9	1.0	-57.3	-13.0	-44.3	
3326.00	-22.6	H	3.0	34.2	1.0	-55.8	-13.0	-42.8	
High Ch, 844									
1688.00	-23.9	V	3.0	36.3	1.0	-59.2	-13.0	-46.2	
2532.00	-24.3	V	3.0	34.9	1.0	-58.2	-13.0	-45.2	
3376.00	-21.3	V	3.0	34.2	1.0	-54.5	-13.0	-41.5	
1688.00	-24.8	H	3.0	36.3	1.0	-60.1	-13.0	-47.1	
2532.00	-24.6	H	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3376.00	-23.1	H	3.0	34.2	1.0	-56.3	-13.0	-43.3	

LTE B26 10MHz 16QAM

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 831.5									
1663.00	-24.1	V	3.0	36.3	1.0	-59.5	-13.0	-46.5	
2494.50	-25.1	V	3.0	34.9	1.0	-59.1	-13.0	-46.1	
3326.00	-21.8	V	3.0	34.2	1.0	-55.0	-13.0	-42.0	
1663.00	-24.6	H	3.0	36.3	1.0	-59.9	-13.0	-46.9	
2494.50	-24.9	H	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3326.00	-21.3	H	3.0	34.2	1.0	-54.6	-13.0	-41.6	
Mid Ch, 836.5									
1673.00	-24.1	V	3.0	36.3	1.0	-59.4	-13.0	-46.4	
2509.50	-25.1	V	3.0	34.9	1.0	-59.0	-13.0	-46.0	
3346.00	-22.4	V	3.0	34.2	1.0	-55.6	-13.0	-42.6	
1673.00	-24.6	H	3.0	36.3	1.0	-59.9	-13.0	-46.9	
2509.50	-24.7	H	3.0	34.9	1.0	-58.7	-13.0	-45.7	
3346.00	-21.5	H	3.0	34.2	1.0	-54.8	-13.0	-41.8	
High Ch, 841.5									
1683.00	-24.1	V	3.0	36.3	1.0	-59.4	-13.0	-46.4	
2524.50	-25.1	V	3.0	34.9	1.0	-59.0	-13.0	-46.0	
3366.00	-21.8	V	3.0	34.2	1.0	-55.0	-13.0	-42.0	
1683.00	-24.4	H	3.0	36.3	1.0	-59.8	-13.0	-46.8	
2524.50	-24.9	H	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3366.00	-21.4	H	3.0	34.2	1.0	-54.7	-13.0	-41.7	

LTE B26 15MHz QPSK

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

Company: SOMC
Project #: 11626381
Date: 4/10/2017
Test Engineer: 43574 JS
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 831.5									
1663.00	-23.8	V	3.0	36.3	1.0	-59.1	-13.0	-46.1	
2494.50	-24.7	V	3.0	34.9	1.0	-58.6	-13.0	-45.6	
3326.00	-21.4	V	3.0	34.2	1.0	-54.7	-13.0	-41.7	
1663.00	-24.2	H	3.0	36.3	1.0	-59.5	-13.0	-46.5	
2494.50	-24.5	H	3.0	34.9	1.0	-58.5	-13.0	-45.5	
3326.00	-20.9	H	3.0	34.2	1.0	-54.1	-13.0	-41.1	
Mid Ch, 836.5									
1673.00	-23.9	V	3.0	36.3	1.0	-59.2	-13.0	-46.2	
2509.50	-24.7	V	3.0	34.9	1.0	-58.7	-13.0	-45.7	
3346.00	-22.0	V	3.0	34.2	1.0	-55.2	-13.0	-42.2	
1673.00	-24.2	H	3.0	36.3	1.0	-59.5	-13.0	-46.5	
2509.50	-21.4	H	3.0	34.9	1.0	-55.4	-13.0	-42.4	
3346.00	-21.2	H	3.0	34.2	1.0	-54.4	-13.0	-41.4	
High Ch, 841.5									
1683.00	-23.9	V	3.0	36.3	1.0	-59.2	-13.0	-46.2	
2524.50	-24.9	V	3.0	34.9	1.0	-58.8	-13.0	-45.8	
3366.00	-21.3	V	3.0	34.2	1.0	-54.6	-13.0	-41.6	
1683.00	-24.2	H	3.0	36.3	1.0	-59.5	-13.0	-46.5	
2524.50	-24.5	H	3.0	34.9	1.0	-58.4	-13.0	-45.4	
3366.00	-20.9	H	3.0	34.2	1.0	-54.1	-13.0	-41.1	

LTE B26 15MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

LTE Band 41

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: LTE_QPSK Band 41 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.50									
4997.00	-11.8	V	3.0	35.5	1.0	-46.2	-25.0	-21.2	
7495.50	-8.4	V	3.0	35.7	1.0	-43.1	-25.0	-18.1	
9994.00	-6.5	V	3.0	36.0	1.0	-41.5	-25.0	-16.5	
4997.00	-11.7	H	3.0	35.5	1.0	-46.2	-25.0	-21.2	
7495.50	-7.7	H	3.0	35.7	1.0	-42.5	-25.0	-17.5	
9994.00	-5.1	H	3.0	36.0	1.0	-40.1	-25.0	-15.1	
Mid Ch, 2593									
5186.00	-11.4	V	3.0	35.4	1.0	-45.8	-25.0	-20.8	
7779.00	-8.1	V	3.0	35.8	1.0	-42.9	-25.0	-17.9	
10372.00	-5.8	V	3.0	35.8	1.0	-40.6	-25.0	-15.6	
5186.00	-11.1	H	3.0	35.4	1.0	-45.5	-25.0	-20.5	
7779.00	-7.0	H	3.0	35.8	1.0	-41.7	-25.0	-16.7	
10372.00	-4.8	H	3.0	35.8	1.0	-39.7	-25.0	-14.7	
High Ch, 2687.50									
5375.00	-11.0	V	3.0	35.4	1.0	-45.5	-25.0	-20.5	
8062.50	-7.7	V	3.0	35.8	1.0	-42.5	-25.0	-17.5	
10750.00	-5.5	V	3.0	35.7	1.0	-40.2	-25.0	-15.2	
5375.00	-12.2	H	3.0	35.4	1.0	-46.6	-25.0	-21.6	
8062.50	-7.0	H	3.0	35.8	1.0	-41.8	-25.0	-16.8	
10750.00	-5.1	H	3.0	35.7	1.0	-39.7	-25.0	-14.7	

LTE B41 5MHz QPSK

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: LTE_16QAM Band 41 Harmonics, 5MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2498.50									
4997.00	-11.6	V	3.0	35.5	1.0	-46.1	-25.0	-21.1	
7495.50	-8.2	V	3.0	35.7	1.0	-42.9	-25.0	-17.9	
9994.00	-6.5	V	3.0	36.0	1.0	-41.5	-25.0	-16.5	
4997.00	-11.8	H	3.0	35.5	1.0	-46.3	-25.0	-21.3	
7495.50	-7.7	H	3.0	35.7	1.0	-42.4	-25.0	-17.4	
9994.00	-5.1	H	3.0	36.0	1.0	-40.2	-25.0	-15.2	
Mid Ch, 2593									
5186.00	-11.2	V	3.0	35.4	1.0	-45.6	-25.0	-20.6	
7779.00	-7.7	V	3.0	35.8	1.0	-42.4	-25.0	-17.4	
10372.00	-5.9	V	3.0	35.8	1.0	-40.7	-25.0	-15.7	
5186.00	-11.1	H	3.0	35.4	1.0	-45.5	-25.0	-20.5	
7779.00	-6.7	H	3.0	35.8	1.0	-41.4	-25.0	-16.4	
10372.00	-5.3	H	3.0	35.8	1.0	-40.1	-25.0	-15.1	
High Ch, 2687.50									
5375.00	-11.2	V	3.0	35.4	1.0	-45.6	-25.0	-20.6	
8062.50	-8.0	V	3.0	35.8	1.0	-42.8	-25.0	-17.8	
10750.00	-5.8	V	3.0	35.7	1.0	-40.5	-25.0	-15.5	
5375.00	-12.2	H	3.0	35.4	1.0	-46.6	-25.0	-21.6	
8062.50	-7.9	H	3.0	35.8	1.0	-42.7	-25.0	-17.7	
10750.00	-4.9	H	3.0	35.7	1.0	-39.6	-25.0	-14.6	

LTE B41 5MHz 16QAM

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: LTE_QPSK Band 41 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-11.9	V	3.0	35.5	1.0	-46.4	-25.0	-21.4	
7503.00	-7.6	V	3.0	35.7	1.0	-42.4	-25.0	-17.4	
10040.00	-6.9	V	3.0	36.0	1.0	-41.9	-25.0	-16.9	
5002.00	-11.8	H	3.0	35.5	1.0	-46.3	-25.0	-21.3	
7503.00	-7.4	H	3.0	35.7	1.0	-42.1	-25.0	-17.1	
10040.00	-5.7	H	3.0	36.0	1.0	-40.7	-25.0	-15.7	
Mid Ch, 2593									
5186.00	-11.2	V	3.0	35.4	1.0	-45.6	-25.0	-20.6	
7779.00	-6.9	V	3.0	35.8	1.0	-41.7	-25.0	-16.7	
10372.00	-6.4	V	3.0	35.8	1.0	-41.3	-25.0	-16.3	
5186.00	-11.0	H	3.0	35.4	1.0	-45.5	-25.0	-20.5	
7779.00	-7.2	H	3.0	35.8	1.0	-42.0	-25.0	-17.0	
10372.00	-5.4	H	3.0	35.8	1.0	-40.2	-25.0	-15.2	
High Ch, 2685									
5370.00	-11.0	V	3.0	35.4	1.0	-45.5	-25.0	-20.5	
8055.00	-6.8	V	3.0	35.8	1.0	-41.6	-25.0	-16.6	
10740.00	-6.5	V	3.0	35.7	1.0	-41.2	-25.0	-16.2	
5370.00	-10.7	H	3.0	35.4	1.0	-45.2	-25.0	-20.2	
8055.00	-7.0	H	3.0	35.8	1.0	-41.8	-25.0	-16.8	
10740.00	-5.1	H	3.0	35.7	1.0	-39.8	-25.0	-14.8	

LTE B41 10MHz QPSK

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: LTE_16QAM Band 41 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2501									
5002.00	-12.1	V	3.0	35.5	1.0	-46.5	-25.0	-21.5	
7503.00	-7.5	V	3.0	35.7	1.0	-42.2	-25.0	-17.2	
10040.00	-7.2	V	3.0	36.0	1.0	-42.2	-25.0	-17.2	
5002.00	-12.3	H	3.0	35.5	1.0	-46.8	-25.0	-21.8	
7503.00	-7.3	H	3.0	35.7	1.0	-42.0	-25.0	-17.0	
10040.00	-5.8	H	3.0	36.0	1.0	-40.8	-25.0	-15.8	
Mid Ch, 2593									
5186.00	-11.4	V	3.0	35.4	1.0	-45.9	-25.0	-20.9	
7779.00	-7.0	V	3.0	35.8	1.0	-41.7	-25.0	-16.7	
10372.00	-6.8	V	3.0	35.8	1.0	-41.6	-25.0	-16.6	
5186.00	-11.1	H	3.0	35.4	1.0	-45.6	-25.0	-20.6	
7779.00	-7.5	H	3.0	35.8	1.0	-42.3	-25.0	-17.3	
10372.00	-6.0	H	3.0	35.8	1.0	-40.9	-25.0	-15.9	
High Ch, 2685									
5370.00	-10.4	V	3.0	35.4	1.0	-44.8	-25.0	-19.8	
8055.00	-6.7	V	3.0	35.8	1.0	-41.5	-25.0	-16.5	
10740.00	-6.8	V	3.0	35.7	1.0	-41.5	-25.0	-16.5	
5370.00	-10.9	H	3.0	35.4	1.0	-45.3	-25.0	-20.3	
8055.00	-7.2	H	3.0	35.8	1.0	-42.0	-25.0	-17.0	
10740.00	-5.5	H	3.0	35.7	1.0	-40.2	-25.0	-15.2	

LTE B41 10MHz 16QAM

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: LTE_QPSK Band 41 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503									
5006.00	-13.1	V	3.0	35.5	1.0	-47.6	-25.0	-22.6	
7509.00	-8.7	V	3.0	35.7	1.0	-43.5	-25.0	-18.5	
10012.00	-7.5	V	3.0	36.0	1.0	-42.6	-25.0	-17.6	
5006.00	-13.1	H	3.0	35.5	1.0	-47.6	-25.0	-22.6	
7509.00	-8.0	H	3.0	35.7	1.0	-42.7	-25.0	-17.7	
10012.00	-7.7	H	3.0	36.0	1.0	-42.7	-25.0	-17.7	
Mid Ch, 2593									
5186.00	-12.6	V	3.0	35.4	1.0	-47.0	-25.0	-22.0	
7779.00	-9.2	V	3.0	35.8	1.0	-44.0	-25.0	-19.0	
10372.00	-7.1	V	3.0	35.8	1.0	-41.9	-25.0	-16.9	
5186.00	-12.7	H	3.0	35.4	1.0	-47.2	-25.0	-22.2	
7779.00	-7.8	H	3.0	35.8	1.0	-42.6	-25.0	-17.6	
10372.00	-7.1	H	3.0	35.8	1.0	-42.0	-25.0	-17.0	
High Ch, 2682.50									
5365.00	-12.6	V	3.0	35.4	1.0	-47.0	-25.0	-22.0	
8047.50	-8.9	V	3.0	35.8	1.0	-43.7	-25.0	-18.7	
10730.00	-7.5	V	3.0	35.7	1.0	-42.0	-25.0	-17.0	
5365.00	-12.2	H	3.0	35.4	1.0	-46.6	-25.0	-21.6	
8047.50	-7.1	H	3.0	35.8	1.0	-42.0	-25.0	-17.0	
10730.00	-7.7	H	3.0	35.7	1.0	-42.4	-25.0	-17.4	

LTE B41 15MHz QPSK

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
Mode: LTE_16QAM Band 41 Harmonics, 15MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 2503									
5006.00	-13.1	V	3.0	35.5	1.0	-47.6	-25.0	-22.6	
7509.00	-8.9	V	3.0	35.7	1.0	-43.6	-25.0	-18.6	
10012.00	-7.3	V	3.0	36.0	1.0	-42.3	-25.0	-17.3	
5006.00	-13.2	H	3.0	35.5	1.0	-47.6	-25.0	-22.6	
7509.00	-8.0	H	3.0	35.7	1.0	-42.7	-25.0	-17.7	
10012.00	-7.4	H	3.0	36.0	1.0	-42.4	-25.0	-17.4	
Mid Ch, 2593									
5186.00	-13.1	V	3.0	35.4	1.0	-47.6	-25.0	-22.6	
7779.00	-9.1	V	3.0	35.8	1.0	-43.9	-25.0	-18.9	
10372.00	-7.3	V	3.0	35.8	1.0	-42.2	-25.0	-17.2	
5186.00	-13.0	H	3.0	35.4	1.0	-47.4	-25.0	-22.4	
7779.00	-7.6	H	3.0	35.8	1.0	-42.4	-25.0	-17.4	
10372.00	-7.5	H	3.0	35.8	1.0	-42.3	-25.0	-17.3	
High Ch, 2682.50									
5365.00	-12.7	V	3.0	35.4	1.0	-47.2	-25.0	-22.2	
8047.50	-8.8	V	3.0	35.8	1.0	-43.6	-25.0	-18.6	
10730.00	-7.5	V	3.0	35.7	1.0	-42.2	-25.0	-17.2	
5365.00	-12.5	H	3.0	35.4	1.0	-46.9	-25.0	-21.9	
8047.50	-7.1	H	3.0	35.8	1.0	-41.9	-25.0	-16.9	
10730.00	-7.9	H	3.0	35.7	1.0	-42.6	-25.0	-17.6	

LTE B41 15MHz 16QAM

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
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	-13.3	V	3.0	35.5	1.0	-47.8	-25.0	-22.8	
7518.00	-9.0	V	3.0	35.7	1.0	-43.8	-25.0	-18.8	
10024.00	-8.4	V	3.0	36.0	1.0	-43.5	-25.0	-18.5	
5012.00	-12.1	H	3.0	35.5	1.0	-46.6	-25.0	-21.6	
7518.00	-8.6	H	3.0	35.7	1.0	-43.3	-25.0	-18.3	
10024.00	-7.0	H	3.0	36.0	1.0	-42.0	-25.0	-17.0	
Mid Ch, 2593									
5186.00	-12.9	V	3.0	35.4	1.0	-47.3	-25.0	-22.3	
7779.00	-9.1	V	3.0	35.8	1.0	-43.9	-25.0	-18.9	
10372.00	-7.7	V	3.0	35.8	1.0	-42.6	-25.0	-17.6	
5186.00	-11.8	H	3.0	35.4	1.0	-46.2	-25.0	-21.2	
7779.00	-8.4	H	3.0	35.8	1.0	-43.2	-25.0	-18.2	
10372.00	-7.2	H	3.0	35.8	1.0	-42.1	-25.0	-17.1	
High Ch, 2680									
5360.00	-12.8	V	3.0	35.4	1.0	-47.3	-25.0	-22.3	
8040.00	-9.0	V	3.0	35.8	1.0	-43.8	-25.0	-18.8	
10720.00	-7.4	V	3.0	35.7	1.0	-42.1	-25.0	-17.1	
5360.00	-11.7	H	3.0	35.4	1.0	-46.1	-25.0	-21.1	
8040.00	-8.1	H	3.0	35.8	1.0	-42.9	-25.0	-17.9	
10720.00	-6.4	H	3.0	35.7	1.0	-41.1	-25.0	-16.1	

LTE B41 20MHz QPSK

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

Company: SOMC
Project #: 11626381 (PY7-08618T)
Date: 4/5/2017
Test Engineer: 43574 JS
Configuration: EUT Only
Location: Chamber B
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	-13.2	V	3.0	35.5	1.0	-47.7	-25.0	-22.7	
7518.00	-8.8	V	3.0	35.7	1.0	-43.6	-25.0	-18.6	
10024.00	-8.5	V	3.0	36.0	1.0	-43.5	-25.0	-18.5	
5012.00	-12.4	H	3.0	35.5	1.0	-46.8	-25.0	-21.8	
7518.00	-8.4	H	3.0	35.7	1.0	-43.1	-25.0	-18.1	
10024.00	-7.4	H	3.0	36.0	1.0	-42.4	-25.0	-17.4	
Mid Ch, 2593									
5186.00	-12.9	V	3.0	35.4	1.0	-47.3	-25.0	-22.3	
7779.00	-9.4	V	3.0	35.8	1.0	-44.2	-25.0	-19.2	
10372.00	-7.3	V	3.0	35.8	1.0	-42.2	-25.0	-17.2	
5186.00	-12.3	H	3.0	35.4	1.0	-46.8	-25.0	-21.8	
7779.00	-8.4	H	3.0	35.8	1.0	-43.2	-25.0	-18.2	
10372.00	-6.9	H	3.0	35.8	1.0	-41.8	-25.0	-16.8	
High Ch, 2680									
5360.00	-12.8	V	3.0	35.4	1.0	-47.3	-25.0	-22.3	
8040.00	-9.0	V	3.0	35.8	1.0	-43.8	-25.0	-18.8	
10720.00	-7.4	V	3.0	35.7	1.0	-42.1	-25.0	-17.1	
5360.00	-11.7	H	3.0	35.4	1.0	-46.1	-25.0	-21.1	
8040.00	-8.1	H	3.0	35.8	1.0	-42.9	-25.0	-17.9	
10720.00	-6.4	H	3.0	35.7	1.0	-41.1	-25.0	-16.1	

LTE B41 20MHz 16QAM

UL VERIFICATION SERVICES INC. FORM NO: CCSUP4701H
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888

This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.