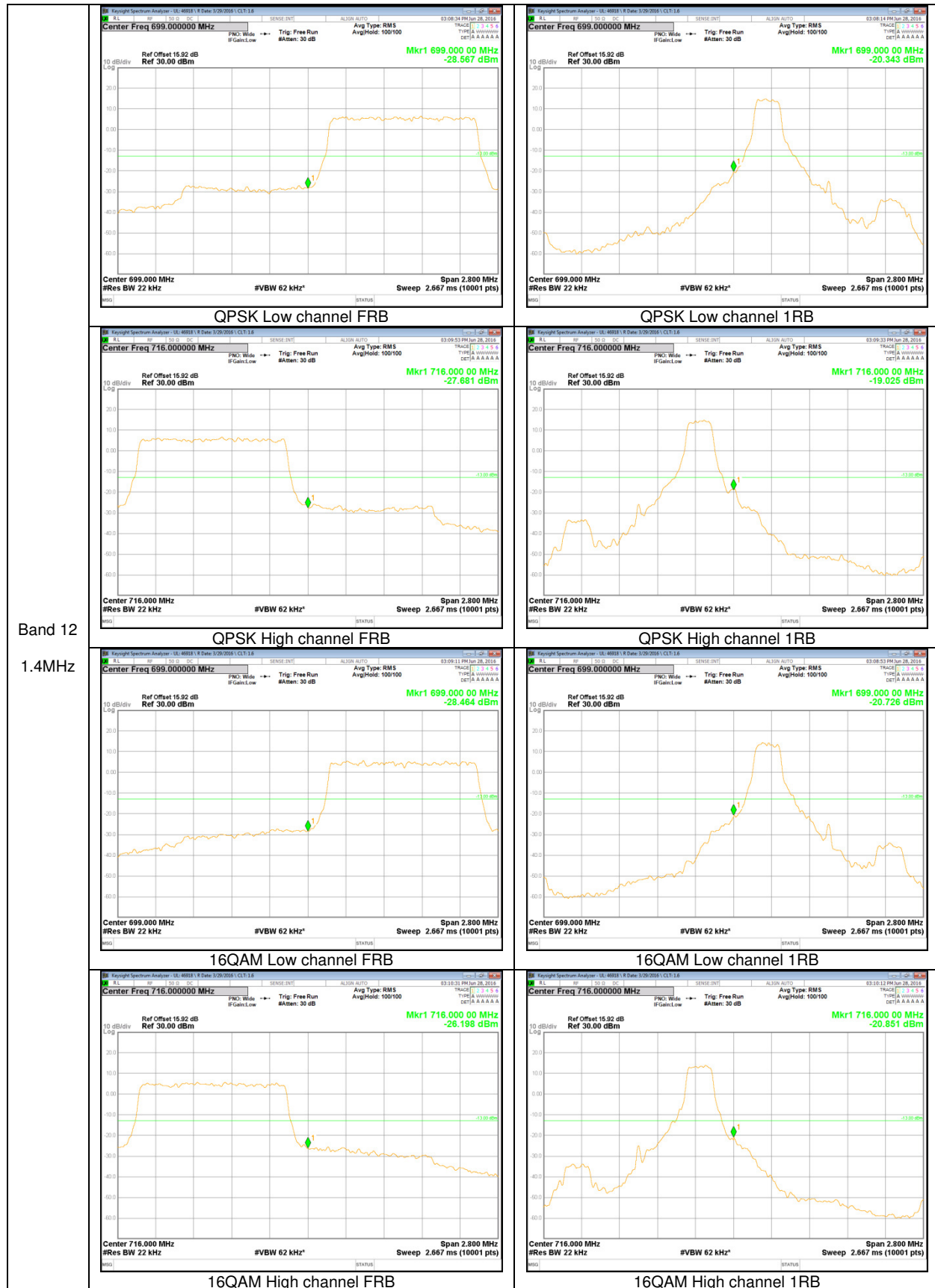
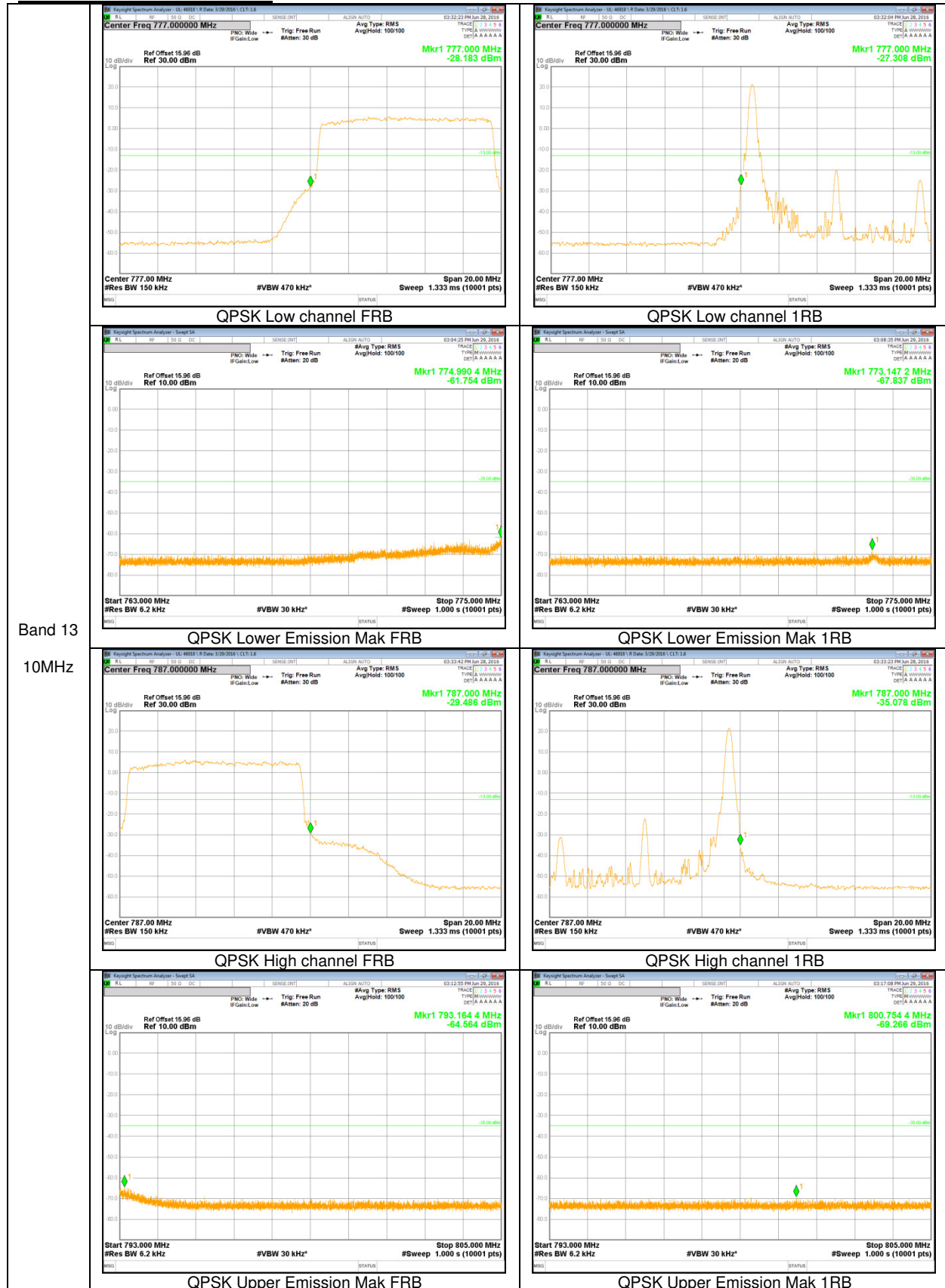
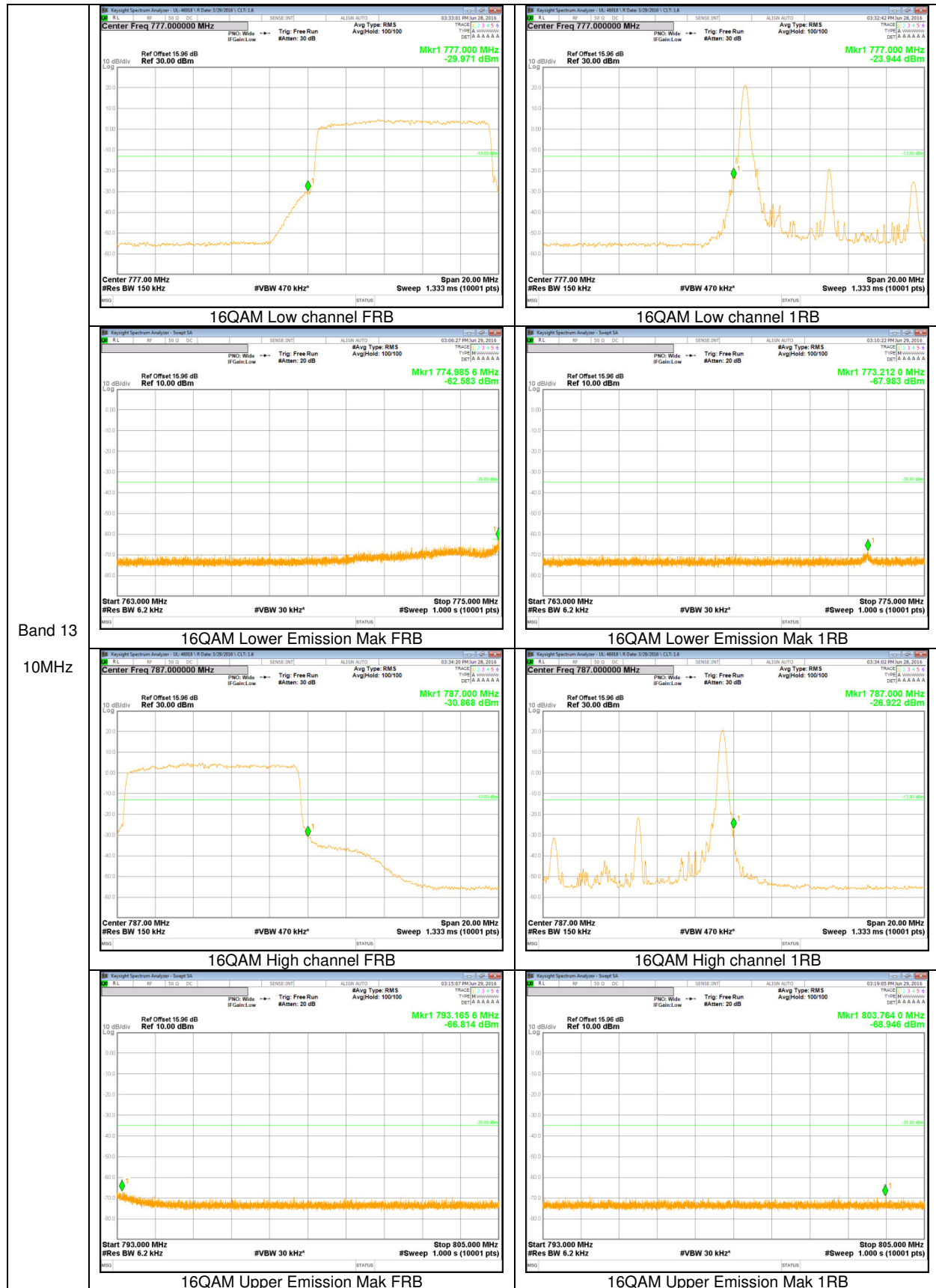


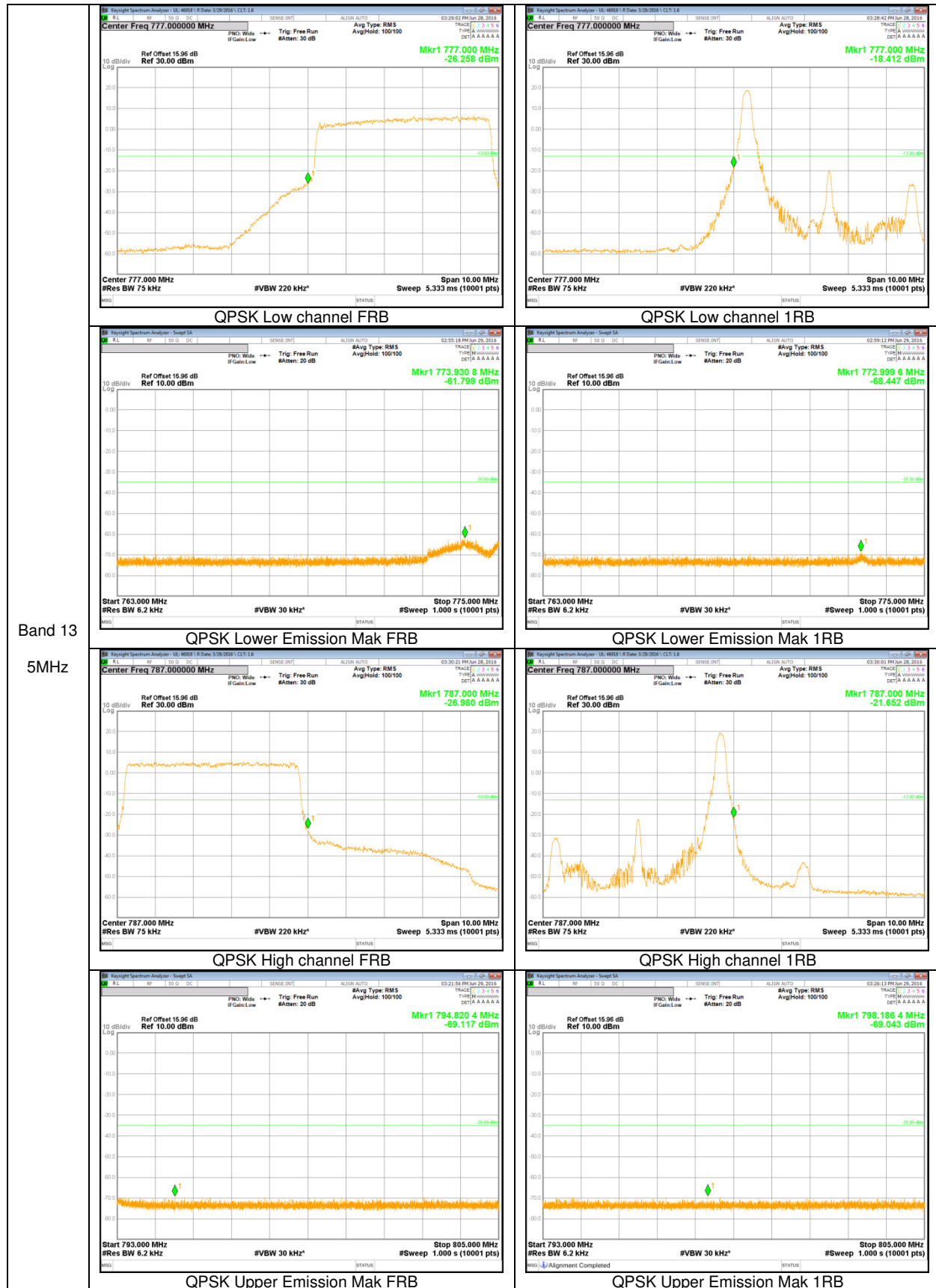


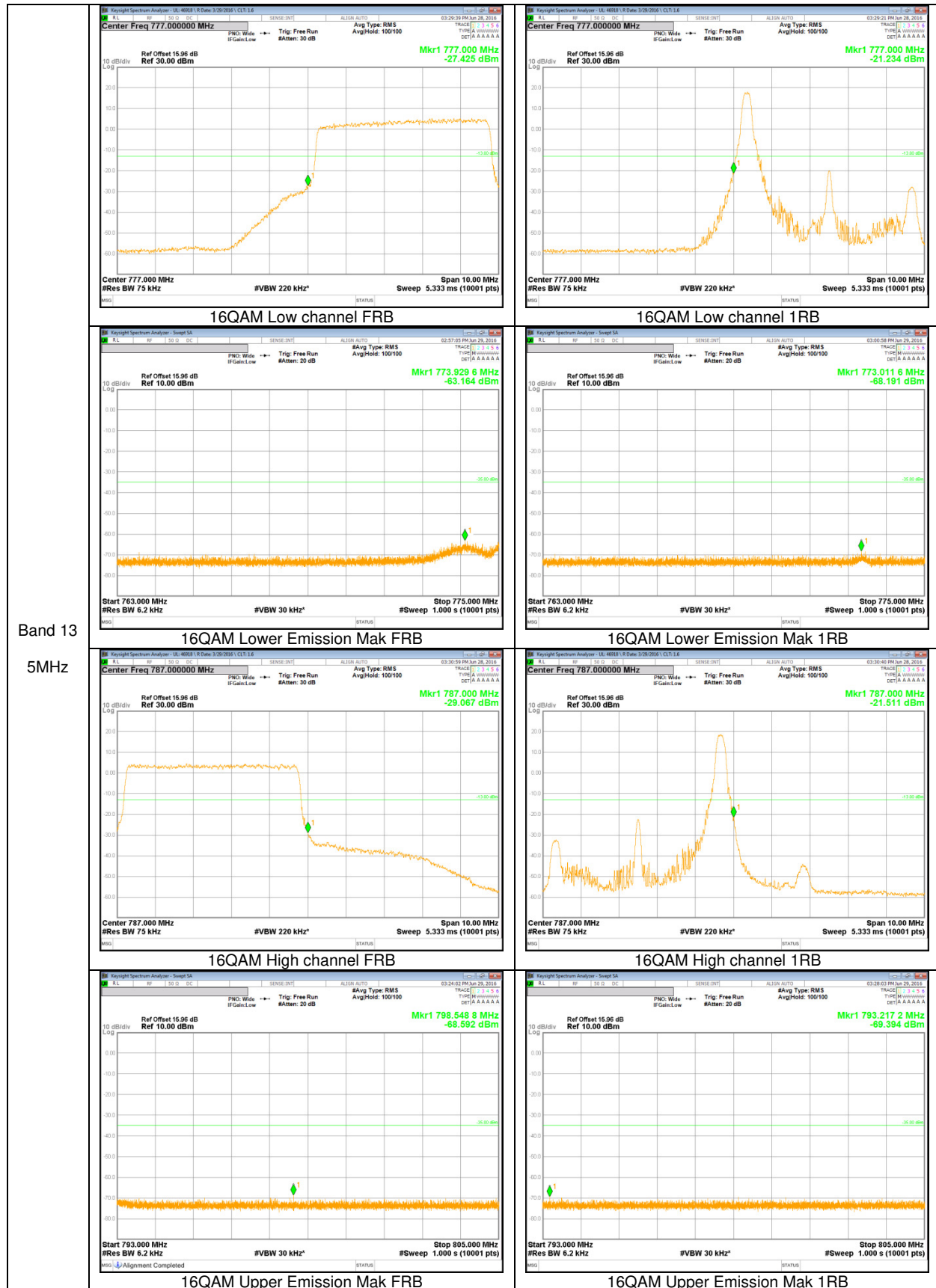
LTE Band 13 BAND EDGE



Band 13
10MHz







8. RADIATED TEST RESULTS

8.1. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238 and §27. 53

LIMIT

Part 22.917(a) & Part 24.238(a) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

Part 27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 27.53(h) *AWS emission limits*—(1) *General protection levels*. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB.

TEST PROCEDURE

KDB 971168 D01 v02r02 - Section 5.8

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

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

RESULTS

8.1.1. SPURIOUS RADIATION PLOTS

GSM1900

GSM GSM1900 GMSK	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Date: 06-03-16 Test Engineer: YH Lim Configuration: EUT / AC Adapter / Earphone, Z Position Mode: GSM 1900									
	Chamber		Pre-amplifier		Filter		Limit			
	Chamber 2		AFS42		Filter 1		Part 24			
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1850.2MHz									
	3.7004	-13.1	V	3.0	40.5	1.0	-52.6	-13.0	-39.6	
	5.5506	-12.4	V	3.0	40.8	1.0	-52.3	-13.0	-39.3	
	7.4008	-10.8	V	3.0	40.8	1.0	-50.6	-13.0	-37.6	
	3.7000	-8.9	H	3.0	40.5	1.0	-48.4	-13.0	-35.4	
	5.5506	-12.6	H	3.0	40.8	1.0	-52.4	-13.0	-39.4	
	7.4008	-10.4	H	3.0	40.8	1.0	-50.2	-13.0	-37.2	
	Mid Ch, 1880.0MHz									
	3.7600	-10.8	V	3.0	40.5	1.0	-50.3	-13.0	-37.3	
	5.6400	-12.8	V	3.0	40.8	1.0	-52.6	-13.0	-39.6	
	7.5200	-10.2	V	3.0	40.7	1.0	-49.9	-13.0	-36.9	
	3.7600	-5.6	H	3.0	40.5	1.0	-45.1	-13.0	-32.1	
	5.6400	-12.7	H	3.0	40.8	1.0	-52.5	-13.0	-39.5	
	7.5200	-10.0	H	3.0	40.7	1.0	-49.7	-13.0	-36.7	
	High Ch, 1909.8 MHz									
	3.8196	-11.5	V	3.0	40.6	1.0	-51.1	-13.0	-38.1	
	5.7294	-12.6	V	3.0	40.8	1.0	-52.4	-13.0	-39.4	
	7.6392	-10.1	V	3.0	40.7	1.0	-49.8	-13.0	-36.8	
	3.8196	-8.4	H	3.0	40.6	1.0	-48.0	-13.0	-35.0	
	5.7294	-12.4	H	3.0	40.8	1.0	-52.2	-13.0	-39.2	
	7.6392	-9.9	H	3.0	40.7	1.0	-49.6	-13.0	-36.6	
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

GSM850

GSM GSM850 GMSK	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Date: 06-03-16 Test Engineer: YH Lim Configuration: EUT / AC Adapter / Earphone, Z Position Mode: GSM 850									
	Chamber		Pre-amplifier		Filter		Limit			
	Chamber 2		AFS42		Filter 1		Part 22			
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 824.2MHz									
	1.6484	-13.6	V	3.0	39.1	1.0	-51.7	-13.0	-38.7	
	2.4726	-19.6	V	3.0	39.5	1.0	-58.1	-13.0	-45.1	
	3.2968	-18.3	V	3.0	40.1	1.0	-57.4	-13.0	-44.4	
	1.6484	-7.1	H	3.0	39.1	1.0	-45.2	-13.0	-32.2	
	2.4726	-18.1	H	3.0	39.5	1.0	-56.7	-13.0	-43.7	
	3.2968	-17.7	H	3.0	40.1	1.0	-56.8	-13.0	-43.8	
	Mid Ch, 836.6MHz									
	1.6730	-15.2	V	3.0	39.1	1.0	-53.3	-13.0	-40.3	
	2.5098	-18.7	V	3.0	39.5	1.0	-57.3	-13.0	-44.3	
	3.3464	-17.5	V	3.0	40.1	1.0	-56.6	-13.0	-43.6	
	1.6730	-10.1	H	3.0	39.1	1.0	-48.2	-13.0	-35.2	
	2.5098	-19.1	H	3.0	39.5	1.0	-57.7	-13.0	-44.7	
	3.3464	-17.6	H	3.0	40.1	1.0	-56.8	-13.0	-43.8	
	High Ch, 848.8MHz									
	1.6976	-8.6	V	3.0	39.1	1.0	-46.8	-13.0	-33.8	
	2.5466	-18.9	V	3.0	39.6	1.0	-57.5	-13.0	-44.5	
	3.3952	-16.9	V	3.0	40.2	1.0	-56.1	-13.0	-43.1	
	1.6976	-10.0	H	3.0	39.1	1.0	-48.2	-13.0	-35.2	
	2.5466	-19.0	H	3.0	39.6	1.0	-57.6	-13.0	-44.6	
	3.3952	-17.2	H	3.0	40.2	1.0	-56.4	-13.0	-43.4	
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

WCDMA Band 5

WCDMA Band 2 HSUPA	Above 1GHz High Frequency Substitution Measurement									
	Date: 06-03-16 Test Engineer: YH Lim Configuration: EUT / AC Adapter / Earphone / Z Position Mode: Tx, HSUPA,1900MHz									
	Chamber Pre-amplifier Filter Limit Chamber 2 AFS42 Filter 1 Part 24									
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1852.4MHz									
	3.7048	-15.3	V	3.0	40.5	1.0	-54.8	-13.0	-41.8	
	5.5572	-10.7	V	3.0	40.8	1.0	-50.6	-13.0	-37.6	
	7.4096	-9.9	V	3.0	40.8	1.0	-49.7	-13.0	-36.7	
	3.7048	-14.6	H	3.0	40.5	1.0	-54.1	-13.0	-41.1	
	5.5572	-10.4	H	3.0	40.8	1.0	-50.2	-13.0	-37.2	
	7.4096	-9.7	H	3.0	40.8	1.0	-49.5	-13.0	-36.5	
	Mid Ch, 1880MHz									
	3.7600	-14.7	V	3.0	40.5	1.0	-54.2	-13.0	-41.2	
	5.6400	-11.8	V	3.0	40.8	1.0	-51.6	-13.0	-38.6	
	7.5200	-9.4	V	3.0	40.7	1.0	-49.2	-13.0	-36.2	
	3.7600	-12.2	H	3.0	40.5	1.0	-51.7	-13.0	-38.7	
	5.6400	-10.2	H	3.0	40.8	1.0	-50.0	-13.0	-37.0	
	7.5200	-9.2	H	3.0	40.7	1.0	-49.0	-13.0	-36.0	
	High Ch, 1907.6MHz									
	3.8152	-13.9	V	3.0	40.6	1.0	-53.5	-13.0	-40.5	
	5.7228	-9.8	V	3.0	40.8	1.0	-49.6	-13.0	-36.6	
	7.6304	-9.2	V	3.0	40.7	1.0	-48.8	-13.0	-35.8	
	3.8152	-11.7	H	3.0	40.6	1.0	-51.3	-13.0	-38.3	
	5.7228	-10.7	H	3.0	40.8	1.0	-50.5	-13.0	-37.5	
	7.6304	-8.9	H	3.0	40.7	1.0	-48.6	-13.0	-35.6	
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

WCDMA Band 4

WCDMA Band 4 HSUPA	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
	Date: 06-07-16 Test Engineer: YH Lim Configuration: EUT / AC Adapter / Earphone / Z Position Mode: Tx, HSUPA,1700MHz									
	Chamber Pre-amplifier Filter Limit Chamber 2 AFS42 Filter 1 Part 27									
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 1712.4MHz									
	3.4248	-14.4	V	3.0	40.2	1.0	-53.6	-13.0	-40.6	
	5.1372	-11.9	V	3.0	40.9	1.0	-51.8	-13.0	-38.8	
	6.8496	-10.3	V	3.0	41.0	1.0	-50.3	-13.0	-37.3	
	3.4248	-14.5	H	3.0	40.2	1.0	-53.7	-13.0	-40.7	
	5.1372	-10.9	H	3.0	40.9	1.0	-50.8	-13.0	-37.8	
	6.8496	-10.3	H	3.0	41.0	1.0	-50.3	-13.0	-37.3	
	Mid Ch, 1732.6MHz									
	3.4652	-14.5	V	3.0	40.3	1.0	-53.7	-13.0	-40.7	
	5.1978	-12.7	V	3.0	40.9	1.0	-52.6	-13.0	-39.6	
	6.9304	-9.6	V	3.0	41.0	1.0	-49.6	-13.0	-36.6	
	3.4652	-15.2	H	3.0	40.3	1.0	-54.4	-13.0	-41.4	
	5.1978	-10.8	H	3.0	40.9	1.0	-50.7	-13.0	-37.7	
	6.9304	-10.3	H	3.0	41.0	1.0	-50.3	-13.0	-37.3	
	High Ch, 1752.6MHz									
	3.5052	-14.5	V	3.0	40.3	1.0	-53.7	-13.0	-40.7	
	5.2578	-12.5	V	3.0	40.9	1.0	-52.4	-13.0	-39.4	
	7.0104	-10.8	V	3.0	41.0	1.0	-50.8	-13.0	-37.8	
	3.5052	-14.4	H	3.0	40.3	1.0	-53.7	-13.0	-40.7	
	5.2578	-10.3	H	3.0	40.9	1.0	-50.2	-13.0	-37.2	
	7.0104	-10.5	H	3.0	41.0	1.0	-50.6	-13.0	-37.6	
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

WCDMA Band 5

UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
Date:		06-03-16							
Test Engineer:		YH Lim							
Configuration:		EUT / AC Adapter / Earphone / Z Position							
Mode:		Tx, HSUPA,850MHz							
Chamber		Pre-amplifier		Filter		Limit			
Chamber 2		AFS42		Filter 1		Part 22			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.40MHz									
1.6520	-19.8	V	3.0	39.1	1.0	-57.9	-13.0	-44.9	
2.4790	-18.1	V	3.0	39.5	1.0	-56.6	-13.0	-43.6	
3.3056	-16.2	V	3.0	40.1	1.0	-55.3	-13.0	-42.3	
1.6520	-20.7	H	3.0	39.1	1.0	-58.8	-13.0	-45.8	
2.4790	-18.6	H	3.0	39.5	1.0	-57.1	-13.0	-44.1	
3.3056	-17.2	H	3.0	40.1	1.0	-56.3	-13.0	-43.3	
Mid Ch, 836.6MHz									
1.6732	-17.4	V	3.0	39.1	1.0	-55.5	-13.0	-42.5	
2.5098	-17.9	V	3.0	39.5	1.0	-56.5	-13.0	-43.5	
3.3464	-16.1	V	3.0	40.1	1.0	-55.2	-13.0	-42.2	
1.6732	-18.8	H	3.0	39.1	1.0	-56.9	-13.0	-43.9	
2.5098	-18.4	H	3.0	39.5	1.0	-56.9	-13.0	-43.9	
3.3464	-16.4	H	3.0	40.1	1.0	-55.5	-13.0	-42.5	
High Ch, 846.6MHz									
1.6932	-17.2	V	3.0	39.1	1.0	-55.4	-13.0	-42.4	
2.5390	-18.0	V	3.0	39.6	1.0	-56.5	-13.0	-43.5	
3.3860	-15.8	V	3.0	40.2	1.0	-55.0	-13.0	-42.0	
1.6932	-16.8	H	3.0	39.1	1.0	-55.0	-13.0	-42.0	
2.5390	-18.4	H	3.0	39.6	1.0	-56.9	-13.0	-43.9	
3.3860	-16.2	H	3.0	40.2	1.0	-55.4	-13.0	-42.4	
Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.									

WCDMA
Band 5
HSUPA

LTE Band 5

LTE
Band 5
1.4MHz
QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date:05-31-16

Test Engineer:JH Park

Configuration:EUT / AC Adapter / Earphone, Z Position

Mode:TX, LTE BAND 5, 1.4MHz BW,QPSK

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (824.7MHz)									
1.6494	-14.5	V	3.0	39.1	1.0	-52.6	-13.0	-39.6	
2.4741	-16.5	V	3.0	39.5	1.0	-55.1	-13.0	-42.1	
3.2988	-16.7	V	3.0	40.1	1.0	-55.8	-13.0	-42.8	
1.6494	-13.2	H	3.0	39.1	1.0	-51.3	-13.0	-38.3	
2.4741	-15.3	H	3.0	39.5	1.0	-53.8	-13.0	-40.8	
3.2988	-16.1	H	3.0	40.1	1.0	-55.2	-13.0	-42.2	
Mid Channel (836.5MHz)									
1.6730	-11.2	V	3.0	39.1	1.0	-49.3	-13.0	-36.3	
2.5090	-18.9	V	3.0	39.5	1.0	-57.4	-13.0	-44.4	
3.3460	-16.4	V	3.0	40.1	1.0	-55.5	-13.0	-42.5	
1.6730	-11.7	H	3.0	39.1	1.0	-49.8	-13.0	-36.8	
2.5090	-19.0	H	3.0	39.5	1.0	-57.5	-13.0	-44.5	
3.3460	-16.9	H	3.0	40.1	1.0	-56.0	-13.0	-43.0	
High Channel (848.3MHz)									
1.6966	-13.4	V	3.0	39.1	1.0	-51.6	-13.0	-38.6	
2.5449	-15.7	V	3.0	39.6	1.0	-54.3	-13.0	-41.3	
3.3932	-14.8	V	3.0	40.2	1.0	-54.0	-13.0	-41.0	
1.6966	-14.0	H	3.0	39.1	1.0	-52.1	-13.0	-39.1	
2.5449	-15.6	H	3.0	39.6	1.0	-54.1	-13.0	-41.1	
3.3932	-14.8	H	3.0	40.2	1.0	-54.0	-13.0	-41.0	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE
Band 5
10MHz
QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date:06-02-16

Test Engineer:JH Park

Configuration:EUT / AC Adapter / Earphone, Z Position

Mode:TX, LTE BAND 5, 10MHz BW,QPSK

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (829MHz)									
1.6580	-14.6	V	3.0	39.1	1.0	-52.7	-13.0	-39.7	
2.4870	-17.3	V	3.0	39.5	1.0	-55.8	-13.0	-42.8	
3.3160	-15.7	V	3.0	40.1	1.0	-54.8	-13.0	-41.8	
1.6580	-13.3	H	3.0	39.1	1.0	-51.4	-13.0	-38.4	
2.4870	-15.5	H	3.0	39.5	1.0	-54.0	-13.0	-41.0	
3.3160	-16.0	H	3.0	40.1	1.0	-55.1	-13.0	-42.1	
Mid Channel (836.5MHz)									
1.6730	-11.3	V	3.0	39.1	1.0	-49.4	-13.0	-36.4	
2.5090	-18.8	V	3.0	39.5	1.0	-57.3	-13.0	-44.3	
3.3460	-15.5	V	3.0	40.1	1.0	-54.6	-13.0	-41.6	
1.6730	-10.1	H	3.0	39.1	1.0	-48.2	-13.0	-35.2	
2.5090	-18.7	H	3.0	39.5	1.0	-57.2	-13.0	-44.2	
3.3460	-15.3	H	3.0	40.1	1.0	-54.5	-13.0	-41.5	
High Channel (844MHz)									
1.6880	-11.1	V	3.0	39.1	1.0	-49.2	-13.0	-36.2	
2.5320	-16.0	V	3.0	39.5	1.0	-54.5	-13.0	-41.5	
3.3760	-16.2	V	3.0	40.2	1.0	-55.4	-13.0	-42.4	
1.6880	-11.2	H	3.0	39.1	1.0	-49.3	-13.0	-36.3	
2.5320	-14.6	H	3.0	39.5	1.0	-53.1	-13.0	-40.1	
3.3760	-15.8	H	3.0	40.2	1.0	-55.0	-13.0	-42.0	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE Band 2

UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
Date:		05-27-16							
Test Engineer:		JH Park							
Configuration:		EUT / AC Adapter / Ear Phone / Z-Position							
Mode:		TX, LTE BAND 2, 15MHz BW, QPSK							
Chamber		Pre-amplifier		Filter		Limit			
Chamber 2		AFS42		Filter 1		FCC Part 24			
f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1857.5MHz)									
3.7150	-17.5	V	3.0	40.5	1.0	-57.0	-13.0	-44.0	
5.7225	-13.2	V	3.0	40.8	1.0	-53.1	-13.0	-40.1	
7.4300	-12.6	V	3.0	40.8	1.0	-52.4	-13.0	-39.4	
3.7150	-15.1	H	3.0	40.5	1.0	-54.6	-13.0	-41.6	
5.7225	-8.4	H	3.0	40.8	1.0	-48.2	-13.0	-35.2	
7.4300	-12.5	H	3.0	40.8	1.0	-52.3	-13.0	-39.3	
Mid Channel (1880MHz)									
3.7600	-13.3	V	3.0	40.5	1.0	-52.8	-13.0	-39.8	
5.6400	-13.8	V	3.0	40.8	1.0	-53.6	-13.0	-40.6	
7.5200	-12.1	V	3.0	40.7	1.0	-51.8	-13.0	-38.8	
3.7600	-8.9	H	3.0	40.5	1.0	-48.4	-13.0	-35.4	
5.6400	-11.4	H	3.0	40.8	1.0	-51.2	-13.0	-38.2	
7.5200	-11.9	H	3.0	40.7	1.0	-51.6	-13.0	-38.6	
High Channel (1902.5MHz)									
3.8050	-11.0	V	3.0	40.6	1.0	-50.6	-13.0	-37.6	
5.7075	-14.4	V	3.0	40.8	1.0	-54.2	-13.0	-41.2	
7.6100	-12.0	V	3.0	40.7	1.0	-51.7	-13.0	-38.7	
3.8050	-6.8	H	3.0	40.6	1.0	-46.4	-13.0	-33.4	
5.7075	-10.3	H	3.0	40.8	1.0	-50.1	-13.0	-37.1	
7.6100	-11.4	H	3.0	40.7	1.0	-51.1	-13.0	-38.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

LTE
Band 2
15MHz
QPSK

LTE Band 25

LTE

Band 25

20MHz

QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date: 05-31-16

Test Engineer: JH Park

Configuration: EUT / AC Adapter / Ear Phone / Z-Position

Mode: TX, LTE BAND 25, 20MHz BW, QPSK

Chamber

Pre-amplifier

Filter

Limit

Chamber 2

AF S42

Filter 1

FCC Part 24

f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1860MHz)									
3.7200	-9.8	V	3.0	40.5	1.0	-49.3	-13.0	-36.3	
5.5800	-13.6	V	3.0	40.8	1.0	-53.4	-13.0	-40.4	
7.4400	-13.8	V	3.0	40.8	1.0	-53.5	-13.0	-40.5	
3.7200	-4.7	H	3.0	40.5	1.0	-44.2	-13.0	-31.2	
5.5800	-8.5	H	3.0	40.8	1.0	-48.3	-13.0	-35.3	
7.4400	-23.0	H	3.0	40.8	1.0	-62.8	-13.0	-49.8	
Mid Channel (1882.5MHz)									
3.7650	-10.2	V	3.0	40.5	1.0	-49.8	-13.0	-36.8	
5.6475	-12.1	V	3.0	40.8	1.0	-51.9	-13.0	-38.9	
7.5300	-13.3	V	3.0	40.7	1.0	-53.0	-13.0	-40.0	
3.7650	-4.3	H	3.0	40.5	1.0	-43.9	-13.0	-30.9	
5.6475	-9.1	H	3.0	40.8	1.0	-48.9	-13.0	-35.9	
7.5300	-12.7	H	3.0	40.7	1.0	-52.4	-13.0	-39.4	
High Channel (1905MHz)									
3.8100	-5.8	V	3.0	40.6	1.0	-45.3	-13.0	-32.3	
5.7150	-13.2	V	3.0	40.8	1.0	-53.0	-13.0	-40.0	
7.6200	-13.2	V	3.0	40.7	1.0	-52.9	-13.0	-39.9	
3.8100	0.7	H	3.0	40.6	1.0	-38.9	-13.0	-25.9	
5.7150	-5.7	H	3.0	40.8	1.0	-45.4	-13.0	-32.4	
7.6200	-13.3	H	3.0	40.7	1.0	-53.0	-13.0	-40.0	

Rev: 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE

Band 25

20MHz

16QAM

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date: 05-31-16

Test Engineer: JH Park

Configuration: EUT / AC Adapter / Ear Phone / Z-Position

Mode: TX, LTE BAND 25, 20MHz BW, 16QAM

Chamber

Pre-amplifier

Filter

Limit

Chamber 2

AF S42

Filter 1

FCC Part 24

f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1860MHz)									
3.7200	-9.8	V	3.0	40.5	1.0	-49.3	-13.0	-36.3	
5.5800	-14.9	V	3.0	40.8	1.0	-54.7	-13.0	-41.7	
7.4400	-13.8	V	3.0	40.8	1.0	-53.5	-13.0	-40.5	
3.7200	-3.7	H	3.0	40.5	1.0	-43.2	-13.0	-30.2	
5.5800	-7.3	H	3.0	40.8	1.0	-47.1	-13.0	-34.1	
7.4400	-13.2	H	3.0	40.8	1.0	-53.0	-13.0	-40.0	
Mid Channel (1882.5MHz)									
3.7650	-10.8	V	3.0	40.5	1.0	-50.3	-13.0	-37.3	
5.6475	-13.8	V	3.0	40.8	1.0	-53.6	-13.0	-40.6	
7.5300	-13.3	V	3.0	40.7	1.0	-53.0	-13.0	-40.0	
3.7650	-3.0	H	3.0	40.5	1.0	-42.5	-13.0	-29.5	
5.6475	-7.2	H	3.0	40.8	1.0	-47.1	-13.0	-34.1	
7.5300	-13.1	H	3.0	40.7	1.0	-52.8	-13.0	-39.8	
High Channel (1905MHz)									
3.8100	-6.4	V	3.0	40.6	1.0	-46.0	-13.0	-33.0	
5.7150	-11.4	V	3.0	40.8	1.0	-51.2	-13.0	-38.2	
7.6200	-13.2	V	3.0	40.7	1.0	-52.8	-13.0	-39.8	
3.8100	-1.5	H	3.0	40.6	1.0	-41.1	-13.0	-28.1	
5.7150	-5.7	H	3.0	40.8	1.0	-45.5	-13.0	-32.5	
7.6200	-13.3	H	3.0	40.7	1.0	-52.9	-13.0	-39.9	

Rev: 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE Band 26

LTE
Band 26
5MHz
QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date:06-02-16

Test Engineer:JH Park

Configuration:EUT / AC Adapter / Earphone, Z Position

Mode:TX, LTE BAND 26, 5MHz BW, QPSK

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (816.5MHz)									
1.6330	-13.0	V	3.0	39.1	1.0	-51.1	-13.0	-38.1	
2.4495	-17.3	V	3.0	39.5	1.0	-55.8	-13.0	-42.8	
3.2660	-15.0	V	3.0	40.1	1.0	-54.1	-13.0	-41.1	
1.6330	-9.7	H	3.0	39.1	1.0	-47.8	-13.0	-34.8	
2.4495	-15.5	H	3.0	39.5	1.0	-54.0	-13.0	-41.0	
3.2660	-15.1	H	3.0	40.1	1.0	-54.2	-13.0	-41.2	
Mid Channel (831.5MHz)									
1.6630	-10.2	V	3.0	39.1	1.0	-48.4	-13.0	-35.4	
2.4945	-16.0	V	3.0	39.5	1.0	-54.6	-13.0	-41.6	
3.3260	-15.1	V	3.0	40.1	1.0	-54.2	-13.0	-41.2	
1.6630	-10.4	H	3.0	39.1	1.0	-48.5	-13.0	-35.5	
2.4945	-17.2	H	3.0	39.5	1.0	-55.7	-13.0	-42.7	
3.3260	-16.0	H	3.0	40.1	1.0	-55.1	-13.0	-42.1	
High Channel (846.5MHz)									
1.6930	-12.1	V	3.0	39.1	1.0	-50.2	-13.0	-37.2	
2.5390	-16.7	V	3.0	39.6	1.0	-55.2	-13.0	-42.2	
3.3860	-14.9	V	3.0	40.2	1.0	-54.0	-13.0	-41.0	
1.6930	-10.2	H	3.0	39.1	1.0	-48.4	-13.0	-35.4	
2.5390	-17.3	H	3.0	39.6	1.0	-55.8	-13.0	-42.8	
3.3860	-15.4	H	3.0	40.2	1.0	-54.6	-13.0	-41.6	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE
Band 26
15MHz
QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date:07-01-16

Test Engineer:YH Lim

Configuration:EUT / AC Adapter / Earphone, Z Position

Mode:TX, LTE BAND 26, 15MHz BW, QPSK

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

FCC Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (821.5MHz)									
1.6430	-28.3	V	3.0	39.1	1.0	-66.4	-13.0	-53.4	
2.4645	-17.8	V	3.0	39.5	1.0	-56.3	-13.0	-43.3	
3.2860	-27.6	V	3.0	40.1	1.0	-66.7	-13.0	-53.7	
1.6430	-25.2	H	3.0	39.1	1.0	-63.3	-13.0	-50.3	
2.4645	-19.3	H	3.0	39.5	1.0	-57.8	-13.0	-44.8	
3.2860	-28.0	H	3.0	40.1	1.0	-67.1	-13.0	-54.1	
Mid Channel (831.5MHz)									
1.6630	-26.4	V	3.0	39.1	1.0	-64.6	-13.0	-51.6	
2.4945	-15.1	V	3.0	39.5	1.0	-53.6	-13.0	-40.6	
3.3260	-27.5	V	3.0	40.1	1.0	-66.6	-13.0	-53.6	
1.6630	-22.5	H	3.0	39.1	1.0	-60.6	-13.0	-47.6	
2.4945	-17.0	H	3.0	39.5	1.0	-55.6	-13.0	-42.6	
3.3260	-28.0	H	3.0	40.1	1.0	-67.1	-13.0	-54.1	
High Channel (841.5MHz)									
1.6830	-29.0	V	3.0	39.1	1.0	-67.1	-13.0	-54.1	
2.5245	-15.2	V	3.0	39.5	1.0	-53.7	-13.0	-40.7	
3.3660	-27.8	V	3.0	40.2	1.0	-67.0	-13.0	-54.0	
1.6830	-17.5	H	3.0	39.1	1.0	-55.7	-13.0	-42.7	
2.5245	-13.3	H	3.0	39.5	1.0	-51.9	-13.0	-38.9	
3.3660	-28.1	H	3.0	40.2	1.0	-67.2	-13.0	-54.2	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE Band 17

UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
Date:		06-01-16							
Test Engineer:		JH Park							
Configuration:		EUT / AC Adapter / Ear Phone / Z-Position							
Mode:		TX, LTE BAND 17, 10MHz BW, QPSK							
Chamber		Pre-amplifier		Filter		Limit			
Chamber 2		AFS42		Filter 1		FCC Part 27			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (709MHz)									
1.4180	-18.4	V	3.0	39.0	1.0	-56.4	-13.0	-43.4	
2.1270	-11.9	V	3.0	39.3	1.0	-50.3	-13.0	-37.3	
2.8360	-17.3	V	3.0	39.7	1.0	-56.0	-13.0	-43.0	
1.4180	-21.0	H	3.0	39.0	1.0	-59.0	-13.0	-46.0	
2.1270	-8.9	H	3.0	39.3	1.0	-47.2	-13.0	-34.2	
2.8360	-16.5	H	3.0	39.7	1.0	-55.2	-13.0	-42.2	
Mid Channel (710MHz)									
1.4200	-20.4	V	3.0	39.0	1.0	-58.4	-13.0	-45.4	
2.1300	-10.9	V	3.0	39.3	1.0	-49.2	-13.0	-36.2	
2.8400	-16.7	V	3.0	39.7	1.0	-55.4	-13.0	-42.4	
1.4200	-21.1	H	3.0	39.0	1.0	-59.1	-13.0	-46.1	
2.1300	-7.5	H	3.0	39.3	1.0	-45.8	-13.0	-32.8	
2.8400	-16.0	H	3.0	39.7	1.0	-54.8	-13.0	-41.8	
High Channel (711MHz)									
1.4220	-20.5	V	3.0	39.0	1.0	-58.5	-13.0	-45.5	
2.1330	-10.7	V	3.0	39.3	1.0	-49.0	-13.0	-36.0	
2.8440	-17.1	V	3.0	39.7	1.0	-55.8	-13.0	-42.8	
1.4220	-20.3	H	3.0	39.0	1.0	-58.3	-13.0	-45.3	
2.1330	-6.8	H	3.0	39.3	1.0	-45.1	-13.0	-32.1	
2.8440	-15.9	H	3.0	39.7	1.0	-54.6	-13.0	-41.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

LTE
Band 2
15MHz
QPSK

LTE Band 4

LTE
Band 4
15MHz
QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date:05-27-16

Test Engineer:JH Park

Configuration:EUT / AC Adapter / Ear Phone / Z-Position

Mode:TX, LTE BAND 4, 15MHz BW,QPSK

Chamber

Pre-amplifier

Filter

Limit

Chamber 2

AFS42

Filter 1

FCC Part 27

f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1717.5MHz)									
3.4350	0.4	V	3.0	40.2	1.0	-38.9	-13.0	-25.9	
5.1525	-11.2	V	3.0	40.9	1.0	-51.1	-13.0	-38.1	
6.8700	-12.8	V	3.0	41.0	1.0	-52.8	-13.0	-39.8	
3.4350	-3.0	H	3.0	40.2	1.0	-42.3	-13.0	-29.3	
5.1525	-4.9	H	3.0	40.9	1.0	-44.8	-13.0	-31.8	
6.8700	-12.3	H	3.0	41.0	1.0	-52.2	-13.0	-39.2	
Mid Channel (1732.5MHz)									
3.4650	-0.7	V	3.0	40.3	1.0	-39.9	-13.0	-26.9	
5.1975	-10.3	V	3.0	40.9	1.0	-50.2	-13.0	-37.2	
6.9300	-12.9	V	3.0	41.0	1.0	-52.9	-13.0	-39.9	
3.4650	-3.2	H	3.0	40.3	1.0	-42.5	-13.0	-29.5	
5.1975	-4.3	H	3.0	40.9	1.0	-44.2	-13.0	-31.2	
6.9300	-13.0	H	3.0	41.0	1.0	-53.0	-13.0	-40.0	
High Channel (1747.5MHz)									
3.4950	-1.0	V	3.0	40.3	1.0	-40.3	-13.0	-27.3	
5.2425	-9.1	V	3.0	40.9	1.0	-48.9	-13.0	-35.9	
6.9900	-13.0	V	3.0	41.0	1.0	-53.0	-13.0	-40.0	
3.4950	-1.3	H	3.0	40.3	1.0	-40.6	-13.0	-27.6	
5.2425	-2.3	H	3.0	40.9	1.0	-42.1	-13.0	-29.1	
6.9900	-13.1	H	3.0	41.0	1.0	-53.1	-13.0	-40.1	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE
Band 26
20MHz
QPSK

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Date:05-31-16

Test Engineer:JH Park

Configuration:EUT / AC Adapter / Ear Phone / Z-Position

Mode:TX, LTE BAND 4, 20MHz BW,QPSK

Chamber

Pre-amplifier

Filter

Limit

Chamber 2

AFS42

Filter 1

FCC Part 27

f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1720MHz)									
3.4400	1.6	V	3.0	40.2	1.0	-37.6	-13.0	-24.6	
5.1600	-12.2	V	3.0	40.9	1.0	-52.1	-13.0	-39.1	
6.8800	-13.9	V	3.0	41.0	1.0	-53.9	-13.0	-40.9	
3.4400	0.8	H	3.0	40.2	1.0	-38.4	-13.0	-25.4	
5.1600	-3.0	H	3.0	40.9	1.0	-42.9	-13.0	-29.9	
6.8800	-13.3	H	3.0	41.0	1.0	-53.3	-13.0	-40.3	
Mid Channel (1732.5MHz)									
3.4650	0.6	V	3.0	40.3	1.0	-38.6	-13.0	-25.6	
5.1975	-10.0	V	3.0	40.9	1.0	-49.9	-13.0	-36.9	
6.9300	-13.6	V	3.0	41.0	1.0	-53.6	-13.0	-40.6	
3.4650	0.3	H	3.0	40.3	1.0	-38.9	-13.0	-25.9	
5.1975	-3.6	H	3.0	40.9	1.0	-43.5	-13.0	-30.5	
6.9300	-13.4	H	3.0	41.0	1.0	-53.4	-13.0	-40.4	
High Channel (1745MHz)									
3.4900	0.5	V	3.0	40.3	1.0	-38.8	-13.0	-25.8	
5.2350	-9.9	V	3.0	40.9	1.0	-49.8	-13.0	-36.8	
6.9800	-14.1	V	3.0	41.0	1.0	-54.1	-13.0	-41.1	
3.4900	-2.8	H	3.0	40.3	1.0	-42.1	-13.0	-29.1	
5.2350	-1.4	H	3.0	40.9	1.0	-41.3	-13.0	-28.3	
6.9800	-13.7	H	3.0	41.0	1.0	-53.7	-13.0	-40.7	

Rev. 03.03.09

Note: No other emissions were detected above the system noise floor.

LTE Band 7

LTE Band 7 20MHz QPSK	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Date: 06-02-16 Test Engineer: JH Park Configuration: EUT / AC Adapter / Ear Phone / Z-Position Mode: TX, LTE BAND 7, 20MHz BW, QPSK Chamber Chamber 2 Pre-amplifier AFS42 Filter Filter 1 Limit FCC Part 27									
	f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch. (2510 MHz)									
	5.0200	-10.1	V	3.0	40.9	1.0	-50.1	-25.0	-25.1	
	7.5300	-10.8	V	3.0	40.7	1.0	-50.6	-25.0	-25.6	
	10.0400	-9.7	V	3.0	39.7	1.0	-48.4	-25.0	-23.4	
	5.0200	-9.2	H	3.0	40.9	1.0	-49.1	-25.0	-24.1	
	7.5300	-7.7	H	3.0	40.7	1.0	-47.5	-25.0	-22.5	
	10.0400	-13.8	H	3.0	39.7	1.0	-52.4	-25.0	-27.4	
	Mid Ch. (2535 MHz)									
	5.0700	-5.0	V	3.0	40.9	1.0	-44.9	-25.0	-19.9	
	7.6050	-11.8	V	3.0	40.7	1.0	-51.5	-25.0	-26.5	
	10.1400	-10.8	V	3.0	39.6	1.0	-49.4	-25.0	-24.4	
	5.0700	1.2	H	3.0	40.9	1.0	-38.7	-25.0	-13.7	
	7.6050	-9.2	H	3.0	40.7	1.0	-48.8	-25.0	-23.8	
	10.1400	-11.2	H	3.0	39.6	1.0	-49.8	-25.0	-24.8	
	High Ch. (2560 MHz)									
	5.1200	-5.5	V	3.0	40.9	1.0	-45.4	-25.0	-20.4	
	7.6800	-9.8	V	3.0	40.6	1.0	-49.4	-25.0	-24.4	
	10.2400	-9.9	V	3.0	39.5	1.0	-48.4	-25.0	-23.4	
	5.1200	0.5	H	3.0	40.9	1.0	-39.4	-25.0	-14.4	
	7.6800	-6.3	H	3.0	40.6	1.0	-45.9	-25.0	-20.9	
	10.2400	-6.2	H	3.0	39.5	1.0	-44.7	-25.0	-19.7	
Rev. 03.03.09										
Note: No other emissions were detected above the system noise floor.										

LTE Band 30

LTE Band 30 5MHz QPSK	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Date: 06-07-16 Test Engineer: JH Park Configuration: EUT / AC Adapter / Ear Phone / Z-Position Mode: TX, LTE BAND 30, 5MHz BW, QPSK Chamber Chamber 2 Pre-amplifier AFS42 Filter Filter 1 Limit FCC Part 27									
	f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, (2307.5 MHz)									
	4.6150	-11.9	V	3.0	40.9	1.0	-51.8	-40.0	-11.8	
	6.9225	-8.2	V	3.0	41.0	1.0	-48.2	-40.0	-8.2	
	9.2300	-10.2	V	3.0	39.6	1.0	-48.6	-40.0	-8.6	
	4.6150	-10.0	H	3.0	40.9	1.0	-49.8	-40.0	-9.8	
	6.9225	-5.5	H	3.0	41.0	1.0	-45.5	-40.0	-5.5	
	9.2300	-10.2	H	3.0	39.6	1.0	-48.9	-40.0	-8.9	
	Mid Ch, (2310 MHz)									
	4.6200	-10.9	V	3.0	40.9	1.0	-50.8	-40.0	-10.8	
	6.9300	-5.5	V	3.0	41.0	1.0	-45.5	-40.0	-5.5	
	9.2400	-9.3	V	3.0	39.6	1.0	-48.0	-40.0	-8.0	
	4.6200	-11.3	H	3.0	40.9	1.0	-51.2	-40.0	-11.2	
	6.9300	-1.2	H	3.0	41.0	1.0	-41.2	-40.0	-1.2	
	9.2400	-10.5	H	3.0	39.6	1.0	-49.2	-40.0	-9.2	
	High Ch, (2312.5 MHz)									
	4.6250	-11.3	V	3.0	40.9	1.0	-51.2	-40.0	-11.2	
	6.9375	-1.5	V	3.0	41.0	1.0	-41.5	-40.0	-1.5	
	9.2500	-9.0	V	3.0	39.6	1.0	-47.7	-40.0	-7.7	
	4.6250	-10.6	H	3.0	40.9	1.0	-50.5	-40.0	-10.5	
	6.9375	-2.2	H	3.0	41.0	1.0	-42.3	-40.0	-2.3	
	9.2500	-11.0	H	3.0	39.6	1.0	-49.7	-40.0	-9.7	
	Rev. 03.03.09 Note: No other emissions were detected above the system noise floor.									

LTE Band 41

UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement									
Date:		06-02-16							
Test Engineer:		JH Park							
Configuration:		EUT / AC Adapter / Ear Phone / Z-Position							
Mode:		TX, LTE BAND 41, 15MHz BW,QPSK							
Chamber		Pre-amplifier		Filter		Limit			
Chamber 2		AFS42		Filter 1		FCC Part 27			
f GHz	SGreading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch. (2503.5 MHz)									
5.0070	-8.6	V	3.0	40.9	1.0	-48.5	-25.0	-23.5	
7.5100	-8.0	V	3.0	40.7	1.0	-47.7	-25.0	-22.7	
10.0140	-10.1	V	3.0	39.7	1.0	-48.8	-25.0	-23.8	
5.0070	-6.8	H	3.0	40.9	1.0	-46.8	-25.0	-21.8	
7.5100	-3.7	H	3.0	40.7	1.0	-43.5	-25.0	-18.5	
10.0140	-10.6	H	3.0	39.7	1.0	-49.3	-25.0	-24.3	
Mid Ch. (2593 MHz)									
5.1860	-5.1	V	3.0	40.9	1.0	-44.9	-25.0	-19.9	
7.7790	-7.6	V	3.0	40.6	1.0	-47.2	-25.0	-22.2	
10.3720	-8.4	V	3.0	39.4	1.0	-46.9	-25.0	-21.9	
5.1860	1.0	H	3.0	40.9	1.0	-38.9	-25.0	-13.9	
7.7790	-3.8	H	3.0	40.6	1.0	-43.4	-25.0	-18.4	
10.3720	-11.9	H	3.0	39.4	1.0	-50.3	-25.0	-25.3	
High Ch. (2682.5 MHz)									
5.3650	-3.5	V	3.0	40.9	1.0	-43.4	-25.0	-18.4	
8.0470	-4.0	V	3.0	40.4	1.0	-43.4	-25.0	-18.4	
10.7300	-6.3	V	3.0	39.2	1.0	-44.5	-25.0	-19.5	
5.3650	0.5	H	3.0	40.9	1.0	-39.4	-25.0	-14.4	
8.0470	0.0	H	3.0	40.4	1.0	-39.4	-25.0	-14.4	
10.7300	-6.2	H	3.0	39.2	1.0	-44.3	-25.0	-19.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

LTE
Band 41
15MHz
QPSK

LTE Band 12

UL Korea, Ltd Suwon Laboratory									
Above 1GHz High Frequency Substitution Measurement									
Date:		06-01-16							
Test Engineer:		JH Park							
Configuration:		EUT / AC Adapter / Earphone, Z Position							
Mode:		TX, LTE BAND 12, 10MHz BW,QPSK							
Chamber Chamber 2		Pre-amplifier AFS42		Filter Filter 1		Limit Part 27			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (704MHz)									
1.4080	-19.7	V	3.0	39.0	1.0	-57.7	-13.0	-44.7	
2.1120	-11.2	V	3.0	39.3	1.0	-49.5	-13.0	-36.5	
2.8160	-17.1	V	3.0	39.7	1.0	-55.8	-13.0	-42.8	
1.4080	-17.2	H	3.0	39.0	1.0	-55.3	-13.0	-42.3	
2.1120	-7.5	H	3.0	39.3	1.0	-45.9	-13.0	-32.9	
2.8160	-17.0	H	3.0	39.7	1.0	-55.7	-13.0	-42.7	
Mid Channel (707.5MHz)									
1.4150	-18.7	V	3.0	39.0	1.0	-56.8	-13.0	-43.8	
2.1225	-14.6	V	3.0	39.3	1.0	-53.0	-13.0	-40.0	
2.8300	-17.5	V	3.0	39.7	1.0	-56.2	-13.0	-43.2	
1.4150	-13.5	H	3.0	39.0	1.0	-51.5	-13.0	-38.5	
2.1225	-8.9	H	3.0	39.3	1.0	-47.3	-13.0	-34.3	
2.8300	-16.7	H	3.0	39.7	1.0	-55.4	-13.0	-42.4	
High Channel (711MHz)									
1.4220	-19.9	V	3.0	39.0	1.0	-57.9	-13.0	-44.9	
2.1330	-12.2	V	3.0	39.3	1.0	-50.5	-13.0	-37.5	
2.8440	-17.2	V	3.0	39.7	1.0	-56.0	-13.0	-43.0	
1.4220	-19.4	H	3.0	39.0	1.0	-57.4	-13.0	-44.4	
2.1330	-6.8	H	3.0	39.3	1.0	-45.1	-13.0	-32.1	
2.8440	-16.0	H	3.0	39.7	1.0	-54.7	-13.0	-41.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

LTE
Band 12
10MHz
QPSK

LTE Band 13

UL Korea, Ltd Suwon Laboratory									
Above 1GHz High Frequency Substitution Measurement									
Date:		06-01-16							
Test Engineer:		JH Park							
Configuration:		EUT / AC Adapter / Earphone, Z Position							
Mode:		TX, LTE BAND 13, 5MHz BW,QPSK							
Chamber Chamber 2		Pre-amplifier AFS42		Filter Filter 1		Limit Part 27			
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (779.5MHz)									
1.5590	-16.3	V	3.0	39.1	1.0	-54.4	-40.0	-14.4	1559-1610MHz
2.3385	-17.8	V	3.0	39.4	1.0	-56.3	-13.0	-43.3	
3.1180	-16.6	V	3.0	39.9	1.0	-55.5	-13.0	-42.5	
1.5590	-15.6	H	3.0	39.1	1.0	-53.7	-40.0	-13.7	1559-1610MHz
2.3385	-15.2	H	3.0	39.4	1.0	-53.6	-13.0	-40.6	
3.1180	-16.5	H	3.0	39.9	1.0	-55.5	-13.0	-42.5	
Mid Channel (782MHz)									
1.5640	-19.2	V	3.0	39.1	1.0	-57.2	-40.0	-17.2	1559-1610MHz
2.3460	-16.1	V	3.0	39.4	1.0	-54.5	-13.0	-41.5	
3.1280	-16.9	V	3.0	39.9	1.0	-55.8	-13.0	-42.8	
1.5640	-18.5	H	3.0	39.1	1.0	-56.6	-40.0	-16.6	1559-1610MHz
2.3460	-14.6	H	3.0	39.4	1.0	-53.0	-13.0	-40.0	
3.1280	-16.7	H	3.0	39.9	1.0	-55.6	-13.0	-42.6	
High Channel (784.5MHz)									
1.5690	-15.4	V	3.0	39.1	1.0	-53.5	-40.0	-13.5	1559-1610MHz
2.3535	-16.4	V	3.0	39.4	1.0	-54.9	-13.0	-41.9	
3.1380	-16.4	V	3.0	39.9	1.0	-55.4	-13.0	-42.4	
1.5690	-15.7	H	3.0	39.1	1.0	-53.8	-40.0	-13.8	1559-1610MHz
2.3535	-15.7	H	3.0	39.4	1.0	-54.1	-13.0	-41.1	
3.1380	-16.8	H	3.0	39.9	1.0	-55.7	-13.0	-42.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									