LTE Band 2 3MHz QPSK

UL Korea, Ltd Suwon Laboratory
Above 1GHz High Frequency Substitution Measurement

Company:	Samsung
Project #:	15K22555
Date:	12-26-15
Test Engineer:	Steven Kim
Configuration:	EUT / AC Adapter / Ear Phone / X-Position
Mode:	TX, LTE BAND 2, 3MHz BW,QPSK

Chamber	Pre-amplifer	Filter	Limit
Chamber 2	AFS42	Filter 1	FCC Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1851.5MHz)									
3.7030	-14.2	V	3.0	40.5	1.0	-53.6	-13.0	-40.6	
5.5545	0.6	V	3.0	40.8	1.0	-39.2	-13.0	-26.2	
7.4060	-2.6	V	3.0	40.8	1.0	-42.4	-13.0	-29.4	
3.7030	-18.4	H	3.0	40.5	1.0	-57.9	-13.0	-44.9	
5.5545	-1.2	H	3.0	40.8	1.0	-41.0	-13.0	-28.0	
7.4060	-1.0	H	3.0	40.8	1.0	-40.8	-13.0	-27.8	
Mid Channel (1880MHz)									
3.7600	-14.0	V	3.0	40.5	1.0	-53.6	-13.0	-40.6	
5.6400	-2.0	V	3.0	40.8	1.0	-41.8	-13.0	-28.8	
7.5200	-8.4	V	3.0	40.7	1.0	-48.1	-13.0	-35.1	
3.7600	-16.6	H	3.0	40.5	1.0	-56.1	-13.0	-43.1	
5.6400	-2.9	H	3.0	40.8	1.0	-42.7	-13.0	-29.7	
7.5200	-8.2	H	3.0	40.7	1.0	-47.9	-13.0	-34.9	
High Channel (1908.5MHz)									
3.8170	-12.5	V	3.0	40.6	1.0	-52.1	-13.0	-39.1	
5.7255	2.6	V	3.0	40.8	1.0	-37.2	-13.0	-24.2	
7.6340	-7.9	V	3.0	40.7	1.0	-47.6	-13.0	-34.6	
3.8170	-13.0	H	3.0	40.6	1.0	-52.6	-13.0	-39.6	
5.7255	-1.0	H	3.0	40.8	1.0	-40.8	-13.0	-27.8	
7.6340	-6.8	H	3.0	40.7	1.0	-46.5	-13.0	-33.5	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

LTE Band 2 3MHz 16QAM

UL Korea, Ltd Suwon Laboratory
Above 1GHz High Frequency Substitution Measurement

Company:	Samsung
Project #:	15K22555
Date:	12-26-15
Test Engineer:	Steven Kim
Configuration:	EUT / AC Adapter / Ear Phone / X-Position
Mode:	TX, LTE BAND 2, 3MHz BW,16QAM

Chamber	Pre-amplifer	Filter	Limit
Chamber 2	AFS42	Filter 1	FCC Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1851.5MHz)									
3.703	-15.8	V	3.0	40.5	1.0	-55.3	-13.0	-42.3	
5.555	-1.7	V	3.0	40.8	1.0	-41.5	-13.0	-28.5	
7.406	-4.4	V	3.0	40.8	1.0	-44.2	-13.0	-31.2	
3.703	-20.1	H	3.0	40.5	1.0	-59.5	-13.0	-46.5	
5.555	-2.7	H	3.0	40.8	1.0	-42.5	-13.0	-29.5	
7.406	-2.1	H	3.0	40.8	1.0	-41.9	-13.0	-28.9	
Mid Channel (1880MHz)									
3.760	-14.7	V	3.0	40.5	1.0	-54.2	-13.0	-41.2	
5.640	-3.4	V	3.0	40.8	1.0	-43.2	-13.0	-30.2	
7.520	-9.2	V	3.0	40.7	1.0	-48.9	-13.0	-35.9	
3.760	-18.0	H	3.0	40.5	1.0	-57.5	-13.0	-44.5	
5.640	-4.6	H	3.0	40.8	1.0	-44.4	-13.0	-31.4	
7.520	-8.9	H	3.0	40.7	1.0	-48.6	-13.0	-35.6	
High Channel (1908.5MHz)									
3.817	-13.8	V	3.0	40.6	1.0	-53.4	-13.0	-40.4	
5.726	-0.9	V	3.0	40.8	1.0	-40.6	-13.0	-27.6	
7.634	-8.3	V	3.0	40.7	1.0	-47.9	-13.0	-34.9	
3.817	-15.9	H	3.0	40.6	1.0	-55.5	-13.0	-42.5	
5.726	-3.1	H	3.0	40.8	1.0	-42.9	-13.0	-29.9	
7.634	-7.5	H	3.0	40.7	1.0	-47.2	-13.0	-34.2	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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LTE Band 2 1.4MHz QPSK

UL Korea, Ltd Suwon Laboratory
Above 1GHz High Frequency Substitution Measurement

Company: Samsung
Project #: 15K22555
Date: 12-26-15
Test Engineer: Steven Kim
Configuration: EUT / AC Adapter / Ear Phone / X-Position
Mode: TX, LTE BAND 2, 1.4MHz BW,QPSK

Chamber	Pre-amplifer	Filter	Limit
Chamber 2	AFS42	Filter 1	FCC Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1850.7MHz)									
3.7014	-12.2	V	3.0	40.5	1.0	-51.6	-13.0	-38.6	
5.5521	0.1	V	3.0	40.8	1.0	-39.7	-13.0	-26.7	
7.4028	-2.6	V	3.0	40.8	1.0	-42.4	-13.0	-29.4	
3.7014	-18.6	H	3.0	40.5	1.0	-58.1	-13.0	-45.1	
5.5521	-1.3	H	3.0	40.8	1.0	-41.1	-13.0	-28.1	
7.4028	-0.3	H	3.0	40.8	1.0	-40.1	-13.0	-27.1	
Mid Channel (1880MHz)									
3.7600	-14.4	V	3.0	40.5	1.0	-53.9	-13.0	-40.9	
5.6400	-2.1	V	3.0	40.8	1.0	-41.9	-13.0	-28.9	
7.5200	-7.8	V	3.0	40.7	1.0	-47.5	-13.0	-34.5	
3.7600	-16.6	H	3.0	40.5	1.0	-56.1	-13.0	-43.1	
5.6400	-2.7	H	3.0	40.8	1.0	-42.5	-13.0	-29.5	
7.5200	-8.6	H	3.0	40.7	1.0	-48.3	-13.0	-35.3	
High Channel (1909.3MHz)									
3.8186	-13.4	V	3.0	40.6	1.0	-53.0	-13.0	-40.0	
5.7279	0.4	V	3.0	40.8	1.0	-39.4	-13.0	-26.4	
7.6372	-6.5	V	3.0	40.7	1.0	-46.2	-13.0	-33.2	
3.8186	-11.9	H	3.0	40.6	1.0	-51.5	-13.0	-38.5	
5.7279	-3.0	H	3.0	40.8	1.0	-42.8	-13.0	-29.8	
7.6372	-6.5	H	3.0	40.7	1.0	-46.1	-13.0	-33.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

LTE Band 2 1.4MHz 16QAM

UL Korea, Ltd Suwon Laboratory
Above 1GHz High Frequency Substitution Measurement

Company: Samsung
Project #: 15K22555
Date: 12-26-15
Test Engineer: Steven Kim
Configuration: EUT / AC Adapter / Ear Phone / X-Position
Mode: TX, LTE BAND 2, 1.4MHz BW,16QAM

Chamber	Pre-amplifer	Filter	Limit
Chamber 2	AFS42	Filter 1	FCC Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (1850.7MHz)									
3.7014	-13.9	V	3.0	40.5	1.0	-53.4	-13.0	-40.4	
5.5521	-1.4	V	3.0	40.8	1.0	-41.2	-13.0	-28.2	
7.4028	-4.1	V	3.0	40.8	1.0	-43.9	-13.0	-30.9	
3.7014	-20.4	H	3.0	40.5	1.0	-59.8	-13.0	-46.8	
5.5521	-2.8	H	3.0	40.8	1.0	-42.6	-13.0	-29.6	
7.4028	-2.2	H	3.0	40.8	1.0	-42.0	-13.0	-29.0	
Mid Channel (1880MHz)									
3.7600	-15.5	V	3.0	40.5	1.0	-55.1	-13.0	-42.1	
5.6400	-3.9	V	3.0	40.8	1.0	-43.7	-13.0	-30.7	
7.5200	-8.9	V	3.0	40.7	1.0	-48.6	-13.0	-35.6	
3.7600	-18.4	H	3.0	40.5	1.0	-58.0	-13.0	-45.0	
5.6400	-5.2	H	3.0	40.8	1.0	-45.0	-13.0	-32.0	
7.5200	-9.3	H	3.0	40.7	1.0	-49.0	-13.0	-36.0	
High Channel (1909.3MHz)									
3.8186	-15.1	V	3.0	40.6	1.0	-54.7	-13.0	-41.7	
5.7279	-1.4	V	3.0	40.8	1.0	-41.2	-13.0	-28.2	
7.6372	-7.2	V	3.0	40.7	1.0	-46.9	-13.0	-33.9	
3.8186	-13.9	H	3.0	40.6	1.0	-53.5	-13.0	-40.5	
5.7279	-5.7	H	3.0	40.8	1.0	-45.5	-13.0	-32.5	
7.6372	-7.2	H	3.0	40.7	1.0	-46.9	-13.0	-33.9	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

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