

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45574 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 3 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
LTE Band 2 3MHz QPSK									
Low Ch, 1851.5MHz									
3703.00	-2.8	V	3.0	40.9	1.0	-42.6	-13.0	-29.6	
5554.50	-5.6	V	3.0	40.1	1.0	-44.6	-13.0	-31.6	
7406.00	-7.2	V	3.0	40.0	1.0	-46.2	-13.0	-33.2	
3703.00	6.6	H	3.0	40.9	1.0	-33.2	-13.0	-20.2	
5554.50	-5.6	H	3.0	40.1	1.0	-44.6	-13.0	-31.6	
7406.00	-9.7	H	3.0	40.0	1.0	-48.8	-13.0	-35.8	
Mid Ch, 1880MHz									
3760.00	-2.1	V	3.0	40.8	1.0	-42.0	-13.0	-29.0	
5640.00	-7.0	V	3.0	40.0	1.0	-46.0	-13.0	-33.0	
7520.00	-7.7	V	3.0	40.0	1.0	-46.7	-13.0	-33.7	
3760.00	4.5	H	3.0	40.8	1.0	-35.4	-13.0	-22.4	
5640.00	-7.9	H	3.0	40.0	1.0	-46.9	-13.0	-33.9	
7520.00	-10.2	H	3.0	40.0	1.0	-49.2	-13.0	-36.2	
High Ch, 1908.5MHz									
3817.00	-4.1	V	3.0	40.8	1.0	-43.9	-13.0	-30.9	
5725.50	-8.2	V	3.0	40.0	1.0	-47.3	-13.0	-34.3	
7634.00	-6.7	V	3.0	40.0	1.0	-45.7	-13.0	-32.7	
3817.00	1.6	H	3.0	40.8	1.0	-38.2	-13.0	-25.2	
5725.50	-8.9	H	3.0	40.0	1.0	-47.9	-13.0	-34.9	
7634.00	-9.9	H	3.0	40.0	1.0	-48.9	-13.0	-35.9	
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45574 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 3 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
LTE Band 2 3MHz 16QAM									
Low Ch, 1851.5MHz									
3703.00	-2.8	V	3.0	40.9	1.0	-42.7	-13.0	-29.7	
5554.50	-5.9	V	3.0	40.1	1.0	-44.9	-13.0	-31.9	
7406.00	-7.4	V	3.0	40.0	1.0	-46.5	-13.0	-33.5	
3703.00	6.7	H	3.0	40.9	1.0	-33.2	-13.0	-20.2	
5554.50	-5.7	H	3.0	40.1	1.0	-44.8	-13.0	-31.8	
7406.00	-9.5	H	3.0	40.0	1.0	-48.6	-13.0	-35.6	
Mid Ch, 1880MHz									
3760.00	-2.5	V	3.0	40.8	1.0	-42.3	-13.0	-29.3	
5640.00	-6.9	V	3.0	40.0	1.0	-46.0	-13.0	-33.0	
7520.00	-8.3	V	3.0	40.0	1.0	-47.3	-13.0	-34.3	
3760.00	4.6	H	3.0	40.8	1.0	-35.2	-13.0	-22.2	
5640.00	-8.4	H	3.0	40.0	1.0	-47.4	-13.0	-34.4	
7520.00	-9.8	H	3.0	40.0	1.0	-48.9	-13.0	-35.9	
High Ch, 1908.5MHz									
3817.00	-3.6	V	3.0	40.8	1.0	-43.4	-13.0	-30.4	
5725.50	-8.3	V	3.0	40.0	1.0	-47.3	-13.0	-34.3	
7634.00	-7.1	V	3.0	40.0	1.0	-46.1	-13.0	-33.1	
3817.00	1.4	H	3.0	40.8	1.0	-38.4	-13.0	-25.4	
5725.50	-9.2	H	3.0	40.0	1.0	-48.3	-13.0	-35.3	
7634.00	-9.8	H	3.0	40.0	1.0	-48.8	-13.0	-35.8	

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45574 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 3 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
LTE Band 2 1.4MHz QPSK									
Low Ch, 1850.7MHz									
3701.40	-3.1	V	3.0	40.9	1.0	-43.0	-13.0	-30.0	
5552.10	-4.8	V	3.0	40.1	1.0	-43.9	-13.0	-30.9	
7402.80	-6.4	V	3.0	40.0	1.0	-45.4	-13.0	-32.4	
3701.40	6.7	H	3.0	40.9	1.0	-33.2	-13.0	-20.2	
5552.10	-5.1	H	3.0	40.1	1.0	-44.1	-13.0	-31.1	
7402.80	-9.2	H	3.0	40.0	1.0	-48.2	-13.0	-35.2	
Mid Ch, 1880MHz									
3760.00	-1.8	V	3.0	40.8	1.0	-41.6	-13.0	-28.6	
5640.00	-6.2	V	3.0	40.0	1.0	-45.2	-13.0	-32.2	
7520.00	-8.5	V	3.0	40.0	1.0	-47.5	-13.0	-34.5	
3760.00	4.7	H	3.0	40.8	1.0	-35.1	-13.0	-22.1	
5640.00	-6.2	H	3.0	40.0	1.0	-45.3	-13.0	-32.3	
7520.00	-9.0	H	3.0	40.0	1.0	-48.1	-13.0	-35.1	
High Ch, 1909.3MHz									
3818.60	-4.2	V	3.0	40.8	1.0	-43.9	-13.0	-30.9	
5727.90	-6.8	V	3.0	40.0	1.0	-45.8	-13.0	-32.8	
7637.20	-6.9	V	3.0	40.0	1.0	-45.9	-13.0	-32.9	
3818.60	1.3	H	3.0	40.8	1.0	-38.5	-13.0	-25.5	
5727.90	-8.0	H	3.0	40.0	1.0	-45.0	-13.0	-32.0	
7637.20	-9.7	H	3.0	40.0	1.0	-48.7	-13.0	-35.7	
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45574 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 3 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
LTE Band 2 1.4MHz 16QAM									
Low Ch, 1850.7MHz									
3701.40	-2.1	V	3.0	40.9	1.0	-42.0	-13.0	-29.0	
5552.10	-4.7	V	3.0	40.1	1.0	-43.7	-13.0	-30.7	
7402.80	-6.9	V	3.0	40.0	1.0	-45.9	-13.0	-32.9	
3701.40	7.8	H	3.0	40.9	1.0	-32.1	-13.0	-19.1	
5552.10	-5.2	H	3.0	40.1	1.0	-44.3	-13.0	-31.3	
7402.80	-9.8	H	3.0	40.0	1.0	-48.8	-13.0	-35.8	
Mid Ch, 1880MHz									
3760.00	-2.1	V	3.0	40.8	1.0	-41.9	-13.0	-28.9	
5640.00	-5.8	V	3.0	40.0	1.0	-44.9	-13.0	-31.9	
7520.00	-7.7	V	3.0	40.0	1.0	-46.7	-13.0	-33.7	
3760.00	4.5	H	3.0	40.8	1.0	-35.3	-13.0	-22.3	
5640.00	-6.8	H	3.0	40.0	1.0	-45.9	-13.0	-32.9	
7520.00	-10.1	H	3.0	40.0	1.0	-49.2	-13.0	-36.2	
High Ch, 1909.3MHz									
3818.60	-4.7	V	3.0	40.8	1.0	-44.5	-13.0	-31.5	
5727.90	-7.4	V	3.0	40.0	1.0	-46.4	-13.0	-33.4	
7637.20	-7.1	V	3.0	40.0	1.0	-46.1	-13.0	-33.1	
3818.60	1.3	H	3.0	40.8	1.0	-38.5	-13.0	-25.5	
5727.90	-8.0	H	3.0	40.0	1.0	-47.0	-13.0	-34.0	
7637.20	-9.3	H	3.0	40.0	1.0	-48.4	-13.0	-35.4	

LTE Band 12

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, Z-Position Location: Chamber 3 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	
LTE Band 12 10MHz QPSK										
Low Ch, 704MHz										
1408.00	-11.4	V	3.0	41.7	1.0	-52.0	-13.0	-39.0		
2112.00	-16.8	V	3.0	42.0	1.0	-57.8	-13.0	-44.8		
2816.00	-17.0	V	3.0	41.5	1.0	-57.5	-13.0	-44.5		
1408.00	-12.5	H	3.0	41.7	1.0	-53.1	-13.0	-40.1		
2112.00	-15.7	H	3.0	42.0	1.0	-56.6	-13.0	-43.6		
2816.00	-17.3	H	3.0	41.5	1.0	-57.7	-13.0	-44.7		
Mid Ch, 707.5MHz										
1415.00	-13.7	V	3.0	41.7	1.0	-54.4	-13.0	-41.4		
2122.50	-17.3	V	3.0	41.9	1.0	-58.2	-13.0	-45.2		
2830.00	-16.5	V	3.0	41.4	1.0	-57.0	-13.0	-44.0		
1415.00	-15.0	H	3.0	41.7	1.0	-55.6	-13.0	-42.6		
2122.50	-17.3	H	3.0	41.9	1.0	-58.2	-13.0	-45.2		
2830.00	-17.0	H	3.0	41.4	1.0	-57.4	-13.0	-44.4		
High Ch, 711MHz										
1422.00	-9.9	V	3.0	41.7	1.0	-50.5	-13.0	-37.5		
2133.00	-15.2	V	3.0	41.9	1.0	-56.1	-13.0	-43.1		
2844.00	-16.8	V	3.0	41.4	1.0	-57.2	-13.0	-44.2		
1422.00	-11.8	H	3.0	41.7	1.0	-52.5	-13.0	-39.5		
2133.00	-15.5	H	3.0	41.9	1.0	-56.4	-13.0	-43.4		
2844.00	-17.2	H	3.0	41.4	1.0	-57.6	-13.0	-44.6		
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, Z-Position Location: Chamber 3 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	
LTE Band 12 10MHz 16QAM										
Low Ch, 704MHz										
1408.00	-12.0	V	3.0	41.7	1.0	-52.7	-13.0	-39.7		
2112.00	-16.9	V	3.0	42.0	1.0	-57.9	-13.0	-44.9		
2816.00	-17.1	V	3.0	41.5	1.0	-57.6	-13.0	-44.6		
1408.00	-12.9	H	3.0	41.7	1.0	-53.6	-13.0	-40.6		
2112.00	-16.7	H	3.0	42.0	1.0	-57.7	-13.0	-44.7		
2816.00	-17.2	H	3.0	41.5	1.0	-57.6	-13.0	-44.6		
Mid Ch, 707.5MHz										
1415.00	-14.8	V	3.0	41.7	1.0	-55.4	-13.0	-42.4		
2122.50	-17.5	V	3.0	41.9	1.0	-58.5	-13.0	-45.5		
2830.00	-17.4	V	3.0	41.4	1.0	-57.8	-13.0	-44.8		
1415.00	-16.0	H	3.0	41.7	1.0	-56.7	-13.0	-43.7		
2122.50	-17.7	H	3.0	41.9	1.0	-58.6	-13.0	-45.6		
2830.00	-17.0	H	3.0	41.4	1.0	-57.4	-13.0	-44.4		
High Ch, 711MHz										
1422.00	-10.7	V	3.0	41.7	1.0	-51.4	-13.0	-38.4		
2133.00	-15.4	V	3.0	41.9	1.0	-56.3	-13.0	-43.3		
2844.00	-16.6	V	3.0	41.4	1.0	-57.1	-13.0	-44.1		
1422.00	-12.5	H	3.0	41.7	1.0	-53.2	-13.0	-40.2		
2133.00	-15.3	H	3.0	41.9	1.0	-56.3	-13.0	-43.3		
2844.00	-17.4	H	3.0	41.4	1.0	-57.8	-13.0	-44.8		

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
LTE Band 12 5MHz QPSK	Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, Z-Position Location: Chamber 3 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	-10.5	V	3.0	41.7	1.0	-51.2	-13.0	-38.2	
	2104.50	-14.3	V	3.0	42.0	1.0	-55.3	-13.0	-42.3	
	2806.00	-16.7	V	3.0	41.5	1.0	-57.2	-13.0	-44.2	
	1403.00	-21.2	H	3.0	41.7	1.0	-61.9	-13.0	-48.9	
	2104.50	-13.9	H	3.0	42.0	1.0	-54.8	-13.0	-41.8	
	2806.00	-16.9	H	3.0	41.5	1.0	-57.4	-13.0	-44.4	
	Mid Ch, 707.5MHz									
	1415.00	-13.7	V	3.0	41.7	1.0	-54.3	-13.0	-41.3	
	2122.50	-17.2	V	3.0	41.9	1.0	-58.2	-13.0	-45.2	
	2830.00	-16.8	V	3.0	41.4	1.0	-57.2	-13.0	-44.2	
	1415.00	-14.5	H	3.0	41.7	1.0	-55.2	-13.0	-42.2	
	2122.50	-17.6	H	3.0	41.9	1.0	-58.5	-13.0	-45.5	
	2830.00	-16.7	H	3.0	41.4	1.0	-57.1	-13.0	-44.1	
	High Ch, 713.5MHz									
	1427.00	-10.5	V	3.0	41.7	1.0	-51.1	-13.0	-38.1	
	2140.50	-16.0	V	3.0	41.9	1.0	-56.9	-13.0	-43.9	
	2854.00	-17.0	V	3.0	41.4	1.0	-57.4	-13.0	-44.4	
1427.00	-11.9	H	3.0	41.7	1.0	-52.6	-13.0	-39.6		
2140.50	-15.9	H	3.0	41.9	1.0	-56.8	-13.0	-43.8		
2854.00	-17.2	H	3.0	41.4	1.0	-57.6	-13.0	-44.6		
LTE Band 12 5MHz 16QAM	Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, Z-Position Location: Chamber 3 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	-11.4	V	3.0	41.7	1.0	-52.1	-13.0	-39.1	
	2104.50	-14.4	V	3.0	42.0	1.0	-55.3	-13.0	-42.3	
	2806.00	-16.0	V	3.0	41.5	1.0	-56.5	-13.0	-43.5	
	1403.00	-12.1	H	3.0	41.7	1.0	-52.7	-13.0	-39.7	
	2104.50	-14.8	H	3.0	42.0	1.0	-55.7	-13.0	-42.7	
	2806.00	-16.5	H	3.0	41.5	1.0	-56.9	-13.0	-43.9	
	Mid Ch, 707.5MHz									
	1415.00	-13.3	V	3.0	41.7	1.0	-54.0	-13.0	-41.0	
	2122.50	-16.8	V	3.0	41.9	1.0	-57.8	-13.0	-44.8	
	2830.00	-16.6	V	3.0	41.4	1.0	-57.1	-13.0	-44.1	
	1415.00	-15.3	H	3.0	41.7	1.0	-55.9	-13.0	-42.9	
	2122.50	-17.8	H	3.0	41.9	1.0	-58.8	-13.0	-45.8	
	2830.00	-16.9	H	3.0	41.4	1.0	-57.4	-13.0	-44.4	
	High Ch, 713.5MHz									
	1427.00	-10.8	V	3.0	41.7	1.0	-51.5	-13.0	-38.5	
	2140.50	-16.3	V	3.0	41.9	1.0	-57.2	-13.0	-44.2	
	2854.00	-16.8	V	3.0	41.4	1.0	-57.2	-13.0	-44.2	
1427.00	-11.7	H	3.0	41.7	1.0	-52.4	-13.0	-39.4		
2140.50	-16.2	H	3.0	41.9	1.0	-57.1	-13.0	-44.1		
2854.00	-16.7	H	3.0	41.4	1.0	-57.2	-13.0	-44.2		

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company:	Samsung								
		Project #:	4788397760								
		Date:	2018-04-04								
		Test Engineer:	45585								
		Configuration:	EUT / Adapter / Earphone, Z-Position								
		Location:	Chamber 3								
		Mode:	LTE_QPSK Band 12 Harmonics, 3MHz Bandwidth								
LTE	Band 12	f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
		MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
		Low Ch, 700.5MHz									
		1401.00	-9.1	V	3.0	41.7	1.0	-49.7	-13.0	-36.7	
		2101.50	-14.1	V	3.0	42.0	1.0	-55.1	-13.0	-42.1	
		2802.00	-16.3	V	3.0	41.5	1.0	-56.8	-13.0	-43.8	
		3MHz									
		1401.00	-10.4	H	3.0	41.7	1.0	-51.1	-13.0	-38.1	
		2101.50	-14.6	H	3.0	42.0	1.0	-55.5	-13.0	-42.5	
		2802.00	-17.3	H	3.0	41.5	1.0	-57.7	-13.0	-44.7	
		QPSK									
		Mid Ch, 707.5MHz									
		1415.00	-13.5	V	3.0	41.7	1.0	-54.1	-13.0	-41.1	
		2122.50	-17.3	V	3.0	41.9	1.0	-58.3	-13.0	-45.3	
		2830.00	-16.3	V	3.0	41.4	1.0	-56.7	-13.0	-43.7	
		1415.00	-15.0	H	3.0	41.7	1.0	-55.6	-13.0	-42.6	
		2122.50	-17.3	H	3.0	41.9	1.0	-58.2	-13.0	-45.2	
		2830.00	-16.6	H	3.0	41.4	1.0	-57.1	-13.0	-44.1	
		High Ch, 714.5MHz									
		1429.00	-13.4	V	3.0	41.7	1.0	-54.1	-13.0	-41.1	
		2143.50	-16.0	V	3.0	41.9	1.0	-56.9	-13.0	-43.9	
		2858.00	-16.9	V	3.0	41.4	1.0	-57.3	-13.0	-44.3	
		1429.00	-14.8	H	3.0	41.7	1.0	-55.4	-13.0	-42.4	
		2143.50	-16.7	H	3.0	41.9	1.0	-57.6	-13.0	-44.6	
		2858.00	-17.1	H	3.0	41.4	1.0	-57.5	-13.0	-44.5	
		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
		Company:	Samsung								
		Project #:	4788397760								
		Date:	2018-04-04								
		Test Engineer:	45585								
		Configuration:	EUT / Adapter / Earphone, Z-Position								
		Location:	Chamber 3								
		Mode:	LTE_16QAM Band 12 Harmonics, 3MHz Bandwidth								
LTE	Band 12	f	SG reading	Ant. Pol.	Distance	Preamp	Filter	EIRP	Limit	Delta	Notes
		MHz	(dBm)	(H/V)	(m)	(dB)	(dB)	(dBm)	(dBm)	(dB)	
		Low Ch, 700.5MHz									
		1401.00	-8.4	V	3.0	41.7	1.0	-49.1	-13.0	-36.1	
		2101.50	-13.6	V	3.0	42.0	1.0	-54.6	-13.0	-41.6	
		2802.00	-16.6	V	3.0	41.5	1.0	-57.0	-13.0	-44.0	
		3MHz									
		1401.00	-10.2	H	3.0	41.7	1.0	-50.9	-13.0	-37.9	
		2101.50	-14.3	H	3.0	42.0	1.0	-55.2	-13.0	-42.2	
		2802.00	-16.8	H	3.0	41.5	1.0	-57.3	-13.0	-44.3	
		16QAM									
		Mid Ch, 707.5MHz									
		1415.00	-13.6	V	3.0	41.7	1.0	-54.3	-13.0	-41.3	
		2122.50	-17.0	V	3.0	41.9	1.0	-57.9	-13.0	-44.9	
		2830.00	-16.9	V	3.0	41.4	1.0	-57.3	-13.0	-44.3	
		1415.00	-15.5	H	3.0	41.7	1.0	-56.2	-13.0	-43.2	
		2122.50	-17.6	H	3.0	41.9	1.0	-58.6	-13.0	-45.6	
		2830.00	-16.9	H	3.0	41.4	1.0	-57.3	-13.0	-44.3	
		High Ch, 714.5MHz									
		1429.00	-16.7	V	3.0	41.7	1.0	-57.4	-13.0	-44.4	
		2143.50	-15.6	V	3.0	41.9	1.0	-56.5	-13.0	-43.5	
		2858.00	-17.0	V	3.0	41.4	1.0	-57.4	-13.0	-44.4	
		1429.00	-16.8	H	3.0	41.7	1.0	-57.5	-13.0	-44.5	
		2143.50	-17.1	H	3.0	41.9	1.0	-58.0	-13.0	-45.0	
		2858.00	-17.2	H	3.0	41.4	1.0	-57.7	-13.0	-44.7	

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, Z-Position Location: Chamber 3 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
LTE Band 12 1.4MHz QPSK									
Low Ch, 699.7MHz									
1399.40	-14.4	V	3.0	41.7	1.0	-55.1	-13.0	-42.1	
2099.10	-13.4	V	3.0	42.0	1.0	-54.4	-13.0	-41.4	
2798.80	-16.4	V	3.0	41.5	1.0	-56.9	-13.0	-43.9	
1399.40	-16.2	H	3.0	41.7	1.0	-56.9	-13.0	-43.9	
2099.10	-14.1	H	3.0	42.0	1.0	-55.1	-13.0	-42.1	
2798.80	-16.7	H	3.0	41.5	1.0	-57.2	-13.0	-44.2	
Mid Ch, 707.5MHz									
1415.00	-13.4	V	3.0	41.7	1.0	-54.0	-13.0	-41.0	
2122.50	-17.1	V	3.0	41.9	1.0	-58.0	-13.0	-45.0	
2830.00	-16.8	V	3.0	41.4	1.0	-57.2	-13.0	-44.2	
1415.00	-15.3	H	3.0	41.7	1.0	-56.0	-13.0	-43.0	
2122.50	-17.3	H	3.0	41.9	1.0	-58.2	-13.0	-45.2	
2830.00	-17.4	H	3.0	41.4	1.0	-57.8	-13.0	-44.8	
High Ch, 715.3MHz									
1430.60	-15.5	V	3.0	41.7	1.0	-56.2	-13.0	-43.2	
2145.90	-16.5	V	3.0	41.9	1.0	-57.4	-13.0	-44.4	
2861.20	-16.5	V	3.0	41.4	1.0	-56.9	-13.0	-43.9	
1430.60	-17.3	H	3.0	41.7	1.0	-58.0	-13.0	-45.0	
2145.90	-16.8	H	3.0	41.9	1.0	-57.8	-13.0	-44.8	
2861.20	-17.2	H	3.0	41.4	1.0	-57.6	-13.0	-44.6	
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company: Samsung Project #: 4788397760 Date: 2018-04-04 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, Z-Position Location: Chamber 3 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
LTE Band 12 1.4MHz 16QAM									
Low Ch, 699.7MHz									
1399.40	-14.5	V	3.0	41.7	1.0	-55.1	-13.0	-42.1	
2099.10	-13.4	V	3.0	42.0	1.0	-54.4	-13.0	-41.4	
2798.80	-16.5	V	3.0	41.5	1.0	-57.0	-13.0	-44.0	
1399.40	-17.1	H	3.0	41.7	1.0	-57.8	-13.0	-44.8	
2099.10	-13.6	H	3.0	42.0	1.0	-54.6	-13.0	-41.6	
2798.80	-17.2	H	3.0	41.5	1.0	-57.7	-13.0	-44.7	
Mid Ch, 707.5MHz									
1415.00	-14.6	V	3.0	41.7	1.0	-55.3	-13.0	-42.3	
2122.50	-16.9	V	3.0	41.9	1.0	-57.8	-13.0	-44.8	
2830.00	-16.2	V	3.0	41.4	1.0	-56.7	-13.0	-43.7	
1415.00	-16.1	H	3.0	41.7	1.0	-56.8	-13.0	-43.8	
2122.50	-17.8	H	3.0	41.9	1.0	-58.8	-13.0	-45.8	
2830.00	-17.2	H	3.0	41.4	1.0	-57.7	-13.0	-44.7	
High Ch, 715.3MHz									
1430.60	-17.3	V	3.0	41.7	1.0	-58.0	-13.0	-45.0	
2145.90	-16.3	V	3.0	41.9	1.0	-57.2	-13.0	-44.2	
2861.20	-16.9	V	3.0	41.4	1.0	-57.3	-13.0	-44.3	
1430.60	-17.7	H	3.0	41.7	1.0	-58.4	-13.0	-45.4	
2145.90	-16.0	H	3.0	41.9	1.0	-56.9	-13.0	-43.9	
2861.20	-17.4	H	3.0	41.4	1.0	-57.8	-13.0	-44.8	