LTE Band 13

LTE

Band 13

5MHz

QPSK

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

Company:	Samsung
Project #:	4788886234
Date:	2019-03-09
Test Engineer:	47989
Configuration:	EUT / AC Adapter, Z-Position
Location:	Chamber 2
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	-22.4	V	3.0	38.2	1.0	-59.6	-40.0	-19.6	
2338.50	-12.9	V	3.0	38.7	1.0	-50.5	-13.0	-37.5	
3118.00	-10.6	V	3.0	39.3	1.0	-48.9	-13.0	-35.9	
1559.00	-22.1	H	3.0	38.2	1.0	-59.3	-40.0	-19.3	
2338.50	-13.6	H	3.0	38.7	1.0	-51.3	-13.0	-38.3	
3118.00	-10.9	H	3.0	39.3	1.0	-49.2	-13.0	-36.2	
Mid Ch, 782MHz									
1564.00	-22.0	V	3.0	38.2	1.0	-59.2	-40.0	-19.2	
2346.00	-12.7	V	3.0	38.7	1.0	-50.4	-13.0	-37.4	
3128.00	-10.6	V	3.0	39.3	1.0	-48.9	-13.0	-35.9	
1564.00	-21.7	H	3.0	38.2	1.0	-58.9	-40.0	-18.9	
2346.00	-13.6	H	3.0	38.7	1.0	-51.3	-13.0	-38.3	
3128.00	-10.8	H	3.0	39.3	1.0	-49.2	-13.0	-36.2	
High Ch, 784.5MHz									
1569.00	-26.7	V	3.0	38.2	1.0	-63.9	-40.0	-23.9	
2353.50	-12.7	V	3.0	38.7	1.0	-50.4	-13.0	-37.4	
3138.00	-10.5	V	3.0	39.3	1.0	-48.9	-13.0	-35.9	
1569.00	-26.6	H	3.0	38.2	1.0	-63.7	-40.0	-23.7	
2353.50	-13.7	H	3.0	38.7	1.0	-51.4	-13.0	-38.4	
3138.00	-10.9	H	3.0	39.3	1.0	-49.2	-13.0	-36.2	

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LTE Band 26

LTE

Band 26

5MHz

QPSK

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

Company:	Samsung
Project #:	4788886234
Date:	2019-03-25
Test Engineer:	47989
Configuration:	EUT / AC Adapter, Z-Position
Location:	Chamber 1
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, 816.5MHz									
1633.00	-9.9	V	3.0	43.6	1.0	-52.5	-13.0	-39.5	
2449.50	-12.7	V	3.0	43.4	1.0	-55.1	-13.0	-42.1	
3266.00	-10.7	V	3.0	43.6	1.0	-53.3	-13.0	-40.3	
1633.00	-11.6	H	3.0	43.6	1.0	-54.2	-13.0	-41.2	
2449.50	-13.3	H	3.0	43.4	1.0	-55.7	-13.0	-42.7	
3266.00	-10.9	H	3.0	43.6	1.0	-53.5	-13.0	-40.5	
Mid Ch, 831.5MHz									
1663.00	-11.4	V	3.0	43.6	1.0	-54.0	-13.0	-41.0	
2494.50	-12.5	V	3.0	43.4	1.0	-54.9	-13.0	-41.9	
3326.00	-10.4	V	3.0	43.6	1.0	-53.1	-13.0	-40.1	
1663.00	-12.2	H	3.0	43.6	1.0	-54.7	-13.0	-41.7	
2494.50	-13.1	H	3.0	43.4	1.0	-55.5	-13.0	-42.5	
3326.00	-10.5	H	3.0	43.6	1.0	-53.2	-13.0	-40.2	
High Ch, 846.5MHz									
1693.00	-13.2	V	3.0	43.6	1.0	-55.8	-13.0	-42.8	
2539.50	-12.6	V	3.0	43.4	1.0	-55.0	-13.0	-42.0	
3386.00	-10.6	V	3.0	43.7	1.0	-53.3	-13.0	-40.3	
1693.00	-12.3	H	3.0	43.6	1.0	-54.8	-13.0	-41.8	
2539.50	-13.2	H	3.0	43.4	1.0	-55.7	-13.0	-42.7	
3386.00	-10.7	H	3.0	43.7	1.0	-53.4	-13.0	-40.4	

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LTE Band 41

LTE

Band 41

15MHz

QPSK

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

Company:	Samsung
Project #:	4788886234
Date:	2019-03-27
Test Engineer:	47989
Configuration:	EUT / AC Adapter / Earphone, Z-Position_Camera
Location:	Chamber 1
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, 2503.5MHz									
5007.00	-0.1	V	3.0	43.8	1.0	-42.9	-25.0	-17.9	
7510.50	-3.3	V	3.0	42.5	1.0	-44.8	-25.0	-19.8	
10014.00	-2.1	V	3.0	40.6	1.0	-41.7	-25.0	-16.7	
5007.00	0.9	H	3.0	43.8	1.0	-41.9	-25.0	-16.9	
7510.50	1.1	H	3.0	42.5	1.0	-40.4	-25.0	-15.4	
10014.00	0.6	H	3.0	40.6	1.0	-38.9	-25.0	-13.9	
Mid Ch, 2593MHz									
5186.00	-0.1	V	3.0	43.8	1.0	-42.9	-25.0	-17.9	
7779.00	-0.6	V	3.0	42.3	1.0	-41.9	-25.0	-16.9	
10372.00	-6.0	V	3.0	40.7	1.0	-45.6	-25.0	-20.6	
5186.00	1.1	H	3.0	43.8	1.0	-41.7	-25.0	-16.7	
7779.00	6.7	H	3.0	42.3	1.0	-34.6	-25.0	-9.6	
10372.00	-7.1	H	3.0	40.7	1.0	-46.8	-25.0	-21.8	
High Ch, 2682.5MHz									
5365.00	-3.1	V	3.0	43.7	1.0	-45.9	-25.0	-20.9	
8047.50	-0.9	V	3.0	42.2	1.0	-42.1	-25.0	-17.1	
10730.00	-4.3	V	3.0	40.8	1.0	-44.1	-25.0	-19.1	
5365.00	0.2	H	3.0	43.7	1.0	-42.5	-25.0	-17.5	
8047.50	8.7	H	3.0	42.2	1.0	-32.5	-25.0	-7.5	
10730.00	-3.9	H	3.0	40.8	1.0	-43.7	-25.0	-18.7	

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LTE Band 66

LTE

Band 66

15MHz
QPSK

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

Company: Samsung
Project #: 4788886234
Date: 2019-03-08
Test Engineer: 45585
Configuration: EUT / AC Adapter, Y-Position_camera
Location: Chamber 1
Mode: LTE_QPSK Band 66 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	-4.4	V	3.0	43.7	1.0	-47.0	-13.0	-34.0	
5152.50	0.5	V	3.0	43.8	1.0	-42.3	-13.0	-29.3	
6870.00	-1.4	V	3.0	42.8	1.0	-43.3	-13.0	-30.3	
8587.50	-3.3	V	3.0	41.8	1.0	-44.1	-13.0	-31.1	
3435.00	-5.6	H	3.0	43.7	1.0	-48.3	-13.0	-35.3	
5152.50	5.2	H	3.0	43.8	1.0	-37.5	-13.0	-24.5	
6870.00	-2.3	H	3.0	42.8	1.0	-44.1	-13.0	-31.1	
8587.50	-1.5	H	3.0	41.8	1.0	-42.3	-13.0	-29.3	
Mid Ch, 1745MHz									
3490.00	-4.6	V	3.0	43.7	1.0	-47.3	-13.0	-34.3	
5235.00	-0.5	V	3.0	43.8	1.0	-43.2	-13.0	-30.2	
6980.00	-1.8	V	3.0	42.7	1.0	-43.5	-13.0	-30.5	
8725.00	-3.8	V	3.0	41.7	1.0	-44.5	-13.0	-31.5	
3490.00	-2.7	H	3.0	43.7	1.0	-45.4	-13.0	-32.4	
5235.00	5.8	H	3.0	43.8	1.0	-36.9	-13.0	-23.9	
6980.00	-2.2	H	3.0	42.7	1.0	-44.0	-13.0	-31.0	
8725.00	-2.7	H	3.0	41.7	1.0	-43.4	-13.0	-30.4	
High Ch, 1772.5MHz									
3545.00	-7.1	V	3.0	43.7	1.0	-49.8	-13.0	-36.8	
5317.50	0.7	V	3.0	43.7	1.0	-42.0	-13.0	-29.0	
7090.00	-2.1	V	3.0	42.7	1.0	-43.8	-13.0	-30.8	
8862.50	-3.7	V	3.0	41.6	1.0	-44.3	-13.0	-31.3	
3545.00	-3.1	H	3.0	43.7	1.0	-45.9	-13.0	-32.9	
5317.50	5.1	H	3.0	43.7	1.0	-37.6	-13.0	-24.6	
7090.00	-1.8	H	3.0	42.7	1.0	-43.5	-13.0	-30.5	
8862.50	-3.8	H	3.0	41.6	1.0	-44.4	-13.0	-31.4	

LTE Band 17

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

LTE Band 4

LTE Band 4 (Frequency range: 1710-1755 MHz) is covered by LTE Band 66 (Frequency range: 1710-1780 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

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