

WCDMA Band 5

WCDMA Band 5 REL99	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4759014604 Date: 2019-05-30 Test Engineer: 45585 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 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	-15.4	V	3.0	38.2	1.0	-52.6	-13.0	-39.6	
	2479.20	-12.8	V	3.0	38.8	1.0	-50.6	-13.0	-37.6	
	3305.60	-10.3	V	3.0	39.4	1.0	-48.7	-13.0	-35.7	
	1652.80	-16.4	H	3.0	38.2	1.0	-53.7	-13.0	-40.7	
	2479.20	-13.4	H	3.0	38.8	1.0	-51.2	-13.0	-38.2	
	3305.60	-10.6	H	3.0	39.4	1.0	-49.0	-13.0	-36.0	
	Mid Ch, 836.6MHz									
	1673.20	-15.2	V	3.0	38.2	1.0	-52.5	-13.0	-39.5	
	2509.80	-12.6	V	3.0	38.8	1.0	-50.4	-13.0	-37.4	
	3346.40	-10.2	V	3.0	39.5	1.0	-48.7	-13.0	-35.7	
	1673.20	-16.2	H	3.0	38.2	1.0	-53.5	-13.0	-40.5	
	2509.80	-13.2	H	3.0	38.8	1.0	-51.1	-13.0	-38.1	
	3346.40	-10.5	H	3.0	39.5	1.0	-48.9	-13.0	-35.9	
	High Ch, 846.6MHz									
	1693.20	-15.3	V	3.0	38.2	1.0	-52.5	-13.0	-39.5	
	2539.80	-12.5	V	3.0	38.9	1.0	-50.4	-13.0	-37.4	
	3386.40	-10.0	V	3.0	39.5	1.0	-48.5	-13.0	-35.5	
	1693.20	-16.3	H	3.0	38.2	1.0	-53.5	-13.0	-40.5	
	2539.80	-13.2	H	3.0	38.9	1.0	-51.0	-13.0	-38.0	
	3386.40	-10.3	H	3.0	39.5	1.0	-48.8	-13.0	-35.8	
WCDMA Band 5 HSDPA	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-05-30 Test Engineer: 45585 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 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	-15.4	V	3.0	38.2	1.0	-52.7	-13.0	-39.7	
	2479.20	-12.8	V	3.0	38.8	1.0	-50.6	-13.0	-37.6	
	3305.60	-10.3	V	3.0	39.4	1.0	-48.7	-13.0	-35.7	
	1652.80	-16.4	H	3.0	38.2	1.0	-53.6	-13.0	-40.6	
	2479.20	-13.4	H	3.0	38.8	1.0	-51.2	-13.0	-38.2	
	3305.60	-10.6	H	3.0	39.4	1.0	-49.0	-13.0	-36.0	
	Mid Ch, 836.6MHz									
	1673.20	-15.4	V	3.0	38.2	1.0	-52.6	-13.0	-39.6	
	2509.80	-12.7	V	3.0	38.8	1.0	-50.5	-13.0	-37.5	
	3346.40	-10.3	V	3.0	39.5	1.0	-48.8	-13.0	-35.8	
	1673.20	-16.4	H	3.0	38.2	1.0	-53.6	-13.0	-40.6	
	2509.80	-13.3	H	3.0	38.8	1.0	-51.1	-13.0	-38.1	
	3346.40	-10.6	H	3.0	39.5	1.0	-49.0	-13.0	-36.0	
	High Ch, 846.6MHz									
	1693.20	-15.3	V	3.0	38.2	1.0	-52.6	-13.0	-39.6	
	2539.80	-12.6	V	3.0	38.9	1.0	-50.5	-13.0	-37.5	
	3386.40	-10.1	V	3.0	39.5	1.0	-48.5	-13.0	-35.5	
	1693.20	-16.3	H	3.0	38.2	1.0	-53.6	-13.0	-40.6	
	2539.80	-13.2	H	3.0	38.9	1.0	-51.1	-13.0	-38.1	
	3386.40	-10.4	H	3.0	39.5	1.0	-48.8	-13.0	-35.8	

WCDMA Band 4

WCDMA Band 4 REL99	2 UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-05-30 Test Engineer: 45585 Configuration: EUT / AC Adapter, X-Position Location: Chamber 2 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
WCDMA Band 4 HSDPA	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-06-03 Test Engineer: 45585 Configuration: EUT / AC Adapter, X-Position Location: Chamber 1 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

WCDMA Band 2 REL99	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-05-30 Test Engineer: 45585 Configuration: EUT / AC Adapter, Y-Position Location: Chamber 2 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	-11.2	V	3.0	39.7	1.0	-49.8	-13.0	-36.8	
	5557.20	-8.3	V	3.0	39.9	1.0	-47.2	-13.0	-34.2	
	7409.60	-6.2	V	3.0	39.4	1.0	-44.7	-13.0	-31.7	
	3704.80	-11.5	H	3.0	39.7	1.0	-50.2	-13.0	-37.2	
	5557.20	-8.6	H	3.0	39.9	1.0	-47.5	-13.0	-34.5	
	7409.60	-7.0	H	3.0	39.4	1.0	-45.5	-13.0	-32.5	
	Mid Ch, 1880MHz									
	3760.00	-10.9	V	3.0	39.7	1.0	-49.5	-13.0	-36.5	
	5640.00	-8.0	V	3.0	40.0	1.0	-47.0	-13.0	-34.0	
	7520.00	-6.3	V	3.0	39.4	1.0	-44.6	-13.0	-31.6	
	3760.00	-11.1	H	3.0	39.7	1.0	-49.8	-13.0	-36.8	
	5640.00	-8.2	H	3.0	40.0	1.0	-47.2	-13.0	-34.2	
	7520.00	-7.1	H	3.0	39.4	1.0	-45.4	-13.0	-32.4	
	High Ch, 1907.6MHz									
	3815.20	-11.0	V	3.0	39.7	1.0	-49.7	-13.0	-36.7	
	5722.80	-8.1	V	3.0	40.0	1.0	-47.1	-13.0	-34.1	
	7630.40	-6.3	V	3.0	39.3	1.0	-44.6	-13.0	-31.6	
	3815.20	-11.2	H	3.0	39.7	1.0	-50.0	-13.0	-37.0	
	5722.80	-8.4	H	3.0	40.0	1.0	-47.4	-13.0	-34.4	
	7630.40	-6.9	H	3.0	39.3	1.0	-45.3	-13.0	-32.3	
WCDMA Band 2 HSDPA	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-05-30 Test Engineer: 45585 Configuration: EUT / AC Adapter, Y-Position Location: Chamber 2 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	-11.3	V	3.0	39.7	1.0	-49.9	-13.0	-36.9	
	5557.20	-8.3	V	3.0	39.9	1.0	-47.2	-13.0	-34.2	
	7409.60	-6.1	V	3.0	39.4	1.0	-44.6	-13.0	-31.6	
	3704.80	-11.5	H	3.0	39.7	1.0	-50.2	-13.0	-37.2	
	5557.20	-8.5	H	3.0	39.9	1.0	-47.5	-13.0	-34.5	
	7409.60	-7.0	H	3.0	39.4	1.0	-45.4	-13.0	-32.4	
	Mid Ch, 1880MHz									
	3760.00	-10.9	V	3.0	39.7	1.0	-49.6	-13.0	-36.6	
	5640.00	-8.0	V	3.0	40.0	1.0	-46.9	-13.0	-33.9	
	7520.00	-6.2	V	3.0	39.4	1.0	-44.6	-13.0	-31.6	
	3760.00	-11.2	H	3.0	39.7	1.0	-49.9	-13.0	-36.9	
	5640.00	-8.1	H	3.0	40.0	1.0	-47.1	-13.0	-34.1	

LTE Band 7

LTE

Band 7

20MHz

QPSK

UL Verification Services, Inc.

Above 1GHz High Frequency Substitution Measurement

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Samsung

4789014604

2019-06-18

45585

EUT / AC Adapter, Z-Position

Chamber 2

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, 2510MHz									
5020.00	-21.0	V	3.0	39.8	1.0	-59.8	-25.0	-34.8	
7530.00	-19.4	V	3.0	39.4	1.0	-57.8	-25.0	-32.8	
10040.00	-7.8	V	3.0	38.6	1.0	-45.4	-25.0	-20.4	
5020.00	-21.6	H	3.0	39.8	1.0	-60.3	-25.0	-35.3	
7530.00	-20.2	H	3.0	39.4	1.0	-58.6	-25.0	-33.6	
10040.00	-0.8	H	3.0	38.6	1.0	-38.3	-25.0	-13.3	
Mid Ch, 2535MHz									
5070.00	-20.9	V	3.0	39.8	1.0	-59.7	-25.0	-34.7	
7605.00	-18.1	V	3.0	39.3	1.0	-56.4	-25.0	-31.4	
10140.00	-6.6	V	3.0	38.6	1.0	-44.2	-25.0	-19.2	
5070.00	-21.6	H	3.0	39.8	1.0	-60.4	-25.0	-35.4	
7605.00	-19.2	H	3.0	39.3	1.0	-57.6	-25.0	-32.6	
10140.00	-0.3	H	3.0	38.6	1.0	-37.9	-25.0	-12.9	
High Ch, 2560MHz									
5120.00	-21.3	V	3.0	39.8	1.0	-60.1	-25.0	-35.1	
7680.00	-19.4	V	3.0	39.3	1.0	-57.8	-25.0	-32.8	
10240.00	-9.4	V	3.0	38.6	1.0	-46.9	-25.0	-21.9	
5120.00	-21.8	H	3.0	39.8	1.0	-60.6	-25.0	-35.6	
7680.00	-20.1	H	3.0	39.3	1.0	-58.5	-25.0	-33.5	
10240.00	-2.6	H	3.0	38.6	1.0	-40.2	-25.0	-15.2	

LTE Band 12

LTE

Band 12

3MHz

QPSK

UL Verification Services, Inc.

Above 1GHz High Frequency Substitution Measurement

Company: Samsung

Project #: 4789014604

Date: 2019-05-28

Test Engineer: 45585

Configuration: EUT / AC Adapter, X-Position

Location: Chamber 2

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	-16.6	V	3.0	38.1	1.0	-53.7	-13.0	-40.7	
2101.50	-13.8	V	3.0	38.5	1.0	-51.2	-13.0	-38.2	
2802.00	-11.7	V	3.0	39.1	1.0	-49.8	-13.0	-36.8	
1401.00	-17.6	H	3.0	38.1	1.0	-54.7	-13.0	-41.7	
2101.50	-14.7	H	3.0	38.5	1.0	-52.2	-13.0	-39.2	
2802.00	-12.3	H	3.0	39.1	1.0	-50.3	-13.0	-37.3	
Mid Ch, 707.5MHz									
1415.00	-16.5	V	3.0	38.1	1.0	-53.6	-13.0	-40.6	
2122.50	-13.7	V	3.0	38.5	1.0	-51.2	-13.0	-38.2	
2830.00	-11.8	V	3.0	39.1	1.0	-49.9	-13.0	-36.9	
1415.00	-17.5	H	3.0	38.1	1.0	-54.6	-13.0	-41.6	
2122.50	-14.6	H	3.0	38.5	1.0	-52.1	-13.0	-39.1	
2830.00	-12.3	H	3.0	39.1	1.0	-50.4	-13.0	-37.4	
High Ch, 714.5MHz									
1429.00	-16.4	V	3.0	38.1	1.0	-53.5	-13.0	-40.5	
2143.50	-13.6	V	3.0	38.5	1.0	-51.1	-13.0	-38.1	
2858.00	-11.5	V	3.0	39.1	1.0	-49.7	-13.0	-36.7	
1429.00	-17.2	H	3.0	38.1	1.0	-54.3	-13.0	-41.3	
2143.50	-14.5	H	3.0	38.5	1.0	-52.0	-13.0	-39.0	
2858.00	-12.0	H	3.0	39.1	1.0	-50.1	-13.0	-37.1	

LTE Band 13

LTE Band 13 10MHz QPSK	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-06-06 Test Engineer: 45585 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 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	-24.7	V	3.0	43.7	1.0	-67.4	-40.0	-27.4	
	2346.00	-12.0	V	3.0	43.4	1.0	-54.4	-13.0	-41.4	
	3128.00	-10.1	V	3.0	43.6	1.0	-52.6	-13.0	-39.6	
	1564.00	-25.8	H	3.0	43.7	1.0	-68.5	-40.0	-28.5	
	2346.00	-12.4	H	3.0	43.4	1.0	-54.8	-13.0	-41.8	
	3128.00	-10.2	H	3.0	43.6	1.0	-52.7	-13.0	-39.7	

Note : No narrowband emissions so only applied the -70dBW/MHz (-40dBm/MHz) wideband emission limit for the 1559-1610 MHz band

LTE Band 25

LTE Band 25 15MHz QPSK	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
	Company: Samsung Project #: 4789014604 Date: 2019-05-28 Test Engineer: 45585 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 1 Mode: LTE_QPSK Band 25 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	-11.8	V	3.0	43.8	1.0	-54.5	-13.0	-41.5	
	5572.50	-8.5	V	3.0	43.7	1.0	-51.2	-13.0	-38.2	
	7430.00	-6.0	V	3.0	42.5	1.0	-47.5	-13.0	-34.5	
	3715.00	-11.7	H	3.0	43.8	1.0	-54.4	-13.0	-41.4	
	5572.50	-8.5	H	3.0	43.7	1.0	-51.2	-13.0	-38.2	
	7430.00	-5.9	H	3.0	42.5	1.0	-47.4	-13.0	-34.4	
	Mid Ch, 1882.5MHz									
	3765.00	-11.9	V	3.0	43.8	1.0	-54.7	-13.0	-41.7	
	5647.50	-8.5	V	3.0	43.7	1.0	-51.2	-13.0	-38.2	
	7530.00	-5.9	V	3.0	42.4	1.0	-47.3	-13.0	-34.3	
	3765.00	-11.0	H	3.0	43.8	1.0	-53.8	-13.0	-40.8	
	5647.50	-8.8	H	3.0	43.7	1.0	-51.5	-13.0	-38.5	
	7530.00	-6.0	H	3.0	42.4	1.0	-47.5	-13.0	-34.5	
	High Ch, 1907.5MHz									
	3815.00	-11.8	V	3.0	43.8	1.0	-54.6	-13.0	-41.6	
	5722.50	-8.4	V	3.0	43.7	1.0	-51.1	-13.0	-38.1	
	7630.00	-6.1	V	3.0	42.4	1.0	-47.4	-13.0	-34.4	
	3815.00	-11.4	H	3.0	43.8	1.0	-54.2	-13.0	-41.2	
	5722.50	-8.8	H	3.0	43.7	1.0	-51.5	-13.0	-38.5	
	7630.00	-5.6	H	3.0	42.4	1.0	-47.0	-13.0	-34.0	

LTE Band 26

LTE Band 26 5MHz / 1.4MHz QPSK	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-05-28 Test Engineer: 45585 Configuration: EUT / AC Adapter, X-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	-15.0	V	3.0	43.6	1.0	-57.6	-13.0	-44.6	
	2449.50	-12.1	V	3.0	43.4	1.0	-54.5	-13.0	-41.5	
	3266.00	-10.3	V	3.0	43.6	1.0	-52.9	-13.0	-39.9	
	1633.00	-16.5	H	3.0	43.6	1.0	-59.1	-13.0	-46.1	
	2449.50	-12.9	H	3.0	43.4	1.0	-55.3	-13.0	-42.3	
	3266.00	-10.6	H	3.0	43.6	1.0	-53.2	-13.0	-40.2	
	Mid Ch, 821.5MHz									
	1643.00	-15.3	V	3.0	43.6	1.0	-57.8	-13.0	-44.8	
	2464.50	-12.3	V	3.0	43.4	1.0	-54.7	-13.0	-41.7	
	3286.00	-10.5	V	3.0	43.6	1.0	-53.1	-13.0	-40.1	
	1643.00	-16.4	H	3.0	43.6	1.0	-59.0	-13.0	-46.0	
	2464.50	-13.0	H	3.0	43.4	1.0	-55.4	-13.0	-42.4	
	3286.00	-10.3	H	3.0	43.6	1.0	-52.9	-13.0	-39.9	
	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4789014604 Date: 2019-05-28 Test Engineer: 45585 Configuration: EUT / AC Adapter, X-Position Location: Chamber 1 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, 824.7MHz									
	1649.40	-15.2	V	3.0	43.6	1.0	-57.8	-13.0	-44.8	
	2474.10	-12.5	V	3.0	43.4	1.0	-54.9	-13.0	-41.9	
	3298.80	-10.3	V	3.0	43.6	1.0	-52.9	-13.0	-39.9	
	1649.40	-16.0	H	3.0	43.6	1.0	-58.6	-13.0	-45.6	
	2474.10	-12.8	H	3.0	43.4	1.0	-55.2	-13.0	-42.2	
	3298.80	-10.4	H	3.0	43.6	1.0	-53.1	-13.0	-40.1	
	Mid Ch, 831.5MHz									
	1663.00	-14.9	V	3.0	43.6	1.0	-57.5	-13.0	-44.5	
	2494.50	-12.6	V	3.0	43.4	1.0	-55.0	-13.0	-42.0	
	3326.00	-10.3	V	3.0	43.6	1.0	-53.0	-13.0	-40.0	
	1663.00	-16.1	H	3.0	43.6	1.0	-58.7	-13.0	-45.7	
	2494.50	-13.1	H	3.0	43.4	1.0	-55.5	-13.0	-42.5	
	3326.00	-10.2	H	3.0	43.6	1.0	-52.9	-13.0	-39.9	
	High Ch, 848.3MHz									
	1696.60	-15.2	V	3.0	43.6	1.0	-57.8	-13.0	-44.8	
	2544.90	-12.2	V	3.0	43.4	1.0	-54.7	-13.0	-41.7	
	3393.20	-9.5	V	3.0	43.7	1.0	-52.2	-13.0	-39.2	
	1696.60	-16.2	H	3.0	43.6	1.0	-58.7	-13.0	-45.7	
	2544.90	-12.8	H	3.0	43.4	1.0	-55.2	-13.0	-42.2	
	3393.20	-9.9	H	3.0	43.7	1.0	-52.6	-13.0	-39.6	

LTE Band 41(PC2)

LTE Band 41 15MHz QPSK	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
	Company: Samsung Project #: 4789014604 Date: 2019-06-26 Test Engineer: 45585 Configuration: EUT / AC Adapter, Z-Position Location: Chamber 2 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	-15.5	V	3.0	39.8	1.0	-54.3	-25.0	-29.3	
	7510.50	-6.4	V	3.0	39.4	1.0	-44.8	-25.0	-19.8	
	10014.00	-0.9	V	3.0	38.6	1.0	-38.5	-25.0	-13.5	
	5007.00	-15.5	H	3.0	39.8	1.0	-54.2	-25.0	-29.2	
	7510.50	-8.0	H	3.0	39.4	1.0	-46.4	-25.0	-21.4	
	10014.00	5.6	H	3.0	38.6	1.0	-32.0	-25.0	-7.0	
	Mid Ch, 2593MHz									
	5186.00	-16.9	V	3.0	39.8	1.0	-55.7	-25.0	-30.7	
	7779.00	-10.9	V	3.0	39.3	1.0	-49.2	-25.0	-24.2	
	10372.00	-4.5	V	3.0	38.6	1.0	-42.1	-25.0	-17.1	
	5186.00	-13.5	H	3.0	39.8	1.0	-52.3	-25.0	-27.3	
	7779.00	-12.8	H	3.0	39.3	1.0	-51.1	-25.0	-26.1	
	10372.00	-3.1	H	3.0	38.6	1.0	-40.7	-25.0	-15.7	
	High Ch, 2682.5MHz									
	5365.00	-14.8	V	3.0	39.9	1.0	-53.7	-25.0	-28.7	
	8047.50	-11.4	V	3.0	39.2	1.0	-49.6	-25.0	-24.6	
	10730.00	1.1	V	3.0	38.5	1.0	-36.4	-25.0	-11.4	
	5365.00	-14.1	H	3.0	39.9	1.0	-52.9	-25.0	-27.9	
	8047.50	-14.8	H	3.0	39.2	1.0	-52.9	-25.0	-27.9	
	10730.00	-4.1	H	3.0	38.5	1.0	-41.6	-25.0	-16.6	

LTE Band 41(PC3)

LTE

Band 41

20MHz

QPSK

UL Verification Services, Inc.

Above 1GHz High Frequency Substitution Measurement

Company:

Project #:

Date:

Test Engineer:

Configuration:

Location:

Mode:

Samsung

4789014604

2019-06-27

45585

EUT / AC Adapter, Z-Position

Chamber 2

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, 2506MHz									
5012.00	-17.5	V	3.0	39.8	1.0	-56.3	-25.0	-31.3	
7518.00	-4.3	V	3.0	39.4	1.0	-42.7	-25.0	-17.7	
10024.00	-3.2	V	3.0	38.6	1.0	-40.8	-25.0	-15.8	
5012.00	-15.1	H	3.0	39.8	1.0	-53.9	-25.0	-28.9	
7518.00	-12.5	H	3.0	39.4	1.0	-50.8	-25.0	-25.8	
10024.00	1.0	H	3.0	38.6	1.0	-36.5	-25.0	-11.5	
Mid Ch, 2593MHz									
5186.00	-15.9	V	3.0	39.8	1.0	-54.7	-25.0	-29.7	
7779.00	-11.3	V	3.0	39.3	1.0	-49.6	-25.0	-24.6	
10372.00	-6.1	V	3.0	38.6	1.0	-43.7	-25.0	-18.7	
5186.00	-16.5	H	3.0	39.8	1.0	-55.4	-25.0	-30.4	
7779.00	-12.8	H	3.0	39.3	1.0	-51.1	-25.0	-26.1	
10372.00	-5.0	H	3.0	38.6	1.0	-42.5	-25.0	-17.5	
High Ch, 2680MHz									
5360.00	-16.3	V	3.0	39.9	1.0	-55.2	-25.0	-30.2	
8040.00	-14.1	V	3.0	39.2	1.0	-52.2	-25.0	-27.2	
10720.00	-2.7	V	3.0	38.5	1.0	-40.3	-25.0	-15.3	
5360.00	-16.3	H	3.0	39.9	1.0	-55.2	-25.0	-30.2	
8040.00	-15.4	H	3.0	39.2	1.0	-53.6	-25.0	-28.6	
10720.00	-6.5	H	3.0	38.5	1.0	-44.1	-25.0	-19.1	

LTE Band 38

LTE Band 38 (Frequency range: 2570-2620 MHz) is covered by LTE Band 41(PC3) (Frequency range: 2496-2690 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

LTE Band 66

LTE

Band 66

3MHz QPSK

UL Verification Services, Inc.

Above 1GHz High Frequency Substitution Measurement

Company: Samsung

Project #: 4789014604

Date: 2019-05-28

Test Engineer: 45585

Configuration: EUT / AC Adpater, Z-Position

Location: Chamber 1

Mode: LTE_QPSK Band 66 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	-9.8	V	3.0	43.7	1.0	-52.5	-13.0	-39.5	
5134.50	-9.0	V	3.0	43.8	1.0	-51.8	-13.0	-38.8	
6846.00	-6.4	V	3.0	42.9	1.0	-48.2	-13.0	-35.2	
3423.00	-9.8	H	3.0	43.7	1.0	-52.5	-13.0	-39.5	
5134.50	-6.7	H	3.0	43.8	1.0	-49.5	-13.0	-36.5	
6846.00	-6.5	H	3.0	42.9	1.0	-48.3	-13.0	-35.3	
Mid Ch, 1745MHz									
3490.00	-9.0	V	3.0	43.7	1.0	-51.7	-13.0	-38.7	
5235.00	-8.9	V	3.0	43.8	1.0	-51.6	-13.0	-38.6	
6980.00	-6.0	V	3.0	42.7	1.0	-47.8	-13.0	-34.8	
3490.00	-8.7	H	3.0	43.7	1.0	-51.4	-13.0	-38.4	
5235.00	-8.8	H	3.0	43.8	1.0	-51.6	-13.0	-38.6	
6980.00	-5.9	H	3.0	42.7	1.0	-47.6	-13.0	-34.6	
High Ch, 1778.5MHz									
3557.00	-8.9	V	3.0	43.7	1.0	-51.6	-13.0	-38.6	
5335.50	-8.5	V	3.0	43.7	1.0	-51.2	-13.0	-38.2	
7114.00	-6.0	V	3.0	42.7	1.0	-47.6	-13.0	-34.6	
3557.00	-9.0	H	3.0	43.7	1.0	-51.7	-13.0	-38.7	
5335.50	-8.2	H	3.0	43.7	1.0	-51.0	-13.0	-38.0	
7114.00	-5.9	H	3.0	42.7	1.0	-47.5	-13.0	-34.5	

LTE Band 2

LTE Band 2(Frequency range: 1850-1910 MHz) is covered by LTE Band 25 (Frequency range: 1850-1915 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.

LTE Band 5

LTE Band 5 (Frequency range: 824-849 MHz) is covered by LTE Band 26 (Frequency range: 814-849 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

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.