

9.1.1. GSM

GPRS 850									EGPRS 850								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: GPRS 850 MHz Fundamentals Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: EGPRS 850 MHz Fundamentals Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch 824.20 24.86 V 2.9 0.1 22.11 38.5 -16.4 824.20 32.90 H 2.9 0.2 30.24 38.5 -8.3 Mid Ch 836.60 26.29 V 2.9 0.1 23.45 38.5 -15.1 836.60 33.25 H 2.9 0.2 30.50 38.5 -8.0 High Ch 848.80 26.14 V 2.9 0.0 23.24 38.5 -15.3 848.80 32.70 H 2.9 0.1 29.90 38.5 -8.6									Low Ch 824.20 22.75 V 2.9 0.1 20.00 38.5 -18.5 824.20 30.83 H 2.9 0.2 28.17 38.5 -10.3 Mid Ch 836.60 24.14 V 2.9 0.1 21.30 38.5 -17.2 836.60 31.17 H 2.9 0.2 28.42 38.5 -10.1 High Ch 848.80 24.14 V 2.9 0.0 21.24 38.5 -17.3 848.80 30.58 H 2.9 0.1 27.78 38.5 -10.7								
GPRS 1900									EGPRS 1900								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 10/31/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: GPRS 1900 MHz Fundamentals Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 10/31/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: EGPRS 1900 MHz Fundamentals Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch 1850.20 25.39 V 5.1 9.3 29.58 33.0 -3.4 1850.20 21.01 H 5.1 9.3 25.21 33.0 -7.8 Mid Ch 1880.00 26.52 V 5.1 9.1 30.45 33.0 -2.5 1880.00 20.28 H 5.1 9.1 24.21 33.0 -8.8 High Ch 1909.80 27.13 V 5.2 8.8 30.81 33.0 -2.2 1909.80 19.60 H 5.2 8.8 23.28 33.0 -9.7									Low Ch 1850.20 23.41 V 5.1 9.3 27.60 33.0 -5.4 1850.20 18.60 H 5.1 9.3 22.80 33.0 -10.2 Mid Ch 1880.00 22.81 V 5.1 9.1 26.74 33.0 -6.3 1880.00 18.14 H 5.1 9.1 22.07 33.0 -10.9 High Ch 1909.80 24.63 V 5.2 8.8 28.30 33.0 -4.7 1909.80 15.76 H 5.2 8.8 19.43 33.0 -13.6								

9.1.2. WCDMA

B2 REL99										B2 HSDPA																													
UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement																								
Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: Rel99 Band 2 Fundamentals					Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: HSDPA Band 2 Fundamentals					Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: Re99 Band 5 Fundamentals					Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: HSDPA Band 5 Fundamentals																								
Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables					Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables																								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch 1852.40 20.14 V 5.1 9.3 24.31 33.0 -8.7 1852.40 12.27 H 5.1 9.3 16.45 33.0 -16.5										Low Ch 1852.40 19.54 V 5.1 9.3 23.72 33.0 -9.3 1852.40 12.00 H 5.1 9.3 16.18 33.0 -16.8										Mid Ch 1880.00 21.20 V 5.1 9.1 25.13 33.0 -7.9 1880.00 15.79 H 5.1 9.1 19.72 33.0 -13.3										Mid Ch 1880.00 21.48 V 5.1 9.1 25.41 33.0 -7.6 1880.00 15.75 H 5.1 9.1 19.68 33.0 -13.3									
High Ch 1907.60 19.40 V 5.2 8.9 23.10 33.0 -9.9 1907.60 13.48 H 5.2 8.9 17.18 33.0 -15.8										High Ch 1907.60 19.57 V 5.2 8.9 23.27 33.0 -9.7 1907.60 13.28 H 5.2 8.9 16.88 33.0 -16.0																													
B5 REL99										B5 HSDPA																													
UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement																								
Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: Re99 Band 5 Fundamentals					Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: HSDPA Band 5 Fundamentals					Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: HSDPA Band 5 Fundamentals					Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: HSDPA Band 5 Fundamentals																								
Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables					Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables					Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables					Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables																								
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Low Ch 826.40 16.15 V 2.9 0.1 13.38 38.5 -25.1 826.40 21.37 H 2.9 0.2 19.19 38.5 -19.3										Low Ch 826.40 15.81 V 2.9 0.1 13.04 38.5 -25.5 826.40 21.67 H 2.9 0.2 19.00 38.5 -19.5										Mid Ch 836.60 15.57 V 2.9 0.1 12.73 38.5 -25.8 836.60 22.16 H 2.9 0.2 19.42 38.5 -19.1										Mid Ch 836.60 16.29 V 2.9 0.1 13.44 38.5 -25.1 836.60 22.20 H 2.9 0.2 19.46 38.5 -19.0									
High Ch 846.60 14.83 V 2.9 0.0 11.54 38.5 -26.6 846.60 22.15 H 2.9 0.1 19.36 38.5 -19.1										High Ch 846.60 15.10 V 2.9 0.0 12.21 38.5 -26.3 846.60 22.08 H 2.9 0.1 19.29 38.5 -19.2																													
B4 REL99										B4 HSDPA																													
UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement																								
Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: Rel99 Band 4 Fundamentals					Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: HSDPA Band 4 Fundamentals					Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: HSDPA Band 4 Fundamentals					Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: HSDPA Band 4 Fundamentals																								
Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables																								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch 1712.40 19.31 V 4.9 8.4 22.81 30.0 -7.2 1712.40 10.92 H 4.9 8.4 14.43 30.0 -15.6										Low Ch 1712.40 19.44 V 4.9 8.4 22.95 30.0 -7.1 1712.40 10.77 H 4.9 8.4 14.27 30.0 -15.7										Mid Ch 1732.60 18.46 V 4.9 8.7 22.25 30.0 -7.7 1732.60 14.35 H 4.9 8.7 18.13 30.0 -11.9										Mid Ch 1732.60 18.76 V 4.9 8.7 22.54 30.0 -7.5 1732.60 14.51 H 4.9 8.7 18.29 30.0 -11.7									
High Ch 1752.60 20.46 V 4.9 9.0 24.54 30.0 -5.5 1752.60 11.55 H 4.9 9.0 15.63 30.0 -14.4										High Ch 1752.60 20.59 V 4.9 9.0 24.67 30.0 -5.3 1752.60 11.51 H 4.9 9.0 15.59 30.0 -14.4																													

9.1.3. LTE Band 2

20MHz QPSK									20MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 2 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 2 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1860.00	20.16	V	5.1	9.2	24.27	33.0	-8.7		1860.00	17.72	V	5.1	9.2	21.83	33.0	-11.2	
1860.00	11.54	H	5.1	9.2	15.66	33.0	-17.3		1860.00	9.68	H	5.1	9.2	13.80	33.0	-19.2	
Mid Ch									Mid Ch								
1880.00	19.30	V	5.1	9.1	23.23	33.0	-9.8		1880.00	17.59	V	5.1	9.1	21.52	33.0	-11.5	
1880.00	8.25	H	5.1	9.1	12.18	33.0	-20.8		1880.00	6.57	H	5.1	9.1	10.50	33.0	-22.5	
High Ch									High Ch								
1900.00	20.43	V	5.2	8.9	24.17	33.0	-8.8		1900.00	18.62	V	5.2	8.9	22.36	33.0	-10.6	
1900.00	14.06	H	5.2	8.9	17.80	33.0	-15.2		1900.00	12.18	H	5.2	8.9	15.92	33.0	-17.1	
15MHz QPSK									3MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 2 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 2 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1857.50	20.61	V	4.4	9.2	24.84	33.0	-8.2		1857.50	17.32	V	4.4	9.3	22.20	33.0	-10.8	
1857.50	11.67	H	4.4	9.2	16.50	33.0	-16.5		1857.50	10.76	H	4.4	9.3	15.64	33.0	-17.4	
Mid Ch									Mid Ch								
1880.00	21.11	V	4.4	9.1	25.74	33.0	-7.3		1880.00	19.47	V	4.4	9.1	24.10	33.0	-8.9	
1880.00	11.93	H	4.4	9.1	15.66	33.0	-17.3		1880.00	9.68	H	4.4	9.1	14.31	33.0	-18.7	
High Ch									High Ch								
1902.50	21.62	V	4.5	8.9	26.04	33.0	-7.0		1902.50	19.45	V	4.5	8.9	23.84	33.0	-9.2	
1902.50	10.74	H	4.5	8.9	15.16	33.0	-17.8		1902.50	9.78	H	4.5	8.9	14.17	33.0	-18.8	

9.1.4. LTE Band 4

20MHz QPSK									20MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 4 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 4 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1720.00	18.36	V	4.9	8.5	21.99	30.0	-8.0		1720.00	16.60	V	4.9	8.5	20.23	30.0	-9.8	
1720.00	13.41	H	4.9	8.5	17.04	30.0	-13.0		1720.00	11.55	H	4.9	8.5	15.18	30.0	-14.8	
Mid Ch									Mid Ch								
1732.50	17.11	V	4.9	8.7	20.89	30.0	-9.1		1732.50	15.53	V	4.9	8.7	19.31	30.0	-10.7	
1732.50	11.40	H	4.9	8.7	15.19	30.0	-14.8		1732.50	9.80	H	4.9	8.7	13.59	30.0	-16.4	
High Ch									High Ch								
1745.00	18.88	V	4.9	8.9	22.84	30.0	-7.2		1745.00	16.82	V	4.9	8.9	20.78	30.0	-9.2	
1745.00	12.35	H	4.9	8.9	16.30	30.0	-13.7		1745.00	10.41	H	4.9	8.9	14.36	30.0	-15.6	
5MHz QPSK									15MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 4 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 4 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1712.50	18.38	V	4.9	8.4	21.89	30.0	-8.1		1717.50	15.54	V	4.2	8.5	19.85	30.0	-10.1	
1712.50	8.59	H	4.9	8.4	12.10	30.0	-17.9		1717.50	9.59	H	4.2	8.5	13.90	30.0	-16.1	
Mid Ch									Mid Ch								
1732.50	17.82	V	4.9	8.7	21.60	30.0	-8.4		1732.50	16.45	V	4.2	8.7	20.84	30.0	-9.1	
1732.50	10.11	H	4.9	8.7	13.90	30.0	-16.1		1732.50	10.28	H	4.2	8.7	14.77	30.0	-15.2	
High Ch									High Ch								
1752.50	20.11	V	4.9	9.0	24.19	30.0	-5.8		1747.50	17.30	V	4.3	8.9	21.96	30.0	-8.0	
1752.50	11.22	H	4.9	9.0	15.29	30.0	-14.7		1747.50	11.30	H	4.3	8.9	15.96	30.0	-14.0	

9.1.5. LTE Band 5

10MHz QPSK									10MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement									UL Verification Services, Inc. High Frequency Substitution Measurement								
Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 5 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 5 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
829.00	16.99	V	2.9	0.1	14.20	38.5	-24.3		829.00	15.72	V	2.9	0.1	12.93	38.5	-25.6	
829.00	21.01	H	2.9	0.2	18.32	38.5	-20.2		829.00	21.01	H	2.9	0.2	18.32	38.5	-20.2	
Mid Ch									Mid Ch								
836.50	16.82	V	2.9	0.1	13.97	38.5	-34.5		836.50	15.89	V	2.9	0.1	13.04	38.5	-25.5	
836.50	21.32	H	2.9	0.2	18.58	38.5	-19.9		836.50	21.32	H	2.9	0.2	18.58	38.5	-19.9	
High Ch									High Ch								
844.00	15.96	V	2.9	0.0	13.09	38.5	-25.4		844.00	14.96	V	2.9	0.0	12.09	38.5	-26.4	
844.00	21.95	H	2.9	0.1	19.19	38.5	-19.3		844.00	21.28	H	2.9	0.1	18.52	38.5	-20.0	

3MHz QPSK									3MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement									UL Verification Services, Inc. High Frequency Substitution Measurement								
Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 5 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 5 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
825.50	16.85	V	2.9	0.1	14.08	38.5	-24.4		825.50	15.31	V	2.9	0.1	12.54	38.5	-26.0	
825.50	20.96	H	2.9	0.2	18.30	38.5	-20.2		825.50	20.95	H	2.9	0.2	18.29	38.5	-20.2	
Mid Ch									Mid Ch								
836.50	16.82	V	2.9	0.1	13.97	38.5	-34.5		836.50	15.63	V	2.9	0.1	12.78	38.5	-25.7	
836.50	21.14	H	2.9	0.2	18.40	38.5	-20.1		836.50	20.91	H	2.9	0.2	18.17	38.5	-20.3	
High Ch									High Ch								
847.50	15.88	V	2.9	0.0	12.98	38.5	-25.5		847.50	14.89	V	2.9	0.0	11.99	38.5	-26.5	
847.50	21.88	H	2.9	0.1	19.09	38.5	-19.4		847.50	21.24	H	2.9	0.1	18.45	38.5	-20.1	

9.1.6. LTE Band 7

20MHz QPSK									20MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement									UL Verification Services, Inc. High Frequency Substitution Measurement								
Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 7 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 7 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
2510.00	18.88	V	5.2	9.6	24.08	33.0	-8.9		2510.00	17.41	V	5.2	9.6	21.81	33.0	-11.2	
2510.00	17.58	H	5.2	9.6	21.98	33.0	-11.0		2510.00	15.30	H	5.2	9.6	19.70	33.0	-13.3	
Mid Ch									Mid Ch								
2535.00	15.44	V	5.2	9.5	19.78	33.0	-13.2		2535.00	13.25	V	5.2	9.5	17.59	33.0	-15.4	
2535.00	19.07	H	5.2	9.5	23.42	33.0	-9.6		2535.00	17.00	H	5.2	9.5	21.35	33.0	-11.7	
High Ch									High Ch								
2560.00	18.23	V	5.3	9.5	23.40	33.0	-9.6		2560.00	16.95	V	5.3	9.5	21.12	33.0	-11.9	
2560.00	18.06	H	5.3	9.5	22.23	33.0	-10.8		2560.00	16.22	H	5.3	9.5	20.39	33.0	-12.6	

15MHz QPSK									15MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement									UL Verification Services, Inc. High Frequency Substitution Measurement								
Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 7 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 7 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
2507.50	19.10	V	5.2	9.6	23.47	33.0	-9.5		2507.50	16.79	V	5.2	9.6	21.16	33.0	-11.8	
2507.50	17.46	H	5.2	9.6	21.84	33.0	-11.2		2507.50	15.04	H	5.2	9.6	19.42	33.0	-13.6	
Mid Ch									Mid Ch								
2535.00	19.91	V	5.2	9.5	24.25	33.0	-8.7		2535.00	17.56	V	5.2	9.5	21.90	33.0	-11.1	
2535.00	19.51	H	5.2	9.5	23.86	33.0	-9.1		2535.00	17.20	H	5.2	9.5	21.55	33.0	-11.5	
High Ch									High Ch								
2562.50	18.88	V	5.4	9.5	24.03	33.0	-9.0		2562.50	17.36	V	5.4	9.5	21.51	33.0	-11.5	
2562.50	19.33	H	5.4	9.5	23.48	33.0	-9.5		2562.50	16.88	H	5.4	9.5	21.03	33.0	-12.0	

9.1.7. LTE Band 12

10MHz QPSK									10MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 12 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 12 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
704.00	14.54	V	2.6	1.2	13.08	34.8	-21.7		704.00	13.80	V	2.6	1.2	12.34	34.8	-22.5	
704.00	23.14	H	2.6	1.6	22.07	34.8	-12.7		704.00	22.38	H	2.6	1.6	21.31	34.8	-13.5	
Mid Ch									Mid Ch								
707.50	14.19	V	2.7	1.1	12.67	34.8	-22.1		707.50	13.60	V	2.7	1.1	12.00	34.8	-22.7	
707.50	22.44	H	2.7	1.5	21.29	34.8	-13.5		707.50	21.53	H	2.7	1.5	20.38	34.8	-14.4	
High Ch									High Ch								
711.00	15.51	V	2.6	1.1	13.98	34.8	-20.8		711.00	14.87	V	2.6	1.1	13.34	34.8	-21.5	
711.00	21.50	H	2.6	1.5	20.32	34.8	-14.5		711.00	20.98	H	2.6	1.5	19.80	34.8	-15.0	
5MHz QPSK									5MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 12 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 12 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
701.50	14.44	V	2.6	1.2	13.00	34.8	-21.8		701.50	13.63	V	2.6	1.2	12.19	34.8	-22.6	
701.50	21.31	H	2.6	1.6	20.27	34.8	-14.5		701.50	20.54	H	2.6	1.6	19.50	34.8	-15.3	
Mid Ch									Mid Ch								
707.50	14.88	V	2.7	1.1	13.36	34.8	-21.4		707.50	14.15	V	2.7	1.1	12.63	34.8	-22.2	
707.50	22.55	H	2.7	1.5	21.40	34.8	-13.4		707.50	21.62	H	2.7	1.5	20.47	34.8	-14.3	
High Ch									High Ch								
713.50	15.24	V	2.6	1.1	13.69	34.8	-21.1		713.50	14.00	V	2.6	1.1	13.05	34.8	-21.8	
713.50	23.92	H	2.6	1.4	22.71	34.8	-12.1		713.50	23.32	H	2.6	1.4	22.11	34.8	-12.7	

9.1.8. LTE Band 13

10MHz QPSK									10MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 13 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 13 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
782.00	0.00	V	2.8	0.3	0.00	34.8	0.0		782.00	0.00	V	2.8	0.3	0.00	34.8	0.0	
782.00	0.00	H	2.8	0.5	0.00	34.8	0.0		782.00	0.00	H	2.8	0.5	0.00	34.8	0.0	
Mid Ch									Mid Ch								
782.00	14.18	V	2.8	0.3	11.75	34.8	-23.0		782.00	12.81	V	2.8	0.3	10.38	34.8	-24.4	
782.00	23.03	H	2.8	0.5	20.73	34.8	-14.0		782.00	21.65	H	2.8	0.5	19.35	34.8	-15.4	
High Ch									High Ch								
782.00	0.00	V	2.8	0.3	0.00	34.8	0.0		782.00	0.00	V	2.8	0.3	0.00	34.8	0.0	
782.00	0.00	H	2.8	0.5	0.00	34.8	0.0		782.00	0.00	H	2.8	0.5	0.00	34.8	0.0	
5MHz QPSK									5MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 13 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 13 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
779.50	14.03	V	2.8	0.4	11.62	34.8	-23.1		779.50	12.37	V	2.8	0.4	9.96	34.8	-24.8	
779.50	23.12	H	2.8	0.5	20.87	34.8	-13.9		779.50	21.44	H	2.8	0.5	19.19	34.8	-15.6	
Mid Ch									Mid Ch								
782.00	12.48	V	2.8	0.3	10.05	34.8	-24.7		782.00	10.81	V	2.8	0.3	8.38	34.8	-26.4	
782.00	22.83	H	2.8	0.5	20.53	34.8	-14.2		782.00	21.13	H	2.8	0.5	18.83	34.8	-15.9	
High Ch									High Ch								
784.50	13.82	V	2.8	0.3	11.35	34.8	-23.4		784.50	12.06	V	2.8	0.3	9.59	34.8	-25.2	
784.50	22.45	H	2.8	0.4	20.10	34.8	-14.7		784.50	20.89	H	2.8	0.4	18.34	34.8	-16.4	

9.1.9. LTE Band 17

10MHz QPSK									10MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 17 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 17 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch 709.00 15.48 V 2.7 1.1 13.94 34.8 -20.8 709.00 23.35 H 2.7 1.5 22.17 34.8 -12.6 Mid Ch 710.00 14.91 V 2.7 1.1 13.37 34.8 -21.4 710.00 23.08 H 2.7 1.5 21.90 34.8 -12.9 High Ch 711.00 15.90 V 2.6 1.1 14.37 34.8 -20.4 711.00 23.72 H 2.6 1.5 22.54 34.8 -12.2									Low Ch 709.00 14.79 V 2.7 1.1 13.25 34.8 -21.5 709.00 22.57 H 2.7 1.5 21.39 34.8 -13.4 Mid Ch 710.00 14.23 V 2.7 1.1 12.69 34.8 -22.1 710.00 22.42 H 2.7 1.5 21.24 34.8 -13.5 High Ch 711.00 15.31 V 2.6 1.1 13.78 34.8 -21.0 711.00 23.08 H 2.6 1.5 21.90 34.8 -12.9								
5MHz QPSK									5MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 17 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 17 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch 706.50 15.54 V 2.6 1.1 14.05 34.8 -20.7 706.50 21.17 H 2.6 1.5 20.05 34.8 -14.7 Mid Ch 710.00 14.60 V 2.7 1.1 13.06 34.8 -21.7 710.00 23.27 H 2.7 1.5 22.09 34.8 -12.7 High Ch 713.50 16.35 V 2.6 1.1 14.80 34.8 -20.0 713.50 21.26 H 2.6 1.4 20.05 34.8 -14.7									Low Ch 706.50 14.88 V 2.6 1.1 13.39 34.8 -21.4 706.50 20.52 H 2.6 1.5 19.40 34.8 -15.4 Mid Ch 710.00 13.89 V 2.7 1.1 12.35 34.8 -22.4 710.00 22.55 H 2.7 1.5 21.37 34.8 -13.4 High Ch 713.50 15.69 V 2.6 1.1 14.14 34.8 -20.6 713.50 20.76 H 2.6 1.4 19.55 34.8 -15.2								

9.1.10. LTE Band 25

20MHz QPSK									20MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 25 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 25 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch 1860.00 16.94 V 5.1 9.2 21.05 33.0 -12.0 1860.00 11.80 H 5.1 9.2 15.92 33.0 -17.1 Mid Ch 1882.50 17.26 V 5.1 9.0 21.17 33.0 -11.8 1882.50 11.71 H 5.1 9.0 15.62 33.0 -17.4 High Ch 1905.00 18.71 V 5.2 8.9 22.42 33.0 -10.6 1905.00 8.84 H 5.2 8.9 12.56 33.0 -20.4									Low Ch 1860.00 16.60 V 5.1 9.2 20.71 33.0 -12.3 1860.00 11.14 H 5.1 9.2 15.26 33.0 -17.7 Mid Ch 1882.50 16.45 V 5.1 9.0 20.36 33.0 -12.6 1882.50 10.79 H 5.1 9.0 14.70 33.0 -18.3 High Ch 1905.00 17.86 V 5.2 8.9 21.57 33.0 -11.4 1905.00 7.95 H 5.2 8.9 11.87 33.0 -21.3								
15MHz QPSK									3MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 25 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 25 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch 1857.50 18.84 V 5.1 9.2 23.07 33.0 -9.9 1857.50 10.73 H 5.1 9.2 14.87 33.0 -18.1 Mid Ch 1882.50 18.25 V 5.1 9.0 22.16 33.0 -10.8 1882.50 11.63 H 5.1 9.0 15.54 33.0 -17.5 High Ch 1907.50 18.56 V 5.2 8.9 22.26 33.0 -10.7 1907.50 13.24 H 5.2 8.9 16.94 33.0 -16.1									Low Ch 1851.50 17.32 V 5.1 9.3 21.50 33.0 -11.5 1851.50 12.00 H 5.1 9.3 16.19 33.0 -16.8 Mid Ch 1882.50 17.74 V 5.1 9.0 21.65 33.0 -11.4 1882.50 6.43 H 5.1 9.0 10.34 33.0 -22.7 High Ch 1913.50 19.22 V 5.2 8.8 22.87 33.0 -10.1 1913.50 10.92 H 5.2 8.8 14.58 33.0 -18.4								

9.1.11. LTE Band 26 (FCC PART 90S)

15MHz QPSK									15MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 1/17/2019 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 26 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 1/17/2019 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 26 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
821.50	9.98	V	2.9	0.1	7.24	38.5	-31.3		821.50	9.73	V	2.9	0.1	6.99	38.5	-31.5	
821.50	22.32	H	2.9	0.2	19.67	38.5	-18.8		821.50	20.55	H	2.9	0.2	17.90	38.5	-20.6	
10MHz QPSK									10MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/27/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 26 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/27/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 26 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
819.00	15.44	V	2.8	0.1	12.71	50.0	-37.3	Part 90	819.00	13.22	V	2.8	0.1	10.49	50.0	-39.5	Part 90
819.00	23.21	H	2.8	0.2	20.56	50.0	-29.4	Part 90	819.00	20.94	H	2.8	0.2	18.29	50.0	-31.7	Part 90

9.1.12. LTE Band 26 (FCC PART 22)

15MHz QPSK									15MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_QPSK Band 26 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/17/2018 Test Engineer: 19480 BS Configuration: EUT only Location: Chamber B Mode: LTE_16QAM Band 26 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
831.50	14.21	V	2.9	0.1	11.39	38.5	-27.1		831.50	11.81	V	2.9	0.1	8.99	38.5	-29.5	
831.50	21.63	H	2.9	0.2	18.91	38.5	-19.6		831.50	19.23	H	2.9	0.2	16.51	38.5	-22.0	
Mid Ch									Mid Ch								
836.50	13.79	V	2.9	0.1	10.94	38.5	-27.6		836.50	11.39	V	2.9	0.1	8.54	38.5	-30.0	
836.50	22.67	H	2.9	0.2	19.93	38.5	-18.6		836.50	20.27	H	2.9	0.2	17.53	38.5	-21.0	
High Ch									High Ch								
841.50	14.46	V	2.9	0.0	11.60	38.5	-26.9		841.50	12.06	V	2.9	0.0	9.20	38.5	-29.3	
841.50	24.61	H	2.9	0.1	21.86	38.5	-16.6		841.50	22.21	H	2.9	0.1	19.46	38.5	-19.0	
3MHz QPSK									5MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 26 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563708 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 26 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
815.50	15.46	V	2.8	0.1	12.75	50.0	-37.2	Part 90	816.50	13.49	V	2.8	0.1	10.78	50.0	-39.2	Part 90
815.50	20.73	H	2.8	0.2	18.08	50.0	-31.9	Part 90	816.50	19.95	H	2.8	0.2	17.30	50.0	-32.7	Part 90
Mid Ch									Mid Ch								
831.50	16.90	V	2.9	0.1	14.08	38.5	-24.4		831.50	15.83	V	2.9	0.1	13.01	38.5	-25.5	
831.50	21.52	H	2.9	0.2	18.80	38.5	-19.7		831.50	21.35	H	2.9	0.2	18.63	38.5	-19.9	
High Ch									High Ch								
847.50	16.45	V	2.9	0.0	13.56	38.5	-34.9		846.50	13.50	V	2.9	0.0	10.61	38.5	-27.9	
847.50	21.96	H	2.9	0.1	19.17	38.5	-19.3		846.50	20.92	H	2.9	0.1	18.14	38.5	-20.4	

9.1.13. LTE Band 41

20MHz QPSK										20MHz 16QAM									
UL Verification Services, Inc. High Frequency Substitution Measurement										UL Verification Services, Inc. High Frequency Substitution Measurement									
Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 41(FCC) Fundamentals, 20MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 41(FCC) Fundamentals, 20MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables				
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch									Low Ch										
2506.00	16.72	V	5.2	9.6	21.10	33.0	-11.9		2506.00	16.14	V	5.2	9.6	20.52	33.0	-12.5			
2506.00	14.95	H	5.2	9.6	19.33	33.0	-13.7		2506.00	13.96	H	5.2	9.6	18.34	33.0	-14.7			
Mid Ch									Mid Ch										
2593.00	17.16	V	5.3	9.5	21.34	33.0	-11.7		2593.00	16.30	V	5.3	9.5	20.48	33.0	-12.5			
2593.00	16.91	H	5.3	9.5	21.09	33.0	-11.9		2593.00	16.28	H	5.3	9.5	20.46	33.0	-12.5			
High Ch									High Ch										
2680.00	16.75	V	5.4	9.8	21.14	33.0	-11.9		2680.00	15.72	V	5.4	9.8	20.11	33.0	-12.9			
2680.00	15.72	H	5.4	9.8	20.10	33.0	-12.9		2680.00	15.07	H	5.4	9.8	19.45	33.0	-13.6			
15MHz QPSK										10MHz 16QAM									
UL Verification Services, Inc. High Frequency Substitution Measurement										UL Verification Services, Inc. High Frequency Substitution Measurement									
Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 41(FCC) Fundamentals, 15MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Company: Lions Project #: 12563708 Date: 11/16/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 41(FCC) Fundamentals, 10MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables				
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch									Low Ch										
2503.50	14.27	V	5.2	9.6	18.65	33.0	-14.3		2501.00	13.27	V	5.2	9.6	17.67	33.0	-15.3			
2503.50	16.61	H	5.2	9.6	21.00	33.0	-12.0		2501.00	14.68	H	5.2	9.6	19.08	33.0	-13.9			
Mid Ch									Mid Ch										
2593.00	14.47	V	5.3	9.5	18.65	33.0	-14.4		2593.00	14.60	V	5.3	9.5	18.78	33.0	-14.2			
2593.00	16.16	H	5.3	9.5	20.34	33.0	-12.7		2593.00	13.17	H	5.3	9.5	17.35	33.0	-15.7			
High Ch									High Ch										
2682.50	13.46	V	5.4	9.8	17.84	33.0	-15.2		2685.00	11.53	V	5.4	9.8	15.90	33.0	-17.1			
2682.50	13.97	H	5.4	9.8	18.34	33.0	-14.7		2685.00	12.80	H	5.4	9.8	17.16	33.0	-15.8			

9.1.14. LTE Band 66

20MHz QPSK										20MHz 16QAM									
UL Verification Services, Inc. High Frequency Substitution Measurement										UL Verification Services, Inc. High Frequency Substitution Measurement									
Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 66 Fundamentals, 20MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Company: Lions Project #: 12563708 Date: 11/15/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 66 Fundamentals, 20MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables				
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch									Low Ch										
1720.00	17.71	V	4.2	8.5	22.04	30.0	-8.0		1720.00	16.85	V	4.9	8.5	20.48	30.0	-9.5			
1720.00	9.94	H	4.2	8.5	14.27	30.0	-15.7		1720.00	9.16	H	4.9	8.5	12.79	30.0	-17.2			
Mid Ch									Mid Ch										
1745.00	18.20	V	4.2	8.9	22.85	30.0	-7.2		1745.00	17.29	V	4.9	8.9	21.24	30.0	-8.8			
1745.00	9.00	H	4.2	8.9	13.66	30.0	-16.3		1745.00	8.15	H	4.9	8.9	12.11	30.0	-17.9			
High Ch									High Ch										
1770.00	18.55	V	4.3	9.3	23.53	30.0	-6.5		1770.00	18.35	V	5.0	9.3	22.83	30.0	-7.4			
1770.00	10.17	H	4.3	9.3	15.14	30.0	-14.9		1770.00	9.28	H	5.0	9.3	13.55	30.0	-16.5			
15MHz QPSK										15MHz 16QAM									
UL Verification Services, Inc. High Frequency Substitution Measurement										UL Verification Services, Inc. High Frequency Substitution Measurement									
Company: Lions Project #: 12563708 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 66 Fundamentals, 15MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Company: Lions Project #: 12563708 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 66 Fundamentals, 15MHz Bandwidth					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables				
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch									Low Ch										
1717.50	16.25	V	4.2	8.5	20.56	30.0	-9.4		1717.50	15.43	V	4.2	8.5	19.74	30.0	-10.3			
1717.50	9.80	H	4.2	8.5	14.11	30.0	-15.9		1717.50	8.98	H	4.2	8.5	13.29	30.0	-16.7			
Mid Ch									Mid Ch										
1745.00	16.91	V	4.2	8.9	21.56	30.0	-8.4		1745.00	16.12	V	4.2	8.9	20.77	30.0	-9.2			
1745.00	11.43	H	4.2	8.9	16.08	30.0	-13.9		1745.00	10.61	H	4.2	8.9	15.26	30.0	-14.7			
High Ch									High Ch										
1772.50	17.95	V	4.3	9.3	22.96	30.0	-7.0		1772.50	17.19	V	4.3	9.3	22.20	30.0	-7.8			
1772.50	11.71	H	4.3	9.3	16.72	30.0	-13.3		1772.50	10.93	H	4.3	9.3	15.94	30.0	-14.1			

9.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238, §27.53, and §90.691

LIMITS

FCC: §22.917(a), §24.238(a), §27.53 (g), (h), §90.691

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.

FCC: §27.53 (Band 13)

(c) 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.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40 dBm/MHz).

FCC: §27.53 (m) (Band 7, 41)

At least $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

TEST PROCEDURE

KDB 971168 D01 v02r02/D02 v01

TIA-603-E, Section 2.2.12.

MODES TESTED

- GSM 850
- GSM 1900
- WCDMA Band 5
- WCDMA Band 2
- WCDMA Band 4
- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 41
- LTE Band 66

RESULTS

No spurious emissions were detected above system noise floor from 18-26GHz.

9.2.1. GSM

Company:	Samsung
Project #:	12563708
Date:	10/23/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	GPRS 850
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
824.2MHz												
4	1.643	-70.6	Pk	28.4	-31.5	11.5	-62.2	-13	-49.2	0-360	149	V
1	1.648	-63.24	Pk	28.5	-31.5	12.1	-54.14	-13	-41.14	0-360	149	H
5	2.476	-71.27	Pk	32.3	-30.4	11.6	-57.77	-13	-44.77	0-360	149	V
2	2.477	-70.34	Pk	32.3	-30.4	11.6	-56.84	-13	-43.84	0-360	149	H
3	3.289	-71.58	Pk	32.8	-29.2	11.1	-56.88	-13	-43.88	0-360	149	H
6	3.296	-72.04	Pk	32.8	-29.2	11.2	-57.24	-13	-44.24	0-360	149	V
836.6MHz												
4	1.666	-68.84	Pk	28.6	-31.6	11.6	-60.24	-13	-47.24	0-360	149	V
1	1.669	-71	Pk	28.7	-31.5	12.7	-61.1	-13	-48.1	0-360	149	H
5	2.508	-70.55	Pk	32.4	-30.4	11.4	-57.15	-13	-44.15	0-360	149	V
2	2.515	-70.77	Pk	32.4	-30.4	11.5	-57.27	-13	-44.27	0-360	149	H
6	3.342	-72.08	Pk	32.7	-29	11	-57.38	-13	-44.38	0-360	149	V
3	3.351	-71.76	Pk	32.7	-29.1	10.7	-57.46	-13	-44.46	0-360	149	H
848.8MHz												
1	1.698	-65.45	Pk	28.9	-31.2	12.5	-55.25	-13	-42.25	0-360	149	H
4	1.698	-57.64	Pk	28.9	-31.2	12.9	-47.04	-13	-34.04	0-360	149	V
5	2.533	-71.38	Pk	32.4	-30.3	12	-57.28	-13	-44.28	0-360	149	V
2	2.542	-70.05	Pk	32.3	-30.3	11.8	-56.25	-13	-43.25	0-360	149	H
6	3.373	-69.95	Pk	32.6	-29.1	11.9	-54.55	-13	-41.55	0-360	149	V
3	3.389	-70.9	Pk	32.6	-29.1	11.1	-56.3	-13	-43.3	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/23/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	EGPRS 850
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
824.2MHz												
4	1.645	-71	Pk	28.5	-31.5	11.5	-62.5	-13	-49.5	0-360	149	V
1	1.648	-70.01	Pk	28.5	-31.5	12.1	-60.91	-13	-47.91	0-360	149	H
2	2.466	-71.53	Pk	32.2	-30.5	11.9	-57.93	-13	-44.93	0-360	149	H
5	2.467	-72.67	Pk	32.2	-30.5	11.1	-59.87	-13	-46.87	0-360	149	V
6	3.287	-72.07	Pk	32.8	-29.2	11.1	-57.37	-13	-44.37	0-360	149	V
3	3.298	-71.18	Pk	32.8	-29.2	11.4	-56.18	-13	-43.18	0-360	149	H
836.6MHz												
4	1.669	-71.58	Pk	28.7	-31.5	11.6	-62.78	-13	-49.78	0-360	149	V
1	1.674	-69.78	Pk	28.7	-31.5	12.5	-60.08	-13	-47.08	0-360	149	H
5	2.494	-70.91	Pk	32.4	-30.4	11.8	-57.11	-13	-44.11	0-360	149	V
2	2.505	-71.08	Pk	32.4	-30.4	11.3	-57.78	-13	-44.78	0-360	149	H
6	3.337	-71.68	Pk	32.7	-29	11	-56.98	-13	-43.98	0-360	149	V
3	3.343	-71.68	Pk	32.7	-29	10.4	-57.58	-13	-44.58	0-360	149	H
848.8MHz												
1	1.694	-72.23	Pk	28.9	-31.2	12.6	-61.93	-13	-48.93	0-360	149	H
4	1.695	-71.26	Pk	28.9	-31.2	12.6	-60.96	-13	-47.96	0-360	149	V
5	2.537	-71.94	Pk	32.4	-30.3	12	-57.84	-13	-44.84	0-360	149	V
2	2.542	-70.86	Pk	32.3	-30.3	11.8	-57.06	-13	-44.06	0-360	149	H
6	3.376	-72.37	Pk	32.6	-29.1	12	-56.87	-13	-43.87	0-360	149	V
3	3.387	-71.28	Pk	32.6	-29	11.1	-56.58	-13	-43.58	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	GPRS 1900
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1852.2MHz												
4	3.693	-72.72	Pk	33	-28.8	11.6	-56.92	-13	-43.92	0-360	149	V
1	3.702	-70.93	Pk	33.1	-28.9	11.2	-55.53	-13	-42.53	0-360	149	H
5	5.524	-72.67	Pk	34.9	-26.7	11.3	-53.17	-13	-40.17	0-360	149	V
2	5.544	-73.79	Pk	35	-26.8	11	-54.59	-13	-41.59	0-360	149	H
6	7.384	-75.4	Pk	35.6	-23	11.2	-51.6	-13	-38.6	0-360	149	V
3	7.398	-75.89	Pk	35.6	-23	10.6	-52.69	-13	-39.69	0-360	149	H
1880MHz												
4	3.743	-70.62	Pk	33.1	-28.8	11.4	-54.92	-13	-41.92	0-360	149	V
1	3.756	-71.14	Pk	33.2	-28.7	11.5	-55.14	-13	-42.14	0-360	149	H
2	5.628	-71.68	Pk	35.1	-26.7	10.5	-52.78	-13	-39.78	0-360	149	H
5	5.63	-73.05	Pk	35.1	-26.8	10.7	-54.05	-13	-41.05	0-360	149	V
6	7.487	-74.37	Pk	35.7	-23	10.9	-50.77	-13	-37.77	0-360	149	V
3	7.515	-74.9	Pk	35.7	-23	10.5	-51.7	-13	-38.7	0-360	149	H
1909.8MHz												
4	3.797	-71.09	Pk	33.2	-28.5	11.3	-55.09	-13	-42.09	0-360	149	V
1	3.812	-71.41	Pk	33.2	-28.5	11.2	-55.51	-13	-42.51	0-360	149	H
5	5.706	-72.53	Pk	35	-26.3	10.7	-53.13	-13	-40.13	0-360	149	V
2	5.716	-73.71	Pk	35	-26.2	10.5	-54.41	-13	-41.41	0-360	149	H
6	7.616	-75.12	Pk	35.7	-22.9	11.3	-51.02	-13	-38.02	0-360	149	V
3	7.629	-75.18	Pk	35.7	-22.9	10.7	-51.68	-13	-38.68	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	EGPRS 1900
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1852.2MHz												
4	3.676	-71.58	Pk	33	-28.7	11.2	-56.08	-13	-43.08	0-360	149	V
1	3.692	-72.73	Pk	33	-28.8	11.3	-57.23	-13	-44.23	0-360	149	H
5	5.535	-73.81	Pk	35	-26.8	11.5	-54.11	-13	-41.11	0-360	149	V
2	5.541	-73.77	Pk	35	-26.8	11.2	-54.37	-13	-41.37	0-360	149	H
6	7.348	-73.64	Pk	35.7	-23.2	11	-50.14	-13	-37.14	0-360	149	V
3	7.384	-73.9	Pk	35.6	-23	10.9	-50.4	-13	-37.4	0-360	149	H
1880MHz												
1	3.76	-70.99	Pk	33.2	-28.7	11.6	-54.89	-13	-41.89	0-360	149	H
4	3.763	-72.15	Pk	33.2	-28.7	11.2	-56.45	-13	-43.45	0-360	149	V
5	5.617	-73.83	Pk	35.1	-26.7	10.7	-54.73	-13	-41.73	0-360	149	V
2	5.626	-72.21	Pk	35.1	-26.7	10.4	-53.41	-13	-40.41	0-360	149	H
6	7.515	-74.38	Pk	35.7	-23	10.8	-50.88	-13	-37.88	0-360	149	V
3	7.516	-75.18	Pk	35.7	-23	10.5	-51.98	-13	-38.98	0-360	149	H
1909.8MHz												
4	3.809	-71.09	Pk	33.2	-28.5	11.1	-55.29	-13	-42.29	0-360	149	V
1	3.817	-71.85	Pk	33.1	-28.5	11.6	-55.65	-13	-42.65	0-360	149	H
5	5.689	-72.83	Pk	35	-26.5	10.4	-53.93	-13	-40.93	0-360	149	V
2	5.713	-71.96	Pk	35	-26.2	10.6	-52.56	-13	-39.56	0-360	149	H
6	7.607	-74.98	Pk	35.7	-22.8	11.2	-50.88	-13	-37.88	0-360	149	V
3	7.63	-74.84	Pk	35.7	-22.9	10.7	-51.34	-13	-38.34	0-360	149	H

9.2.2. WCDMA

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	REL99 B5
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
826.4MHz												
1	1.654	-71.23	Pk	28.7	-33.3	10.8	-65.03	-13	-52.03	0-360	149	H
2	1.654	-70.33	Pk	28.7	-33.3	9.7	-65.23	-13	-52.23	0-360	149	V
3	2.48	-70.82	Pk	32.6	-32.3	8.7	-61.82	-13	-48.82	0-360	149	H
4	2.48	-70.8	Pk	32.6	-32.3	8.8	-61.7	-13	-48.7	0-360	149	V
6	3.306	-70.93	Pk	32.9	-31	9.9	-59.13	-13	-46.13	0-360	149	V
5	3.308	-70.58	Pk	32.9	-30.9	9.6	-58.98	-13	-45.98	0-360	149	H
836.6MHz												
1	1.673	-69.57	Pk	29.1	-33.2	10.6	-63.07	-13	-50.07	0-360	149	H
2	1.675	-69.9	Pk	29.1	-33.1	9	-64.9	-13	-51.9	0-360	149	V
3	2.511	-70.86	Pk	32.7	-32.2	9.1	-61.26	-13	-48.26	0-360	149	H
4	2.511	-70.32	Pk	32.7	-32.2	9.4	-60.42	-13	-47.42	0-360	149	V
5	3.344	-70.83	Pk	32.9	-31	9	-59.93	-13	-46.93	0-360	149	H
6	3.345	-70.46	Pk	32.9	-31	9.3	-59.26	-13	-46.26	0-360	149	V
846.6MHz												
2	1.692	-68.34	Pk	29.4	-33.2	9.7	-62.44	-13	-49.44	0-360	149	V
1	1.695	-69.8	Pk	29.5	-33.3	10.3	-63.3	-13	-50.3	0-360	149	H
3	2.539	-70.48	Pk	32.7	-32	8.9	-60.88	-13	-47.88	0-360	149	H
4	2.539	-70.87	Pk	32.7	-32	9.1	-61.07	-13	-48.07	0-360	149	V
5	3.383	-70.69	Pk	32.8	-31.2	8.5	-60.59	-13	-47.59	0-360	149	H
6	3.384	-70.7	Pk	32.8	-31.3	8.8	-60.4	-13	-47.4	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	HSDPA B5
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
826.4MHz												
1	1.653	-69.28	Pk	28.7	-33.4	10.8	-63.18	-13	-50.18	0-360	149	H
2	1.654	-69.97	Pk	28.7	-33.3	9.7	-64.87	-13	-51.87	0-360	149	V
3	2.48	-70.32	Pk	32.6	-32.3	8.7	-61.32	-13	-48.32	0-360	149	H
4	2.48	-70.09	Pk	32.6	-32.3	8.8	-60.99	-13	-47.99	0-360	149	V
5	3.306	-72.24	Pk	32.9	-31	9.7	-60.64	-13	-47.64	0-360	149	H
6	3.31	-69.44	Pk	32.9	-31	9.8	-57.74	-13	-44.74	0-360	149	V
836.6MHz												
1	1.672	-69.56	Pk	29	-33.3	10.7	-63.16	-13	-50.16	0-360	149	H
2	1.674	-68.57	Pk	29.1	-33.2	9	-63.67	-13	-50.67	0-360	149	V
3	2.51	-69.99	Pk	32.7	-32.2	9.1	-60.39	-13	-47.39	0-360	149	H
4	2.511	-71.32	Pk	32.7	-32.2	9.4	-61.42	-13	-48.42	0-360	149	V
5	3.347	-69.97	Pk	32.9	-31	9.1	-58.97	-13	-45.97	0-360	149	H
6	3.348	-71.01	Pk	32.9	-31	9.4	-59.71	-13	-46.71	0-360	149	V
846.6MHz												
1	1.694	-69.94	Pk	29.5	-33.3	10.4	-63.34	-13	-50.34	0-360	149	H
2	1.694	-70.28	Pk	29.5	-33.3	9.7	-64.38	-13	-51.38	0-360	149	V
4	2.54	-70.39	Pk	32.7	-32	9	-60.69	-13	-47.69	0-360	149	V
3	2.541	-71.92	Pk	32.7	-32	8.8	-62.42	-13	-49.42	0-360	149	H
6	3.286	-70.65	Pk	32.9	-31.3	9.2	-59.85	-13	-46.85	0-360	149	V
5	3.287	-72.56	Pk	32.9	-31.3	9.7	-61.26	-13	-48.26	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	REL99 B2
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1852.4MHz												
4	3.702	-70.18	Pk	33.2	-30.8	9.7	-58.08	-13	-45.08	0-360	149	V
3	3.703	-68.81	Pk	33.2	-30.8	10.2	-56.21	-13	-43.21	0-360	149	H
5	5.558	-72.08	Pk	35.4	-29.7	8.9	-57.48	-13	-44.48	0-360	149	H
6	5.558	-71.36	Pk	35.4	-29.7	8.8	-56.86	-13	-43.86	0-360	149	V
7	7.408	-70.36	Pk	36.2	-27.5	6.8	-54.86	-13	-41.86	0-360	149	H
8	7.41	-73.12	Pk	36.2	-27.5	7.1	-57.32	-13	-44.32	0-360	149	V
1880MHz												
4	3.759	-70.33	Pk	33.3	-31.1	9.6	-58.53	-13	-45.53	0-360	149	V
3	3.763	-69.8	Pk	33.3	-31	9.3	-58.2	-13	-45.2	0-360	149	H
6	5.641	-71.81	Pk	35.5	-29.4	8.1	-57.61	-13	-44.61	0-360	149	V
5	5.642	-72.05	Pk	35.5	-29.4	8.1	-57.85	-13	-44.85	0-360	149	H
7	7.516	-68.43	Pk	36.2	-27.3	7.6	-51.93	-13	-38.93	0-360	149	H
8	7.516	-72.38	Pk	36.2	-27.3	7.5	-55.98	-13	-42.98	0-360	149	V
1907.6MHz												
3	3.814	-68.73	Pk	33.4	-30.5	9.4	-56.43	-13	-43.43	0-360	149	H
4	3.817	-70.09	Pk	33.4	-30.6	9.8	-57.49	-13	-44.49	0-360	149	V
5	5.72	-70.83	Pk	35.5	-29.7	7.6	-57.43	-13	-44.43	0-360	149	H
6	5.72	-69.47	Pk	35.5	-29.7	7.7	-55.97	-13	-42.97	0-360	149	V
7	7.631	-73.85	Pk	36.4	-27	7.4	-57.05	-13	-44.05	0-360	149	H
8	7.631	-73.27	Pk	36.4	-27	7.4	-56.47	-13	-43.47	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	HSDPA B2
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1852.4MHz												
3	3.704	-70.62	Pk	33.2	-30.9	10.2	-58.12	-13	-45.12	0-360	149	H
4	3.706	-70.67	Pk	33.2	-30.9	10	-58.37	-13	-45.37	0-360	149	V
5	5.556	-72.07	Pk	35.4	-29.7	8.9	-57.47	-13	-44.47	0-360	149	H
6	5.557	-72.22	Pk	35.4	-29.7	8.8	-57.72	-13	-44.72	0-360	149	V
7	7.408	-71.95	Pk	36.2	-27.5	6.9	-56.35	-13	-43.35	0-360	149	H
8	7.41	-73.26	Pk	36.2	-27.5	7.1	-57.46	-13	-44.46	0-360	149	V
1880MHz												
3	3.759	-69.77	Pk	33.3	-31.1	9.3	-58.27	-13	-45.27	0-360	149	H
4	3.76	-69.33	Pk	33.3	-31.1	9.7	-57.43	-13	-44.43	0-360	149	V
5	5.638	-71.49	Pk	35.5	-29.4	8.4	-56.99	-13	-43.99	0-360	149	H
6	5.642	-71.32	Pk	35.5	-29.4	8	-57.22	-13	-44.22	0-360	149	V
8	7.519	-73.58	Pk	36.2	-27.3	7.5	-57.18	-13	-44.18	0-360	149	V
7	7.521	-72.6	Pk	36.2	-27.3	7.5	-56.2	-13	-43.2	0-360	149	H
1907.6MHz												
3	3.815	-69.98	Pk	33.4	-30.5	9.4	-57.68	-13	-44.68	0-360	149	H
4	3.815	-69.84	Pk	33.4	-30.5	9.7	-57.24	-13	-44.24	0-360	149	V
5	5.722	-71.03	Pk	35.5	-29.7	7.7	-57.53	-13	-44.53	0-360	149	H
6	5.722	-70.83	Pk	35.5	-29.7	7.7	-57.33	-13	-44.33	0-360	149	V
7	7.63	-72.02	Pk	36.4	-27	7.5	-55.12	-13	-42.12	0-360	149	H
8	7.631	-73.02	Pk	36.4	-27	7.4	-56.22	-13	-43.22	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	REL99 B4
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1712.4MHz												
4	3.423	-70.54	Pk	32.8	-31.4	9.3	-59.84	-13	-46.84	0-360	149	V
3	3.424	-70.11	Pk	32.8	-31.4	8.9	-59.81	-13	-46.81	0-360	149	H
5	5.137	-71.13	Pk	34.6	-30.1	8.3	-58.33	-13	-45.33	0-360	149	H
6	5.138	-71.43	Pk	34.6	-30.1	8.2	-58.73	-13	-45.73	0-360	149	V
8	6.85	-72	Pk	35.8	-28.1	6.7	-57.6	-13	-44.6	0-360	149	V
7	6.851	-71.8	Pk	35.8	-28	6.7	-57.3	-13	-44.3	0-360	149	H
1732.6MHz												
3	3.465	-70.67	Pk	32.9	-31.3	9.7	-59.37	-13	-46.37	0-360	149	H
4	3.467	-71.06	Pk	32.9	-31.3	9.3	-60.16	-13	-47.16	0-360	149	V
5	5.197	-71.59	Pk	34.7	-29.8	9.2	-57.49	-13	-44.49	0-360	149	H
6	5.197	-69.35	Pk	34.7	-29.8	9.2	-55.25	-13	-42.25	0-360	149	V
7	6.929	-72.68	Pk	35.8	-27.9	6.8	-57.98	-13	-44.98	0-360	149	H
8	6.93	-72.1	Pk	35.8	-28	6.8	-57.5	-13	-44.5	0-360	149	V
1752.6MHz												
3	3.505	-72.91	Pk	32.9	-31	9.7	-61.31	-13	-48.31	0-360	149	H
4	3.505	-71.22	Pk	32.9	-31	9.8	-59.52	-13	-46.52	0-360	149	V
5	5.257	-71.45	Pk	34.8	-29.8	8.7	-57.75	-13	-44.75	0-360	149	H
6	5.258	-72.17	Pk	34.8	-29.8	8.6	-58.57	-13	-45.57	0-360	149	V
7	7.01	-72.46	Pk	35.9	-27.8	7.1	-57.26	-13	-44.26	0-360	149	H
8	7.01	-73.42	Pk	35.9	-27.8	7.1	-58.22	-13	-45.22	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	16069
Configuration:	EUT+ Support Equipment
Mode:	HSDPA B4
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1712.4MHz												
4	3.421	-69.74	Pk	32.8	-31.4	9.3	-59.04	-13	-46.04	0-360	149	V
3	3.424	-69.05	Pk	32.8	-31.4	9	-58.65	-13	-45.65	0-360	149	H
5	5.137	-70.46	Pk	34.6	-30.1	8.3	-57.66	-13	-44.66	0-360	149	H
6	5.138	-70.23	Pk	34.6	-30.1	8.2	-57.53	-13	-44.53	0-360	149	V
7	6.849	-71.68	Pk	35.8	-28.2	6.6	-57.48	-13	-44.48	0-360	149	H
8	6.85	-72.43	Pk	35.8	-28.1	6.7	-58.03	-13	-45.03	0-360	149	V
1732.6MHz												
3	3.467	-69.08	Pk	32.9	-31.3	9.7	-57.78	-13	-44.78	0-360	149	H
4	3.468	-71.7	Pk	32.9	-31.2	9.3	-60.7	-13	-47.7	0-360	149	V
6	5.198	-70.27	Pk	34.7	-29.8	9.3	-56.07	-13	-43.07	0-360	149	V
5	5.201	-71.18	Pk	34.7	-29.8	9.4	-56.88	-13	-43.88	0-360	149	H
7	6.932	-72.09	Pk	35.8	-28	6.6	-57.69	-13	-44.69	0-360	149	H
8	6.933	-72.46	Pk	35.8	-28	6.7	-57.96	-13	-44.96	0-360	149	V
1752.6MHz												
3	3.505	-69.94	Pk	32.9	-31	9.7	-58.34	-13	-45.34	0-360	149	H
4	3.505	-71.46	Pk	32.9	-31	9.8	-59.76	-13	-46.76	0-360	149	V
5	5.255	-71.01	Pk	34.8	-29.8	8.9	-57.11	-13	-44.11	0-360	149	H
6	5.255	-70.97	Pk	34.8	-29.8	8.7	-57.27	-13	-44.27	0-360	149	V
8	7.01	-73.43	Pk	35.9	-27.8	7.1	-58.23	-13	-45.23	0-360	149	V
7	7.011	-73.67	Pk	35.9	-27.8	7.1	-58.47	-13	-45.47	0-360	149	H

9.2.3. LTE BAND 2

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 2 QPSK 20MHz
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1860MHz												
4	3.782	-68.12	Pk	33.2	-28.5	11.4	-52.02	-13	-39.02	0-360	149	V
1	4.131	-69.96	Pk	33.4	-28	11.3	-53.26	-13	-40.26	0-360	149	H
2	4.437	-70.08	Pk	33.7	-27.9	11.7	-52.58	-13	-39.58	0-360	149	H
5	6.313	-71.55	Pk	35.7	-25	11.2	-49.65	-13	-36.65	0-360	149	V
6	10.854	-73.81	Pk	37.9	-18.8	11.2	-43.51	-13	-30.51	0-360	149	V
3	10.865	-73.14	Pk	37.9	-18.7	10.9	-43.04	-13	-30.04	0-360	149	H
1880MHz												
4	3.743	-70.84	Pk	33.1	-28.8	11.4	-55.14	-13	-42.14	0-360	149	V
1	3.752	-72.02	Pk	33.1	-28.7	11.7	-55.92	-13	-42.92	0-360	149	H
5	5.631	-73.37	Pk	35.1	-26.8	10.6	-54.47	-13	-41.47	0-360	149	V
2	5.639	-72.99	Pk	35.1	-26.8	10.8	-53.89	-13	-40.89	0-360	149	H
6	7.486	-74.21	Pk	35.7	-23	10.8	-50.71	-13	-37.71	0-360	149	V
3	7.499	-75.29	Pk	35.7	-23.1	10.7	-51.99	-13	-38.99	0-360	149	H
1900MHz												
1	3.3	-69.76	Pk	32.8	-29.1	11.5	-54.56	-13	-41.56	0-360	149	H
4	3.655	-70.21	Pk	32.9	-28.6	10.7	-55.21	-13	-42.21	0-360	149	V
5	5.05	-70.09	Pk	34.4	-27.3	11.2	-51.79	-13	-38.79	0-360	149	V
2	5.482	-71.46	Pk	34.8	-26.7	10.9	-52.46	-13	-39.46	0-360	149	H
6	7.203	-73.33	Pk	35.7	-23.4	10.9	-50.13	-13	-37.13	0-360	149	V
3	7.564	-71.7	Pk	35.7	-22.9	10.9	-48	-13	-35	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 2 16QAM 20MHz
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1860MHz												
4	3.042	-69.81	Pk	32.7	-29.7	11.9	-54.91	-13	-41.91	0-360	149	V
1	3.047	-70.42	Pk	32.7	-29.6	11.9	-55.42	-13	-42.42	0-360	149	H
5	5.961	-71.4	Pk	35.3	-25.9	11.1	-50.9	-13	-37.9	0-360	149	V
2	6.001	-70.76	Pk	35.3	-25.9	11.4	-49.96	-13	-36.96	0-360	149	H
3	6.381	-70.94	Pk	35.8	-25	11	-49.14	-13	-36.14	0-360	149	H
6	6.495	-72.46	Pk	35.7	-24.7	11.3	-50.16	-13	-37.16	0-360	149	V
1880MHz												
4	2.397	-69.62	Pk	31.8	-30.4	13.1	-55.12	-13	-42.12	0-360	149	V
1	3.442	-70.33	Pk	32.7	-28.9	11.7	-54.83	-13	-41.83	0-360	149	H
5	4.112	-70.71	Pk	33.4	-28.1	11.7	-53.71	-13	-40.71	0-360	149	V
2	5.928	-71.73	Pk	35.2	-25.8	10.8	-51.53	-13	-38.53	0-360	149	H
6	8.415	-74.83	Pk	35.8	-22.5	11.2	-50.33	-13	-37.33	0-360	149	V
3	9.497	-72.17	Pk	36.8	-21.2	11	-45.57	-13	-32.57	0-360	149	H
1900MHz												
1	3.475	-69.75	Pk	32.8	-29.1	11.5	-54.55	-13	-41.55	0-360	149	H
2	5.332	-71.49	Pk	34.6	-26.6	10.8	-52.69	-13	-39.69	0-360	149	H
3	6.745	-72.03	Pk	35.5	-24.3	10.7	-50.13	-13	-37.13	0-360	149	H
4	7.564	-73.18	Pk	35.7	-22.9	11.3	-49.08	-13	-36.08	0-360	149	V
5	8.518	-72.65	Pk	35.8	-22.1	11	-47.95	-13	-34.95	0-360	149	V
6	12.697	-73.82	Pk	39.2	-18.8	10.9	-42.52	-13	-29.52	0-360	149	V

9.2.4. LTE BAND 4

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 4 QPSK 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1720MHz												
1	3.447	-69	Pk	32.9	-31.6	9.2	-58.5	-13	-45.5	0-360	149	H
2	3.448	-69.87	Pk	32.9	-31.5	9	-59.47	-13	-46.47	0-360	149	V
4	5.161	-71.39	Pk	34.6	-29.7	9.4	-57.09	-13	-44.09	0-360	149	V
3	5.163	-71.07	Pk	34.6	-29.6	9.3	-56.77	-13	-43.77	0-360	149	H
5	6.88	-71.24	Pk	35.8	-28.4	6.7	-57.14	-13	-44.14	0-360	149	H
6	6.882	-72.55	Pk	35.8	-28.4	6.8	-58.35	-13	-45.35	0-360	149	V
1732.5MHz												
1	3.47	-69.65	Pk	32.9	-31.2	9.6	-58.35	-13	-45.35	0-360	149	H
2	3.47	-68.88	Pk	32.9	-31.2	9.2	-57.98	-13	-44.98	0-360	149	V
3	5.203	-70.33	Pk	34.7	-29.8	9.3	-56.13	-13	-43.13	0-360	149	H
4	5.208	-70.71	Pk	34.7	-29.6	9.2	-56.41	-13	-43.41	0-360	149	V
5	6.946	-70.79	Pk	35.8	-27.9	6.8	-56.09	-13	-43.09	0-360	149	H
6	6.95	-70.87	Pk	35.9	-28	6.8	-56.17	-13	-43.17	0-360	149	V
1745MHz												
2	3.501	-69.41	Pk	32.9	-31.1	9.7	-57.91	-13	-44.91	0-360	149	V
1	3.505	-70.44	Pk	32.9	-31	9.7	-58.84	-13	-45.84	0-360	149	H
4	5.237	-71.64	Pk	34.8	-29.5	8.9	-57.44	-13	-44.44	0-360	149	V
3	5.238	-71.69	Pk	34.8	-29.6	9.1	-57.39	-13	-44.39	0-360	149	H
5	6.988	-71.82	Pk	35.9	-28	6.8	-57.12	-13	-44.12	0-360	149	V
6	6.991	-72.32	Pk	35.9	-28	6.8	-57.62	-13	-44.62	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/26/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 4 16QAM 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1720MHz												
1	3.401	-70.3	Pk	32.8	-31.4	8.8	-60.1	-13	-47.1	0-360	149	H
2	3.401	-68.68	Pk	32.8	-31.3	8.8	-58.38	-13	-45.38	0-360	149	V
4	5.167	-71.37	Pk	34.6	-29.5	9.4	-56.87	-13	-43.87	0-360	149	V
3	5.168	-70.27	Pk	34.6	-29.5	9.5	-55.67	-13	-42.67	0-360	149	H
5	6.883	-72.13	Pk	35.8	-28.4	6.7	-58.03	-13	-45.03	0-360	149	H
6	6.884	-72.05	Pk	35.8	-28.3	6.8	-57.75	-13	-44.75	0-360	149	V
1732.5MHz												
2	3.467	-70.4	Pk	32.9	-31.3	9.3	-59.5	-13	-46.5	0-360	149	V
1	3.47	-70.31	Pk	32.9	-31.2	9.6	-59.01	-13	-46.01	0-360	149	H
3	5.196	-70.41	Pk	34.7	-29.8	9.2	-56.31	-13	-43.31	0-360	149	H
4	5.197	-71.28	Pk	34.7	-29.8	9.2	-57.18	-13	-44.18	0-360	149	V
6	6.928	-71.48	Pk	35.8	-27.9	6.9	-56.68	-13	-43.68	0-360	149	V
5	6.934	-71.92	Pk	35.8	-28	6.6	-57.52	-13	-44.52	0-360	149	H
1745MHz												
1	3.481	-70.06	Pk	32.9	-31.1	9.4	-58.86	-13	-45.86	0-360	149	H
2	3.486	-70.41	Pk	32.9	-30.9	9.5	-58.91	-13	-45.91	0-360	149	V
3	5.225	-69.68	Pk	34.7	-29.4	9	-55.38	-13	-42.38	0-360	149	H
4	5.235	-70.04	Pk	34.8	-29.6	8.8	-56.04	-13	-43.04	0-360	149	V
5	6.978	-71.42	Pk	35.9	-27.9	6.9	-56.52	-13	-43.52	0-360	149	H
6	6.98	-72.33	Pk	35.9	-27.9	6.9	-57.43	-13	-44.43	0-360	149	V

9.2.5. LTE BAND 5

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 5 QPSK 10MHz
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
829MHz												
4	1.67	-70.82	Pk	28.7	-31.6	11.6	-62.12	-13	-49.12	0-360	149	V
1	1.678	-69.84	Pk	28.8	-31.5	12	-60.54	-13	-47.54	0-360	149	H
2	2.513	-71.09	Pk	32.4	-30.5	11.5	-57.69	-13	-44.69	0-360	149	H
5	2.515	-71.29	Pk	32.4	-30.5	11.7	-57.69	-13	-44.69	0-360	149	V
3	3.342	-70.74	Pk	32.7	-29	10.5	-56.54	-13	-43.54	0-360	149	H
6	3.346	-71.15	Pk	32.7	-29	11	-56.45	-13	-43.45	0-360	149	V
836.5MHz												
4	1.848	-70.03	Pk	30.9	-31.3	12.9	-57.53	-13	-44.53	0-360	149	V
1	2.066	-69.68	Pk	31.3	-31	12.7	-56.68	-13	-43.68	0-360	149	H
2	3.288	-69.45	Pk	32.8	-29.2	11.1	-54.75	-13	-41.75	0-360	149	H
3	4.43	-70.49	Pk	33.7	-28	11.6	-53.19	-13	-40.19	0-360	149	H
5	4.776	-70.72	Pk	34.1	-27.2	10.9	-52.92	-13	-39.92	0-360	149	V
6	6.28	-71.65	Pk	35.7	-25	11	-49.95	-13	-36.95	0-360	149	V
844MHz												
1	1.668	-70.15	Pk	28.7	-31.6	12.6	-60.45	-13	-47.45	0-360	149	H
4	1.669	-70.98	Pk	28.7	-31.6	11.6	-62.28	-13	-49.28	0-360	149	V
5	2.51	-71.39	Pk	32.4	-30.5	11.6	-57.89	-13	-44.89	0-360	149	V
2	2.512	-70.2	Pk	32.4	-30.5	11.5	-56.8	-13	-43.8	0-360	149	H
6	3.343	-70.85	Pk	32.7	-29	11	-56.15	-13	-43.15	0-360	149	V
3	3.348	-71.64	Pk	32.7	-29.1	10.5	-57.54	-13	-44.54	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 5 16QAM 10MHz
Chamber #:	Chamber A

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
829MHz												
4	1.67	-69.46	Pk	28.7	-31.6	11.6	-60.76	-13	-47.76	0-360	149	V
1	1.671	-70.33	Pk	28.7	-31.6	12.7	-60.53	-13	-47.53	0-360	149	H
2	2.507	-70.43	Pk	32.4	-30.4	11.3	-57.13	-13	-44.13	0-360	149	H
5	2.508	-69.99	Pk	32.4	-30.4	11.4	-56.59	-13	-43.59	0-360	149	V
3	3.351	-71.22	Pk	32.7	-29.1	10.7	-56.92	-13	-43.92	0-360	149	H
6	3.351	-71.35	Pk	32.7	-29.1	11.4	-56.35	-13	-43.35	0-360	149	V
836.5MHz												
1	1.672	-70.97	Pk	28.7	-31.6	12.7	-61.17	-13	-48.17	0-360	149	H
4	1.673	-70.67	Pk	28.7	-31.6	11.4	-62.17	-13	-49.17	0-360	149	V
5	2.501	-70.12	Pk	32.4	-30.5	11.6	-56.62	-13	-43.62	0-360	149	V
2	2.512	-70.32	Pk	32.4	-30.5	11.5	-56.92	-13	-43.92	0-360	149	H
6	3.33	-69.35	Pk	32.7	-29	11	-54.65	-13	-41.65	0-360	149	V
3	3.344	-71.32	Pk	32.7	-29	10.4	-57.22	-13	-44.22	0-360	149	H
844MHz												
1	1.671	-70.2	Pk	28.7	-31.6	12.7	-60.4	-13	-47.4	0-360	149	H
4	1.672	-70.16	Pk	28.7	-31.6	11.5	-61.56	-13	-48.56	0-360	149	V
2	2.505	-71.17	Pk	32.4	-30.4	11.3	-57.87	-13	-44.87	0-360	149	H
5	2.51	-70.98	Pk	32.4	-30.5	11.6	-57.48	-13	-44.48	0-360	149	V
6	3.34	-71.18	Pk	32.7	-29	11	-56.48	-13	-43.48	0-360	149	V
3	3.343	-71.53	Pk	32.7	-29	10.4	-57.43	-13	-44.43	0-360	149	H

9.2.6. LTE BAND 7

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 7 QPSK 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2510MHz												
4	5.001	-71.76	Pk	34.6	-29.8	9.4	-57.56	-25	-32.56	0-360	149	V
1	5.025	-70.78	Pk	34.6	-30.2	8.4	-57.98	-25	-32.98	0-360	149	H
2	7.51	-73.22	Pk	36.2	-27.1	7.7	-56.42	-25	-31.42	0-360	149	H
5	7.513	-72.98	Pk	36.2	-27.2	7.6	-56.38	-25	-31.38	0-360	149	V
6	10.043	-74.57	Pk	37.5	-23.7	7.9	-52.87	-25	-27.87	0-360	149	V
3	10.047	-73.22	Pk	37.5	-23.7	7.9	-51.52	-25	-26.52	0-360	149	H
2535MHz												
4	5.051	-71.34	Pk	34.6	-29.6	9.6	-56.74	-25	-31.74	0-360	149	V
1	5.067	-70.88	Pk	34.5	-29.8	8.7	-57.48	-25	-32.48	0-360	149	H
5	7.593	-71.75	Pk	36.4	-27.1	7	-55.45	-25	-30.45	0-360	149	V
2	7.594	-72.83	Pk	36.4	-27.1	7.2	-56.33	-25	-31.33	0-360	149	H
6	10.113	-73.54	Pk	37.7	-23.8	7.1	-52.54	-25	-27.54	0-360	149	V
3	10.118	-73.64	Pk	37.7	-23.8	6.8	-52.94	-25	-27.94	0-360	149	H
2560MHz												
4	5.087	-71.07	Pk	34.5	-30.1	8.7	-57.97	-25	-32.97	0-360	149	V
1	5.113	-70.43	Pk	34.6	-29.8	9.3	-56.33	-25	-31.33	0-360	149	H
5	7.631	-73.49	Pk	36.4	-27	7.4	-56.69	-25	-31.69	0-360	149	V
2	7.67	-73.39	Pk	36.4	-26.8	8	-55.79	-25	-30.79	0-360	149	H
3	10.224	-74.9	Pk	37.8	-23.3	7.7	-52.7	-25	-27.7	0-360	149	H
6	10.24	-74.97	Pk	37.8	-23.3	7.5	-52.97	-25	-27.97	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 7 16QAM 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2510MHz												
4	5.007	-72.22	Pk	34.6	-30	9.3	-58.32	-25	-33.32	0-360	149	V
1	5.013	-70.61	Pk	34.6	-30.1	8.7	-57.41	-25	-32.41	0-360	149	H
5	7.511	-73.38	Pk	36.2	-27.2	7.7	-56.68	-25	-31.68	0-360	149	V
2	7.523	-72.61	Pk	36.2	-27.4	7.4	-56.41	-25	-31.41	0-360	149	H
6	10.014	-74.42	Pk	37.5	-23.8	8.1	-52.62	-25	-27.62	0-360	149	V
3	10.048	-74.94	Pk	37.6	-23.7	7.8	-53.24	-25	-28.24	0-360	149	H
2535MHz												
4	5.022	-70.87	Pk	34.6	-30.2	8.8	-57.67	-25	-32.67	0-360	149	V
1	5.062	-70.99	Pk	34.5	-30	8.8	-57.69	-25	-32.69	0-360	149	H
5	7.589	-72.49	Pk	36.3	-27.2	6.9	-56.49	-25	-31.49	0-360	149	V
2	7.605	-71.98	Pk	36.4	-26.8	7.7	-54.68	-25	-29.68	0-360	149	H
6	10.116	-74.53	Pk	37.7	-23.8	7	-53.63	-25	-28.63	0-360	149	V
3	10.135	-74.64	Pk	37.7	-23.7	6.4	-54.24	-25	-29.24	0-360	149	H
2560MHz												
4	5.111	-70.96	Pk	34.5	-29.8	9.2	-57.06	-25	-32.06	0-360	149	V
1	5.123	-70.4	Pk	34.6	-29.8	8.7	-56.9	-25	-31.9	0-360	149	H
5	7.628	-72.41	Pk	36.4	-26.9	7.4	-55.51	-25	-30.51	0-360	149	V
2	7.658	-73.4	Pk	36.4	-26.7	7.8	-55.9	-25	-30.9	0-360	149	H
6	10.204	-70.25	Pk	37.8	-23.3	6.9	-48.85	-25	-23.85	0-360	149	V
3	10.223	-74.56	Pk	37.8	-23.3	7.7	-52.36	-25	-27.36	0-360	149	H

9.2.7. LTE BAND 12

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 12 QPSK 10MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
704MHz												
2	1.409	-68.92	Pk	28.4	-33.6	9.7	-64.42	-13	-51.42	0-360	149	V
1	1.41	-70.71	Pk	28.4	-33.7	10.5	-65.51	-13	-52.51	0-360	149	H
3	2.109	-69.72	Pk	31.1	-32.6	10.3	-60.92	-13	-47.92	0-360	149	H
4	2.111	-70.21	Pk	31.1	-32.5	9.5	-62.11	-13	-49.11	0-360	149	V
5	2.813	-70.12	Pk	32.5	-31.7	9.6	-59.72	-13	-46.72	0-360	149	H
6	2.815	-70.82	Pk	32.5	-31.7	9	-61.02	-13	-48.02	0-360	149	V
707.5MHz												
2	1.416	-69.94	Pk	28.4	-33.5	9	-66.04	-13	-53.04	0-360	149	V
1	1.42	-69.65	Pk	28.4	-33.5	9.1	-65.65	-13	-52.65	0-360	149	H
4	2.123	-70.4	Pk	31.2	-32.8	10.2	-61.8	-13	-48.8	0-360	149	V
3	2.124	-69.6	Pk	31.2	-32.8	10.3	-60.9	-13	-47.9	0-360	149	H
6	2.829	-71.8	Pk	32.5	-31.8	9.6	-61.5	-13	-48.5	0-360	149	V
5	2.83	-68.26	Pk	32.5	-31.8	9.7	-57.86	-13	-44.86	0-360	149	H
711MHz												
1	1.419	-70.02	Pk	28.4	-33.5	9.1	-66.02	-13	-53.02	0-360	149	H
2	1.421	-70.68	Pk	28.3	-33.6	8.9	-67.08	-13	-54.08	0-360	149	V
3	2.129	-70.65	Pk	31.2	-32.8	10.5	-61.75	-13	-48.75	0-360	149	H
4	2.129	-70.74	Pk	31.2	-32.8	10.2	-62.14	-13	-49.14	0-360	149	V
5	2.841	-69.91	Pk	32.5	-32.1	9.3	-60.21	-13	-47.21	0-360	149	H
6	2.843	-69.77	Pk	32.5	-32.1	9.2	-60.17	-13	-47.17	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 12 16QAM 10MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
704MHz												
1	1.407	-70.14	Pk	28.5	-33.6	10.5	-64.74	-13	-51.74	0-360	149	H
2	1.408	-69.5	Pk	28.4	-33.6	9.8	-64.9	-13	-51.9	0-360	149	V
4	2.11	-70.29	Pk	31.1	-32.5	9.5	-62.19	-13	-49.19	0-360	149	V
3	2.116	-70.38	Pk	31.2	-32.7	10.3	-61.58	-13	-48.58	0-360	149	H
5	2.817	-69.18	Pk	32.5	-31.8	9.6	-58.88	-13	-45.88	0-360	149	H
6	2.818	-69.08	Pk	32.5	-31.8	9.1	-59.28	-13	-46.28	0-360	149	V
707.5MHz												
1	1.412	-69.9	Pk	28.4	-33.7	10.1	-65.1	-13	-52.1	0-360	149	H
2	1.416	-69.75	Pk	28.4	-33.5	9	-65.85	-13	-52.85	0-360	149	V
3	2.12	-70.03	Pk	31.2	-32.8	10.4	-61.23	-13	-48.23	0-360	149	H
4	2.124	-69.45	Pk	31.2	-32.8	10.3	-60.75	-13	-47.75	0-360	149	V
6	2.829	-70.01	Pk	32.5	-31.8	9.6	-59.71	-13	-46.71	0-360	149	V
5	2.83	-70.05	Pk	32.5	-31.8	9.7	-59.65	-13	-46.65	0-360	149	H
711MHz												
1	1.418	-71.24	Pk	28.4	-33.4	9.3	-66.94	-13	-53.94	0-360	149	H
2	1.422	-69.68	Pk	28.3	-33.7	8.8	-66.28	-13	-53.28	0-360	149	V
4	2.134	-70.39	Pk	31.2	-32.8	10.4	-61.59	-13	-48.59	0-360	149	V
3	2.135	-69.34	Pk	31.2	-32.8	11.6	-59.34	-13	-46.34	0-360	149	H
5	2.843	-70.72	Pk	32.5	-32.1	8.9	-61.42	-13	-48.42	0-360	149	H
6	2.846	-70.72	Pk	32.5	-32.1	9.1	-61.22	-13	-48.22	0-360	149	V

9.2.8. LTE BAND 13

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 13 QPSK 10MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
782MHz												
2	1.565	-69.83	Pk	27.7	-33.5	10.2	-65.43	-40	-25.43	0-360	149	V
1	1.567	-70.43	Pk	27.7	-33.6	9.5	-66.83	-40	-26.83	0-360	149	H
3	2.346	-71.13	Pk	32.2	-32.5	10	-61.43	-13	-48.43	0-360	149	H
4	2.347	-70.78	Pk	32.2	-32.5	9.3	-61.78	-13	-48.78	0-360	149	V
6	3.129	-69.93	Pk	33.2	-31	10	-57.73	-13	-44.73	0-360	149	V
5	3.132	-71.7	Pk	33.2	-31	9.6	-59.9	-13	-46.9	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 13 16QAM 10MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
782MHz												
1	1.563	-70.02	Pk	27.7	-33.5	9.1	-66.72	-40	-26.72	0-360	149	H
2	1.565	-69.49	Pk	27.7	-33.5	10.2	-65.09	-40	-25.09	0-360	149	V
3	2.344	-70.67	Pk	32.2	-32.5	10	-60.97	-13	-47.97	0-360	149	H
4	2.345	-70.54	Pk	32.2	-32.5	9.2	-61.64	-13	-48.64	0-360	149	V
6	3.127	-71.61	Pk	33.2	-31	9.9	-59.51	-13	-46.51	0-360	149	V
5	3.132	-70.54	Pk	33.2	-31	9.6	-58.74	-13	-45.74	0-360	149	H

9.2.9. LTE BAND 17

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 17 QPSK 10MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
709MHz												
1	1.419	-70.67	Pk	28.4	-33.4	9.2	-66.47	-13	-53.47	0-360	149	H
2	1.419	-69.81	Pk	28.4	-33.4	9	-65.81	-13	-52.81	0-360	149	V
3	2.123	-70.76	Pk	31.2	-32.8	10.3	-62.06	-13	-49.06	0-360	149	H
4	2.13	-71.45	Pk	31.2	-32.8	10.2	-62.85	-13	-49.85	0-360	149	V
5	2.833	-69.94	Pk	32.5	-31.9	9.5	-59.84	-13	-46.84	0-360	149	H
6	2.835	-71.33	Pk	32.5	-31.9	9.3	-61.43	-13	-48.43	0-360	149	V
710MHz												
1	1.416	-71.19	Pk	28.4	-33.5	9.5	-66.79	-13	-53.79	0-360	149	H
2	1.42	-70.9	Pk	28.4	-33.5	9	-67	-13	-54	0-360	149	V
4	2.131	-70.29	Pk	31.2	-32.8	10.3	-61.59	-13	-48.59	0-360	149	V
3	2.132	-70.1	Pk	31.2	-32.8	11.1	-60.6	-13	-47.6	0-360	149	H
6	2.88	-70.45	Pk	32.6	-31.9	9	-60.75	-13	-47.75	0-360	149	V
5	2.883	-71.14	Pk	32.6	-32	8.9	-61.64	-13	-48.64	0-360	149	H
711MHz												
2	1.42	-70.43	Pk	28.4	-33.5	9	-66.53	-13	-53.53	0-360	149	V
1	1.422	-70.82	Pk	28.3	-33.7	8.8	-67.42	-13	-54.42	0-360	149	H
3	2.135	-70.89	Pk	31.2	-32.8	11.6	-60.89	-13	-47.89	0-360	149	H
4	2.135	-71.44	Pk	31.2	-32.8	10.4	-62.64	-13	-49.64	0-360	149	V
5	2.845	-69.24	Pk	32.5	-32.1	8.8	-60.04	-13	-47.04	0-360	149	H
6	2.845	-69.96	Pk	32.5	-32.1	9.2	-60.36	-13	-47.36	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 17 16QAM 10MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
709MHz												
1	1.414	-69.36	Pk	28.4	-33.6	9.8	-64.76	-13	-51.76	0-360	149	H
2	1.419	-69.63	Pk	28.4	-33.4	9	-65.63	-13	-52.63	0-360	149	V
3	2.12	-70.39	Pk	31.2	-32.8	10.4	-61.59	-13	-48.59	0-360	149	H
4	2.125	-69.55	Pk	31.2	-32.8	10.3	-60.85	-13	-47.85	0-360	149	V
5	2.837	-69.69	Pk	32.5	-32	9.5	-59.69	-13	-46.69	0-360	149	H
6	2.837	-70.12	Pk	32.5	-32	9.2	-60.42	-13	-47.42	0-360	149	V
710MHz												
1	1.416	-70.68	Pk	28.4	-33.5	9.5	-66.28	-13	-53.28	0-360	149	H
2	1.421	-68.74	Pk	28.3	-33.6	8.9	-65.14	-13	-52.14	0-360	149	V
3	2.123	-69.75	Pk	31.2	-32.8	10.3	-61.05	-13	-48.05	0-360	149	H
4	2.126	-70.65	Pk	31.2	-32.8	10.2	-62.05	-13	-49.05	0-360	149	V
6	2.839	-70.73	Pk	32.5	-32	9.2	-61.03	-13	-48.03	0-360	149	V
5	2.84	-70.89	Pk	32.5	-32	9.3	-61.09	-13	-48.09	0-360	149	H
711MHz												
1	1.42	-70.64	Pk	28.4	-33.5	9	-66.74	-13	-53.74	0-360	149	H
2	1.42	-70.27	Pk	28.4	-33.5	9	-66.37	-13	-53.37	0-360	149	V
4	2.132	-70.11	Pk	31.2	-32.8	10.4	-61.31	-13	-48.31	0-360	149	V
3	2.136	-70.46	Pk	31.2	-32.8	11.7	-60.36	-13	-47.36	0-360	149	H
5	2.838	-71.1	Pk	32.5	-32	9.4	-61.2	-13	-48.2	0-360	149	H
6	2.845	-70	Pk	32.5	-32.1	9.2	-60.4	-13	-47.4	0-360	149	V

9.2.10. LTE BAND 25

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 25 QPSK 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1860MHz												
1	3.695	-69.51	Pk	33.2	-30.8	9.9	-57.21	-13	-44.21	0-360	149	V
2	3.721	-69.42	Pk	33.3	-31.1	9.9	-57.32	-13	-44.32	0-360	149	H
3	5.555	-70.25	Pk	35.4	-29.6	8.8	-55.65	-13	-42.65	0-360	149	V
4	5.576	-69.3	Pk	35.5	-30	8.2	-55.6	-13	-42.6	0-360	149	H
5	7.44	-69.27	Pk	36.1	-27.1	7	-53.27	-13	-40.27	0-360	149	H
6	7.446	-73.12	Pk	36.1	-27.2	7.1	-57.12	-13	-44.12	0-360	149	V
1882.5MHz												
1	3.748	-69.84	Pk	33.3	-31	9.8	-57.74	-13	-44.74	0-360	149	V
2	3.759	-69.32	Pk	33.3	-31.1	9.3	-57.82	-13	-44.82	0-360	149	H
3	5.634	-70.67	Pk	35.5	-29.4	8.6	-55.97	-13	-42.97	0-360	149	V
4	5.647	-70.29	Pk	35.5	-29.4	8	-56.19	-13	-43.19	0-360	149	H
6	7.53	-68.24	Pk	36.2	-27.2	7.5	-51.74	-13	-38.74	0-360	149	H
5	7.53	-70.14	Pk	36.2	-27.2	7.3	-53.84	-13	-40.84	0-360	149	V
1905MHz												
1	3.804	-70.05	Pk	33.4	-30.5	9.7	-57.45	-13	-44.45	0-360	149	H
2	3.806	-69.75	Pk	33.4	-30.5	9.2	-57.65	-13	-44.65	0-360	149	V
4	5.715	-69.07	Pk	35.5	-29.4	7.9	-55.07	-13	-42.07	0-360	149	H
3	5.715	-69.51	Pk	35.5	-29.4	7.9	-55.51	-13	-42.51	0-360	149	V
5	7.619	-68.09	Pk	36.4	-26.9	7.6	-50.99	-13	-37.99	0-360	149	H
6	7.62	-71.75	Pk	36.4	-27	7.4	-54.95	-13	-41.95	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/24/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 25 16QAM 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1860MHz												
1	3.717	-69.37	Pk	33.3	-31.1	9.8	-57.37	-13	-44.37	0-360	149	H
2	3.717	-70.44	Pk	33.3	-31	9.6	-58.54	-13	-45.54	0-360	149	V
3	5.58	-68.62	Pk	35.5	-29.7	8.3	-54.52	-13	-41.52	0-360	149	H
4	5.58	-70.89	Pk	35.5	-29.7	8.3	-56.79	-13	-43.79	0-360	149	V
5	7.44	-68.66	Pk	36.1	-27.1	6.9	-52.76	-13	-39.76	0-360	149	H
6	7.453	-72.54	Pk	36.1	-27.1	7.5	-56.04	-13	-43.04	0-360	149	V
1882.5MHz												
1	3.749	-70.33	Pk	33.3	-31	9.8	-58.23	-13	-45.23	0-360	149	V
2	3.758	-69.84	Pk	33.3	-31.1	9.3	-58.34	-13	-45.34	0-360	149	H
3	5.647	-69.42	Pk	35.5	-29.4	7.8	-55.52	-13	-42.52	0-360	149	V
4	5.648	-71.09	Pk	35.5	-29.4	8.1	-56.89	-13	-43.89	0-360	149	H
6	7.53	-67.29	Pk	36.2	-27.2	7.5	-50.79	-13	-37.79	0-360	149	H
5	7.549	-72.44	Pk	36.2	-27	7.3	-55.94	-13	-42.94	0-360	149	V
1905MHz												
1	3.794	-69.81	Pk	33.4	-30.6	9.6	-57.41	-13	-44.41	0-360	149	V
2	3.807	-70.13	Pk	33.4	-30.5	9.4	-57.83	-13	-44.83	0-360	149	H
4	5.709	-71.6	Pk	35.5	-29.4	7.6	-57.9	-13	-44.9	0-360	149	V
3	5.714	-70.91	Pk	35.5	-29.3	7.9	-56.81	-13	-43.81	0-360	149	H
5	7.62	-68.48	Pk	36.4	-27	7.5	-51.58	-13	-38.58	0-360	149	H
6	7.637	-72.51	Pk	36.4	-26.9	7.2	-55.81	-13	-42.81	0-360	149	V

9.2.11. LTE BAND 26 Part 90S

Company:	Samsung
Project #:	12563708
Date:	1/17/19
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 26 QPSK 15MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
819MHz												
2	1.63	-66.37	Pk	28.2	-33.4	10.3	-61.27	-13	-48.27	0-360	149	V
1	1.634	-67.94	Pk	28.3	-33.4	10.5	-62.54	-13	-49.54	0-360	149	H
4	2.443	-68.57	Pk	32.5	-32	9.4	-58.67	-13	-45.67	0-360	149	V
3	2.444	-67.64	Pk	32.5	-32	8.7	-58.44	-13	-45.44	0-360	149	H
6	3.259	-70.15	Pk	33	-31	9.8	-58.35	-13	-45.35	0-360	149	V
5	3.26	-68.32	Pk	33	-31	10.4	-55.92	-13	-42.92	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	1/17/19
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 26 16QAM 15MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
819MHz												
2	1.63	-68.41	Pk	28.2	-33.4	10.3	-63.31	-13	-50.31	0-360	149	V
1	1.633	-67.96	Pk	28.3	-33.4	10.6	-62.46	-13	-49.46	0-360	149	H
3	2.444	-68.15	Pk	32.5	-32	8.7	-58.95	-13	-45.95	0-360	149	H
4	2.445	-68.57	Pk	32.5	-32.1	9.4	-58.77	-13	-45.77	0-360	149	V
6	3.26	-69.94	Pk	33	-31	9.9	-58.04	-13	-45.04	0-360	149	V
5	3.264	-69.24	Pk	33	-30.8	10.4	-56.64	-13	-43.64	0-360	149	H

9.2.12. LTE BAND 26 Part 22

Company:	Samsung
Project #:	12563708
Date:	12/21/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 26 QPSK 15MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
831.5MHz												
1	1.644	-68.12	Pk	28.5	-33.4	11	-62.02	-13	-49.02	0-360	149	H
2	1.645	-67.82	Pk	28.5	-33.4	10.6	-62.12	-13	-49.12	0-360	149	V
3	2.461	-69.31	Pk	32.6	-32.3	9	-60.01	-13	-47.01	0-360	149	V
4	2.464	-69.48	Pk	32.6	-32.3	8.9	-60.28	-13	-47.28	0-360	149	V
5	3.283	-69.38	Pk	32.9	-31.3	9	-58.78	-13	-45.78	0-360	149	V
6	3.284	-69.51	Pk	32.9	-31.3	9.6	-58.31	-13	-45.31	0-360	149	H
836.5MHz												
2	1.658	-69.04	Pk	28.8	-33.1	9.4	-63.94	-13	-50.94	0-360	149	V
1	1.659	-67.77	Pk	28.8	-33.1	10.6	-61.47	-13	-48.47	0-360	149	H
3	2.5	-68.37	Pk	32.7	-32.1	9.4	-58.37	-13	-45.37	0-360	149	V
4	2.503	-68.8	Pk	32.7	-32.2	8.9	-59.4	-13	-46.4	0-360	149	H
6	3.326	-69.48	Pk	32.9	-31	9.2	-58.38	-13	-45.38	0-360	149	V
5	3.328	-69.41	Pk	32.9	-30.9	9	-58.41	-13	-45.41	0-360	149	H
841.5MHz												
1	1.686	-67.08	Pk	29.3	-33.1	10.7	-60.18	-13	-47.18	0-360	149	H
2	1.696	-66.81	Pk	29.5	-33.3	9.6	-61.01	-13	-48.01	0-360	149	V
4	2.569	-68.26	Pk	32.7	-31.9	10.4	-57.06	-13	-44.06	0-360	149	H
3	2.574	-68.46	Pk	32.7	-32	9.8	-57.96	-13	-44.96	0-360	149	V
5	3.371	-69.42	Pk	32.9	-31	9.5	-58.02	-13	-45.02	0-360	149	H
6	3.371	-68.67	Pk	32.9	-31	9.9	-56.87	-13	-43.87	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/21/18
Test Engineer:	19498
Configuration:	EUT+ Support Equipment
Mode:	LTE 26 16QAM 15MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
831.5MHz												
1	1.647	-67.38	Pk	28.6	-33.4	11	-61.18	-13	-48.18	0-360	149	H
2	1.647	-65.97	Pk	28.6	-33.4	10.4	-60.37	-13	-47.37	0-360	149	V
4	2.467	-68.29	Pk	32.6	-32.4	8.8	-59.29	-13	-46.29	0-360	149	V
3	2.468	-67.65	Pk	32.6	-32.4	8.9	-58.55	-13	-45.55	0-360	149	H
5	3.281	-69.19	Pk	32.9	-31.4	9	-58.69	-13	-45.69	0-360	149	V
6	3.286	-69.46	Pk	32.9	-31.3	9.6	-58.26	-13	-45.26	0-360	149	H
836.5MHz												
2	1.664	-68.1	Pk	28.9	-33.1	8.5	-63.8	-13	-50.8	0-360	149	V
1	1.672	-68.51	Pk	29	-33.3	10.7	-62.11	-13	-49.11	0-360	149	H
3	2.494	-67.62	Pk	32.7	-32.2	8.7	-58.42	-13	-45.42	0-360	149	V
4	2.501	-67.34	Pk	32.7	-32.1	8.9	-57.84	-13	-44.84	0-360	149	H
5	3.324	-70.02	Pk	32.9	-31	9.1	-59.02	-13	-46.02	0-360	149	H
6	3.326	-68.4	Pk	32.9	-31	9.2	-57.3	-13	-44.3	0-360	149	V
841.5MHz												
1	1.678	-66.52	Pk	29.2	-33.1	10.7	-59.72	-13	-46.72	0-360	149	H
5	1.684	-66.9	Pk	29.3	-33.2	9.8	-61	-13	-48	0-360	149	V
2	2.511	-68.41	Pk	32.7	-32.2	9.1	-58.81	-13	-45.81	0-360	149	H
6	2.517	-69.13	Pk	32.7	-32	9.5	-58.93	-13	-45.93	0-360	149	V
3	3.359	-70.55	Pk	32.9	-30.8	9.5	-58.95	-13	-45.95	0-360	149	H
4	3.359	-69.95	Pk	32.9	-30.7	9.9	-57.85	-13	-44.85	0-360	149	V

9.2.13. LTE BAND 41

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 41 QPSK 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2506MHz												
4	5	-71.86	Pk	34.6	-29.6	9.6	-57.26	-25	-32.26	0-360	149	V
1	5.009	-72.21	Pk	34.6	-30	9.2	-58.41	-25	-33.41	0-360	149	H
5	7.466	-72.08	Pk	36.1	-27.1	7.5	-55.58	-25	-30.58	0-360	149	V
2	7.509	-73.05	Pk	36.2	-27	7.7	-56.15	-25	-31.15	0-360	149	H
3	9.988	-66.91	Pk	37.4	-23.7	8.1	-45.11	-25	-20.11	0-360	149	H
6	9.988	-67.49	Pk	37.4	-23.7	8	-45.79	-25	-20.79	0-360	149	V
2593MHz												
4	5.168	-72.1	Pk	34.6	-29.5	9.4	-57.6	-25	-32.6	0-360	149	V
1	5.178	-71.04	Pk	34.7	-29.8	8.9	-57.24	-25	-32.24	0-360	149	H
5	7.758	-73.46	Pk	36.4	-26.5	7.8	-55.76	-25	-30.76	0-360	149	V
2	7.771	-73.1	Pk	36.4	-26.5	7.8	-55.4	-25	-30.4	0-360	149	H
6	10.358	-75.64	Pk	37.8	-22.8	7.2	-53.44	-25	-28.44	0-360	149	V
3	10.372	-74.78	Pk	37.8	-22.8	7.8	-51.98	-25	-26.98	0-360	149	H
2680MHz												
1	5.367	-70.84	Pk	35.1	-29.6	8.8	-56.54	-25	-31.54	0-360	149	H
4	5.377	-71.15	Pk	35.1	-29	8.9	-56.15	-25	-31.15	0-360	149	V
5	8.016	-72.97	Pk	36.4	-26.6	7.4	-55.77	-25	-30.77	0-360	149	V
2	8.041	-72.35	Pk	36.4	-26.3	8.2	-54.05	-25	-29.05	0-360	149	H
3	10.716	-74.53	Pk	37.8	-22.8	7.9	-51.63	-25	-26.63	0-360	149	H
6	10.719	-74.66	Pk	37.8	-22.8	7.8	-51.86	-25	-26.86	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	10/25/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 41 16QAM 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2506MHz												
4	5.008	-71.21	Pk	34.6	-30	9.3	-57.31	-25	-32.31	0-360	149	V
1	5.01	-72.07	Pk	34.6	-30	9	-58.47	-25	-33.47	0-360	149	H
2	7.507	-72.66	Pk	36.1	-27	7.8	-55.76	-25	-30.76	0-360	149	H
5	7.507	-72.73	Pk	36.1	-26.9	7.9	-55.63	-25	-30.63	0-360	149	V
6	9.988	-72.68	Pk	37.4	-23.7	8	-50.98	-25	-25.98	0-360	149	V
3	9.989	-69.5	Pk	37.4	-23.7	8.2	-47.6	-25	-22.6	0-360	149	H
2593MHz												
1	5.182	-71.14	Pk	34.7	-29.8	8.9	-57.34	-25	-32.34	0-360	149	H
4	5.195	-71.83	Pk	34.7	-29.8	8.9	-58.03	-25	-33.03	0-360	149	V
5	7.768	-70.72	Pk	36.4	-26.6	7.8	-53.12	-25	-28.12	0-360	149	V
2	7.772	-73.18	Pk	36.4	-26.5	7.8	-55.48	-25	-30.48	0-360	149	H
6	10.336	-66.78	Pk	37.8	-23	6.8	-45.18	-25	-20.18	0-360	149	V
3	10.374	-75.06	Pk	37.8	-22.8	7.8	-52.26	-25	-27.26	0-360	149	H
2680MHz												
4	5.374	-70.51	Pk	35.1	-29.2	9	-55.61	-25	-30.61	0-360	149	V
1	5.379	-69.88	Pk	35.1	-29.1	8.8	-55.08	-25	-30.08	0-360	149	H
5	8.014	-72.19	Pk	36.4	-26.7	7.3	-55.19	-25	-30.19	0-360	149	V
2	8.037	-73.19	Pk	36.4	-26.2	8.2	-54.79	-25	-29.79	0-360	149	H
6	10.717	-75.92	Pk	37.8	-22.8	7.8	-53.12	-25	-28.12	0-360	149	V
3	10.735	-74.14	Pk	37.9	-22.9	8	-51.14	-25	-26.14	0-360	149	H

9.2.14. LTE BAND 66

Company:	Samsung
Project #:	12563708
Date:	10/23/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 66 QPSK 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1720MHz												
1	3.435	-70.02	Pk	32.8	-31.6	8.8	-60.02	-13	-47.02	0-360	149	H
2	3.436	-69.85	Pk	32.8	-31.6	8.9	-59.75	-13	-46.75	0-360	149	V
3	5.127	-70.29	Pk	34.6	-30	8.2	-57.49	-13	-44.49	0-360	149	V
4	5.157	-70.82	Pk	34.6	-29.8	9.1	-56.92	-13	-43.92	0-360	149	H
5	6.837	-70.75	Pk	35.8	-28.3	7.1	-56.15	-13	-43.15	0-360	149	V
6	6.869	-72.43	Pk	35.8	-28.4	6.5	-58.53	-13	-45.53	0-360	149	H
1745MHz												
1	3.487	-70.69	Pk	32.9	-30.9	9.5	-59.19	-13	-46.19	0-360	149	H
2	3.49	-71.02	Pk	32.9	-31.2	9.6	-59.72	-13	-46.72	0-360	149	V
3	5.231	-69.85	Pk	34.8	-29.7	8.6	-56.15	-13	-43.15	0-360	149	V
4	5.234	-70.86	Pk	34.8	-29.7	9	-56.76	-13	-43.76	0-360	149	H
5	6.98	-71.42	Pk	35.9	-27.9	6.9	-56.52	-13	-43.52	0-360	149	H
6	6.98	-71.84	Pk	35.9	-27.9	6.9	-56.94	-13	-43.94	0-360	149	V
1770MHz												
1	3.539	-70.98	Pk	33.1	-31	9.4	-59.48	-13	-46.48	0-360	149	H
2	3.54	-69.47	Pk	33.1	-31.1	9.3	-58.17	-13	-45.17	0-360	149	V
3	5.31	-71.07	Pk	34.9	-29.7	8.4	-57.47	-13	-44.47	0-360	149	V
4	5.312	-71.65	Pk	34.9	-29.8	8.1	-58.45	-13	-45.45	0-360	149	H
5	7.08	-72.59	Pk	36	-27.7	7.4	-56.89	-13	-43.89	0-360	149	V
6	7.082	-71.55	Pk	36	-27.7	7.4	-55.85	-13	-42.85	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	10/23/18
Test Engineer:	19497
Configuration:	EUT+ Support Equipment
Mode:	LTE 66 16QAM 20MHz
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1720MHz												
1	3.424	-70.3	Pk	32.8	-31.4	9.3	-59.6	-13	-46.6	0-360	149	V
2	3.435	-70.53	Pk	32.8	-31.6	8.8	-60.53	-13	-47.53	0-360	149	H
3	5.154	-69.93	Pk	34.6	-29.9	9.1	-56.13	-13	-43.13	0-360	149	H
4	5.156	-69.87	Pk	34.6	-29.8	9.2	-55.87	-13	-42.87	0-360	149	V
5	6.875	-73.16	Pk	35.8	-28.4	6.7	-59.06	-13	-46.06	0-360	149	V
6	6.879	-72.49	Pk	35.8	-28.5	6.7	-58.49	-13	-45.49	0-360	149	H
1745MHz												
1	3.488	-71.8	Pk	32.9	-31	9.5	-60.4	-13	-47.4	0-360	149	H
2	3.488	-70.64	Pk	32.9	-31.1	9.5	-59.34	-13	-46.34	0-360	149	V
3	5.237	-69.82	Pk	34.8	-29.5	9.2	-55.32	-13	-42.32	0-360	149	H
4	5.238	-69.97	Pk	34.8	-29.6	8.8	-55.97	-13	-42.97	0-360	149	V
5	6.979	-72.57	Pk	35.9	-27.9	6.9	-57.67	-13	-44.67	0-360	149	V
6	6.981	-72.13	Pk	35.9	-27.9	6.8	-57.33	-13	-44.33	0-360	149	H
1770MHz												
1	3.537	-69.92	Pk	33	-31	9.5	-58.42	-13	-45.42	0-360	149	V
2	3.54	-69.99	Pk	33.1	-31.1	9.4	-58.59	-13	-45.59	0-360	149	H
3	5.305	-70.32	Pk	34.9	-30	8.3	-57.12	-13	-44.12	0-360	149	V
4	5.308	-71.86	Pk	34.9	-29.7	8.5	-58.16	-13	-45.16	0-360	149	H
5	7.082	-72.06	Pk	36	-27.7	7.4	-56.36	-13	-43.36	0-360	149	V
6	7.084	-70.88	Pk	36	-27.8	7.5	-55.18	-13	-42.18	0-360	149	H

9.2.15. SPOT CHECK DATA HARMONICS AND SPURIOUS EMISSIONS (CERAMIC)

GSM

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	GPRS 850 High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
848.8MHz												
1	1.698	-60.81	Pk	29.5	-33.3	10	-54.61	-13	-41.61	0-360	149	H
2	1.698	-57.26	Pk	29.5	-33.3	9.3	-51.76	-13	-38.76	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	GPRS 1900 Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1880MHz												
1	7.487	-73.28	Pk	36.1	-26.9	7.4	-56.68	-13	-43.68	0-360	149	H
2	7.487	-73.65	Pk	36.1	-26.9	7.4	-57.05	-13	-44.05	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	GPRS 850 High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
848.8MHz												
1	3.298	-71.91	Pk	32.9	-31.1	9.8	-60.31	-13	-47.31	0-360	149	H
2	3.298	-71.79	Pk	32.9	-31.1	9.9	-60.09	-13	-47.09	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	EGPRS 1900 Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1850.2MHz												
1	7.348	-72.91	Pk	36	-27.3	7.5	-56.71	-13	-43.71	0-360	149	H
2	7.348	-73.33	Pk	36	-27.3	7.6	-57.03	-13	-44.03	0-360	149	V

WCDMA

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	REL 99 B5 Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
826.4MHz												
1	3.308	-71.21	Pk	32.9	-30.9	9.6	-59.61	-13	-46.61	0-360	149	H
2	3.308	-70.04	Pk	32.9	-30.9	9.9	-58.14	-13	-45.14	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	REL 99 B4 Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1732.6MHz												
1	5.197	-71.99	Pk	34.7	-29.8	9.2	-57.89	-13	-44.89	0-360	149	H
2	5.197	-73.38	Pk	34.7	-29.8	9.2	-59.28	-13	-46.28	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	REL 99 B2 Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1880MHz												
1	7.516	-73.79	Pk	36.2	-27.3	7.6	-57.29	-13	-44.29	0-360	149	H
2	7.516	-73.75	Pk	36.2	-27.3	7.5	-57.35	-13	-44.35	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	REL 99 B2 Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1880MHz												
1	7.516	-73.79	Pk	36.2	-27.3	7.6	-57.29	-13	-44.29	0-360	149	H
2	7.516	-73.75	Pk	36.2	-27.3	7.5	-57.35	-13	-44.35	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	HSDPA B5 Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
826.4MHz												
1	3.31	-71.43	Pk	32.9	-31	9.6	-59.93	-13	-46.93	0-360	149	H
2	3.31	-71.47	Pk	32.9	-31	9.8	-59.77	-13	-46.77	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	HSDPA B4 Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1732.6MHz												
1	5.198	-71.97	Pk	34.7	-29.8	9.3	-57.77	-13	-44.77	0-360	149	H
2	5.198	-71.35	Pk	34.7	-29.8	9.2	-57.25	-13	-44.25	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	HSDPA B2 High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1907.6MHz												
1	7.629	-72.73	Pk	36.4	-27	7.4	-55.93	-13	-42.93	0-360	149	H
2	7.629	-72.51	Pk	36.4	-27	7.4	-55.71	-13	-42.71	0-360	149	V

LTE BAND 2

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 2 QPSK 20MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1860MHz												
1	10.865	-74.82	Pk	38	-22.9	7.3	-52.42	-13	-39.42	0-360	149	H
2	10.865	-75.81	Pk	38	-22.9	7.3	-53.41	-13	-40.41	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 2 16QAM 20MHz High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1900MHz												
1	12.697	-77.3	Pk	39.2	-22.1	9.2	-51	-13	-38	0-360	149	H
2	12.697	-77.76	Pk	39.2	-22.1	9.4	-51.26	-13	-38.26	0-360	149	V

LTE BAND 4

Company:	Samsung
Project #:	12563708
Date:	12/11/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 4 QPSK 20MHz High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1745MHz												
4	5.236	-70.97	Pk	34.8	-29.5	8.8	-56.87	-13	-43.87	0-360	149	V
3	5.237	-70.98	Pk	34.8	-29.6	9.1	-56.68	-13	-43.68	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	12/11/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 4 16QAM 20MHz High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1745MHz												
1	5.238	-71.62	Pk	34.8	-29.6	9.1	-57.32	-13	-44.32	0-360	149	H
2	5.239	-71.37	Pk	34.8	-29.7	8.7	-57.57	-13	-44.57	0-360	149	V

LTE BAND 5

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 5 QPSK 10MHz Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
836.5MHz												
1	6.28	-73.6	Pk	35.6	-29.2	6.8	-60.4	-13	-47.4	0-360	149	H
2	6.28	-72.33	Pk	35.6	-29.2	6.8	-59.13	-13	-46.13	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 5 16QAM 10MHz Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
836.5MHz												
1	3.333	-72.31	Pk	32.9	-31.1	8.6	-61.91	-13	-48.91	0-360	149	H
2	3.333	-71.99	Pk	32.9	-31.1	8.9	-61.29	-13	-48.29	0-360	149	V

LTE BAND 7

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 7 QPSK 20MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2510MHz												
1	10.047	-75.86	Pk	37.5	-23.7	7.9	-54.16	-25	-29.16	0-360	149	H
2	10.047	-75.61	Pk	37.5	-23.7	7.8	-54.01	-25	-29.01	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 7 16QAM 20MHz High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2560MHz												
1	10.204	-74.1	Pk	37.8	-23.3	6.9	-52.7	-25	-27.7	0-360	149	H
2	10.204	-70.51	Pk	37.8	-23.3	6.9	-49.11	-25	-24.11	0-360	149	V

LTE BAND 12

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 12 QPSK 10MHz Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
707.5MHz												
1	2.83	-70.55	Pk	32.5	-31.8	9.7	-60.15	-13	-47.15	0-360	149	H
2	2.83	-68.78	Pk	32.5	-31.8	9.5	-58.58	-13	-45.58	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 12 16QAM 10MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
704MHz												
1	2.818	-69.38	Pk	32.5	-31.8	9.6	-59.08	-13	-46.08	0-360	149	H
2	2.818	-69.35	Pk	32.5	-31.8	9.1	-59.55	-13	-46.55	0-360	149	V

LTE BAND 13

Company:	Samsung
Project #:	12563708
Date:	12/11/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 13 QPSK 5MHz Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
782MHz												
1	3.128	-71.24	Pk	33.2	-31	9.4	-59.64	-13	-46.64	0-360	149	H
2	3.129	-70.44	Pk	33.2	-30.9	10	-58.14	-13	-45.14	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/11/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 13 16QAM 5MHz Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
782MHz												
2	3.129	-70.23	Pk	33.2	-30.9	10	-57.93	-13	-44.93	0-360	149	V
1	3.134	-71.06	Pk	33.2	-31	9.8	-59.06	-13	-46.06	0-360	149	H

LTE BAND 17

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 17 QPSK 10MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
709MHz												
1	2.833	-70.68	Pk	32.5	-31.9	9.5	-60.58	-13	-47.58	0-360	149	H
2	2.833	-70.78	Pk	32.5	-31.9	9.4	-60.78	-13	-47.78	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 17 16QAM 10MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
709MHz												
1	2.837	-70.36	Pk	32.5	-32	9.5	-60.36	-13	-47.36	0-360	149	H
2	2.837	-69	Pk	32.5	-32	9.2	-59.3	-13	-46.3	0-360	149	V

LTE BAND 25

Company:	Samsung
Project #:	12563708
Date:	12/10/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 25 QPSK 20MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1882.5MHz												
1	7.401	-69.23	Pk	36.2	-27.4	7.2	-53.23	-13	-40.23	0-360	102	H
2	7.401	-63.82	Pk	36.2	-27.4	7.2	-47.82	-13	-34.82	0-360	299	V

Company:	Samsung
Project #:	12563708
Date:	12/10/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 25 16QAM 20MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1882.5MHz												
1	7.401	-68.54	Pk	36.2	-27.4	7.2	-52.54	-13	-39.54	0-360	249	H
2	7.401	-65.13	Pk	36.2	-27.4	7.2	-49.13	-13	-36.13	0-360	400	V

LTE BAND 26

Company:	Samsung
Project #:	12563708
Date:	12/21/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 26 QPSK 15MHz High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
841.5MHz												
2	3.37	-68.31	Pk	32.9	-31	9.9	-56.51	-13	-43.51	0-360	149	V
1	3.373	-68.93	Pk	32.8	-31.2	9.3	-58.03	-13	-45.03	0-360	149	H

Company:	Samsung
Project #:	12563708
Date:	12/21/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 26 16QAM 15MHz Mid Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
836.5MHz												
1	3.325	-70.25	Pk	32.9	-31	9.1	-59.25	-13	-46.25	0-360	149	H
2	3.328	-70.3	Pk	32.9	-30.9	9.2	-59.1	-13	-46.1	0-360	149	V

LTE BAND 41

Company:	Samsung
Project #:	12563708
Date:	12/11/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 41 QPSK 10MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2501MHz												
1	9.988	-75.46	Pk	37.4	-23.7	8.1	-53.66	-25	-28.66	0-360	149	H
2	9.989	-75.42	Pk	37.4	-23.7	8	-53.72	-25	-28.72	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/11/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 41 16QAM 10MHz Low Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2501MHz												
1	9.986	-74.81	Pk	37.4	-23.7	8.2	-52.91	-25	-27.91	0-360	149	H
2	9.989	-75.15	Pk	37.4	-23.7	8	-53.45	-25	-28.45	0-360	149	V

LTE BAND 66

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 66 QPSK 20MHz High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1770MHz												
1	7.082	-71.86	Pk	36	-27.7	7.4	-56.16	-13	-43.16	0-360	149	H
2	7.082	-71.75	Pk	36	-27.7	7.5	-55.95	-13	-42.95	0-360	149	V

Company:	Samsung
Project #:	12563708
Date:	12/20/18
Test Engineer:	19480
Configuration:	EUT+ Support Equipment
Mode:	LTE 66 16QAM 20MHz High Channel
Chamber #:	Chamber B

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Limit	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1770MHz												
1	7.08	-72.92	Pk	36	-27.7	7.3	-57.32	-13	-44.32	0-360	149	H
2	7.08	-72.99	Pk	36	-27.7	7.4	-57.29	-13	-44.29	0-360	149	V