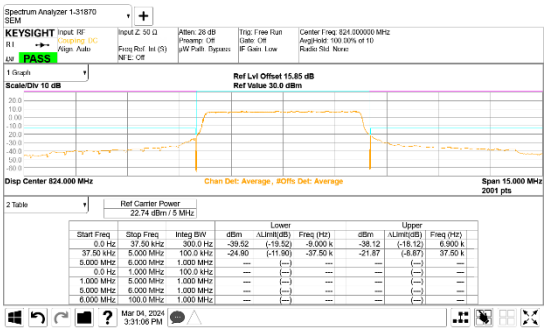
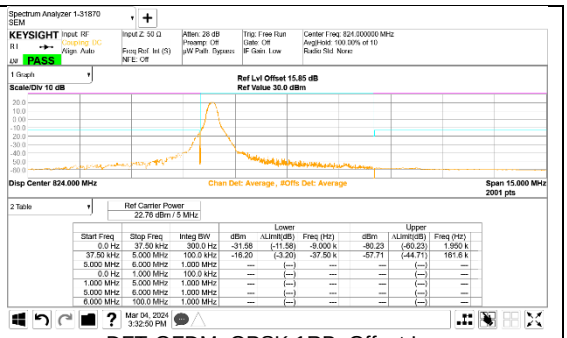
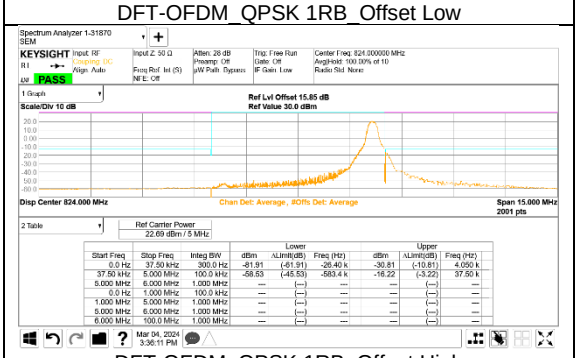
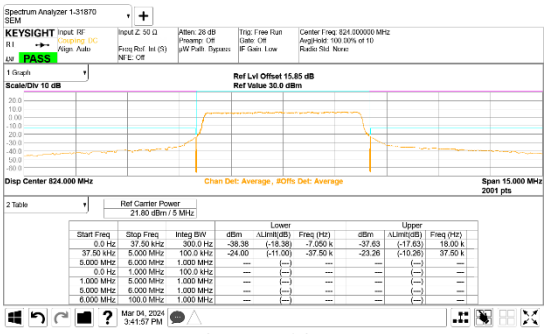
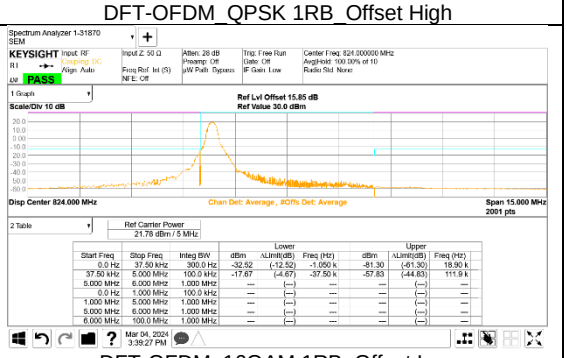
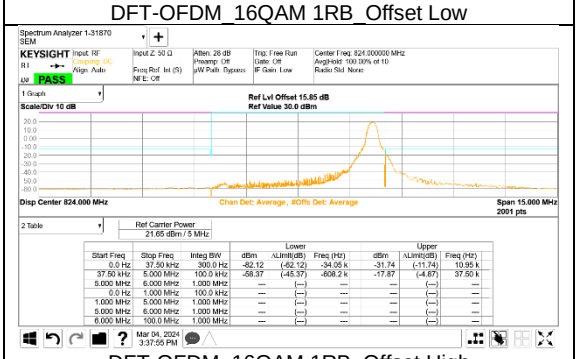
5MHz	 DFT-OFDM_QPSK FRB	 DFT-OFDM_QPSK 1RB_Offset Low
		 DFT-OFDM_QPSK 1RB_Offset High
	 DFT-OFDM_16QAM FRB	 DFT-OFDM_16QAM 1RB_Offset Low
		 DFT-OFDM_16QAM 1RB_Offset High

8.5. CONDUCTED SPURIOUS EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917 and 90.691

LIMITS

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.

Part 90.691(a):
(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log_{10}(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.(NOTE : Use 100kHz reference bandwidth)

(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v03r01
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

a) Set the RBW = 100 kHz for emission below 1 GHz and 1 MHz for emissions above 1 GHz
(Tests were performed 1MHz [Worst case], to sweep 1 time for all frequency range)
b) Set VBW ≥ 3 × RBW;
c) Set span ≥ 1.5 times the OBW;
d) Sweep time = auto couple;
e) Detector = rms;
f) Ensure that the number of measurement points = Max (40001);
g) Trace mode = average(WCDMA, LTE, 5G NR), Max hold(GSM);

NOTE1

LTE: It was tested at 1RB QPSK as worst case (the highst output power and density).
5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations (π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

NOTE2

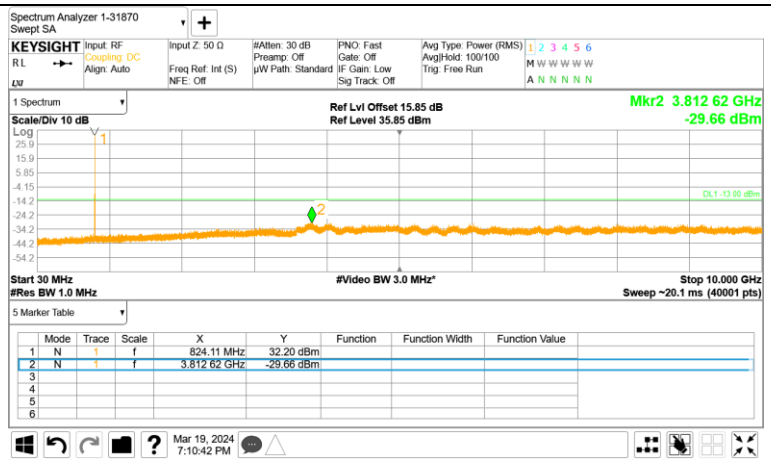
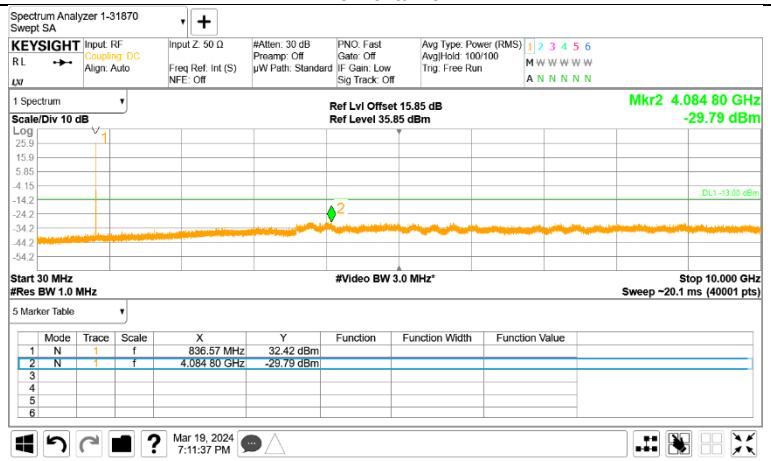
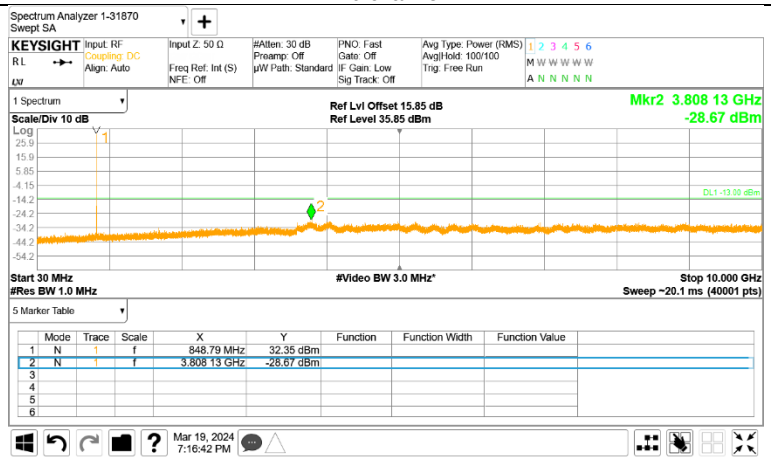
Please refer to section 5.4 for bandwidth and RB setting about LTE, 5G NR bands.

RESULTS

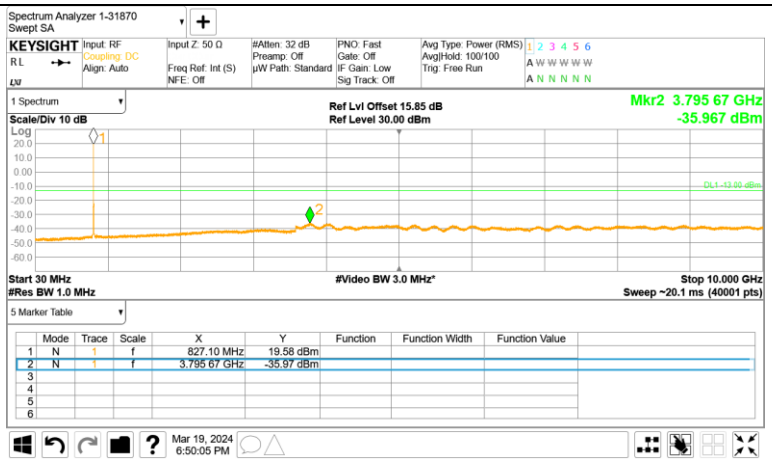
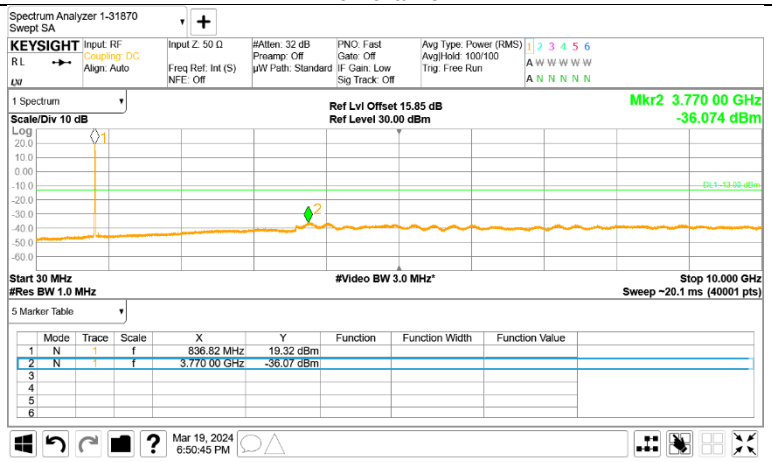
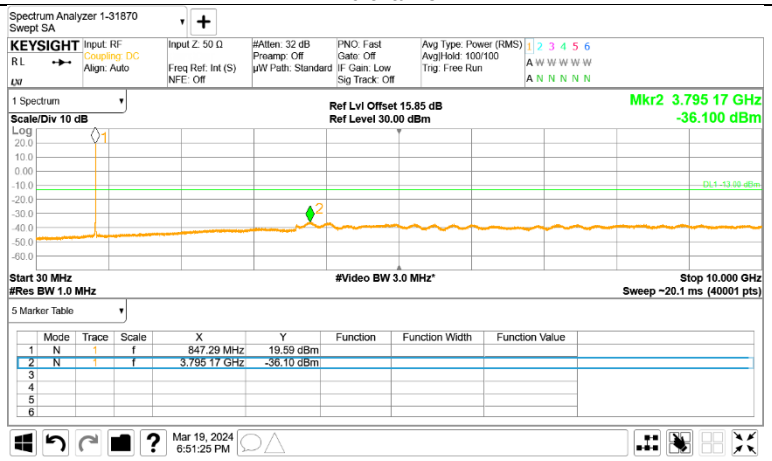
See the following pages.

8.5.1. OUT OF BAND EMISSIONS RESULT

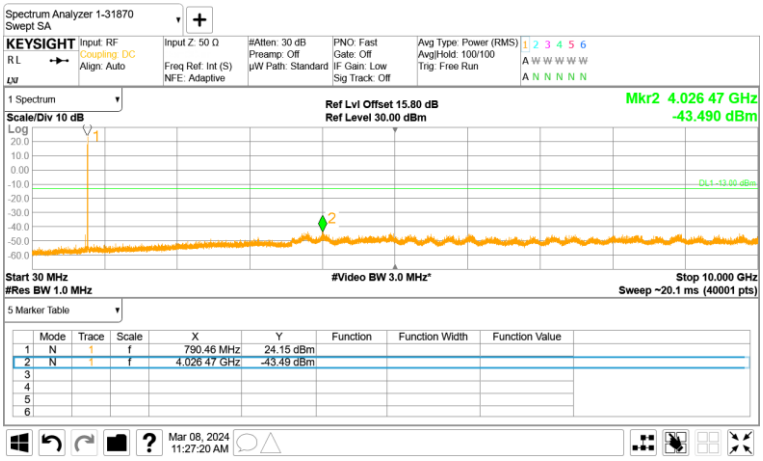
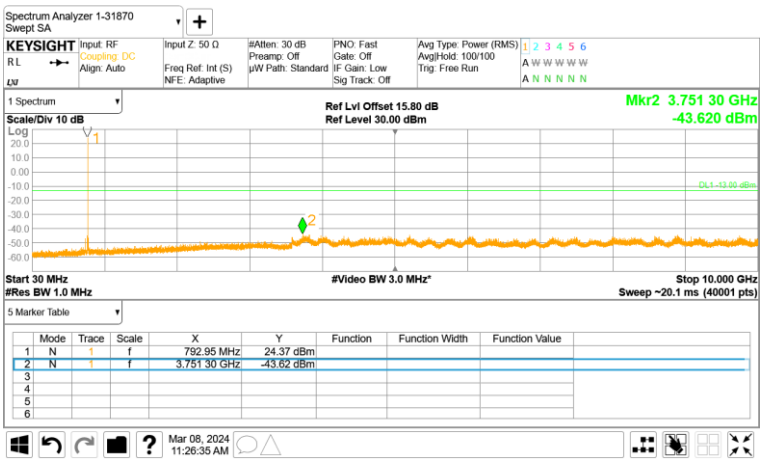
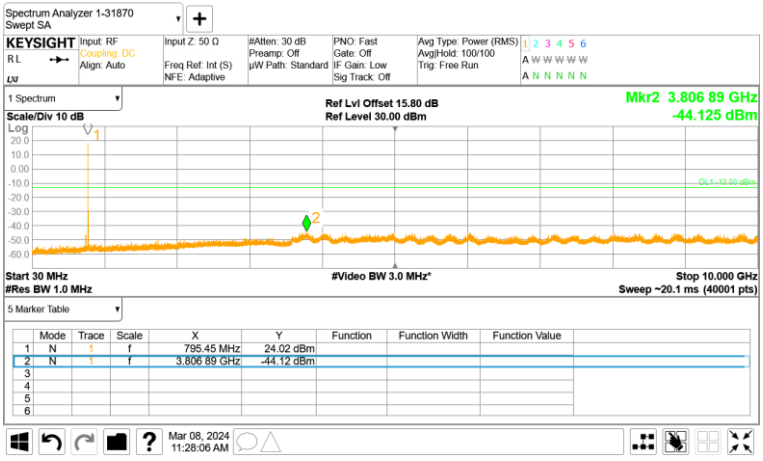
GSM 850

GPRS	 Low channel
	 Mid channel
	 High channel

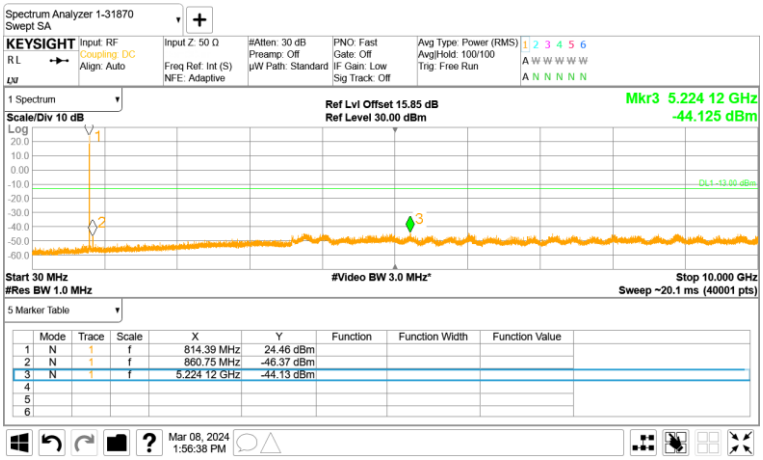
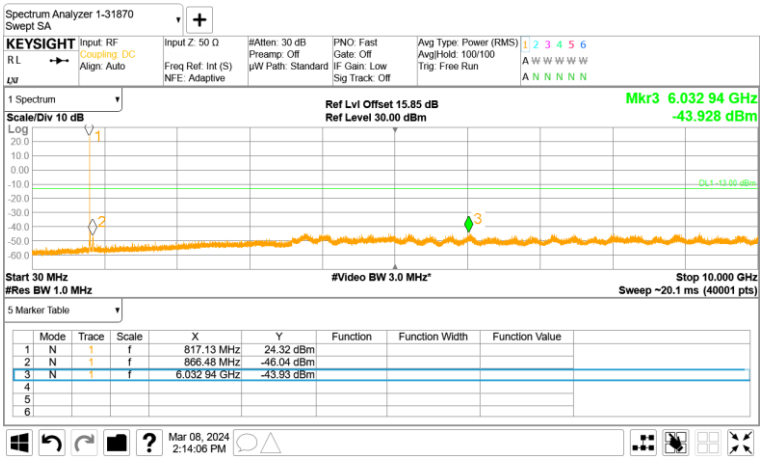
WCDMA Band 5

REL99	 Low channel
	 Mid channel
	 High channel

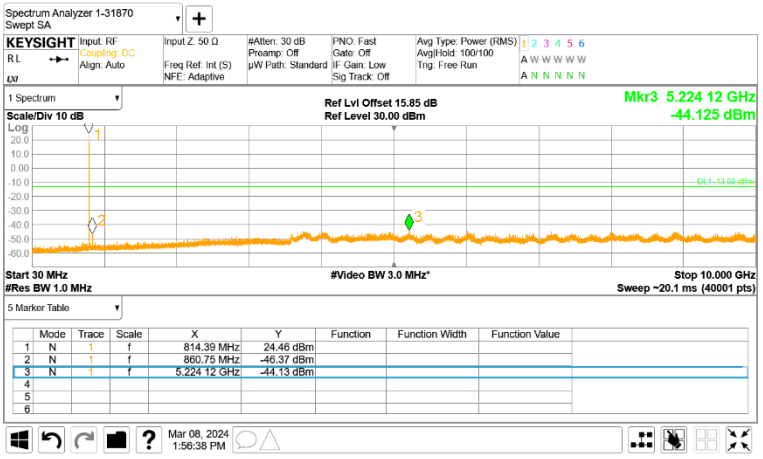
LTE Band 14

5 MHz QPSK	 Low channel	
	 Mid channel	
	 High channel	

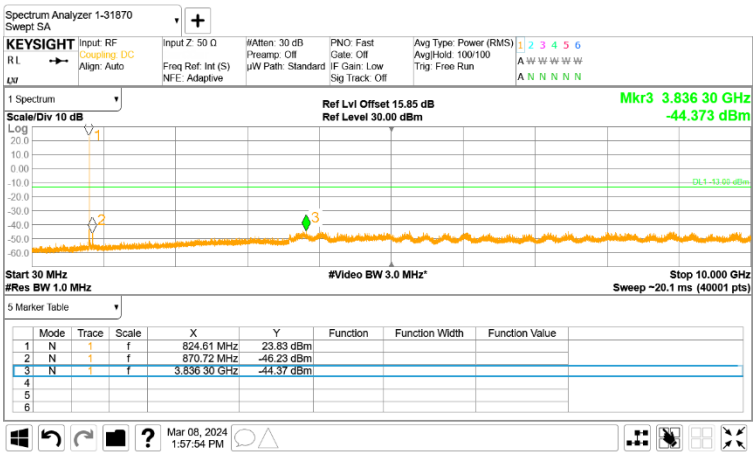
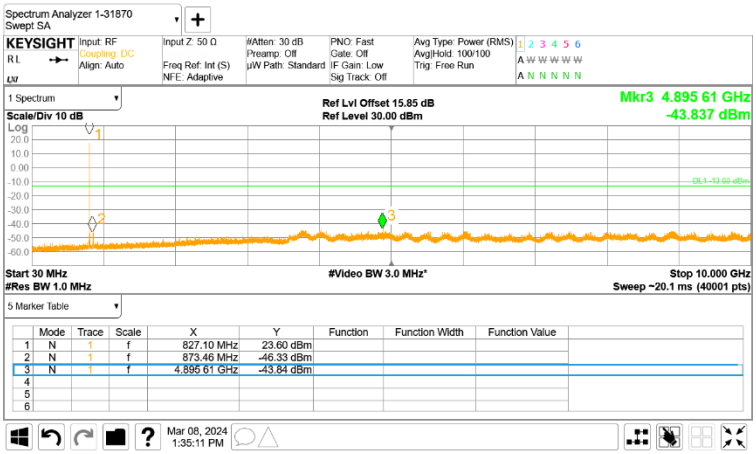
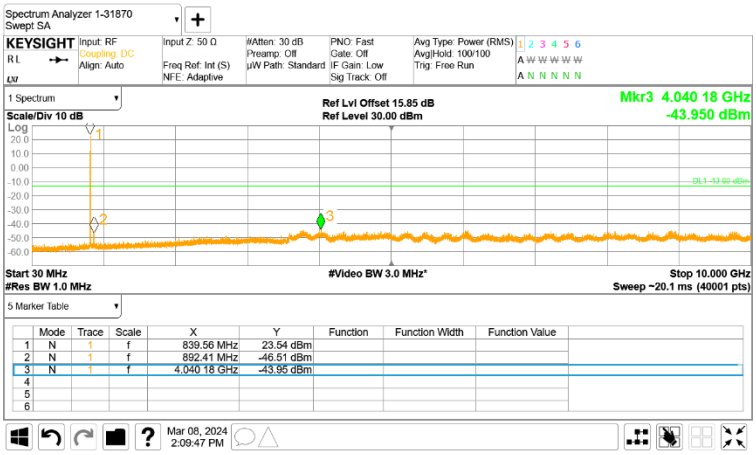
LTE Band 26(Part 90)

5 MHz QPSK	 Low channel
	 High channel

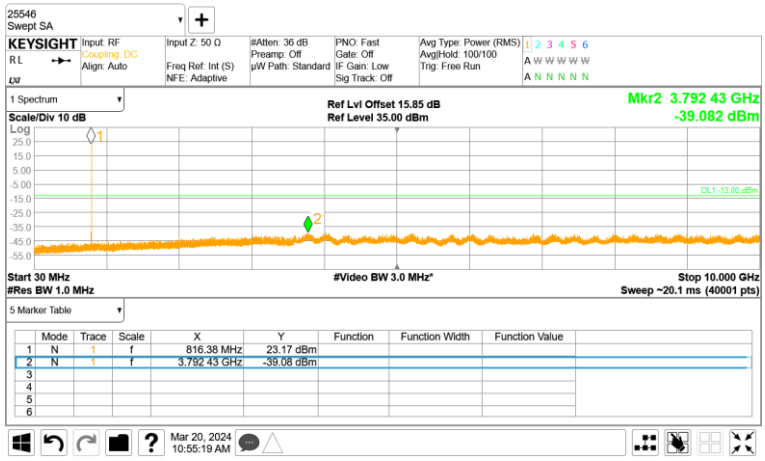
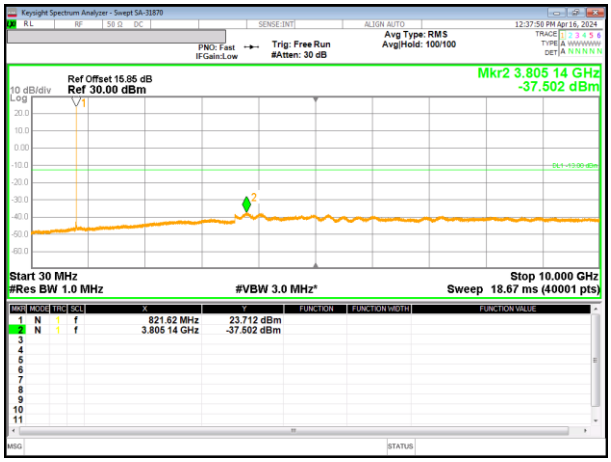
LTE Band 26 (Straddle)

5 MHz QPSK	 Straddle channel

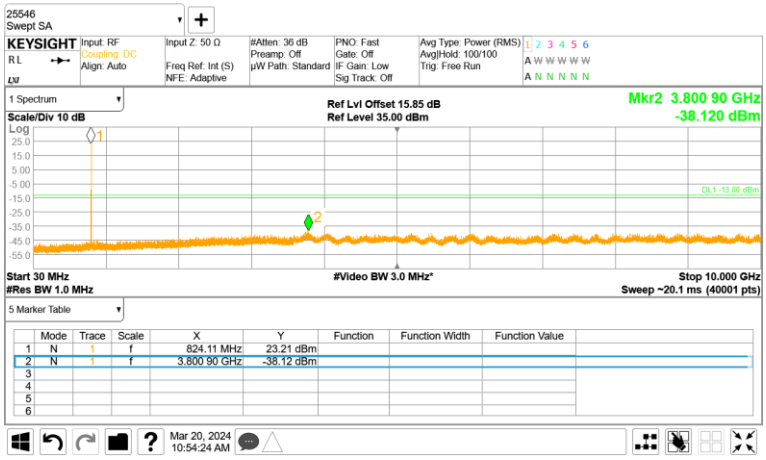
LTE Band 26 (Part 22)

10 MHz QPSK	 Low channel	
	 Mid channel	
	 High channel	

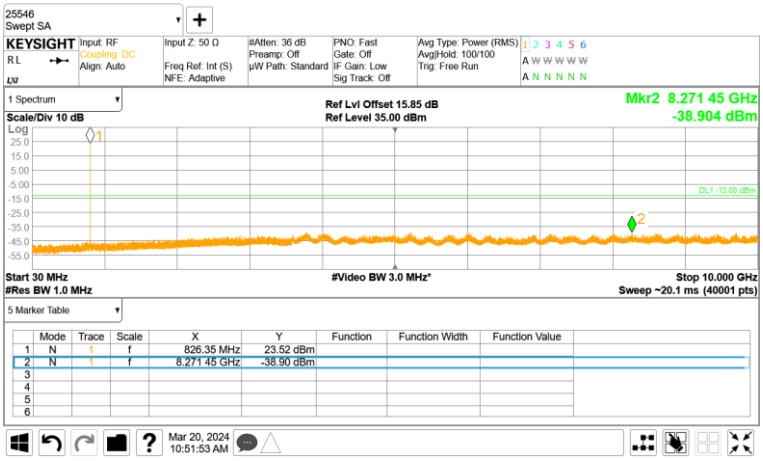
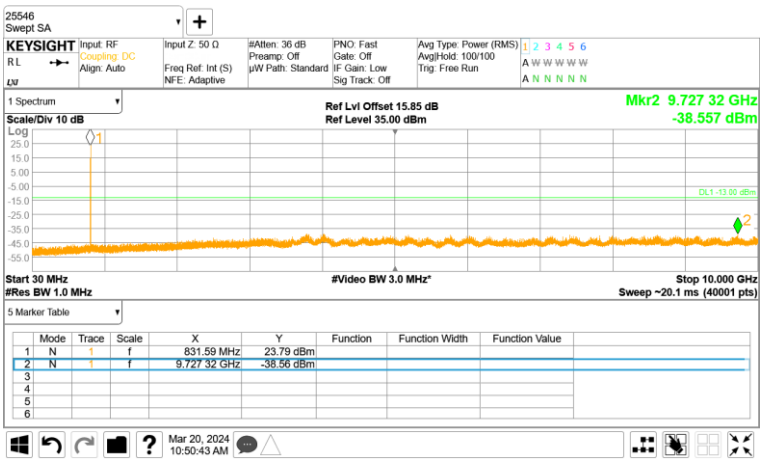
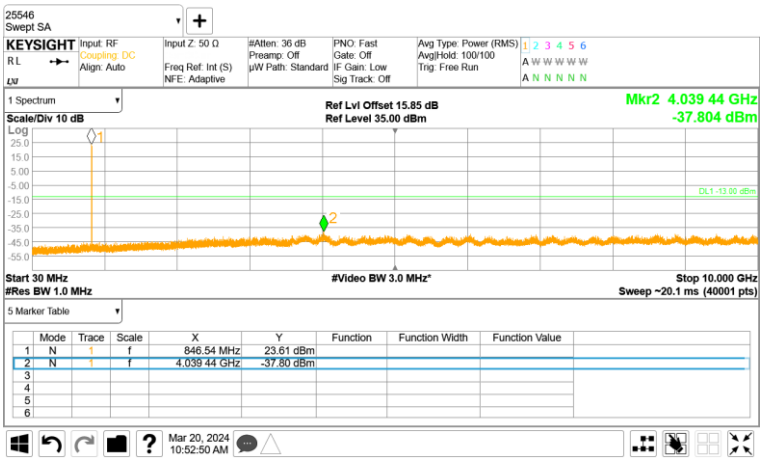
NR Band n26(Part 90)

5 MHz QPSK	 DFT-OFDM_Low channel
	 DFT-OFDM_High channel

NR Band n26 (Straddle)

5 MHz QPSK	 DFT-OFDM_Straddle channel

NR Band n26 (Part 22)

5 MHz QPSK	 Low channel
	 Mid channel
	 High channel

8.6. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355 and §90.213

LIMITS

§22.355 - The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

§90.213 - The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v03r01

NOTE

Test were performed each lowest or highest frequency on the modulation condition of more wide bandwidth.(Please refer to OBW results)

RESULTS

See the following pages.

8.6.1. FREQUENCY STABILITY RESULTS

GSM 850, Channel 128/251, Frequency 824.2/848.8 MHz

Test Date	2024-03-04
Test Engineer	31870

Reference Frequency : GSM850 Low Channel 824.2 MHz / High Channel 848.8 MHz @ 20ºC						
Limit: +- 2.5 ppm =	Low Channel	2060.500	Hz	High Channel	2122.000	Hz
Power Supply [Vdc]	Environment Temperature [ºC]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	50	824.20002312	0.002	848.80002284	0.003	2.5
3.88	40	824.20002535	0.000	848.80002361	0.003	2.5
3.88	30	824.20002366	0.002	848.80003123	-0.006	2.5
3.88	***20***	***824.20002514***	***0.000***	***848.80002574***	***0.000***	***2.5***
3.88	10	824.20002719	-0.002	848.80003312	-0.009	2.5
3.88	0	824.20003122	-0.007	848.80003285	-0.008	2.5
3.88	-10	824.20003515	-0.012	848.80002471	0.001	2.5
3.88	-20	824.20002318	0.002	848.80002396	0.002	2.5
3.88	-30	824.20002577	-0.001	848.80003384	-0.010	2.5

Reference Frequency : GSM850 Low Channel 824.2 MHz / High Channel 848.8 MHz @ 20ºC						
Limit: +- 2.5 ppm =	Low Channel	2060.500	Hz	High Channel	2122.000	Hz
Power Supply [Vdc]	Environment Temperature [ºC]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	***20***	**824.20002514**	***0***	**848.80002574**	***0***	***2.5***
4.45	20	824.20002012	0.006	848.80002122	0.005	2.5
3.70	20	824.20002255	0.003	848.80002331	0.003	2.5

WCDMA Band 5

Test Date	2024-03-11
Test Engineer	31870

Reference Frequency : WCDMA Band 5 Low Channel 826.4 MHz / High Channel 846.6 MHz @ 20ºC						
Limit: +- 2.5 ppm =	Low Channel	2066.000	Hz	High Channel	2116.500	Hz
Power Supply [Vdc]	Environment Temperature [ºC]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	50	826.40001121	0.002	846.60001263	0.001	2.5
3.88	40	826.40000954	0.004	846.60000774	0.007	2.5
3.88	30	826.40001038	0.003	846.60000841	0.006	2.5
3.88	***20***	***826.40001312***	***0.000***	***846.60001366***	***0.000***	***2.5***
3.88	10	826.40001401	-0.001	846.60001254	0.001	2.5
3.88	0	826.40000681	0.008	846.60000998	0.004	2.5
3.88	-10	826.40000524	0.010	846.60000712	0.008	2.5
3.88	-20	826.40000466	0.010	846.60001064	0.004	2.5
3.88	-30	826.40000997	0.004	846.60001228	0.002	2.5

Reference Frequency : WCDMA Band 5 Low Channel 826.4 MHz / High Channel 846.6 MHz @ 20ºC						
Limit: +- 2.5 ppm =	Low Channel	2066.000	Hz	High Channel	2116.500	Hz
Power Supply [Vdc]	Environment Temperature [ºC]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	***20***	**826.40001312**	***0***	**846.60001366**	***0***	***2.5***
4.45	20	826.40000971	0.004	846.60000854	0.006	2.5
3.70	20	826.40001123	0.002	846.60001075	0.003	2.5

LTE Band 14 (Lowest Frequency: 16QAM / Highest Frequency: QPSK)

Test Date	2024-03-13
Test Engineer	31870

Limit		788	798	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20C)	Normal	788.2523	797.7513		
Extreme (50C)		788.2523	797.7513	22.5	0.028
Extreme (40C)		788.2523	797.7513	17.3	0.022
Extreme (30C)		788.2523	797.7513	19.5	0.025
Extreme (10C)		788.2523	797.7513	8.6	0.011
Extreme (0C)		788.2523	797.7513	10.1	0.013
Extreme (-10C)		788.2523	797.7513	15.5	0.020
Extreme (-20C)		788.2523	797.7513	7.8	0.010
Extreme (-30C)		788.2523	797.7513	5.6	0.007
20C	15%	788.2523	797.7513	12.2	0.015
	-15%	788.2523	797.7513	10.5	0.013
	End Point	788.2523	797.7513	7.7	0.010

LTE Band 26

Test Date	2024-03-11
Test Engineer	31870

Reference Frequency : Low Channel 814.7 MHz / High Channel 848.3 MHz @ 20°C						
Limit: +- 2.5 ppm =	Low Channel	2036.750 Hz		High Channel	2120.750 Hz	
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	50	814.70001289	-0.006	848.30001457	-0.011	2.5
3.88	40	814.70001430	-0.007	848.30001527	-0.011	2.5
3.88	30	814.70000589	0.003	848.30000803	-0.003	2.5
3.88	***20***	***814.70000835***	***0.000***	***848.30000558***	***0.000***	***2.5***
3.88	10	814.70000790	0.001	848.30000580	0.000	2.5
3.88	0	814.70001271	-0.005	848.30000692	-0.002	2.5
3.88	-10	814.70001972	-0.014	848.30000604	-0.001	2.5
3.88	-20	814.70000727	0.001	848.30000704	-0.002	2.5
3.88	-30	814.70000759	0.001	848.30000604	-0.001	2.5

Reference Frequency : Low Channel 814.7 MHz / High Channel 848.3 MHz @ 20°C						
Limit: +- 2.5 ppm =	Low Channel	2036.750 Hz		High Channel	2120.750 Hz	
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	***20***	***814.70000835***	***0***	***848.30000558***	***0***	***2.5***
4.45	20	814.70000567	0.003	848.30000497	0.001	2.5
3.70	20	814.70001295	-0.006	848.30000979	-0.005	2.5

NR Band n26

Test Date	2024-03-22
Test Engineer	31870

Reference Frequency : Low Channel 816.5 MHz / High Channel 846.5 MHz @ 20°C						
Limit: +- 2.5 ppm =	Low Channel	2041.250 Hz		High Channel	2116.250 Hz	
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	50	816.50004163	-0.020	846.50003255	-0.007	2.5
3.88	40	816.50003325	-0.010	846.50003663	-0.012	2.5
3.88	30	816.50003163	-0.008	846.50001133	0.018	2.5
3.88	***20***	***816.50002511***	***0.000***	***846.50002652***	***0.000***	***2.5***
3.88	10	816.50001163	0.017	846.50000725	0.023	2.5
3.88	0	816.50001985	0.006	846.50001271	0.016	2.5
3.88	-10	816.50002022	0.006	846.50003454	-0.009	2.5
3.88	-20	816.50002677	-0.002	846.50001691	0.011	2.5
3.88	-30	816.50001483	0.013	846.50000953	0.020	2.5

Reference Frequency : Low Channel 816.5 MHz / High Channel 846.5 MHz @ 20°C						
Limit: +- 2.5 ppm =	Low Channel	2041.250 Hz		High Channel	2116.250 Hz	
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measureed with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	***20***	**816.50002511**	***0***	**846.50002652**	***0***	***2.5***
4.45	20	816.50000422	0.026	846.50001321	0.016	2.5
3.70	20	816.50001674	0.010	846.50001129	0.018	2.5

9. RADIATED RESULTS

9.1. RADIATED POWER (ERP)

RULE PART(S)

FCC: §2.1046, §22.913, §90.542 and §90.635

LIMITS

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

90.542(a)(7) - Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

90.635(b) The maximum output power of the transmitter for mobile stations is 100 watts (20dBw).

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13dB.

TEST PROCEDURE

ANSI / TIA / EIA 603 E Clause 2.2.17; ESU40 setting reference to 971168 D01 v03r01

For radiated output power measurement with a ESU40:

a) Set the RBW ≥ OBW;
b) Set VBW ≥ 3 × RBW;
c) Set span ≥ 2 x RBW;
d) Sweep time = auto couple or 1 second;
e) Detector = rms;
f) Ensure that the number of measurement points ≥ span/RBW;
g) Trace mode = max hold(GSM, WCDMA), average(LTE, 5G NR);

TEST RESULTS

See the following pages.

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_22/90(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

9.1.1. ERP Results

GSM

Band	Mode	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)
GSM 850 ANT A+B	GPRS	824.20	33.71	H	3.01	-1.03	29.67	926.83	38.50	-8.83
		836.60	33.54	H	3.03	-0.97	29.55	901.57	38.50	-8.95
		848.80	33.86	H	3.05	-0.91	29.90	977.24	38.50	-8.60
	EGPRS	824.20	28.62	H	3.01	-1.03	24.58	287.08	38.50	-13.92
		836.60	28.57	H	3.03	-0.97	24.58	287.08	38.50	-13.92
		848.80	28.56	H	3.05	-0.91	24.60	288.40	38.50	-13.90
Band	**Mode**	**f (MHz)**	**SG reading (dBm)**	**Ant. Pol. (H/V)**	**Cable Loss (dB)**	**Antenna Gain (dBd)**	**ERP (dBm)**	**ERP (mW)**	**Limit (dBm)**	**Delta (dB)**
GSM 850 ANT A	GPRS	824.20	27.92	H	3.01	-1.03	23.88	244.34	38.50	-14.62
		836.60	27.34	H	3.03	-0.97	23.35	216.27	38.50	-15.15
		848.80	26.68	H	3.05	-0.91	22.72	187.07	38.50	-15.78
	EGPRS	824.20	22.90	H	3.01	-1.03	18.86	76.91	38.50	-19.64
		836.60	22.78	H	3.03	-0.97	18.79	75.68	38.50	-19.71
		848.80	21.50	H	3.05	-0.91	17.54	56.75	38.50	-20.96
Band	**Mode**	**f (MHz)**	**SG reading (dBm)**	**Ant. Pol. (H/V)**	**Cable Loss (dB)**	**Antenna Gain (dBd)**	**ERP (dBm)**	**ERP (mW)**	**Limit (dBm)**	**Delta (dB)**
GSM 850 ANT D	GPRS	824.20	31.11	H	3.01	-1.03	27.07	509.33	38.50	-11.43
		836.60	30.76	H	3.03	-0.97	26.77	475.34	38.50	-11.73
		848.80	30.45	H	3.05	-0.91	26.49	445.66	38.50	-12.01
	EGPRS	824.20	26.32	H	3.01	-1.03	22.28	169.04	38.50	-16.22
		836.60	25.65	H	3.03	-0.97	21.66	146.55	38.50	-16.84
		848.80	25.46	H	3.05	-0.91	21.50	141.25	38.50	-17.00

WCDMA

Band	Mode	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)
Band 5 ANT A+B	REL99	826.40	26.62	H	3.01	-1.02	22.59	181.55	38.50	-15.91
		836.60	26.35	H	3.03	-0.97	22.36	172.19	38.50	-16.14
		846.60	26.63	H	3.05	-0.92	22.67	184.93	38.50	-15.83
	HSDPA	826.40	25.27	H	3.01	-1.02	21.24	133.05	38.50	-17.26
		836.60	25.51	H	3.03	-0.97	21.52	141.91	38.50	-16.98
		846.60	25.77	H	3.05	-0.92	21.81	151.71	38.50	-16.69
Band	**Mode**	**f (MHz)**	**SG reading (dBm)**	**Ant. Pol. (H/V)**	**Cable Loss (dB)**	**Antenna Gain (dBd)**	**ERP (dBm)**	**ERP (mW)**	**Limit (dBm)**	**Delta (dB)**
Band 5 ANT A	REL99	826.40	20.13	H	3.01	-1.02	16.10	40.74	38.50	-22.40
		836.60	19.82	H	3.03	-0.97	15.83	38.28	38.50	-22.67
		846.60	19.20	H	3.05	-0.92	15.24	33.42	38.50	-23.26
	HSDPA	826.40	19.11	H	3.01	-1.02	15.08	32.21	38.50	-23.42
		836.60	18.78	H	3.03	-0.97	14.79	30.13	38.50	-23.71
		846.60	18.35	H	3.05	-0.92	14.39	27.48	38.50	14.39
Band	**Mode**	**f (MHz)**	**SG reading (dBm)**	**Ant. Pol. (H/V)**	**Cable Loss (dB)**	**Antenna Gain (dBd)**	**ERP (dBm)**	**ERP (mW)**	**Limit (dBm)**	**Delta (dB)**
Band 5 ANT D	REL99	826.40	22.81	H	3.01	-1.02	18.78	75.51	38.50	-19.72
		836.60	22.11	H	3.03	-0.97	18.12	64.86	38.50	-20.38
		846.60	21.61	H	3.05	-0.92	17.65	58.21	38.50	-20.85
	HSDPA	826.40	21.71	H	3.01	-1.02	17.68	58.61	38.50	-20.82
		836.60	20.93	H	3.03	-0.97	16.94	49.43	38.50	-21.56
		846.60	20.62	H	3.05	-0.92	16.66	46.34	38.50	16.66

LTE Band 14 (ANT A+B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
10	QPSK	793.00	23.70	H	2.95	-1.16	19.58	90.78	34.77	-15.19	1/0
	16-QAM	793.00	22.69	H	2.95	-1.16	18.57	71.94	34.77	-16.20	1/0
5	QPSK	790.50	23.92	H	2.95	-1.17	19.80	95.50	34.77	-14.97	1/12
		793.00	23.84	H	2.95	-1.16	19.72	93.76	34.77	-15.05	1/12
		795.50	23.99	H	2.96	-1.16	19.87	97.05	34.77	-14.90	1/12
	16-QAM	790.50	22.99	H	2.95	-1.17	18.87	77.09	34.77	-15.90	1/12
		793.00	22.76	H	2.95	-1.16	18.64	73.11	34.77	-16.13	1/12
		795.50	23.05	H	2.96	-1.16	18.93	78.16	34.77	-15.84	1/12

LTE Band 14 (ANT A)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
10	QPSK	793.00	19.12	H	2.95	-1.16	15.00	31.62	34.77	-19.77	1/0
	16-QAM	793.00	18.32	H	2.95	-1.16	14.20	26.30	34.77	-20.57	1/0
5	QPSK	790.50	19.00	H	2.95	-1.17	14.88	30.76	34.77	-19.89	1/12
		793.00	18.86	H	2.95	-1.16	14.78	30.06	34.77	-19.99	1/12
		795.50	18.64	H	2.96	-1.16	14.52	28.31	34.77	-20.25	1/12
	16-QAM	790.50	17.94	H	2.95	-1.17	13.82	24.10	34.77	-20.95	1/12
		793.00	17.76	H	2.95	-1.16	13.64	23.12	34.77	-21.13	1/12
		795.50	17.49	H	2.96	-1.16	13.37	21.73	34.77	-21.40	1/12

LTE Band 14 (ANT D)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
10	QPSK	793.00	21.22	H	2.95	-1.16	17.10	51.29	34.77	-17.67	1/0
	16-QAM	793.00	20.29	H	2.95	-1.16	16.17	41.40	34.77	-18.60	1/0
5	QPSK	790.50	21.42	H	2.95	-1.17	17.30	53.70	34.77	-17.47	1/12
		793.00	21.52	H	2.95	-1.16	17.40	54.95	34.77	-17.37	1/12
		795.50	20.93	H	2.96	-1.16	16.81	47.97	34.77	-17.96	1/12
	16-QAM	790.50	20.39	H	2.95	-1.17	16.27	42.36	34.77	-18.50	1/12
		793.00	20.56	H	2.95	-1.16	16.44	44.06	34.77	-18.33	1/12
		795.50	20.02	H	2.96	-1.16	15.90	38.90	34.77	-18.87	1/12

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_22/90(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

LTE Band 26 (ANT A+B)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
15	QPSK	821.50	25.23	H	3.01	-1.04	21.18	131.22	50.00	-28.82	1/37
		831.50	25.81	H	3.02	-0.99	21.80	151.36	38.50	-16.70	1/0
		836.50	26.07	H	3.03	-0.97	22.08	161.44	38.50	-16.42	1/37
		841.50	26.25	H	3.04	-0.94	22.27	168.66	38.50	-16.23	1/0
	16-QAM	821.50	24.32	H	3.01	-1.04	20.27	106.41	50.00	-29.73	1/0
		831.50	24.80	H	3.02	-0.99	20.79	119.95	38.50	-17.71	1/0
		836.50	25.06	H	3.03	-0.97	21.07	127.94	38.50	-17.43	1/0
		841.50	25.06	H	3.04	-0.94	21.08	128.23	38.50	-17.42	1/0
10	QPSK	819.00	25.14	H	3.00	-1.06	21.09	128.53	50.00	-28.91	1/25
		829.00	25.91	H	3.02	-1.01	21.89	154.53	38.50	-16.61	1/0
		831.50	25.99	H	3.02	-0.99	21.98	157.76	38.50	-16.52	1/0
		844.00	26.19	H	3.04	-0.93	22.22	166.72	38.50	-16.28	1/0
	16-QAM	819.00	24.19	H	3.00	-1.06	20.14	103.28	50.00	-29.86	1/0
		829.00	24.80	H	3.02	-1.01	20.78	119.67	38.50	-17.72	1/25
		831.50	25.21	H	3.02	-0.99	21.20	131.83	38.50	-17.30	1/0
		844.00	25.18	H	3.04	-0.93	21.21	132.13	38.50	-17.29	1/25
5	QPSK	816.50	24.87	H	3.00	-1.07	20.80	120.23	50.00	-29.20	1/0
		821.50	25.35	H	3.01	-1.04	21.30	134.90	50.00	-28.70	1/0
		826.50	25.89	H	3.01	-1.02	21.86	153.46	38.50	-16.64	1/12
		831.50	26.02	H	3.02	-0.99	22.01	158.85	38.50	-16.49	1/0
		846.50	26.32	H	3.05	-0.92	22.36	172.19	38.50	-16.14	1/12
	16-QAM	816.50	23.88	H	3.00	-1.07	19.81	95.72	50.00	-30.19	1/0
		821.50	24.34	H	3.01	-1.04	20.29	106.91	50.00	-29.71	1/12
		826.50	24.72	H	3.01	-1.02	20.69	117.22	38.50	-17.81	1/24
		831.50	25.01	H	3.02	-0.99	21.00	125.89	38.50	-17.50	1/12
		846.50	25.37	H	3.05	-0.92	21.41	138.36	38.50	-17.09	1/0
3	QPSK	815.50	24.85	H	2.99	-1.07	20.79	119.95	50.00	-29.21	1/14
		822.50	25.38	H	3.01	-1.04	21.34	136.14	50.00	-28.66	1/8
		825.50	25.57	H	3.01	-1.02	21.54	142.56	38.50	-16.96	1/8
		831.50	25.87	H	3.02	-0.99	21.86	153.46	38.50	-16.64	1/8
		847.50	26.10	H	3.05	-0.91	22.13	163.31	38.50	-16.37	1/8
	16-QAM	815.50	23.96	H	2.99	-1.07	19.90	97.72	50.00	-30.10	1/0
		822.50	24.40	H	3.01	-1.04	20.36	108.64	50.00	-29.64	1/0
		825.50	24.63	H	3.01	-1.02	20.60	114.82	38.50	-17.90	1/0
		831.50	24.83	H	3.02	-0.99	20.82	120.78	38.50	-17.68	1/8
		847.50	24.98	H	3.05	-0.91	21.01	126.18	38.50	-17.49	1/14
1.4	QPSK	814.70	24.74	H	2.99	-1.08	20.67	116.68	50.00	-29.33	1/3
		823.30	25.43	H	3.01	-1.03	21.39	137.72	50.00	-28.61	1/3
		824.70	25.51	H	3.01	-1.03	21.47	140.28	38.50	-17.03	1/3
		831.50	25.86	H	3.02	-0.99	21.85	153.11	38.50	-16.65	1/5
		848.30	26.09	H	3.05	-0.91	22.12	162.93	38.50	-16.38	1/0
	16-QAM	814.70	23.73	H	2.99	-1.08	19.66	92.47	50.00	-30.34	1/3
		823.30	24.33	H	3.01	-1.03	20.29	106.91	50.00	-29.71	1/0
		824.70	24.39	H	3.01	-1.03	20.35	108.39	38.50	-18.15	1/5
		831.50	24.82	H	3.02	-0.99	20.81	120.50	38.50	-17.69	1/3
		848.30	25.16	H	3.05	-0.91	21.19	131.52	38.50	-17.31	1/3

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
15	QPSK	824.00	25.31	H	3.01	-1.03	21.27	133.97	38.50	-17.23	1/0
	16-QAM		24.36	H	3.01	-1.03	20.32	107.65	38.50	-18.18	1/0
10	QPSK		25.49	H	3.01	-1.03	21.45	139.64	38.50	-17.05	1/25
	16-QAM		24.54	H	3.01	-1.03	20.50	112.20	38.50	-18.00	1/0
5	QPSK		25.56	H	3.01	-1.03	21.52	141.91	38.50	-16.98	1/0
	16-QAM		24.54	H	3.01	-1.03	20.50	112.20	38.50	-18.00	1/0
3	QPSK		25.47	H	3.01	-1.03	21.43	139.00	38.50	-17.07	1/8
	16-QAM		24.60	H	3.01	-1.03	20.56	113.76	38.50	-17.94	1/0
1.4	QPSK		25.41	H	3.01	-1.03	21.37	137.09	38.50	-17.13	1/3
	16-QAM		24.38	H	3.01	-1.03	20.34	108.14	38.50	-18.16	1/0

LTE Band 26 (ANT A)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
15	QPSK	821.50	19.51	H	3.01	-1.04	15.46	35.16	50.00	-34.54	1/37
		831.50	19.91	H	3.02	-0.99	15.90	38.90	38.50	-22.60	1/0
		836.50	19.61	H	3.03	-0.97	15.62	36.48	38.50	-22.88	1/37
		841.50	19.44	H	3.04	-0.94	15.46	35.16	38.50	-23.04	1/0
	16-QAM	821.50	18.59	H	3.01	-1.04	14.54	28.44	50.00	-35.46	1/0
		831.50	19.06	H	3.02	-0.99	15.05	31.99	38.50	-23.45	1/0
		836.50	18.57	H	3.03	-0.97	14.58	28.71	38.50	-23.92	1/0
		841.50	18.45	H	3.04	-0.94	14.47	27.99	38.50	-24.03	1/0
10	QPSK	819.00	19.46	H	3.00	-1.06	15.41	34.75	50.00	-34.59	1/25
		829.00	19.94	H	3.02	-1.01	15.92	39.08	38.50	-22.58	1/0
		831.50	20.08	H	3.02	-0.99	16.07	40.46	38.50	-22.43	1/0
		844.00	19.16	H	3.04	-0.93	15.19	33.04	38.50	-23.31	1/0
	16-QAM	819.00	18.12	H	3.00	-1.06	14.07	25.53	50.00	-35.93	1/0
		829.00	18.97	H	3.02	-1.01	14.95	31.26	38.50	-23.55	1/25
		831.50	19.14	H	3.02	-0.99	15.13	32.58	38.50	-23.37	1/0
		844.00	18.35	H	3.04	-0.93	14.38	27.42	38.50	-24.12	1/25
5	QPSK	816.50	19.52	H	3.00	-1.07	15.45	35.08	50.00	-34.55	1/0
		821.50	19.84	H	3.01	-1.04	15.79	37.93	50.00	-34.21	1/0
		826.50	20.05	H	3.01	-1.02	16.02	39.99	38.50	-22.48	1/12
		831.50	20.30	H	3.02	-0.99	16.29	42.56	38.50	-22.21	1/0
		846.50	19.00	H	3.05	-0.92	15.04	31.92	38.50	-23.46	1/12
	16-QAM	816.50	18.37	H	3.00	-1.07	14.30	26.92	50.00	-35.70	1/0
		821.50	18.53	H	3.01	-1.04	14.48	28.05	50.00	-35.52	1/12
		826.50	19.04	H	3.01	-1.02	15.01	31.70	38.50	-23.49	1/24
		831.50	19.46	H	3.02	-0.99	15.45	35.08	38.50	-23.05	1/12
		846.50	18.01	H	3.05	-0.92	14.05	25.41	38.50	-24.45	1/0
3	QPSK	815.50	19.23	H	2.99	-1.07	15.17	32.89	50.00	-34.83	1/14
		822.50	19.61	H	3.01	-1.04	15.57	36.06	50.00	-34.43	1/8
		825.50	19.72	H	3.01	-1.02	15.69	37.07	38.50	-22.81	1/8
		831.50	20.00	H	3.02	-0.99	15.99	39.72	38.50	-22.51	1/8
		847.50	18.35	H	3.05	-0.91	14.38	27.42	38.50	-24.12	1/8
	16-QAM	815.50	18.17	H	2.99	-1.07	14.11	25.76	50.00	-35.89	1/0
		822.50	18.69	H	3.01	-1.04	14.65	29.17	50.00	-35.35	1/0
		825.50	19.05	H	3.01	-1.02	15.02	31.77	38.50	-23.48	1/0
		831.50	19.10	H	3.02	-0.99	15.09	32.28	38.50	-23.41	1/8
		847.50	17.30	H	3.05	-0.91	13.33	21.53	38.50	-25.17	1/14
1.4	QPSK	814.70	19.31	H	2.99	-1.08	15.24	33.42	50.00	-34.76	1/3
		823.30	19.87	H	3.01	-1.03	15.83	38.28	50.00	-34.17	1/3
		824.70	19.94	H	3.01	-1.03	15.90	38.90	38.50	-22.60	1/3
		831.50	20.25	H	3.02	-0.99	16.24	42.07	38.50	-22.26	1/5
		848.30	18.24	H	3.05	-0.91	14.27	26.73	38.50	-24.23	1/0
	16-QAM	814.70	18.24	H	2.99	-1.08	14.17	26.12	50.00	-35.83	1/3
		823.30	18.73	H	3.01	-1.03	14.69	29.44	50.00	-35.31	1/0
		824.70	18.93	H	3.01	-1.03	14.89	30.83	38.50	-23.61	1/5
		831.50	19.20	H	3.02	-0.99	15.19	33.04	38.50	-23.31	1/3
		848.30	16.59	H	3.05	-0.91	12.62	18.28	38.50	-25.88	1/3

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
15	QPSK	824.00	19.94	H	3.01	-1.03	15.90	38.90	38.50	-35.31	1/0
	16-QAM		18.67	H	3.01	-1.03	14.63	29.04	38.50	-35.31	1/0
10	QPSK		19.82	H	3.01	-1.03	15.78	37.84	38.50	-35.31	1/25
	16-QAM		18.90	H	3.01	-1.03	14.86	30.62	38.50	-35.31	1/0
5	QPSK		19.74	H	3.01	-1.03	15.70	37.15	38.50	-35.31	1/12
	16-QAM		18.72	H	3.01	-1.03	14.68	29.38	38.50	-35.31	1/24
3	QPSK		19.83	H	3.01	-1.03	15.79	37.93	38.50	-35.31	1/8
	16-QAM		18.83	H	3.01	-1.03	14.79	30.13	38.50	-35.31	1/8
1.4	QPSK		19.64	H	3.01	-1.03	15.60	36.31	38.50	-35.31	1/0
	16-QAM		18.67	H	3.01	-1.03	14.63	29.04	38.50	-35.31	1/0

LTE Band 26 (ANT D)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
15	QPSK	821.50	22.60	H	3.01	-1.04	18.55	71.61	50.00	-31.45	1/0
		831.50	22.86	H	3.02	-0.99	18.85	76.74	38.50	-19.65	1/0
		836.50	22.44	H	3.03	-0.97	18.45	69.98	38.50	-20.05	1/74
		841.50	22.25	H	3.04	-0.94	18.27	67.14	38.50	-20.23	1/37
	16-QAM	821.50	21.71	H	3.01	-1.04	17.66	58.34	50.00	-32.34	1/0
		831.50	21.95	H	3.02	-0.99	17.94	62.23	38.50	-20.56	1/0
		836.50	21.64	H	3.03	-0.97	17.65	58.21	38.50	-20.85	1/0
		841.50	21.39	H	3.04	-0.94	17.41	55.08	38.50	-21.09	1/37
10	QPSK	819.00	22.12	H	3.00	-1.06	18.07	64.12	50.00	-31.93	1/0
		829.00	22.41	H	3.02	-1.01	18.39	69.02	38.50	-20.11	1/0
		831.50	21.90	H	3.02	-0.99	17.89	61.52	38.50	-20.61	1/49
		844.00	21.62	H	3.04	-0.93	17.65	58.21	38.50	-20.85	1/49
	16-QAM	819.00	21.11	H	3.00	-1.06	17.06	50.82	50.00	-32.94	1/0
		829.00	21.43	H	3.02	-1.01	17.41	55.08	38.50	-21.09	1/0
		831.50	20.89	H	3.02	-0.99	16.88	48.75	38.50	-21.62	1/49
		844.00	20.89	H	3.04	-0.93	16.92	49.20	38.50	-21.58	1/25
5	QPSK	816.50	22.28	H	3.00	-1.07	18.21	66.22	50.00	-31.79	1/12
		821.50	22.32	H	3.01	-1.04	18.27	67.14	50.00	-31.73	1/0
		826.50	22.36	H	3.01	-1.10	18.25	66.83	38.50	-20.25	1/0
		831.50	21.96	H	3.02	-1.09	17.85	60.95	38.50	-20.65	1/12
		846.50	21.67	H	3.05	-1.06	17.57	57.15	38.50	-20.93	1/0
	16-QAM	816.50	21.10	H	3.00	-1.07	17.03	50.47	50.00	-32.97	1/24
		821.50	21.25	H	3.01	-1.04	17.20	52.48	50.00	-32.80	1/0
		826.50	21.56	H	3.01	-1.10	17.45	55.59	38.50	-21.05	1/12
		831.50	21.41	H	3.02	-1.09	17.30	53.70	38.50	-21.20	1/0
		846.50	21.05	H	3.05	-1.06	16.95	49.55	38.50	-21.55	1/0
3	QPSK	815.50	22.04	H	2.99	-1.07	17.98	62.81	50.00	-32.02	1/0
		822.50	21.95	H	3.01	-1.04	17.91	61.80	50.00	-32.09	1/8
		825.50	22.27	H	3.01	-1.02	18.24	66.68	38.50	-20.26	1/8
		831.50	21.96	H	3.02	-0.99	17.95	62.37	38.50	-20.55	1/0
		847.50	21.64	H	3.05	-0.91	17.67	58.48	38.50	-20.83	1/14
	16-QAM	815.50	21.10	H	2.99	-1.07	17.04	50.58	50.00	-32.96	1/0
		822.50	21.24	H	3.01	-1.04	17.20	52.48	50.00	-32.80	1/0
		825.50	21.42	H	3.01	-1.02	17.39	54.83	38.50	-21.11	1/14
		831.50	21.36	H	3.02	-0.99	17.35	54.33	38.50	-21.15	1/0
		847.50	21.07	H	3.05	-0.91	17.10	51.29	38.50	-21.40	1/8
1.4	QPSK	814.70	22.06	H	2.99	-1.08	17.99	62.95	50.00	-32.01	1/5
		823.30	21.96	H	3.01	-1.03	17.92	61.94	50.00	-32.08	1/3
		824.70	22.16	H	3.01	-1.03	18.12	64.86	38.50	-20.38	1/3
		831.50	21.84	H	3.02	-0.99	17.83	60.67	38.50	-20.67	1/3
		848.30	21.33	H	3.05	-0.91	17.36	54.45	38.50	-21.14	1/0
	16-QAM	814.70	20.97	H	2.99	-1.08	16.90	48.98	50.00	-33.10	1/0
		823.30	20.94	H	3.01	-1.03	16.90	48.98	50.00	-33.10	1/0
		824.70	21.35	H	3.01	-1.03	17.31	53.83	38.50	-21.19	1/5
		831.50	20.90	H	3.02	-0.99	16.89	48.87	38.50	-21.61	1/5
		848.30	20.38	H	3.05	-0.91	16.41	43.75	38.50	-22.09	1/0

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
15	QPSK	824.00	22.40	H	3.01	-1.03	18.36	68.55	38.50	-35.31	1/0
	16-QAM		21.47	H	3.01	-1.03	17.43	55.34	38.50	-35.31	1/0
10	QPSK		21.94	H	3.01	-1.03	17.90	61.66	38.50	-35.31	1/25
	16-QAM		21.08	H	3.01	-1.03	17.04	50.58	38.50	-35.31	1/0
5	QPSK		21.89	H	3.01	-1.10	17.78	59.98	38.50	-35.31	1/12
	16-QAM		21.25	H	3.01	-1.10	17.14	51.76	38.50	-35.31	1/24
3	QPSK		21.86	H	3.01	-1.03	17.82	60.53	38.50	-35.31	1/8
	16-QAM		21.26	H	3.01	-1.03	17.22	52.72	38.50	-35.31	1/8
1.4	QPSK		21.81	H	3.01	-1.03	17.77	59.84	38.50	-35.31	1/0
	16-QAM		20.97	H	3.01	-1.03	16.93	49.32	38.50	-35.31	1/0

NR Band n26 (ANT A+B)

DFT-OFDM

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	834.00	24.66	H	3.03	-0.98	20.66	116.41	38.50	-17.84	1/53
		836.50	24.82	H	3.03	-0.97	20.83	121.06	38.50	-17.67	1/53
		839.00	25.09	H	3.03	-0.96	21.10	128.82	38.50	-17.40	1/1
	16-QAM	834.00	23.60	H	3.03	-0.98	19.60	91.20	38.50	-18.90	1/53
		836.50	23.61	H	3.03	-0.97	19.62	91.62	38.50	-18.88	1/53
		839.00	23.96	H	3.03	-0.96	19.97	99.31	38.50	-18.53	1/1
15	QPSK	821.50	24.17	H	3.01	-1.04	20.12	102.80	50.00	-29.88	1/1
		831.50	25.04	H	3.02	-0.99	21.03	126.77	38.50	-17.47	1/1
		836.50	25.03	H	3.03	-0.97	21.04	127.06	38.50	-17.46	1/1
		841.50	25.07	H	3.04	-0.94	21.09	128.53	38.50	-17.41	1/1
	16-QAM	821.50	23.20	H	3.01	-1.04	19.15	82.22	50.00	-30.85	1/1
		831.50	23.97	H	3.02	-0.99	19.96	99.08	38.50	-18.54	1/1
		836.50	23.78	H	3.03	-0.97	19.79	95.28	38.50	-18.71	1/1
		841.50	23.97	H	3.04	-0.94	19.99	99.77	38.50	-18.51	1/1
10	QPSK	819.00	24.07	H	3.00	-1.06	20.02	100.46	50.00	-29.98	1/1
		829.00	24.87	H	3.02	-1.01	20.85	121.62	38.50	-17.65	1/1
		831.50	25.05	H	3.02	-0.99	21.04	127.06	38.50	-17.46	1/1
		844.00	25.05	H	3.04	-0.93	21.08	128.23	38.50	-17.42	1/1
	16-QAM	819.00	22.98	H	3.00	-1.06	18.93	78.16	50.00	-31.07	1/1
		829.00	23.87	H	3.02	-1.01	19.85	96.61	38.50	-18.65	1/1
		831.50	24.00	H	3.02	-0.99	19.99	99.77	38.50	-18.51	1/1
		844.00	23.97	H	3.04	-0.93	20.00	100.00	38.50	-18.50	1/1
5	QPSK	816.50	23.89	H	3.00	-1.07	19.82	95.94	50.00	-30.18	1/13
		821.50	24.34	H	3.01	-1.04	20.29	106.91	50.00	-29.71	1/13
		826.50	24.75	H	3.01	-1.02	20.72	118.03	38.50	-17.78	1/13
		831.50	25.12	H	3.02	-0.99	21.11	129.12	38.50	-17.39	1/13
		846.50	24.92	H	3.05	-0.92	20.96	124.74	38.50	-17.54	1/13
	16-QAM	816.50	22.84	H	3.00	-1.07	18.77	75.34	50.00	-31.23	1/13
		821.50	23.20	H	3.01	-1.04	19.15	82.22	50.00	-30.85	1/13
		826.50	23.71	H	3.01	-1.02	19.68	92.90	38.50	-18.82	1/13
		831.50	24.02	H	3.02	-0.99	20.01	100.23	38.50	-18.49	1/13
		846.50	23.76	H	3.05	-0.92	19.80	95.50	38.50	-18.70	1/13

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	824.00	24.43	H	3.01	-1.03	20.39	109.40	38.50	-18.11	1/53
	16-QAM		23.26	H	3.01	-1.03	19.22	83.56	38.50	-19.28	1/53
15	QPSK		24.60	H	3.01	-1.03	20.56	113.76	38.50	-17.94	1/1
	16-QAM		23.74	H	3.01	-1.03	19.70	93.33	38.50	-18.80	1/1
10	QPSK		24.49	H	3.01	-1.03	20.45	110.92	38.50	-18.05	1/26
	16-QAM		23.42	H	3.01	-1.03	19.38	86.70	38.50	-19.12	1/26
5	QPSK		24.48	H	3.01	-1.03	20.44	110.66	38.50	-18.06	1/13
	16-QAM		23.48	H	3.01	-1.03	19.44	87.90	38.50	-19.06	1/13

NR Band n26 (ANT A)

DFT-OFDM_

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	834.00	19.82	H	3.03	-0.98	15.82	38.19	38.50	-22.68	1/53
		836.50	19.62	H	3.03	-0.97	15.63	36.56	38.50	-22.87	1/53
		839.00	19.98	H	3.03	-0.96	15.99	39.72	38.50	-22.51	1/1
	16-QAM	834.00	18.38	H	3.03	-0.98	14.38	27.42	38.50	-24.12	1/53
		836.50	18.47	H	3.03	-0.97	14.48	28.05	38.50	-24.02	1/53
		839.00	18.72	H	3.03	-0.96	14.73	29.72	38.50	-23.77	1/1
15	QPSK	821.50	19.03	H	3.01	-1.04	14.98	31.47	50.00	-35.02	1/1
		831.50	19.67	H	3.02	-0.99	15.66	36.81	38.50	-22.84	1/1
		836.50	19.67	H	3.03	-0.97	15.68	36.98	38.50	-22.82	1/1
		841.50	19.60	H	3.04	-0.94	15.62	36.48	38.50	-22.88	1/1
	16-QAM	821.50	18.09	H	3.01	-1.04	14.04	25.35	50.00	-35.96	1/1
		831.50	18.58	H	3.02	-0.99	14.57	28.64	38.50	-23.93	1/1
		836.50	18.61	H	3.03	-0.97	14.62	28.97	38.50	-23.88	1/1
		841.50	18.66	H	3.04	-0.94	14.68	29.38	38.50	-23.82	1/1
10	QPSK	819.00	18.97	H	3.00	-1.06	14.92	31.05	50.00	-35.08	1/1
		829.00	19.47	H	3.02	-1.01	15.45	35.08	38.50	-23.05	1/1
		831.50	19.64	H	3.02	-0.99	15.63	36.56	38.50	-22.87	1/1
		844.00	19.24	H	3.04	-0.93	15.27	33.65	38.50	-23.23	1/1
	16-QAM	819.00	17.95	H	3.00	-1.06	13.90	24.55	50.00	-36.10	1/1
		829.00	18.31	H	3.02	-1.01	14.29	26.85	38.50	-24.21	1/1
		831.50	18.44	H	3.02	-0.99	14.43	27.73	38.50	-24.07	1/1
		844.00	18.28	H	3.04	-0.93	14.31	26.98	38.50	-24.19	1/1
5	QPSK	816.50	19.07	H	3.00	-1.07	15.00	31.62	50.00	-35.00	1/13
		821.50	19.24	H	3.01	-1.04	15.19	33.04	50.00	-34.81	1/13
		826.50	19.44	H	3.01	-1.02	15.41	34.75	38.50	-23.09	1/13
		831.50	19.68	H	3.02	-0.99	15.67	36.90	38.50	-22.83	1/13
		846.50	18.62	H	3.05	-0.92	14.66	29.24	38.50	-23.84	1/13
	16-QAM	816.50	18.01	H	3.00	-1.07	13.94	24.77	50.00	-36.06	1/13
		821.50	18.39	H	3.01	-1.04	14.34	27.16	50.00	-35.66	1/13
		826.50	18.38	H	3.01	-1.02	14.35	27.23	38.50	-24.15	1/13
		831.50	18.59	H	3.02	-0.99	14.58	28.71	38.50	-23.92	1/13
		846.50	17.52	H	3.05	-0.92	13.56	22.70	38.50	-24.94	1/13

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	824.00	19.36	H	3.01	-1.03	15.32	34.04	38.50	-23.18	1/53
	16-QAM		18.16	H	3.01	-1.03	14.12	25.82	38.50	-24.38	1/53
15	QPSK		19.14	H	3.01	-1.03	15.10	32.36	38.50	-23.40	1/1
	16-QAM		18.14	H	3.01	-1.03	14.10	25.70	38.50	-24.40	1/1
10	QPSK		19.47	H	3.01	-1.03	15.43	34.91	38.50	-23.07	1/26
	16-QAM		18.33	H	3.01	-1.03	14.29	26.85	38.50	-24.21	1/26
5	QPSK		19.22	H	3.01	-1.03	15.18	32.96	38.50	-23.32	1/13
	16-QAM		18.21	H	3.01	-1.03	14.17	26.12	38.50	-24.33	1/13

NR Band n26 (ANT D)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	834.00	21.40	H	3.03	-0.98	17.39	54.83	38.50	-21.11	1/53
		836.50	21.30	H	3.03	-0.97	17.30	53.70	38.50	-21.20	1/1
		839.00	21.48	H	3.03	-0.96	17.49	56.10	38.50	-21.01	1/104
	16-QAM	834.00	20.23	H	3.03	-0.98	16.22	41.88	38.50	-22.28	1/53
		836.50	20.18	H	3.03	-0.97	16.18	41.50	38.50	-22.32	1/1
		839.00	20.21	H	3.03	-0.96	16.22	41.88	38.50	-22.28	1/104
15	QPSK	821.50	21.93	H	3.01	-1.04	17.89	61.52	50.00	-32.11	1/1
		831.50	21.77	H	3.02	-0.99	17.76	59.70	38.50	-20.74	1/1
		836.50	21.74	H	3.03	-0.97	17.74	59.43	38.50	-20.76	1/1
		841.50	21.95	H	3.04	-0.94	17.97	62.66	38.50	-20.53	1/1
	16-QAM	821.50	20.89	H	3.01	-1.04	16.85	48.42	50.00	-33.15	1/1
		831.50	20.68	H	3.02	-0.99	16.67	46.45	38.50	-21.83	1/1
		836.50	20.66	H	3.03	-0.97	16.66	46.34	38.50	-21.84	1/1
		841.50	20.87	H	3.04	-0.94	16.89	48.87	38.50	-21.61	1/1
10	QPSK	819.00	22.14	H	3.00	-1.06	18.09	64.42	50.00	-31.91	1/1
		829.00	21.08	H	3.02	-1.01	17.06	50.82	38.50	-21.44	1/1
		831.50	20.86	H	3.02	-0.99	16.85	48.42	38.50	-21.65	1/1
		844.00	22.06	H	3.04	-0.93	18.09	64.42	38.50	-20.41	1/1
	16-QAM	819.00	21.00	H	3.00	-1.06	16.95	49.55	50.00	-33.05	1/1
		829.00	20.16	H	3.02	-1.01	16.14	41.11	38.50	-22.36	1/1
		831.50	18.99	H	3.02	-0.99	14.98	31.48	38.50	-23.52	1/1
		844.00	20.85	H	3.04	-0.93	16.88	48.75	38.50	-21.62	1/1
5	QPSK	816.50	22.12	H	3.00	-1.07	18.06	63.97	50.00	-31.94	1/1
		821.50	21.75	H	3.01	-1.04	17.71	59.02	50.00	-32.29	1/13
		826.50	21.19	H	3.01	-1.02	17.15	51.88	38.50	-21.35	1/1
		831.50	21.67	H	3.02	-0.99	17.66	58.34	38.50	-20.84	1/13
		846.50	22.18	H	3.05	-0.92	18.22	66.37	38.50	-20.28	1/23
	16-QAM	816.50	21.12	H	3.00	-1.07	17.06	50.82	50.00	-32.94	1/1
		821.50	20.74	H	3.01	-1.04	16.70	46.77	50.00	-33.30	1/13
		826.50	20.07	H	3.01	-1.02	16.03	40.09	38.50	-22.47	1/1
		831.50	20.65	H	3.02	-0.99	16.64	46.13	38.50	-21.86	1/13
		846.50	20.85	H	3.05	-0.92	16.89	48.87	38.50	-21.61	1/23

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	824.00	21.12	H	3.01	-1.03	17.08	51.07	38.50	-21.42	1/1
	16-QAM		20.06	H	3.01	-1.03	16.02	40.01	38.50	-22.48	1/1
15	QPSK		21.10	H	3.01	-1.03	17.06	50.84	38.50	-21.44	1/40
	16-QAM		20.38	H	3.01	-1.03	16.34	43.07	38.50	-22.16	1/40
10	QPSK		21.19	H	3.01	-1.03	17.15	51.90	38.50	-21.35	1/26
	16-QAM		21.05	H	3.01	-1.03	17.01	50.25	38.50	-21.49	1/26
5	QPSK		21.07	H	3.01	-1.03	17.03	50.49	38.50	-21.47	1/13
	16-QAM		20.09	H	3.01	-1.03	16.05	40.29	38.50	-22.45	1/13

9.2. RADIATIED SPURIOUS EMISSION

RULE PART(S)

FCC: §2.1053, §22.917, §90.543 and §90.691

LIMIT

Part 22.917(a)
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.

Part 90.543(c)
On any frequency outside of the frequency ranges covered by the ACP tables in this section, the power of any emission must be reduced below the mean output power (P) by at least 43 + 10log (P) dB measured in a 100 kHz bandwidth for frequencies less than 1 GHz, and in a 1 MHz bandwidth for frequencies greater than 1 GHz

Part 90.543(f)
For operations in the 758–775 MHz and 788–805 MHz bands, all emissions including harmonics in the band 1559–1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation

Part 90.691(a):
(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log_{10}(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.(NOTE : Use 100kHz reference bandwidth)

(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

TEST PROCEDURE

ANSI / TIA / EIA 603 E Clause 2.2.12; ESU40 setting reference to 971168 D01 v03r01

For peak power measurement with a ESU40:

a) Set the RBW = 100 kHz for emission below 1 GHz and 1 MHz for emissions above 1 GHz
b) Set VBW ≥ 3 × RBW;
c) Set span ≥ 1.5 times the OBW;
d) Sweep time = auto couple;
e) Detector = rms;
f) Ensure that the number of measurement points ≥ span/RBW;
g) Trace mode = average(WCDMA, LTE, 5G NR), Maxhold(GSM);

NOTE1

LTE: It was tested at 1RB QPSK as worst case (the highst output power and density).
5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations (π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

NOTE2

Please refer to section 5.4 for bandwidth and RB setting about LTE, 5G NR bands.

NOTE3

For interband ULCA, it was checked in the RSE considering intermodulation, but no additional spurious emissions were founded.

RESULTS

See the following pages.

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_22/90(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

9.2.1. SPURIOUS RADIATION PLOTS

GSM850

GPRS

ANT A+B

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

Company:	Samsung
Project #:	4791196575
Date:	2024-03-01
Test Engineer:	24542
Configuration:	EUT / AC Adapter, Z-Position, Open
Location:	Chamber 1
Mode:	GPRS 850 MHz Harmonics
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.2MHz									
1648.40	-10.0	V	3.0	43.3	1.0	-52.3	-13.0	-39.3	
2472.60	-8.1	V	3.0	43.6	1.0	-50.7	-13.0	-37.7	
3296.80	-5.4	V	3.0	43.9	1.0	-48.3	-13.0	-35.3	
1648.40	-10.4	H	3.0	43.3	1.0	-52.8	-13.0	-39.8	
2472.60	-3.6	H	3.0	43.6	1.0	-46.1	-13.0	-33.1	
3296.80	-4.2	H	3.0	43.9	1.0	-47.1	-13.0	-34.1	
Mid Ch, 836.6MHz									
1673.20	-8.4	V	3.0	43.3	1.0	-50.7	-13.0	-37.7	
2509.80	-6.6	V	3.0	43.6	1.0	-49.2	-13.0	-36.2	
3346.40	-4.5	V	3.0	43.9	1.0	-47.4	-13.0	-34.4	
1673.20	-11.1	H	3.0	43.3	1.0	-53.4	-13.0	-40.4	
2509.80	-2.0	H	3.0	43.6	1.0	-44.6	-13.0	-31.6	
3346.40	-4.7	H	3.0	43.9	1.0	-47.6	-13.0	-34.6	
High Ch, 848.8MHz									
1697.60	-7.5	V	3.0	43.3	1.0	-49.8	-13.0	-36.8	
2546.40	-5.5	V	3.0	43.6	1.0	-48.1	-13.0	-35.1	
3395.20	-4.3	V	3.0	44.0	1.0	-47.3	-13.0	-34.3	
1697.60	-8.9	H	3.0	43.3	1.0	-51.2	-13.0	-38.2	
2546.40	0.7	H	3.0	43.6	1.0	-41.9	-13.0	-28.9	
3395.20	-4.3	H	3.0	44.0	1.0	-47.2	-13.0	-34.2	

GPRS

ANT A

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-07
Test Engineer: 24542
Configuration: EUT / AC Adapter, Y-Position, FF
Location: Chamber 1
Mode: GPRS 850 MHz Harmonics
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.2MHz									
1648.40	-9.4	V	3.0	43.3	1.0	-51.7	-13.0	-38.7	
2472.60	-3.6	V	3.0	43.6	1.0	-46.2	-13.0	-33.2	
3296.80	-6.1	V	3.0	43.9	1.0	-49.1	-13.0	-36.1	
4121.00	-6.6	V	3.0	44.3	1.0	-50.0	-13.0	-37.0	
4945.20	-5.8	V	3.0	44.7	1.0	-49.6	-13.0	-36.6	
1648.40	-12.0	H	3.0	43.3	1.0	-54.4	-13.0	-41.4	
2472.60	-3.1	H	3.0	43.6	1.0	-45.7	-13.0	-32.7	
3296.80	-6.5	H	3.0	43.9	1.0	-49.4	-13.0	-36.4	
4121.00	-3.9	H	3.0	44.3	1.0	-47.2	-13.0	-34.2	
4945.20	-5.8	H	3.0	44.7	1.0	-49.5	-13.0	-36.5	
Mid Ch, 836.6MHz									
1673.20	-10.0	V	3.0	43.3	1.0	-52.4	-13.0	-39.4	
2509.80	4.9	V	3.0	43.6	1.0	-37.7	-13.0	-24.7	
3346.40	-4.9	V	3.0	43.9	1.0	-47.8	-13.0	-34.8	
4183.00	-5.6	V	3.0	44.3	1.0	-49.0	-13.0	-36.0	
5019.60	-5.6	V	3.0	44.8	1.0	-49.3	-13.0	-36.3	
1673.20	-12.1	H	3.0	43.3	1.0	-54.5	-13.0	-41.5	
2509.80	1.6	H	3.0	43.6	1.0	-41.0	-13.0	-28.0	
3346.40	-5.4	H	3.0	43.9	1.0	-48.4	-13.0	-35.4	
4183.00	-4.9	H	3.0	44.3	1.0	-48.3	-13.0	-35.3	
5019.60	-5.8	H	3.0	44.8	1.0	-49.6	-13.0	-36.6	
High Ch, 848.8MHz									
1697.60	-11.9	V	3.0	43.3	1.0	-54.2	-13.0	-41.2	
2546.40	1.7	V	3.0	43.6	1.0	-40.9	-13.0	-27.9	
3395.20	-4.9	V	3.0	44.0	1.0	-47.9	-13.0	-34.9	
4244.00	-6.4	V	3.0	44.4	1.0	-49.8	-13.0	-36.8	
5092.80	-5.4	V	3.0	44.8	1.0	-49.2	-13.0	-36.2	
1697.60	-12.7	H	3.0	43.3	1.0	-55.0	-13.0	-42.0	
2546.40	-3.0	H	3.0	43.6	1.0	-45.6	-13.0	-32.6	
3395.20	-5.6	H	3.0	44.0	1.0	-48.6	-13.0	-35.6	
4244.00	-6.3	H	3.0	44.4	1.0	-49.6	-13.0	-36.6	
5092.80	-5.6	H	3.0	44.8	1.0	-49.4	-13.0	-36.4	

GPRS

ANT D

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

Company: Samsung
Project #: 4791196575
Date: 2024-04-27
Test Engineer: 24542
Configuration: EUT / AC Adapter, X-Posiiton, Open
Location: Chamber 1
Mode: GPRS 850 MHz Harmonics
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.2MHz									
1648.40	-8.6	V	3.0	43.3	1.0	-50.9	-13.0	-37.9	
2472.60	1.3	V	3.0	43.6	1.0	-41.3	-13.0	-28.3	
3296.80	-7.2	V	3.0	43.9	1.0	-50.2	-13.0	-37.2	
4121.00	-6.5	V	3.0	44.3	1.0	-49.8	-13.0	-36.8	
4945.20	-5.6	V	3.0	44.7	1.0	-49.3	-13.0	-36.3	
1648.40	-12.5	H	3.0	43.3	1.0	-54.8	-13.0	-41.8	
2472.60	2.9	H	3.0	43.6	1.0	-39.7	-13.0	-26.7	
3296.80	-7.0	H	3.0	43.9	1.0	-49.9	-13.0	-36.9	
4121.00	-5.8	H	3.0	44.3	1.0	-49.2	-13.0	-36.2	
4945.20	-5.6	H	3.0	44.7	1.0	-49.3	-13.0	-36.3	
Mid Ch, 836.6MHz									
1673.20	-8.1	V	3.0	43.3	1.0	-50.4	-13.0	-37.4	
2509.80	-0.4	V	3.0	43.6	1.0	-43.0	-13.0	-30.0	
3346.40	-7.8	V	3.0	43.9	1.0	-50.8	-13.0	-37.8	
4183.00	-6.4	V	3.0	44.3	1.0	-49.7	-13.0	-36.7	
5019.60	-5.6	V	3.0	44.8	1.0	-49.4	-13.0	-36.4	
1673.20	-11.9	H	3.0	43.3	1.0	-54.2	-13.0	-41.2	
2509.80	3.6	H	3.0	43.6	1.0	-39.0	-13.0	-26.0	
3346.40	-7.0	H	3.0	43.9	1.0	-49.9	-13.0	-36.9	
4183.00	-6.1	H	3.0	44.3	1.0	-49.4	-13.0	-36.4	
5019.60	-5.8	H	3.0	44.8	1.0	-49.6	-13.0	-36.6	
High Ch, 848.8MHz									
1697.60	-11.8	V	3.0	43.3	1.0	-54.1	-13.0	-41.1	
2546.40	0.2	V	3.0	43.6	1.0	-42.4	-13.0	-29.4	
3395.20	-8.1	V	3.0	44.0	1.0	-51.1	-13.0	-38.1	
4244.00	-6.5	V	3.0	44.4	1.0	-49.9	-13.0	-36.9	
5092.80	-5.3	V	3.0	44.8	1.0	-49.1	-13.0	-36.1	
1697.60	-13.9	H	3.0	43.3	1.0	-56.2	-13.0	-43.2	
2546.40	5.6	H	3.0	43.6	1.0	-37.0	-13.0	-24.0	
3395.20	-6.6	H	3.0	44.0	1.0	-49.6	-13.0	-36.6	
4244.00	-5.8	H	3.0	44.4	1.0	-49.2	-13.0	-36.2	
5092.80	-5.6	H	3.0	44.8	1.0	-49.4	-13.0	-36.4	

WCDMA Band 5

REL99

ANT A+B

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-03
Test Engineer: 24542
Configuration: EUT / AC Adapter, Y-Position, Open
Location: Chamber 1
Mode: Rel99 Band 5 Harmonics
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.4MHz									
1652.80	-14.3	V	3.0	43.3	1.0	-56.6	-13.0	-43.6	
2479.20	-0.3	V	3.0	43.6	1.0	-42.8	-13.0	-29.8	
3305.60	-10.2	V	3.0	43.9	1.0	-53.1	-13.0	-40.1	
1652.80	-12.7	H	3.0	43.3	1.0	-55.1	-13.0	-42.1	
2479.20	0.7	H	3.0	43.6	1.0	-41.9	-13.0	-28.9	
3305.60	-10.0	H	3.0	43.9	1.0	-53.0	-13.0	-40.0	
Mid Ch, 836.6MHz									
1673.20	-10.3	V	3.0	43.3	1.0	-52.7	-13.0	-39.7	
2509.80	-0.5	V	3.0	43.6	1.0	-43.1	-13.0	-30.1	
3346.40	-9.4	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
1673.20	-2.0	H	3.0	43.3	1.0	-44.3	-13.0	-31.3	
2509.80	2.1	H	3.0	43.6	1.0	-40.5	-13.0	-27.5	
3346.40	-9.2	H	3.0	43.9	1.0	-52.1	-13.0	-39.1	
High Ch, 846.6MHz									
1693.20	-14.2	V	3.0	43.3	1.0	-56.5	-13.0	-43.5	
2539.80	0.8	V	3.0	43.6	1.0	-41.8	-13.0	-28.8	
3386.40	-9.1	V	3.0	44.0	1.0	-52.1	-13.0	-39.1	
1693.20	-15.6	H	3.0	43.3	1.0	-57.9	-13.0	-44.9	
2539.80	1.4	H	3.0	43.6	1.0	-41.2	-13.0	-28.2	
3386.40	-8.9	H	3.0	44.0	1.0	-51.9	-13.0	-38.9	

REL99

ANT A

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-08
Test Engineer: 24542
Configuration: EUT / AC Adapter, Z-Posiiton, FF
Location: Chamber 1
Mode: Rel99 Band 5 Harmonics
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.4MHz									
1652.80	-15.2	V	3.0	43.3	1.0	-57.5	-13.0	-44.5	
2479.20	-11.7	V	3.0	43.6	1.0	-54.3	-13.0	-41.3	
3305.60	-9.4	V	3.0	43.9	1.0	-52.3	-13.0	-39.3	
1652.80	-16.3	H	3.0	43.3	1.0	-58.6	-13.0	-45.6	
2479.20	-12.2	H	3.0	43.6	1.0	-54.7	-13.0	-41.7	
3305.60	-9.2	H	3.0	43.9	1.0	-52.1	-13.0	-39.1	
Mid Ch, 836.6MHz									
1673.20	-15.0	V	3.0	43.3	1.0	-57.4	-13.0	-44.4	
2509.80	-11.7	V	3.0	43.6	1.0	-54.3	-13.0	-41.3	
3346.40	-9.2	V	3.0	43.9	1.0	-52.1	-13.0	-39.1	
1673.20	-16.2	H	3.0	43.3	1.0	-58.6	-13.0	-45.6	
2509.80	-12.0	H	3.0	43.6	1.0	-54.6	-13.0	-41.6	
3346.40	-8.7	H	3.0	43.9	1.0	-51.6	-13.0	-38.6	
High Ch, 846.6MHz									
1693.20	-15.0	V	3.0	43.3	1.0	-57.3	-13.0	-44.3	
2539.80	-11.7	V	3.0	43.6	1.0	-54.3	-13.0	-41.3	
3386.40	-8.9	V	3.0	44.0	1.0	-51.8	-13.0	-38.8	
1693.20	-16.0	H	3.0	43.3	1.0	-58.4	-13.0	-45.4	
2539.80	-12.1	H	3.0	43.6	1.0	-54.7	-13.0	-41.7	
3386.40	-9.6	H	3.0	44.0	1.0	-52.6	-13.0	-39.6	

REL99

ANT D

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

Company: Samsung
Project #: 4791196575
Date: 2024-04-26
Test Engineer: 24542
Configuration: EUT / Y-Position, Open
Location: Chamber 1
Mode: Rel99 Band 5 Harmonics
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.4MHz									
1652.80	-14.9	V	3.0	43.3	1.0	-57.2	-13.0	-44.2	
2479.20	-11.9	V	3.0	43.6	1.0	-54.4	-13.0	-41.4	
3305.60	-9.5	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
1652.80	-16.4	H	3.0	43.3	1.0	-58.7	-13.0	-45.7	
2479.20	-12.3	H	3.0	43.6	1.0	-54.9	-13.0	-41.9	
3305.60	-9.2	H	3.0	43.9	1.0	-52.1	-13.0	-39.1	
Mid Ch, 836.6MHz									
1673.20	-13.4	V	3.0	43.3	1.0	-55.7	-13.0	-42.7	
2509.80	-11.8	V	3.0	43.6	1.0	-54.4	-13.0	-41.4	
3346.40	-9.3	V	3.0	43.9	1.0	-52.3	-13.0	-39.3	
1673.20	-16.0	H	3.0	43.3	1.0	-58.3	-13.0	-45.3	
2509.80	-12.3	H	3.0	43.6	1.0	-54.9	-13.0	-41.9	
3346.40	-9.1	H	3.0	43.9	1.0	-52.0	-13.0	-39.0	
High Ch, 846.6MHz									
1693.20	-12.6	V	3.0	43.3	1.0	-54.9	-13.0	-41.9	
2539.80	-11.1	V	3.0	43.6	1.0	-53.7	-13.0	-40.7	
3386.40	-8.8	V	3.0	44.0	1.0	-51.8	-13.0	-38.8	
1693.20	-13.6	H	3.0	43.3	1.0	-55.9	-13.0	-42.9	
2539.80	-7.1	H	3.0	43.6	1.0	-49.7	-13.0	-36.7	
3386.40	-8.7	H	3.0	44.0	1.0	-51.7	-13.0	-38.7	

LTE Band 14

5 MHz
QPSK
ANT A+B

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

Company:	Samsung
Project #:	4791196575
Date:	2024-02-28
Test Engineer:	26087
Configuration:	EUT / AC Adapter, X-Position, Open
Location:	Chamber 2
Mode:	LTE_QPSK Band 14 Harmonics, 5MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 790.5MHz									
1581.00	-30.5	V	3.0	40.8	1.0	-70.3	-40.0	-30.3	
2371.50	-11.8	V	3.0	41.3	1.0	-52.1	-13.0	-39.1	
3162.00	-8.9	V	3.0	42.2	1.0	-50.1	-13.0	-37.1	
1581.00	-30.7	H	3.0	40.8	1.0	-70.6	-40.0	-30.6	
2371.50	-11.8	H	3.0	41.3	1.0	-52.1	-13.0	-39.1	
3162.00	-8.3	H	3.0	42.2	1.0	-49.4	-13.0	-36.4	
Mid Ch, 793MHz									
1586.00	-28.1	V	3.0	40.8	1.0	-67.9	-40.0	-27.9	
2379.00	-11.6	V	3.0	41.3	1.0	-51.9	-13.0	-38.9	
3172.00	-9.0	V	3.0	42.2	1.0	-50.2	-13.0	-37.2	
1586.00	-25.9	H	3.0	40.8	1.0	-65.7	-40.0	-25.7	
2379.00	-11.8	H	3.0	41.3	1.0	-52.1	-13.0	-39.1	
3172.00	-8.3	H	3.0	42.2	1.0	-49.5	-13.0	-36.5	
High Ch, 795.5MHz									
1591.00	-30.2	V	3.0	40.8	1.0	-70.0	-40.0	-30.0	
2386.50	-11.6	V	3.0	41.3	1.0	-51.9	-13.0	-38.9	
3182.00	-9.1	V	3.0	42.2	1.0	-50.3	-13.0	-37.3	
1591.00	-30.8	H	3.0	40.8	1.0	-70.6	-40.0	-30.6	
2386.50	-11.7	H	3.0	41.3	1.0	-52.0	-13.0	-39.0	
3182.00	-8.4	H	3.0	42.2	1.0	-49.6	-13.0	-36.6	

10 MHz
QPSK
ANT A

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

Company:	Samsung
Project #:	4791196575
Date:	2024-03-07
Test Engineer:	24542
Configuration:	EUT / AC Adapter, X-Position, FF
Location:	Chamber 1
Mode:	LTE_QPSK Band 14 Harmonics, 10MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Mid Ch, 793MHz									
1586.00	-15.6	V	3.0	43.3	1.0	-57.9	-40.0	-17.9	
2379.00	-6.9	V	3.0	43.5	1.0	-49.4	-13.0	-36.4	
3172.00	-9.8	V	3.0	43.9	1.0	-52.6	-13.0	-39.6	
1586.00	-16.7	H	3.0	43.3	1.0	-59.0	-40.0	-19.0	
2379.00	-6.6	H	3.0	43.5	1.0	-49.1	-13.0	-36.1	
3172.00	-9.5	H	3.0	43.9	1.0	-52.4	-13.0	-39.4	

5 MHz

QPSK

ANT D

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

Company: Samsung
Project #: 4791196575
Date: 2024-04-26
Test Engineer: 28775
Configuration: EUT / AC Adapter, X-Position, HF
Location: Chamber 2
Mode: LTE_QPSK Band 14 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 790.5MHz									
1581.00	-24.5	V	3.0	40.8	1.0	-64.3	-40.0	-24.3	
2371.50	-9.9	V	3.0	41.3	1.0	-50.2	-13.0	-37.2	
3162.00	-9.1	V	3.0	42.2	1.0	-50.3	-13.0	-37.3	
1581.00	-24.7	H	3.0	40.8	1.0	-64.5	-40.0	-24.5	
2371.50	-8.5	H	3.0	41.3	1.0	-48.8	-13.0	-35.8	
3162.00	-8.4	H	3.0	42.2	1.0	-49.6	-13.0	-36.6	
Mid Ch, 793MHz									
1586.00	-25.2	V	3.0	40.8	1.0	-65.0	-40.0	-25.0	
2379.00	-9.7	V	3.0	41.3	1.0	-50.0	-13.0	-37.0	
3172.00	-9.0	V	3.0	42.2	1.0	-50.2	-13.0	-37.2	
1586.00	-24.6	H	3.0	40.8	1.0	-64.4	-40.0	-24.4	
2379.00	-11.7	H	3.0	41.3	1.0	-52.0	-13.0	-39.0	
3172.00	-8.3	H	3.0	42.2	1.0	-49.5	-13.0	-36.5	
High Ch, 795.5MHz									
1591.00	-27.5	V	3.0	40.8	1.0	-67.3	-40.0	-27.3	
2386.50	-10.1	V	3.0	41.3	1.0	-50.4	-13.0	-37.4	
3182.00	-9.1	V	3.0	42.2	1.0	-50.3	-13.0	-37.3	
1591.00	-28.8	H	3.0	40.8	1.0	-68.6	-40.0	-28.6	
2386.50	-7.8	H	3.0	41.3	1.0	-48.1	-13.0	-35.1	
3182.00	-8.4	H	3.0	42.2	1.0	-49.6	-13.0	-36.6	

LTE Band 26 (Part 90)

1.4 MHz
QPSK
ANT A+B

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-01
Test Engineer: 26087
Configuration: EUT / AC Adatper, X-Position, FF
Location: Chamber 2
Mode: LTE_QPSK Band 26 Harmonics, 1.4MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 814.7MHz									
1629.40	-14.9	V	3.0	40.8	1.0	-54.7	-13.0	-41.7	
2444.10	-11.2	V	3.0	41.4	1.0	-51.6	-13.0	-38.6	
3258.80	-9.3	V	3.0	42.2	1.0	-50.5	-13.0	-37.5	
1629.40	-15.7	H	3.0	40.8	1.0	-55.5	-13.0	-42.5	
2444.10	-10.9	H	3.0	41.4	1.0	-51.3	-13.0	-38.3	
3258.80	-8.8	H	3.0	42.2	1.0	-50.0	-13.0	-37.0	
Mid Ch, 823.3MHz									
1646.60	-13.5	V	3.0	40.8	1.0	-53.3	-13.0	-40.3	
2469.90	-11.3	V	3.0	41.4	1.0	-51.7	-13.0	-38.7	
3293.20	-9.3	V	3.0	42.2	1.0	-50.4	-13.0	-37.4	
1646.60	-15.6	H	3.0	40.8	1.0	-55.4	-13.0	-42.4	
2469.90	-10.3	H	3.0	41.4	1.0	-50.7	-13.0	-37.7	
3293.20	-8.8	H	3.0	42.2	1.0	-50.0	-13.0	-37.0	

1.4 MHz
QPSK
ANT A

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-06
Test Engineer: 24542
Configuration: EUT / AC Adapter, Z-Position, FF
Location: Chamber 1
Mode: LTE_QPSK Band 26 Harmonics, 1.4MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 814.7MHz									
1629.40	-14.4	V	3.0	43.3	1.0	-56.7	-13.0	-43.7	
2444.10	-5.9	V	3.0	43.6	1.0	-48.5	-13.0	-35.5	
3258.80	-9.4	V	3.0	43.9	1.0	-52.3	-13.0	-39.3	
4073.50	-7.9	V	3.0	44.3	1.0	-51.2	-13.0	-38.2	
4888.20	-6.8	V	3.0	44.7	1.0	-50.5	-13.0	-37.5	
1629.40	-14.7	H	3.0	43.3	1.0	-57.0	-13.0	-44.0	
2444.10	-1.2	H	3.0	43.6	1.0	-43.8	-13.0	-30.8	
3258.80	-9.1	H	3.0	43.9	1.0	-52.0	-13.0	-39.0	
4073.50	-7.6	H	3.0	44.3	1.0	-50.9	-13.0	-37.9	
4888.20	-6.8	H	3.0	44.7	1.0	-50.5	-13.0	-37.5	
Mid Ch, 823.3MHz									
1646.60	-14.9	V	3.0	43.3	1.0	-57.2	-13.0	-44.2	
2469.90	-4.4	V	3.0	43.6	1.0	-47.0	-13.0	-34.0	
3293.20	-10.1	V	3.0	43.9	1.0	-53.0	-13.0	-40.0	
4116.50	-7.5	V	3.0	44.3	1.0	-50.9	-13.0	-37.9	
4939.80	-6.8	V	3.0	44.7	1.0	-50.5	-13.0	-37.5	
1646.60	-14.9	H	3.0	43.3	1.0	-57.2	-13.0	-44.2	
2469.90	-0.4	H	3.0	43.6	1.0	-43.0	-13.0	-30.0	
3293.20	-9.1	H	3.0	43.9	1.0	-52.0	-13.0	-39.0	
4116.50	-7.3	H	3.0	44.3	1.0	-50.6	-13.0	-37.6	
4939.80	0.0	H	3.0	44.7	1.0	-43.7	-13.0	-30.7	

15 MHz

QPSK

ANT D

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

Company: Samsung
Project #: 4791196575
Date: 2024-04-28
Test Engineer: 26087
Configuration: EUT / Y-Position, Open
Location: Chamber 1
Mode: LTE_QPSK Band 26 Harmonics, 15MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 821.5MHz									
1643.00	-15.2	V	3.0	43.3	1.0	-57.5	-13.0	-44.5	
2464.50	-11.2	V	3.0	43.6	1.0	-53.7	-13.0	-40.7	
3286.00	-9.4	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
1643.00	-16.1	H	3.0	43.3	1.0	-58.4	-13.0	-45.4	
2464.50	-9.0	H	3.0	43.6	1.0	-51.6	-13.0	-38.6	
3286.00	-9.2	H	3.0	43.9	1.0	-52.1	-13.0	-39.1	

LTE Band 26 (Straddle)

5 MHz
QPSK
ANT A+B

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-01
Test Engineer: 26087
Configuration: EUT / AC Adatper, X-Position, FF
Location: Chamber 2
Mode: LTE_QPSK Band 26 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Straddle Ch, 824 MHz									
1648.00	-14.8	V	3.0	40.8	1.0	-54.7	-13.0	-41.7	
2472.00	-6.7	V	3.0	41.4	1.0	-47.2	-13.0	-34.2	
3296.00	-9.4	V	3.0	42.2	1.0	-50.6	-13.0	-37.6	
1648.00	-15.7	H	3.0	40.8	1.0	-55.5	-13.0	-42.5	
2472.00	-5.4	H	3.0	41.4	1.0	-45.9	-13.0	-32.9	
3296.00	-8.8	H	3.0	42.2	1.0	-50.0	-13.0	-37.0	

15 MHz
QPSK
ANT A

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-06
Test Engineer: 24542
Configuration: EUT / AC Adapter, Z-Position, FF
Location: Chamber 1
Mode: LTE_QPSK Band 26 Harmonics, 15MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Straddle Ch, 824MHz									
1648.00	-15.1	V	3.0	43.3	1.0	-57.4	-13.0	-44.4	
2472.00	-4.2	V	3.0	43.6	1.0	-46.8	-13.0	-33.8	
3296.00	-9.5	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
4120.00	-7.6	V	3.0	44.3	1.0	-50.9	-13.0	-37.9	
4944.00	-6.8	V	3.0	44.7	1.0	-50.5	-13.0	-37.5	
1648.00	-15.3	H	3.0	43.3	1.0	-57.7	-13.0	-44.7	
2472.00	-0.3	H	3.0	43.6	1.0	-42.9	-13.0	-29.9	
3296.00	-9.5	H	3.0	43.9	1.0	-52.5	-13.0	-39.5	
4120.00	-7.2	H	3.0	44.3	1.0	-50.5	-13.0	-37.5	
4944.00	-6.9	H	3.0	44.7	1.0	-50.6	-13.0	-37.6	

15 MHz

QPSK

ANT D

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

Company:	Samsung
Project #:	4791196575
Date:	2024-04-28
Test Engineer:	26087
Configuration:	EUT / Y-Position, Open
Location:	Chamber 1
Mode:	LTE_QPSK Band 26 Harmonics, 15MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Mid Ch, 824MHz									
1648.00	-15.0	V	3.0	43.3	1.0	-57.3	-13.0	-44.3	
2472.00	-9.9	V	3.0	43.6	1.0	-52.5	-13.0	-39.5	
3296.00	-9.6	V	3.0	43.9	1.0	-52.5	-13.0	-39.5	
1648.00	-16.3	H	3.0	43.3	1.0	-58.6	-13.0	-45.6	
2472.00	-7.6	H	3.0	43.6	1.0	-50.2	-13.0	-37.2	
3296.00	-9.3	H	3.0	43.9	1.0	-52.3	-13.0	-39.3	

LTE Band 26 (Part 22)

5 MHz QPSK ANT A+B

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

Company: Samsung
Project #: 4791196575
Date: 2024-02-29
Test Engineer: 26087
Configuration: EUT / AC Adatper, X-Position, FF
Location: Chamber 2
Mode: LTE_QPSK Band 26 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1633.00	-14.9	V	3.0	40.8	1.0	-54.7	-13.0	-41.7	
2449.50	-7.9	V	3.0	41.4	1.0	-48.3	-13.0	-35.3	
3266.00	-9.3	V	3.0	42.2	1.0	-50.5	-13.0	-37.5	
1633.00	-15.2	H	3.0	40.8	1.0	-55.0	-13.0	-42.0	
2449.50	-3.2	H	3.0	41.4	1.0	-43.6	-13.0	-30.6	
3266.00	-8.7	H	3.0	42.2	1.0	-49.9	-13.0	-36.9	
Mid Ch, 831.5MHz									
1663.00	-9.7	V	3.0	40.8	1.0	-49.5	-13.0	-36.5	
2494.50	-4.0	V	3.0	41.5	1.0	-44.5	-13.0	-31.5	
3326.00	-8.9	V	3.0	42.2	1.0	-50.1	-13.0	-37.1	
1663.00	-5.5	H	3.0	40.8	1.0	-45.3	-13.0	-32.3	
2494.50	-0.2	H	3.0	41.5	1.0	-40.6	-13.0	-27.6	
3326.00	-8.5	H	3.0	42.2	1.0	-49.7	-13.0	-36.7	
High Ch, 846.5MHz									
1693.00	-14.6	V	3.0	40.8	1.0	-54.4	-13.0	-41.4	
2539.50	-3.7	V	3.0	41.5	1.0	-44.3	-13.0	-31.3	
3386.00	-8.7	V	3.0	42.2	1.0	-49.9	-13.0	-36.9	
1693.00	-15.4	H	3.0	40.8	1.0	-55.2	-13.0	-42.2	
2539.50	0.8	H	3.0	41.5	1.0	-39.7	-13.0	-26.7	
3386.00	-8.4	H	3.0	42.2	1.0	-49.6	-13.0	-36.6	

5 MHz QPSK ANT A

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

Company: Samsung
Project #: 4791196575
Date: 2023-03-06
Test Engineer: 24542
Configuration: EUT / AC Adapter, Z-Position, FF
Location: Chamber 1
Mode: LTE_QPSK Band 26 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1633.00	-14.7	V	3.0	43.3	1.0	-57.0	-13.0	-44.0	
2449.50	-10.4	V	3.0	43.6	1.0	-53.0	-13.0	-40.0	
3266.00	-9.5	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
1633.00	-15.3	H	3.0	43.3	1.0	-57.6	-13.0	-44.6	
2449.50	-11.5	H	3.0	43.6	1.0	-54.1	-13.0	-41.1	
3266.00	-9.2	H	3.0	43.9	1.0	-52.1	-13.0	-39.1	
Mid Ch, 831.5MHz									
1663.00	-15.1	V	3.0	43.3	1.0	-57.4	-13.0	-44.4	
2494.50	-10.1	V	3.0	43.6	1.0	-52.6	-13.0	-39.6	
3326.00	-3.5	V	3.0	43.9	1.0	-46.4	-13.0	-33.4	
1663.00	-15.8	H	3.0	43.3	1.0	-58.2	-13.0	-45.2	
2494.50	-11.1	H	3.0	43.6	1.0	-53.6	-13.0	-40.6	
3326.00	-9.0	H	3.0	43.9	1.0	-52.0	-13.0	-39.0	
High Ch, 846.5MHz									
1693.00	-13.9	V	3.0	43.3	1.0	-56.2	-13.0	-43.2	
2539.50	-8.7	V	3.0	43.6	1.0	-51.3	-13.0	-38.3	
3386.00	-8.9	V	3.0	44.0	1.0	-51.8	-13.0	-38.8	
1693.00	-15.2	H	3.0	43.3	1.0	-57.5	-13.0	-44.5	
2539.50	-11.8	H	3.0	43.6	1.0	-54.4	-13.0	-41.4	
3386.00	-8.6	H	3.0	44.0	1.0	-51.6	-13.0	-38.6	

15 MHz

QPSK

ANT D

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

Company: Samsung
Project #: 4791196575
Date: 2024-04-28
Test Engineer: 26087
Configuration: EUT / AC Adapter, Y_Position, Open
Location: Chamber 1
Mode: LTE_QPSK Band 26 Harmonics, 15MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 831.5MHz									
1663.00	-15.2	V	3.0	43.3	1.0	-57.5	-13.0	-44.5	
2494.50	-9.8	V	3.0	43.6	1.0	-52.4	-13.0	-39.4	
3326.00	-9.4	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
4157.50	-7.9	V	3.0	44.3	1.0	-51.2	-13.0	-38.2	
4989.00	-6.7	V	3.0	44.8	1.0	-50.5	-13.0	-37.5	
1663.00	-16.4	H	3.0	43.3	1.0	-58.7	-13.0	-45.7	
2494.50	-8.8	H	3.0	43.6	1.0	-51.3	-13.0	-38.3	
3326.00	-9.2	H	3.0	43.9	1.0	-52.2	-13.0	-39.2	
4157.50	-7.7	H	3.0	44.3	1.0	-51.0	-13.0	-38.0	
4989.00	-6.6	H	3.0	44.8	1.0	-50.4	-13.0	-37.4	
Mid Ch, 836.5MHz									
1673.00	-13.7	V	3.0	43.3	1.0	-56.0	-13.0	-43.0	
2509.50	-9.6	V	3.0	43.6	1.0	-52.2	-13.0	-39.2	
3346.00	-9.3	V	3.0	43.9	1.0	-52.3	-13.0	-39.3	
1673.00	-15.9	H	3.0	43.3	1.0	-58.2	-13.0	-45.2	
2509.50	-5.3	H	3.0	43.6	1.0	-47.9	-13.0	-34.9	
3346.00	-9.1	H	3.0	43.9	1.0	-52.0	-13.0	-39.0	
High Ch, 841.5MHz									
1683.00	-14.6	V	3.0	43.3	1.0	-56.9	-13.0	-43.9	
2524.50	-8.0	V	3.0	43.6	1.0	-50.6	-13.0	-37.6	
3366.00	-9.1	V	3.0	43.9	1.0	-52.0	-13.0	-39.0	
4207.50	-7.5	V	3.0	44.4	1.0	-50.9	-13.0	-37.9	
5049.00	-6.7	V	3.0	44.8	1.0	-50.5	-13.0	-37.5	
1683.00	-15.8	H	3.0	43.3	1.0	-58.1	-13.0	-45.1	
2524.50	-4.0	H	3.0	43.6	1.0	-46.6	-13.0	-33.6	
3366.00	-8.8	H	3.0	43.9	1.0	-51.8	-13.0	-38.8	
4207.50	-7.5	H	3.0	44.4	1.0	-50.9	-13.0	-37.9	
5049.00	-6.8	H	3.0	44.8	1.0	-50.5	-13.0	-37.5	

NR Band n26 (Part 90)

5 MHz
DFT-OFDM
QPSK
ANT A+B

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

Company: Samsung
Project #: 4791196575
Date: 2024-02-26
Test Engineer: 28775
Configuration: EUT / AC Adapter, Y-Position, Open
Location: Chamber 1
Mode: 5G NR_QPSK NR n26 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 816.5MHz									
1633.00	-13.7	V	3.0	43.3	1.0	-56.0	-13.0	-43.0	
2449.50	-6.7	V	3.0	43.6	1.0	-49.2	-13.0	-36.2	
3266.00	-9.3	V	3.0	43.9	1.0	-52.2	-13.0	-39.2	
1633.00	-13.9	H	3.0	43.3	1.0	-56.3	-13.0	-43.3	
2449.50	-6.5	H	3.0	43.6	1.0	-49.1	-13.0	-36.1	
3266.00	-8.9	H	3.0	43.9	1.0	-51.8	-13.0	-38.8	
Mid Ch, 821.5MHz									
1643.00	-13.0	V	3.0	43.3	1.0	-55.4	-13.0	-42.4	
2464.50	-5.6	V	3.0	43.6	1.0	-48.2	-13.0	-35.2	
3286.00	-9.2	V	3.0	43.9	1.0	-52.1	-13.0	-39.1	
1643.00	-14.0	H	3.0	43.3	1.0	-56.3	-13.0	-43.3	
2464.50	-5.7	H	3.0	43.6	1.0	-48.3	-13.0	-35.3	
3286.00	-9.0	H	3.0	43.9	1.0	-51.9	-13.0	-38.9	

5 MHz
DFT-OFDM
QPSK
ANT A

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-08
Test Engineer: 24542
Configuration: EUT / AC Adapter, Z-Position, FF
Location: Chamber 1
Mode: 5G NR_QPSK NR 26 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 816.5MHz									
1633.00	-14.9	V	3.0	43.3	1.0	-57.3	-13.0	-44.3	
2449.50	-11.2	V	3.0	43.6	1.0	-53.8	-13.0	-40.8	
3266.00	-9.5	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
1633.00	-16.0	H	3.0	43.3	1.0	-58.3	-13.0	-45.3	
2449.50	-11.8	H	3.0	43.6	1.0	-54.3	-13.0	-41.3	
3266.00	-9.3	H	3.0	43.9	1.0	-52.2	-13.0	-39.2	
Mid Ch, 821.5MHz									
1643.00	-14.9	V	3.0	43.3	1.0	-57.2	-13.0	-44.2	
2464.50	-11.0	V	3.0	43.6	1.0	-53.6	-13.0	-40.6	
3286.00	-9.5	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
1643.00	-15.6	H	3.0	43.3	1.0	-57.9	-13.0	-44.9	
2464.50	-11.4	H	3.0	43.6	1.0	-54.0	-13.0	-41.0	
3286.00	-9.3	H	3.0	43.9	1.0	-52.2	-13.0	-39.2	

10 MHz

DFT-OFDM

QPSK

ANT D

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

Company:	Sasung
Project #:	4791196575
Date:	2024-04-25
Test Engineer:	28775
Configuration:	EUT / AC Adapter, X-Position, Open
Location:	Chamber 2
Mode:	5G NR_QPSK NR n26 Harmonics, 10MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 819MHz									
1638.00	-14.9	V	3.0	40.8	1.0	-54.7	-13.0	-41.7	
2457.00	-11.4	V	3.0	41.4	1.0	-51.8	-13.0	-38.8	
3276.00	-9.2	V	3.0	42.2	1.0	-50.4	-13.0	-37.4	
1638.00	-15.9	H	3.0	40.8	1.0	-55.7	-13.0	-42.7	
2457.00	-11.3	H	3.0	41.4	1.0	-51.7	-13.0	-38.7	
3276.00	-8.6	H	3.0	42.2	1.0	-49.8	-13.0	-36.8	

NR Band n26 (Straddle)

15 MHz
DFT-OFDM
QPSK
ANT A+B

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

Company:	Samsung
Project #:	4791196575
Date:	2024-02-26
Test Engineer:	28775
Configuration:	EUT / AC Adapter, Y-Position, Open
Location:	Chamber 1
Mode:	5G NR_QPSK NR n26 Harmonics, 15MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Straddle Ch, 824MHz									
1648.00	-12.9	V	3.0	43.3	1.0	-55.2	-13.0	-42.2	
2472.00	-2.1	V	3.0	43.6	1.0	-44.7	-13.0	-31.7	
3296.00	-9.2	V	3.0	43.9	1.0	-52.1	-13.0	-39.1	
1648.00	-13.9	H	3.0	43.3	1.0	-56.3	-13.0	-43.3	
2472.00	-3.2	H	3.0	43.6	1.0	-45.8	-13.0	-32.8	
3296.00	-8.9	H	3.0	43.9	1.0	-51.8	-13.0	-38.8	

10 MHz
DFT-OFDM
QPSK
ANT A

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

Company:	Samsung
Project #:	4791196575
Date:	2024-03-08
Test Engineer:	24542
Configuration:	EUT / AC Adapter, Z-Position, FF
Location:	Chamber 1
Mode:	5G NR_QPSK NR 26 Harmonics, 10MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Straddle Ch, 824MHz									
1648.00	-14.9	V	3.0	43.3	1.0	-57.2	-13.0	-44.2	
2472.00	-11.3	V	3.0	43.6	1.0	-53.8	-13.0	-40.8	
3296.00	-9.5	V	3.0	43.9	1.0	-52.4	-13.0	-39.4	
1648.00	-16.0	H	3.0	43.3	1.0	-58.3	-13.0	-45.3	
2472.00	-11.1	H	3.0	43.6	1.0	-53.7	-13.0	-40.7	
3296.00	-9.3	H	3.0	43.9	1.0	-52.2	-13.0	-39.2	

10 MHz

DFT-OFDM

QPSK

ANT D

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

Company:	Samsung
Project #:	4791196575
Date:	2024-04-25
Test Engineer:	28775
Configuration:	EUT / AC Adapter, X-Postion, Open
Location:	Chamber 2
Mode:	5G NR_QPSK NR n26 Harmonics, 10MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Straddle Ch, 824MHz									
1648.00	-14.9	V	3.0	40.8	1.0	-54.7	-13.0	-41.7	
2472.00	-11.2	V	3.0	41.4	1.0	-51.6	-13.0	-38.6	
3296.00	-9.1	V	3.0	42.2	1.0	-50.3	-13.0	-37.3	
1648.00	-15.8	H	3.0	40.8	1.0	-55.6	-13.0	-42.6	
2472.00	-11.4	H	3.0	41.4	1.0	-51.8	-13.0	-38.8	
3296.00	-8.6	H	3.0	42.2	1.0	-49.8	-13.0	-36.8	

NR Band n26 (Part 22)

5 MHz
DFT-OFDM
QPSK
ANT A+B

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

Company: Samsung
Project #: 4791196575
Date: 2024-02-26
Test Engineer: 28775
Configuration: EUT / AC Adapter. Y-Position, Open
Location: Chamber 1
Mode: 5G NR_QPSK NR n26 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1653.00	-14.3	V	3.0	43.3	1.0	-56.6	-13.0	-43.6	
2479.50	-8.3	V	3.0	43.6	1.0	-50.9	-13.0	-37.9	
3306.00	-9.1	V	3.0	43.9	1.0	-52.0	-13.0	-39.0	
1653.00	-15.1	H	3.0	43.3	1.0	-57.5	-13.0	-44.5	
2479.50	-8.7	H	3.0	43.6	1.0	-51.3	-13.0	-38.3	
3306.00	-8.9	H	3.0	43.9	1.0	-51.8	-13.0	-38.8	
Mid Ch, 831.5MHz									
1663.00	-14.0	V	3.0	43.3	1.0	-56.3	-13.0	-43.3	
2494.50	4.6	V	3.0	43.6	1.0	-38.0	-13.0	-25.0	
3326.00	-9.0	V	3.0	43.9	1.0	-51.9	-13.0	-38.9	
1663.00	-15.0	H	3.0	43.3	1.0	-57.3	-13.0	-44.3	
2494.50	3.2	H	3.0	43.6	1.0	-39.4	-13.0	-26.4	
3326.00	-8.8	H	3.0	43.9	1.0	-51.7	-13.0	-38.7	
High Ch, 846.5MHz									
1693.00	-14.2	V	3.0	43.3	1.0	-56.5	-13.0	-43.5	
2539.50	-8.2	V	3.0	43.6	1.0	-50.8	-13.0	-37.8	
3386.00	-8.7	V	3.0	44.0	1.0	-51.6	-13.0	-38.6	
1693.00	-14.9	H	3.0	43.3	1.0	-57.2	-13.0	-44.2	
2539.50	-8.8	H	3.0	43.6	1.0	-51.4	-13.0	-38.4	
3386.00	-8.5	H	3.0	44.0	1.0	-51.4	-13.0	-38.4	

20 MHz
DFT-OFDM
QPSK
ANT A

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

Company: Samsung
Project #: 4791196575
Date: 2024-03-08
Test Engineer: 24542
Configuration: EUT / AC Adapter, Z-Position, FF
Location: Chamber 1
Mode: 5G NR_QPSK NR 26 Harmonics, 20MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 834MHz									
1668.00	-14.9	V	3.0	43.3	1.0	-57.2	-13.0	-44.2	
2502.00	-11.1	V	3.0	43.6	1.0	-53.7	-13.0	-40.7	
3336.00	-9.3	V	3.0	43.9	1.0	-52.2	-13.0	-39.2	
1668.00	-15.6	H	3.0	43.3	1.0	-57.9	-13.0	-44.9	
2502.00	-11.4	H	3.0	43.6	1.0	-54.0	-13.0	-41.0	
3336.00	-9.9	H	3.0	43.9	1.0	-52.8	-13.0	-39.8	
Mid Ch, 836.5MHz									
1673.00	-14.9	V	3.0	43.3	1.0	-57.3	-13.0	-44.3	
2509.50	-11.3	V	3.0	43.6	1.0	-53.9	-13.0	-40.9	
3346.00	-9.2	V	3.0	43.9	1.0	-52.1	-13.0	-39.1	
1673.00	-15.7	H	3.0	43.3	1.0	-58.0	-13.0	-45.0	
2509.50	-11.5	H	3.0	43.6	1.0	-54.1	-13.0	-41.1	
3346.00	-9.0	H	3.0	43.9	1.0	-52.0	-13.0	-39.0	
High Ch, 839MHz									
1678.00	-14.7	V	3.0	43.3	1.0	-57.0	-13.0	-44.0	
2517.00	-10.9	V	3.0	43.6	1.0	-53.5	-13.0	-40.5	
3356.00	-9.2	V	3.0	43.9	1.0	-52.1	-13.0	-39.1	
1678.00	-16.1	H	3.0	43.3	1.0	-58.4	-13.0	-45.4	
2517.00	-11.1	H	3.0	43.6	1.0	-53.7	-13.0	-40.7	
3356.00	-8.8	H	3.0	43.9	1.0	-51.8	-13.0	-38.8	

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

Company: Samsung
Project #: 4791196575
Date: 2024-04-25
Test Engineer: 28775
Configuration: EUT / AC Adapter, X-Postion, Open
Location: Chamber 2
Mode: 5G NR_QPSK NR n26 Harmonics, 5MHz Bandwidth
Test Votage: AC 120 V, 60 Hz

20 MHz

DFT-OFDM

QPSK

ANT D

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.5MHz									
1653.00	-14.9	V	3.0	40.8	1.0	-54.7	-13.0	-41.7	
2479.50	-11.4	V	3.0	41.4	1.0	-51.8	-13.0	-38.8	
3306.00	-9.1	V	3.0	42.2	1.0	-50.3	-13.0	-37.3	
1653.00	-15.7	H	3.0	40.8	1.0	-55.5	-13.0	-42.5	
2479.50	-11.5	H	3.0	41.4	1.0	-51.9	-13.0	-38.9	
3306.00	-8.7	H	3.0	42.2	1.0	-49.9	-13.0	-36.9	
Mid Ch, 831.5MHz									
1663.00	-14.8	V	3.0	40.8	1.0	-54.6	-13.0	-41.6	
2494.50	-6.0	V	3.0	41.5	1.0	-46.5	-13.0	-33.5	
3326.00	-8.8	V	3.0	42.2	1.0	-50.0	-13.0	-37.0	
1663.00	-15.7	H	3.0	40.8	1.0	-55.5	-13.0	-42.5	
2494.50	-7.8	H	3.0	41.5	1.0	-48.3	-13.0	-35.3	
3326.00	-8.3	H	3.0	42.2	1.0	-49.5	-13.0	-36.5	
High Ch, 846.5MHz									
1693.00	-14.8	V	3.0	40.8	1.0	-54.6	-13.0	-41.6	
2539.50	-11.0	V	3.0	41.5	1.0	-51.5	-13.0	-38.5	
3386.00	-8.5	V	3.0	42.2	1.0	-49.7	-13.0	-36.7	
1693.00	-15.7	H	3.0	40.8	1.0	-55.5	-13.0	-42.5	
2539.50	-11.0	H	3.0	41.5	1.0	-51.5	-13.0	-38.5	
3386.00	-8.2	H	3.0	42.2	1.0	-49.4	-13.0	-36.4	

END OF REPORT