

1.4MHz

8.4.1. EMISSION MASK RESULT

LTE Band 26 (Part 90) Full RB

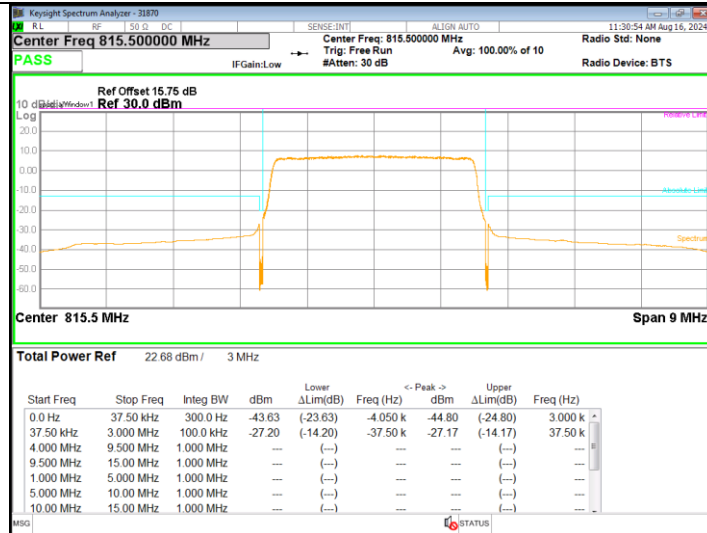




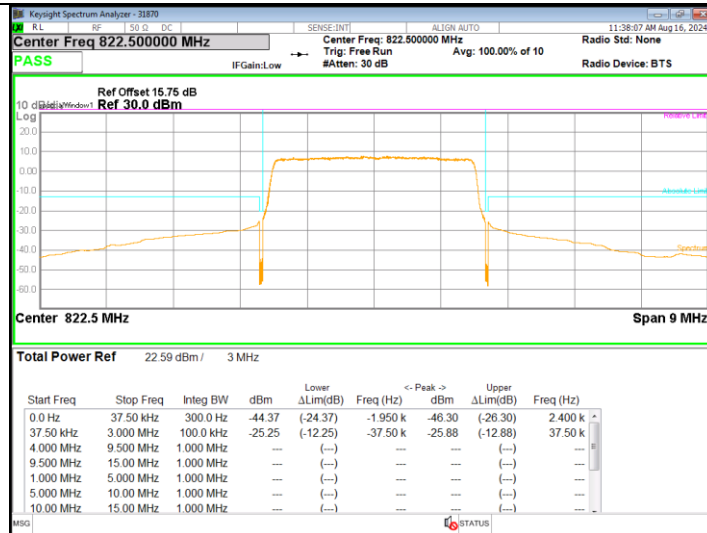




3 MHz
 QPSK
 FRB



Low channel



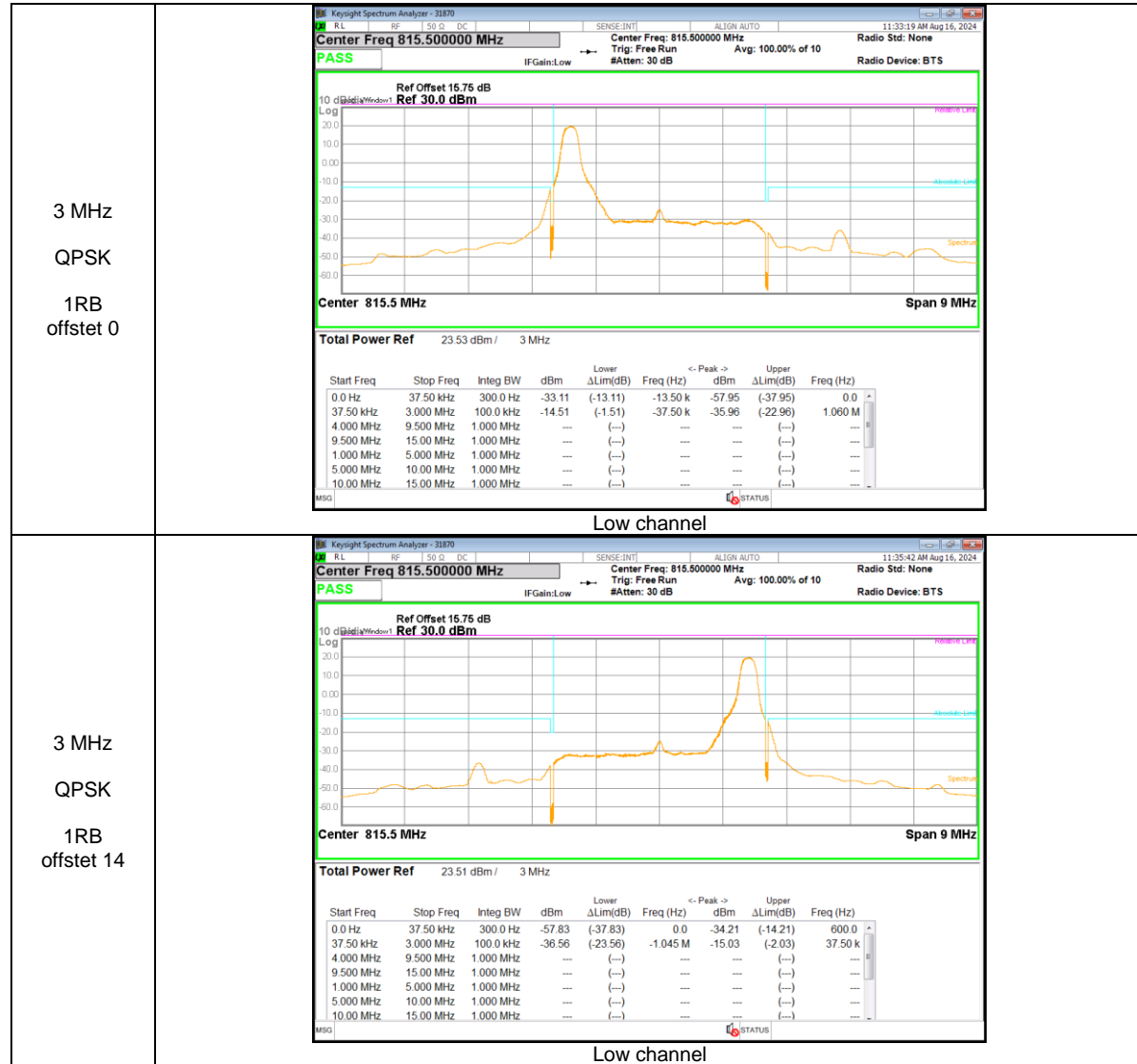
High channel







LTE Band 26 (Part 90) 1 RB (Worst Case)





LTE Band 26 (Straddle) Full RB



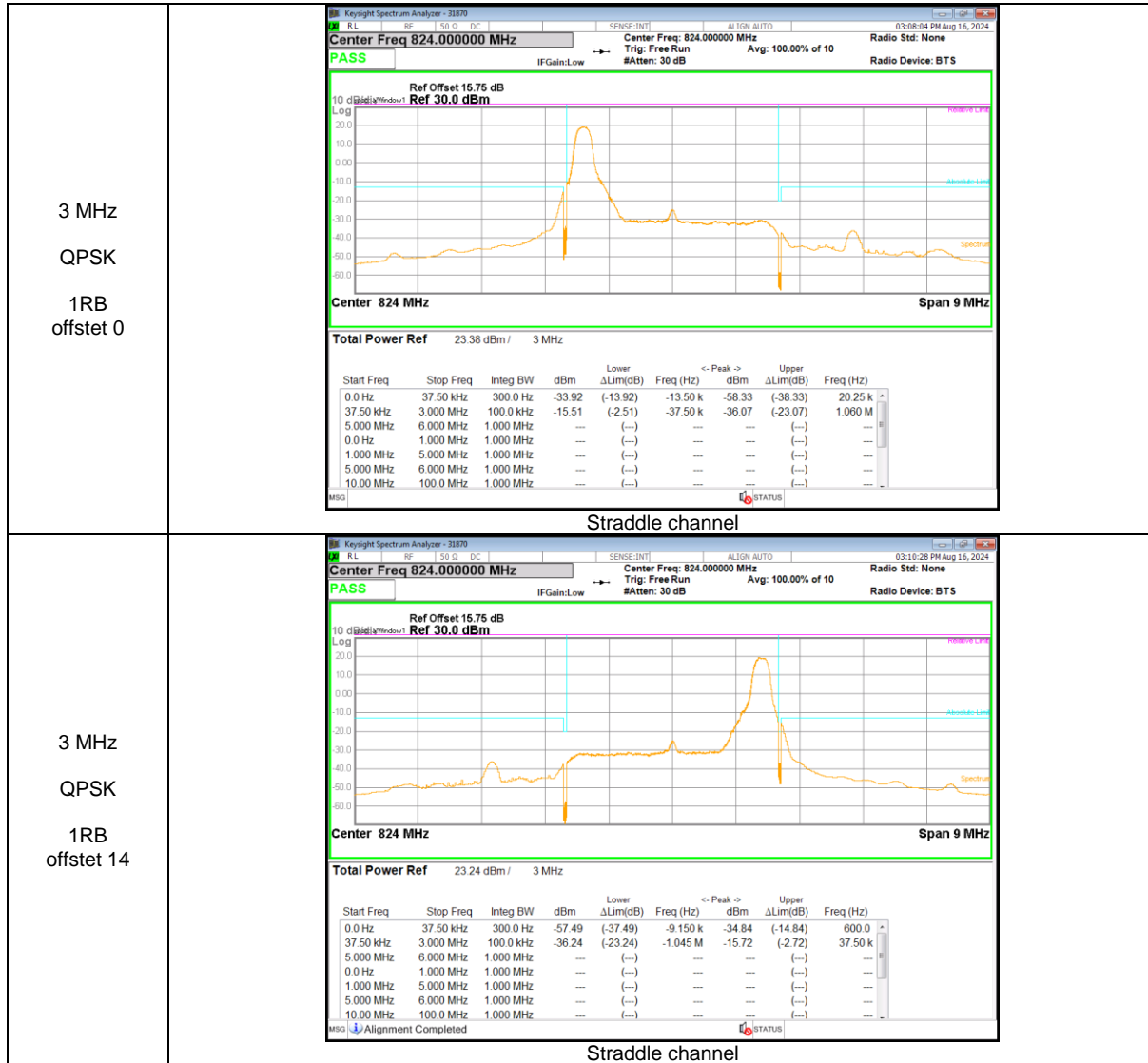








LTE Band 26 (Straddle) 1 RB (Worst Case)



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 $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ 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 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 $43 + 10 \log_{10}(P)$ 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
(Tests were performed 1MHz [Worst case], to sweep 1 time for all frequency range)
- b) Set VBW $\geq 3 \times$ 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), Max hold(GSM);

NOTE1

GSM : It was tested at GPRS as worst case (the highest output power and density).

UMTS: It was tested at REL 99 as worst case (the highest output power and density).

LTE: It was tested at 1RB QPSK as worst case (the highest output power and density).

NOTE2

Please refer to section 5.4 for bandwidth and RB setting about LTE bands.

RESULTS

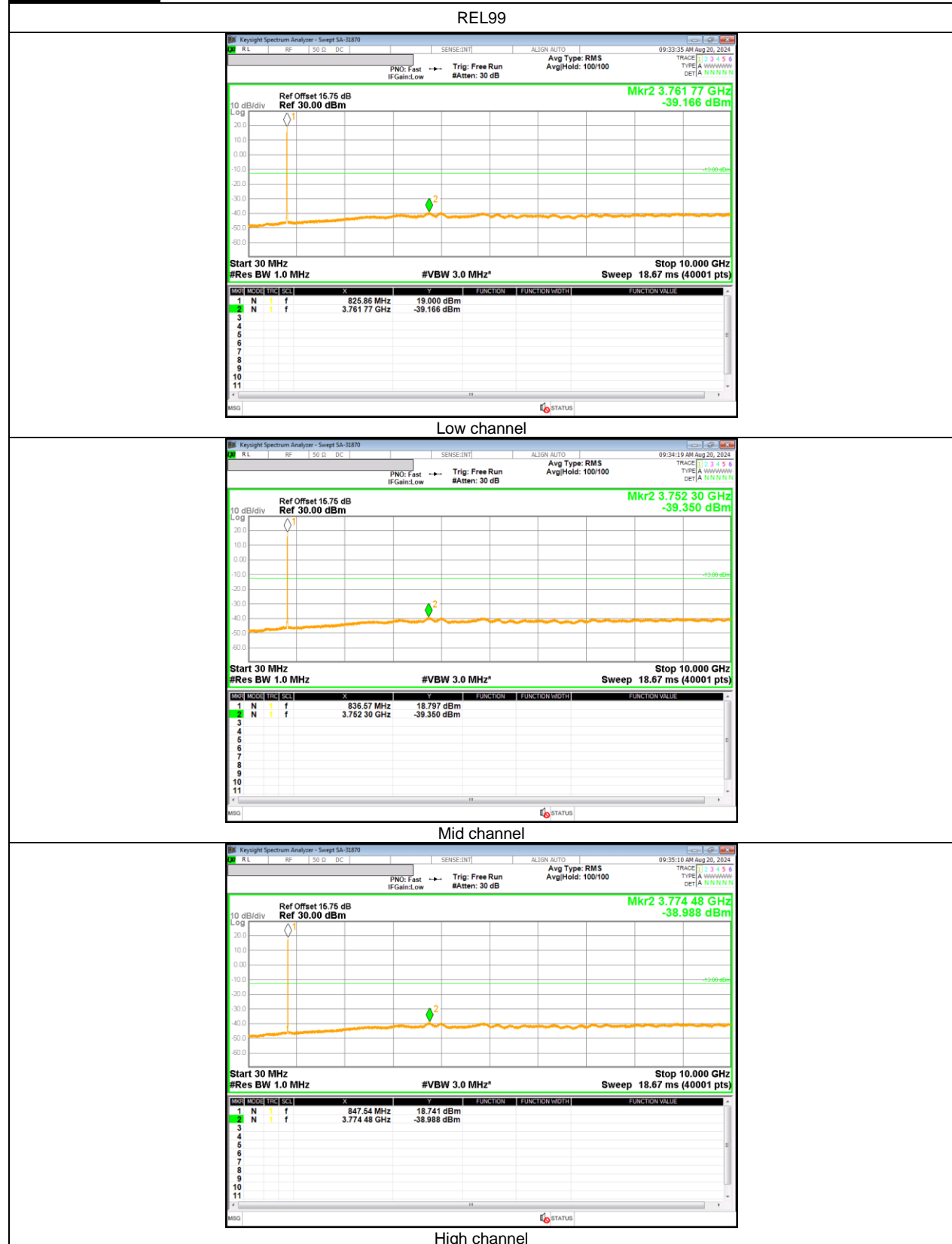
See the following pages.

8.5.1. OUT OF BAND EMISSIONS RESULT

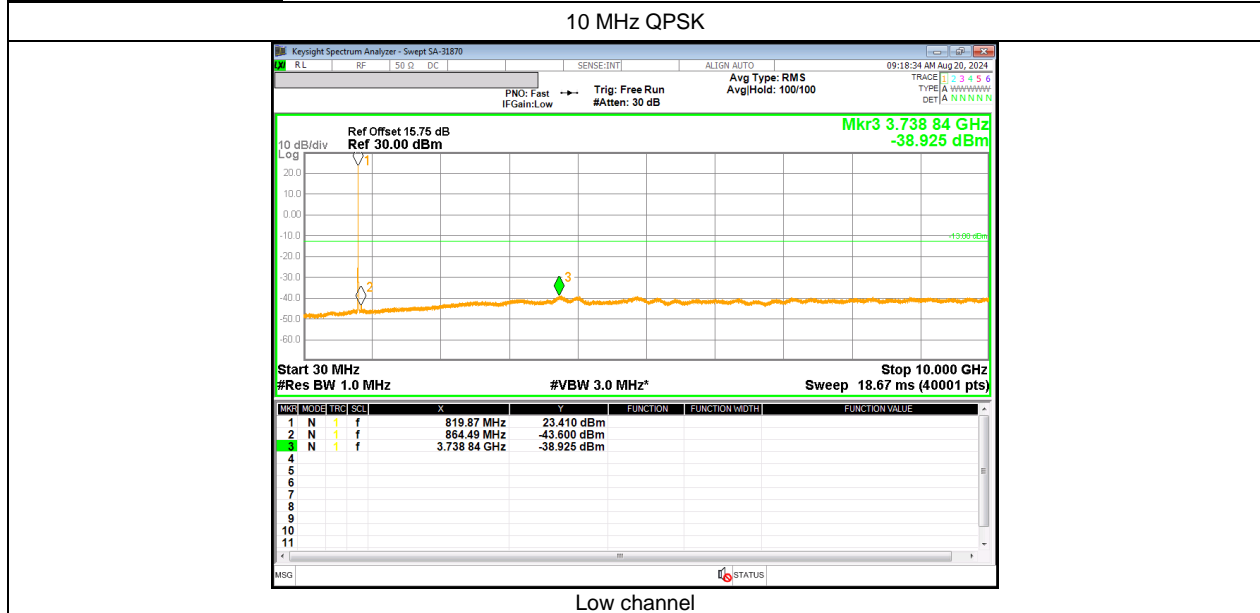
GSM 850



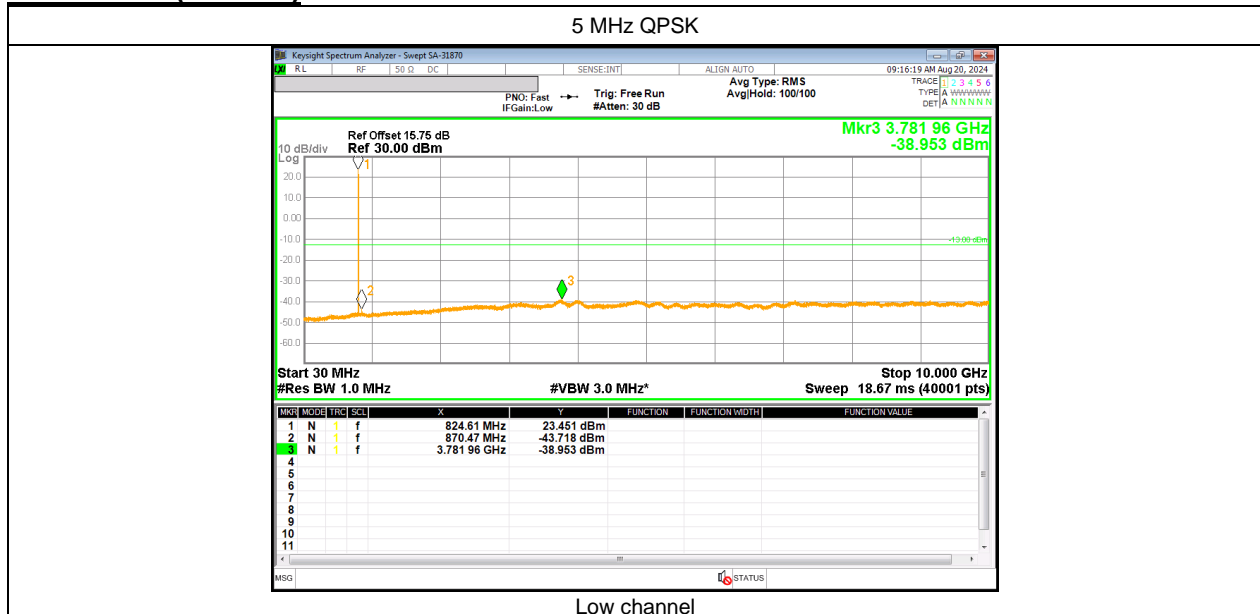
WCDMA Band 5



LTE Band 26 (Part 90)



LTE Band 26 (Straddle)



LTE Band 26 (Part 22)



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 RESULT

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

Test Date	2024-08-26
Test Engineer	47989

Reference Frequency : GSM850 Low Channel 824.2 MHz / High Channel 848.8 MHz @ 20°C						
Limit: +/- 2.5 ppm =	Low Channel	2060.500	Hz	High Channel	2122.000	Hz
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	50	824.20001648	-0.006	848.80001435	-0.003	2.5
3.88	40	824.20000872	0.004	848.80001816	-0.008	2.5
3.88	30	824.20001740	-0.007	848.80001221	-0.001	2.5
3.88	20	824.20001176	0.000	848.80001177	0.000	2.5
3.88	10	824.20001046	0.002	848.80001103	0.001	2.5
3.88	0	824.20001151	0.000	848.80001251	-0.001	2.5
3.88	-10	824.20001108	0.001	848.80001099	0.001	2.5
3.88	-20	824.20001103	0.001	848.80001537	-0.004	2.5
3.88	-30	824.20001061	0.001	848.80001118	0.001	2.5

Reference Frequency : GSM850 Low Channel 824.2 MHz / High Channel 848.8 MHz @ 20°C						
Limit: +/- 2.5 ppm =	Low Channel	2060.500	Hz	High Channel	2122.000	Hz
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	20	824.20001176	0	848.80001177	0	2.5
4.47	20	824.20001466	-0.004	848.80001452	-0.003	2.5
3.65	20	824.20001185	0.000	848.80000996	0.002	2.5

WCDMA Band 5

Test Date	2024-08-30
Test Engineer	47989

Reference Frequency : WCDMA Band 5 Low Channel 826.4 MHz / High Channel 846.6 MHz @ 20°C						
Limit: +/- 2.5 ppm =	Low Channel	2066.000	Hz	High Channel	2116.500	Hz
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	50	826.40001084	-0.002	846.60000840	0.003	2.5
3.88	40	826.40000924	0.000	846.60000794	0.004	2.5
3.88	30	826.40001131	-0.003	846.60001007	0.001	2.5
3.88	20	826.40000901	0.000	846.60001104	0.000	2.5
3.88	10	826.40000888	0.000	846.60000953	0.002	2.5
3.88	0	826.40000926	0.000	846.60000852	0.003	2.5
3.88	-10	826.40000988	-0.001	846.60000836	0.003	2.5
3.88	-20	826.40000520	0.005	846.60000521	0.007	2.5
3.88	-30	826.40000704	0.002	846.60000896	0.002	2.5

Reference Frequency : WCDMA Band 5 Low Channel 826.4 MHz / High Channel 846.6 MHz @ 20°C						
Limit: +/- 2.5 ppm =	Low Channel	2066.000	Hz	High Channel	2116.500	Hz
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse				Limit [ppm]
		Low Channel		High Channel		
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]	
3.88	20	826.40000901	0	846.60001104	0	2.5
4.47	20	826.40000880	0.000	846.60000955	0.002	2.5
3.65	20	826.40000837	0.001	846.60000675	0.005	2.5

LTE Band 26

Test Date	2024-09-04
Test Engineer	47989

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 Measured with Time Elapse				Limit [ppm]	
		Low Channel		High Channel			
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]		
3.88	50	814.70001721	0.004	848.30001244	0.002	2.5	
3.88	40	814.70001112	0.012	848.30001157	0.004	2.5	
3.88	30	814.70000621	0.018	848.30001088	0.004	2.5	
3.88	20	814.70002058	0.000	848.30001455	0.000	2.5	
3.88	10	814.70001041	0.012	848.30000884	0.007	2.5	
3.88	0	814.70001062	0.012	848.30000911	0.006	2.5	
3.88	-10	814.70001024	0.013	848.30001104	0.004	2.5	
3.88	-20	814.70001109	0.012	848.30001170	0.003	2.5	
3.88	-30	814.70001364	0.009	848.30001177	0.003	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 Measured with Time Elapse				Limit [ppm]	
		Low Channel		High Channel			
		[MHz]	Delta [ppm]	[MHz]	Delta [ppm]		
3.88	20	814.70002058	0	848.30001455	0	2.5	
4.47	20	814.70001382	0.008	848.30000916	0.006	2.5	
3.65	20	814.70000873	0.015	848.30000807	0.008	2.5	

9. RADIATED RESULTS

9.1. RADIATED POWER (ERP)

RULE PART(S)

FCC: §2.1046, §22.913 and §90.635

LIMITS

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

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 \geq OBW;
- b) Set VBW \geq 3 \times RBW;
- c) Set span \geq 2 \times RBW;
- d) Sweep time = auto couple or 1 second;
- e) Detector = rms;
- f) Ensure that the number of measurement points \geq span/RBW;
- g) Trace mode = max hold(GSM, WCDMA), average(LTE);

TEST RESULTS

See the following pages.

9.1.1. ERP RESULT

GSM

Band	Mode	Frequency (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)
GSM 850	GPRS	824.20	31.74	V	3.01	-1.03	27.70	588.84	38.50	-10.80
		836.60	32.86	V	3.03	-0.97	28.87	770.90	38.50	-9.63
		848.80	33.42	V	3.05	-0.91	29.46	883.08	38.50	-9.04
	EGPRS	824.20	26.51	V	3.01	-1.03	22.47	176.60	38.50	-16.03
		836.60	27.66	V	3.03	-0.97	23.67	232.81	38.50	-14.83
		848.80	28.52	V	3.05	-0.91	24.56	285.76	38.50	-13.94

WCDMA

Band	Mode	Frequency (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	ERP (mW)	Limit (dBm)	Delta (dB)
Band 5	REL99	826.40	23.55	V	3.01	-1.02	19.52	89.54	38.50	-18.98
		836.60	24.37	V	3.03	-0.97	20.38	109.14	38.50	-18.12
		846.60	24.78	V	3.05	-0.92	20.81	120.50	38.50	-17.69
	HSDPA	826.40	22.77	V	3.01	-1.02	18.74	74.82	38.50	-19.76
		836.60	23.76	V	3.03	-0.97	19.77	94.84	38.50	-18.73
		846.60	24.36	V	3.05	-0.92	20.39	109.40	38.50	-18.11

LTE Band 26

BW (MHz)	Modulation	Frequency (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	22.38	V	3.01	-1.04	18.33	68.08	50.00	-31.67	1/37
		824.00	23.10	V	3.01	-1.03	19.06	80.54	38.50	-19.44	1/37
		831.50	23.95	V	3.02	-0.99	19.93	98.40	38.50	-18.57	1/37
		836.50	24.09	V	3.03	-0.97	20.09	102.09	38.50	-18.41	1/37
		841.50	23.73	V	3.04	-0.94	19.75	94.41	38.50	-18.75	1/37
	16-QAM	821.50	21.12	V	3.01	-1.04	17.07	50.93	50.00	-32.93	1/0
		824.00	22.10	V	3.01	-1.03	18.06	63.97	38.50	-20.44	1/37
		831.50	23.04	V	3.02	-0.99	19.02	79.80	38.50	-19.48	1/0
		836.50	23.26	V	3.03	-0.97	19.26	84.33	38.50	-19.24	1/37
		841.50	22.42	V	3.04	-0.94	18.44	69.82	38.50	-20.06	1/0
10	QPSK	819.00	22.70	V	3.00	-1.06	18.64	73.11	50.00	-31.36	1/25
		824.00	22.83	V	3.01	-1.03	18.79	75.68	38.50	-19.71	1/25
		829.00	23.29	V	3.02	-1.01	19.27	84.53	38.50	-19.23	1/0
		831.50	23.66	V	3.02	-0.99	19.65	92.26	38.50	-18.85	1/25
		844.00	24.04	V	3.04	-0.93	20.07	101.62	38.50	-18.43	1/25
	16-QAM	819.00	21.40	V	3.00	-1.06	17.34	54.20	50.00	-32.66	1/25
		824.00	21.82	V	3.01	-1.03	17.78	59.98	38.50	-20.72	1/25
		829.00	22.02	V	3.02	-1.01	18.00	63.10	38.50	-20.50	1/25
		831.50	22.94	V	3.02	-0.99	18.92	77.98	38.50	-19.58	1/25
		844.00	22.98	V	3.04	-0.93	19.01	79.62	38.50	-19.49	1/25
5	QPSK	816.50	22.52	V	3.00	-1.07	18.45	69.98	50.00	-31.15	1/12
		821.50	22.90	V	3.01	-1.04	18.85	76.74	50.00	-30.95	1/12
		824.00	23.09	V	3.01	-1.03	19.05	80.35	38.50	-19.56	1/12
		826.50	22.97	V	3.01	-1.02	18.94	78.34	38.50	-18.72	1/12
		831.50	23.79	V	3.02	-0.99	19.78	95.06	38.50	-18.39	1/12
	16-QAM	846.50	24.08	V	3.05	-0.92	20.11	102.57	38.50	-21.00	1/12
		816.50	21.57	V	3.00	-1.07	17.50	56.23	50.00	-32.25	1/24
		821.50	21.80	V	3.01	-1.04	17.75	59.57	50.00	-32.03	1/12
		824.00	22.01	V	3.01	-1.03	17.97	62.66	38.50	-20.14	1/12
		826.50	22.39	V	3.01	-1.02	18.36	68.55	38.50	-20.02	1/12
3	QPSK	831.50	22.50	V	3.02	-0.99	18.48	70.47	38.50	-19.72	1/24
		846.50	22.74	V	3.05	-0.92	18.78	75.51	38.50	-19.72	1/12
		815.50	22.33	V	2.99	-1.07	18.26	66.99	50.00	-31.74	1/8
		822.50	22.71	V	3.01	-1.04	18.66	73.45	50.00	-31.34	1/8
		824.00	22.58	V	3.01	-1.03	18.54	71.45	38.50	-19.96	1/8
	16-QAM	825.50	23.06	V	3.01	-1.02	19.03	79.98	38.50	-19.47	1/8
		831.50	23.42	V	3.02	-0.99	19.40	87.10	38.50	-19.10	1/8
		847.50	23.51	V	3.05	-0.91	19.55	90.16	38.50	-18.95	1/8
		815.50	21.36	V	2.99	-1.07	17.30	53.70	50.00	-32.70	1/8
		822.50	21.43	V	3.01	-1.04	17.39	54.83	50.00	-32.61	1/8
1.4	QPSK	824.00	21.52	V	3.01	-1.03	17.48	55.98	38.50	-21.02	1/8
		825.50	21.80	V	3.01	-1.02	17.76	59.70	38.50	-20.74	1/0
		831.50	21.96	V	3.02	-0.99	17.95	62.37	38.50	-20.55	1/0
		847.50	22.46	V	3.05	-0.91	18.49	70.63	38.50	-20.01	1/8
		814.70	22.64	V	2.99	-1.08	18.57	71.94	50.00	-31.43	1/0
	16-QAM	823.30	22.31	V	3.01	-1.03	18.27	67.14	50.00	-31.73	1/3
		824.00	22.44	V	3.01	-1.03	18.40	69.18	38.50	-20.10	1/3
		824.70	22.67	V	3.01	-1.03	18.63	72.95	38.50	-19.87	1/3
		831.50	23.50	V	3.02	-0.99	19.49	88.92	38.50	-19.01	1/5
		848.30	23.77	V	3.05	-0.91	19.81	95.72	38.50	-18.69	1/3
16-QAM	814.70	21.34	V	2.99	-1.08	17.27	53.33	50.00	-32.73	1/5	
	823.30	21.27	V	3.01	-1.03	17.23	52.84	50.00	-32.77	1/3	
	824.00	21.11	V	3.01	-1.03	17.07	50.93	38.50	-21.43	1/3	
	824.70	21.43	V	3.01	-1.03	17.39	54.83	38.50	-21.11	1/3	
	831.50	22.41	V	3.02	-0.99	18.39	69.02	38.50	-20.11	1/0	
		848.30	22.74	V	3.05	-0.91	18.78	75.51	38.50	-19.72	1/3

9.2. RADIATED SPURIOUS EMISSION

RULE PART(S)

FCC: §2.1053, §22.917 and §90.691

LIMIT

§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 90.691(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 $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ 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 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 $43 + 10 \log_{10}(P)$ 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 $\geq 3 \times$ 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 \geq span/RBW;
- g) Trace mode = average(WCDMA, LTE), Maxhold(GSM);

NOTE1

GSM : It was tested at GPRS as worst case (the highest output power and density).

UMTS: It was tested at REL 99 as worst case (the highest output power and density).

LTE: It was tested at 1RB QPSK as worst case (the highest output power and density).

NOTE2

Please refer to section 5.4 for bandwidth and RB setting about LTE bands.

RESULTS

See the following pages.

9.2.1. SPURIOUS RADIATION RESULT

GSM850

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		Samsung							
Project #:		4791427005							
Date:		2024-08-26							
Test Engineer:		26087							
Configuration:		EUT / AC Adapter, X-Position							
Location:		Chamber 2							
Mode:		GPRS 850 MHz Harmonics							
Test Voltage:		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	-4.6	V	3.0	42.0	1.0	-45.6	-13.0	-32.6	
2472.60	-10.0	V	3.0	42.3	1.0	-51.3	-13.0	-38.3	
3296.80	-8.1	V	3.0	42.9	1.0	-50.0	-13.0	-37.0	
4121.00	-9.0	V	3.0	43.2	1.0	-51.2	-13.0	-38.2	
4945.20	-8.3	V	3.0	43.3	1.0	-50.6	-13.0	-37.6	
1648.40	-2.5	H	3.0	42.0	1.0	-43.4	-13.0	-30.4	
2472.60	-8.5	H	3.0	42.3	1.0	-49.9	-13.0	-36.9	
3296.80	-6.6	H	3.0	42.9	1.0	-48.5	-13.0	-35.5	
4121.00	-9.8	H	3.0	43.2	1.0	-52.0	-13.0	-39.0	
4945.20	-8.1	H	3.0	43.3	1.0	-50.3	-13.0	-37.3	
Mid Ch, 836.6MHz									
1673.20	-4.1	V	3.0	42.0	1.0	-45.1	-13.0	-32.1	
2509.80	-9.3	V	3.0	42.4	1.0	-50.7	-13.0	-37.7	
3346.40	-7.3	V	3.0	42.9	1.0	-49.2	-13.0	-36.2	
4183.00	-8.9	V	3.0	43.2	1.0	-51.1	-13.0	-38.1	
5019.60	-8.0	V	3.0	43.3	1.0	-50.2	-13.0	-37.2	
1673.20	1.5	H	3.0	42.0	1.0	-39.4	-13.0	-26.4	
2509.80	-6.8	H	3.0	42.4	1.0	-48.2	-13.0	-35.2	
3346.40	-5.3	H	3.0	42.9	1.0	-47.2	-13.0	-34.2	
4183.00	-9.4	H	3.0	43.2	1.0	-51.6	-13.0	-38.6	
5019.60	-7.9	H	3.0	43.3	1.0	-50.2	-13.0	-37.2	
High Ch, 848.8MHz									
1697.60	-4.4	V	3.0	42.0	1.0	-45.4	-13.0	-32.4	
2546.40	-6.7	V	3.0	42.4	1.0	-48.1	-13.0	-35.1	
3395.20	-7.5	V	3.0	42.9	1.0	-49.5	-13.0	-36.5	
4244.00	-8.8	V	3.0	43.2	1.0	-51.0	-13.0	-38.0	
5092.80	-8.0	V	3.0	43.3	1.0	-50.3	-13.0	-37.3	
1697.60	0.1	H	3.0	42.0	1.0	-40.8	-13.0	-27.8	
2546.40	-5.0	H	3.0	42.4	1.0	-46.4	-13.0	-33.4	
3395.20	-6.4	H	3.0	42.9	1.0	-48.3	-13.0	-35.3	
4244.00	-9.3	H	3.0	43.2	1.0	-51.5	-13.0	-38.5	
5092.80	-7.9	H	3.0	43.3	1.0	-50.2	-13.0	-37.2	

GPRS

WCDMA Band 5

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement									
Company:		Samsung							
Project #:		4791							
Date:		2024-08-26							
Test Engineer:		28775							
Configuration:		EUT / AC Adapter, Z-Postion							
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	-13.7	V	3.0	43.3	1.0	-56.1	-13.0	-43.1	
2479.20	-12.3	V	3.0	43.6	1.0	-54.8	-13.0	-41.8	
3305.60	-9.9	V	3.0	43.9	1.0	-52.8	-13.0	-39.8	
1652.80	-15.4	H	3.0	43.3	1.0	-57.7	-13.0	-44.7	
2479.20	-12.6	H	3.0	43.6	1.0	-55.2	-13.0	-42.2	
3305.60	-9.6	H	3.0	43.9	1.0	-52.5	-13.0	-39.5	
Mid Ch, 836.6MHz									
1673.20	-12.0	V	3.0	43.3	1.0	-54.3	-13.0	-41.3	
2509.80	-12.3	V	3.0	43.6	1.0	-54.9	-13.0	-41.9	
3346.40	-9.6	V	3.0	43.9	1.0	-52.5	-13.0	-39.5	
1673.20	-15.1	H	3.0	43.3	1.0	-57.4	-13.0	-44.4	
2509.80	-12.7	H	3.0	43.6	1.0	-55.3	-13.0	-42.3	
3346.40	-9.3	H	3.0	43.9	1.0	-52.2	-13.0	-39.2	
High Ch, 846.6MHz									
1693.20	-13.0	V	3.0	43.3	1.0	-55.4	-13.0	-42.4	
2539.80	-12.4	V	3.0	43.6	1.0	-55.0	-13.0	-42.0	
3386.40	-9.4	V	3.0	44.0	1.0	-52.3	-13.0	-39.3	
1693.20	-14.2	H	3.0	43.3	1.0	-56.5	-13.0	-43.5	
2539.80	-12.6	H	3.0	43.6	1.0	-55.2	-13.0	-42.2	
3386.40	-9.1	H	3.0	44.0	1.0	-52.0	-13.0	-39.0	

REL99

LTE Band 26 (Part 90)

5 MHz QPSK		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement								
		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)
Company: Samsung										
Project #: 4791427005										
Date: 2024-08-28										
Test Engineer: 24542										
Configuration: EUT / AC Adapter, X-Position										
Location: Chamber 1										
Mode: LTE_QPSK Band 26 Harmonics, 5MHz Bandwidth										
Test Voltage: AC 120 V, 60 Hz										
Low Ch, 816.5MHz										
	1633.00	-14.8	V	3.0	43.3	1.0	-57.1	-13.0	-44.1	
	2449.50	-12.0	V	3.0	43.6	1.0	-54.6	-13.0	-41.6	
	3266.00	-12.1	V	3.0	43.9	1.0	-55.0	-13.0	-42.0	
	1633.00	-15.8	H	3.0	43.3	1.0	-58.1	-13.0	-45.1	
	2449.50	-12.3	H	3.0	43.6	1.0	-54.9	-13.0	-41.9	
	3266.00	-7.6	H	3.0	43.9	1.0	-50.5	-13.0	-37.5	
Mid Ch, 821.5MHz										
	1643.00	-14.3	V	3.0	43.3	1.0	-56.6	-13.0	-43.6	
	2464.50	-11.6	V	3.0	43.6	1.0	-54.2	-13.0	-41.2	
	3286.00	-8.7	V	3.0	43.9	1.0	-51.6	-13.0	-38.6	
	1643.00	-11.7	H	3.0	43.3	1.0	-54.0	-13.0	-41.0	
	2464.50	-11.6	H	3.0	43.6	1.0	-54.2	-13.0	-41.2	
	3286.00	-6.5	H	3.0	43.9	1.0	-49.5	-13.0	-36.5	

LTE Band 26 (Straddle)

15 MHz QPSK		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement								
		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)
Company: Samsung										
Project #: 4791427005										
Date: 2024-08-28										
Test Engineer: 28775										
Configuration: EUT / AC Adapter, X-Position										
Location: Chamber 1										
Mode: LTE_QPSK Band 26 Harmonics, 15MHz Bandwidth										
Test Voltage: AC 120 V, 60 Hz										
Straddle Ch, 824 MHz										
	1648.00	-15.0	V	3.0	43.3	1.0	-57.3	-13.0	-44.3	
	2472.00	-11.5	V	3.0	43.6	1.0	-54.0	-13.0	-41.0	
	3296.00	-8.5	V	3.0	43.9	1.0	-51.4	-13.0	-38.4	
	1648.00	-13.4	H	3.0	43.3	1.0	-55.8	-13.0	-42.8	
	2472.00	-11.9	H	3.0	43.6	1.0	-54.5	-13.0	-41.5	
	3296.00	-5.7	H	3.0	43.9	1.0	-48.6	-13.0	-35.6	

LTE Band 26 (Part 22)

UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
		Company:	Samsung							
		Project #:	4791427005							
		Date:	2024-08-27							
		Test Engineer:	28775							
		Configuration:	EUT / , AC Adapter, X-Position							
		Location:	Chamber 1							
		Mode:	LTE_QPSK Band 26 Harmonics, 5MHz Bandwidth							
		Test Voltage:	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	
5 MHz										
QPSK										
Low Ch, 826.5MHz										
1653.00	-14.8	V	3.0	43.3	1.0	-57.1	-13.0	-44.1		
2479.50	-11.9	V	3.0	43.6	1.0	-54.5	-13.0	-41.5		
3306.00	-8.6	V	3.0	43.9	1.0	-51.5	-13.0	-38.5		
1653.00	-15.2	H	3.0	43.3	1.0	-57.5	-13.0	-44.5		
2479.50	-12.1	H	3.0	43.6	1.0	-54.7	-13.0	-41.7		
3306.00	-7.4	H	3.0	43.9	1.0	-50.3	-13.0	-37.3		
Mid Ch, 831.5MHz										
1663.00	-12.0	V	3.0	43.3	1.0	-54.3	-13.0	-41.3		
2494.50	-12.1	V	3.0	43.6	1.0	-54.7	-13.0	-41.7		
3326.00	-8.8	V	3.0	43.9	1.0	-51.7	-13.0	-38.7		
1663.00	-9.6	H	3.0	43.3	1.0	-52.0	-13.0	-39.0		
2494.50	-12.1	H	3.0	43.6	1.0	-54.7	-13.0	-41.7		
3326.00	-7.7	H	3.0	43.9	1.0	-50.6	-13.0	-37.6		
High Ch, 846.5MHz										
1693.00	-11.3	V	3.0	43.3	1.0	-53.6	-13.0	-40.6		
2539.50	-11.5	V	3.0	43.6	1.0	-54.1	-13.0	-41.1		
3386.00	-8.4	V	3.0	44.0	1.0	-51.4	-13.0	-38.4		
1693.00	-6.1	H	3.0	43.3	1.0	-48.5	-13.0	-35.5		
2539.50	-11.4	H	3.0	43.6	1.0	-54.0	-13.0	-41.0		
3386.00	-7.7	H	3.0	44.0	1.0	-50.7	-13.0	-37.7		

END OF REPORT