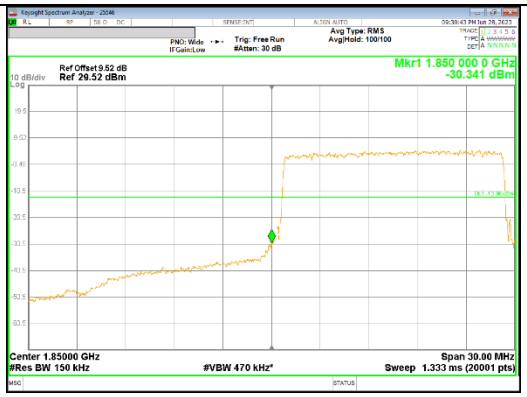
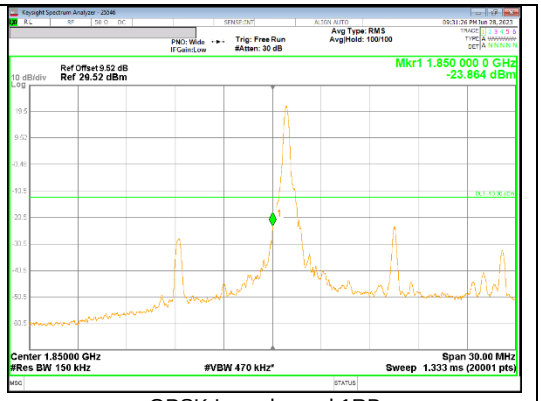
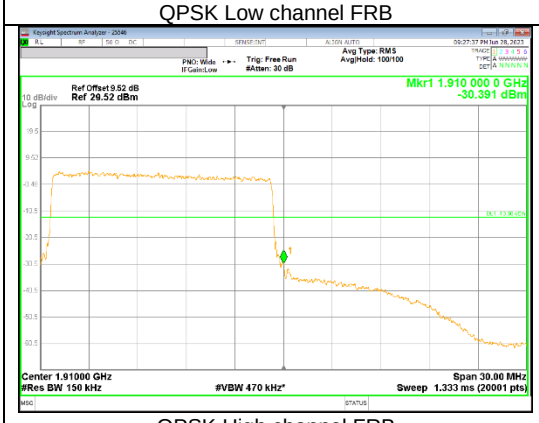
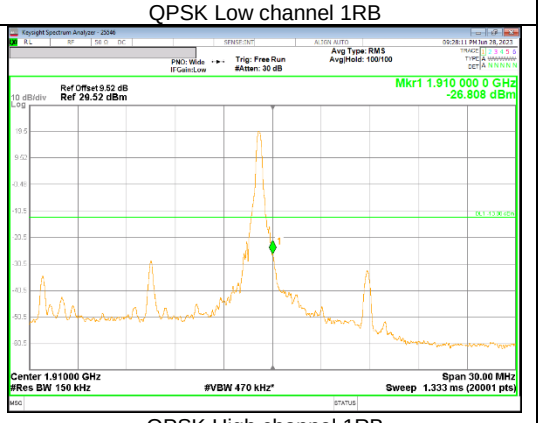
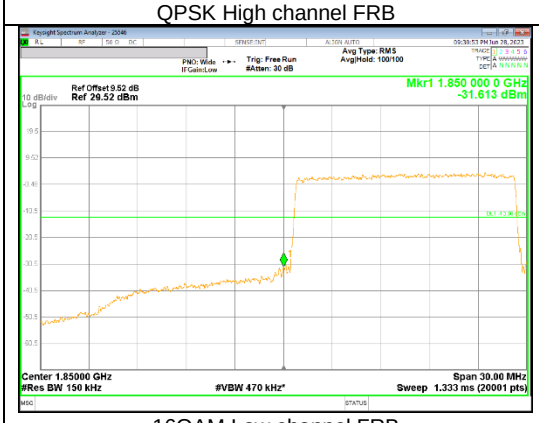
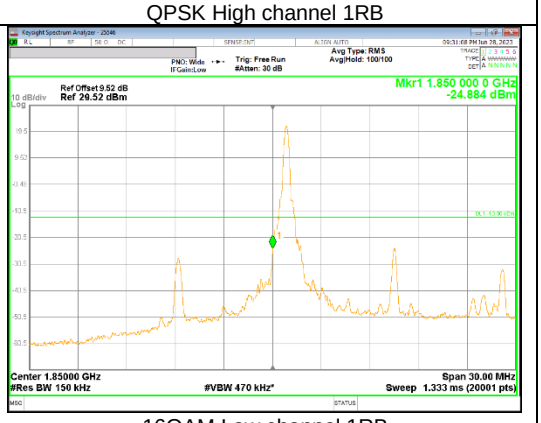
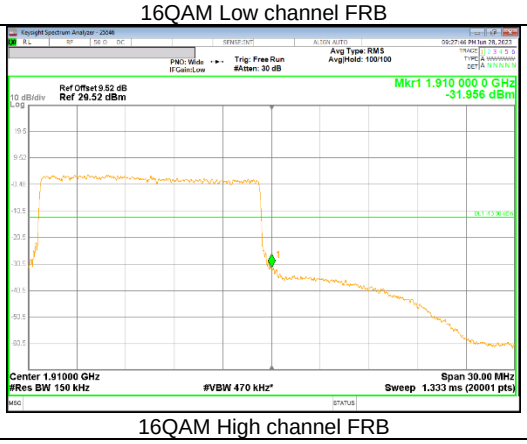
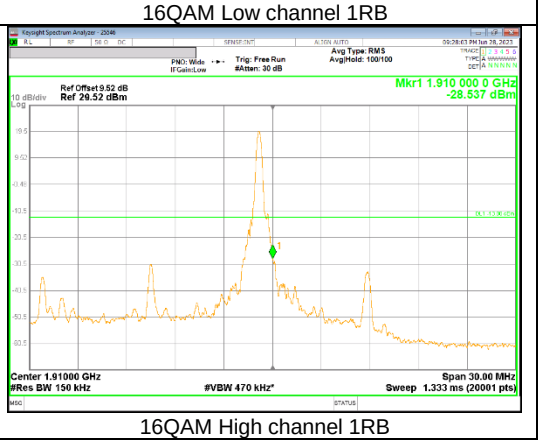
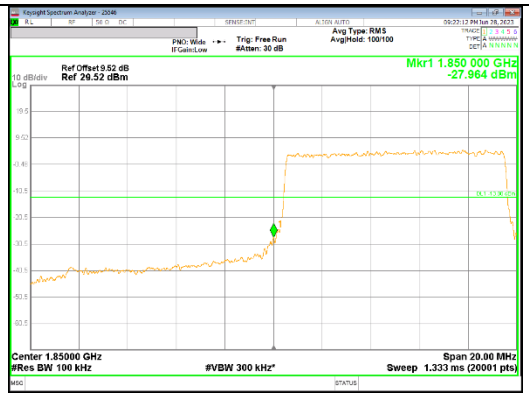
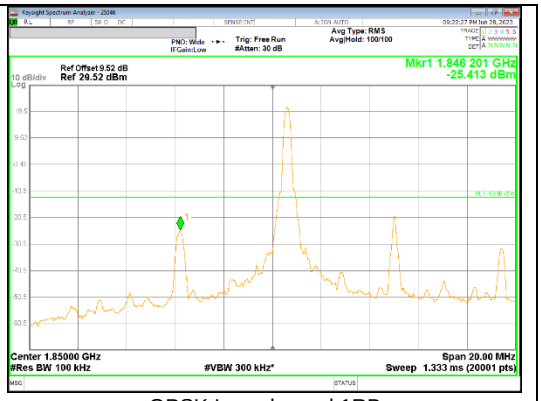
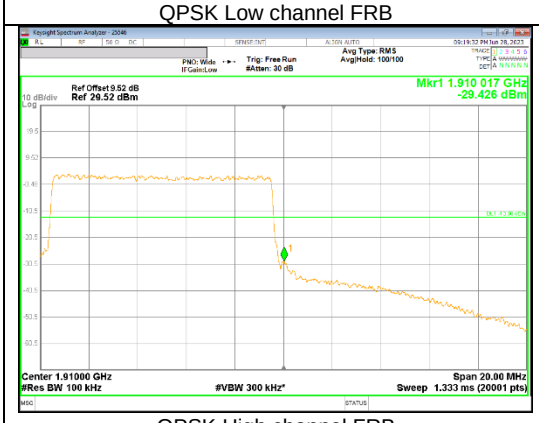
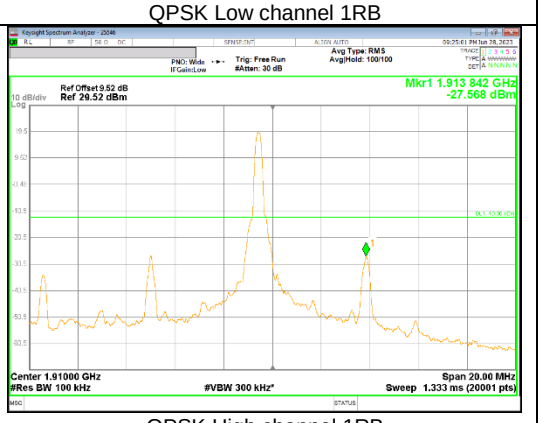
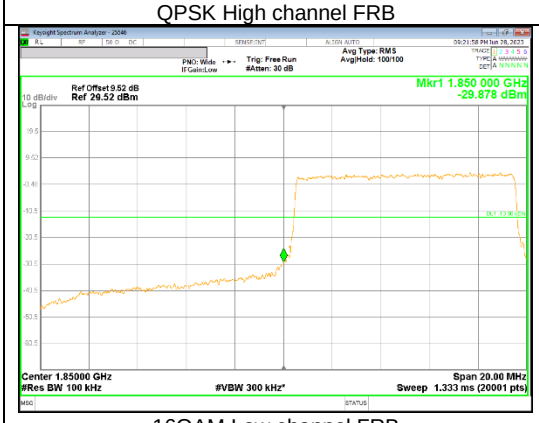
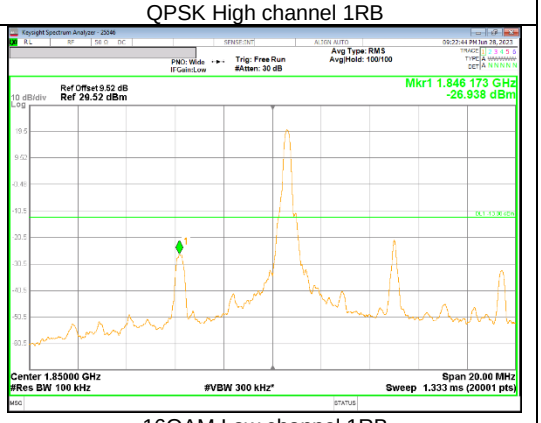
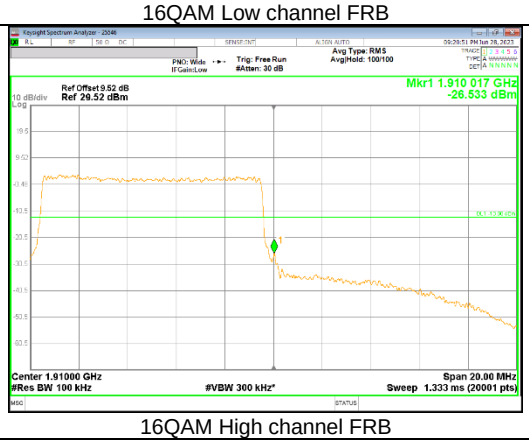
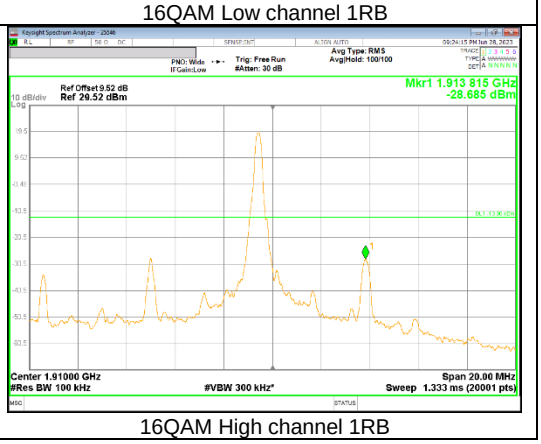
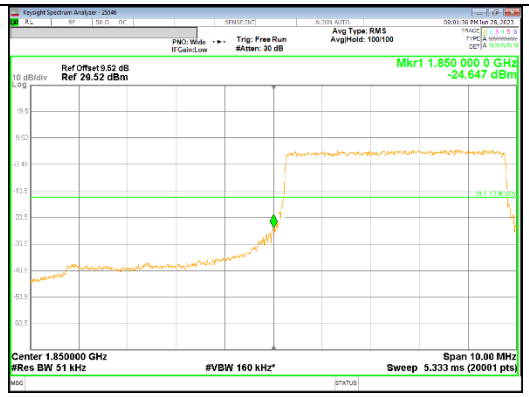
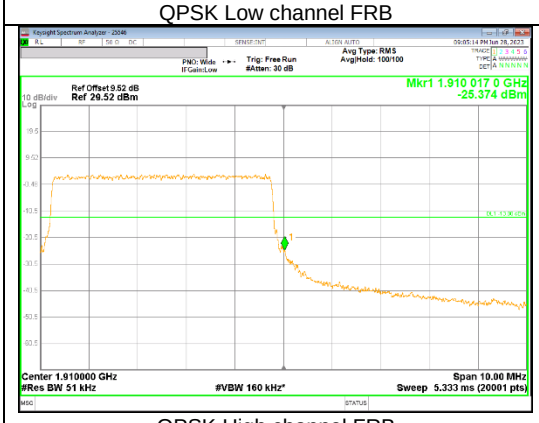
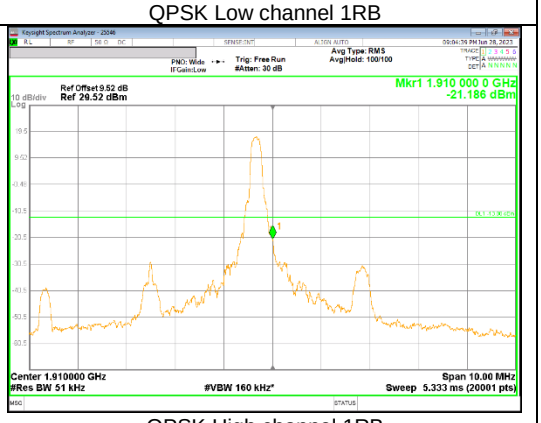
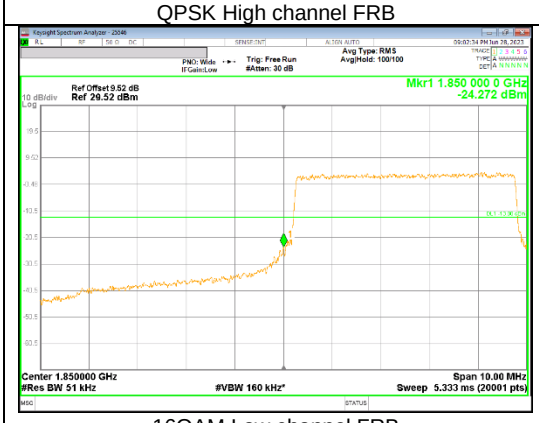
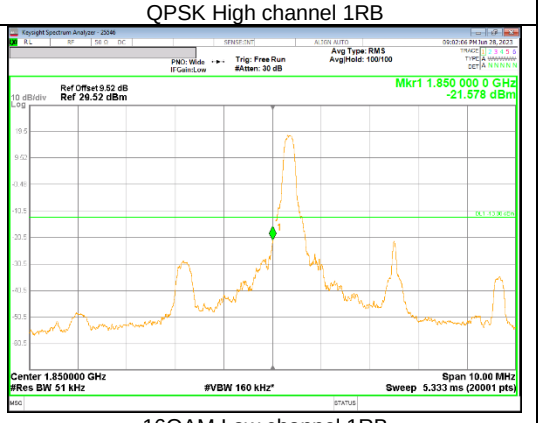
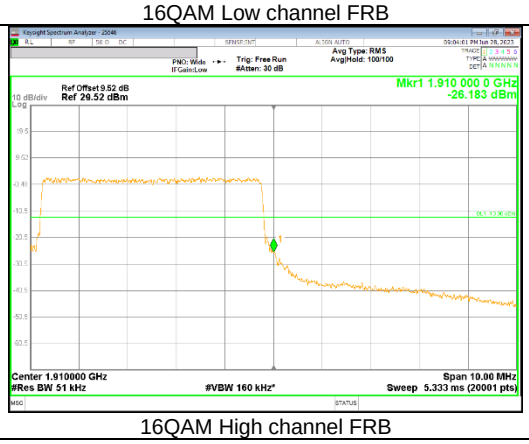
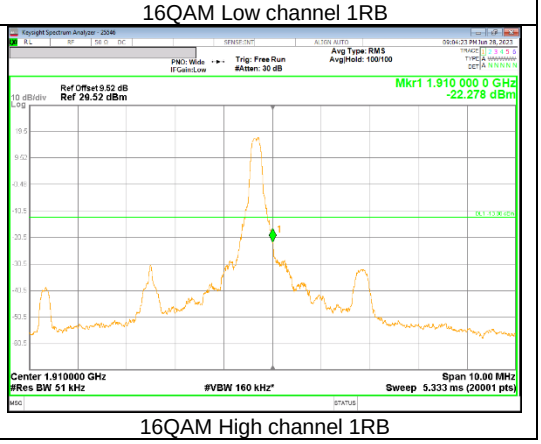
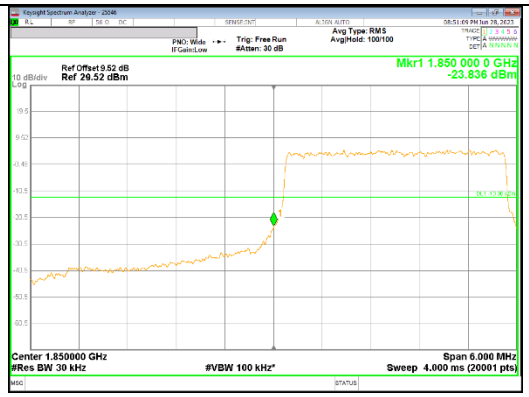
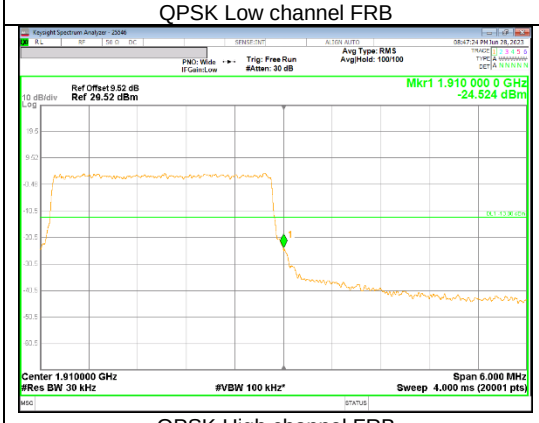
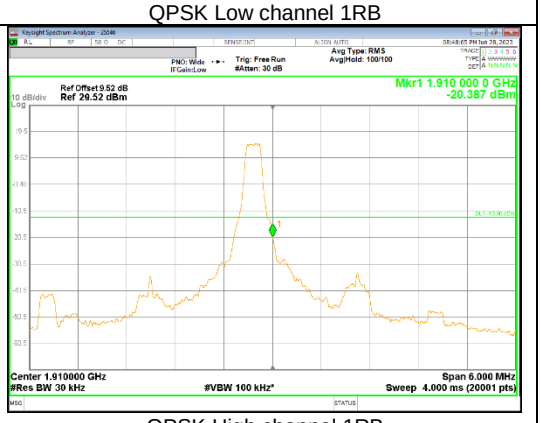
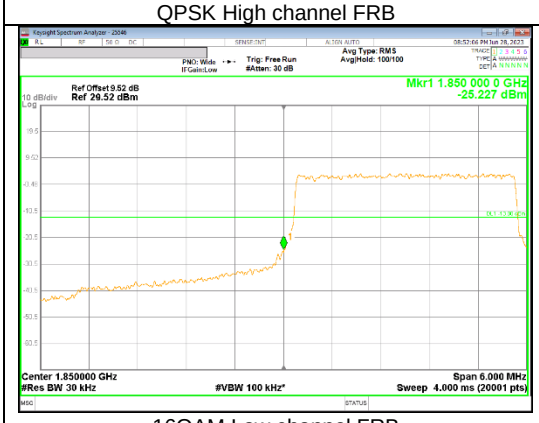
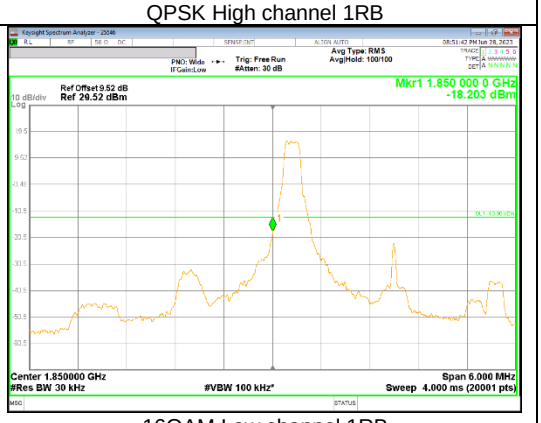
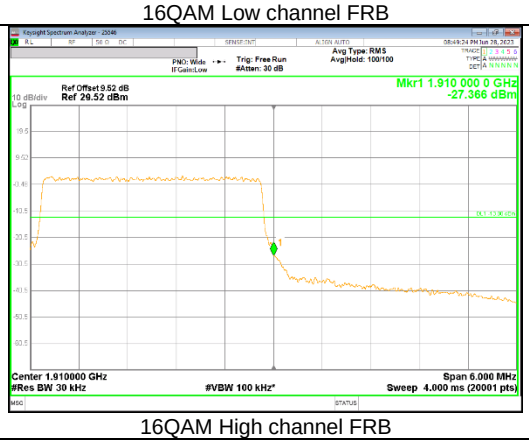
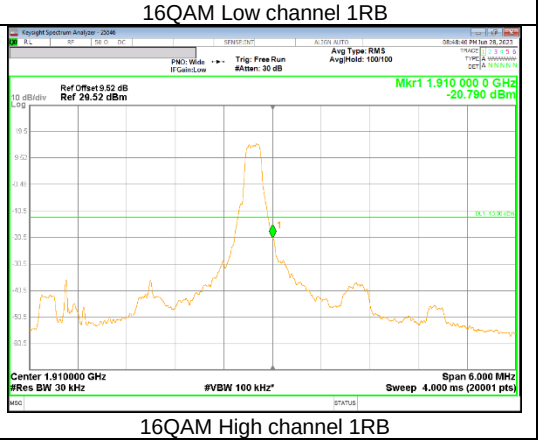
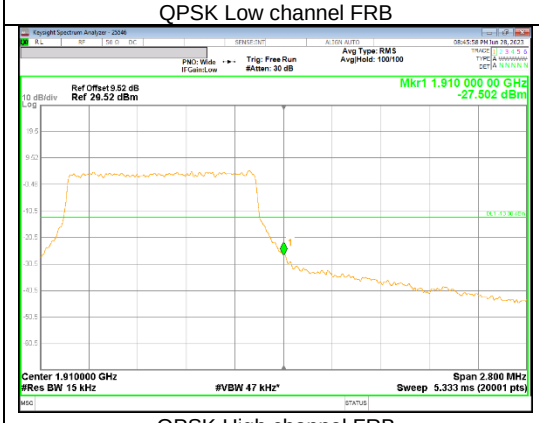
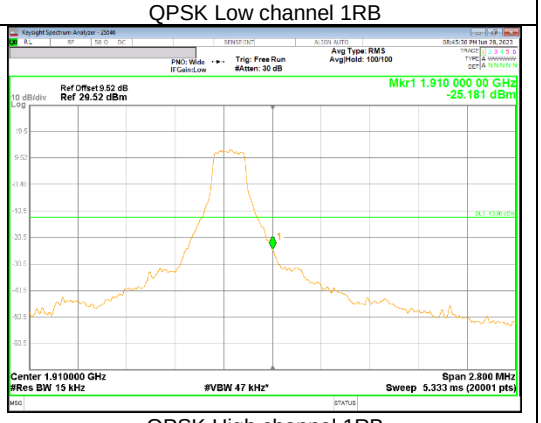
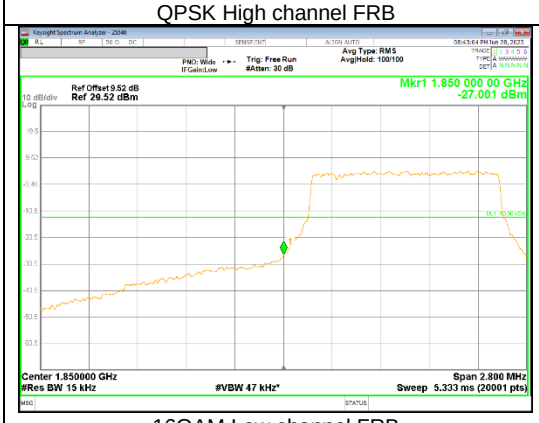
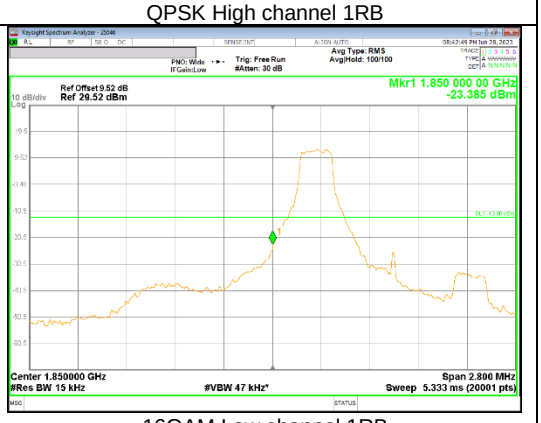
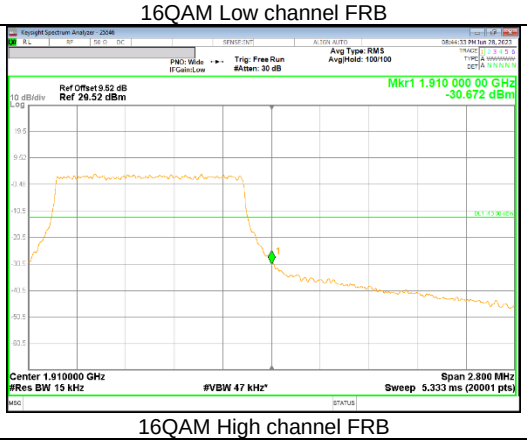
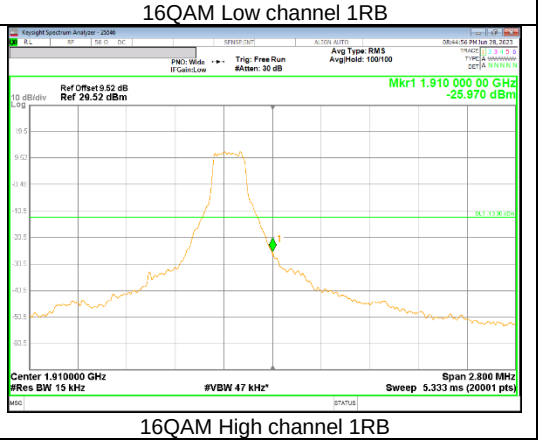
15MHz	 QPSK Low channel FRB	 QPSK Low channel 1RB
	 QPSK High channel FRB	 QPSK High channel 1RB
	 16QAM Low channel FRB	 16QAM Low channel 1RB
	 16QAM High channel FRB	 16QAM High channel 1RB

10MHz	 QPSK Low channel FRB	 QPSK Low channel 1RB
	 QPSK High channel FRB	 QPSK High channel 1RB
	 16QAM Low channel FRB	 16QAM Low channel 1RB
	 16QAM High channel FRB	 16QAM High channel 1RB

5MHz	 QPSK Low channel FRB	 QPSK Low channel 1RB
	 QPSK High channel FRB	 QPSK High channel 1RB
	 16QAM Low channel FRB	 16QAM Low channel 1RB
	 16QAM High channel FRB	 16QAM High channel 1RB

3MHz	 QPSK Low channel FRB	 QPSK Low channel 1RB
	 QPSK High channel FRB	 QPSK High channel 1RB
	 16QAM Low channel FRB	 16QAM Low channel 1RB
	 16QAM High channel FRB	 16QAM High channel 1RB

1.4MHz	 QPSK Low channel FRB	 QPSK Low channel 1RB
	 QPSK High channel FRB	 QPSK High channel 1RB
	 16QAM Low channel FRB	 16QAM Low channel 1RB
	 16QAM High channel FRB	 16QAM High channel 1RB

8.5. CONDUCTED SPURIOUS EMISSIONS

RULE PART(S)

FCC: §2.1051, §24.238

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.

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 = 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), Max hold(GSM);

NOTE1

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

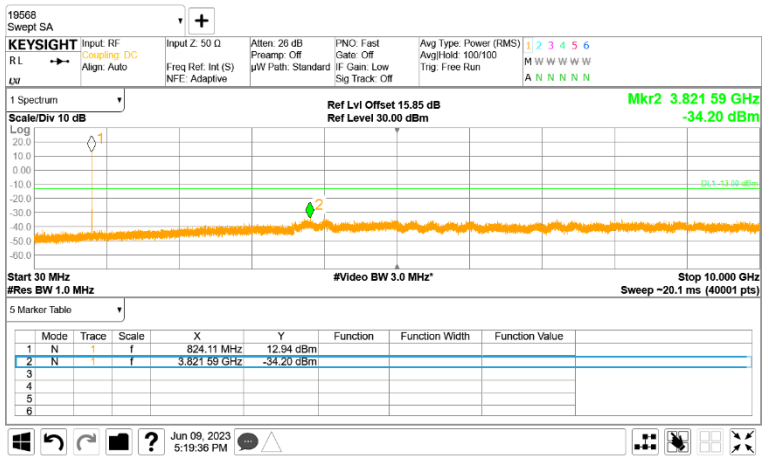
RESULTS

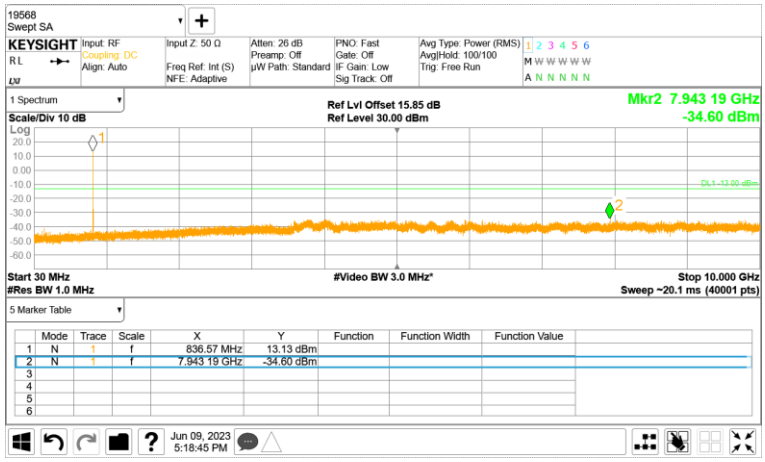
See the following pages.

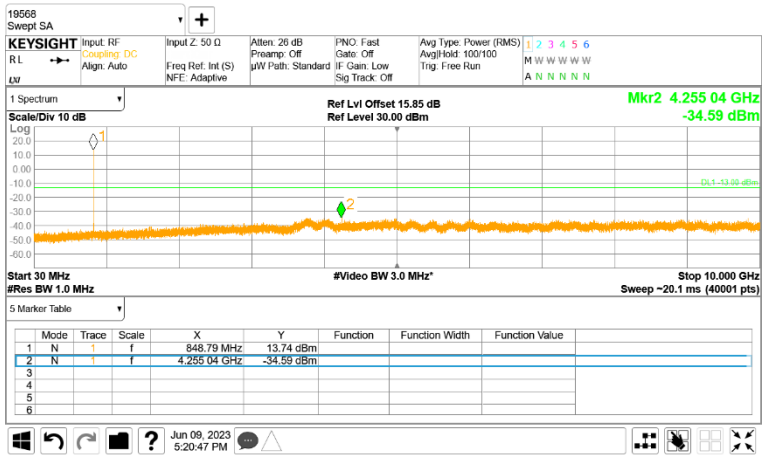
UL KOREA LTD. Suwon Laboratory FORM ID: FCC_24(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

8.5.1. OUT OF BAND EMISSIONS RESULT

GSM 1900

<table>
<tr><td></td><td> 

Low channel</td></tr>
<tr><td>GPRS</td><td> 

Mid channel</td></tr>
<tr><td></td><td> 

High channel</td></tr>
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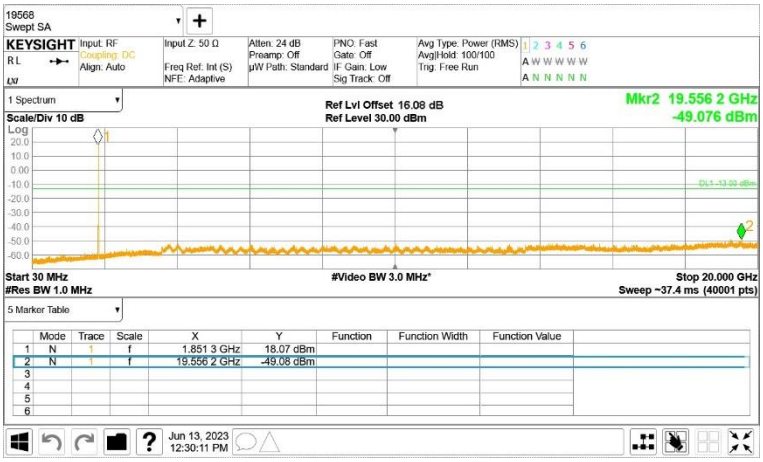
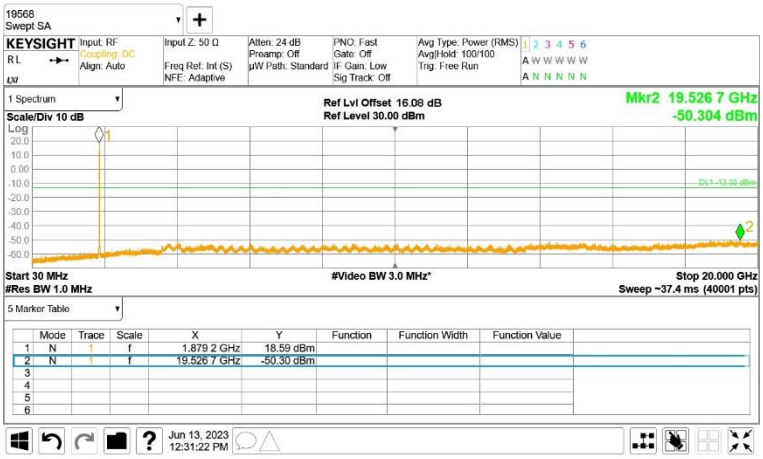
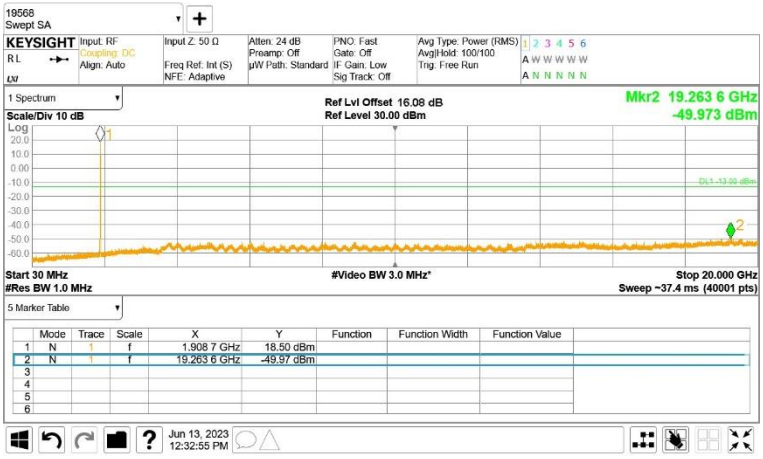
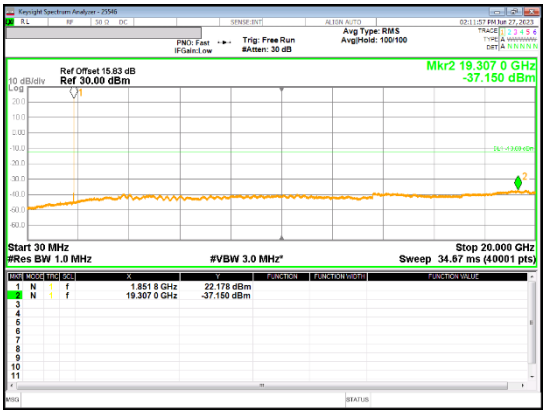
WCDMA Band 2

Rel 99	 Low channel
	 Mid channel
	 High channel

LTE Band 2

3 MHz QPSK	 Low channel	 Mid channel
	 High channel	

LTE Band 2 (Sub2 Antenna)

3 MHz QPSK	 Low channel	 Mid channel
	 High channel	

8.6. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §24.235

LIMITS

24.235
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

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 section 9.1.1 OBW results)

RESULTS

See the following pages.

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_24(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

8.6.1. FREQUENCY STABILITY RESULTS

GSM 1900, Channel 512/810, Frequency 1850.0/1910.0 MHz (Lowest Frequency:GPRS / Highest Frequency: GPRS)

Test Date	2023-06-23
Test Engineer	47989

Limit		1850	1910	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20C)	Normal	1850.0726	1909.9251		
Extreme (50C)		1850.0726	1909.9252	29.5	0.016
Extreme (40C)		1850.0726	1909.9252	25.5	0.014
Extreme (30C)		1850.0726	1909.9252	27.2	0.014
Extreme (10C)		1850.0726	1909.9252	20.0	0.011
Extreme (0C)		1850.0726	1909.9252	18.8	0.010
Extreme (-10C)		1850.0726	1909.9252	43.1	0.023
Extreme (-20C)		1850.0726	1909.9252	40.8	0.022
Extreme (-30C)		1850.0726	1909.9252	39.1	0.021
20C	15%	1850.0726	1909.9252	25.2	0.013
	-15%	1850.0726	1909.9252	24.0	0.013
	End Point	1850.0726	1909.9252	30.4	0.016

WCDMA Band 2 (Lowest Frequency: HSDPA / Highest Frequency: Rel99)

Test Date	2023-06-26
Test Engineer	47989

Limit		1850	1910	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20C)	Normal	1850.3120	1909.6928		
Extreme (50C)		1850.3120	1909.6928	6.9	0.004
Extreme (40C)		1850.3120	1909.6928	7.5	0.004
Extreme (30C)		1850.3120	1909.6928	4.6	0.002
Extreme (10C)		1850.3120	1909.6928	18.7	0.010
Extreme (0C)		1850.3120	1909.6928	21.4	0.011
Extreme (-10C)		1850.3120	1909.6928	21.9	0.012
Extreme (-20C)		1850.3120	1909.6928	23.2	0.012
Extreme (-30C)		1850.3120	1909.6928	24.1	0.013
20C	15%	1850.3120	1909.6928	7.3	0.004
	-15%	1850.3120	1909.6928	8.5	0.005
	End Point	1850.3120	1909.6928	8.7	0.005

LTE Band 2 (Lowest Frequency: 16QAM / Highest Frequency: QPSK)

Test Date	2023-06-29
Test Engineer	47989

Limit		1850	1910	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ End of OBW	F high @ End of OBW		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20C)	Normal	1850.1548	1909.8442		
Extreme (50C)		1850.1548	1909.8442	10.2	0.005
Extreme (40C)		1850.1548	1909.8442	10.3	0.005
Extreme (30C)		1850.1548	1909.8442	8.7	0.005
Extreme (10C)		1850.1548	1909.8442	8.7	0.005
Extreme (0C)		1850.1548	1909.8442	8.5	0.005
Extreme (-10C)		1850.1548	1909.8442	7.4	0.004
Extreme (-20C)		1850.1548	1909.8442	9.5	0.005
Extreme (-30C)		1850.1548	1909.8442	10.9	0.006
20C	15%	1850.1548	1909.8442	7.1	0.004
	-15%	1850.1548	1909.8442	5.7	0.003
	End Point	1850.1548	1909.8442	5.9	0.003

9. RADIATED RESULTS

9.1. RADIATED POWER (EIRP)

RULE PART(S)

FCC: §2.1046, §24.232

LIMITS

24.232(c)

Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

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 OBW;
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);

TEST RESULTS

See the following pages.

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_24(05)
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

9.1.1. EIRP Results

GSM

Band	Mode	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
GSM 1900	GPRS	1850.20	26.92	H	4.48	9.52	31.96	1570.36	33.00	-1.04
		1880.00	25.96	H	4.52	9.29	30.73	1183.04	33.00	-2.27
		1909.80	25.71	H	4.55	9.00	30.15	1035.14	33.00	-2.85
	EGPRS	1850.20	23.83	H	4.48	9.52	28.87	770.90	33.00	-4.13
		1880.00	23.04	H	4.52	9.29	27.81	603.95	33.00	-5.19
		1909.80	22.74	H	4.55	9.00	27.18	522.40	33.00	-5.82

WCDMA

Band	Mode	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)
Band 2	REL99	1852.40	20.31	H	4.49	9.51	25.33	341.19	33.00	-7.67
		1880.00	20.00	H	4.52	9.29	24.77	299.92	33.00	-8.23
		1907.60	19.09	H	4.55	9.03	23.57	227.51	33.00	-9.43
	HSDPA	1852.40	20.08	H	4.49	9.51	25.10	323.59	33.00	-7.90
		1880.00	19.69	H	4.52	9.29	24.46	279.25	33.00	-8.54
		1907.60	18.92	H	4.55	9.03	23.40	218.78	33.00	-9.60

LTE Band 2

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
20	QPSK	1860.00	21.14	H	4.49	9.45	26.09	406.44	33.00	-6.91	1/99
		1880.00	21.01	H	4.52	9.29	25.78	378.44	33.00	-7.22	1/49
		1900.00	20.99	H	4.54	9.13	25.58	361.41	33.00	-7.42	1/0
	16-QAM	1860.00	20.56	H	4.49	9.45	25.51	355.63	33.00	-7.49	1/49
		1880.00	20.17	H	4.52	9.29	24.94	311.89	33.00	-8.06	1/49
		1900.00	20.46	H	4.54	9.13	25.05	319.89	33.00	-7.95	1/49
15	QPSK	1857.50	20.85	H	4.49	9.47	25.82	381.94	33.00	-7.18	1/37
		1880.00	20.15	H	4.52	9.29	24.92	310.46	33.00	-8.08	1/37
		1902.50	18.67	H	4.54	9.10	23.22	209.89	33.00	-9.78	1/37
	16-QAM	1857.50	20.42	H	4.49	9.47	25.39	345.94	33.00	-7.61	1/37
		1880.00	19.92	H	4.52	9.29	24.69	294.44	33.00	-8.31	1/37
		1902.50	18.48	H	4.54	9.10	23.03	200.91	33.00	-9.97	1/37
10	QPSK	1855.00	21.39	H	4.49	9.48	26.39	435.51	33.00	-6.61	1/49
		1880.00	20.39	H	4.52	9.29	25.16	328.10	33.00	-7.84	1/0
		1905.00	19.20	H	4.55	9.06	23.71	234.96	33.00	-9.29	1/0
	16-QAM	1855.00	21.09	H	4.49	9.48	26.09	406.44	33.00	-6.91	1/49
		1880.00	19.89	H	4.52	9.29	24.66	292.42	33.00	-8.34	1/25
		1905.00	18.40	H	4.55	9.06	22.91	195.43	33.00	-10.09	1/25
5	QPSK	1852.50	20.47	H	4.49	9.50	25.48	353.18	33.00	-7.52	1/0
		1880.00	20.36	H	4.52	9.29	25.13	325.84	33.00	-7.87	1/0
		1907.50	18.79	H	4.55	9.03	23.27	212.32	33.00	-9.73	1/0
	16-QAM	1852.50	20.32	H	4.49	9.50	25.33	341.19	33.00	-7.67	1/24
		1880.00	19.87	H	4.52	9.29	24.64	291.07	33.00	-8.36	1/0
		1907.50	18.59	H	4.55	9.03	23.07	202.77	33.00	-9.93	1/12
3	QPSK	1851.50	19.90	H	4.49	9.51	24.92	310.46	33.00	-8.08	1/0
		1880.00	19.85	H	4.52	9.29	24.62	289.73	33.00	-8.38	1/0
		1908.50	18.98	H	4.55	9.02	23.45	221.31	33.00	-9.55	1/0
	16-QAM	1851.50	19.75	H	4.49	9.51	24.77	299.92	33.00	-8.23	1/14
		1880.00	19.69	H	4.52	9.29	24.46	279.25	33.00	-8.54	1/0
		1908.50	18.77	H	4.55	9.02	23.24	210.86	33.00	-9.76	1/0
1.4	QPSK	1850.70	20.40	H	4.48	9.52	25.43	349.14	33.00	-7.57	1/0
		1880.00	20.20	H	4.52	9.29	24.97	314.05	33.00	-8.03	1/0
		1909.30	19.23	H	4.55	9.00	23.69	233.88	33.00	-9.31	1/0
	16-QAM	1850.70	19.81	H	4.48	9.52	24.84	304.79	33.00	-8.16	1/5
		1880.00	19.65	H	4.52	9.29	24.42	276.69	33.00	-8.58	1/5
		1909.30	18.57	H	4.55	9.00	23.03	200.91	33.00	-9.97	1/5

LTE Band 2 (Sub2 Antenna)

BW (MHz)	Modulation	f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Limit (dBm)	Delta (dB)	RB
3	QPSK	1851.50	15.09	H	4.49	9.51	20.11	102.57	33.00	-12.89	1/8
		1880.00	16.09	H	4.52	9.29	20.86	121.90	33.00	-12.14	1/8
		1908.50	16.28	H	4.55	9.02	20.75	118.85	33.00	-12.25	1/14
	16-QAM	1851.50	14.08	H	4.49	9.51	19.10	81.28	33.00	-13.90	1/0
		1880.00	15.27	H	4.52	9.29	20.04	100.93	33.00	-12.96	1/8
		1908.50	15.40	H	4.55	9.02	19.87	97.05	33.00	-13.13	1/8

9.2. RADIATIED SPURIOUS EMISSION

RULE PART(S)

FCC: §2.1053, §24.238

LIMIT

24.238(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.

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 = 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), Maxhold(GSM);

NOTE1

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

RESULTS

See the following pages.

UL KOREA LTD. Suwon Laboratory FORM ID: FCC_24(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

GSM1900

GPRS

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

Company:	Samsung
Project #:	4790841155
Date:	2023-06-22
Test Engineer:	24542
Configuration:	EUT, Y-Position
Location:	Chamber 2
Mode:	GPRS 1900 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, 1850.2MHz									
3700.40	-8.2	V	3.0	42.1	1.0	-49.3	-13.0	-36.3	
5550.60	-5.1	V	3.0	42.9	1.0	-47.0	-13.0	-34.0	
7400.80	-2.2	V	3.0	42.5	1.0	-43.7	-13.0	-30.7	
3700.40	-8.2	H	3.0	42.1	1.0	-49.3	-13.0	-36.3	
5550.60	-5.0	H	3.0	42.9	1.0	-46.8	-13.0	-33.8	
7400.80	-0.6	H	3.0	42.5	1.0	-42.0	-13.0	-29.0	
Mid Ch, 1880MHz									
3760.00	-8.0	V	3.0	42.1	1.0	-49.1	-13.0	-36.1	
5640.00	-4.6	V	3.0	42.9	1.0	-46.5	-13.0	-33.5	
7520.00	0.5	V	3.0	42.4	1.0	-41.0	-13.0	-28.0	
3760.00	-8.3	H	3.0	42.1	1.0	-49.4	-13.0	-36.4	
5640.00	-4.6	H	3.0	42.9	1.0	-46.5	-13.0	-33.5	
7520.00	0.8	H	3.0	42.4	1.0	-40.6	-13.0	-27.6	
High Ch, 1909.8MHz									
3819.60	-8.0	V	3.0	42.1	1.0	-49.1	-13.0	-36.1	
5729.40	-4.8	V	3.0	42.9	1.0	-46.7	-13.0	-33.7	
7639.20	-0.6	V	3.0	42.4	1.0	-41.9	-13.0	-28.9	
3819.60	-7.9	H	3.0	42.1	1.0	-48.9	-13.0	-35.9	
5729.40	-3.0	H	3.0	42.9	1.0	-44.9	-13.0	-31.9	
7639.20	-0.4	H	3.0	42.4	1.0	-41.7	-13.0	-28.7	

WCDMA Band 2

REL99

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

Company:	Samsung
Project #:	4790841155
Date:	2023-06-26
Test Engineer:	19568
Configuration:	EUT, X-Position
Location:	Chamber 2
Mode:	Rel99 Band 2 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, 1852.4MHz									
3704.80	-11.0	V	3.0	42.1	1.0	-52.1	-13.0	-39.1	
5557.20	-7.9	V	3.0	42.9	1.0	-49.8	-13.0	-36.8	
7409.60	-5.6	V	3.0	42.5	1.0	-47.1	-13.0	-34.1	
3704.80	-11.2	H	3.0	42.1	1.0	-52.3	-13.0	-39.3	
5557.20	-8.0	H	3.0	42.9	1.0	-49.9	-13.0	-36.9	
7409.60	-5.8	H	3.0	42.5	1.0	-47.2	-13.0	-34.2	
Mid Ch, 1880MHz									
3760.00	-10.9	V	3.0	42.1	1.0	-52.0	-13.0	-39.0	
5640.00	-7.6	V	3.0	42.9	1.0	-49.5	-13.0	-36.5	
7520.00	-4.9	V	3.0	42.4	1.0	-46.3	-13.0	-33.3	
3760.00	-11.1	H	3.0	42.1	1.0	-52.2	-13.0	-39.2	
5640.00	-7.7	H	3.0	42.9	1.0	-49.6	-13.0	-36.6	
7520.00	-5.5	H	3.0	42.4	1.0	-46.9	-13.0	-33.9	
High Ch, 1907.6MHz									
3815.20	-10.6	V	3.0	42.1	1.0	-51.7	-13.0	-38.7	
5722.80	-7.7	V	3.0	42.9	1.0	-49.7	-13.0	-36.7	
7630.40	-4.8	V	3.0	42.4	1.0	-46.2	-13.0	-33.2	
3815.20	-10.8	H	3.0	42.1	1.0	-51.9	-13.0	-38.9	
5722.80	-7.9	H	3.0	42.9	1.0	-49.8	-13.0	-36.8	
7630.40	-5.6	H	3.0	42.4	1.0	-47.0	-13.0	-34.0	

LTE Band 2

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

Company:	Samsung
Project #:	4790841155
Date:	2023-06-21
Test Engineer:	24542
Configuration:	EUT , X-Position
Location:	Chamber 1
Mode:	LTE_QPSK Band 2 Harmonics, 10MHz Bandwidth
Test Votage:	AC 120 V, 60 Hz

10 MHz

QPSK

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1855MHz									
3710.00	-9.6	V	3.0	46.0	1.0	-54.7	-13.0	-41.7	
5565.00	-7.0	V	3.0	45.8	1.0	-51.7	-13.0	-38.7	
7420.00	3.3	V	3.0	45.5	1.0	-41.2	-13.0	-28.2	
3710.00	-9.3	H	3.0	46.0	1.0	-54.3	-13.0	-41.3	
5565.00	-6.9	H	3.0	45.8	1.0	-51.7	-13.0	-38.7	
7420.00	-2.0	H	3.0	45.5	1.0	-46.5	-13.0	-33.5	
Mid Ch, 1880MHz									
3760.00	-9.4	V	3.0	46.0	1.0	-54.3	-13.0	-41.3	
5640.00	-6.6	V	3.0	45.7	1.0	-51.3	-13.0	-38.3	
7520.00	5.4	V	3.0	45.5	1.0	-39.1	-13.0	-26.1	
3760.00	-9.0	H	3.0	46.0	1.0	-53.9	-13.0	-40.9	
5640.00	-6.7	H	3.0	45.7	1.0	-51.3	-13.0	-38.3	
7520.00	0.2	H	3.0	45.5	1.0	-44.3	-13.0	-31.3	
High Ch, 1905MHz									
3810.00	-9.4	V	3.0	45.9	1.0	-54.3	-13.0	-41.3	
5715.00	-6.6	V	3.0	45.6	1.0	-51.2	-13.0	-38.2	
7620.00	5.9	V	3.0	45.6	1.0	-38.6	-13.0	-25.6	
3810.00	-9.0	H	3.0	45.9	1.0	-53.9	-13.0	-40.9	
5715.00	-6.6	H	3.0	45.6	1.0	-51.2	-13.0	-38.2	
7620.00	1.1	H	3.0	45.6	1.0	-43.5	-13.0	-30.5	

3 MHz

QPSK

Sub2 Antenna

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

Company:	Samsung
Project #:	4790841155
Date:	2023-06-26
Test Engineer:	26087
Configuration:	EUT / AC Adapter, Z-Position
Location:	Chamber 1
Mode:	LTE_QPSK Band 2 Harmonics, 3MHz 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, 1851.5MHz									
3703.00	-8.0	V	3.0	46.0	1.0	-53.0	-13.0	-40.0	
5554.50	-5.0	V	3.0	45.8	1.0	-49.7	-13.0	-36.7	
7406.00	-3.5	V	3.0	45.5	1.0	-48.0	-13.0	-35.0	
9257.50	-2.2	V	3.0	45.5	1.0	-46.7	-13.0	-33.7	
11109.00	0.9	V	3.0	46.5	1.0	-44.7	-13.0	-31.7	
3703.00	-5.8	H	3.0	46.0	1.0	-50.8	-13.0	-37.8	
5554.50	-4.0	H	3.0	45.8	1.0	-48.7	-13.0	-35.7	
7406.00	-3.2	H	3.0	45.5	1.0	-47.7	-13.0	-34.7	
9257.50	-2.0	H	3.0	45.5	1.0	-46.5	-13.0	-33.5	
11109.00	0.9	H	3.0	46.5	1.0	-44.6	-13.0	-31.6	
Mid Ch, 1880MHz									
3760.00	-7.5	V	3.0	46.0	1.0	-52.4	-13.0	-39.4	
5640.00	-4.0	V	3.0	45.7	1.0	-48.7	-13.0	-35.7	
7520.00	-3.6	V	3.0	45.5	1.0	-48.1	-13.0	-35.1	
9400.00	-1.9	V	3.0	45.5	1.0	-46.4	-13.0	-33.4	
11280.00	0.8	V	3.0	46.7	1.0	-44.9	-13.0	-31.9	
3760.00	-5.2	H	3.0	46.0	1.0	-50.2	-13.0	-37.2	
5640.00	-2.1	H	3.0	45.7	1.0	-46.8	-13.0	-33.8	
7520.00	-2.4	H	3.0	45.5	1.0	-46.9	-13.0	-33.9	
9400.00	-1.1	H	3.0	45.5	1.0	-45.6	-13.0	-32.6	
11280.00	0.9	H	3.0	46.7	1.0	-44.7	-13.0	-31.7	
High Ch, 1908.5MHz									
3817.00	-7.8	V	3.0	45.9	1.0	-52.7	-13.0	-39.7	
5725.50	-2.7	V	3.0	45.6	1.0	-47.3	-13.0	-34.3	
7634.00	-3.2	V	3.0	45.6	1.0	-47.7	-13.0	-34.7	
9542.50	-1.6	V	3.0	45.5	1.0	-46.1	-13.0	-33.1	
11451.00	0.9	V	3.0	46.8	1.0	-44.9	-13.0	-31.9	
3817.00	-5.3	H	3.0	45.9	1.0	-50.2	-13.0	-37.2	
5725.50	-3.2	H	3.0	45.6	1.0	-47.8	-13.0	-34.8	
7634.00	-0.4	H	3.0	45.6	1.0	-45.0	-13.0	-32.0	
9542.50	-0.7	H	3.0	45.5	1.0	-45.2	-13.0	-32.2	
11451.00	1.0	H	3.0	46.8	1.0	-44.8	-13.0	-31.8	

END OF REPORT