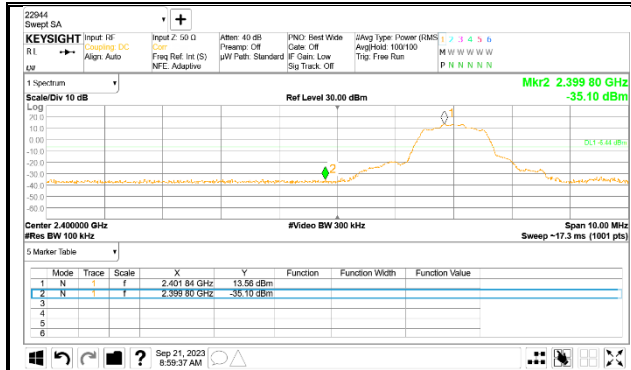
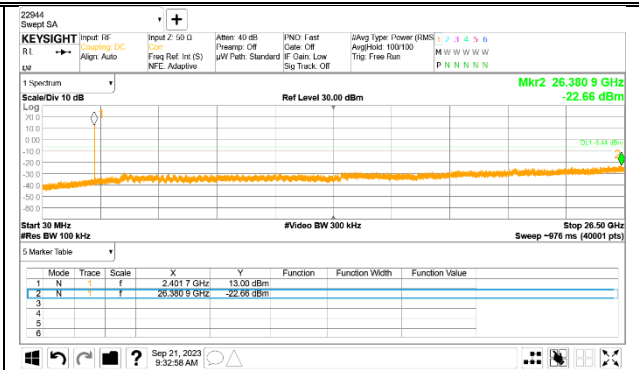


9.8.2. BLUETOOTH ENHANCED DATA RATE 8PSK MODULATION

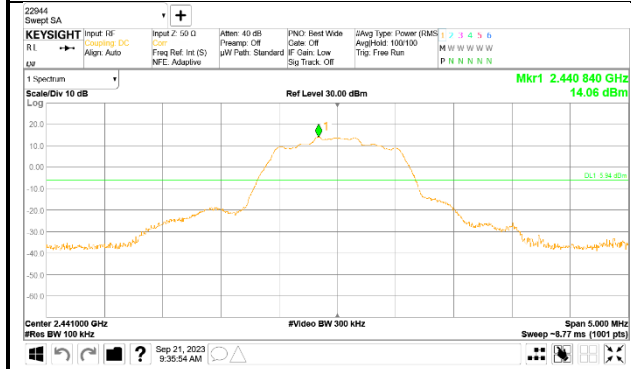
SPURIOUS EMISSIONS, NON-HOPPING – ANT1



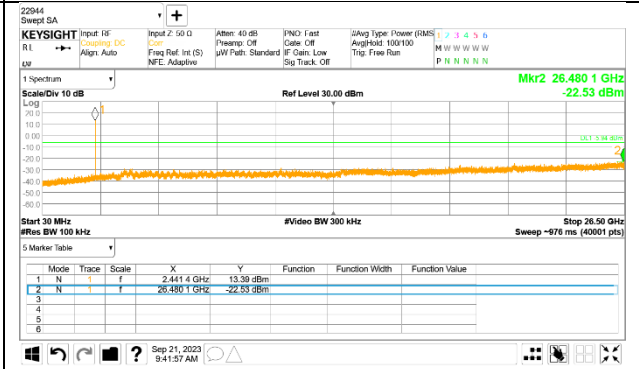
0 CHANNEL BANDEDGE



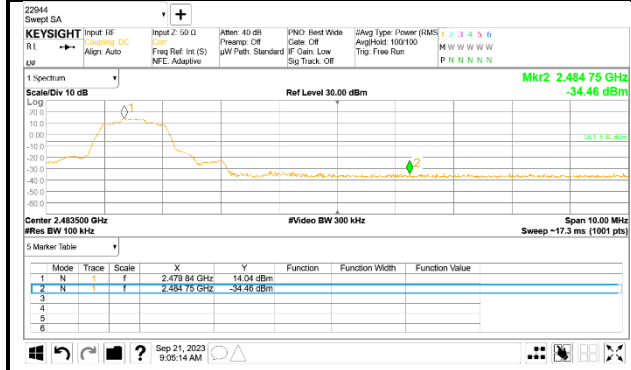
OUT-OF-BAND 0 CHANNEL



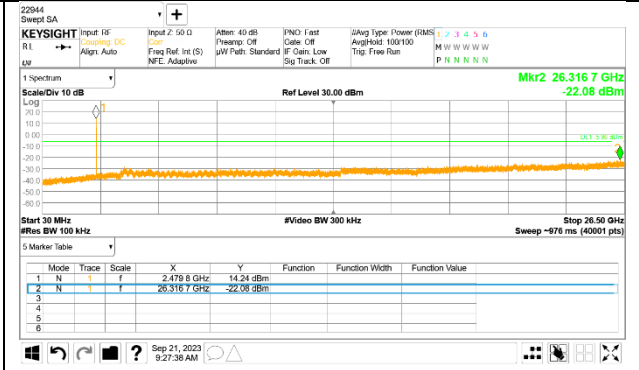
IN-BAND REFERENCE LEVEL



OUT-OF-BAND 39 CHANNEL

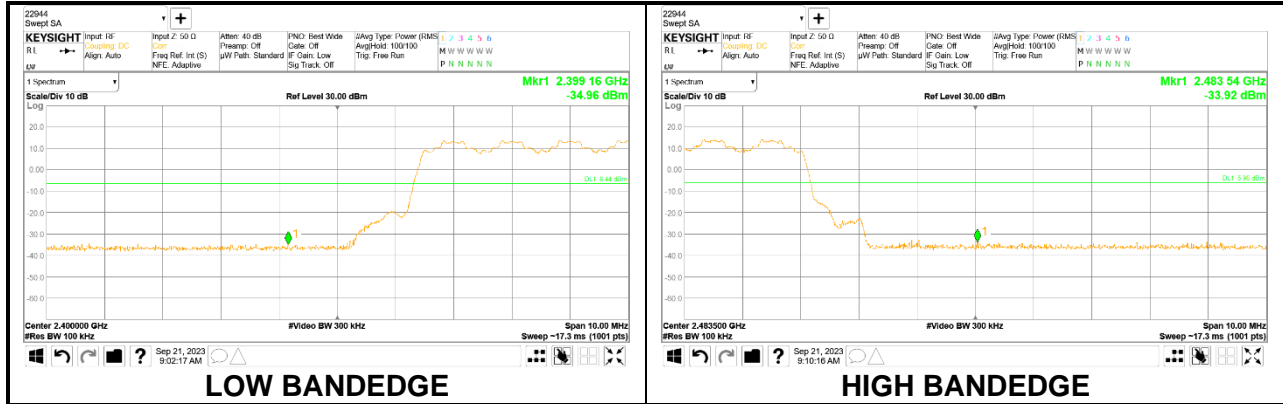


78 CHANNEL BANDEDGE

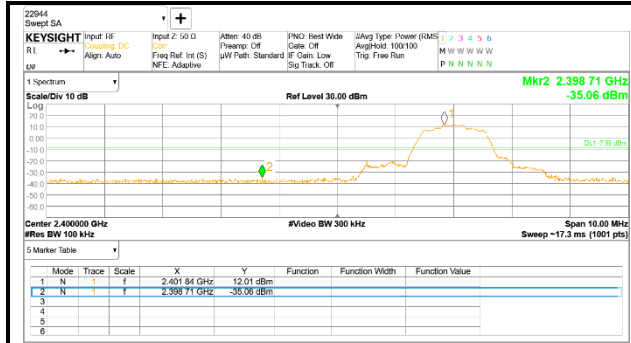


OUT-OF-BAND 78 CHANNEL

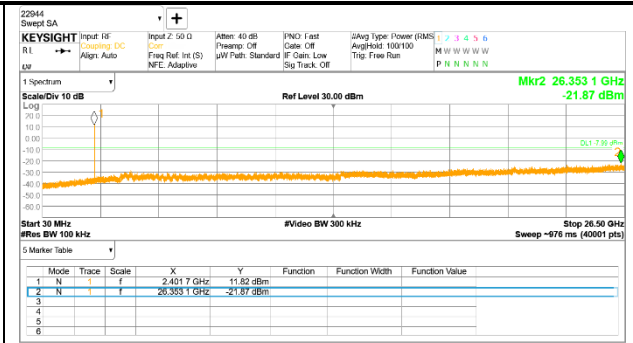
SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON – ANT1



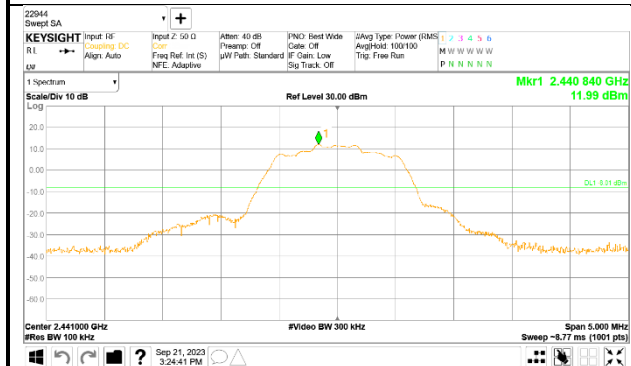
SPURIOUS EMISSIONS, NON-HOPPING – ANT2



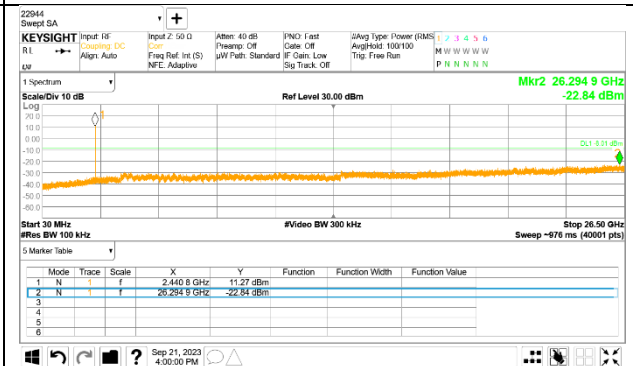
0 CHANNEL BANDEDGE



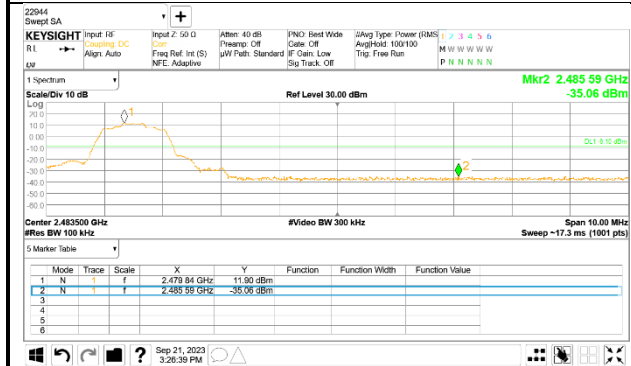
OUT-OF-BAND 0 CHANNEL



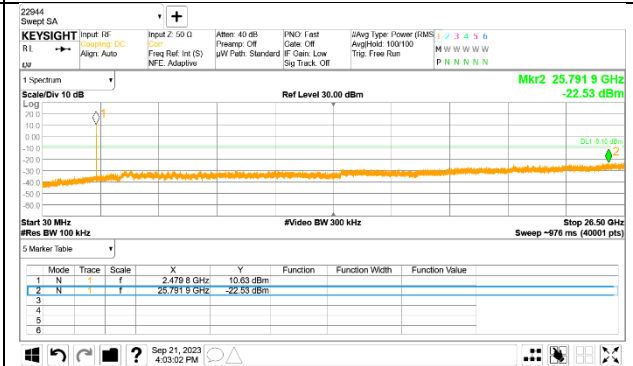
IN-BAND REFERENCE LEVEL



OUT-OF-BAND 39 CHANNEL

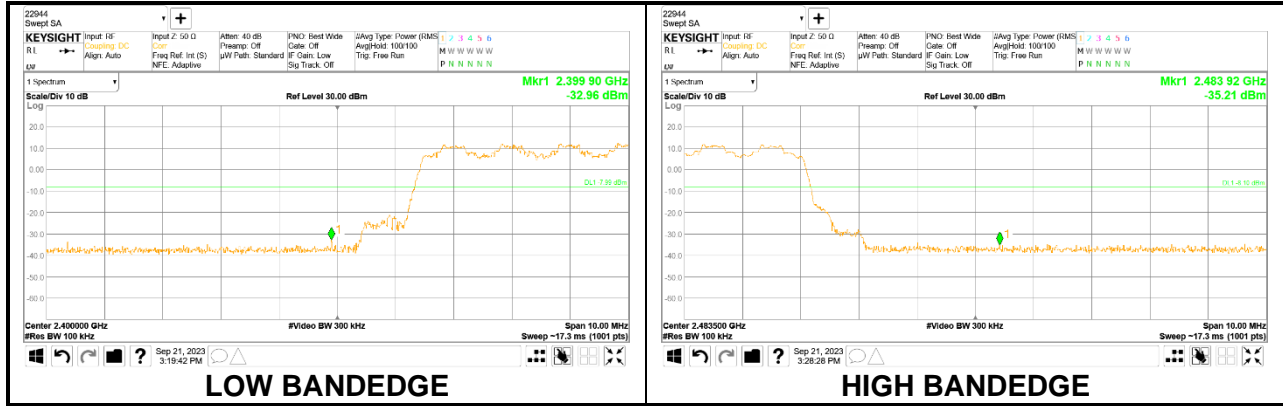


78 CHANNEL BANDEDGE



OUT-OF-BAND 78 CHANNEL

SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON – ANT2



10. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

FCC Part 15.205 (a) : Only spurious emissions are permitted in any of the frequency bands listed below :

MHz	MHz	MHz	MHz	GHz	GHz
0.009 – 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 – 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.52525	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	156.7 ~ 156.9	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	162.0125 ~	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	167.17	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	167.72 ~ 173.2	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	240 ~ 285	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	322 ~ 335.4	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	399.90 ~ 410	3345.8 ~ 3358		
		608 ~ 614	3600 ~ 4400		
		960 ~ 1240			

▪ FCC Part 15.205(b) : The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for above 1GHz. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements. (Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.)

For band edge measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1/T (on time) for average measurement.

$$\text{GFSK} = 1/T = 1 / 0.00288\text{s} = 347\text{Hz}.$$

The minimum VBW was 347Hz, but test receiver(ESU40) couldn't set value 347Hz. Due to this reason, testing VBW was set to 500Hz(Worst cases).

The spectrum from 1GHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.
(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Note : Emission was pre-scanned from 9kHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

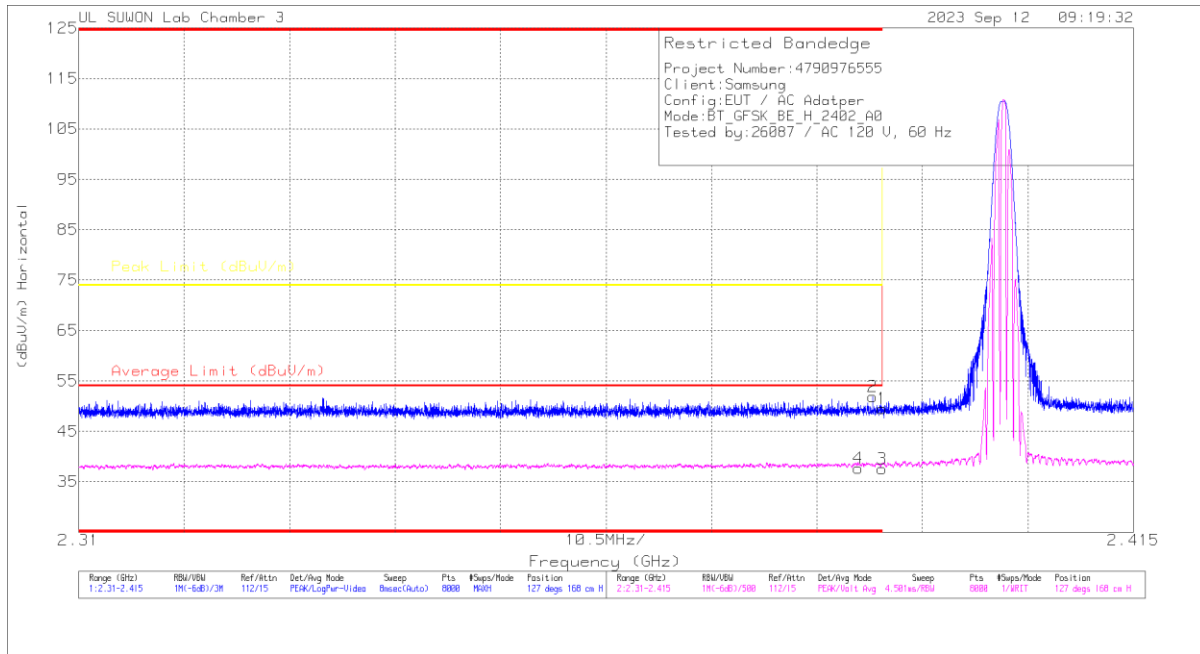
Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. BLUETOOTH BASIC DATA RATE GFSK MODULATION

ANT1 BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT



Trace Markers

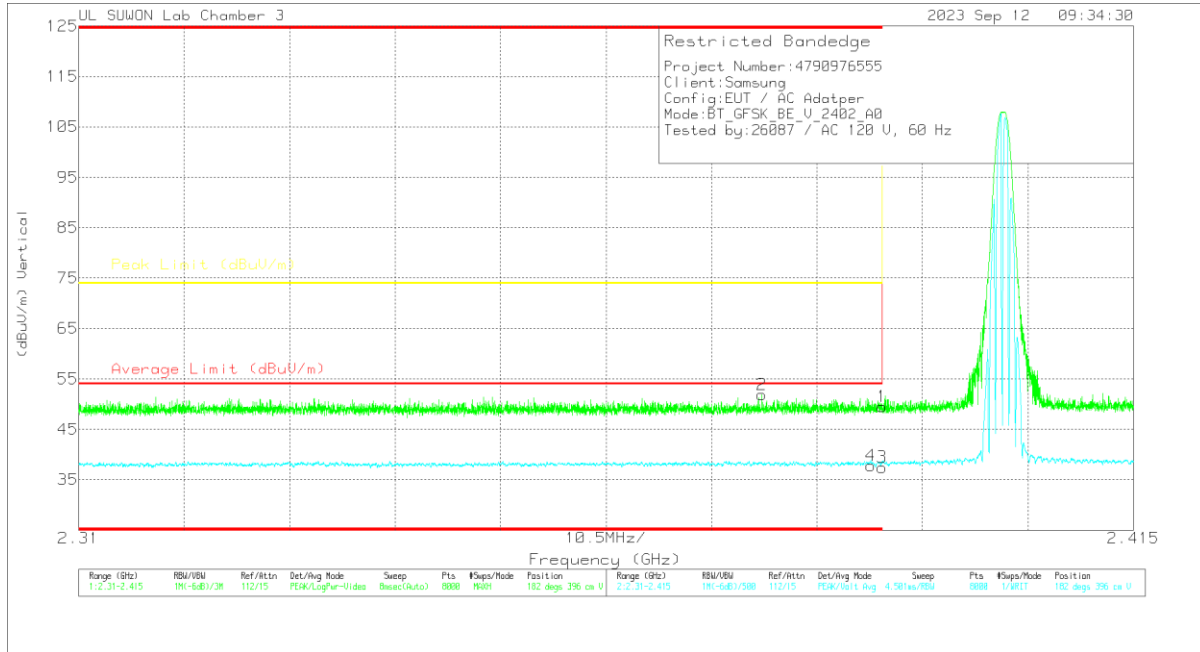
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor (dB(1/m))	Path Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.25	Pk	32.1	-24.8	49.55	-	-	74	-24.45	127	168	H
2	* 2.38902	44.57	Pk	32.1	-24.8	51.87	-	-	74	-22.13	127	168	H
3	* 2.39	30.21	VA1T	32.1	-24.8	37.51	54	-16.49	-	-	127	168	H
4	* 2.38761	30.37	VA1T	32.1	-24.8	37.67	54	-16.33	-	-	127	168	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



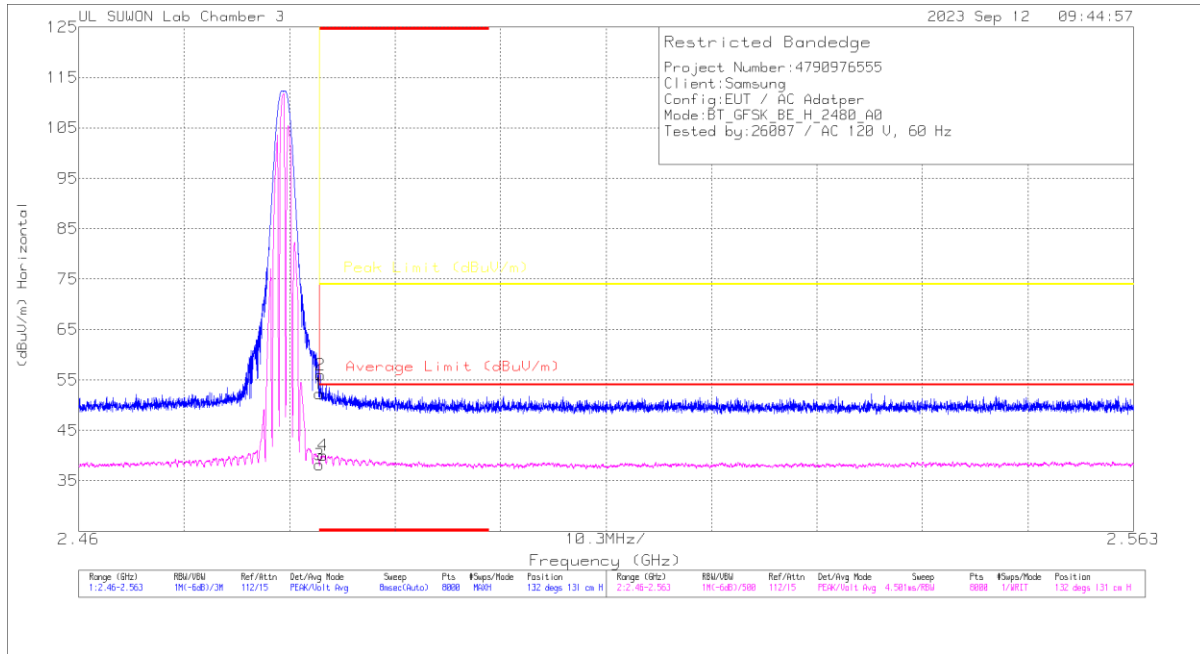
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.2	PK	32.1	-24.8	49.5	-	-	74	-24.5	182	396	V
2	* 2.37801	44.58	PK	32.1	-24.8	51.88	-	-	74	-22.12	182	396	V
3	* 2.39	30.18	VA1T	32.1	-24.8	37.48	54	-16.52	-	-	182	396	V
4	* 2.38887	30.49	VA1T	32.1	-24.8	37.79	54	-16.21	-	-	182	396	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

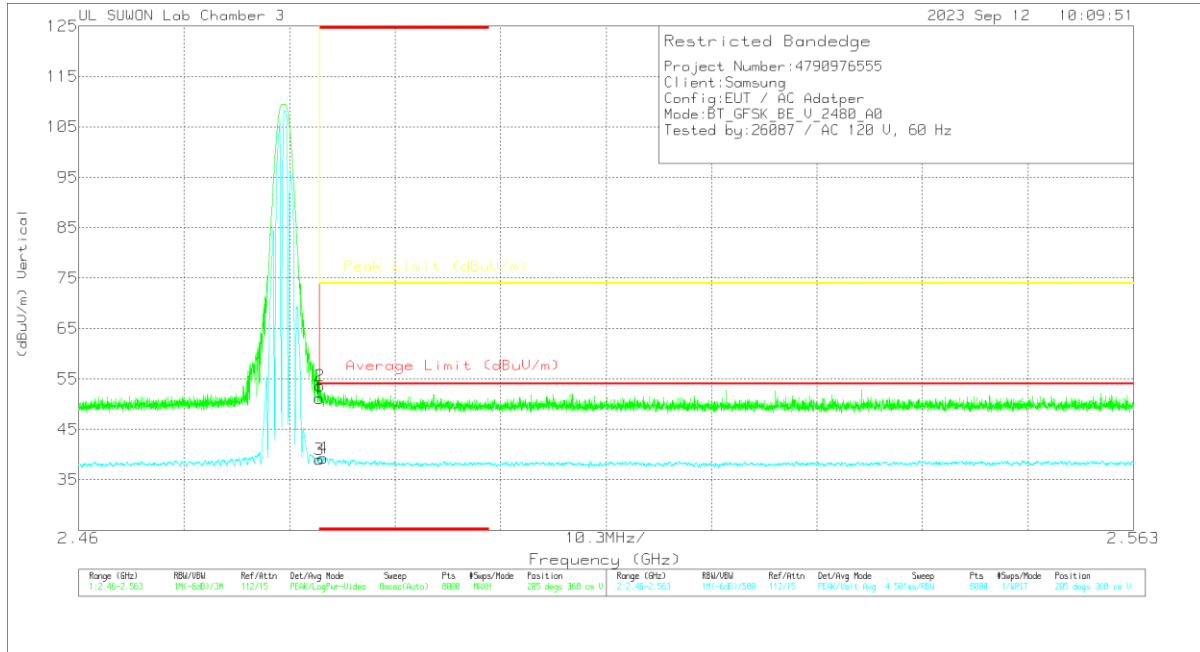


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	44.63	Pk	32.4	-24.8	62.23	-	-	74	-21.77	132	131	H
2	* 2.48363	48.34	Pk	32.4	-24.8	55.94	-	-	74	-18.06	132	131	H
3	* 2.4835	30.56	VA1T	32.4	-24.8	38.16	54	-15.84	-	-	132	131	H
4	* 2.48389	32.38	VA1T	32.4	-24.8	39.98	54	-14.02	-	-	132	131	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



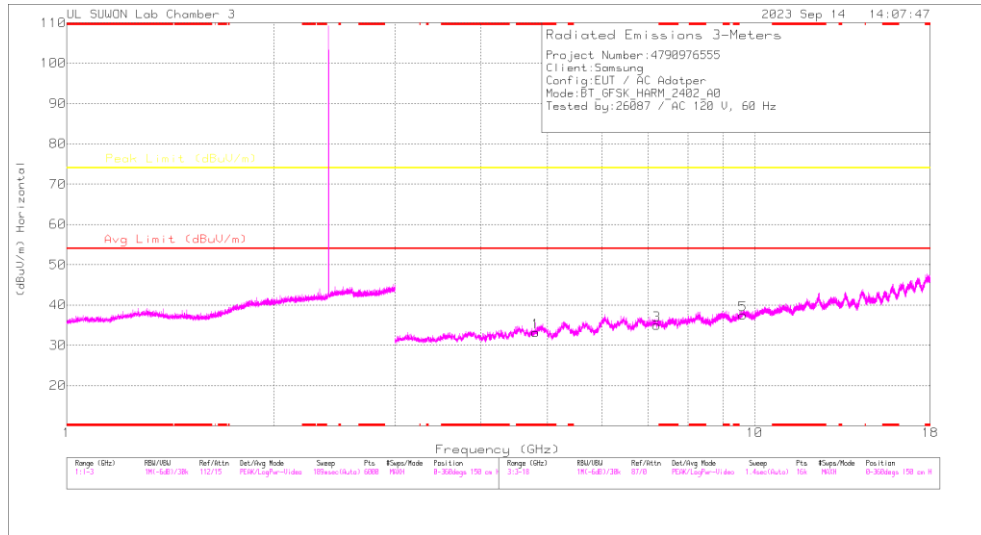
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	43.52	PK	32.4	-24.8	51.12	-	-	74	-22.88	205	368	V
2	* 2.48354	46.07	PK	32.4	-24.8	53.67	-	-	74	-20.33	205	368	V
3	* 2.4835	31.46	VA1T	32.4	-24.8	39.06	54	-14.94	-	-	205	368	V
4	* 2.48389	31.72	VA1T	32.4	-24.8	39.32	54	-14.68	-	-	205	368	V

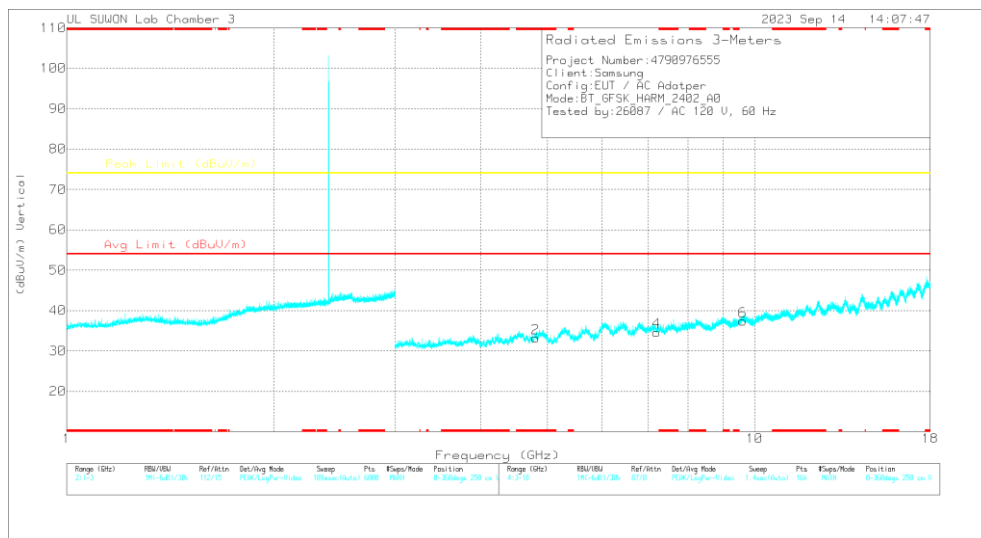
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



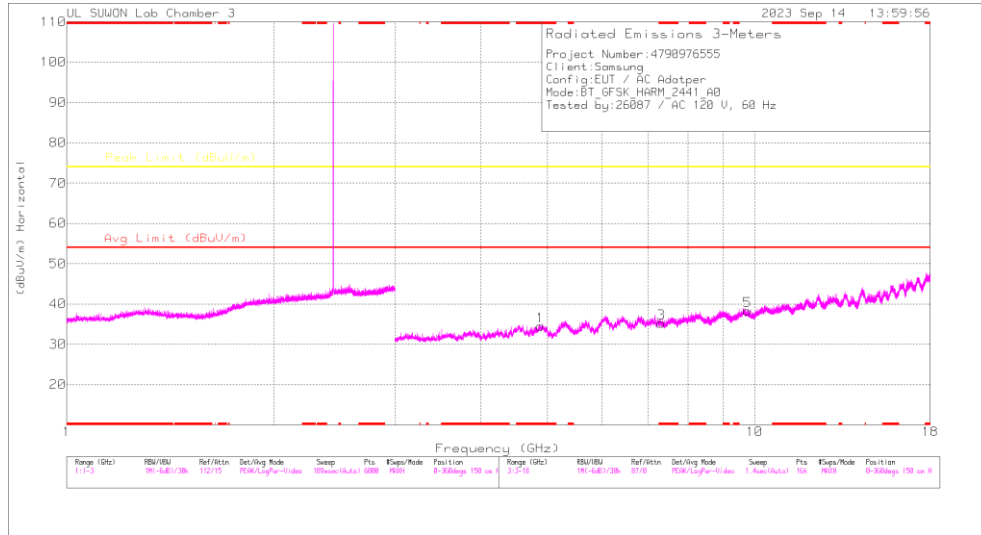
VERTICAL

Radiated Emissions

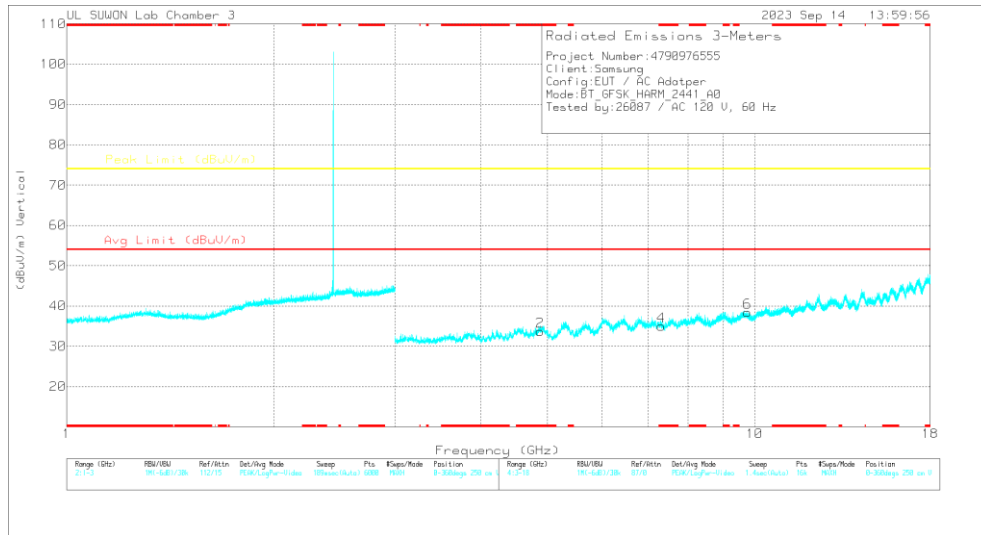
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80489	38.33	PKFH	34.3	-30.1	42.53	-	-	74	-31.47	0	100	H
* 4.80479	37.31	PKFH	34.3	-30.1	41.51	-	-	74	-32.49	0	100	V
7.20701	32.83	PKFH	35.8	-25.9	42.73	-	-	74	-31.27	0	100	H
7.20695	32.16	PKFH	35.8	-25.9	42.06	-	-	74	-31.94	0	100	V
9.60885	30.99	PKFH	36.7	-21.7	45.99	-	-	74	-28.01	0	100	H
9.60891	31.52	PKFH	36.7	-21.7	46.52	-	-	74	-27.48	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

39 CHANNEL RESULTS



HORIZONTAL



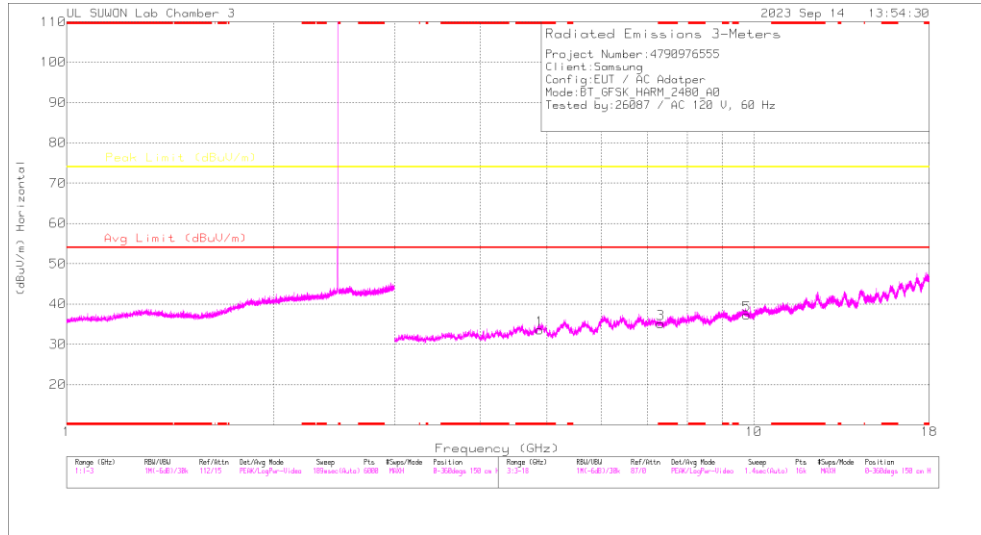
VERTICAL

Radiated Emissions

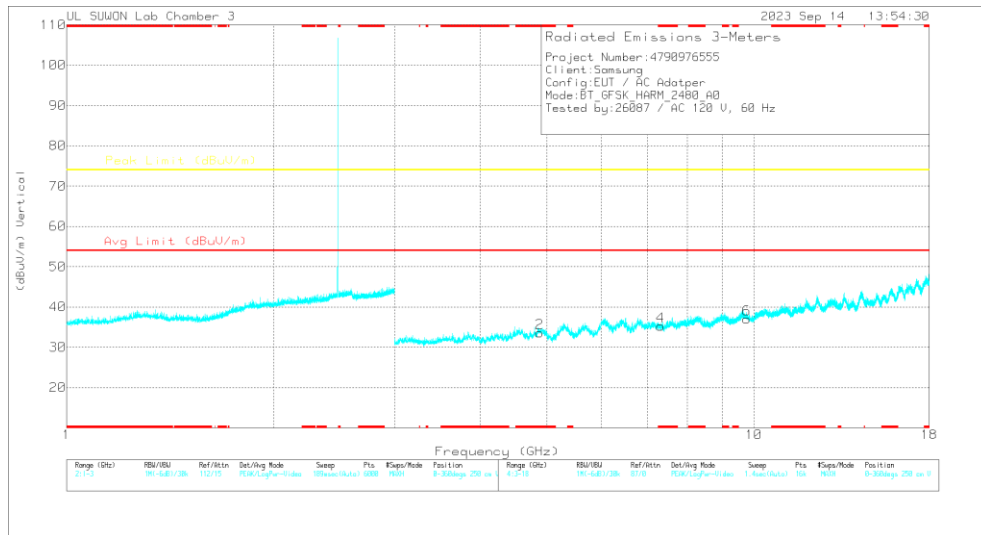
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor (dB(1/m))	Path Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.8828	37.54	PKFH	34.2	-30	41.74	-	-	74	-32.26	0	100	H
* 4.88249	38.56	PKFH	34.2	-30	42.76	-	-	74	-31.24	0	100	V
* 7.32294	32.06	PKFH	35.8	-25.5	42.36	-	-	74	-31.64	0	100	H
* 7.32288	32.51	PKFH	35.8	-25.5	42.81	-	-	74	-31.19	0	100	V
9.76433	29.83	PKFH	36.9	-21.5	45.23	-	-	74	-28.77	0	100	H
9.7647	30.49	PKFH	36.9	-21.5	45.89	-	-	74	-28.11	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

78 CHANNEL RESULTS



HORIZONTAL



VERTICAL

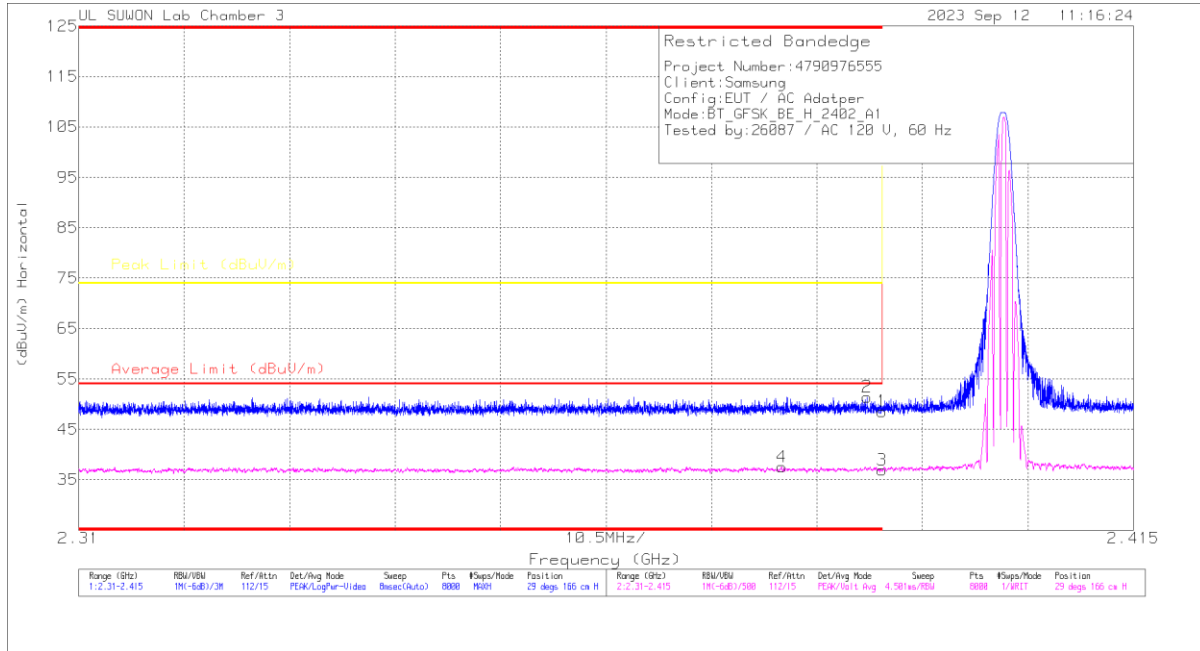
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88254	38.15	PKFH	34.2	-30	42.35	-	-	74	-31.65	0	100	H
* 4.88263	37.65	PKFH	34.2	-30	41.85	-	-	74	-32.15	0	100	V
* 7.32308	32.02	PKFH	35.8	-25.5	42.32	-	-	74	-31.68	0	100	H
* 7.32305	32	PKFH	35.8	-25.5	42.3	-	-	74	-31.7	0	100	V
9.76453	30.74	PKFH	36.9	-21.5	46.14	-	-	74	-27.86	0	100	H
9.76437	29.54	PKFH	36.9	-21.5	44.94	-	-	74	-29.06	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

ANT2
BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

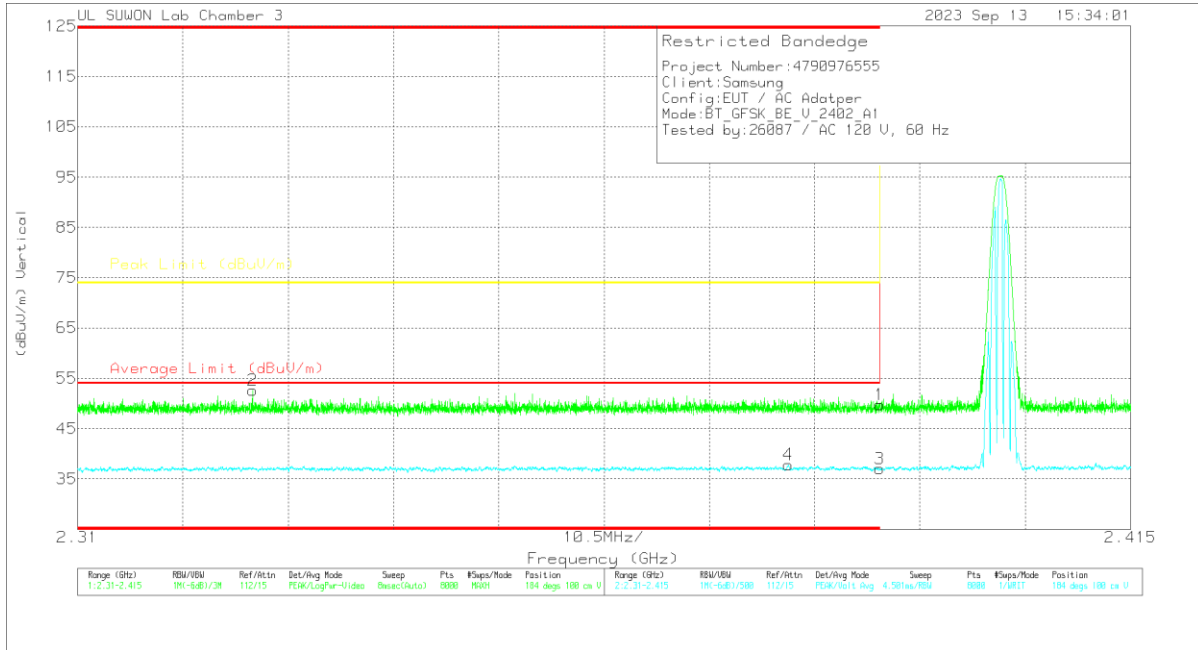


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.27	Pk	32.1	-24.8	48.57	-	-	74	-25.43	29	166	H
2	* 2.38849	44.14	Pk	32.1	-24.8	51.44	-	-	74	-22.56	29	166	H
3	* 2.39	29.57	VA1T	32.1	-24.8	36.87	54	-17.13	-	-	29	166	H
4	* 2.37998	30.34	VA1T	32.1	-24.9	37.54	54	-16.46	-	-	29	166	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



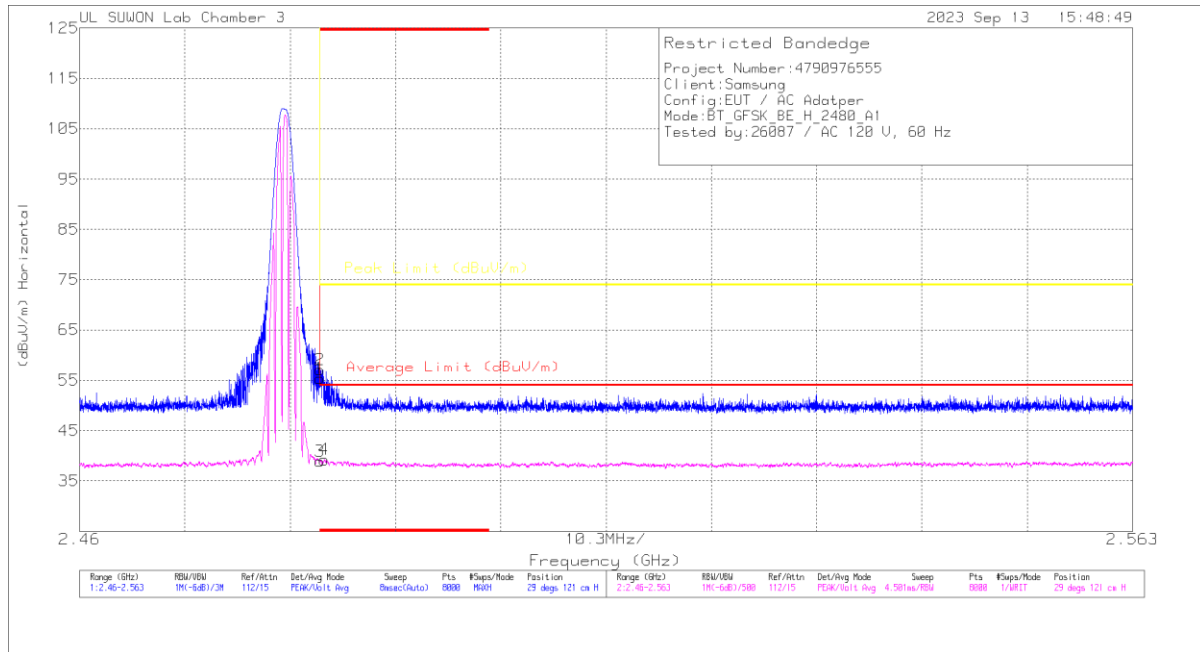
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.49	PK	32.1	-24.8	49.79	-	-	74	-24.21	184	100	V
2	* 2.32746	45.6	PK	31.9	-24.9	52.6	-	-	74	-21.4	184	100	V
3	* 2.39	29.73	VA1T	32.1	-24.8	37.03	54	-16.97	-	-	184	100	V
4	* 2.38089	30.65	VA1T	32.1	-24.9	37.85	54	-16.15	-	-	184	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

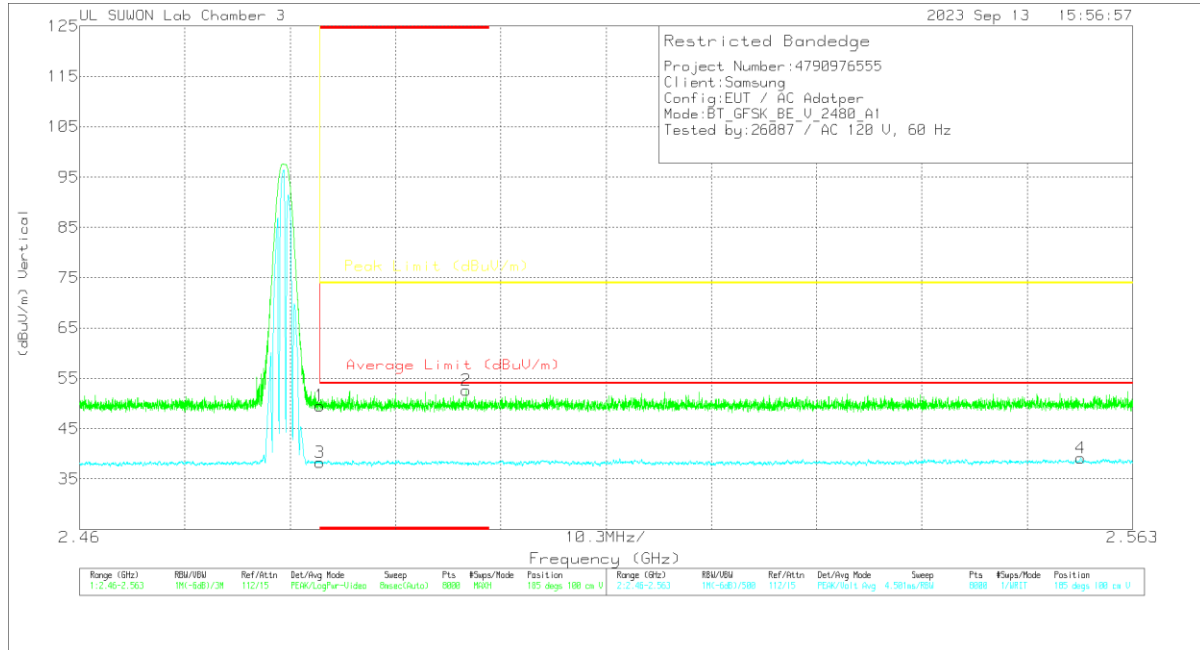


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	47.79	Pk	32.4	-24.8	55.39	-	-	74	-18.61	29	121	H
2	* 2.48351	49.48	Pk	32.4	-24.8	57.08	-	-	74	-16.92	29	121	H
3	* 2.4835	31.32	VA1T	32.4	-24.8	38.92	54	-15.08	-	-	29	121	H
4	* 2.48394	31.63	VA1T	32.4	-24.8	39.23	54	-14.77	-	-	29	121	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



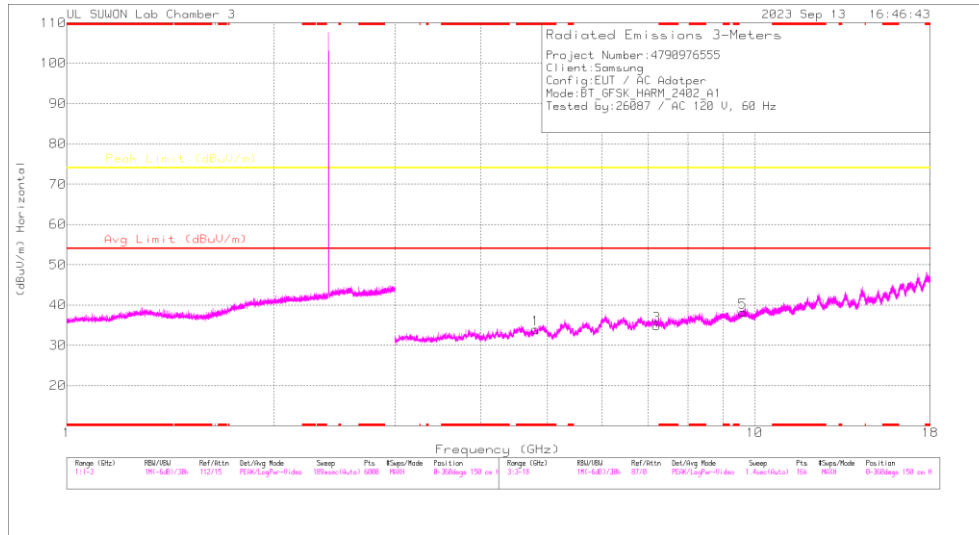
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	41.97	PK	32.4	-24.8	49.57	-	-	74	-24.43	185	100	V
2	* 2.49781	45.05	PK	32.4	-24.8	52.65	-	-	74	-21.35	185	100	V
3	* 2.4835	30.67	VA1T	32.4	-24.8	38.27	54	-15.73	-	-	185	100	V
4	2.55793	31.43	VA1T	32.4	-24.7	39.13	54	-14.87	-	-	185	100	V

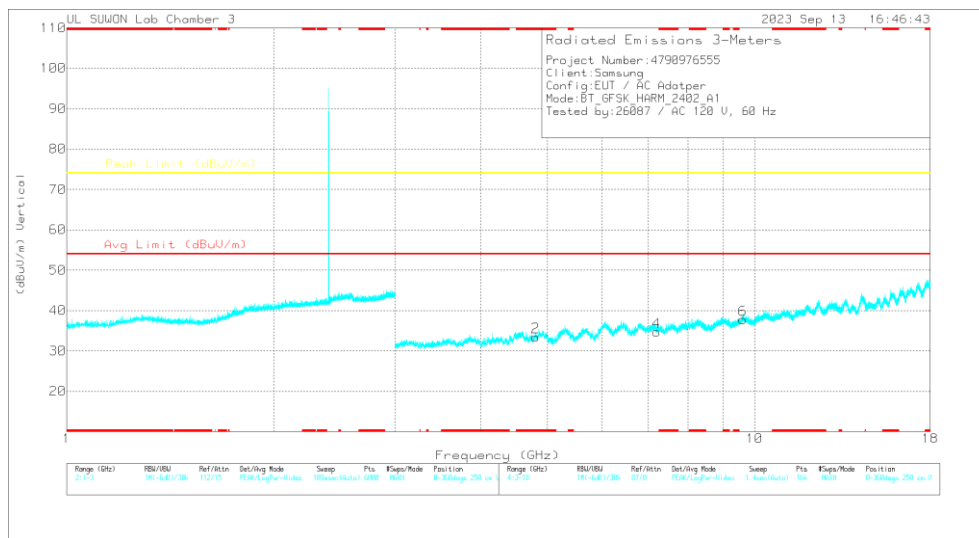
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



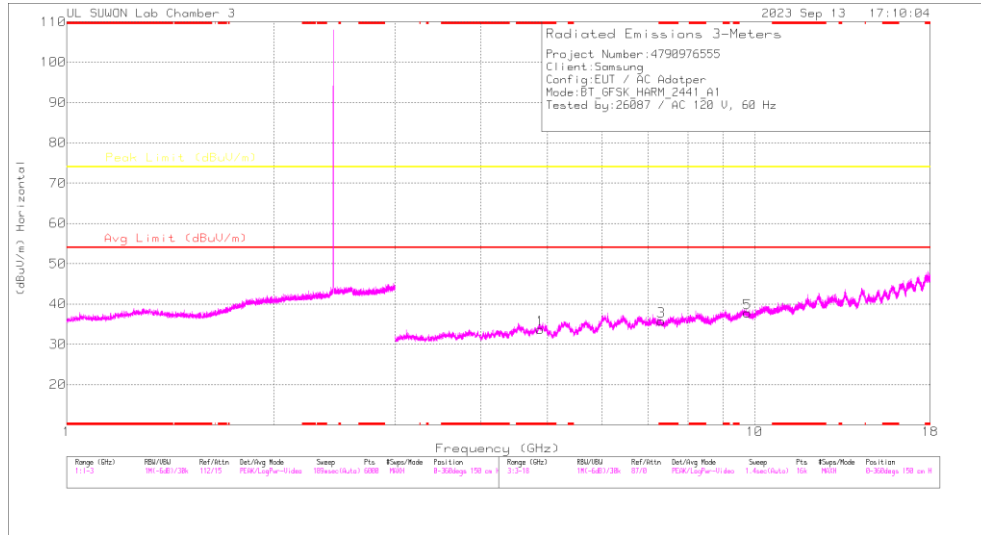
VERTICAL

Radiated Emissions

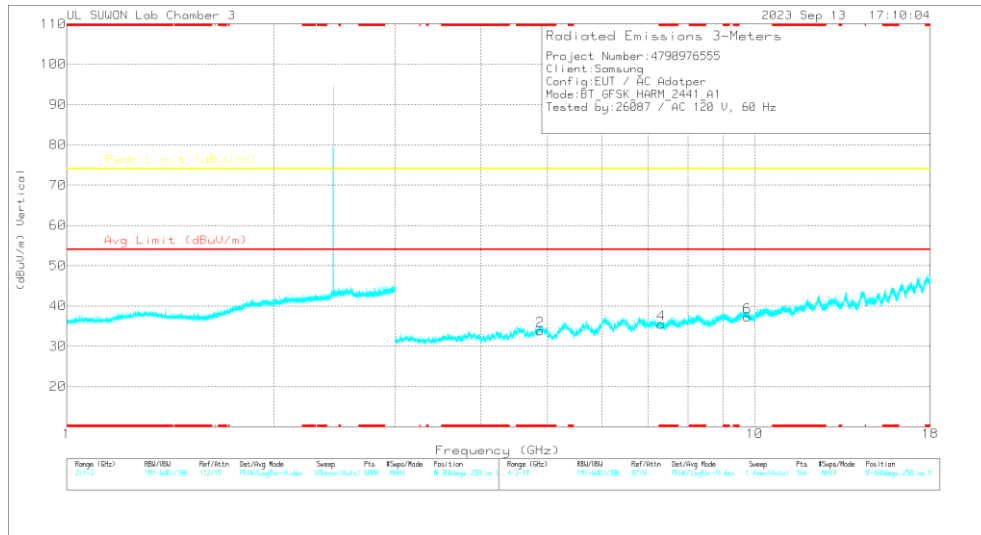
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.8046	37.99	PKFH	34.3	-30.1	42.19	-	-	74	-31.81	0	100	H
* 4.80498	37.11	PKFH	34.3	-30.1	41.31	-	-	74	-32.69	0	100	V
7.20689	32.82	PKFH	35.8	-25.9	42.72	-	-	74	-31.28	0	100	H
7.20665	33.93	PKFH	35.8	-25.9	43.83	-	-	74	-30.17	0	100	V
9.60867	30.31	PKFH	36.7	-21.7	45.31	-	-	74	-28.69	0	100	H
9.60892	31.38	PKFH	36.7	-21.7	46.38	-	-	74	-27.62	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

39 CHANNEL RESULTS



HORIZONTAL



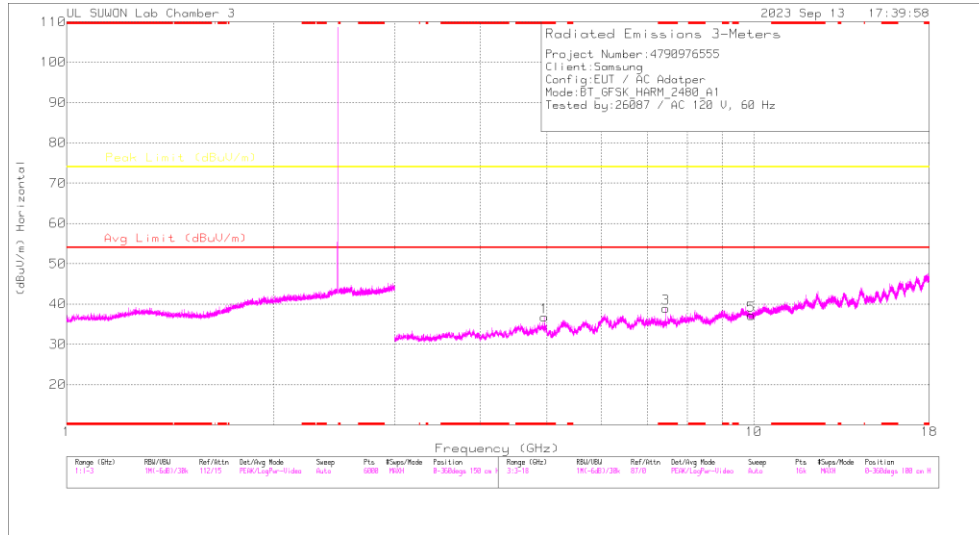
VERTICAL

Radiated Emissions

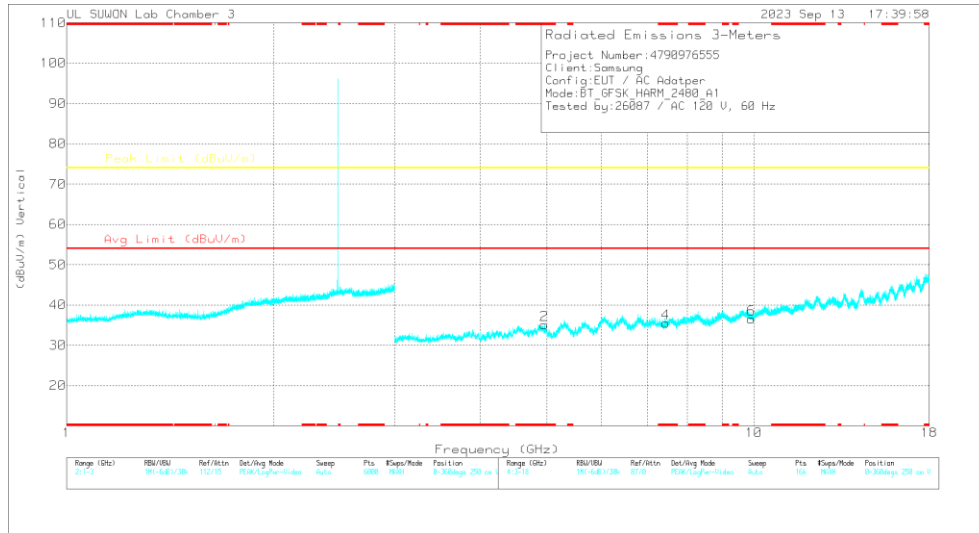
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(f/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88277	37.36	PKFH	34.2	-30	41.56	-	-	74	-32.44	0	100	H
* 4.88261	37.44	PKFH	34.2	-30	41.64	-	-	74	-32.36	0	100	V
* 7.3231	33.26	PKFH	35.8	-25.5	43.56	-	-	74	-30.44	0	100	H
* 7.32286	32.52	PKFH	35.8	-25.5	42.82	-	-	74	-31.18	0	100	V
9.76444	29.43	PKFH	36.9	-21.5	44.83	-	-	74	-29.17	0	100	H
9.76449	30.28	PKFH	36.9	-21.5	45.68	-	-	74	-28.32	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

78 CHANNEL RESULTS



HORIZONTAL



VERTICAL

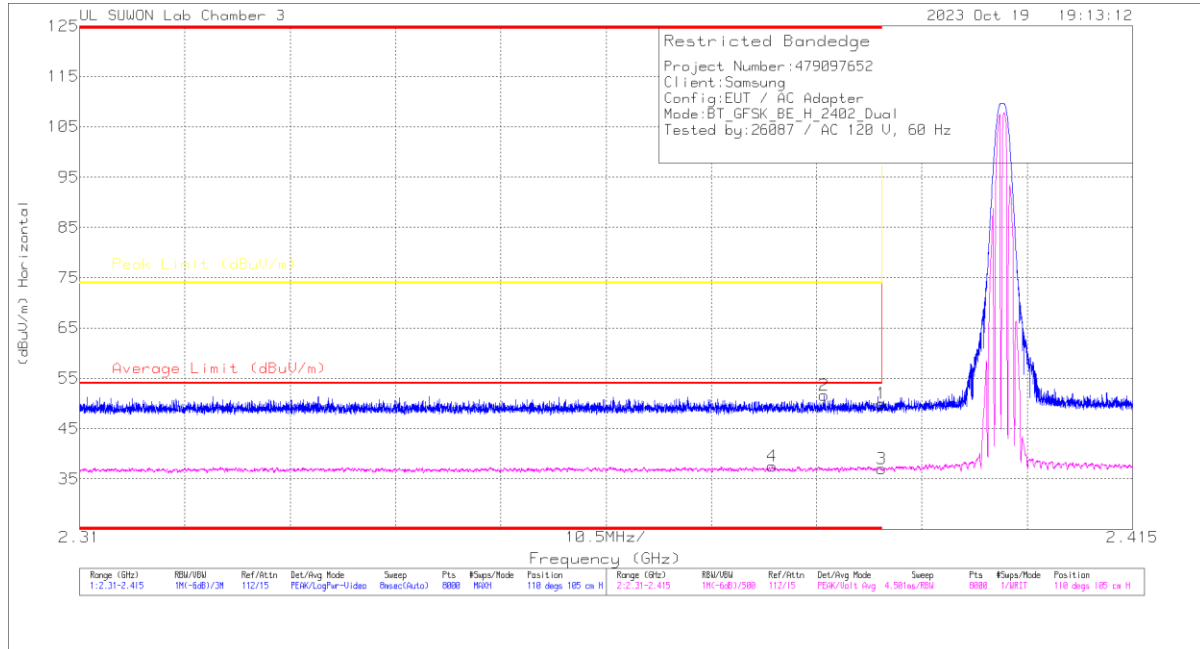
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/1m)	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.9601	38.75	PKFH	34.3	-30	43.05	-	-	74	-30.95	188	165	H
* 4.96006	29.38	VA1T	34.3	-30	33.68	54	-20.32	-	-	188	165	H
* 4.96033	38.88	PKFH	34.3	-30	43.18	-	-	74	-30.82	155	108	V
* 4.96006	27.06	VA1T	34.3	-30	31.36	54	-22.64	-	-	155	108	V
* 7.4398	34.26	PKFH	35.7	-25.2	44.76	-	-	74	-29.24	223	326	H
* 7.44008	23.38	VA1T	35.7	-25.2	33.88	54	-20.12	-	-	223	326	H
* 7.43943	33.69	PKFH	35.7	-25.2	44.19	-	-	74	-29.81	180	155	V
* 7.43967	21.42	VA1T	35.7	-25.2	31.92	54	-22.08	-	-	180	155	V
9.92174	30.32	PKFH	37.1	-21.3	46.12	-	-	74	-27.88	0	100	H
9.91843	30.01	PKFH	37.1	-21.3	45.81	-	-	74	-28.19	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

**DUAL
 BANDEDGE (0 CHANNEL)**

HORIZONTAL RESULT

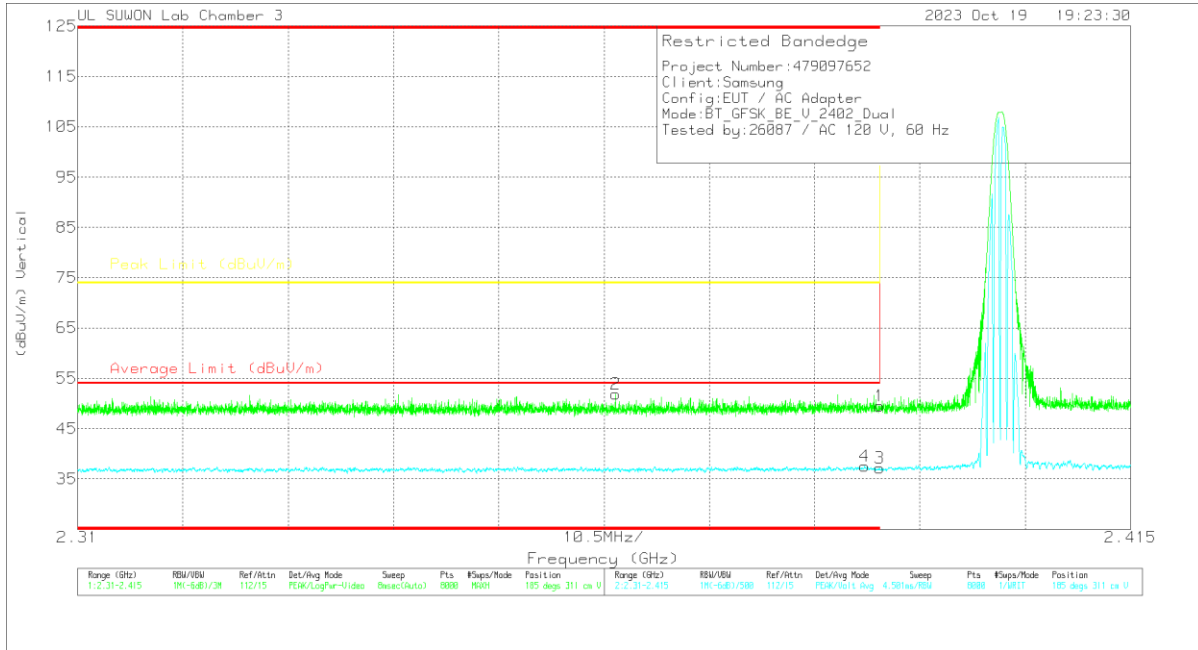


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor (dB(1/m))	Path Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.66	Pk	32.1	-24.8	49.96	-	-	74	-24.04	110	105	H
2	* 2.38423	44.47	Pk	32.1	-24.9	51.67	-	-	74	-22.33	110	105	H
3	* 2.39	29.73	VA1T	32.1	-24.8	37.03	54	-16.97	-	-	110	105	H
4	* 2.37907	30.29	VA1T	32.1	-24.9	37.49	54	-16.51	-	-	110	105	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



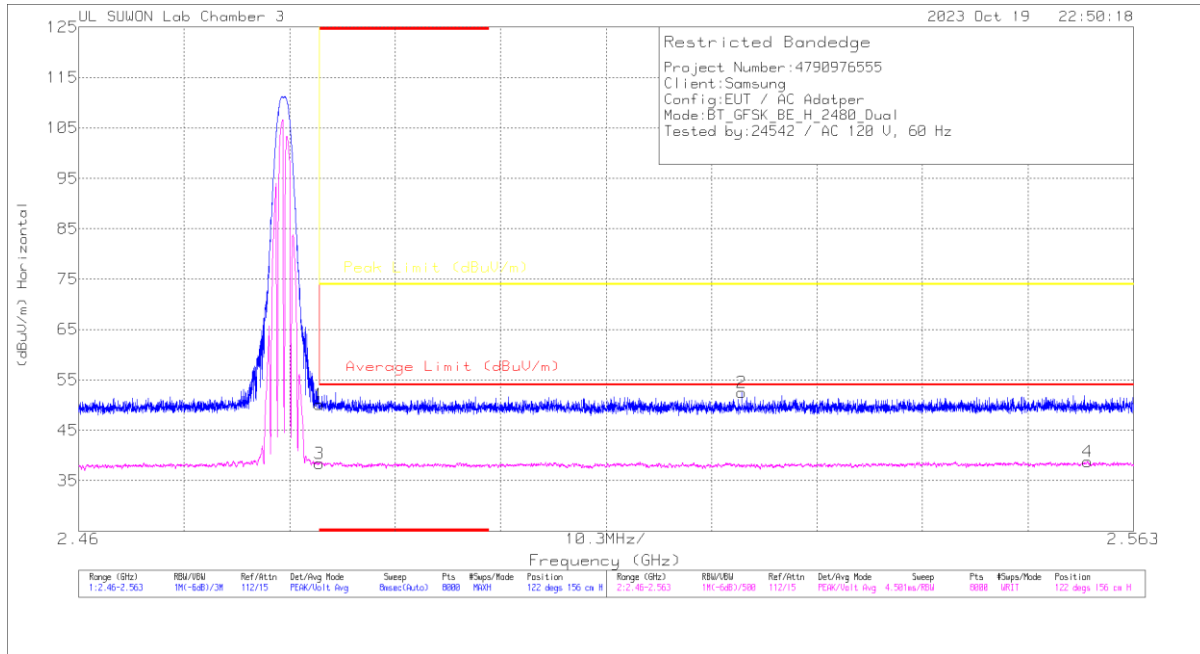
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.18	PK	32.1	-24.8	49.48	-	-	74	-24.52	185	311	V
2	* 2.36362	44.8	PK	32	-24.9	51.9	-	-	74	-22.1	185	311	V
3	* 2.39	29.82	VA1T	32.1	-24.8	37.12	54	-16.88	-	-	185	311	V
4	* 2.38846	30.21	VA1T	32.1	-24.8	37.51	54	-16.49	-	-	185	311	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

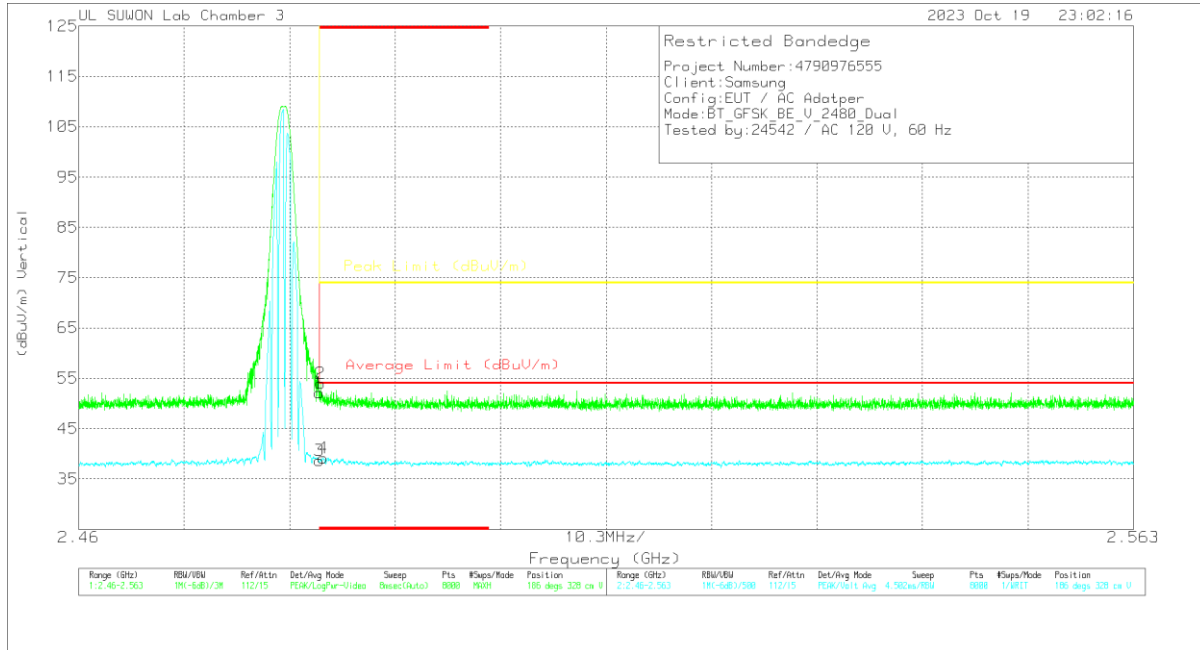


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	42.5	Pk	32.4	-24.8	50.1	-	-	74	-23.9	122	156	H
2	2.52475	44.91	Pk	32.4	-24.8	52.51	-	-	74	-21.49	122	156	H
3	* 2.4835	30.85	VA1T	32.4	-24.8	38.45	54	-15.55	-	-	122	156	H
4	2.55852	31.12	VA1T	32.4	-24.7	38.82	54	-15.18	-	-	122	156	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



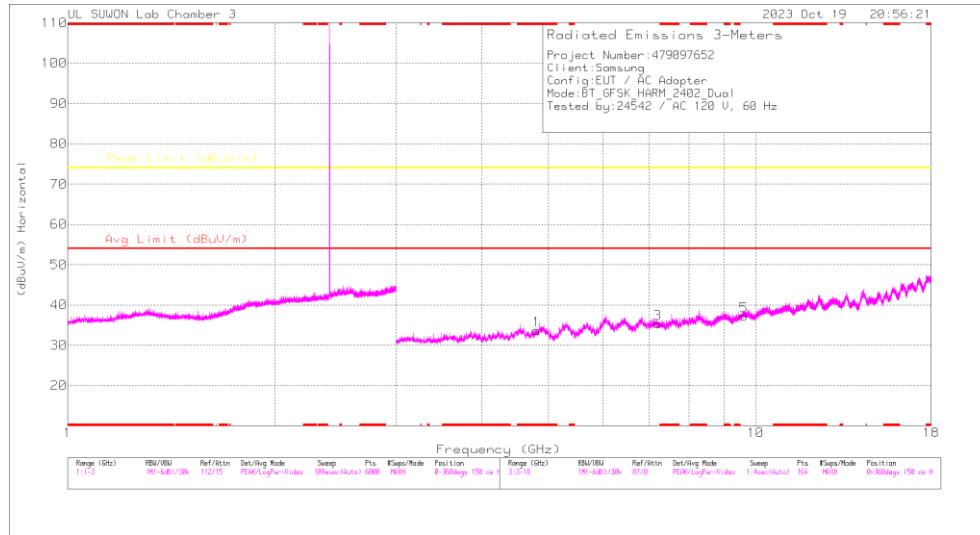
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	44.53	PK	32.4	-24.8	52.13	-	-	74	-21.87	186	328	V
2	* 2.4836	46.42	PK	32.4	-24.8	54.02	-	-	74	-19.98	186	328	V
3	* 2.4835	31.08	VA1T	32.4	-24.8	38.68	54	-15.32	-	-	186	328	V
4	* 2.48389	31.6	VA1T	32.4	-24.8	39.2	54	-14.8	-	-	186	328	V

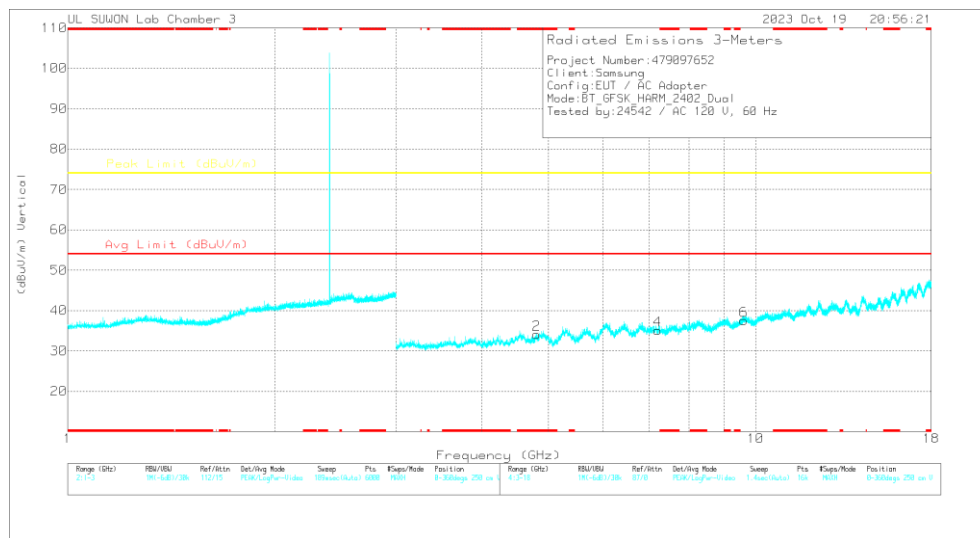
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



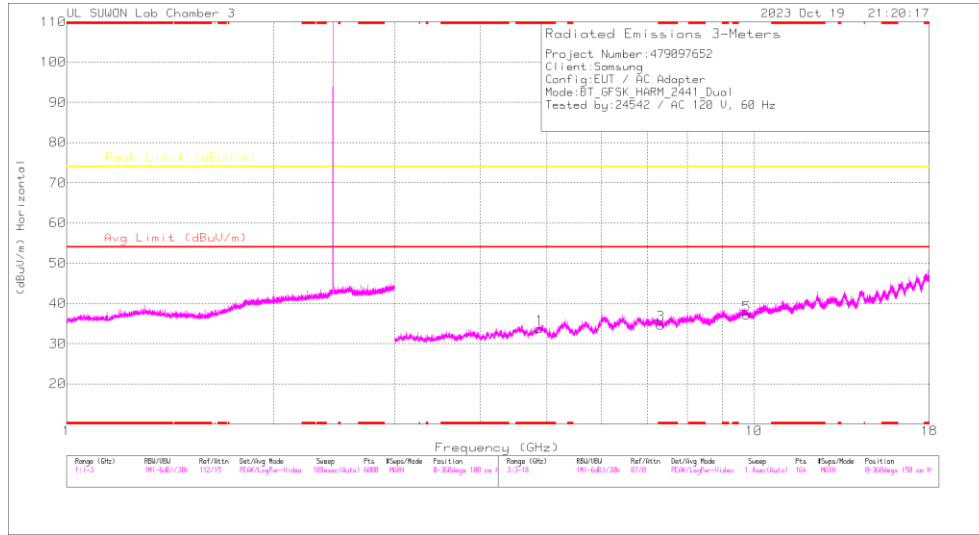
VERTICAL

Radiated Emissions

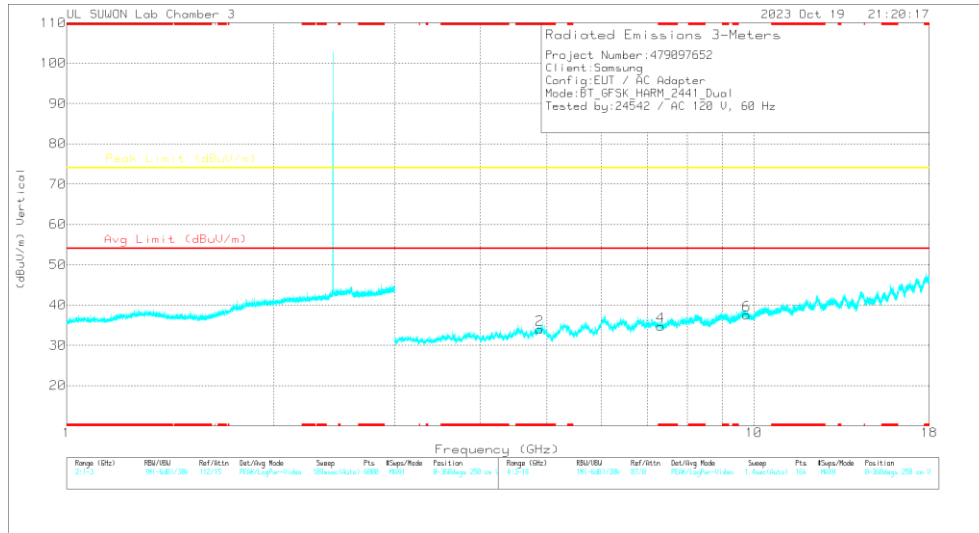
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1m)]	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80074	30.56	PK2	34.3	-30.1	34.76	-	-	74	-39.24	0	100	H
* 4.80473	31.25	PK2	34.3	-30.1	35.45	-	-	74	-38.55	0	100	V
7.20718	24.79	PK2	35.8	-25.9	34.69	-	-	74	-39.31	0	100	H
7.20799	18.83	PK2	35.8	-25.9	28.73	-	-	74	-45.27	0	100	V
9.60916	13.58	PK2	36.7	-21.7	28.58	-	-	74	-45.42	0	100	H
9.60914	21.49	PK2	36.7	-21.7	36.49	-	-	74	-37.51	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK2 - KDB558074 Method: Maximum Peak

39 CHANNEL RESULTS



HORIZONTAL



VERTICAL

Radiated Emissions

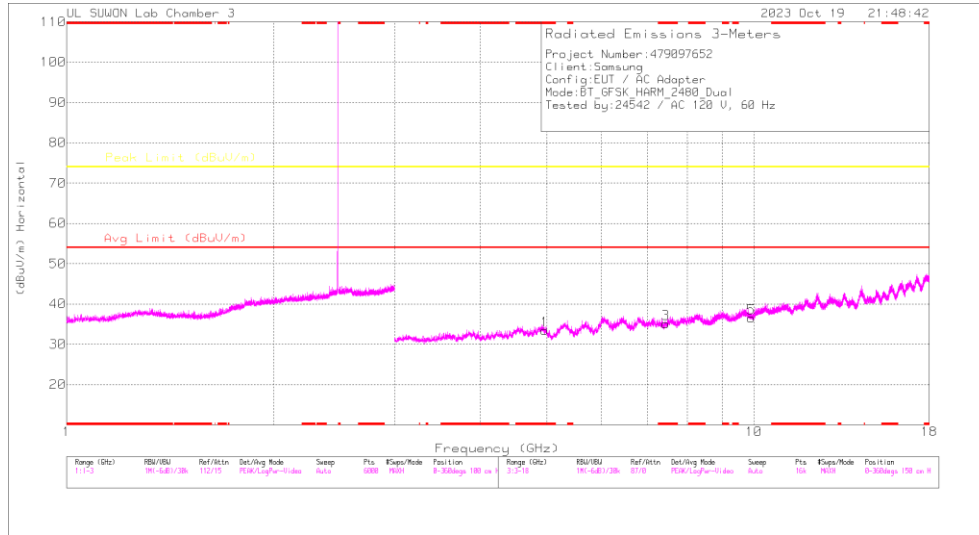
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88572	31.33	PK2	34.2	-29.8	35.73	-	-	74	-38.27	321	100	H
* 4.88418	28.13	MAV1	34.2	-29.9	32.43	54	-21.57	-	-	321	100	H
* 4.88205	39.76	PK2	34.2	-30	43.96	-	-	74	-30.04	0	100	H
* 7.32783	34.84	PK2	35.8	-25.4	45.24	-	-	74	-28.76	0	100	H
* 7.32082	34.7	PK2	35.8	-25.5	45	-	-	74	-29	0	100	H
9.76435	32.23	PK2	36.9	-21.5	47.63	-	-	74	-26.37	0	100	H
9.76702	32.31	PK2	36.9	-21.5	47.71	-	-	74	-26.29	0	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

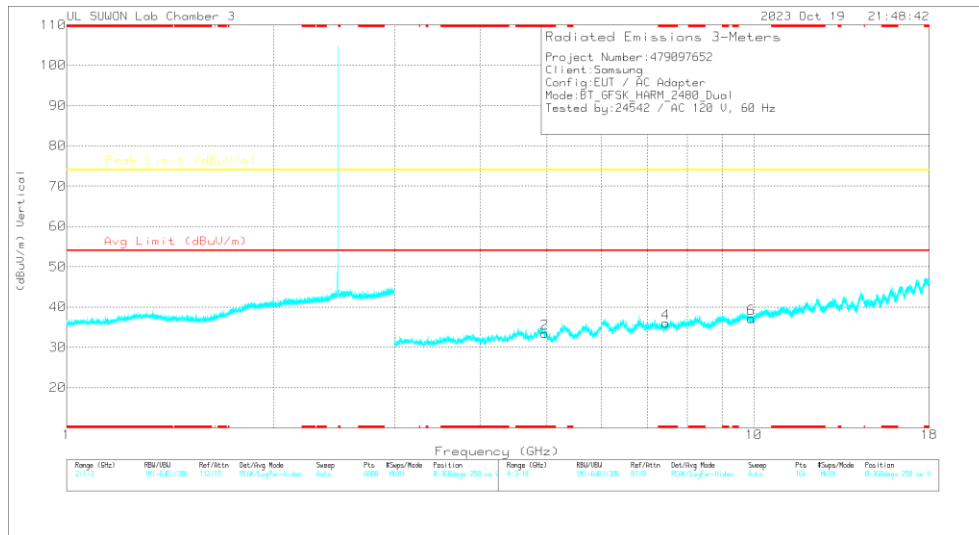
PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

78 CHANNEL RESULTS



HORIZONTAL



VERTICAL

Radiated Emissions

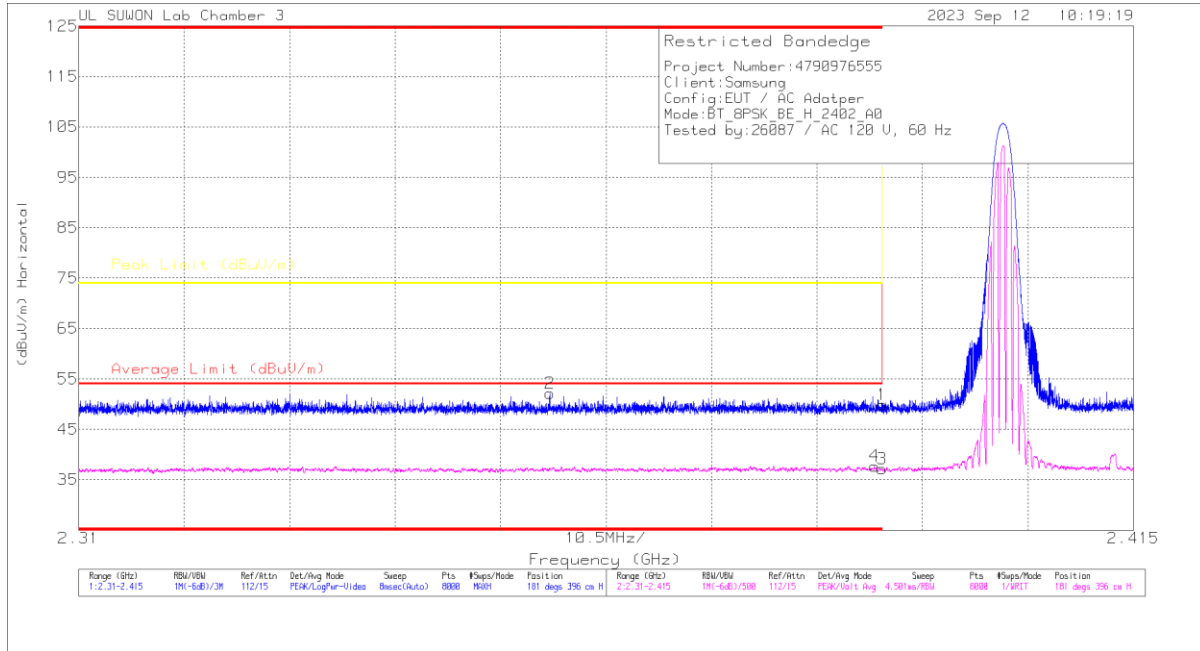
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.95921	39.37	PK2	34.3	-30	43.67	-	-	74	-30.33	315	120	H
* 4.96008	29.06	MAV1	34.3	-30	33.36	54	-20.64	-	-	315	120	H
* 4.96035	40.66	PK2	34.3	-30	44.96	-	-	74	-29.04	332	103	V
* 4.95992	30.34	MAV1	34.3	-30	34.64	54	-19.36	-	-	332	103	V
* 7.43977	34.86	PK2	35.7	-25.2	45.36	-	-	74	-28.64	0	100	H
* 7.44136	35.52	PK2	35.7	-25.2	46.02	-	-	74	-27.98	0	100	V
9.91702	31.12	PK2	37.1	-21.3	46.92	-	-	74	-27.08	0	100	H
9.91967	31.34	PK2	37.1	-21.4	47.04	-	-	74	-26.96	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK2 - KDB558074 Method: Maximum Peak
 MAV1 - KDB558074 Option 1 Maximum RMS Average
 - Video bandwidth < Resolution bandwidth

10.1.2. BLUETOOTH ENHANCED DATA RATE 8PSK MODULATION

ANT1
 BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

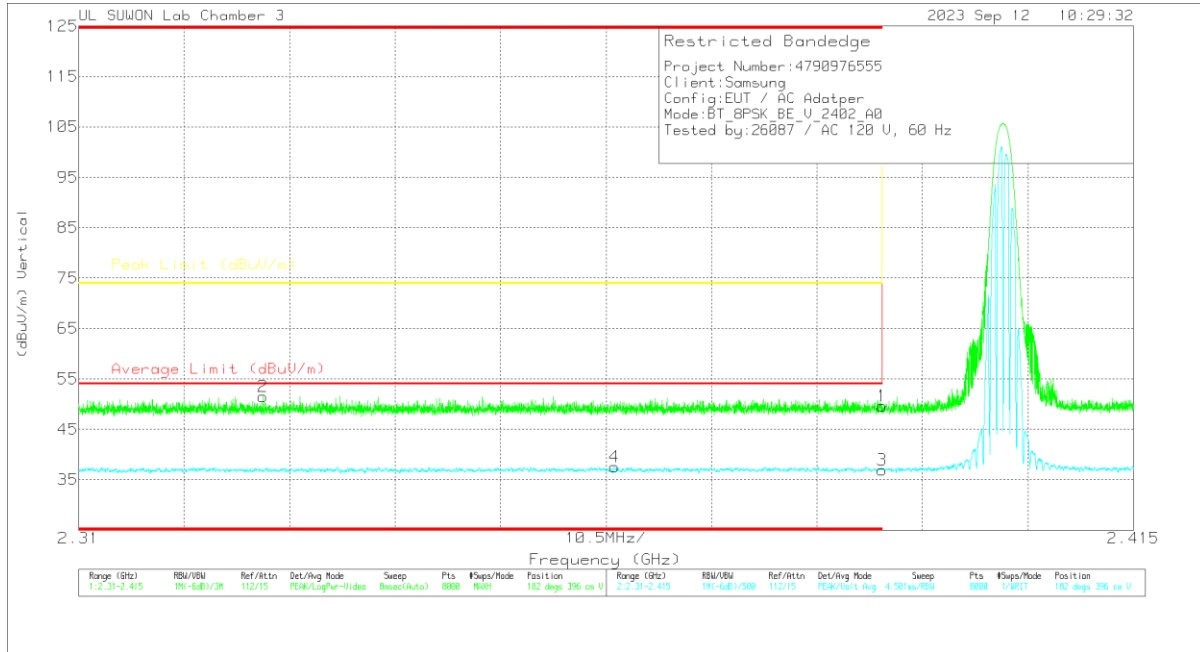


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor (dB(1/m))	Path Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.54	Pk	32.1	-24.8	49.84	-	-	74	-24.16	181	396	H
2	* 2.35689	44.95	Pk	32	-24.8	52.15	-	-	74	-21.85	181	396	H
3	* 2.39	29.87	VA1T	32.1	-24.8	37.17	54	-16.83	-	-	181	396	H
4	* 2.38925	30.43	VA1T	32.1	-24.8	37.73	54	-16.27	-	-	181	396	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average $V_B=1/T_{on}$ where: T_{on} is transmit duration

VERTICAL RESULT



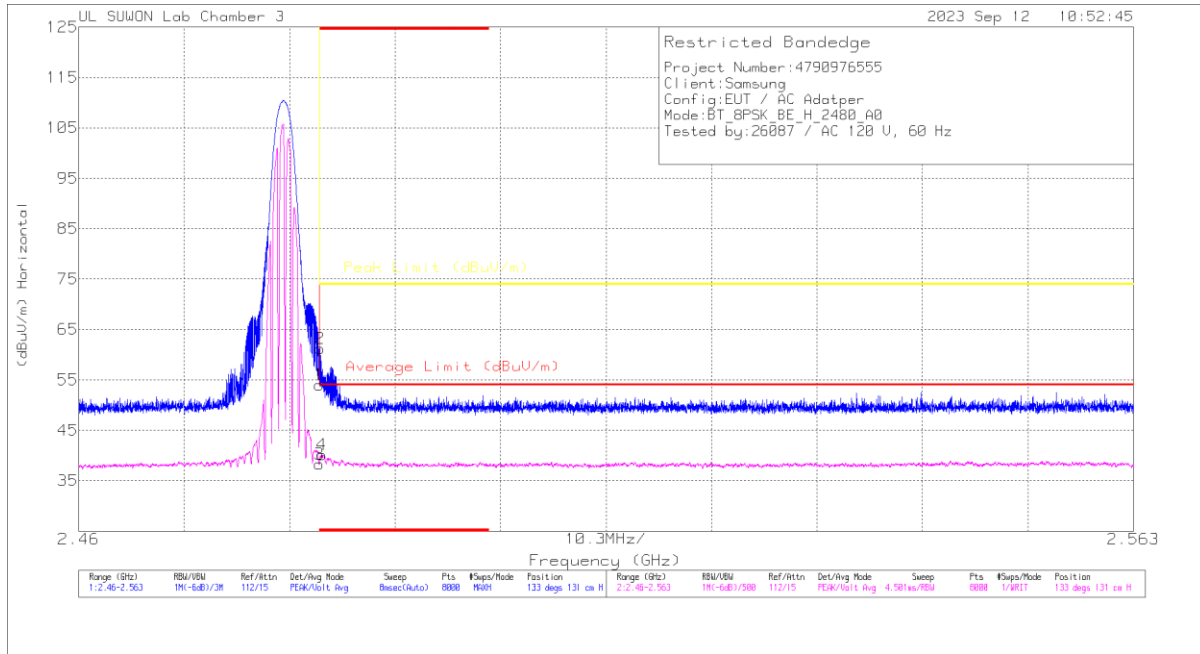
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	42.35	PK	32.1	-24.8	49.65	-	-	74	-24.35	182	396	V
2	* 2.32836	44.54	PK	31.9	-24.9	51.54	-	-	74	-22.46	182	396	V
3	* 2.39	29.63	VA1T	32.1	-24.8	36.93	54	-17.07	-	-	182	396	V
4	* 2.36332	30.5	VA1T	32	-24.9	37.6	54	-16.4	-	-	182	396	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

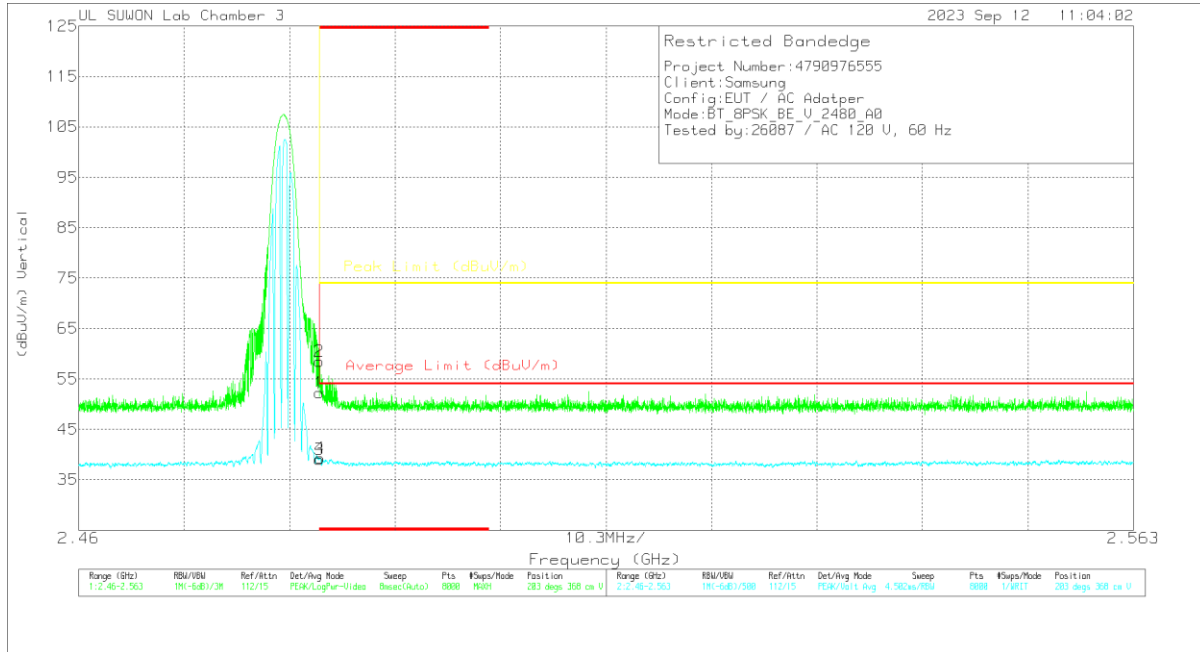


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	46.37	Pk	32.4	-24.8	53.97	-	-	74	-20.03	133	131	H
2	* 2.48356	53.66	Pk	32.4	-24.8	61.26	-	-	74	-12.74	133	131	H
3	* 2.4835	30.66	VA1T	32.4	-24.8	38.26	54	-15.74	-	-	133	131	H
4	* 2.48376	32.53	VA1T	32.4	-24.8	40.13	54	-13.87	-	-	133	131	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



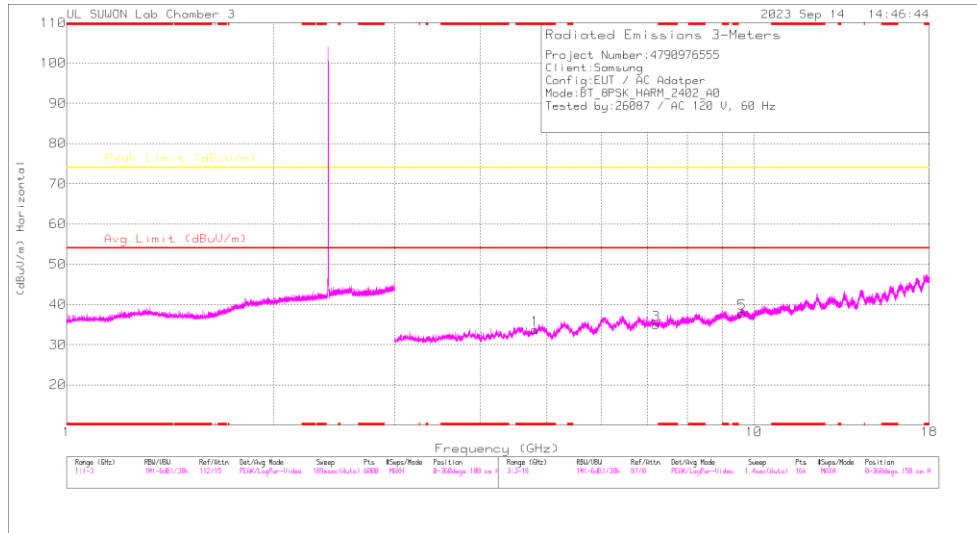
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	44.63	PK	32.4	-24.8	52.23	-	-	74	-21.77	203	368	V
2	* 2.48351	50.84	PK	32.4	-24.8	58.44	-	-	74	-15.56	203	368	V
3	* 2.4835	31.48	VA1T	32.4	-24.8	39.08	54	-14.92	-	-	203	368	V
4	* 2.48356	31.73	VA1T	32.4	-24.8	39.33	54	-14.67	-	-	203	368	V

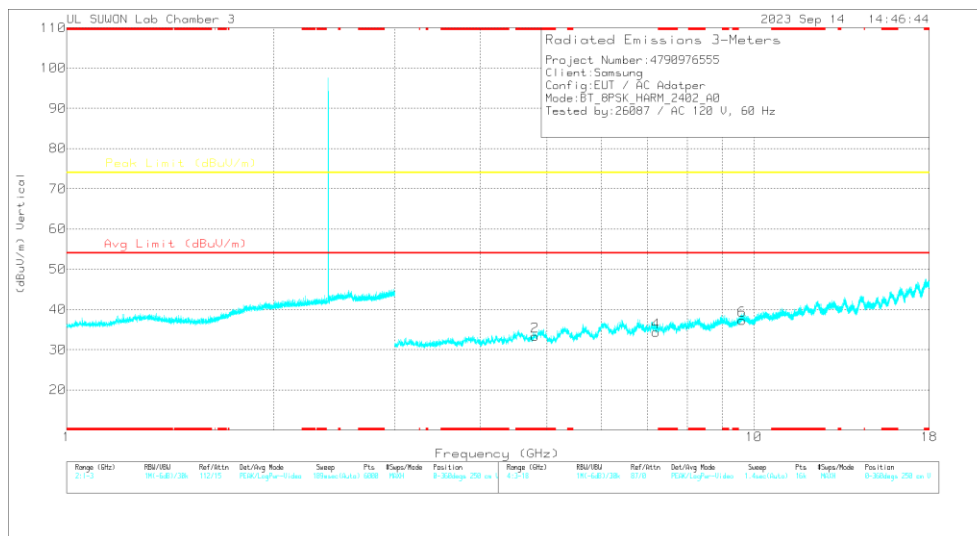
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



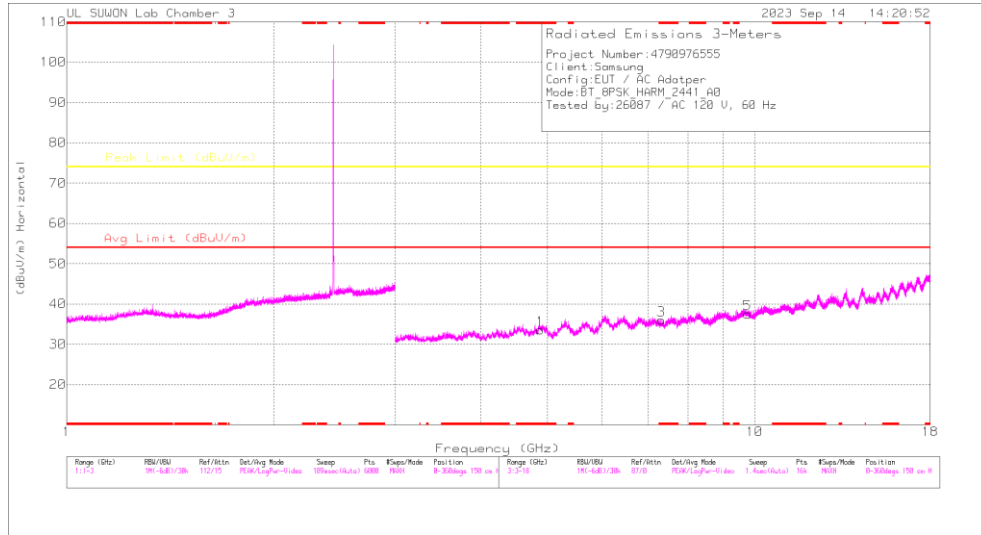
VERTICAL

Radiated Emissions

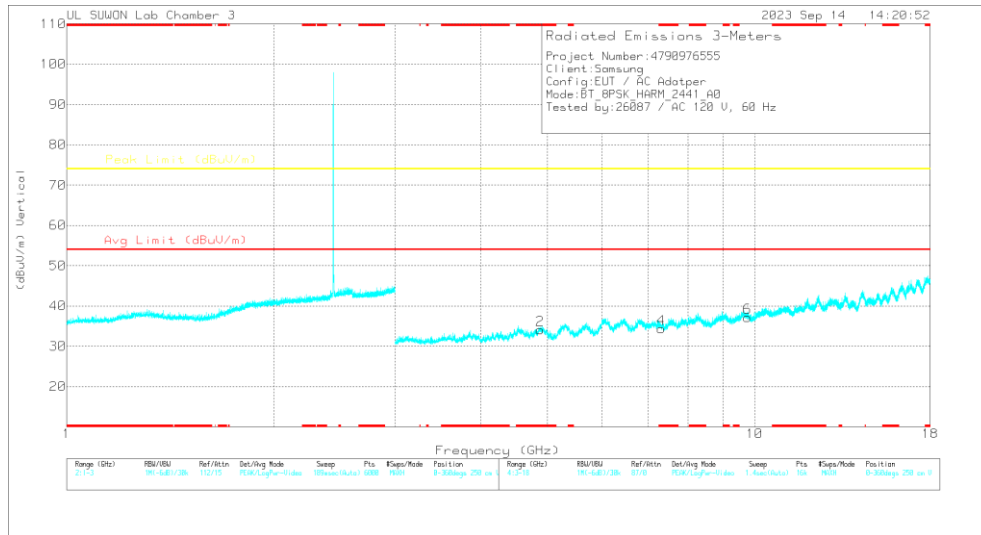
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80459	37.12	PKFH	34.3	-30.1	41.32	-	-	74	-32.68	0	100	H
* 4.80501	37.85	PKFH	34.3	-30.1	42.05	-	-	74	-31.95	0	100	V
7.20681	33.04	PKFH	35.8	-25.9	42.94	-	-	74	-31.06	0	100	H
7.20686	32.96	PKFH	35.8	-25.9	42.86	-	-	74	-31.14	0	100	V
9.60884	30.04	PKFH	36.7	-21.7	45.04	-	-	74	-28.96	0	100	H
9.60896	30.22	PKFH	36.7	-21.7	45.22	-	-	74	-28.78	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

39 CHANNEL RESULTS



HORIZONTAL



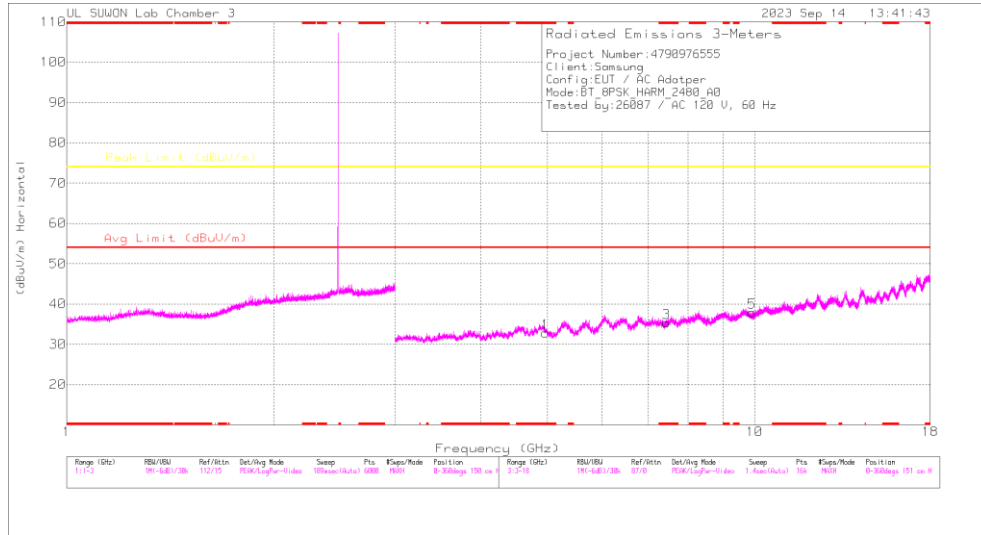
VERTICAL

Radiated Emissions

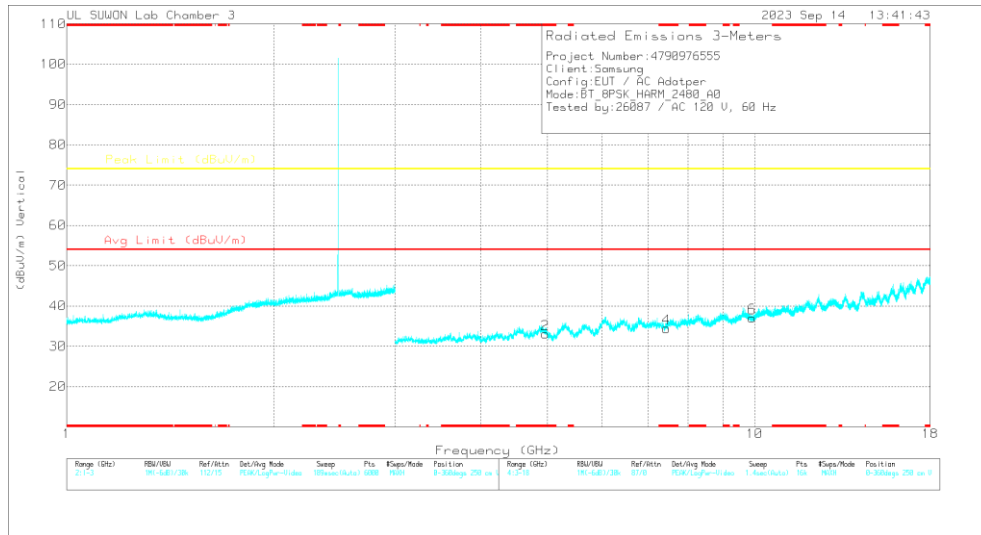
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(f/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88264	37.83	PKFH	34.2	-30	42.03	-	-	74	-31.97	0	100	H
* 4.88278	38.01	PKFH	34.2	-30	42.21	-	-	74	-31.79	0	100	V
* 7.32311	32.22	PKFH	35.8	-25.5	42.52	-	-	74	-31.48	0	100	H
* 7.32318	31.88	PKFH	35.8	-25.5	42.18	-	-	74	-31.82	0	100	V
9.76443	29.76	PKFH	36.9	-21.5	45.16	-	-	74	-28.84	0	100	H
9.76471	30.15	PKFH	36.9	-21.5	45.55	-	-	74	-28.45	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

78 CHANNEL RESULTS



HORIZONTAL



VERTICAL

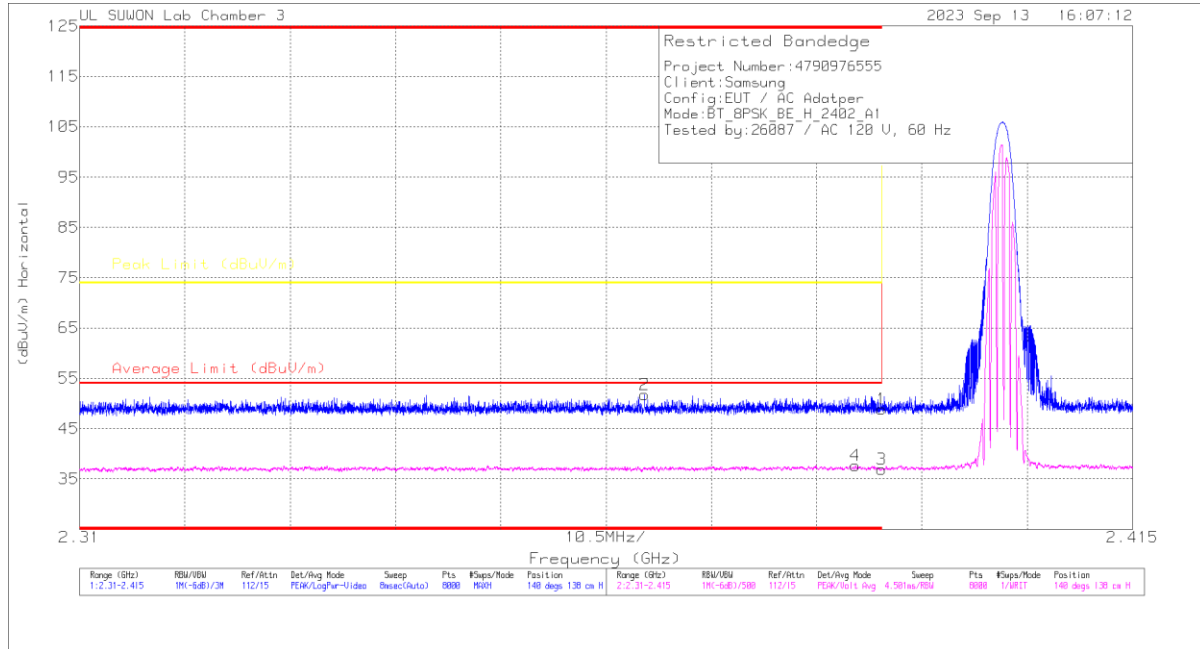
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96032	36.79	PKFH	34.3	-30	41.09	-	-	74	-32.91	0	100	H
* 4.96068	36.97	PKFH	34.3	-30	41.27	-	-	74	-32.73	0	100	V
* 7.44014	31.51	PKFH	35.7	-25.2	42.01	-	-	74	-31.99	0	100	H
* 7.44036	33.05	PKFH	35.7	-25.2	43.55	-	-	74	-30.45	0	100	V
9.91998	29.65	PKFH	37.1	-21.4	45.35	-	-	74	-28.65	0	100	H
9.92035	29.47	PKFH	37.1	-21.4	45.17	-	-	74	-28.83	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

ANT2
BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

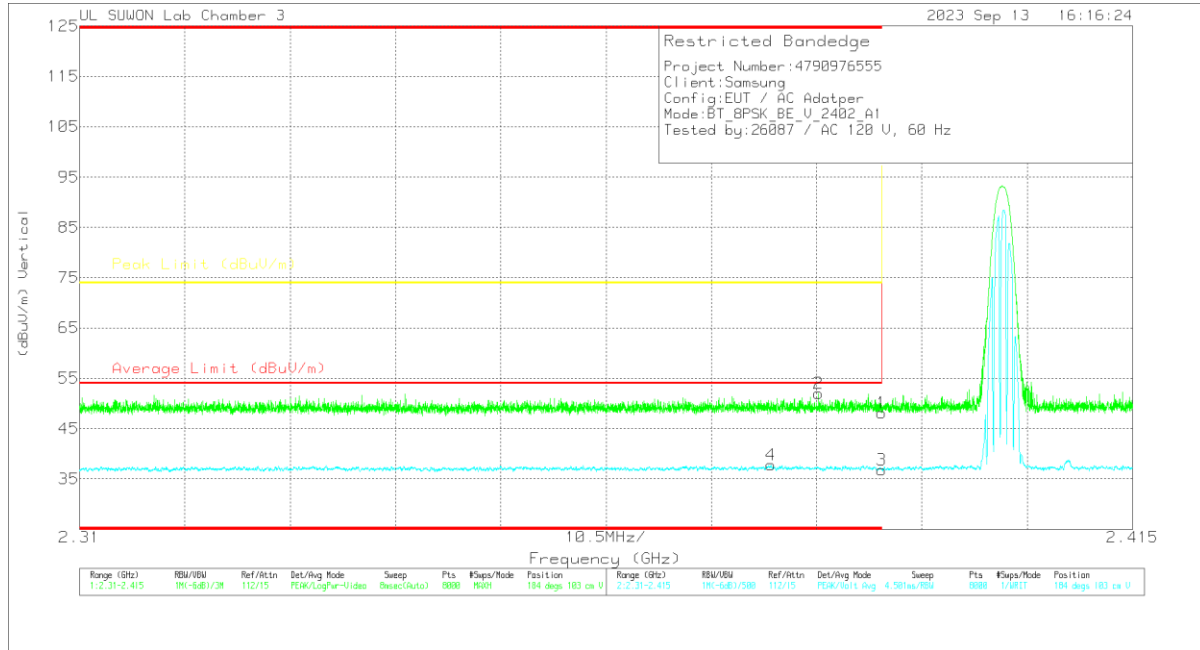


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor (dB(1/m))	Path Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.53	Pk	32.1	-24.8	48.83	-	-	74	-25.17	140	138	H
2	* 2.38634	44.68	Pk	32	-24.9	51.78	-	-	74	-22.22	140	138	H
3	* 2.39	29.6	VA1T	32.1	-24.8	36.9	54	-17.1	-	-	140	138	H
4	* 2.38738	30.41	VA1T	32.1	-24.8	37.71	54	-16.29	-	-	140	138	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



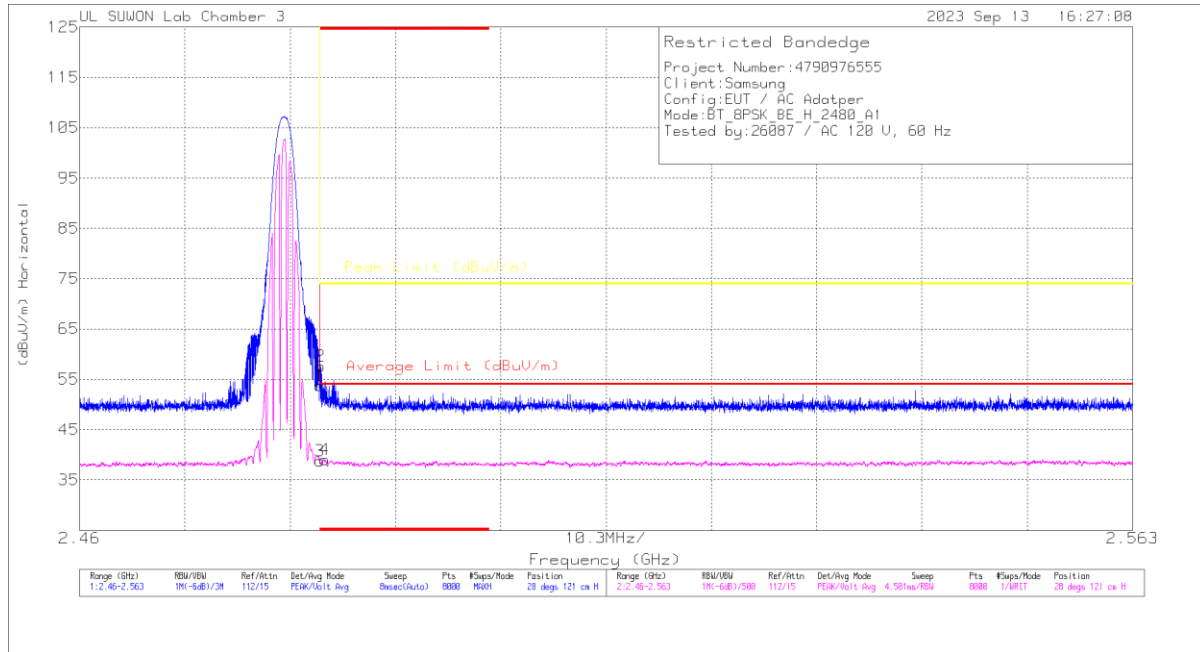
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.79	PK	32.1	-24.8	48.09	-	-	74	-25.91	184	103	V
2	* 2.3837	44.81	PK	32.1	-24.9	52.01	-	-	74	-21.99	184	103	V
3	* 2.39	29.49	VA1T	32.1	-24.8	36.79	54	-17.21	-	-	184	103	V
4	* 2.37894	30.54	VA1T	32.1	-24.9	37.74	54	-16.26	-	-	184	103	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

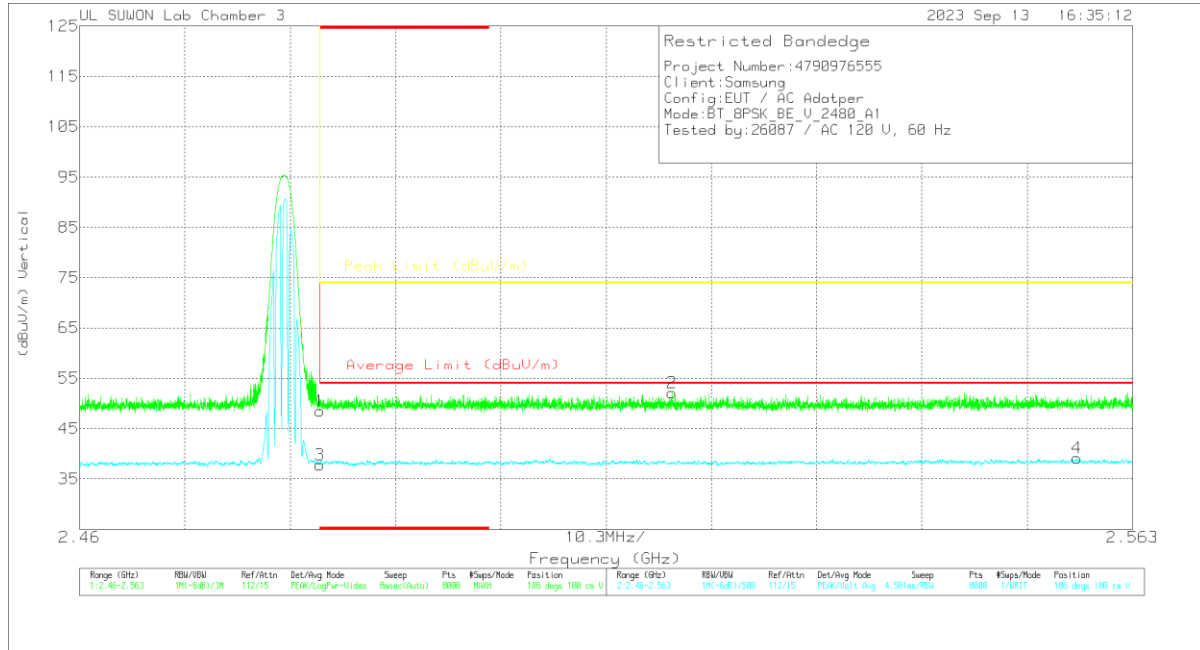


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	46.17	Pk	32.4	-24.8	53.77	-	-	74	-20.23	28	121	H
2	* 2.48353	49.96	Pk	32.4	-24.8	57.56	-	-	74	-16.44	28	121	H
3	* 2.4835	31.17	VA1T	32.4	-24.8	38.77	54	-15.23	-	-	28	121	H
4	* 2.484	31.48	VA1T	32.4	-24.8	39.08	54	-14.92	-	-	28	121	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



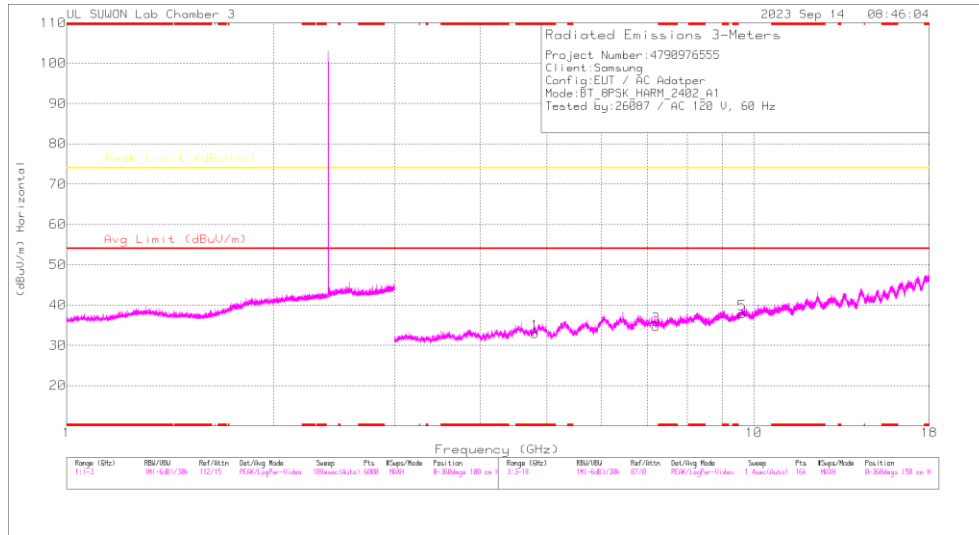
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	40.92	Pk	32.4	-24.8	48.52	-	-	74	-25.48	186	100	V
2	2.51795	44.57	Pk	32.4	-24.8	52.17	-	-	74	-21.83	186	100	V
3	* 2.4835	30.21	VA1T	32.4	-24.8	37.81	54	-16.19	-	-	186	100	V
4	2.55757	31.5	VA1T	32.4	-24.7	39.2	54	-14.8	-	-	186	100	V

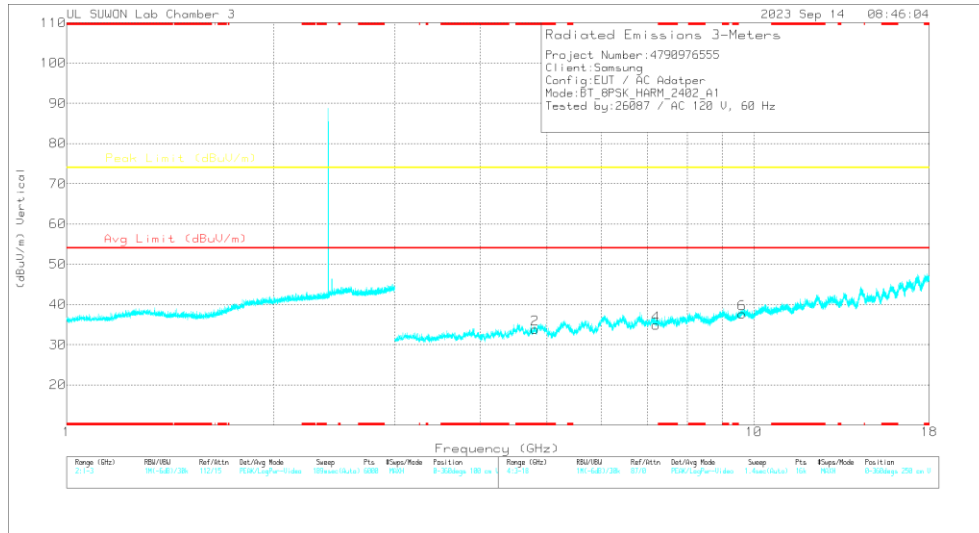
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



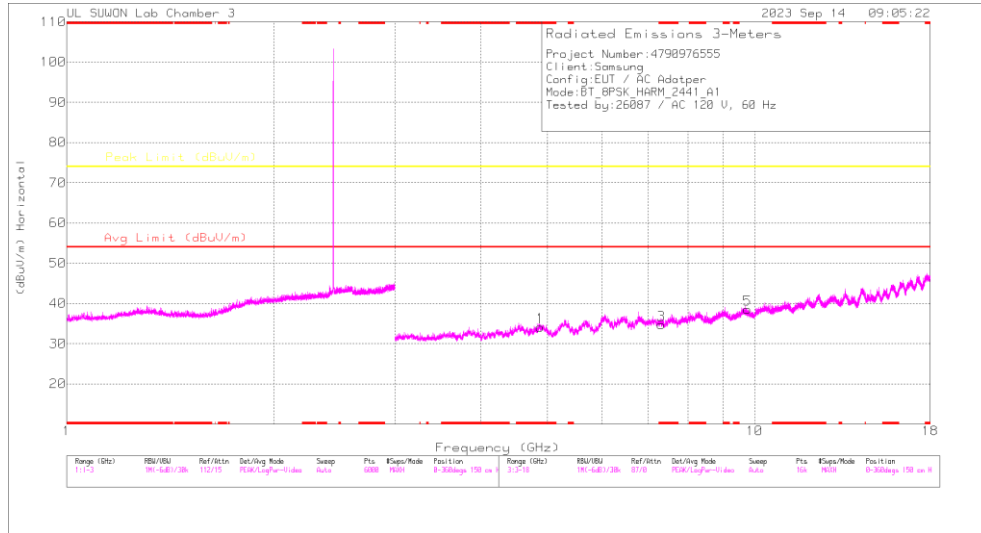
VERTICAL

Radiated Emissions

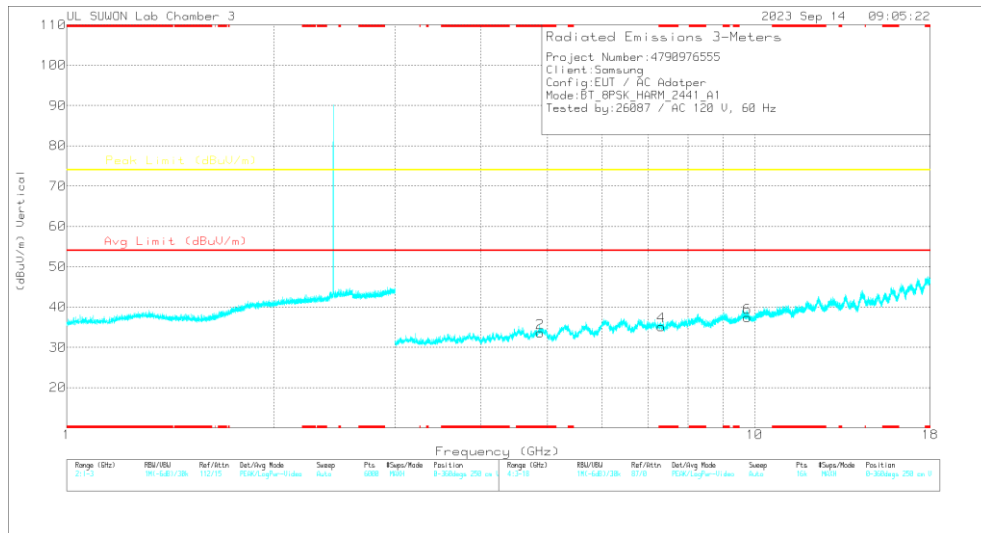
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80471	37.25	PKFH	34.3	-30.1	41.45	-	-	74	-32.55	0	100	H
* 4.80457	36.7	PKFH	34.3	-30.1	40.9	-	-	74	-33.1	0	100	V
7.2066	32.97	PKFH	35.8	-25.9	42.87	-	-	74	-31.13	0	100	H
7.2067	33.67	PKFH	35.8	-25.9	43.57	-	-	74	-30.43	0	100	V
9.60896	30.58	PKFH	36.7	-21.7	45.58	-	-	74	-28.42	0	100	H
9.60863	30.26	PKFH	36.7	-21.7	45.26	-	-	74	-28.74	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

39 CHANNEL RESULTS



HORIZONTAL



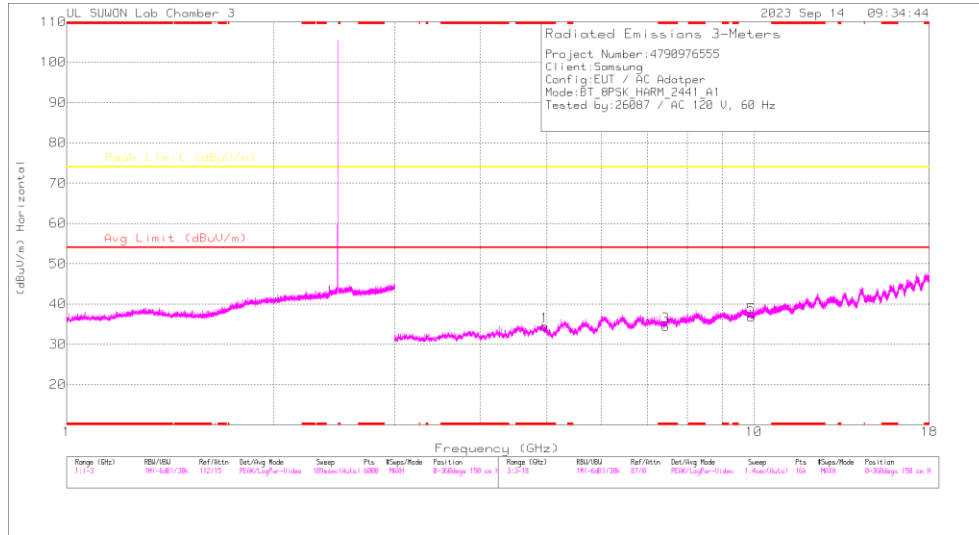
VERTICAL

Radiated Emissions

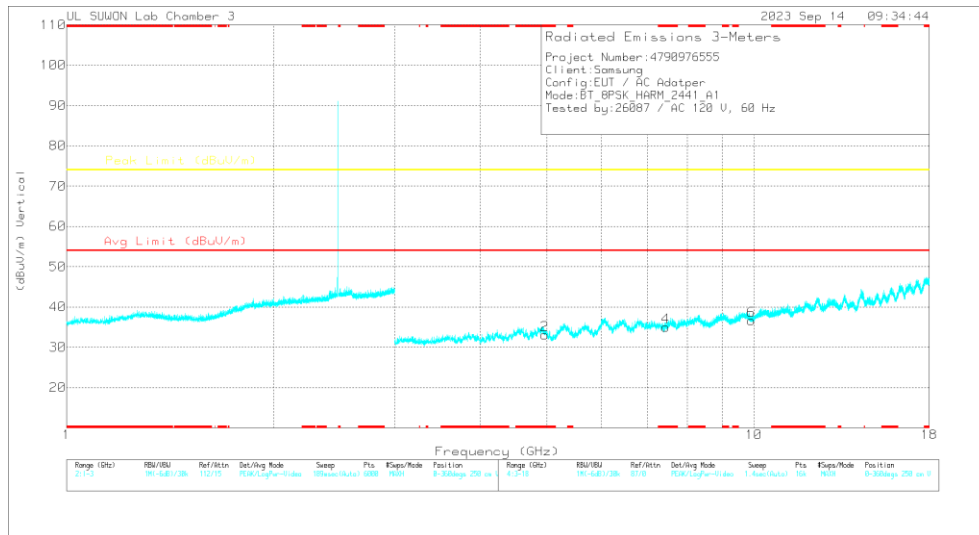
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88191	37.81	PKFH	34.2	-30	42.01	-	-	74	-31.99	0	100	H
* 4.88155	37.99	PKFH	34.2	-29.9	42.29	-	-	74	-31.71	0	100	V
* 7.32312	32.04	PKFH	35.8	-25.5	42.34	-	-	74	-31.66	0	100	H
* 7.3233	33.34	PKFH	35.8	-25.5	43.64	-	-	74	-30.36	0	100	V
9.76427	30.22	PKFH	36.9	-21.5	45.62	-	-	74	-28.38	0	100	H
9.76445	30.62	PKFH	36.9	-21.5	46.02	-	-	74	-27.98	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

78 CHANNEL RESULTS



HORIZONTAL



VERTICAL

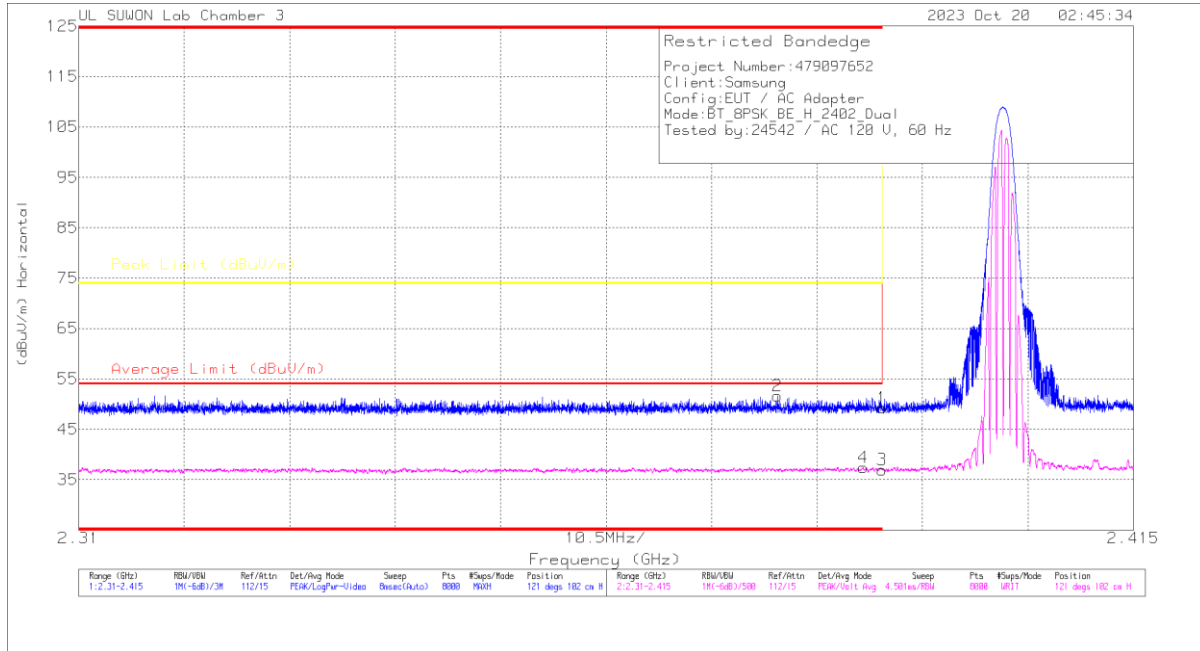
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96031	37.13	PKFH	34.3	-30	41.43	-	-	74	-32.57	0	100	H
* 4.96063	36.8	PKFH	34.3	-30	41.1	-	-	74	-32.9	0	100	V
* 7.44018	33.01	PKFH	35.7	-25.2	43.51	-	-	74	-30.49	0	100	H
* 7.4401	32.74	PKFH	35.7	-25.2	43.24	-	-	74	-30.76	0	100	V
9.91991	29.37	PKFH	37.1	-21.4	45.07	-	-	74	-28.93	0	100	H
9.91989	28.1	PKFH	37.1	-21.4	43.8	-	-	74	-30.2	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

**DUAL
 BANDEDGE (0 CHANNEL)**

HORIZONTAL RESULT

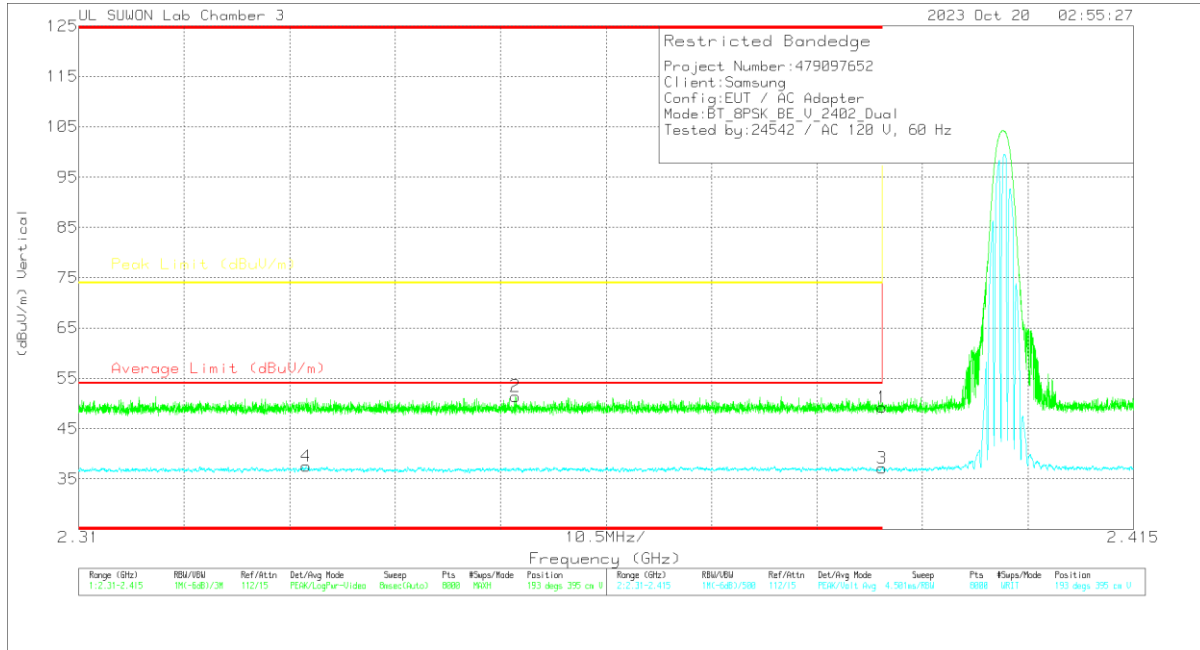


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor (dB(1/m))	Path Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.94	Pk	32.1	-24.8	49.24	-	-	74	-24.76	121	102	H
2	* 2.37959	44.47	Pk	32.1	-24.9	51.67	-	-	74	-22.33	121	102	H
3	* 2.39	29.68	VA1T	32.1	-24.8	36.98	54	-17.02	-	-	121	102	H
4	* 2.38809	30.17	VA1T	32.1	-24.8	37.47	54	-16.53	-	-	121	102	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



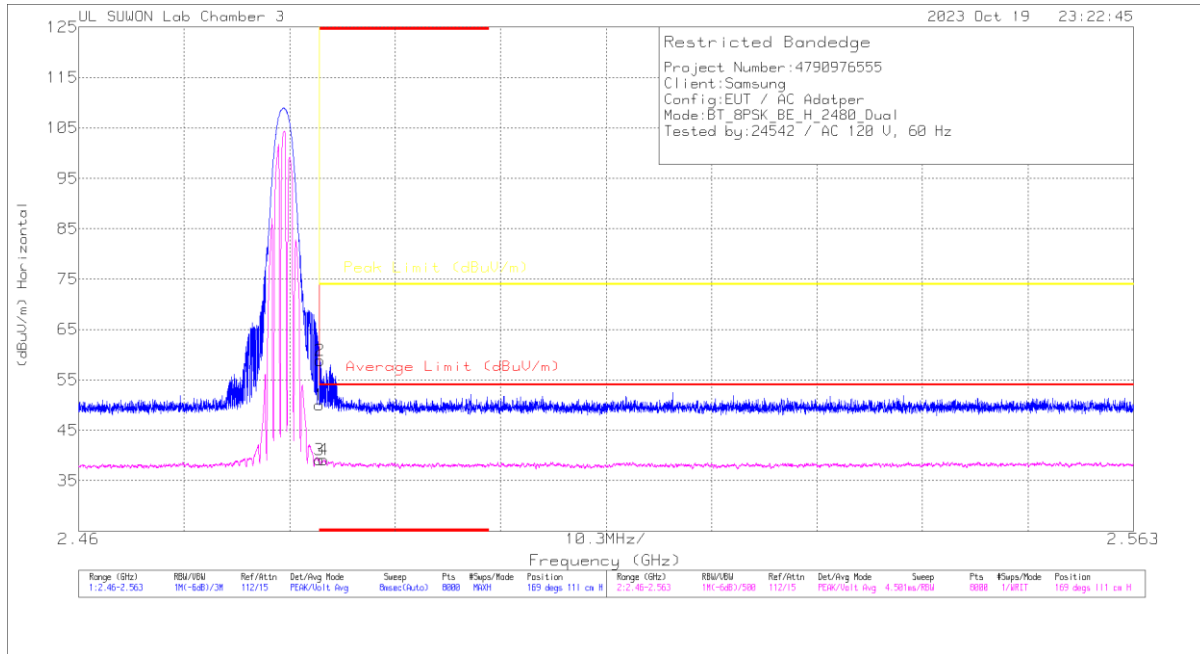
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.94	PK	32.1	-24.8	49.24	-	-	74	-24.76	193	395	V
2	* 2.3535	44.24	PK	32	-24.8	51.44	-	-	74	-22.56	193	395	V
3	* 2.39	29.91	VA1T	32.1	-24.8	37.21	54	-16.79	-	-	193	395	V
4	* 2.33264	30.45	VA1T	31.9	-24.8	37.55	54	-16.45	-	-	193	395	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

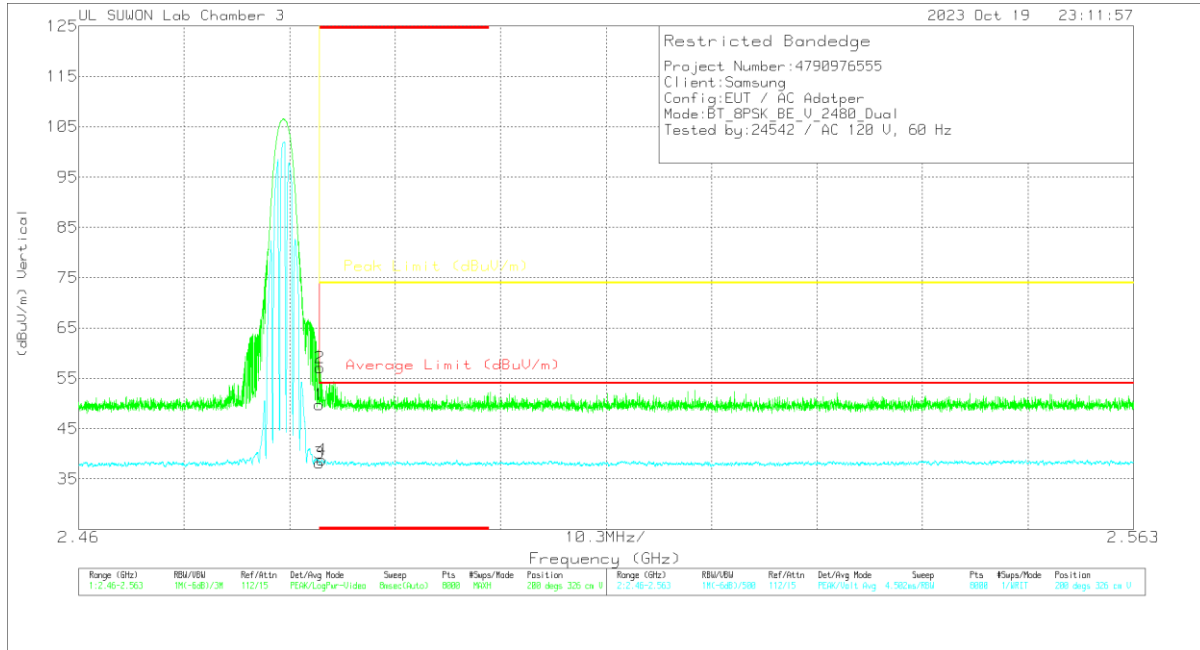


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	42.38	Pk	32.4	-24.8	49.98	-	-	74	-24.02	169	111	H
2	* 2.48358	51.31	Pk	32.4	-24.8	58.91	-	-	74	-15.09	169	111	H
3	* 2.4835	31.51	VA1T	32.4	-24.8	39.11	54	-14.89	-	-	169	111	H
4	* 2.48395	31.57	VA1T	32.4	-24.8	39.17	54	-14.83	-	-	169	111	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL RESULT



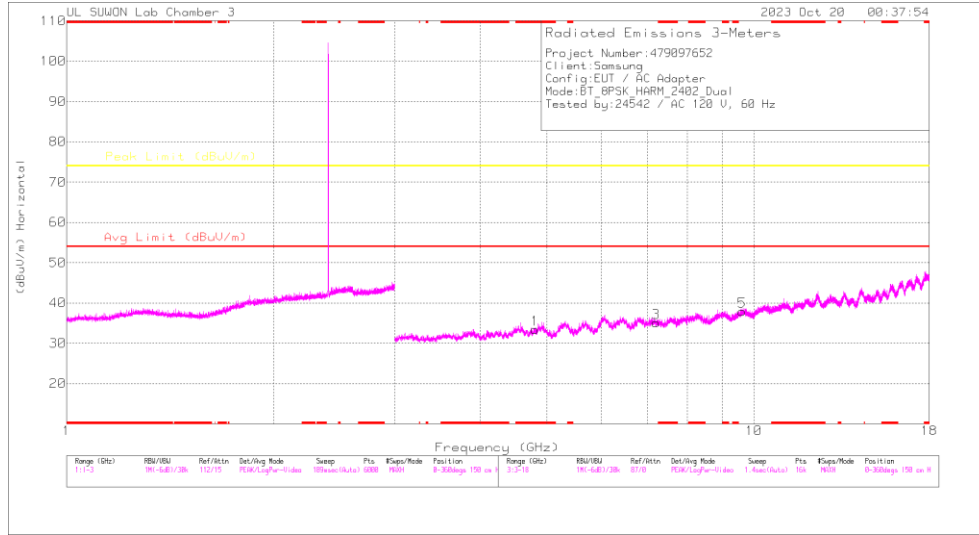
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1/m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	42.14	PK	32.4	-24.8	49.74	-	-	74	-24.26	200	326	V
2	* 2.48355	49.52	PK	32.4	-24.8	57.12	-	-	74	-16.88	200	326	V
3	* 2.4835	30.62	VA1T	32.4	-24.8	38.22	54	-15.78	-	-	200	326	V
4	* 2.48372	31.22	VA1T	32.4	-24.8	38.82	54	-15.18	-	-	200	326	V

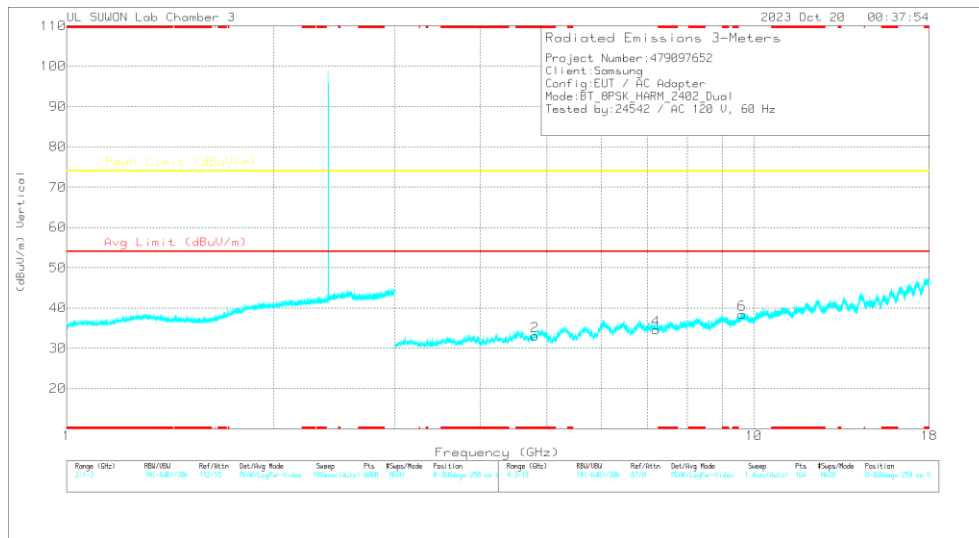
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



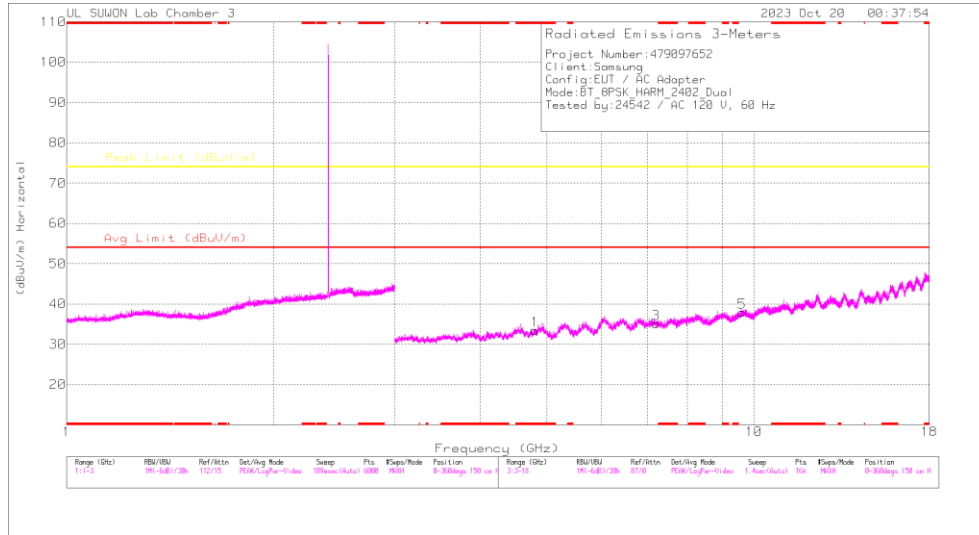
VERTICAL

Radiated Emissions

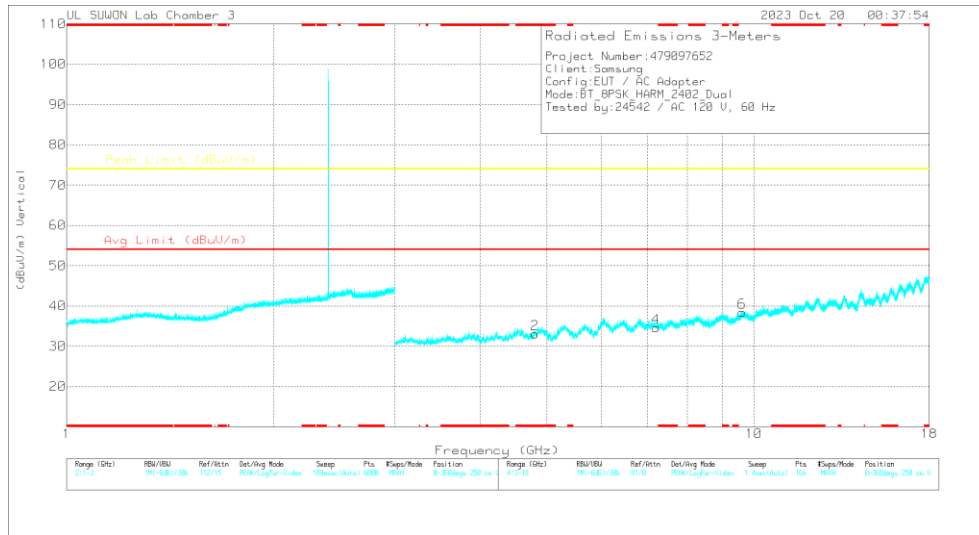
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor[dB(1/m)]	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80531	39.64	PK2	34.3	-30.1	43.84	-	-	74	-30.16	0	100	H
* 4.80171	39.49	PK2	34.3	-30.1	43.69	-	-	74	-30.31	0	100	V
7.20509	35.26	PK2	35.8	-25.9	45.16	-	-	74	-28.84	0	100	H
7.20428	35.25	PK2	35.8	-25.9	45.15	-	-	74	-28.85	0	100	V
9.61146	32.82	PK2	36.7	-21.8	47.72	-	-	74	-26.28	0	100	H
9.61367	32.72	PK2	36.7	-21.7	47.72	-	-	74	-26.28	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK2 - KDB558074 Method: Maximum Peak

39 CHANNEL RESULTS



HORIZONTAL



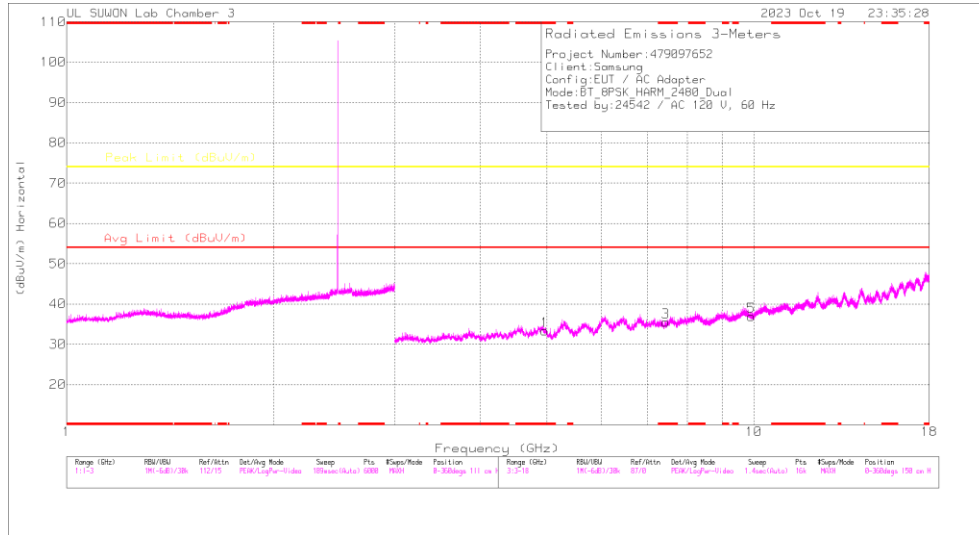
VERTICAL

Radiated Emissions

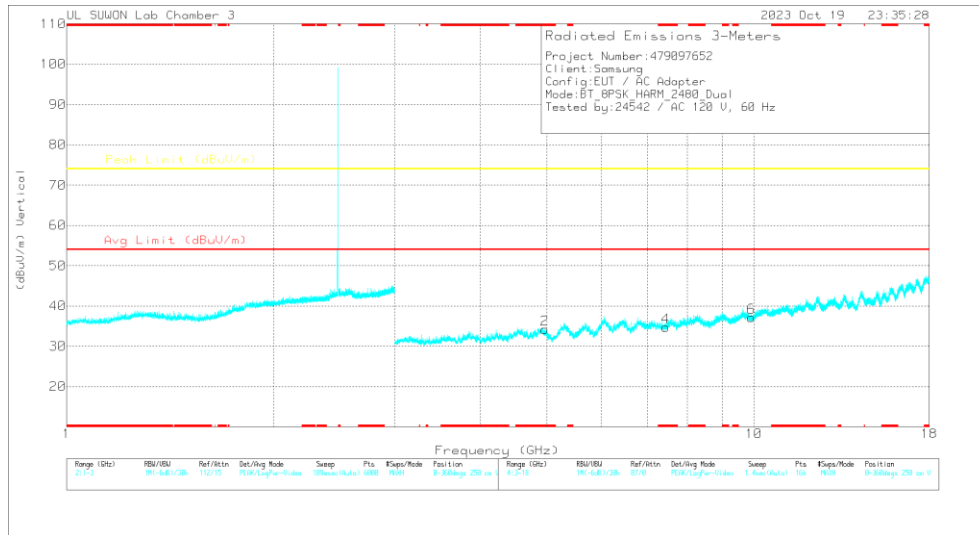
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB(1m))	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80531	39.64	PK2	34.3	-30.1	43.84	-	-	74	-30.16	0	100	H
* 4.80171	39.49	PK2	34.3	-30.1	43.69	-	-	74	-30.31	0	100	V
7.20509	35.26	PK2	35.8	-25.9	45.16	-	-	74	-28.84	0	100	H
7.20428	35.25	PK2	35.8	-25.9	45.15	-	-	74	-28.85	0	100	V
9.61146	32.82	PK2	36.7	-21.8	47.72	-	-	74	-26.28	0	100	H
9.61367	32.72	PK2	36.7	-21.7	47.72	-	-	74	-26.28	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK2 - KDB558074 Method: Maximum Peak

78 CHANNEL RESULTS



HORIZONTAL



VERTICAL

Radiated Emissions

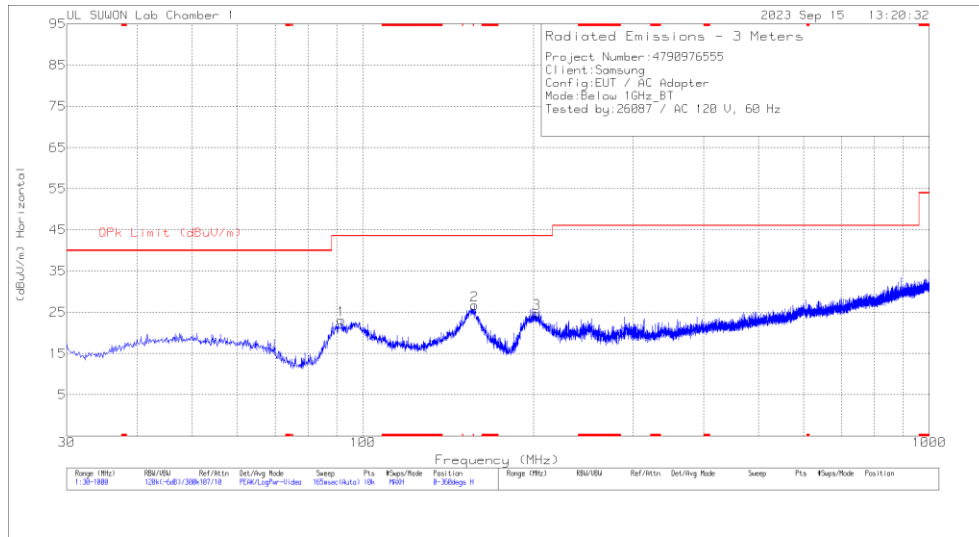
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dBi/1m)	Path Loss(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.95592	32.17	PK2	34.3	-30.1	36.37	-	-	74	-37.63	0	100	H
* 4.96228	22.76	PK2	34.3	-30.1	26.96	-	-	74	-47.04	327	104	V
* 4.96045	28.2	MAv1	34.3	-30	32.5	54	-21.5	-	-	327	104	V
* 7.43963	22.32	PK2	35.7	-25.2	32.82	-	-	74	-41.18	0	100	H
* 7.44506	25.01	PK2	35.7	-25.2	35.51	-	-	74	-38.49	0	100	V
9.91526	16.95	PK2	37.1	-21.4	32.65	-	-	74	-41.35	0	100	H
9.92455	17.12	PK2	37.1	-21.4	32.82	-	-	74	-41.18	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

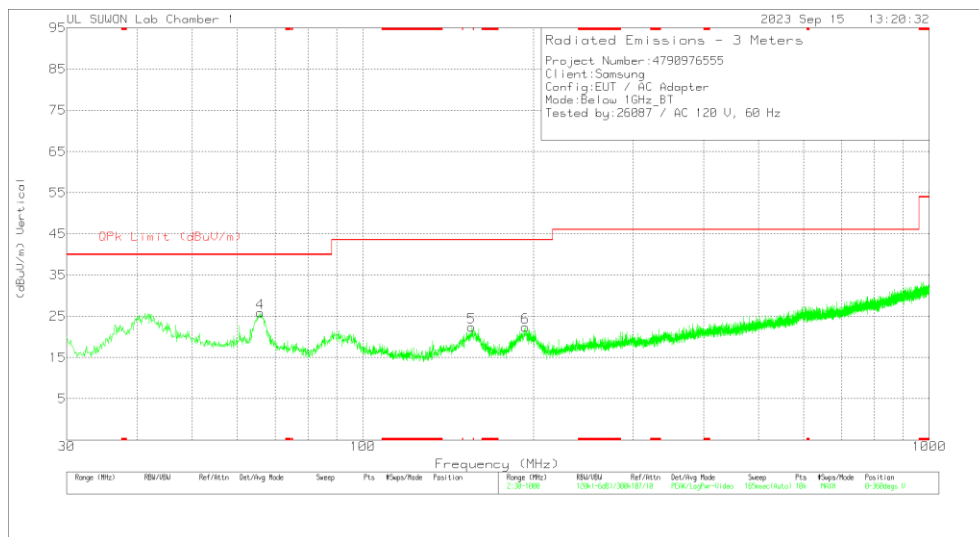
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2. WORST CASE BELOW 1 GHz SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



HORIZONTAL



VERTICAL

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor (dB(1/m))	Path Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	OPK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	91.692	37.11	Pk	16.3	-30.3	0	23.11	43.52	-20.41	0-360	200	H
2	157.652	42.36	Pk	14.1	-29.7	0	26.76	43.52	-16.76	0-360	100	H
3	202.563	37.7	Pk	16.3	-29.2	0	24.8	43.52	-18.72	0-360	100	H
4	65.987	39.91	Pk	16.5	-30.6	0	25.81	40	-14.19	0-360	200	V
5	155.712	37.89	Pk	14.1	-29.6	0	22.39	43.52	-21.13	0-360	200	V
6	193.542	34.78	Pk	16.9	-29.3	0	22.38	43.52	-21.14	0-360	200	V

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10:2013.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS