

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.

$$\text{GFSK} = 1/T = 1 / 0.00287\text{s} = 348\text{Hz}.$$

The minimum VBW was 347Hz, but test receiver(ESU40) couldn't set value 348Hz. 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.

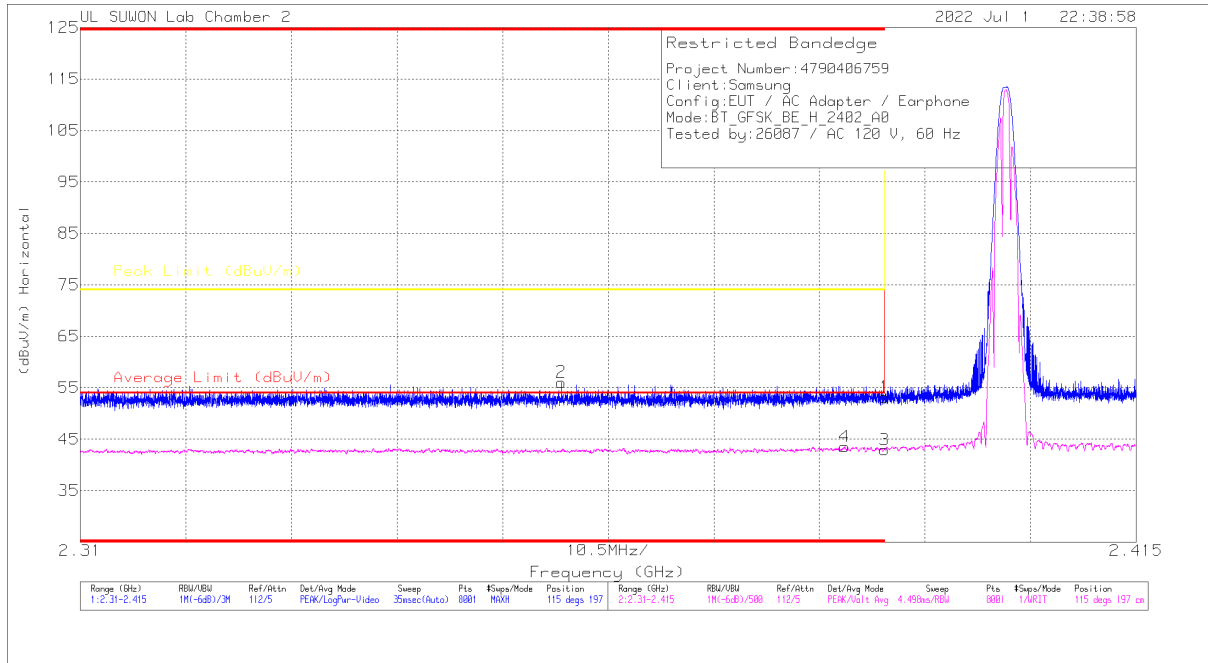
Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field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

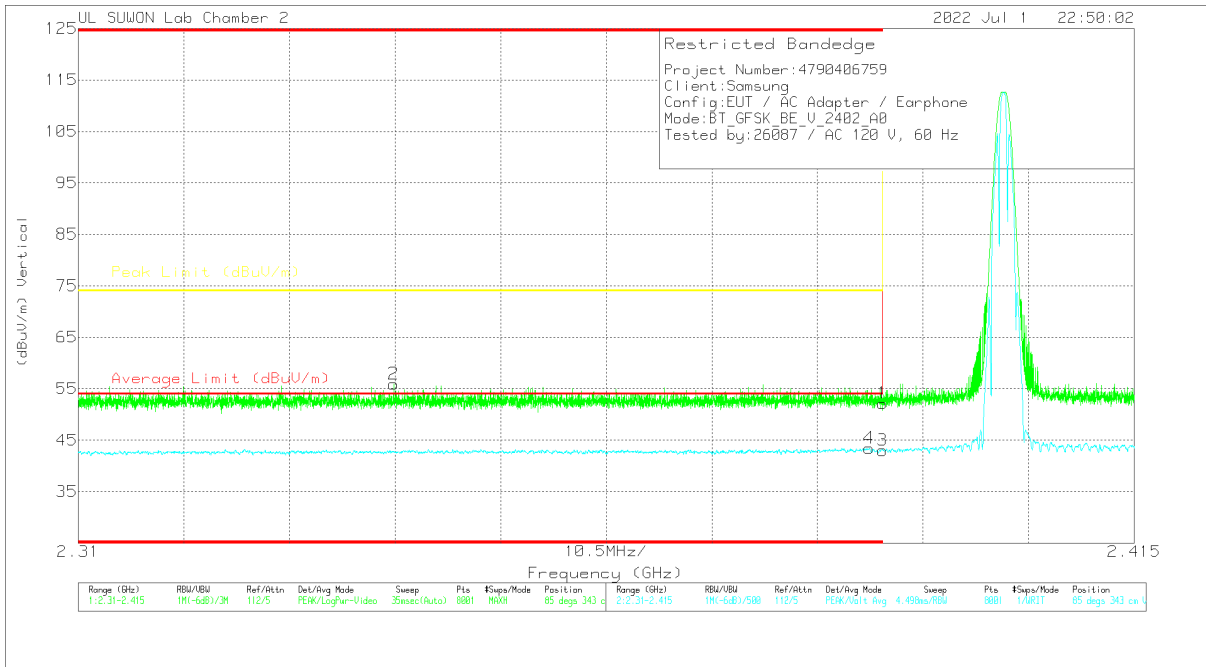
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.98	Pk	31.9	-19.7	53.18	-	-	74	-20.82	115	197	H
2	* 2.35781	43.86	Pk	31.8	-19.6	56.06	-	-	74	-17.94	115	197	H
3	* 2.39	30.74	VA1T	31.9	-19.7	42.94	54	-11.06	-	-	115	197	H
4	* 2.38601	31.25	VA1T	31.9	-19.6	43.55	54	-10.45	-	-	115	197	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	3117_00168724	10dB_ATT[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	39.97	Pk	31.9	-19.7	52.17	-	-	74	-21.83	85	343	V
2	* 2.34136	43.74	Pk	31.8	-19.6	55.94	-	-	74	-18.06	85	343	V
3	* 2.39	30.82	VA1T	31.9	-19.7	43.02	54	-10.98	-	-	85	343	V
4	* 2.38863	31.15	VA1T	31.9	-19.6	43.45	54	-10.55	-	-	85	343	V

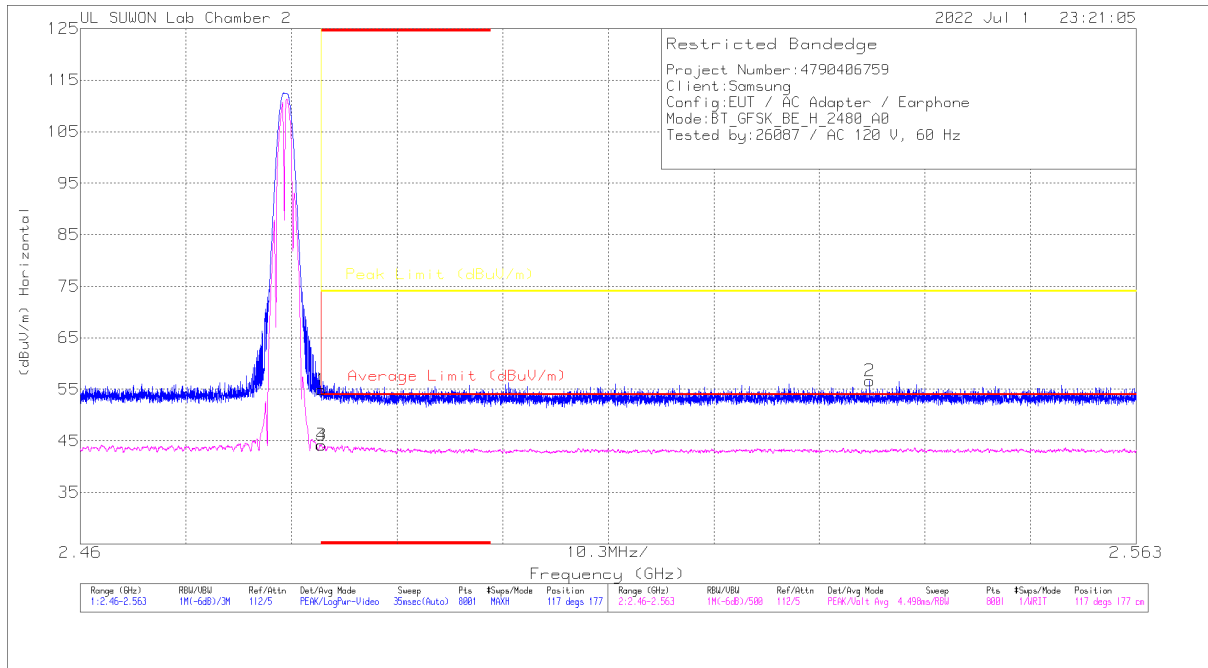
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

VA1T - FHSS: Linear Voltage Average $V_B=1/T_{on}$ where: T_{on} is transmit duration

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

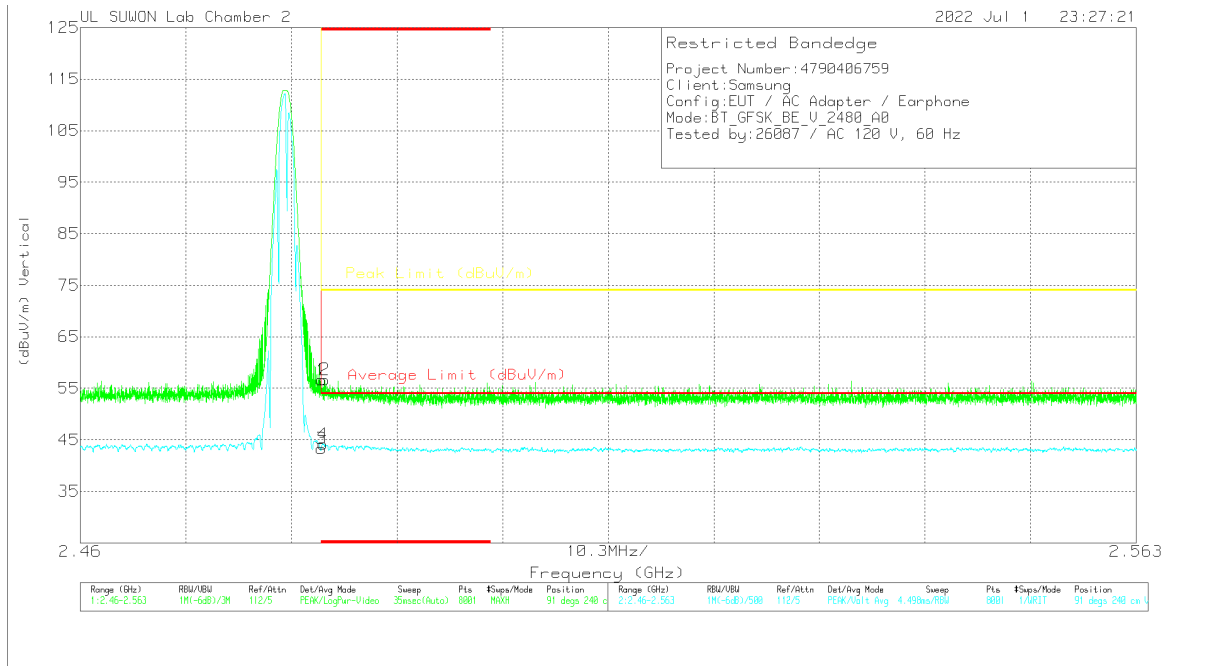


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	42.51	Pk	32	-19.6	54.91	-	-	74	-19.09	117	177	H
2	2.53701	44.16	Pk	32.1	-19.6	56.66	-	-	74	-17.34	117	177	H
3	* 2.48351	31.82	VA1T	32	-19.6	44.22	54	-9.78	-	-	117	177	H
4	* 2.48354	31.77	VA1T	32	-19.6	44.17	54	-9.83	-	-	117	177	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



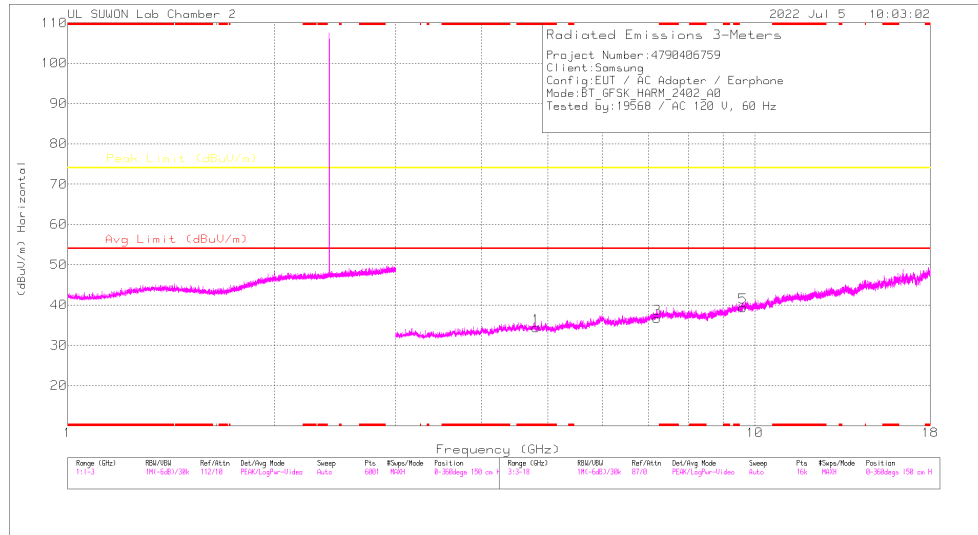
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	44.23	Pk	32	-19.6	56.63	-	-	74	-17.37	91	240	V
2	* 2.48387	44.26	Pk	32	-19.6	56.66	-	-	74	-17.34	91	240	V
3	* 2.48351	30.9	VA1T	32	-19.6	43.3	54	-10.7	-	-	91	240	V
4	* 2.48368	31.74	VA1T	32	-19.6	44.14	54	-9.86	-	-	91	240	V

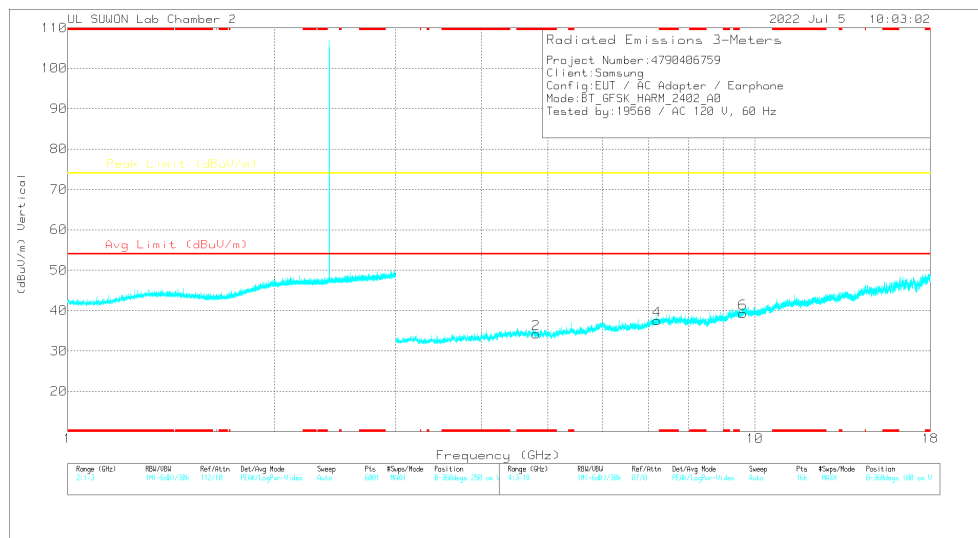
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



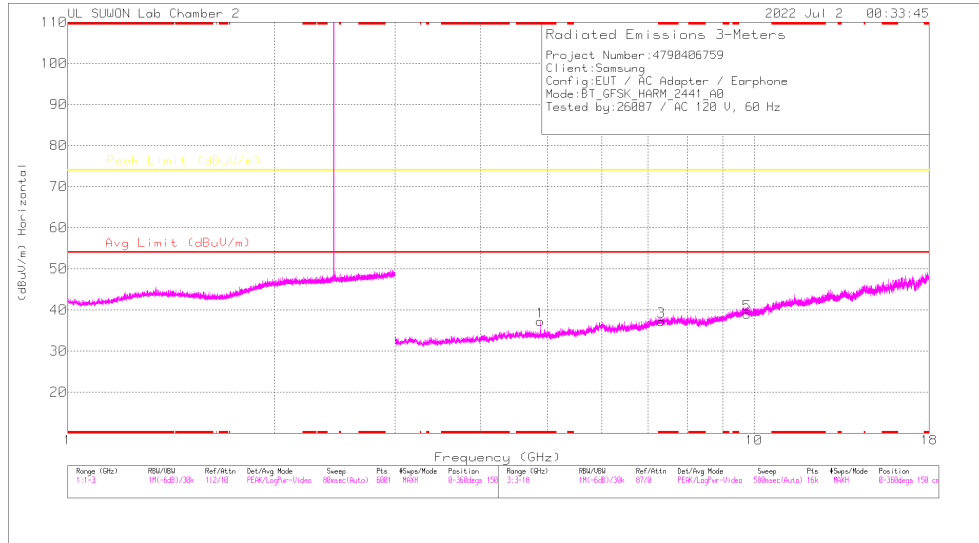
VERTICAL

RADIATED EMISSIONS

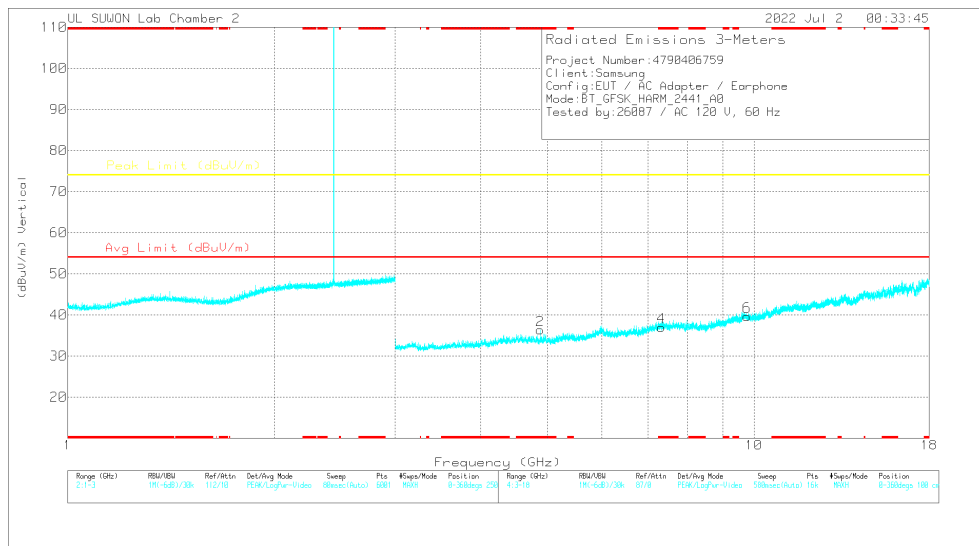
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80795	35.99	PKFH	34.1	-27.7	42.39	-	-	74	-31.61	0	100	H
* 4.81163	35.77	PKFH	34.1	-27.7	42.17	-	-	74	-31.83	0	100	V
7.21626	33.79	PKFH	36.2	-25.1	44.89	-	-	74	-29.11	0	100	H
7.20238	34.64	PKFH	36.2	-25	45.84	-	-	74	-28.16	0	100	V
9.60176	31.62	PKFH	37	-21.3	47.32	-	-	74	-26.68	0	100	H
9.59868	31.65	PKFH	37	-21.4	47.25	-	-	74	-26.75	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



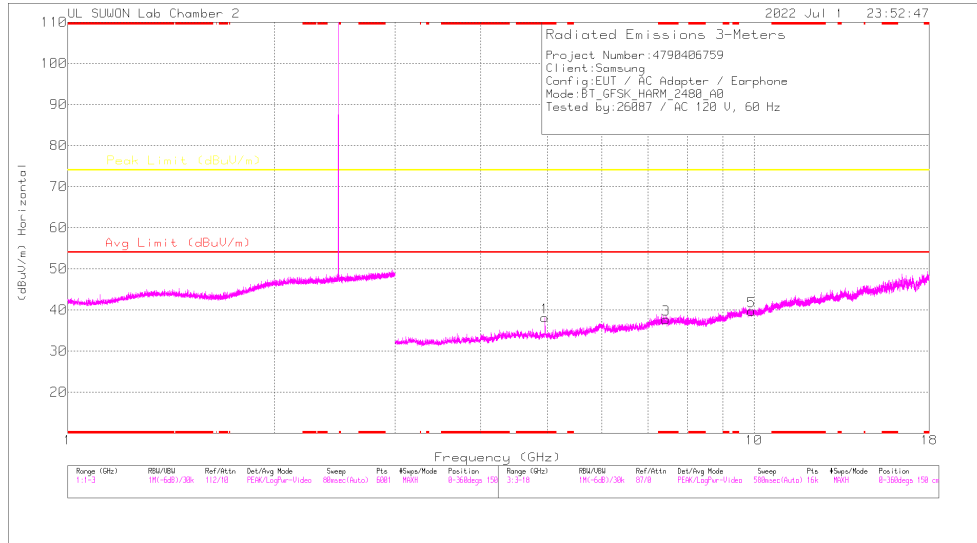
VERTICAL

RADIATED EMISSIONS

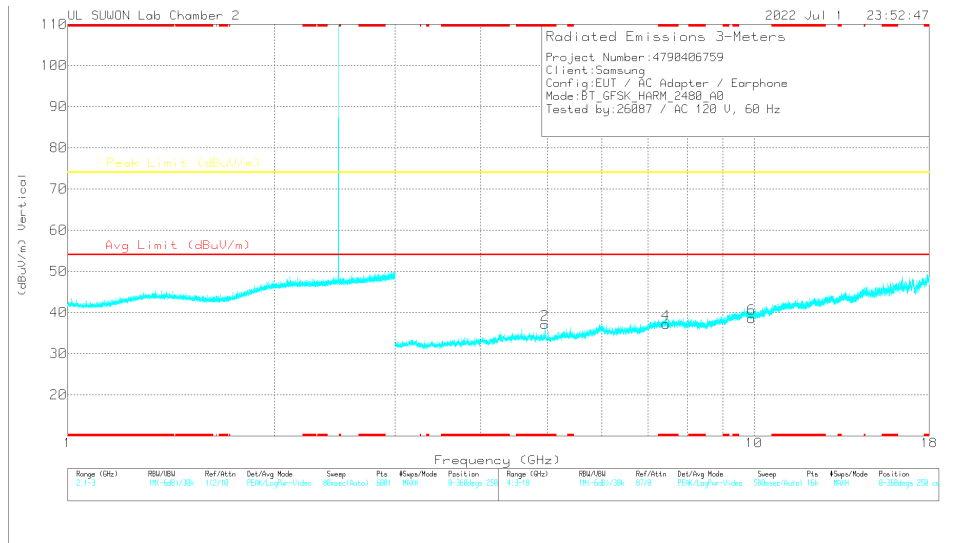
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_0016872 4	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88206	37.28	PKFH	34.1	-27.6	43.78	-	-	74	-30.22	68	107	H
* 4.88206	29.54	VA1T	34.1	-27.6	36.04	54	-17.96	-	-	68	107	H
* 4.882	36.86	PKFH	34.1	-27.6	43.36	-	-	74	-30.64	86	178	V
* 4.88206	29.9	VA1T	34.1	-27.6	36.4	54	-17.6	-	-	86	178	V
* 7.32181	33.33	PKFH	36.1	-24.5	44.93	-	-	74	-29.07	0	100	H
* 7.31906	33.49	PKFH	36.1	-24.6	44.99	-	-	74	-29.01	0	100	V
9.76473	30.25	PKFH	37.2	-21	46.45	-	-	74	-27.55	0	100	H
9.75579	30.94	PKFH	37.2	-20.9	47.24	-	-	74	-26.76	0	100	V

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 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

78 CHANNEL RESULTS



HORIZONTAL



VERTICAL

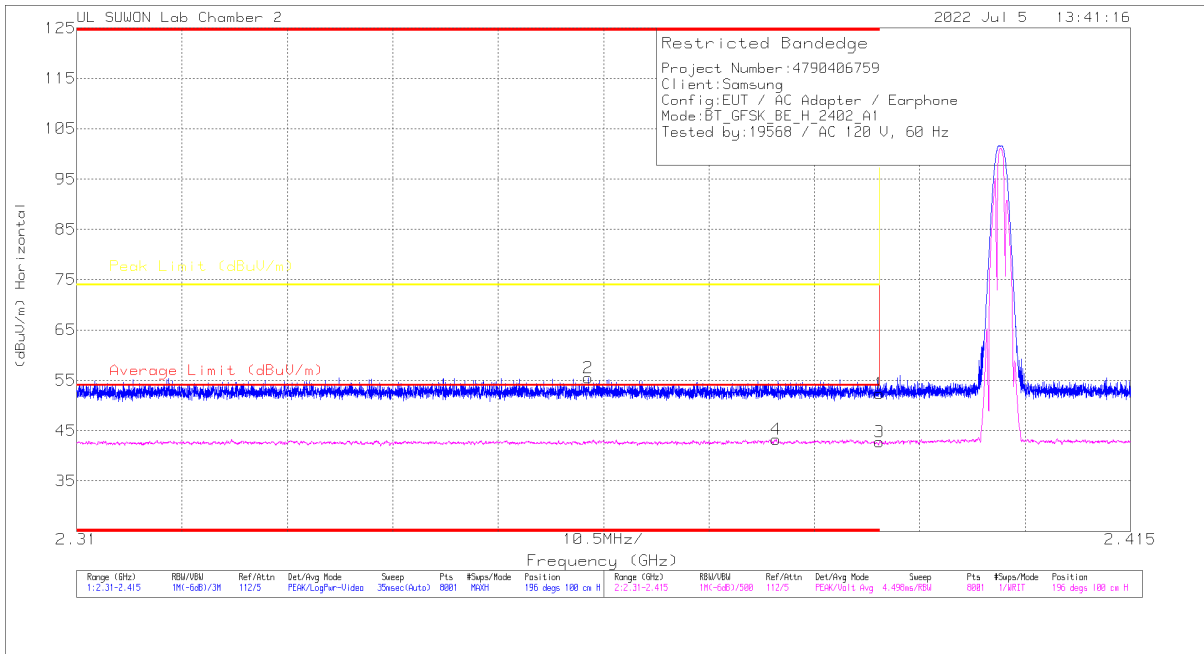
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_0016872_4	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96036	36.96	PKFH	34.1	-27	44.06	-	-	74	-29.94	70	193	H
* 4.9599	28.47	VA1T	34.1	-27	35.57	54	-18.43	-	-	70	193	H
* 4.95946	36.05	PKFH	34.1	-27	43.15	-	-	74	-30.85	51	301	V
* 4.96008	26.03	VA1T	34.1	-27	33.13	54	-20.87	-	-	51	301	V
* 7.44306	32.72	PKFH	36	-23.7	45.02	-	-	74	-28.98	360	100	H
* 7.44912	33.66	PKFH	36	-23.8	45.86	-	-	74	-28.14	360	100	V
9.91107	31.18	PKFH	37.4	-21.1	47.48	-	-	74	-26.52	360	100	H
9.92971	30.3	PKFH	37.4	-21	46.7	-	-	74	-27.3	360	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

**- ANT2
 BANEDGE (0 CHANNEL)**

HORIZONTAL RESULT

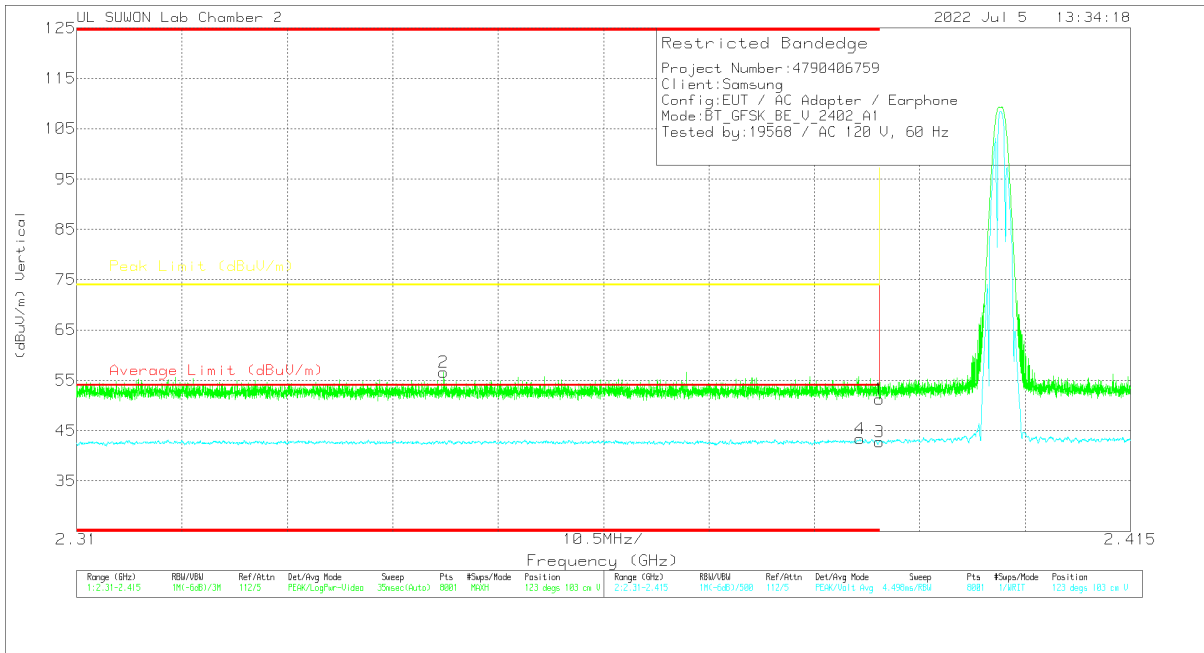


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[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	40.22	Pk	31.9	-19.7	52.42	-	-	74	-21.58	196	100	H
2	* 2.36095	43.25	Pk	31.8	-19.6	55.45	-	-	74	-18.55	196	100	H
3	* 2.39	30.61	VA1T	31.9	-19.7	42.81	54	-11.19	-	-	196	100	H
4	* 2.37969	30.97	VA1T	31.9	-19.6	43.27	54	-10.73	-	-	196	100	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



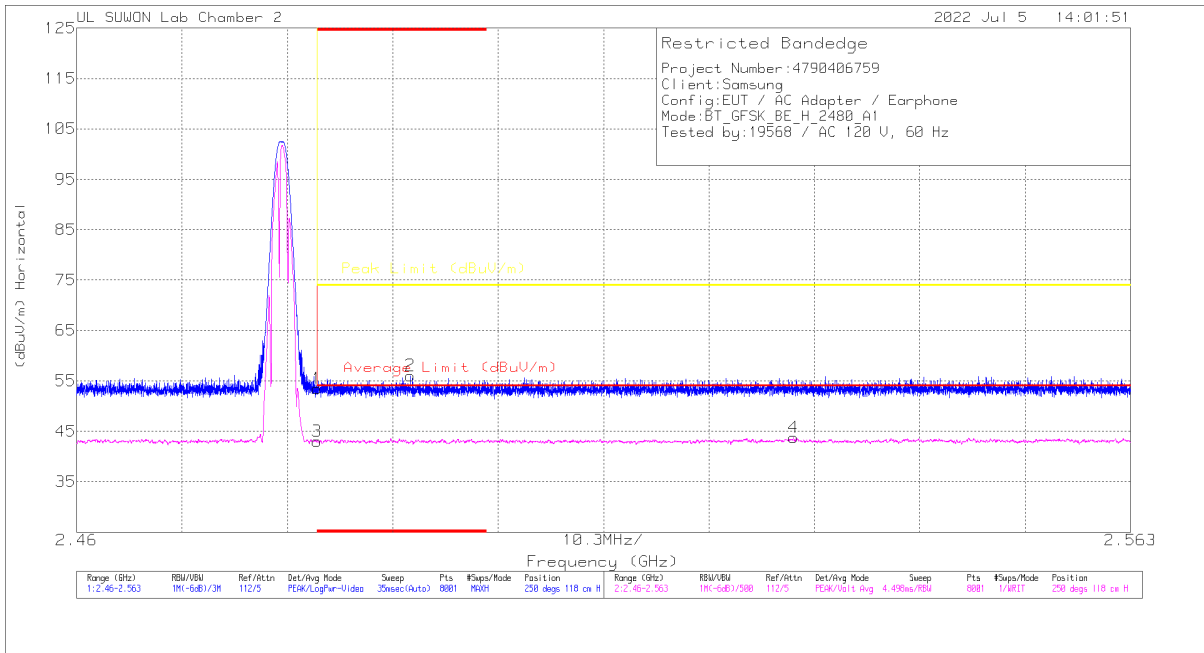
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[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	39.09	Pk	31.9	-19.7	51.29	-	-	74	-22.71	123	103	V
2	* 2.34658	44.46	Pk	31.8	-19.6	56.66	-	-	74	-17.34	123	103	V
3	* 2.39	30.6	VA1T	31.9	-19.7	42.8	54	-11.2	-	-	123	103	V
4	* 2.38804	30.99	VA1T	31.9	-19.5	43.39	54	-10.61	-	-	123	103	V

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

BANDEDGE (78 CHANNEL)

HORIZONTAL RESULT

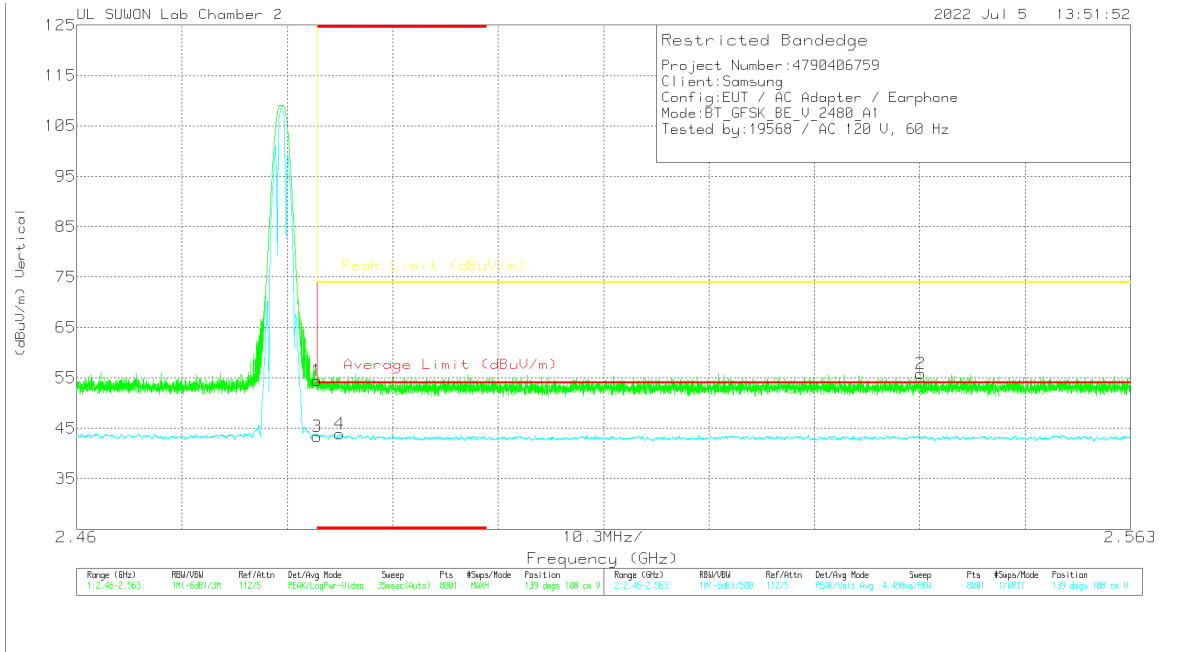


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	41.14	Pk	32	-19.6	53.54	-	-	74	-20.46	250	118	H
2	* 2.49263	43.45	Pk	32.1	-19.5	56.05	-	-	74	-17.95	250	118	H
3	* 2.48351	30.65	VA1T	32	-19.6	43.05	54	-10.95	-	-	250	118	H
4	2.53005	30.93	VA1T	32.1	-19.3	43.73	54	-10.27	-	-	250	118	H

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 Pk - Peak detector
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VERTICAL RESULT



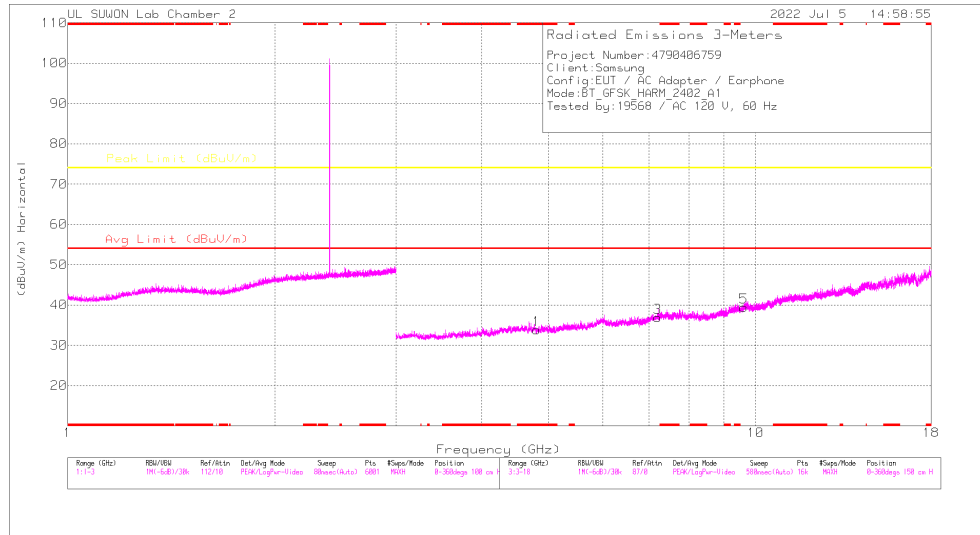
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	42.04	Pk	32	-19.6	54.44	-	-	74	-19.56	139	108	V
2	2.54249	43.25	Pk	32.1	-19.5	55.85	-	-	74	-18.15	139	108	V
3	* 2.48351	30.99	VA1T	32	-19.6	43.39	54	-10.61	-	-	139	108	V
4	* 2.48569	31.46	VA1T	32	-19.6	43.86	54	-10.14	-	-	139	108	V

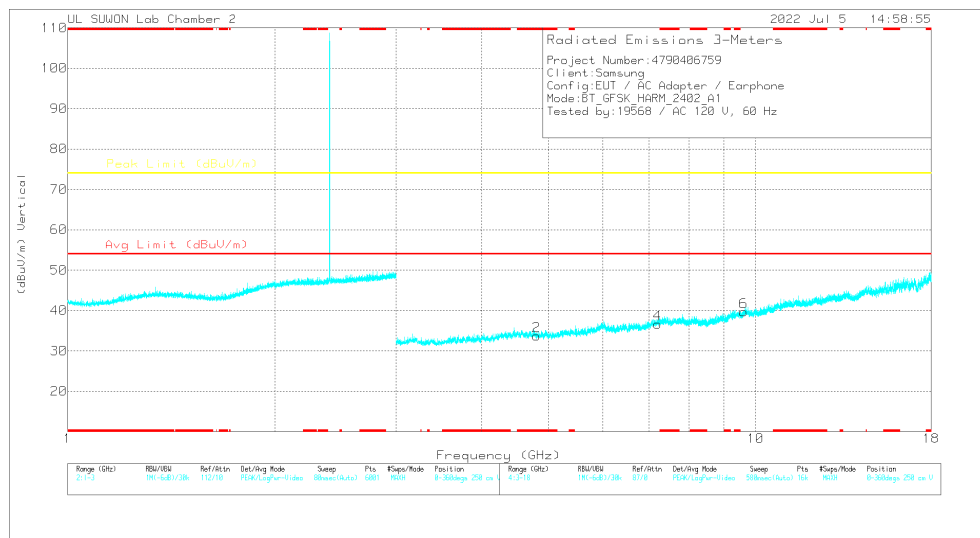
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HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



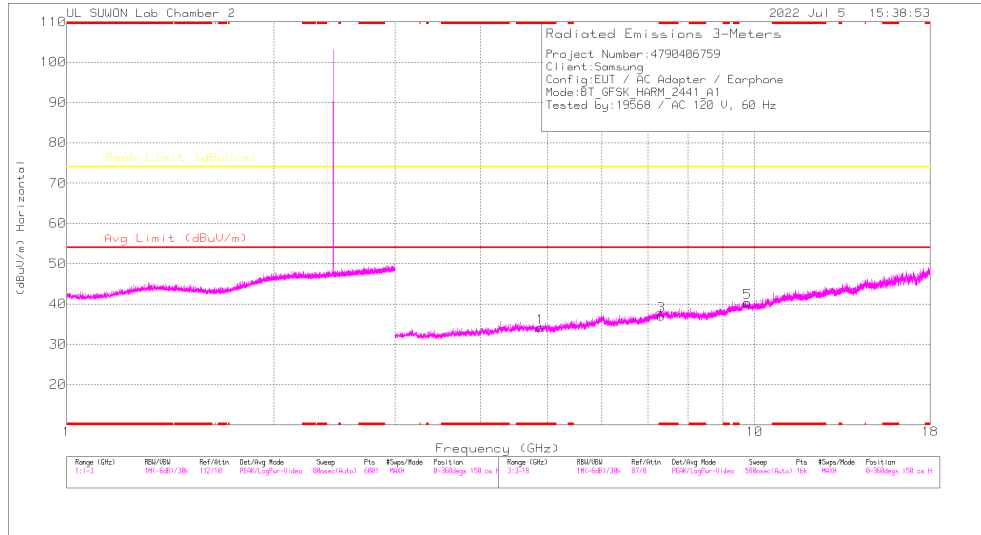
VERTICAL

RADIATED EMISSIONS

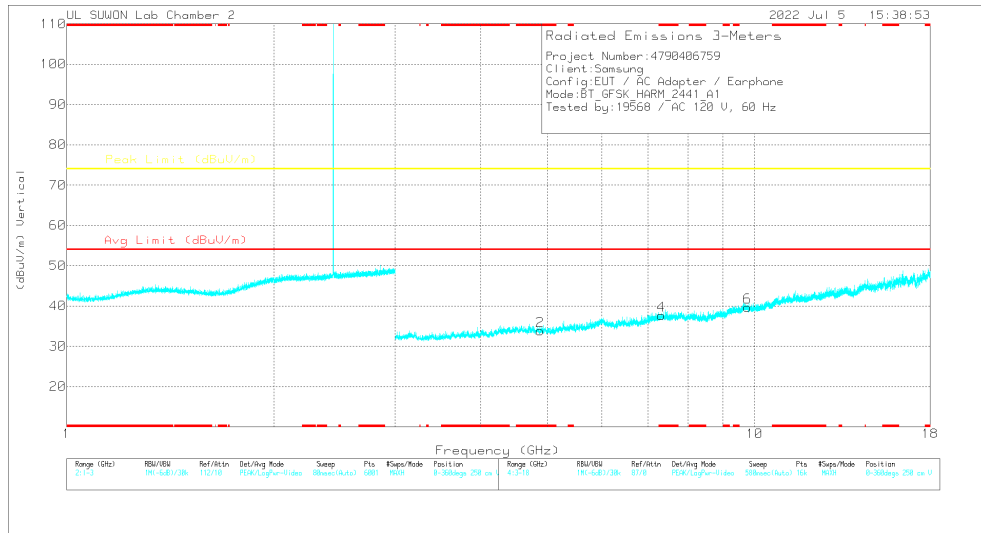
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80847	35.5	PKFH	34.1	-27.7	41.9	-	-	74	-32.1	0	100	H
* 4.80392	34.87	PKFH	34.1	-27.7	41.27	-	-	74	-32.73	0	100	V
7.20845	33.6	PKFH	36.2	-25.1	44.7	-	-	74	-29.3	0	100	H
7.20539	33.91	PKFH	36.2	-25	45.11	-	-	74	-28.89	0	100	V
9.61235	31.22	PKFH	37	-21.3	46.92	-	-	74	-27.08	0	100	H
9.61223	31.81	PKFH	37	-21.3	47.51	-	-	74	-26.49	0	100	V

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 PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak

39 CHANNEL RESULTS



HORIZONTAL



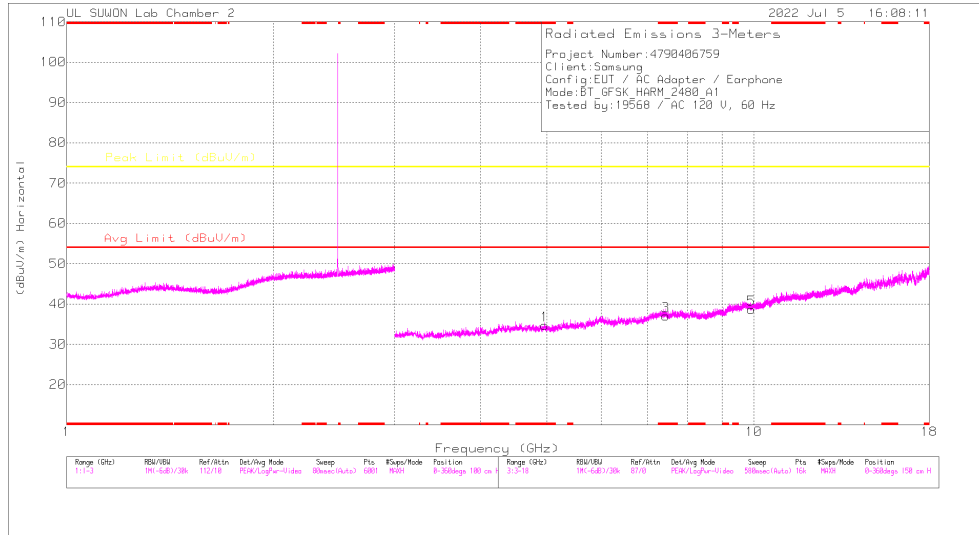
VERTICAL

RADIATED EMISSIONS

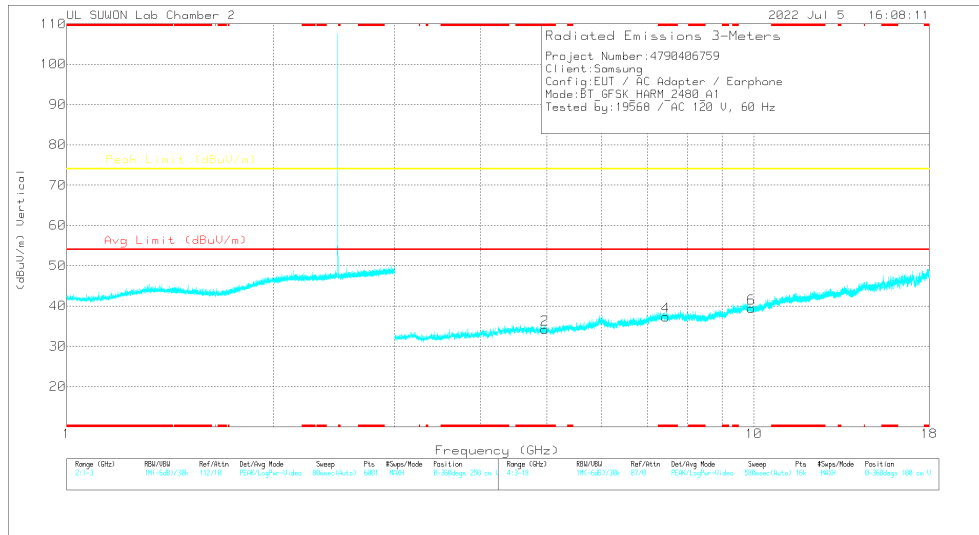
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88736	35.26	PKFH	34.1	-27.6	41.76	-	-	74	-32.24	0	100	H
* 4.86362	35.81	PKFH	34.1	-27.8	42.11	-	-	74	-31.89	0	100	V
* 7.32212	34.12	PKFH	36.1	-24.5	45.72	-	-	74	-28.28	0	100	H
* 7.315	34.47	PKFH	36.1	-24.6	45.97	-	-	74	-28.03	0	100	V
9.75869	31.29	PKFH	37.2	-20.9	47.59	-	-	74	-26.41	0	100	H
9.74422	31.98	PKFH	37.2	-20.9	48.28	-	-	74	-25.72	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

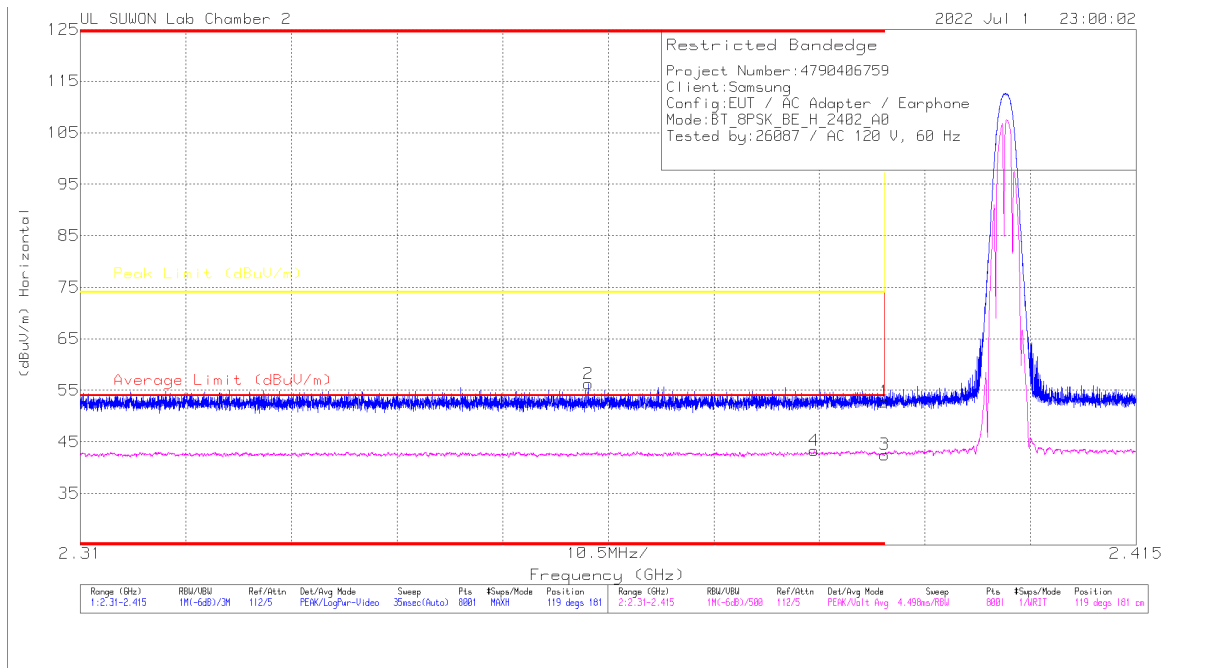
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.9617	36.77	PKFH	34.1	-27	43.87	-	-	74	-30.13	0	100	H
* 4.94446	35.78	PKFH	34.1	-27.1	42.78	-	-	74	-31.22	0	100	V
* 7.45261	33.13	PKFH	36	-23.8	45.33	-	-	74	-28.67	0	100	H
* 7.44788	33.34	PKFH	36	-23.8	45.54	-	-	74	-28.46	0	100	V
9.91121	31.49	PKFH	37.4	-21.1	47.79	-	-	74	-26.21	0	100	H
9.90452	31.44	PKFH	37.3	-21.1	47.64	-	-	74	-26.36	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

10.1.2. BLUETOOTH ENHANCED DATA RATE 8PSK MODULATION

- ANT1 BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

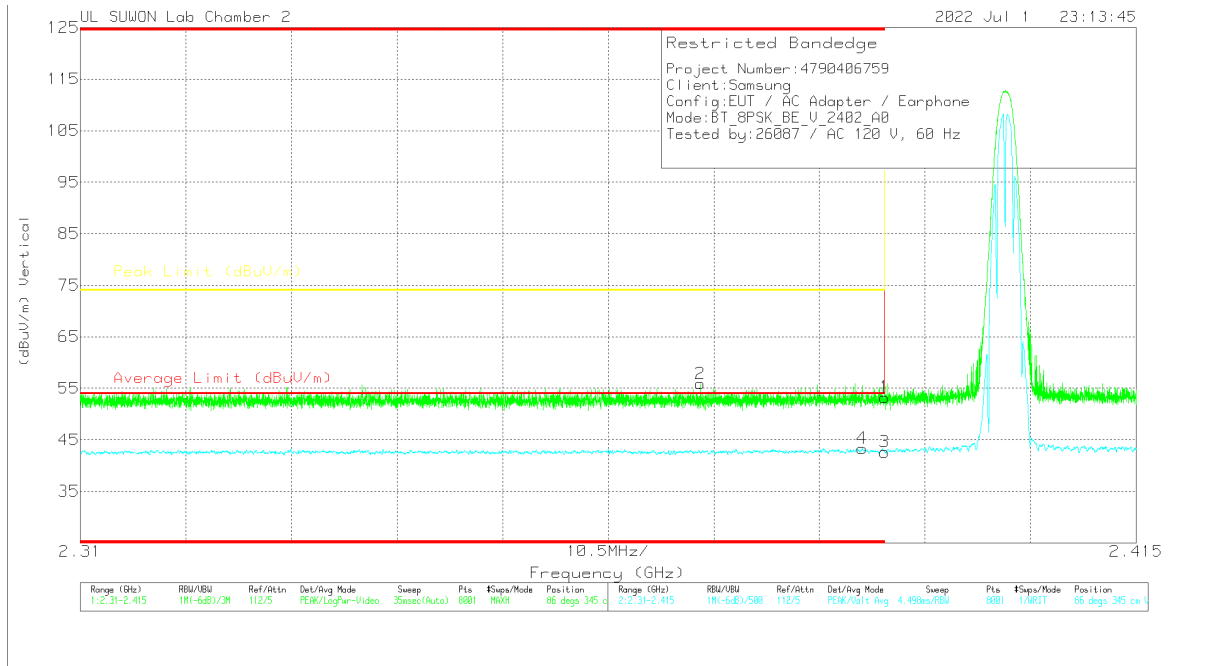


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[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	40.61	Pk	31.9	-19.7	52.81	-	-	74	-21.19	119	181	H
2	* 2.36052	44.05	Pk	31.8	-19.6	56.25	-	-	74	-17.75	119	181	H
3	* 2.39	30.32	VA1T	31.9	-19.7	42.52	54	-11.48	-	-	119	181	H
4	* 2.38296	30.99	VA1T	31.9	-19.6	43.29	54	-10.71	-	-	119	181	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



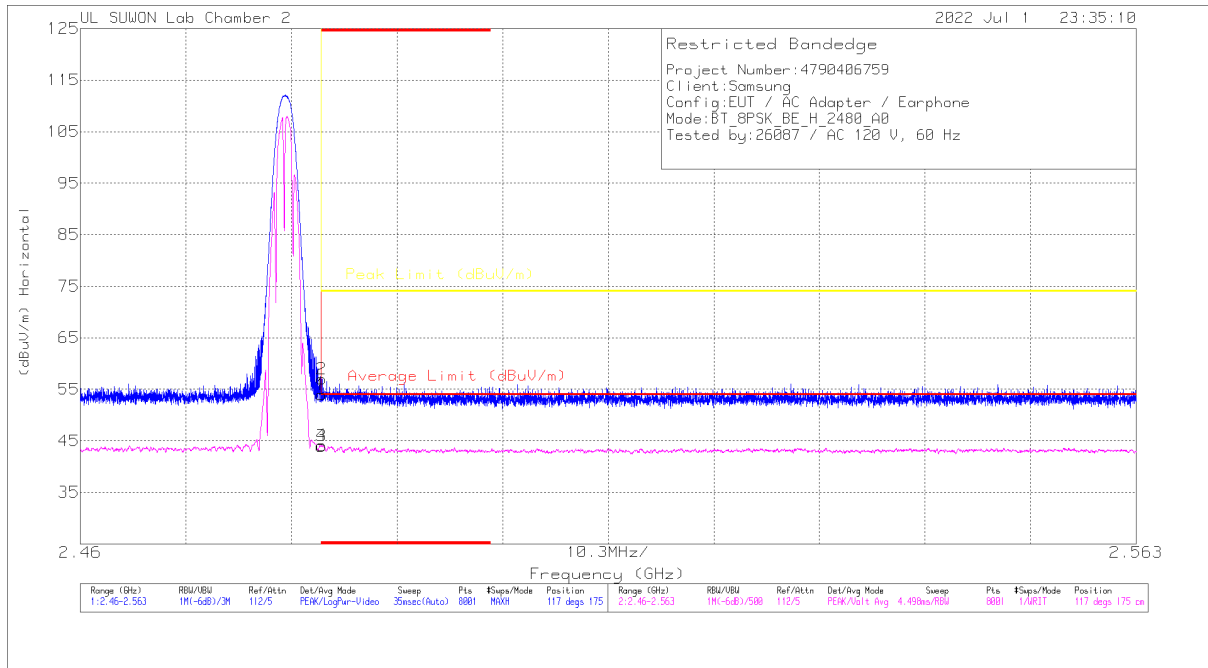
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[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	41.06	Pk	31.9	-19.7	53.26	-	-	74	-20.74	86	345	V
2	* 2.37167	43.69	Pk	31.8	-19.6	55.89	-	-	74	-18.11	86	345	V
3	* 2.39	30.45	VA1T	31.9	-19.7	42.65	54	-11.35	-	-	86	345	V
4	* 2.38775	30.93	VA1T	31.9	-19.5	43.33	54	-10.67	-	-	86	345	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

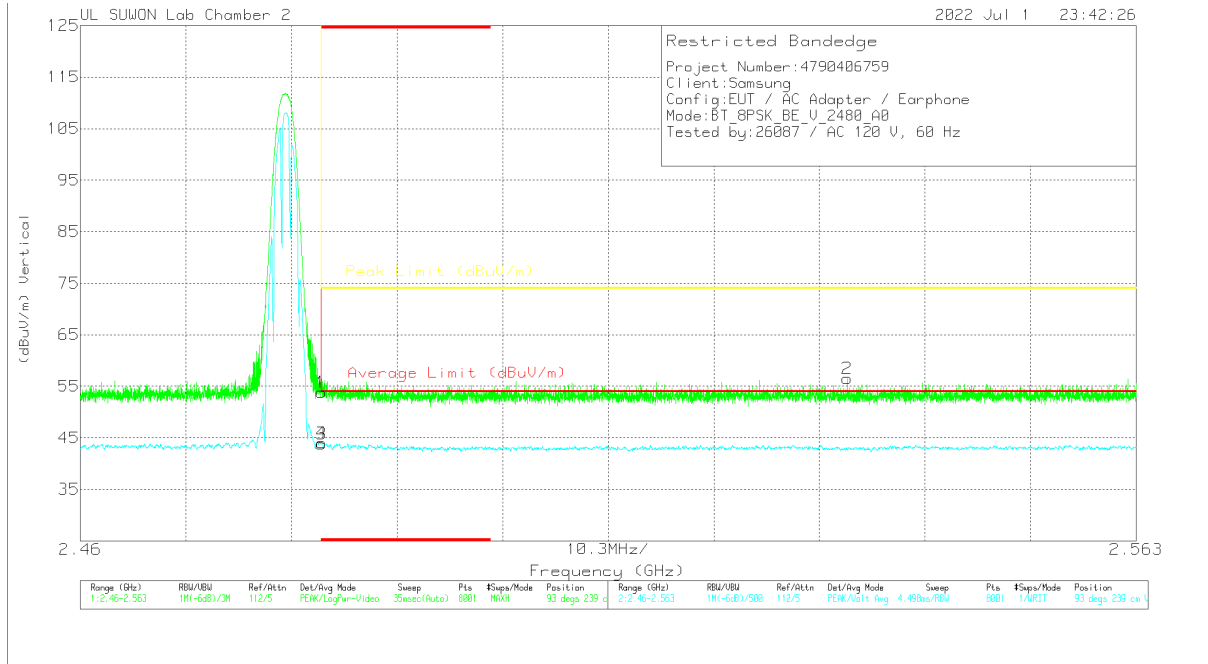


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	41.56	Pk	32	-19.6	53.96	-	-	74	-20.04	117	175	H
2	* 2.48354	44.61	Pk	32	-19.6	57.01	-	-	74	-16.99	117	175	H
3	* 2.48351	31.6	VA1T	32	-19.6	44	54	-10	-	-	117	175	H
4	* 2.48356	31.73	VA1T	32	-19.6	44.13	54	-9.87	-	-	117	175	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



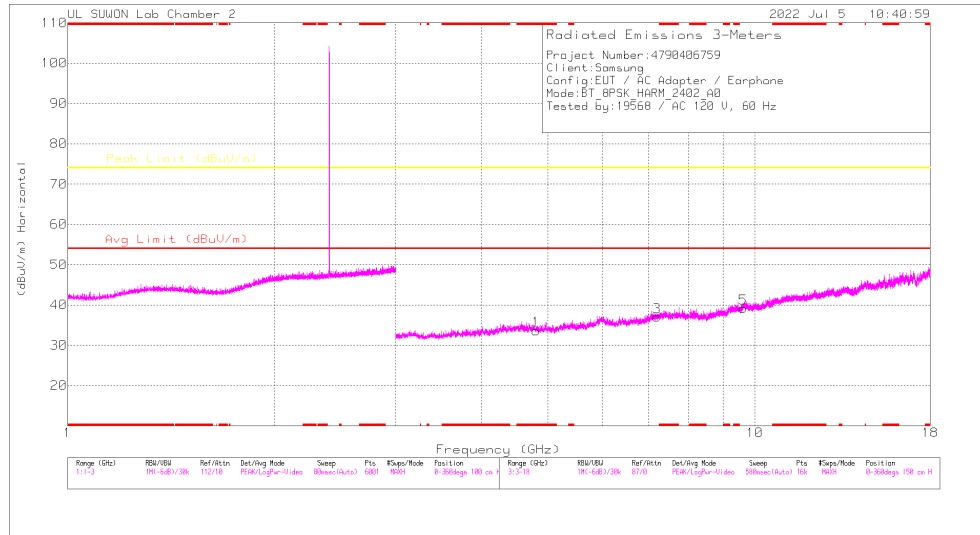
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	41.42	Pk	32	-19.6	53.82	-	-	74	-20.18	93	239	V
2	2.5348	43.99	Pk	32.1	-19.6	56.49	-	-	74	-17.51	93	239	V
3	* 2.48351	31.42	VA1T	32	-19.6	43.82	54	-10.18	-	-	93	239	V
4	* 2.48356	31.64	VA1T	32	-19.6	44.04	54	-9.96	-	-	93	239	V

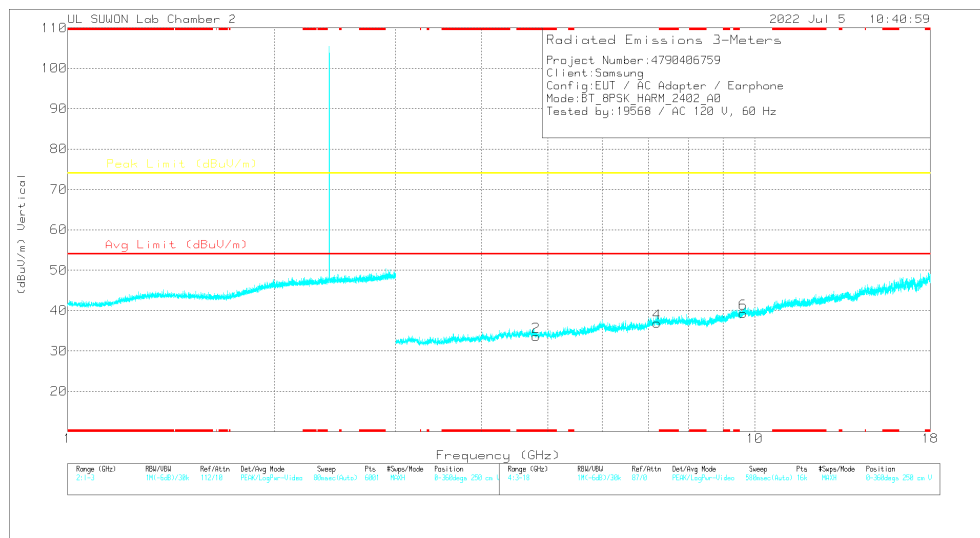
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



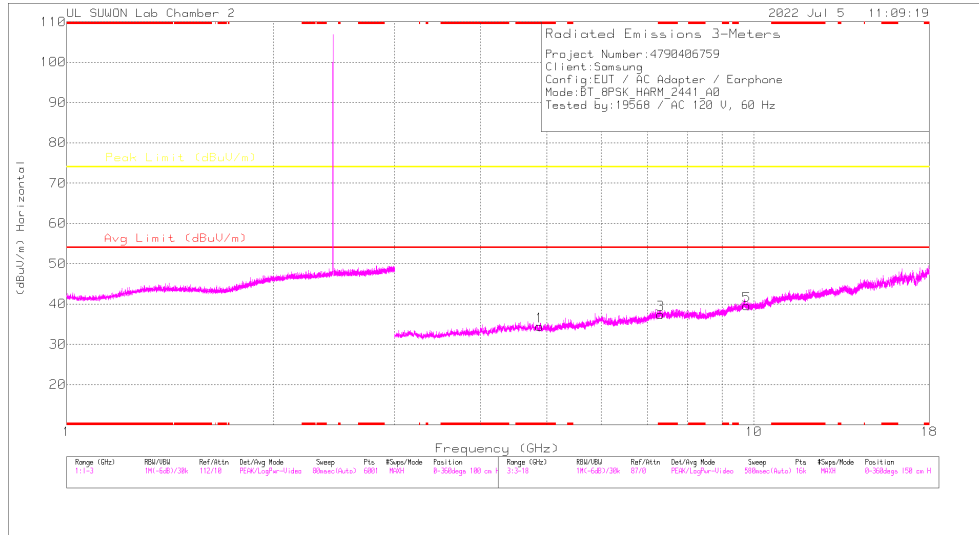
VERTICAL

RADIATED EMISSIONS

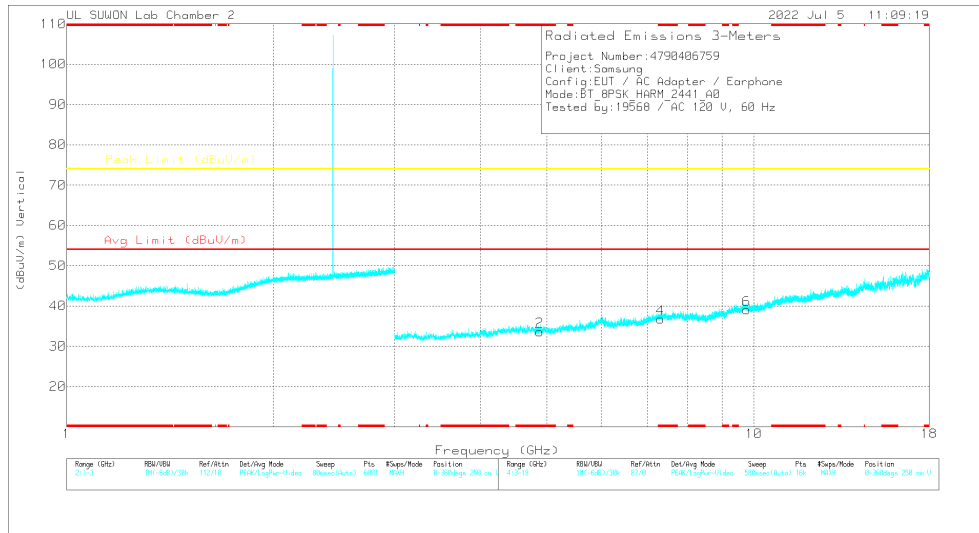
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80904	35.31	PKFH	34.1	-27.7	41.71	-	-	74	-32.29	0	100	H
* 4.81342	35.7	PKFH	34.1	-27.8	42	-	-	74	-32	0	100	V
7.20994	34.03	PKFH	36.2	-25.1	45.13	-	-	74	-28.87	0	100	H
7.20717	33.54	PKFH	36.2	-25.1	44.64	-	-	74	-29.36	0	100	V
9.60059	31.23	PKFH	37	-21.4	46.83	-	-	74	-27.17	0	100	H
9.60499	31.37	PKFH	37	-21.3	47.07	-	-	74	-26.93	0	100	V

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

39 CHANNEL RESULTS



HORIZONTAL



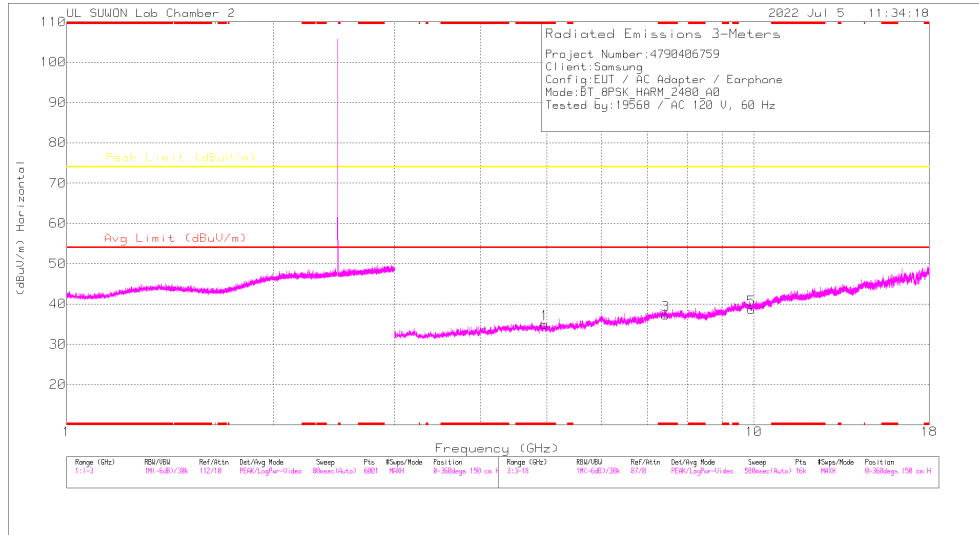
VERTICAL

RADIATED EMISSIONS

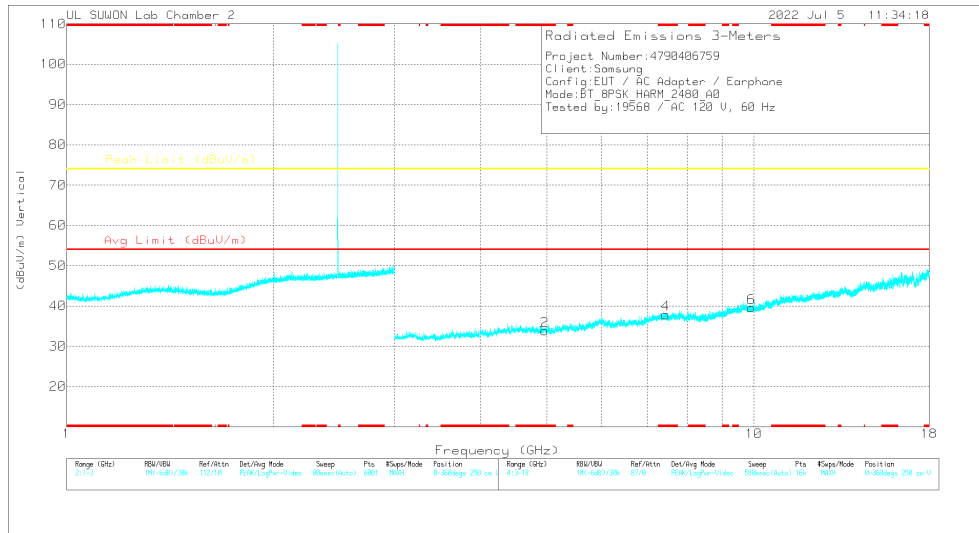
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.87751	36.02	PKFH	34.1	-27.7	42.42	-	-	74	-31.58	0	100	H
* 4.87271	36.41	PKFH	34.1	-27.7	42.81	-	-	74	-31.19	0	100	V
* 7.31539	34.37	PKFH	36.1	-24.6	45.87	-	-	74	-28.13	0	100	H
* 7.3002	34.39	PKFH	36.2	-24.7	45.89	-	-	74	-28.11	0	100	V
9.7653	30.56	PKFH	37.2	-21	46.76	-	-	74	-27.24	0	100	H
9.76349	31.49	PKFH	37.2	-21	47.69	-	-	74	-26.31	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

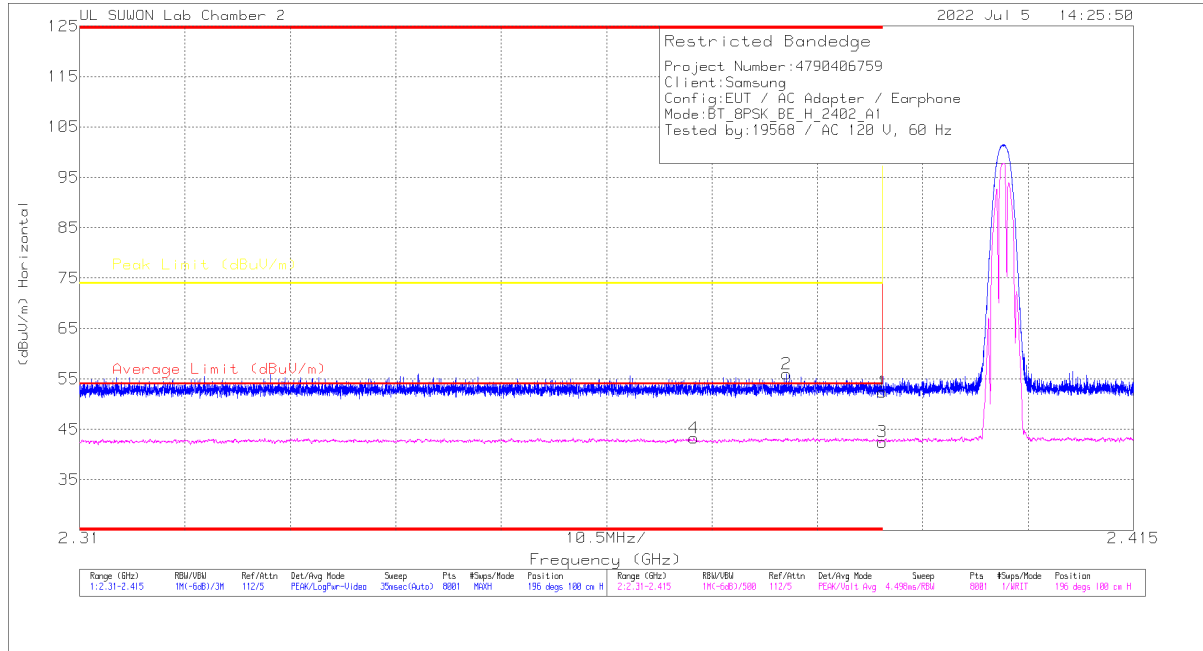
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.95342	34.89	PKFH	34.1	-27	41.99	-	-	74	-32.01	0	100	H
* 4.95366	34.84	PKFH	34.1	-27	41.94	-	-	74	-32.06	0	100	V
* 7.44109	33.81	PKFH	36	-23.7	46.11	-	-	74	-27.89	0	100	H
* 7.44079	33.38	PKFH	36	-23.7	45.68	-	-	74	-28.32	0	100	V
9.91503	30.69	PKFH	37.4	-21.1	46.99	-	-	74	-27.01	0	100	H
9.92904	31.65	PKFH	37.4	-21	48.05	-	-	74	-25.95	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

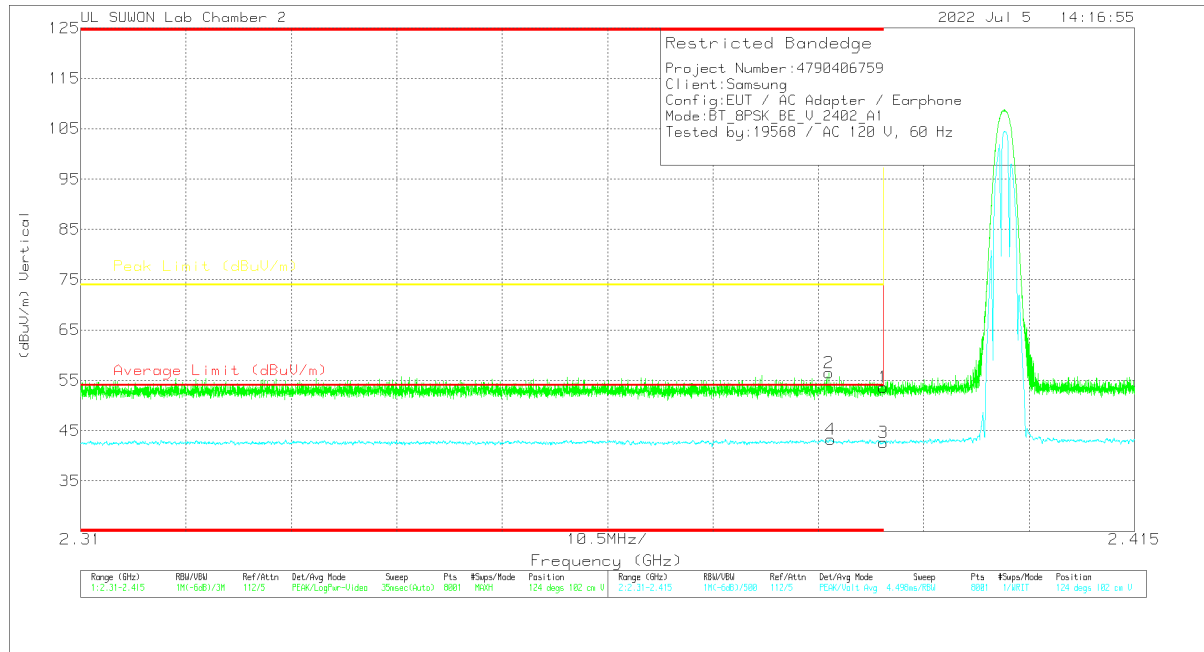


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[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	40.18	Pk	31.9	-19.7	52.38	-	-	74	-21.62	196	100	H
2	* 2.38044	43.7	Pk	31.9	-19.6	56	-	-	74	-18	196	100	H
3	* 2.39	30.27	VA1T	31.9	-19.7	42.47	54	-11.53	-	-	196	100	H
4	* 2.37119	31.12	VA1T	31.8	-19.6	43.32	54	-10.68	-	-	196	100	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



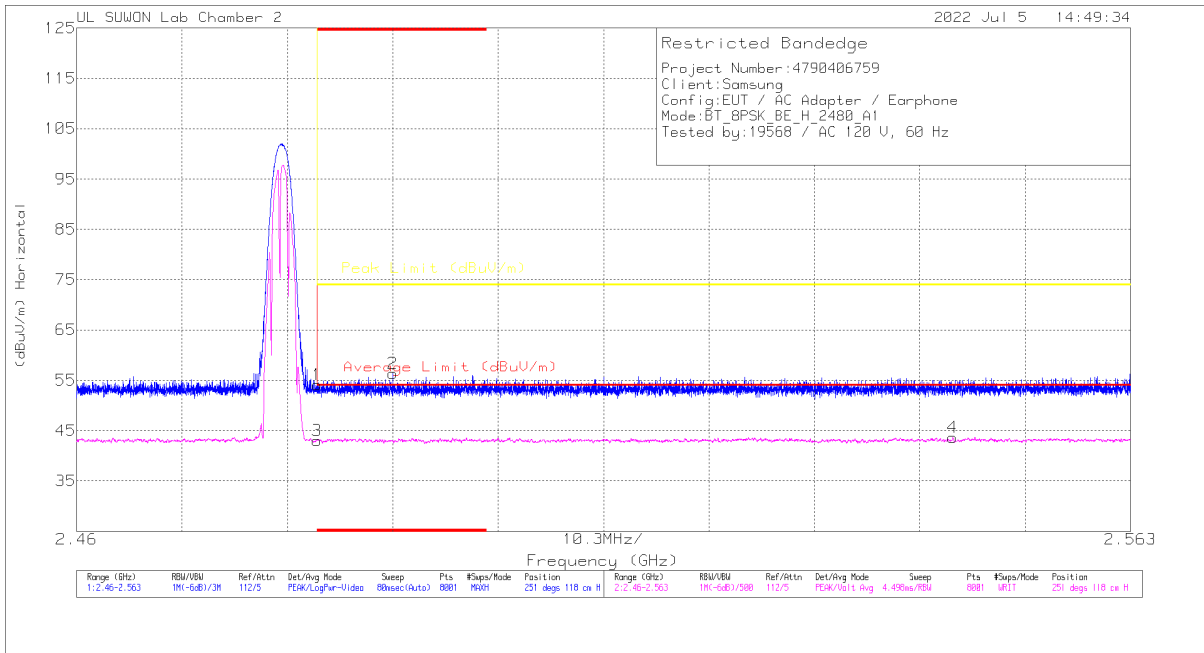
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[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	41.37	Pk	31.9	-19.7	53.57	-	-	74	-20.43	124	102	V
2	* 2.38455	44.14	Pk	31.9	-19.6	56.44	-	-	74	-17.56	124	102	V
3	* 2.39	30.41	VA1T	31.9	-19.7	42.61	54	-11.39	-	-	124	102	V
4	* 2.38473	30.98	VA1T	31.9	-19.6	43.28	54	-10.72	-	-	124	102	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

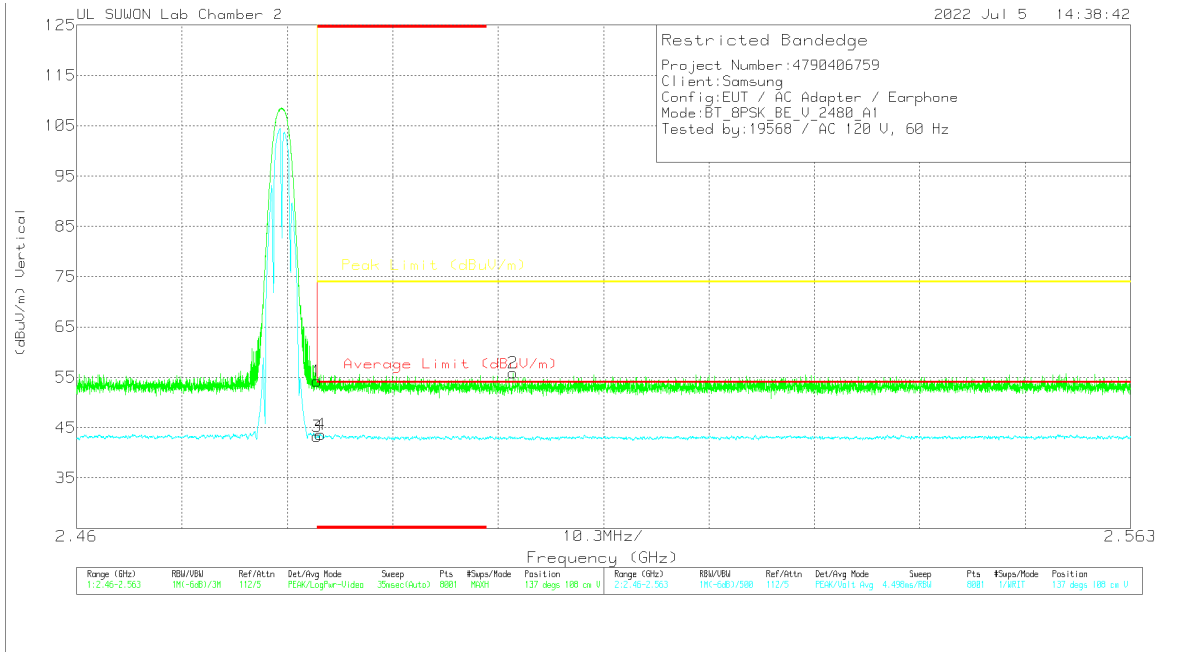


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	41.68	Pk	32	-19.6	54.08	-	-	74	-19.92	251	118	H
2	* 2.49091	43.83	Pk	32.1	-19.6	56.33	-	-	74	-17.67	251	118	H
3	* 2.48351	30.68	VA1T	32	-19.6	43.08	54	-10.92	-	-	251	118	H
4	2.54564	31.07	VA1T	32.1	-19.5	43.67	54	-10.33	-	-	251	118	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



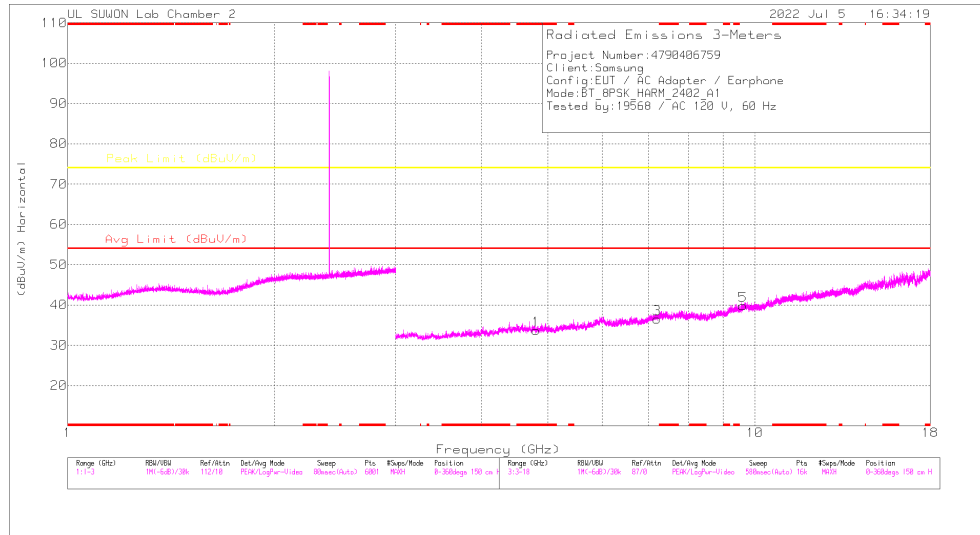
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	41.9	Pk	32	-19.6	54.3	-	-	74	-19.7	137	108	V
2	2.50264	43.22	Pk	32.1	-19.5	55.82	-	-	74	-18.18	137	108	V
3	* 2.48351	30.83	VA1T	32	-19.6	43.23	54	-10.77	-	-	137	108	V
4	* 2.48383	31.27	VA1T	32	-19.6	43.67	54	-10.33	-	-	137	108	V

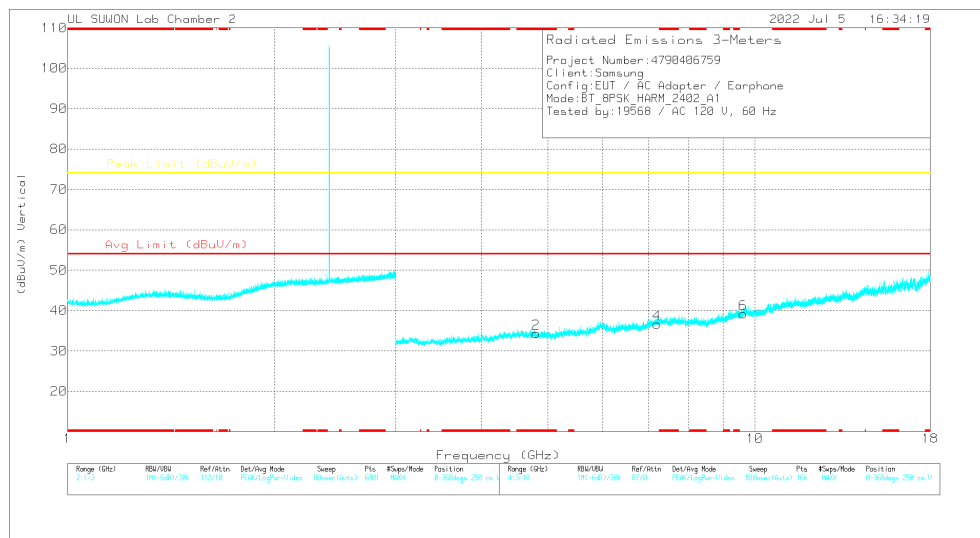
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK - Peak detector
 VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



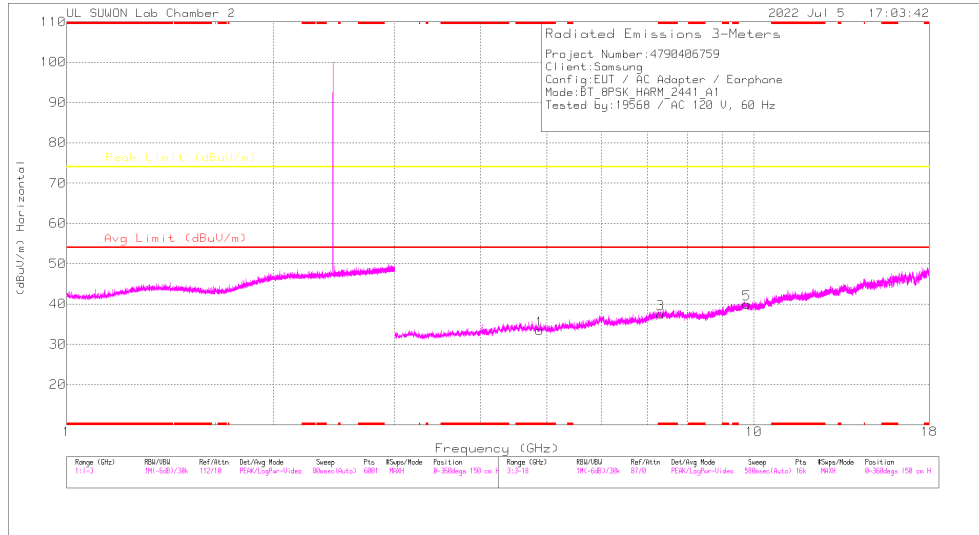
VERTICAL

RADIATED EMISSIONS

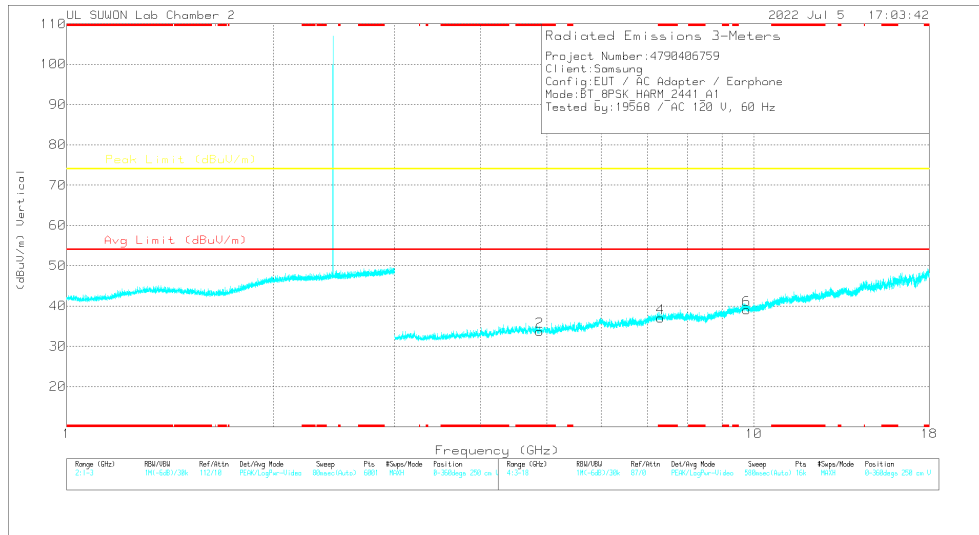
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80186	35.08	PKFH	34.1	-27.7	41.48	-	-	74	-32.52	0	100	H
* 4.80324	34.89	PKFH	34.1	-27.7	41.29	-	-	74	-32.71	0	100	V
7.19967	33.63	PKFH	36.2	-25	44.83	-	-	74	-29.17	0	100	H
7.20288	33.94	PKFH	36.2	-25	45.14	-	-	74	-28.86	0	100	V
9.5984	32.9	PKFH	37	-21.4	48.5	-	-	74	-25.5	0	100	H
9.60317	32.15	PKFH	37	-21.3	47.85	-	-	74	-26.15	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



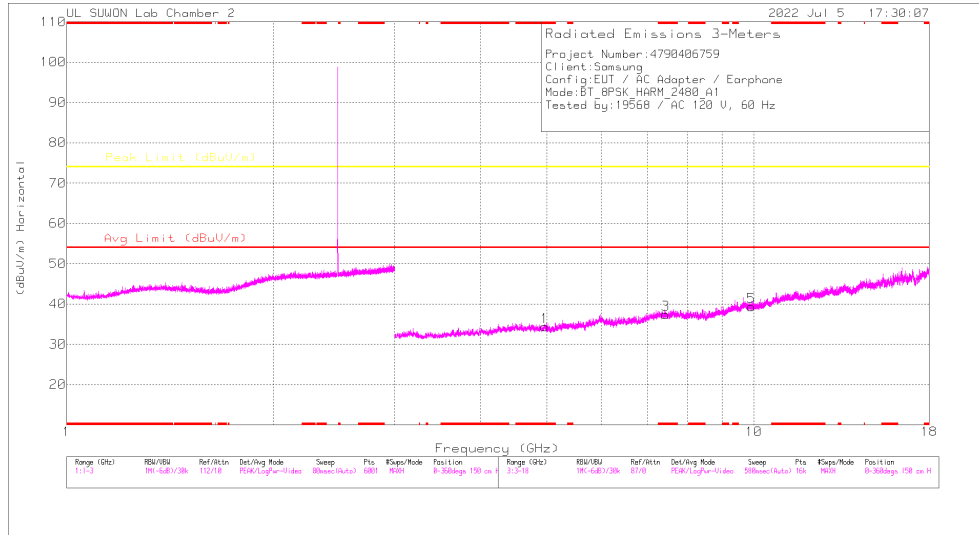
VERTICAL

RADIATED EMISSIONS

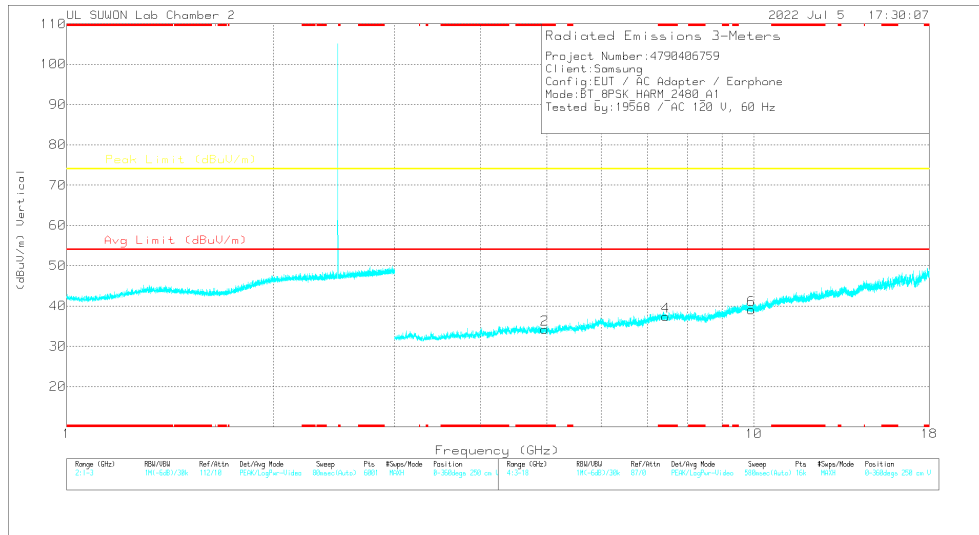
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88975	35.96	PKFH	34.1	-27.5	42.56	-	-	74	-31.44	0	100	H
* 4.88713	35.33	PKFH	34.1	-27.6	41.83	-	-	74	-32.17	0	100	V
* 7.32787	33.34	PKFH	36.1	-24.4	45.04	-	-	74	-28.96	0	100	H
* 7.32164	33.61	PKFH	36.1	-24.5	45.21	-	-	74	-28.79	0	100	V
9.75967	31.95	PKFH	37.2	-21	48.15	-	-	74	-25.85	0	100	H
9.76379	31.35	PKFH	37.2	-20.9	47.65	-	-	74	-26.35	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



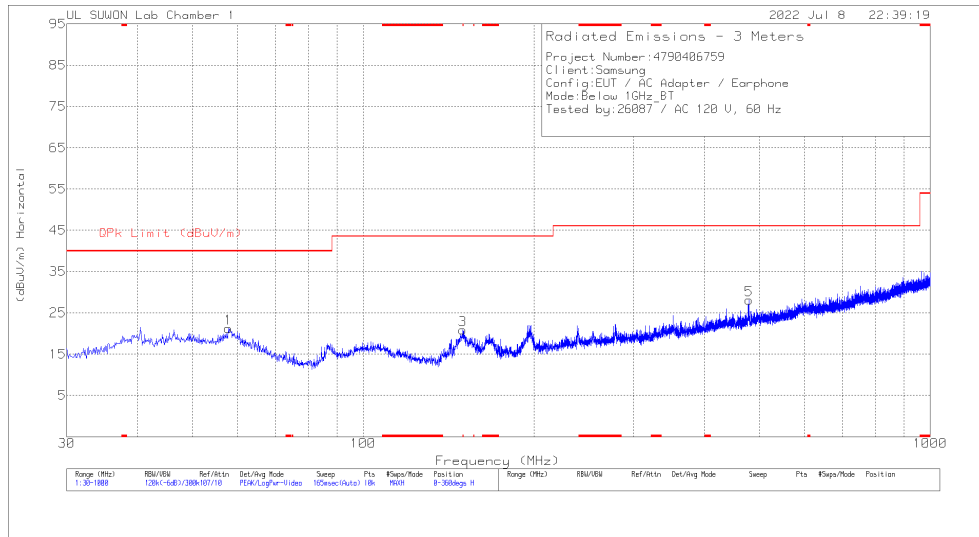
VERTICAL

RADIATED EMISSIONS

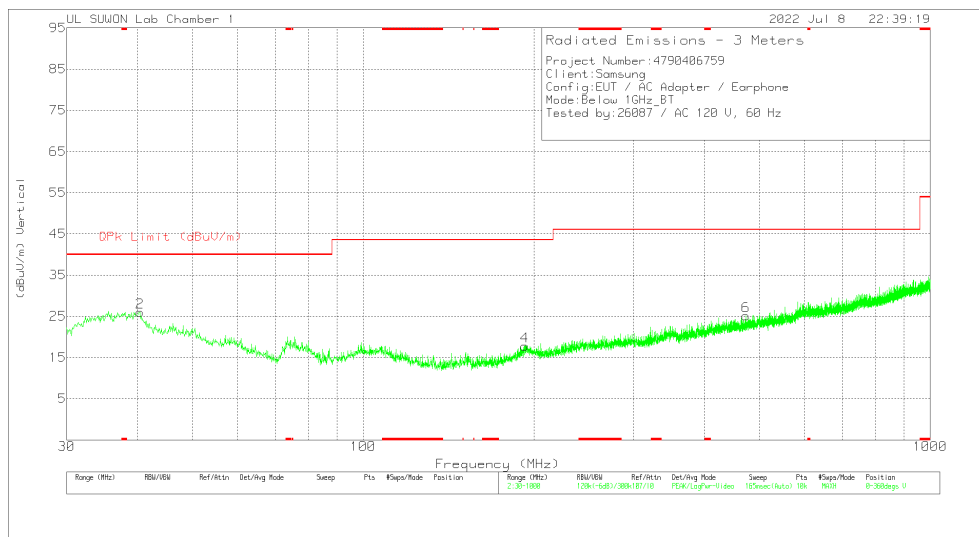
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP(dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.95266	35.33	PKFH	34.1	-27	42.43	-	-	74	-31.57	0	100	H
* 4.96092	34.96	PKFH	34.1	-27	42.06	-	-	74	-31.94	0	100	V
* 7.44561	33.03	PKFH	36	-23.8	45.23	-	-	74	-28.77	0	100	H
* 7.44123	32.86	PKFH	36	-23.7	45.16	-	-	74	-28.84	0	100	V
9.91287	30.17	PKFH	37.4	-21.1	46.47	-	-	74	-27.53	0	100	H
9.92064	30.44	PKFH	37.4	-21.1	46.74	-	-	74	-27.26	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

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



HORIZONTAL



VERTICAL

Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_750	Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	57.839	33.04	Pk	19	-30.8	21.24	40	-18.76	0-360	300	H
3	149.892	36.79	Pk	13.9	-29.8	20.89	43.52	-22.63	0-360	100	H
5	479.304	33.13	Pk	22.7	-27.7	28.13	46.02	-17.89	0-360	100	H
2	40.379	38.21	Pk	18.8	-31	26.01	40	-13.99	0-360	200	V
4	192.669	30.29	Pk	16.9	-29.4	17.79	43.52	-25.73	0-360	400	V
6	473.678	30.39	Pk	22.4	-27.7	25.09	46.02	-20.93	0-360	400	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 C63.4.

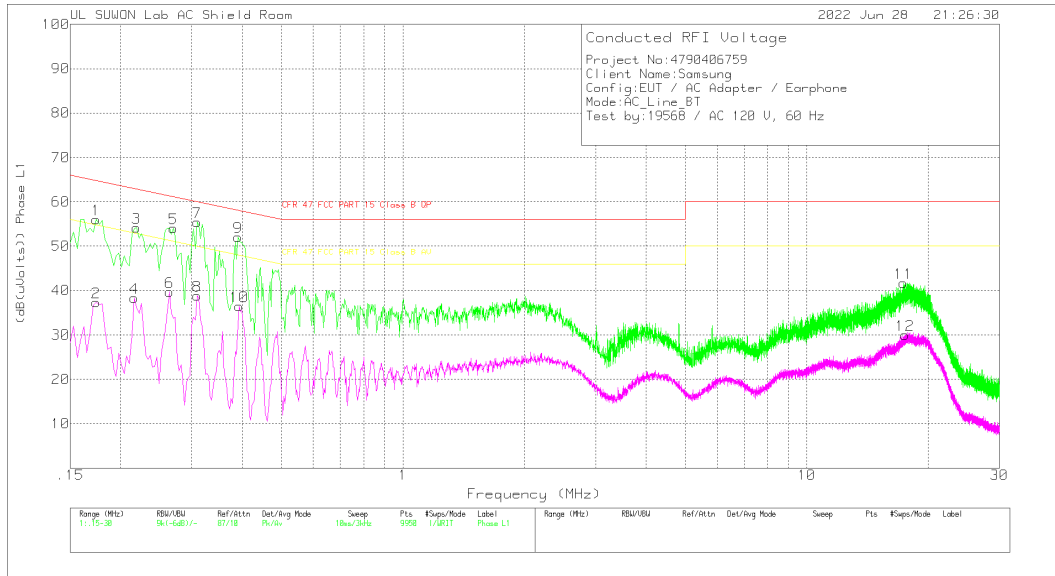
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1.1. AC Power Line(C to C)

LINE 1 RESULTS



Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.174	45.8	Pk	10	.2	56	64.77	-8.77	-	-
2	.174	27.09	Av	10	.2	37.29	-	-	54.77	-17.48
3	.219	44.3	Pk	9.7	.2	54.2	62.86	-8.66	-	-
4	.216	28.35	Av	9.8	.2	38.35	-	-	52.97	-14.62
5	.27	44.23	Pk	9.6	.2	54.03	61.12	-7.09	-	-
6	.264	29.88	Av	9.6	.2	39.68	-	-	51.3	-11.62
7	.309	45.56	Pk	9.7	.2	55.46	60	-4.54	-	-
8	.309	28.94	Av	9.7	.2	38.84	-	-	50	-11.16
9	.39	42.1	Pk	9.8	.2	52.1	58.06	-5.96	-	-
10	.393	26.48	Av	9.8	.2	36.48	-	-	48	-11.52
11	17.337	31.18	Pk	10.1	.4	41.68	60	-18.32	-	-
12	17.529	19.46	Av	10.1	.4	29.96	-	-	50	-20.04

Pk - Peak detector

Av - Average detection

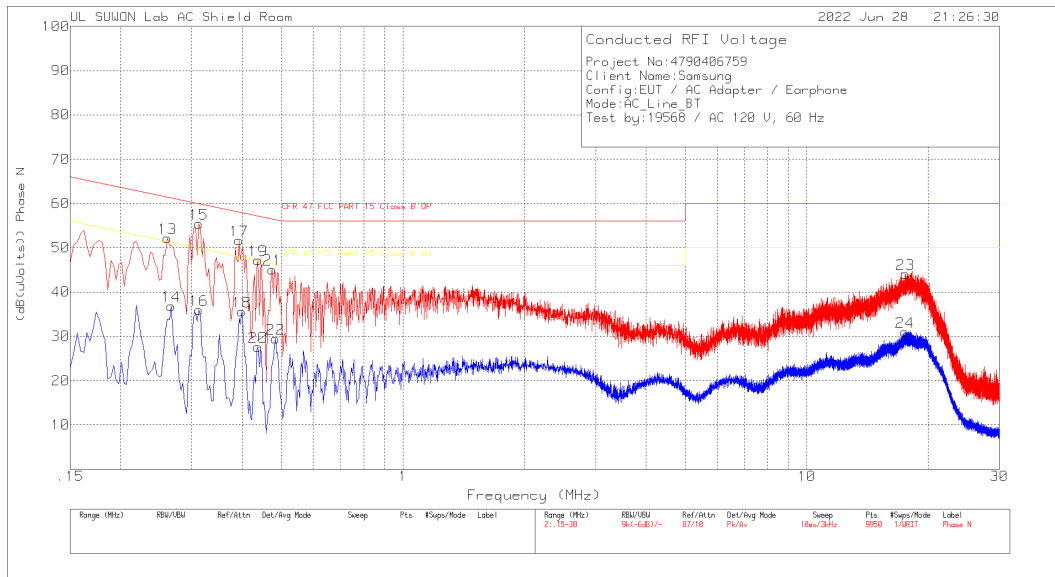
Quasi-Peak Emissions

Range 1: Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.17415	40.62	Qp	10	.2	50.82	64.76	-13.94	-	-
.21915	38.82	Qp	9.7	.2	48.72	62.85	-14.13	-	-
.26925	37.39	Qp	9.6	.2	47.19	61.14	-13.95	-	-
.30975	39.56	Qp	9.7	.2	49.46	59.98	-10.52	-	-
.39075	37.32	Qp	9.8	.2	47.32	58.05	-10.73	-	-

Qp - Quasi-Peak detector

LINE 2 RESULTS



Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
13	.261	42.41	Pk	9.6	.2	52.21	61.4	-9.19	-	-
14	.267	27.06	Av	9.6	.2	36.86	-	-	51.21	-14.35
15	.312	45.5	Pk	9.7	.2	55.4	59.92	-4.52	-	-
16	.312	26.08	Av	9.7	.2	35.98	-	-	49.92	-13.94
17	.393	41.68	Pk	9.8	.2	51.68	58	-6.32	-	-
18	.399	25.62	Av	9.8	.2	35.62	-	-	47.87	-12.25
19	.438	37.06	Pk	9.9	.2	47.16	57.1	-9.94	-	-
20	.438	17.56	Av	9.9	.2	27.66	-	-	47.1	-19.44
21	.474	35.03	Pk	9.9	.2	45.13	56.44	-11.31	-	-
22	.483	19.45	Av	9.9	.2	29.55	-	-	46.29	-16.74
23	17.586	33.42	Pk	10.2	.4	44.02	60	-15.98	-	-
24	17.532	20.38	Av	10.2	.4	30.98	-	-	50	-19.02

Pk - Peak detector
 Av - Average detection

Quasi-Peak Emissions

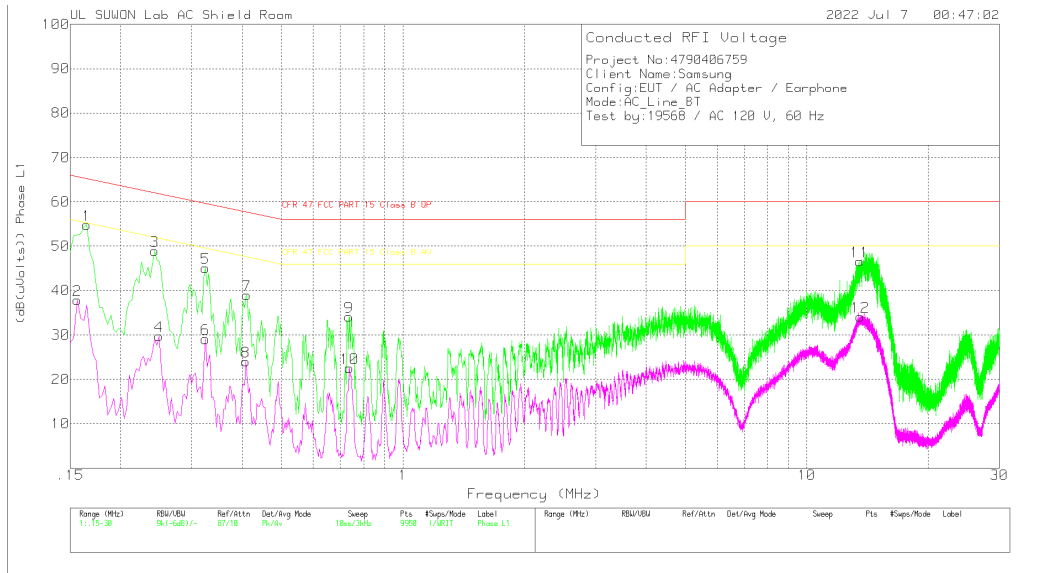
Range 2: Phase N .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
.26175	34.79	Qp	9.6	.2	44.59	61.38	-16.79	-	-
.31275	39.76	Qp	9.7	.2	49.66	59.9	-10.24	-	-
.39375	38.46	Qp	9.8	.2	48.46	57.98	-9.52	-	-
.43875	29.74	Qp	9.9	.2	39.84	57.09	-17.25	-	-

Qp - Quasi-Peak detector

11.1.2. AC Power Line(C to A)

LINE 1 RESULTS



Trace Markers

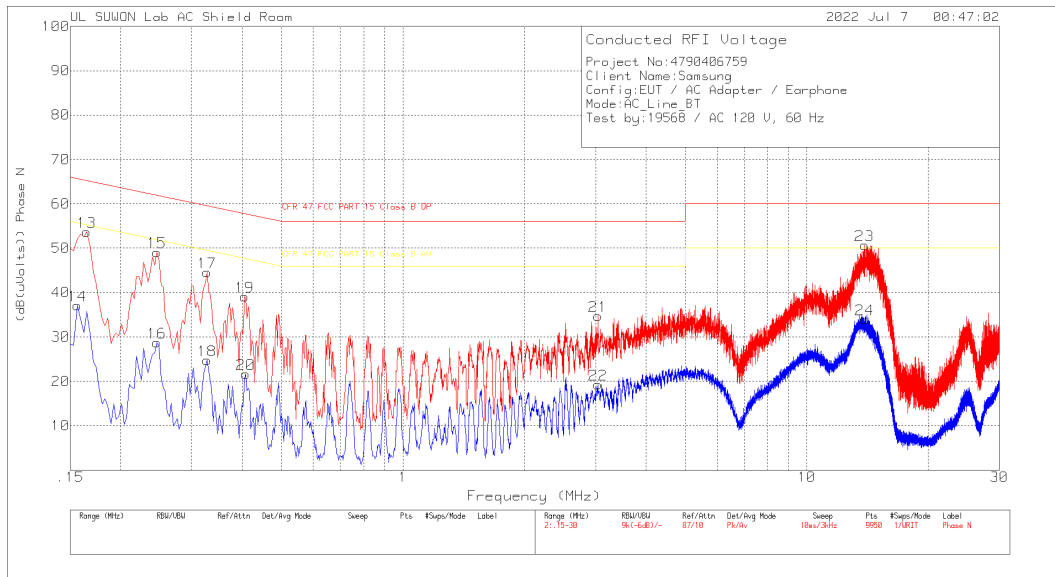
Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.165	44.81	Pk	9.9	.1	54.81	65.21	-10.4	-	-
2	.156	28	Av	9.8	.1	37.9	-	-	55.67	-17.77
3	.243	39.08	Pk	9.6	.2	48.88	61.99	-13.11	-	-
4	.249	19.94	Av	9.6	.2	29.74	-	-	51.79	-22.05
5	.324	35.18	Pk	9.7	.2	45.08	59.6	-14.52	-	-
6	.324	19.16	Av	9.7	.2	29.06	-	-	49.6	-20.54
7	.411	28.93	Pk	9.8	.2	38.93	57.63	-18.7	-	-
8	.408	14.03	Av	9.8	.2	24.03	-	-	47.69	-23.66
9	.735	24.15	Pk	9.8	.2	34.15	56	-21.85	-	-
10	.738	12.48	Av	9.8	.2	22.48	-	-	46	-23.52
11	13.542	36.15	Pk	10	.4	46.55	60	-13.45	-	-
12	13.551	23.71	Av	10	.4	34.11	-	-	50	-15.89

Pk - Peak detector

Av - Average detection

LINE 2 RESULTS



Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
13	.165	43.62	Pk	9.9	.1	53.62	65.21	-11.59	-	-
14	.156	27.22	Av	9.8	.1	37.12	-	-	55.67	-18.55
15	.246	39.32	Pk	9.6	.2	49.12	61.89	-12.77	-	-
16	.246	18.92	Av	9.6	.2	28.72	-	-	51.89	-23.17
17	.327	34.71	Pk	9.7	.2	44.61	59.53	-14.92	-	-
18	.327	14.89	Av	9.7	.2	24.79	-	-	49.53	-24.74
19	.405	29.1	Pk	9.8	.2	39.1	57.75	-18.65	-	-
20	.408	11.65	Av	9.8	.2	21.65	-	-	47.69	-26.04
21	3.042	24.72	Pk	9.7	.3	34.72	56	-21.28	-	-
22	3.0405	9.27	Av	9.7	.3	19.27	-	-	46	-26.73
23	13.893	40.28	Pk	10	.4	50.68	60	-9.32	-	-
24	13.911	23.61	Av	10	.4	34.01	-	-	50	-15.99

Pk - Peak detector
 Av - Average detection

Quasi-Peak Emissions

Range 2: Phase N .15 - 30MHz

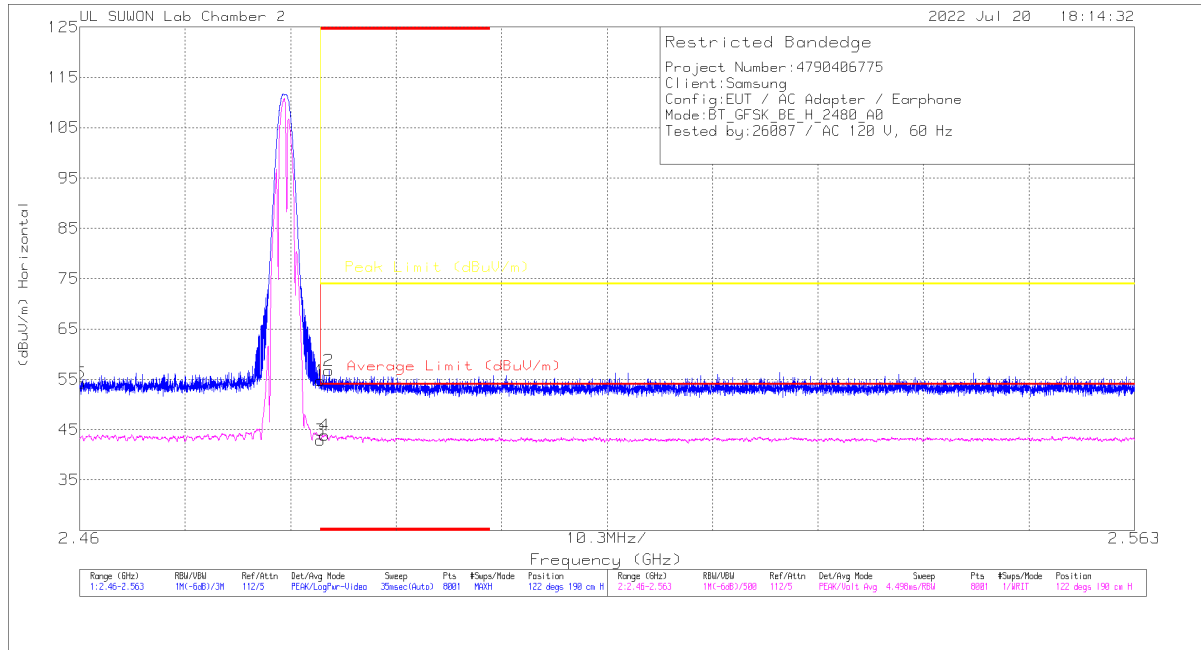
Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
13.8938	33.59	Qp	10	.4	43.99	60	-16.01	-	-

Qp - Quasi-Peak detector

12. SPOT-CHECK TEST RESULT

BANDEDGE (WORST CASE: BDR ANT1 / 2480 MHz)

HORIZONTAL PEAK AND AVERAGE DATA

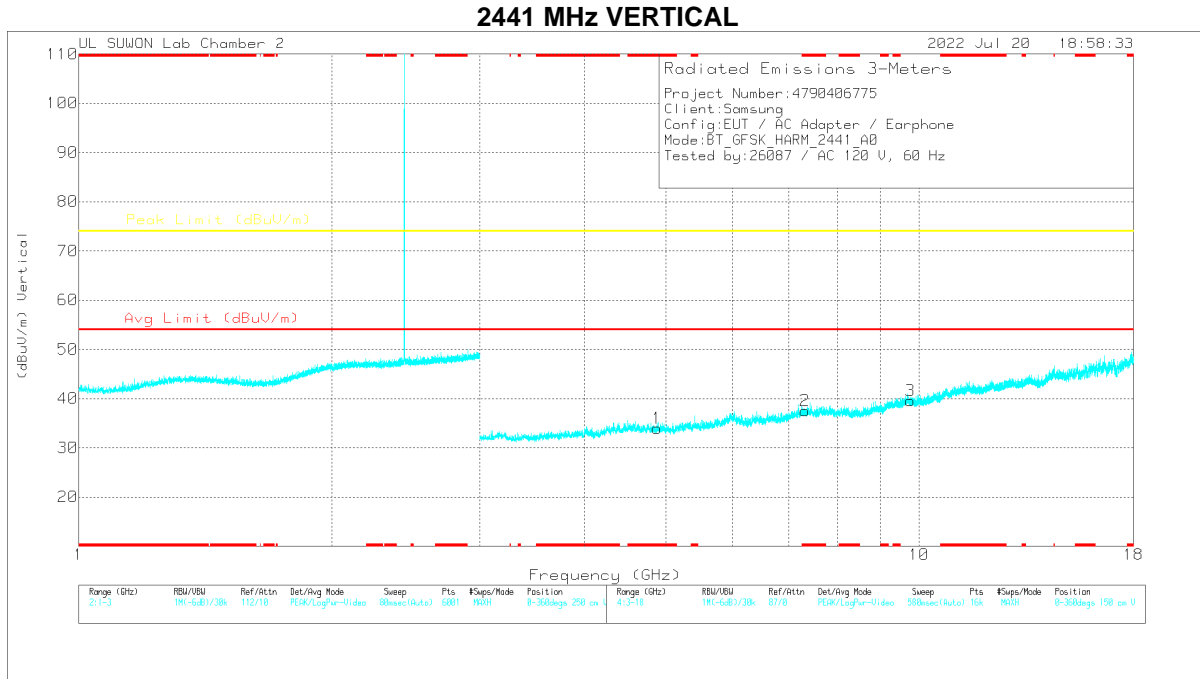


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	42.32	Pk	32	-19.6	54.72	-	-	74	-19.28	122	190	H
2	* 2.48432	44.34	Pk	32	-19.6	56.74	-	-	74	-17.26	122	190	H
3	* 2.48351	30.53	VA1T	32	-19.6	42.93	54	-11.07	-	-	122	190	H
4	* 2.4839	31.55	VA1T	32	-19.6	43.95	54	-10.05	-	-	122	190	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

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: BDR ANT1 / 2441 MHz)



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

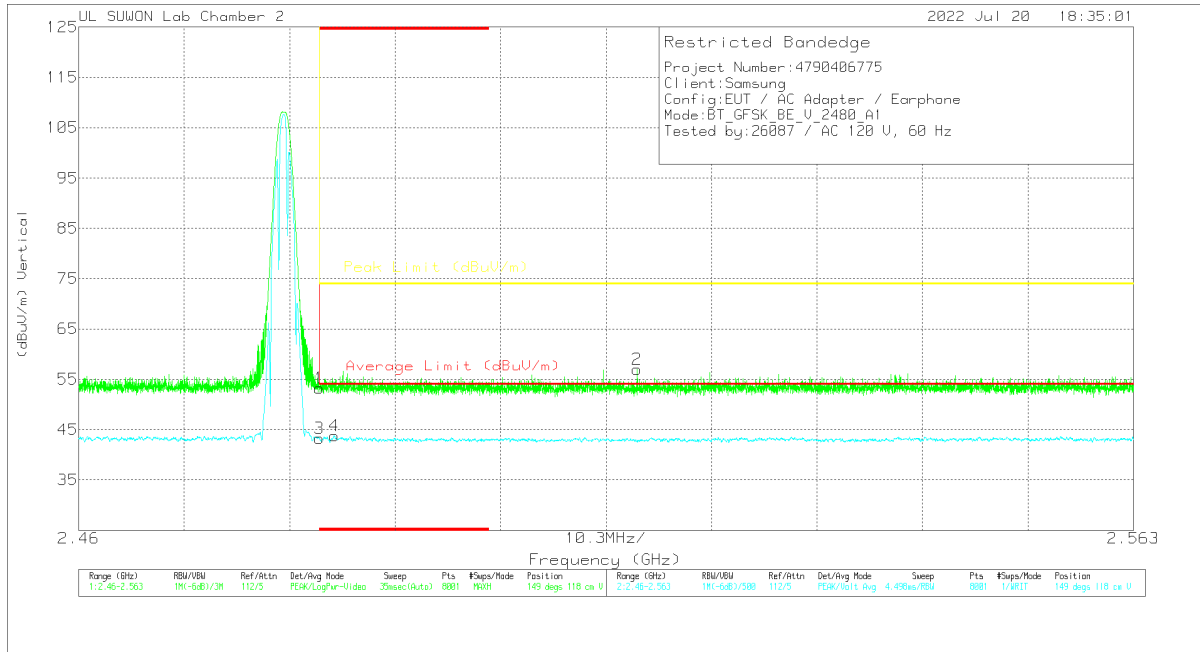
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.88869	28.39	PK2	34.1	-27.5	34.99	-	-	74	-39.01	0	100	V

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

BANDEDGE (WORST CASE: BDR ANT2 / 2480 MHz)

VERTICAL PEAK AND AVERAGE DATA

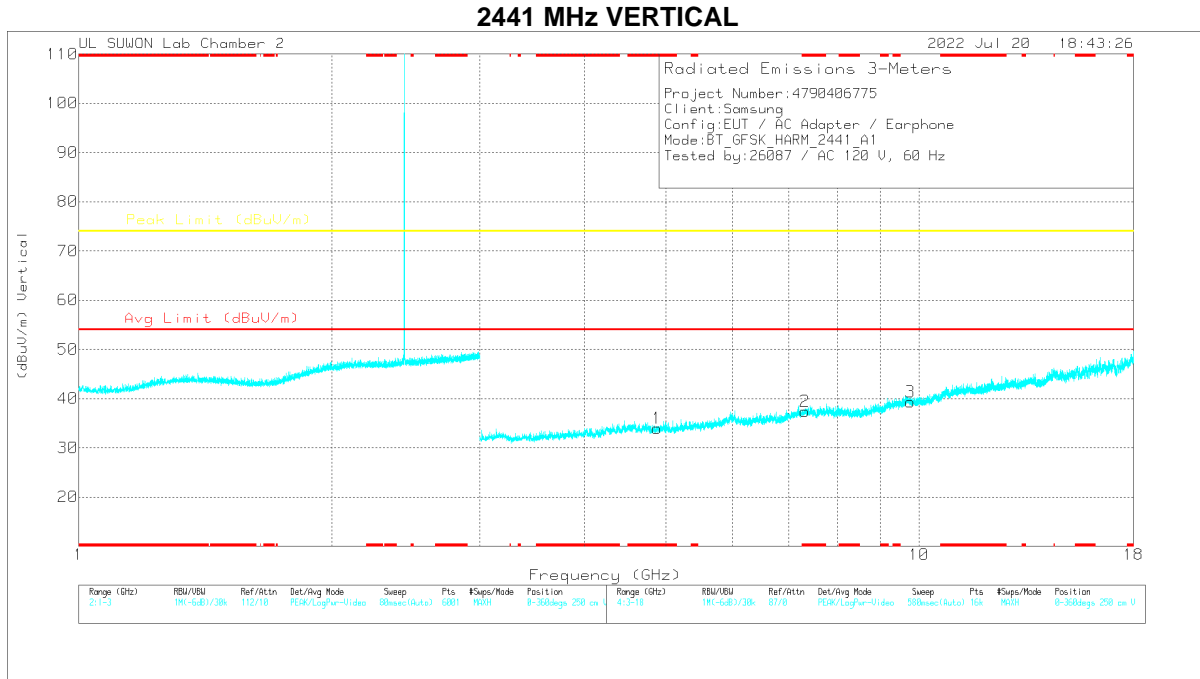


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00168724	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	40.81	Pk	32	-19.6	53.21	-	-	74	-20.79	149	118	V
2	2.51455	44.43	Pk	32.1	-19.6	56.93	-	-	74	-17.07	149	118	V
3	* 2.48351	30.86	VA1T	32	-19.6	43.26	54	-10.74	-	-	149	118	V
4	* 2.48494	31.41	VA1T	32	-19.6	43.81	54	-10.19	-	-	149	118	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(WORST CASE: BDR ANT2 / 2441 MHz)



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Radiated Emissions

Frequency (GHz)	Meter Reading (dBUV)	Det	3117_00168724	3GHz_HP[dB]	Corrected Reading (dBUV/m)	Avg Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
9.761	22.65	PK2		-21	38.85	-	-	74	-35.15	0	100	V

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

END OF TEST REPORT