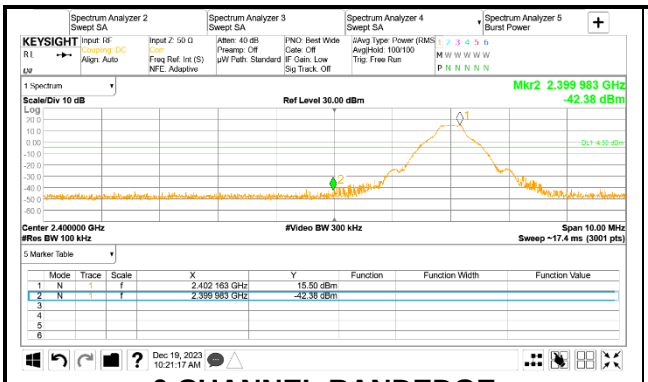
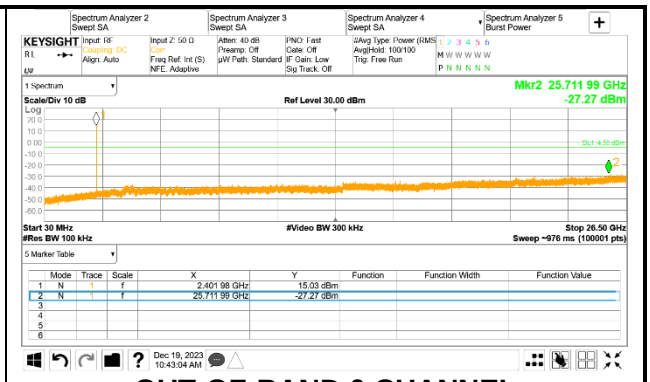
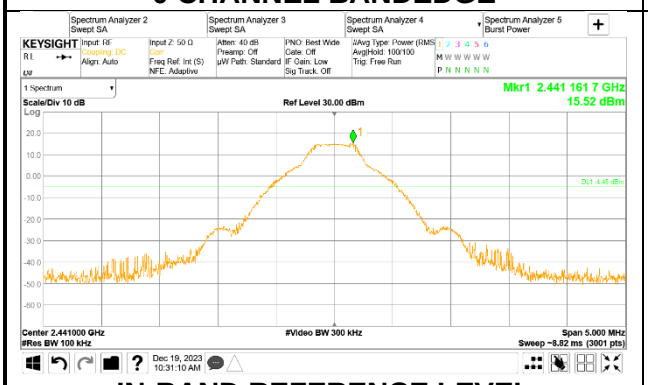
SPURIOUS EMISSIONS, NON-HOPPING – ANT2



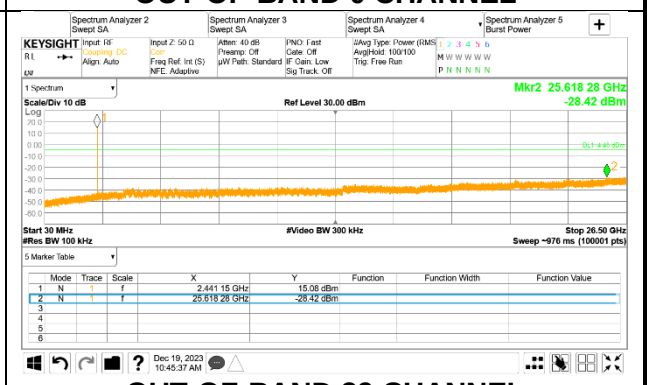
0 CHANNEL BANDEDGE



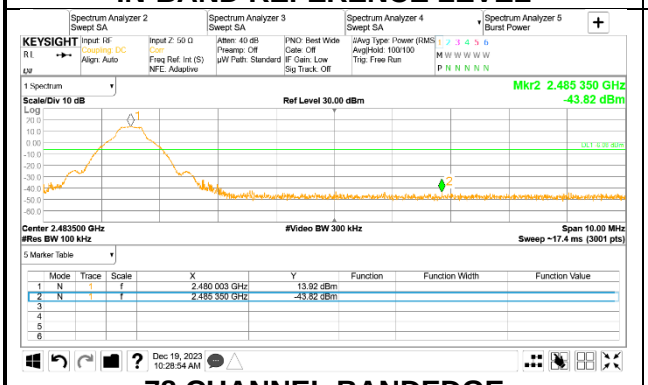
OUT-OF-BAND 0 CHANNEL



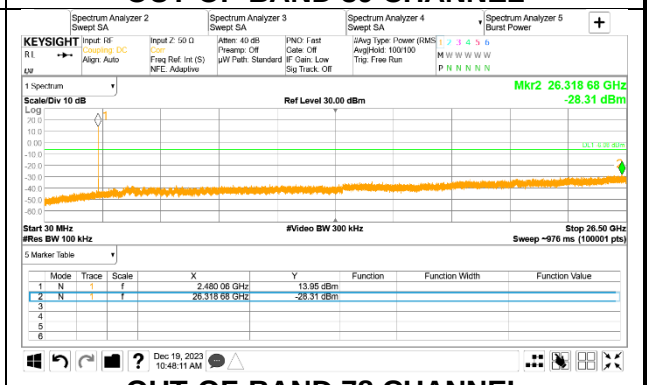
IN-BAND REFERENCE LEVEL



OUT-OF-BAND 39 CHANNEL

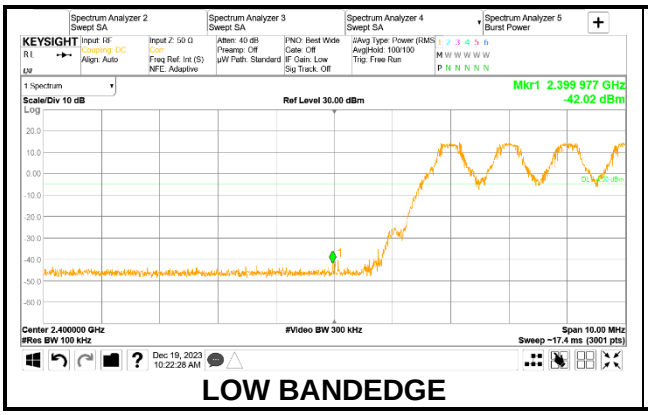


78 CHANNEL BANDEDGE

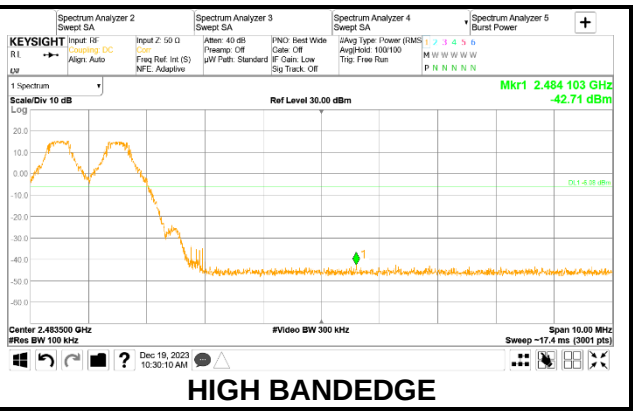


OUT-OF-BAND 78 CHANNEL

SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON – ANT2



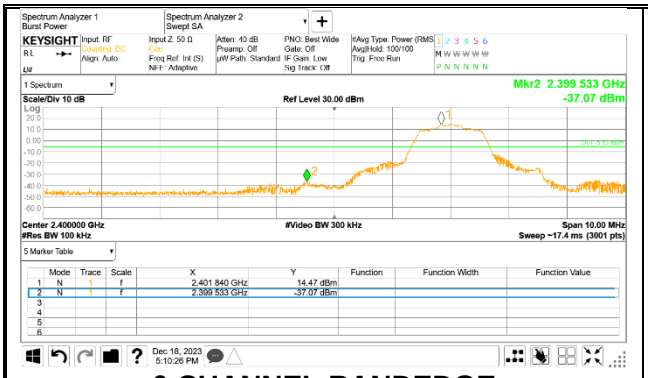
LOW BANDEDGE



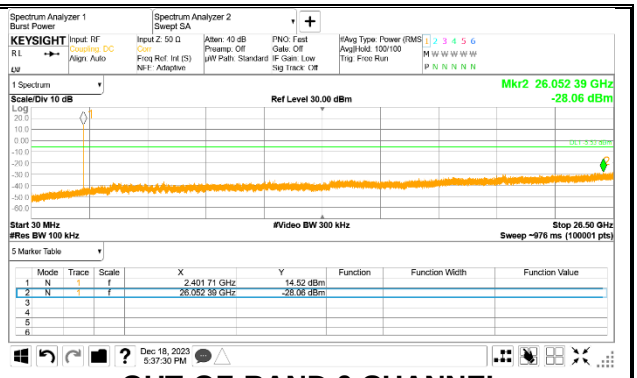
HIGH BANDEDGE

9.8.2. BLUETOOTH ENHANCED DATA RATE 8PSK MODULATION

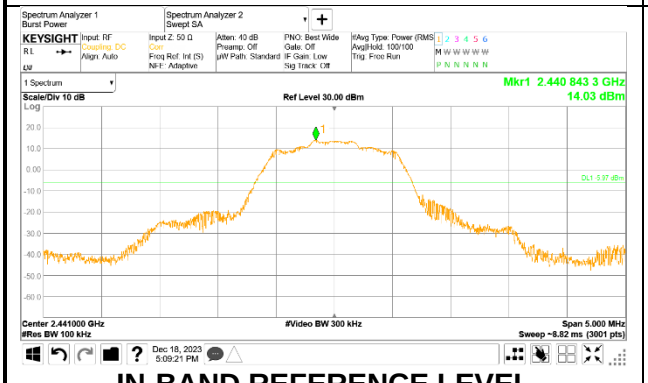
SPURIOUS EMISSIONS, NON-HOPPING – ANT1



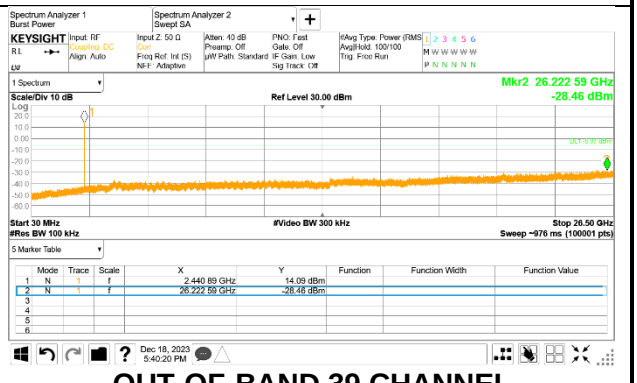
0 CHANNEL BANDEDGE



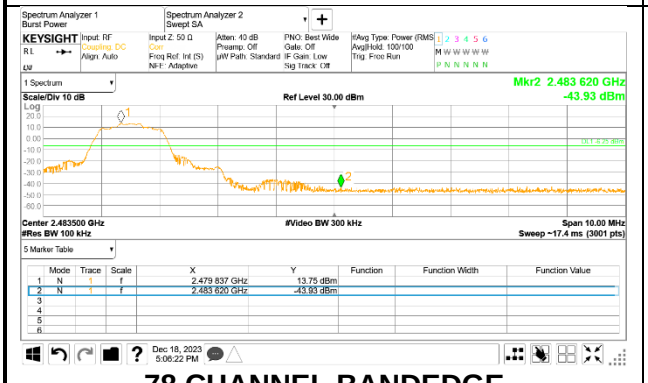
OUT-OF-BAND 0 CHANNEL



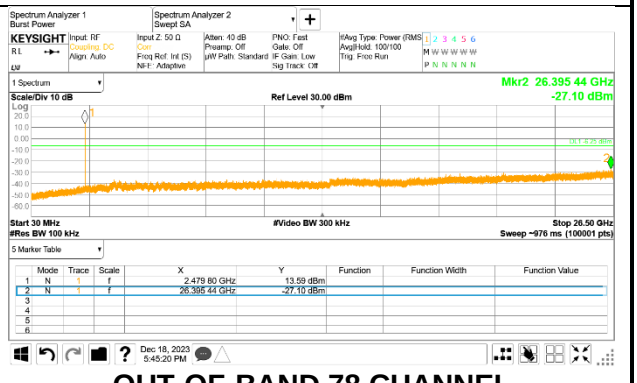
IN-BAND REFERENCE LEVEL



OUT-OF-BAND 39 CHANNEL

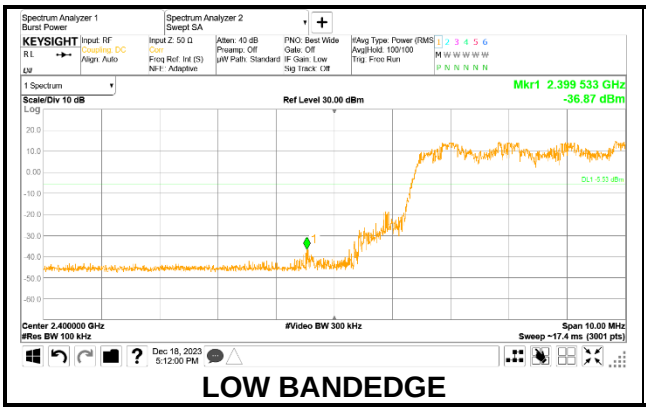


78 CHANNEL BANDEDGE

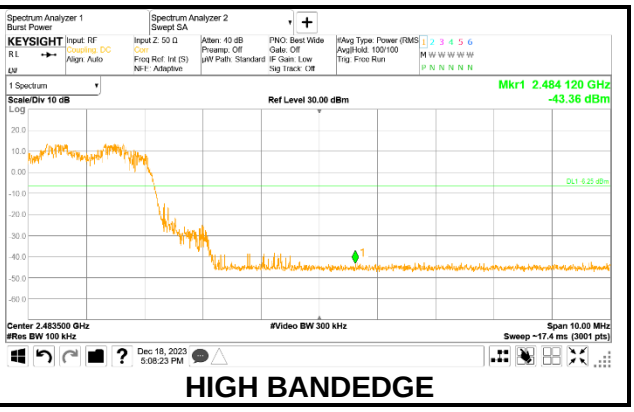


OUT-OF-BAND 78 CHANNEL

SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON – ANT1

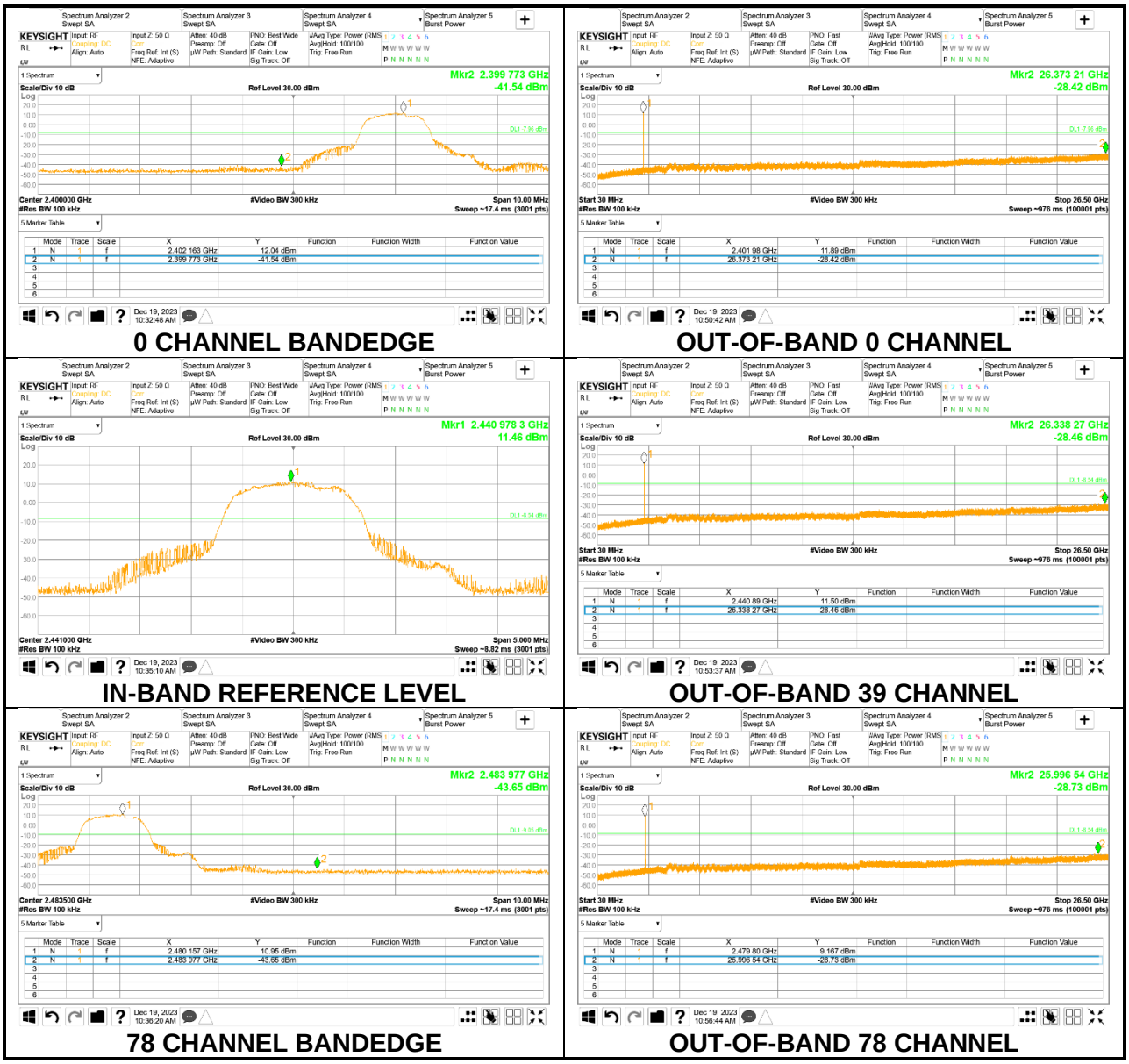


LOW BANDEDGE

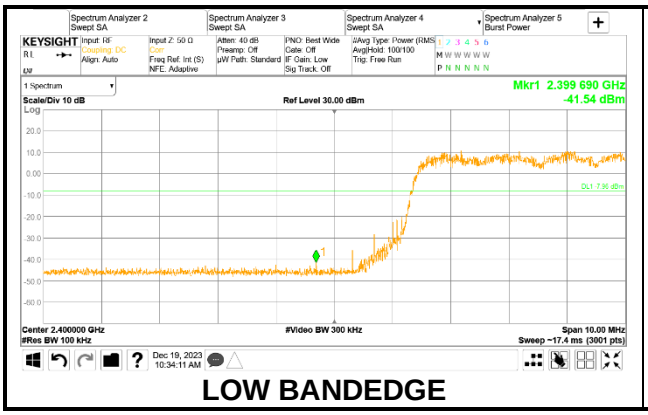


HIGH BANDEDGE

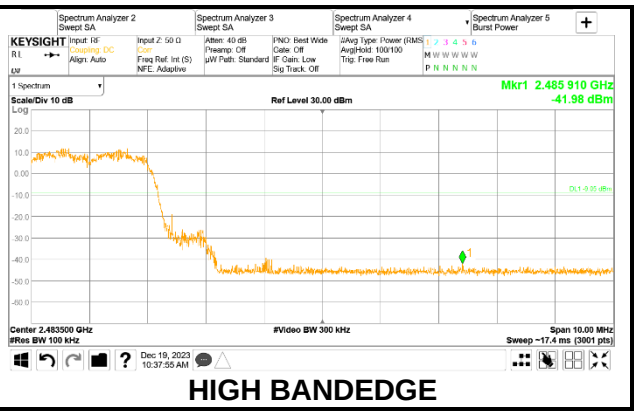
SPURIOUS EMISSIONS, NON-HOPPING – ANT2



SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON – ANT2



LOW BANDEDGE



HIGH BANDEDGE

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.

GFSK = 1/T = 1 / 0.00288s = 347Hz.

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.

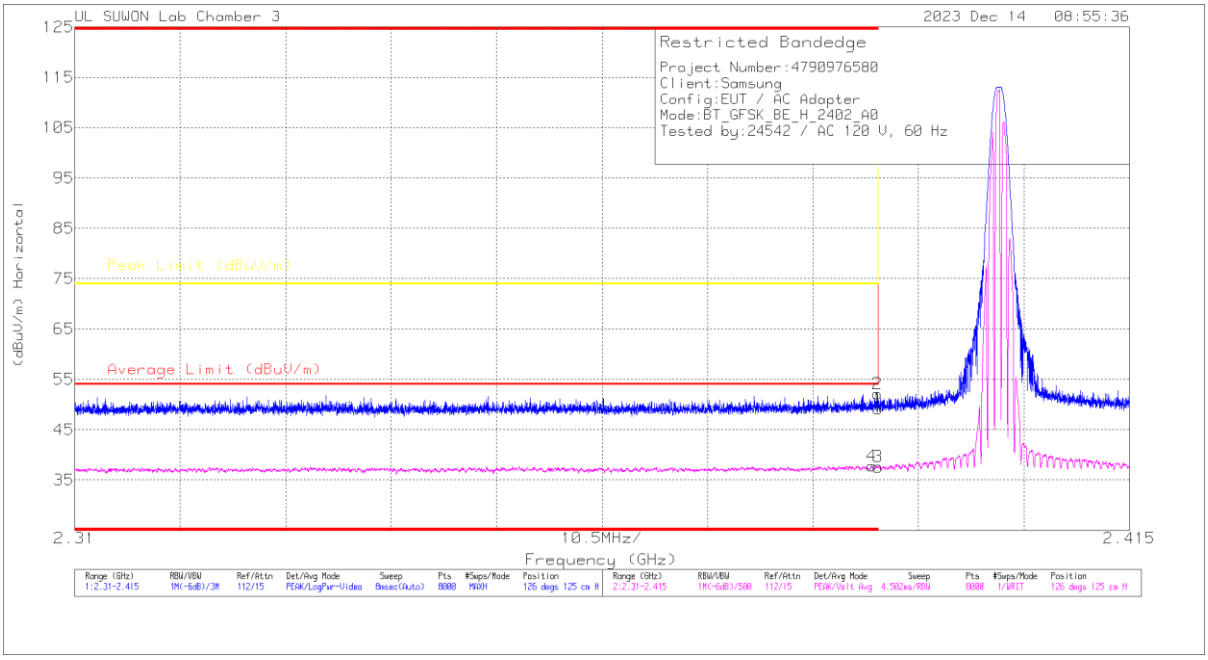
Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field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

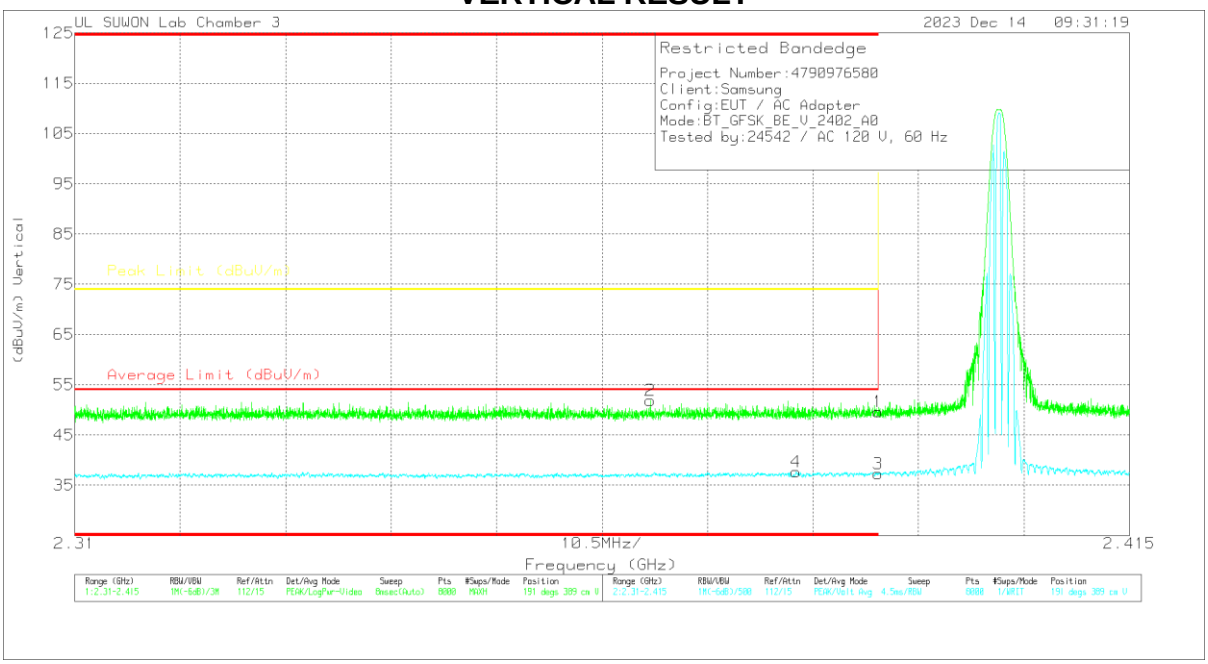


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	41.81	Pk	32.1	-24.8	49.11	-	-	74	-24.89	126	125	H
2	* 2.3899	44.87	Pk	32.1	-24.8	52.17	-	-	74	-21.83	126	125	H
3	* 2.39	30.31	VA1T	32.1	-24.8	37.61	54	-16.39	-	-	126	125	H
4	* 2.38934	30.49	VA1T	32.1	-24.8	37.79	54	-16.21	-	-	126	125	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



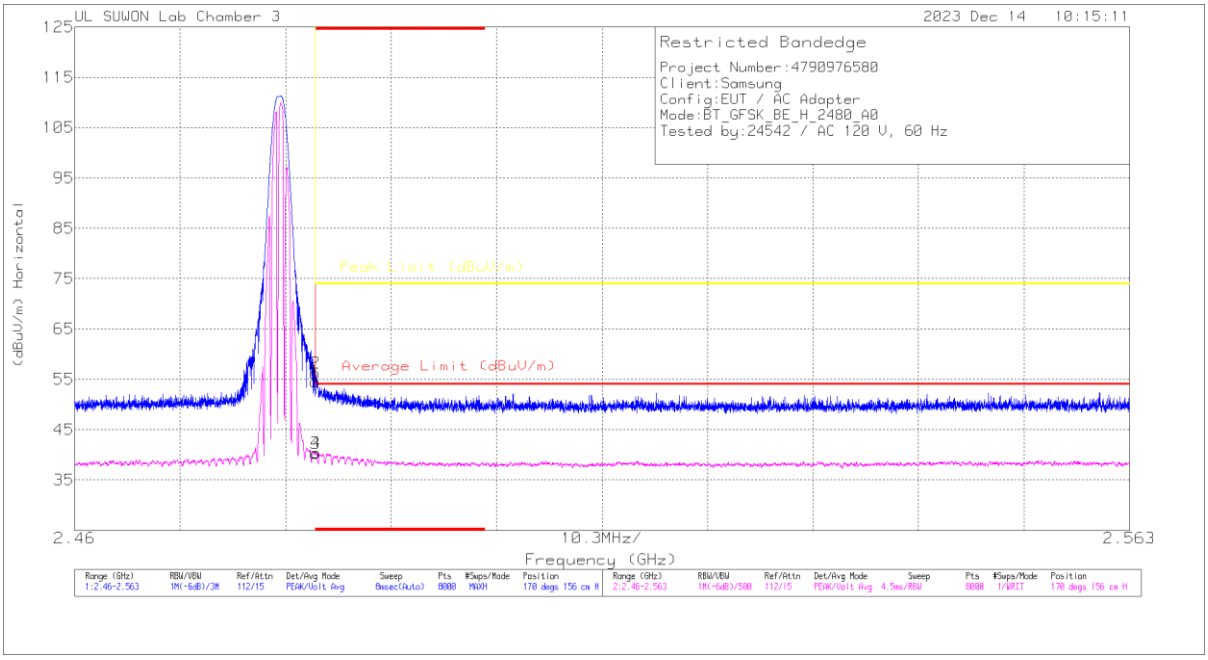
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	42.28	Pk	32.1	-24.8	49.58	-	-	74	-24.42	191	389	V
2	* 2.3673	44.73	Pk	32	-24.9	51.83	-	-	74	-22.17	191	389	V
3	* 2.39	30.03	VA1T	32.1	-24.8	37.33	54	-16.67	-	-	191	389	V
4	* 2.38183	30.44	VA1T	32.1	-24.9	37.64	54	-16.36	-	-	191	389	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

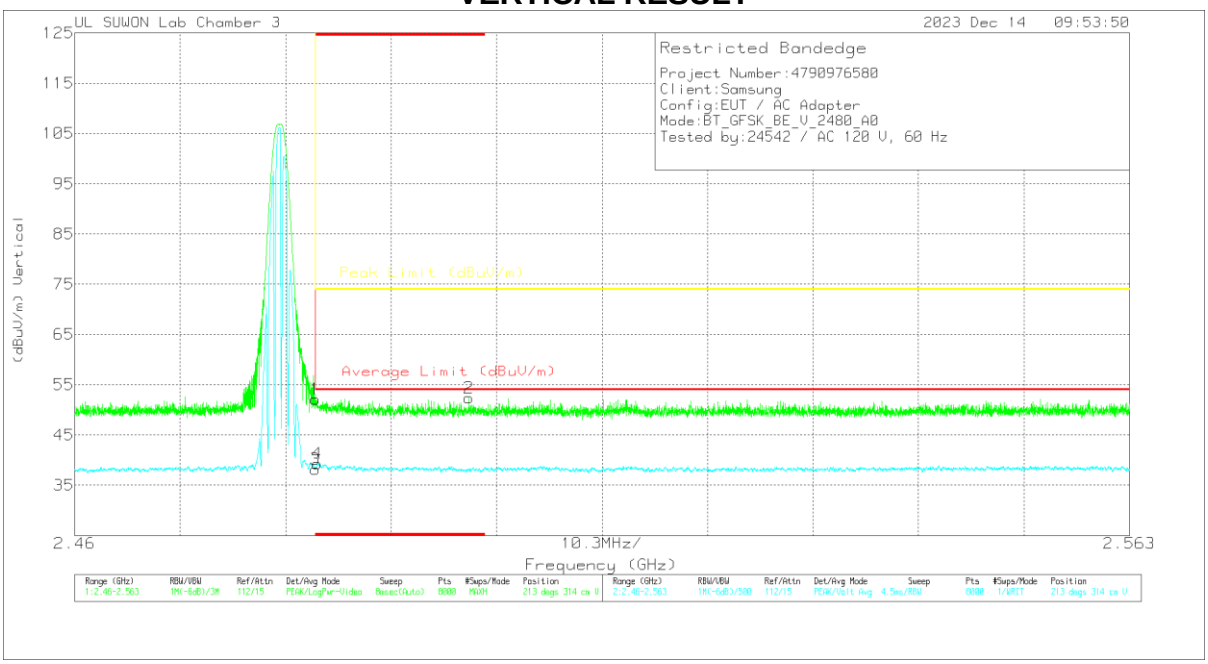


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	46.96	Pk	32.4	-24.8	54.56	-	-	74	-19.44	170	156	H
2	* 2.48351	48.59	Pk	32.4	-24.8	56.19	-	-	74	-17.81	170	156	H
3	* 2.4835	32.73	VA1T	32.4	-24.8	40.33	54	-13.67	-	-	170	156	H
4	* 2.48355	32.76	VA1T	32.4	-24.8	40.36	54	-13.64	-	-	170	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



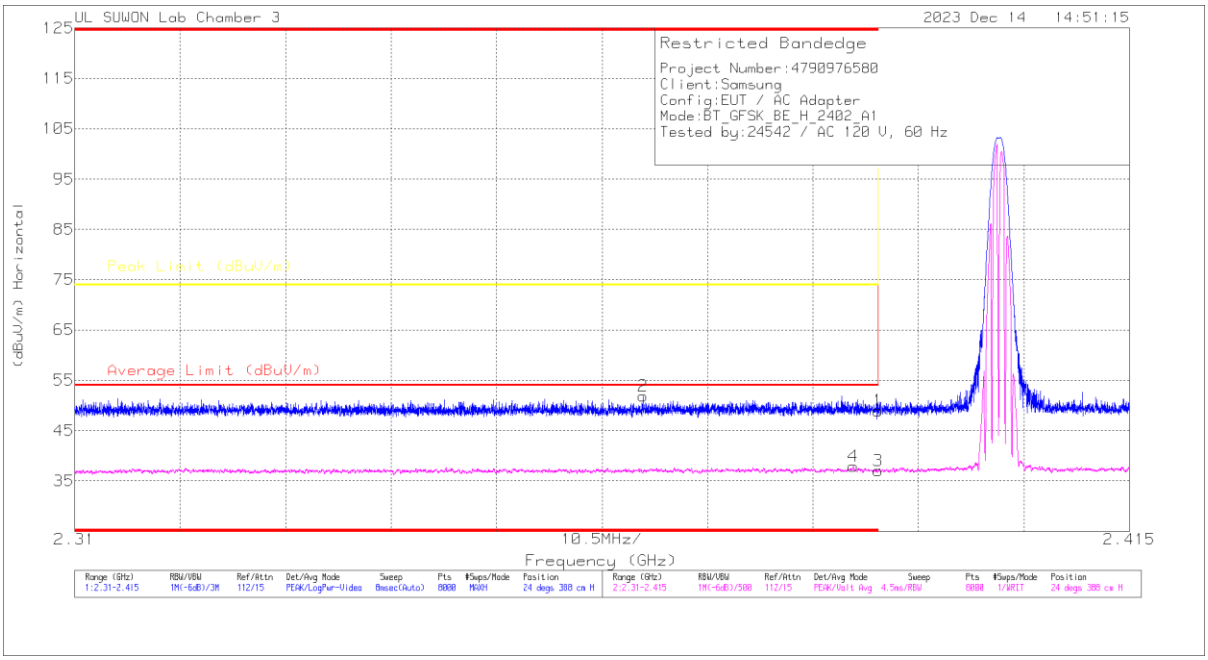
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	44.47	Pk	32.4	-24.8	52.07	-	-	74	-21.93	213	314	V
2	* 2.4985	44.77	Pk	32.4	-24.8	52.37	-	-	74	-21.63	213	314	V
3	* 2.4835	30.6	VA1T	32.4	-24.8	38.2	54	-15.8	-	-	213	314	V
4	* 2.48367	31.7	VA1T	32.4	-24.8	39.3	54	-14.7	-	-	213	314	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

ANT2
BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

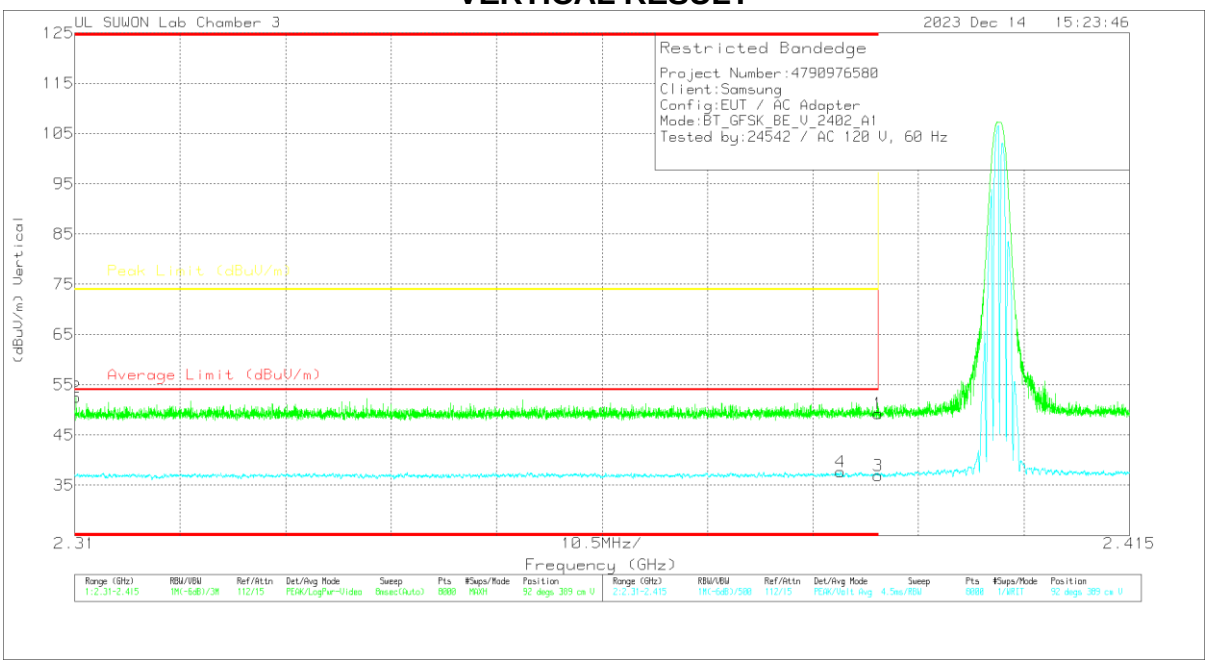


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	41.65	Pk	32.1	-24.8	48.95	-	-	74	-25.05	24	388	H
2	* 2.36656	44.81	Pk	32	-24.9	51.91	-	-	74	-22.09	24	388	H
3	* 2.39	29.71	VA1T	32.1	-24.8	37.01	54	-16.99	-	-	24	388	H
4	* 2.38751	30.58	VA1T	32.1	-24.8	37.88	54	-16.12	-	-	24	388	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



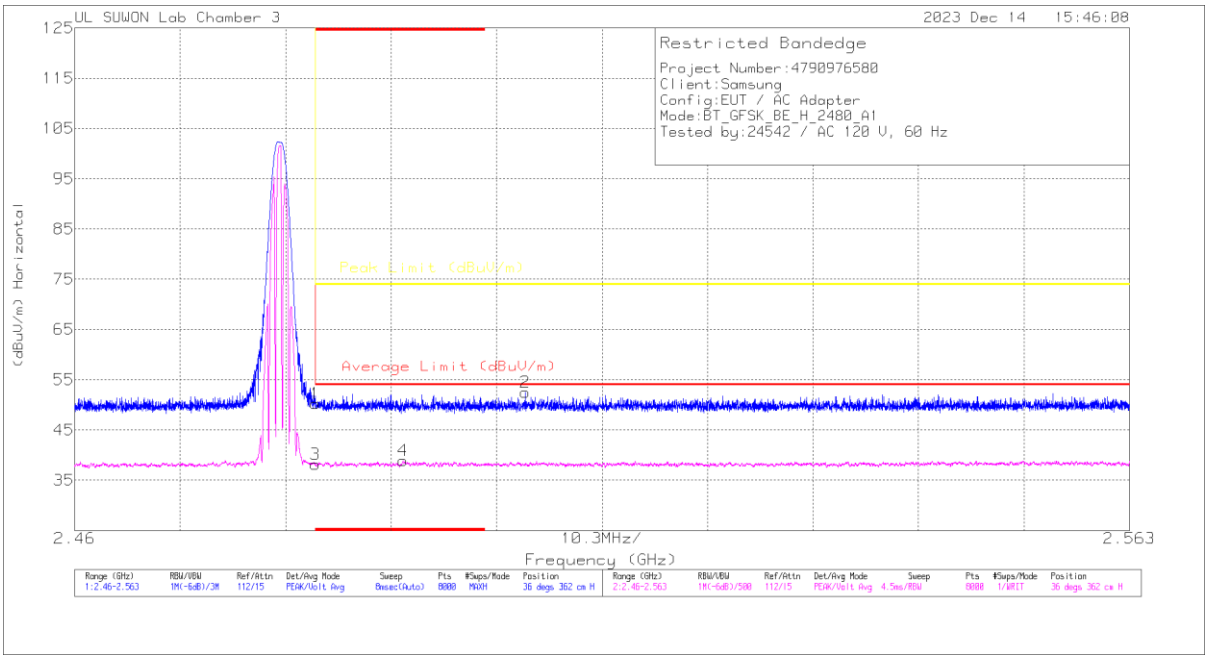
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	41.92	Pk	32.1	-24.8	49.22	-	-	74	-24.78	92	389	V
2	* 2.31013	45.55	Pk	31.8	-24.8	52.55	-	-	74	-21.45	92	389	V
3	* 2.39	29.58	VA1T	32.1	-24.8	36.88	54	-17.12	-	-	92	389	V
4	* 2.38625	30.32	VA1T	32.1	-24.8	37.62	54	-16.38	-	-	92	389	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

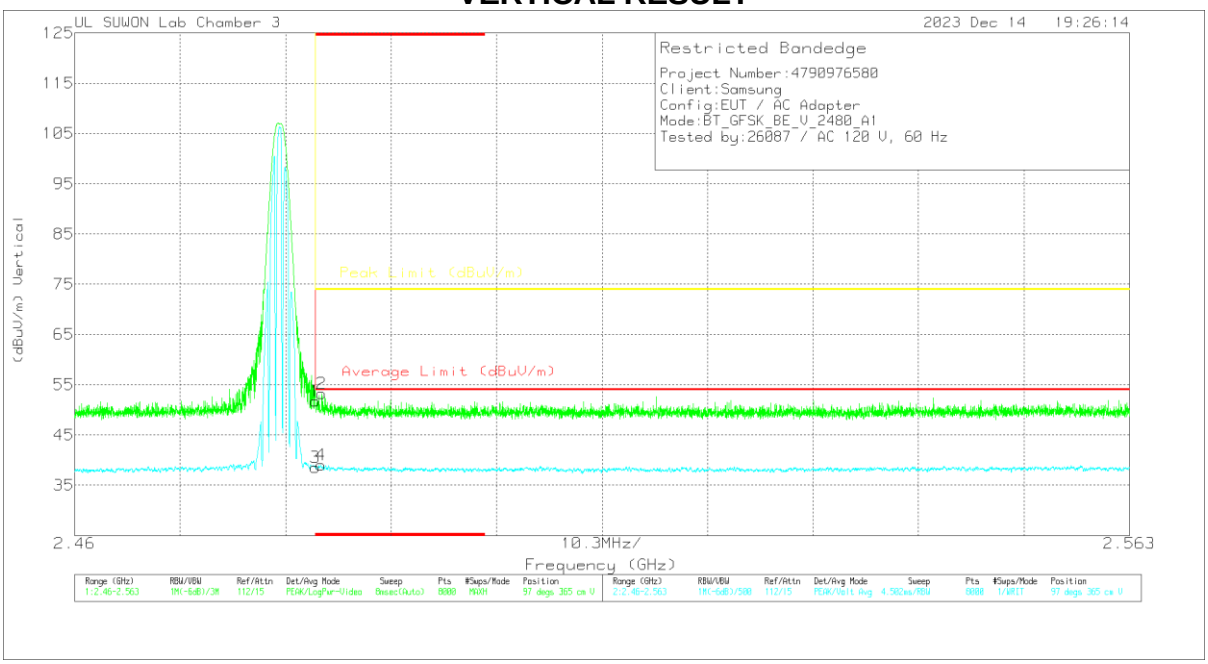


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	42.6	Pk	32.4	-24.8	50.2	-	-	74	-23.8	36	362	H
2	2.50403	44.9	Pk	32.4	-24.8	52.5	-	-	74	-21.5	36	362	H
3	* 2.4835	30.59	VA1T	32.4	-24.8	38.19	54	-15.81	-	-	36	362	H
4	* 2.49208	31.26	VA1T	32.4	-24.8	38.86	54	-15.14	-	-	36	362	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



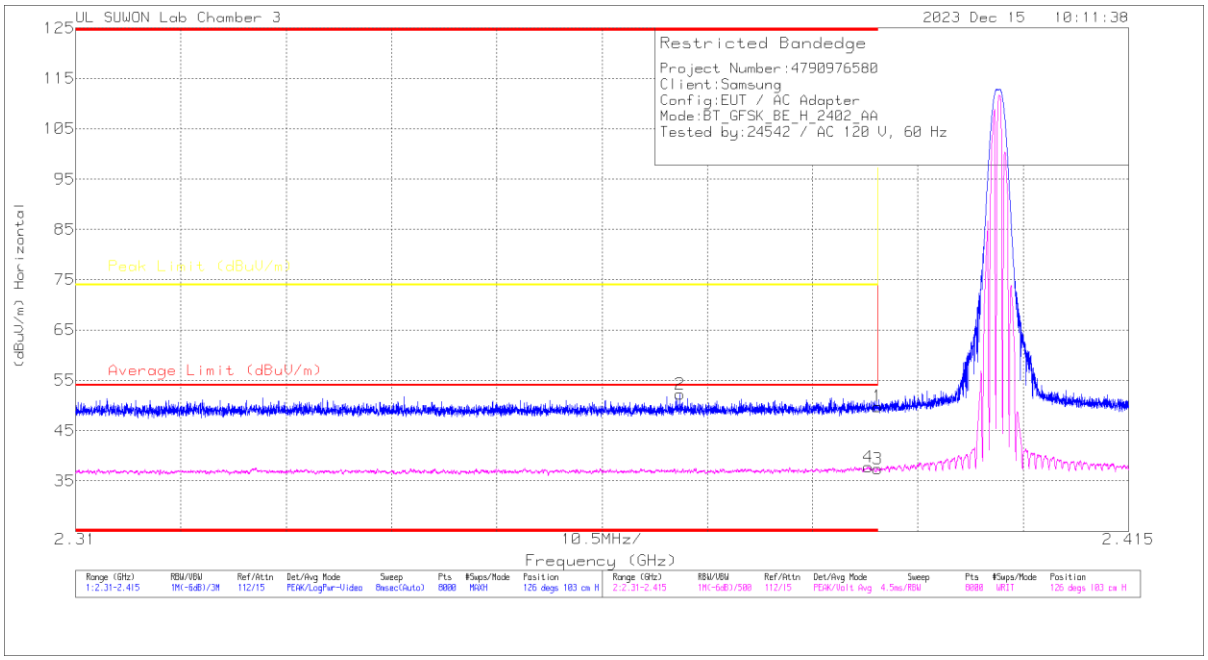
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	44.17	Pk	32.4	-24.8	51.77	-	-	74	-22.23	97	365	V
2	* 2.48412	45.7	Pk	32.4	-24.8	53.3	-	-	74	-20.7	97	365	V
3	* 2.4835	30.91	VA1T	32.4	-24.8	38.51	54	-15.49	-	-	97	365	V
4	* 2.48404	31.42	VA1T	32.4	-24.8	39.02	54	-14.98	-	-	97	365	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

DUAL
BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

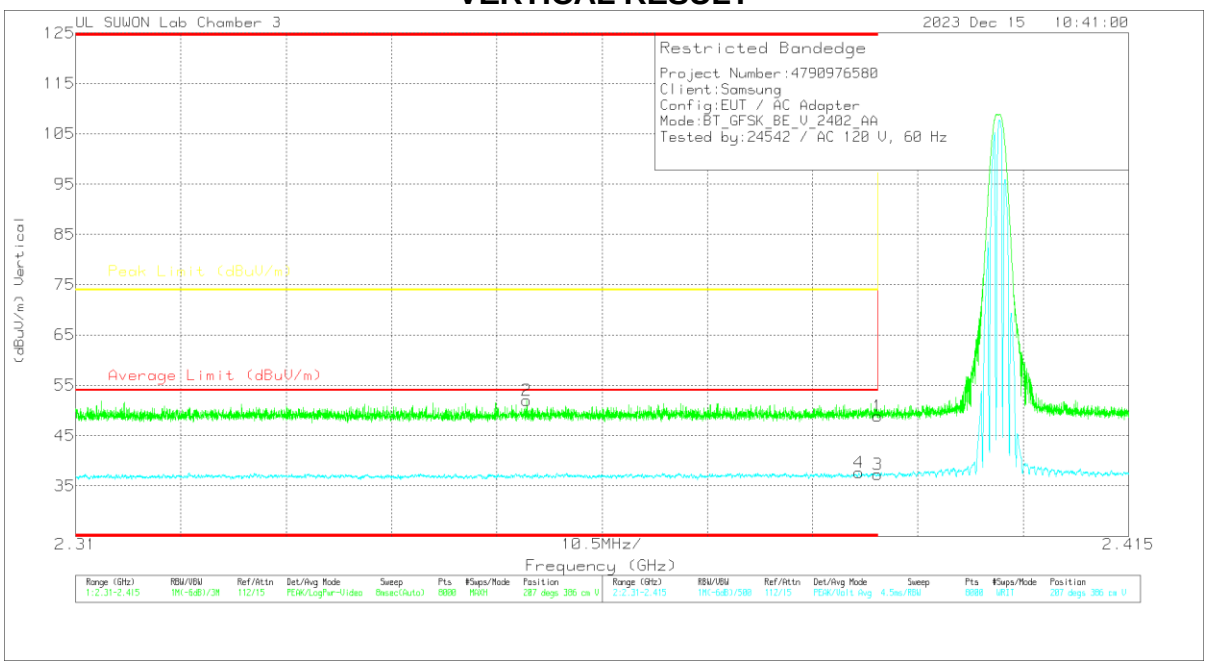


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	42.52	Pk	32.1	-24.8	49.82	-	-	74	-24.18	126	103	H
2	* 2.37025	45	Pk	32	-24.8	52.2	-	-	74	-21.8	126	103	H
3	* 2.39	30.14	VA1T	32.1	-24.8	37.44	54	-16.56	-	-	126	103	H
4	* 2.38906	30.51	VA1T	32.1	-24.8	37.81	54	-16.19	-	-	126	103	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



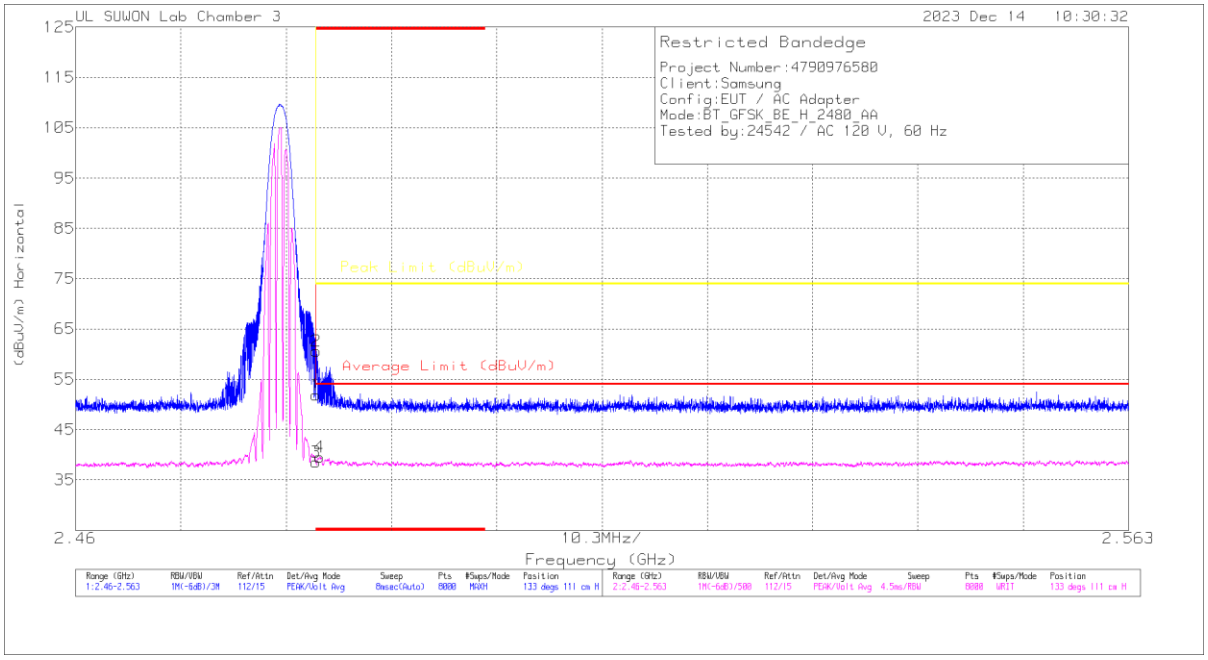
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	41.61	Pk	32.1	-24.8	48.91	-	-	74	-25.09	207	386	V
2	* 2.355	44.82	Pk	32	-24.8	52.02	-	-	74	-21.98	207	386	V
3	* 2.39	30.02	VA1T	32.1	-24.8	37.32	54	-16.68	-	-	207	386	V
4	* 2.38812	30.34	VA1T	32.1	-24.8	37.64	54	-16.36	-	-	207	386	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

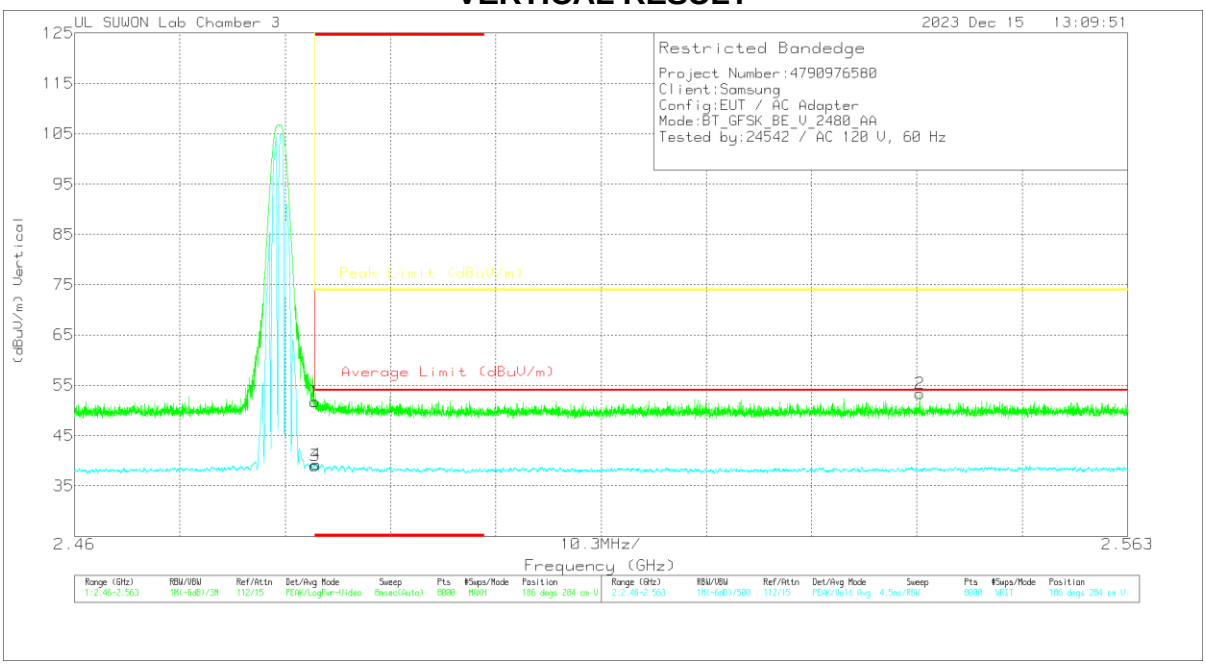


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	44.32	Pk	32.4	-24.8	51.92	-	-	74	-22.08	133	111	H
2	* 2.48353	52.95	Pk	32.4	-24.8	60.55	-	-	74	-13.45	133	111	H
3	* 2.4835	30.96	VA1T	32.4	-24.8	38.56	54	-15.44	-	-	133	111	H
4	* 2.48389	31.94	VA1T	32.4	-24.8	39.54	54	-14.46	-	-	133	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



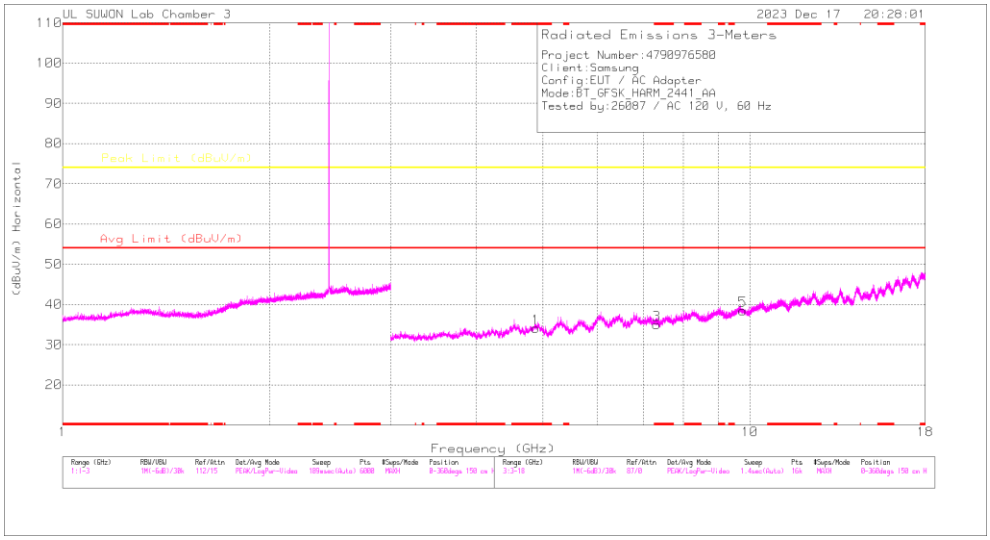
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	44.18	Pk	32.4	-24.8	51.78	-	-	74	-22.22	186	284	V
2	2.54266	45.68	Pk	32.4	-24.7	53.38	-	-	74	-20.62	186	284	V
3	* 2.4835	31.41	VA1T	32.4	-24.8	39.01	54	-14.99	-	-	186	284	V
4	* 2.4836	31.74	VA1T	32.4	-24.8	39.34	54	-14.66	-	-	186	284	V

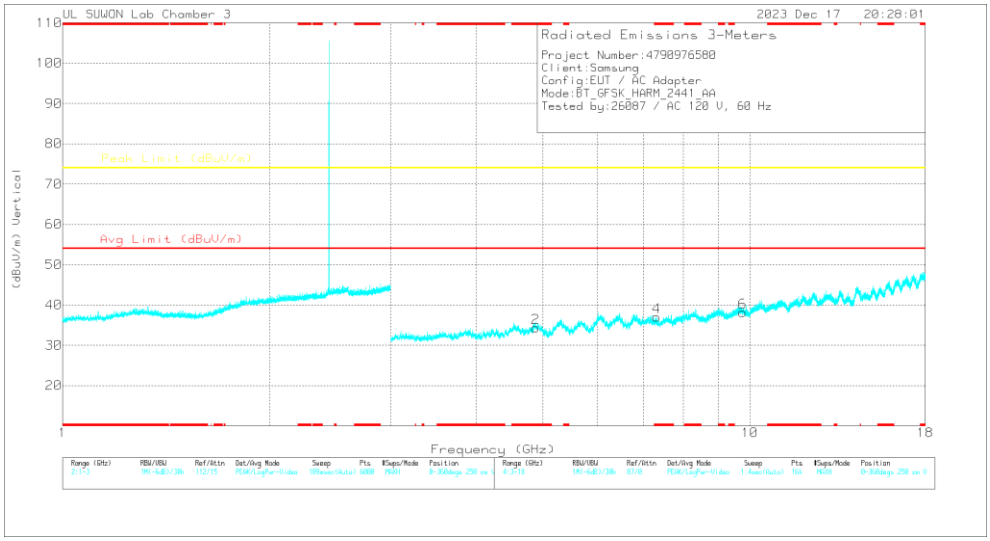
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE – DUAL MODE)

39 CHANNEL RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; 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	Antenna Correction Factor(dB/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
* 4.87977	37.97	PKFH	34.2	-29.9	42.27	-	-	74	-31.73	0	100	H
* 4.88204	38.75	PKFH	34.2	-30	42.95	-	-	74	-31.05	0	100	V
* 7.32092	33.11	PKFH	35.8	-25.5	43.41	-	-	74	-30.59	0	100	H
* 7.32246	35.11	PKFH	35.8	-25.5	45.41	-	-	74	-28.59	96	108	V
* 7.32297	25.48	VA1T	35.8	-25.5	35.78	54	-18.22	-	-	96	108	V
9.76056	30.98	PKFH	36.9	-21.5	46.38	-	-	74	-27.62	0	100	H
9.75962	31.67	PKFH	36.9	-21.5	47.07	-	-	74	-26.93	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

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	ANT1	* 4.80408	37.55	PKFH	34.30	-30.10	41.75	-	-	74.00	-32.25	0	100	H
		* 4.80422	38.24	PKFH	34.30	-30.10	42.44	-	-	74.00	-31.56	0	113	V
		* 4.8041	26.90	VA1T	34.30	-30.10	31.10	54.00	-22.90	-	-	0	113	V
		7.202	34.21	PKFH	35.80	-25.80	44.21	-	-	74.00	-29.79	0	100	H
		7.208	34.72	PKFH	35.80	-25.90	44.62	-	-	74.00	-29.38	0	100	V
		9.609	32.28	PKFH	36.70	-21.70	47.28	-	-	74.00	**-26.72**	0	100	H
		9.611	31.88	PKFH	36.70	-21.80	46.78	-	-	74.00	-27.22	0	100	V
2441	ANT1	* 4.8813	38.28	PKFH	34.20	-29.90	42.58	-	-	74.00	-31.42	0	100	H
		* 4.88262	38.10	PKFH	34.20	-30.00	42.30	-	-	74.00	-31.70	348	100	V
		* 4.88185	27.44	VA1T	34.20	-30.00	31.64	54.00	-22.36	-	-	348	100	V
		* 7.32382	33.31	PKFH	35.80	-25.50	43.61	-	-	74.00	-30.39	0	100	H
		* 7.32016	34.00	PKFH	35.80	-25.50	44.30	-	-	74.00	-29.70	0	100	V
		9.764	30.72	PKFH	36.90	-21.50	46.12	-	-	74.00	-27.88	0	100	H
		9.763	31.23	PKFH	36.90	-21.50	46.63	-	-	74.00	-27.37	0	100	V
2480	ANT1	* 4.96301	37.60	PKFH	34.30	-30.10	41.80	-	-	74.00	-32.20	94	108	H
		* 4.96017	25.65	VA1T	34.30	-30.00	29.95	54.00	-24.05	-	-	94	108	H
		* 4.95992	38.95	PKFH	34.30	-30.00	43.25	-	-	74.00	-30.75	355	113	V
		* 4.95987	28.08	VA1T	34.30	-30.00	32.38	54.00	**-21.62**	-	-	355	113	V
		* 7.43703	33.17	PKFH	35.70	-25.20	43.67	-	-	74.00	-30.33	0	100	H
		* 7.43656	32.69	PKFH	35.70	-25.20	43.19	-	-	74.00	-30.81	0	100	V
		9.917	30.45	PKFH	37.10	-21.30	46.25	-	-	74.00	-27.75	0	100	H
		9.923	29.53	PKFH	37.10	-21.30	45.33	-	-	74.00	-28.67	0	100	V

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	ANT2	* 4.80448	37.24	PKFH	34.30	-30.10	41.44	-	-	74.00	-32.56	0	100	H
		* 4.80541	37.75	PKFH	34.30	-30.10	41.95	-	-	74.00	-32.05	0	100	V
		7.209	34.68	PKFH	35.80	-25.90	44.58	-	-	74.00	-29.42	0	100	H
		7.206	33.28	PKFH	35.80	-25.90	43.18	-	-	74.00	-30.82	0	100	V
		9.608	31.33	PKFH	36.70	-21.70	46.33	-	-	74.00	**-27.67**	0	100	H
		9.607	30.92	PKFH	36.70	-21.80	45.82	-	-	74.00	-28.18	0	100	V
2441	ANT2	* 4.88279	37.33	PKFH	34.20	-30.00	41.53	-	-	74.00	-32.47	0	100	H
		* 4.88151	38.78	PKFH	34.20	-29.90	43.08	-	-	74.00	-30.92	0	100	V
		* 7.3238	32.55	PKFH	35.80	-25.50	42.85	-	-	74.00	-31.15	0	100	H
		* 7.32245	33.46	PKFH	35.80	-25.50	43.76	-	-	74.00	-30.24	0	100	V
		9.762	30.46	PKFH	36.90	-21.50	45.86	-	-	74.00	-28.14	0	100	H
		9.762	30.57	PKFH	36.90	-21.50	45.97	-	-	74.00	-28.03	0	100	V
2480	ANT2	* 4.95965	38.06	PKFH	34.30	-30.00	42.36	-	-	74.00	-31.64	328	110	H
		* 4.96004	26.33	VA1T	34.30	-30.00	30.63	54.00	-23.37	-	-	328	110	H
		* 4.95946	39.81	PKFH	34.30	-30.00	44.11	-	-	74.00	-29.89	350	100	V
		* 4.95991	28.70	VA1T	34.30	-30.00	33.00	54.00	**-21.00**	-	-	350	100	V
		* 7.44222	32.59	PKFH	35.70	-25.20	43.09	-	-	74.00	-30.91	0	100	H
		* 7.44019	32.70	PKFH	35.70	-25.20	43.20	-	-	74.00	-30.80	97	100	V
		* 7.44013	20.75	VA1T	35.70	-25.20	31.25	54.00	-22.75	-	-	97	100	V
		9.920	28.91	PKFH	37.10	-21.40	44.61	-	-	74.00	-29.39	0	100	H
		9.920	28.90	PKFH	37.10	-21.40	44.60	-	-	74.00	-29.40	0	100	V

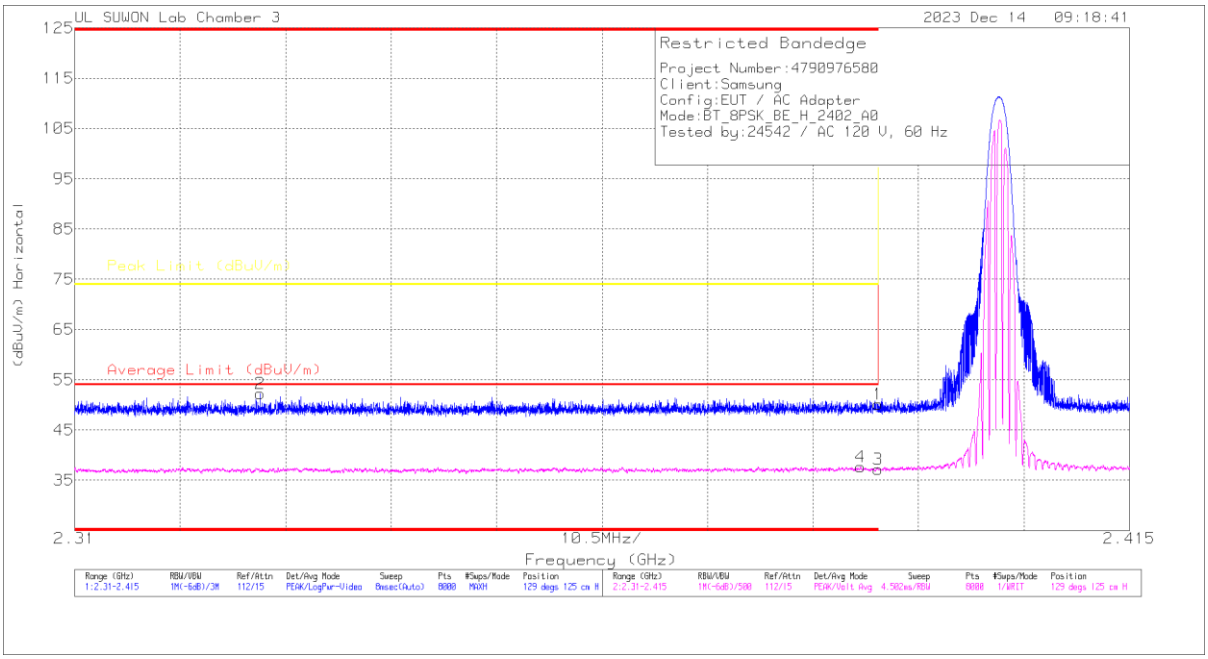
Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	DUAL	* 4.8044	38.03	PKFH	34.30	-30.10	42.23	-	-	74.00	-31.77	117	122	H
		* 4.80389	25.14	VA1T	34.30	-30.10	29.34	54.00	-24.66	-	-	117	122	H
		* 4.80476	38.12	PKFH	34.30	-30.10	42.32	-	-	74.00	-31.68	346	110	V
		* 4.80388	26.80	VA1T	34.30	-30.10	31.00	54.00	-23.00	-	-	346	110	V
		7.205	33.68	PKFH	35.80	-25.90	43.58	-	-	74.00	-30.42	0	100	H
		7.211	33.96	PKFH	35.80	-25.90	43.86	-	-	74.00	-30.14	0	100	V
		9.609	31.37	PKFH	36.70	-21.70	46.37	-	-	74.00	-27.63	0	100	H
		9.610	31.88	PKFH	36.70	-21.70	46.88	-	-	74.00	-27.12	0	100	V
2441	DUAL	* 4.87977	37.97	PKFH	34.20	-29.90	42.27	-	-	74.00	-31.73	0	100	H
		* 4.88204	38.75	PKFH	34.20	-30.00	42.95	-	-	74.00	-31.05	0	100	V
		* 7.32092	33.11	PKFH	35.80	-25.50	43.41	-	-	74.00	-30.59	0	100	H
		* 7.32246	35.11	PKFH	35.80	-25.50	45.41	-	-	74.00	-28.59	96	108	V
		* 7.32297	25.48	VA1T	35.80	-25.50	35.78	54.00	**-18.22**	-	-	96	108	V
		9.761	30.98	PKFH	36.90	-21.50	46.38	-	-	74.00	-27.62	0	100	H
		9.760	31.67	PKFH	36.90	-21.50	47.07	-	-	74.00	**-26.93**	0	100	V
2480	DUAL	* 4.96049	37.74	PKFH	34.30	-30.00	42.04	-	-	74.00	-31.96	0	100	H
		* 4.95979	39.16	PKFH	34.30	-30.00	43.46	-	-	74.00	-30.54	355	106	V
		* 4.96006	28.62	VA1T	34.30	-30.00	32.92	54.00	-21.08	-	-	355	106	V
		* 7.44105	31.97	PKFH	35.70	-25.20	42.47	-	-	74.00	-31.53	0	100	H
		* 7.43941	34.26	PKFH	35.70	-25.20	44.76	-	-	74.00	-29.24	50	125	V
		* 7.44021	22.26	VA1T	35.70	-25.20	32.76	54.00	-21.24	-	-	50	125	V
		9.920	30.12	PKFH	37.10	-21.40	45.82	-	-	74.00	-28.18	0	100	H
		9.920	29.66	PKFH	37.10	-21.40	45.36	-	-	74.00	-28.64	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

10.1.2. BLUETOOTH ENHANCED DATA RATE 8PSK MODULATION

ANT1
BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

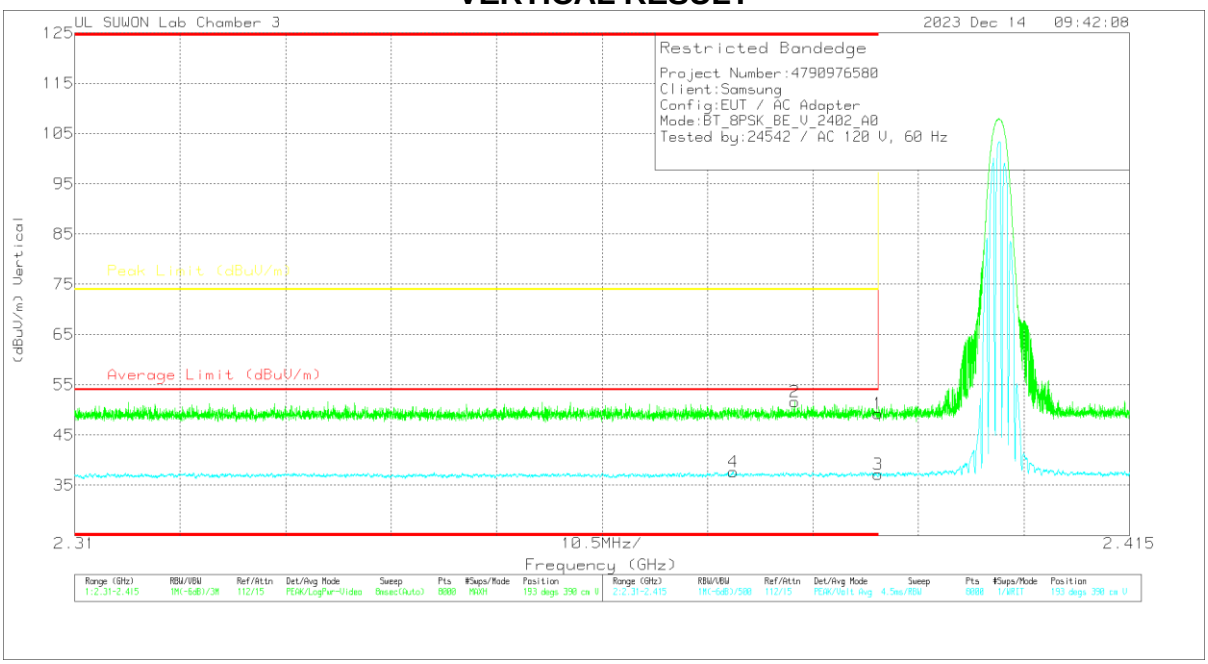


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	42.8	Pk	32.1	-24.8	50.1	-	-	74	-23.9	129	125	H
2	* 2.32847	45.23	Pk	31.9	-24.9	52.23	-	-	74	-21.77	129	125	H
3	* 2.39	29.89	VA1T	32.1	-24.8	37.19	54	-16.81	-	-	129	125	H
4	* 2.38825	30.35	VA1T	32.1	-24.8	37.65	54	-16.35	-	-	129	125	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



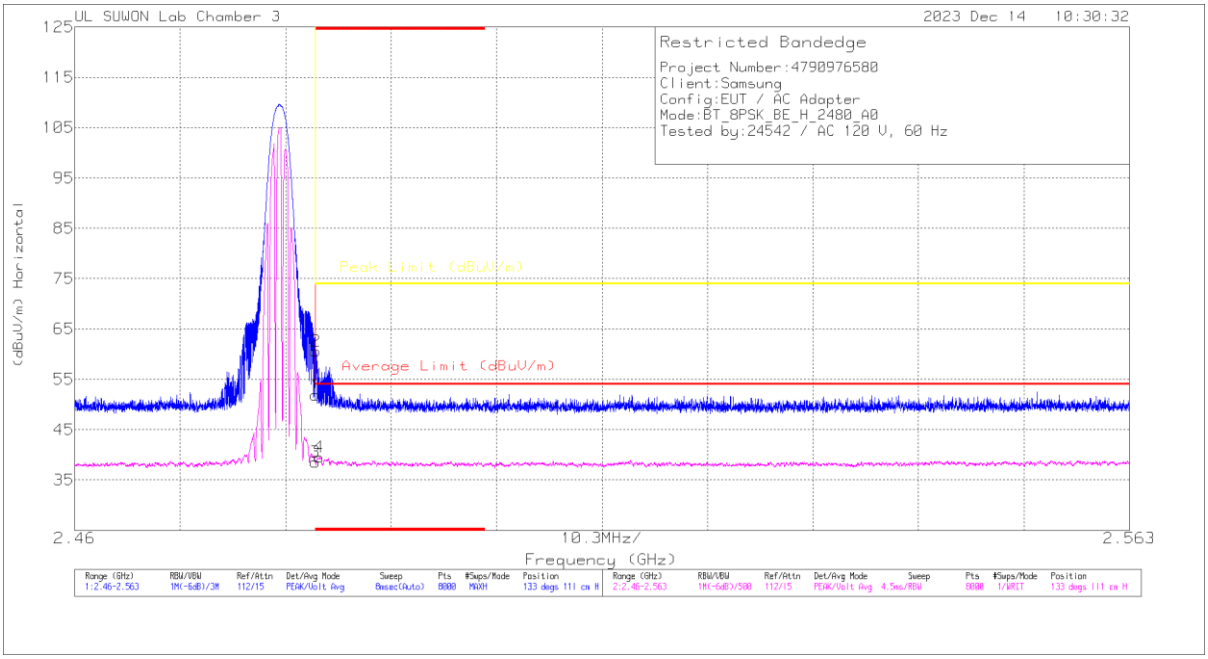
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	41.93	Pk	32.1	-24.8	49.23	-	-	74	-24.77	193	390	V
2	* 2.38167	44.47	Pk	32.1	-24.9	51.67	-	-	74	-22.33	193	390	V
3	* 2.39	29.89	VA1T	32.1	-24.8	37.19	54	-16.81	-	-	193	390	V
4	* 2.37554	30.48	VA1T	32.1	-24.9	37.68	54	-16.32	-	-	193	390	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

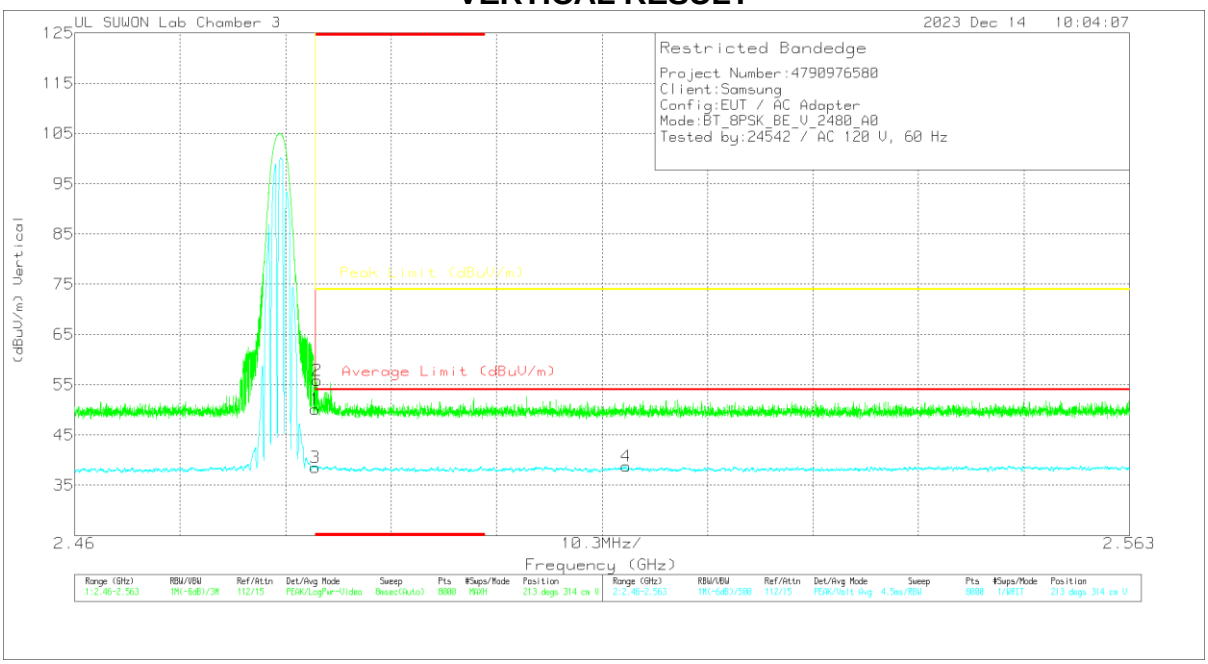


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	44.32	Pk	32.4	-24.8	51.92	-	-	74	-22.08	133	111	H
2	* 2.48353	52.95	Pk	32.4	-24.8	60.55	-	-	74	-13.45	133	111	H
3	* 2.4835	30.96	VA1T	32.4	-24.8	38.56	54	-15.44	-	-	133	111	H
4	* 2.48389	31.94	VA1T	32.4	-24.8	39.54	54	-14.46	-	-	133	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



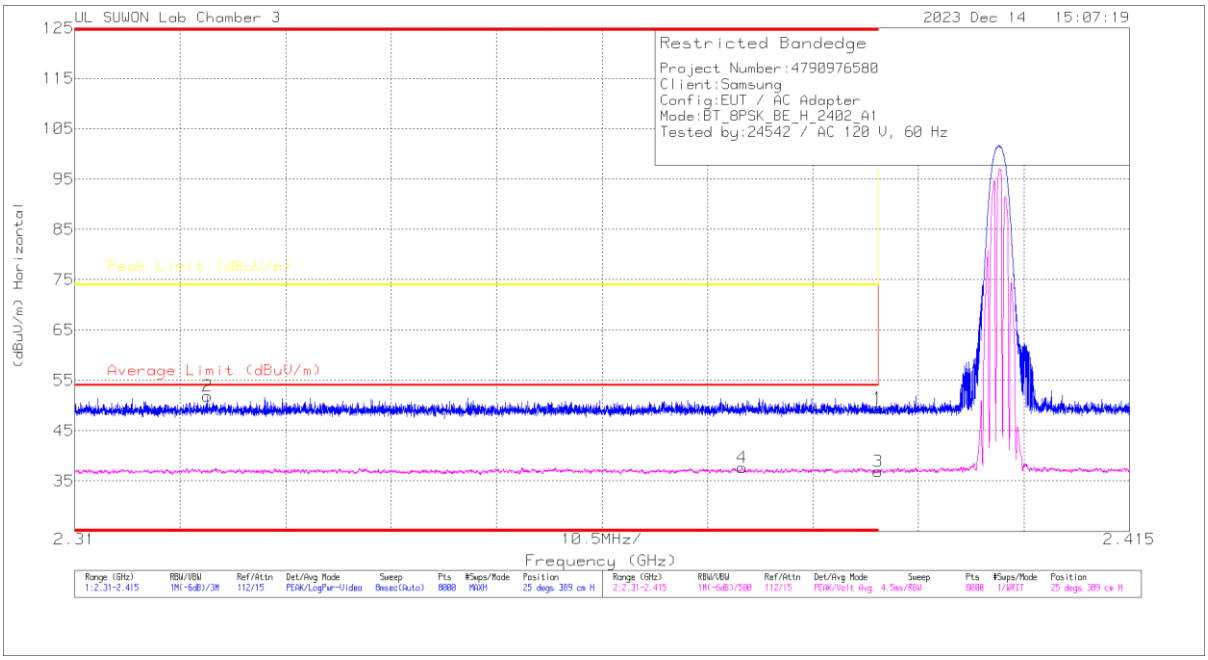
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	42.57	Pk	32.4	-24.8	50.17	-	-	74	-23.83	213	314	V
2	* 2.48369	48.32	Pk	32.4	-24.8	55.92	-	-	74	-18.08	213	314	V
3	* 2.4835	30.99	VA1T	32.4	-24.8	38.59	54	-15.41	-	-	213	314	V
4	2.51384	31.04	VA1T	32.4	-24.6	38.84	54	-15.16	-	-	213	314	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

ANT2
BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

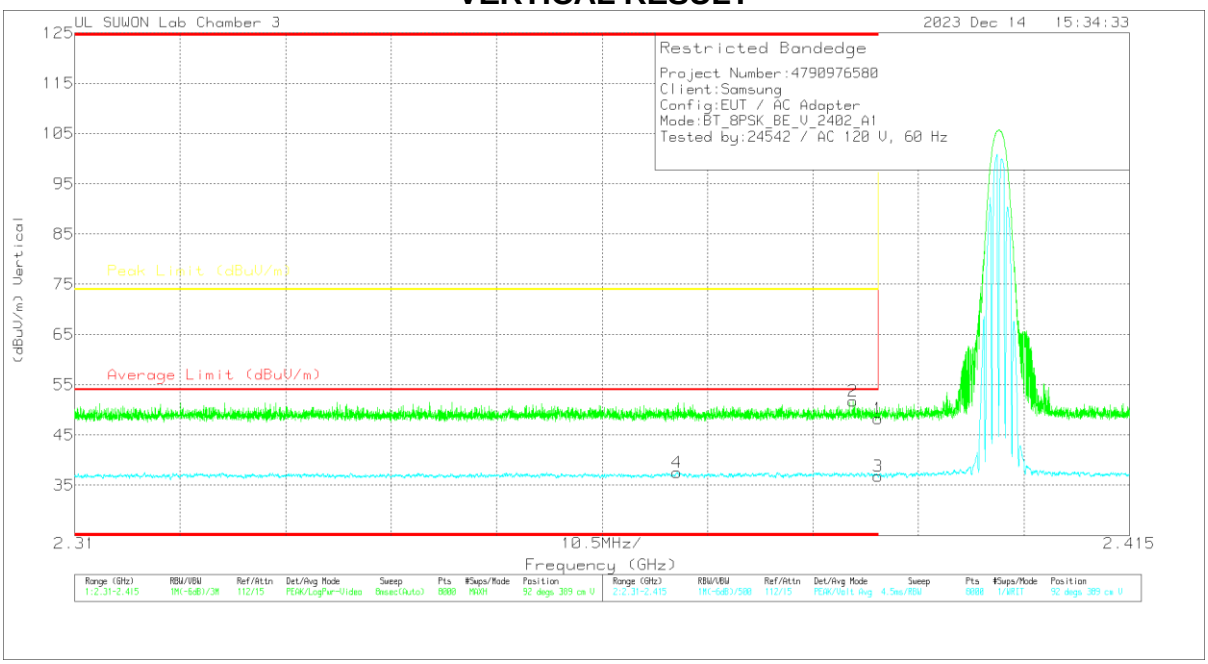


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	42.21	Pk	32.1	-24.8	49.51	-	-	74	-24.49	25	389	H
2	* 2.32323	44.73	Pk	31.9	-24.8	51.83	-	-	74	-22.17	25	389	H
3	* 2.39	29.59	VA1T	32.1	-24.8	36.89	54	-17.11	-	-	25	389	H
4	* 2.37646	30.33	VA1T	32.1	-24.8	37.63	54	-16.37	-	-	25	389	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



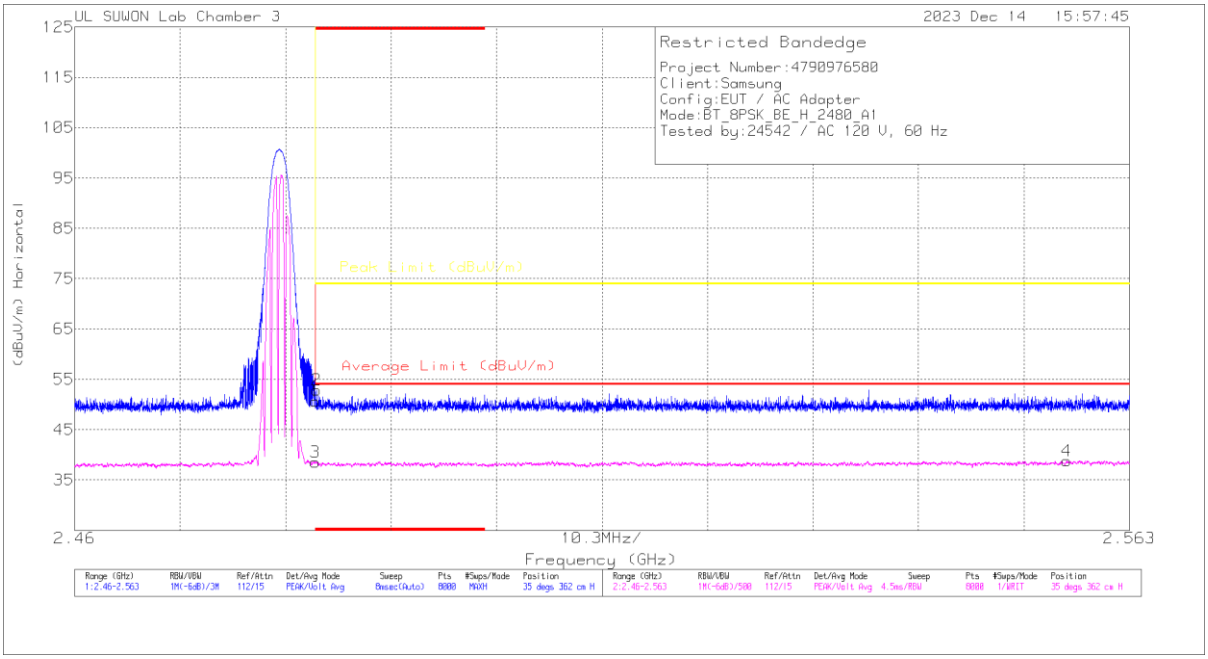
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	Pk	32.1	-24.8	48.3	-	-	74	-25.7	92	389	V
2	* 2.3875	44.41	Pk	32.1	-24.8	51.71	-	-	74	-22.29	92	389	V
3	* 2.39	29.45	VA1T	32.1	-24.8	36.75	54	-17.25	-	-	92	389	V
4	* 2.36998	30.39	VA1T	32	-24.8	37.59	54	-16.41	-	-	92	389	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

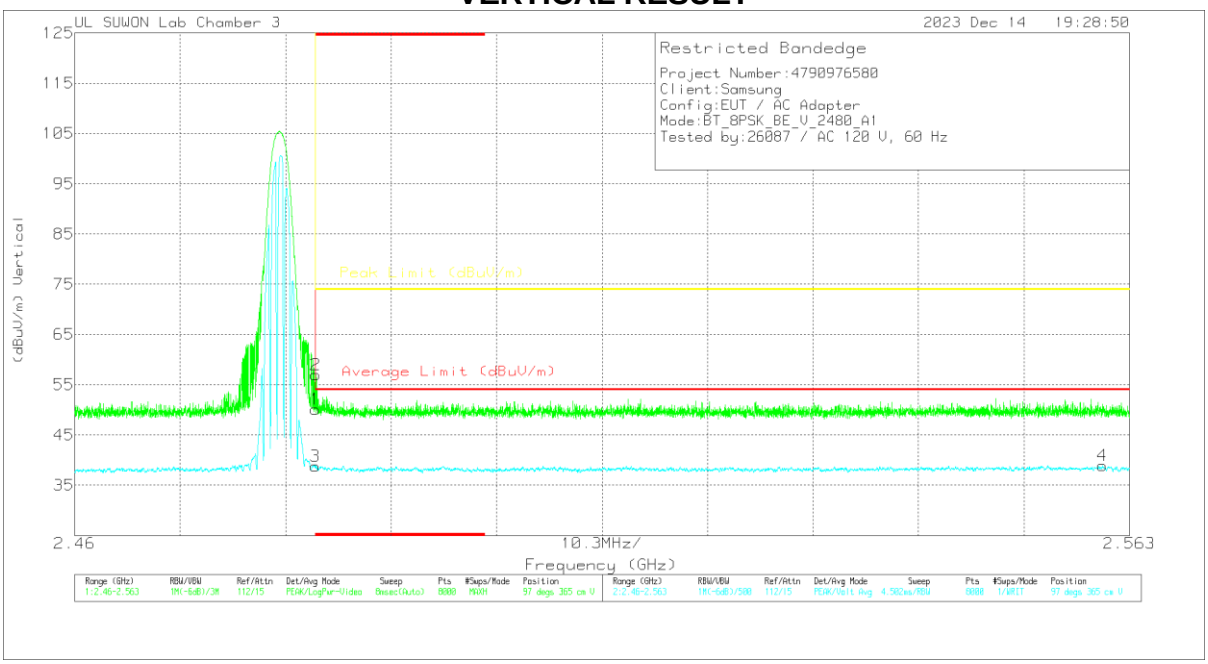


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	43.08	Pk	32.4	-24.8	50.68	-	-	74	-23.32	35	362	H
2	* 2.4836	45.3	Pk	32.4	-24.8	52.9	-	-	74	-21.1	35	362	H
3	* 2.4835	30.91	VA1T	32.4	-24.8	38.51	54	-15.49	-	-	35	362	H
4	2.55686	31.09	VA1T	32.4	-24.7	38.79	54	-15.21	-	-	35	362	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



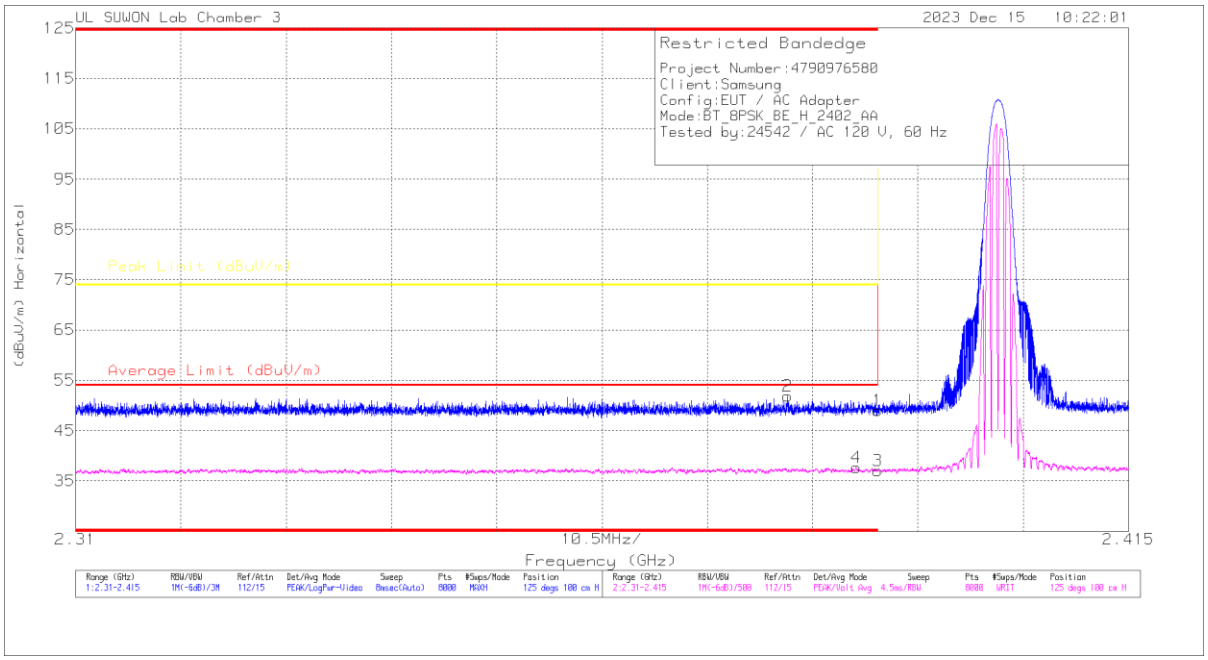
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	42.52	Pk	32.4	-24.8	50.12	-	-	74	-23.88	97	365	V
2	* 2.48353	49.37	Pk	32.4	-24.8	56.97	-	-	74	-17.03	97	365	V
3	* 2.4835	31.14	VA1T	32.4	-24.8	38.74	54	-15.26	-	-	97	365	V
4	2.56036	31.19	VA1T	32.4	-24.7	38.89	54	-15.11	-	-	97	365	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

DUAL
BANDEDGE (0 CHANNEL)

HORIZONTAL RESULT

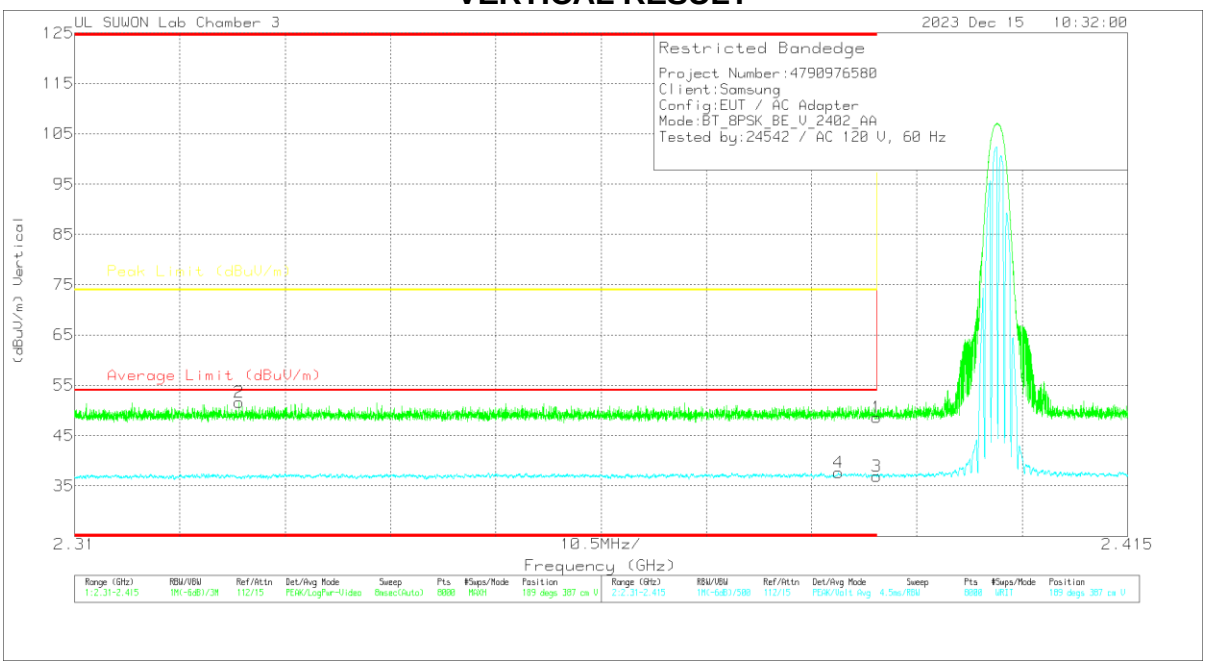


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	41.76	Pk	32.1	-24.8	49.06	-	-	74	-24.94	125	100	H
2	* 2.38096	44.7	Pk	32.1	-24.9	51.9	-	-	74	-22.1	125	100	H
3	* 2.39	29.69	VA1T	32.1	-24.8	36.99	54	-17.01	-	-	125	100	H
4	* 2.38783	30.39	VA1T	32.1	-24.8	37.69	54	-16.31	-	-	125	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



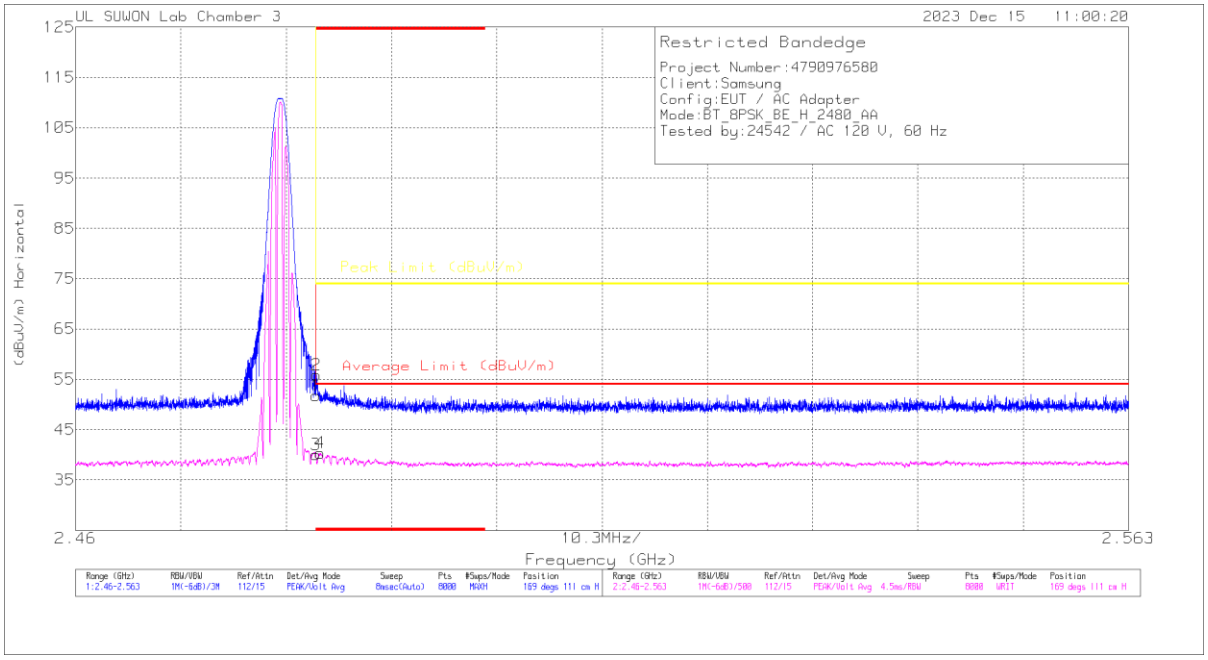
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	41.34	Pk	32.1	-24.8	48.64	-	-	74	-25.36	189	387	V
2	* 2.32641	44.51	Pk	31.9	-24.8	51.61	-	-	74	-22.39	189	387	V
3	* 2.39	29.61	VA1T	32.1	-24.8	36.91	54	-17.09	-	-	189	387	V
4	* 2.38618	30.32	VA1T	32.1	-24.8	37.62	54	-16.38	-	-	189	387	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

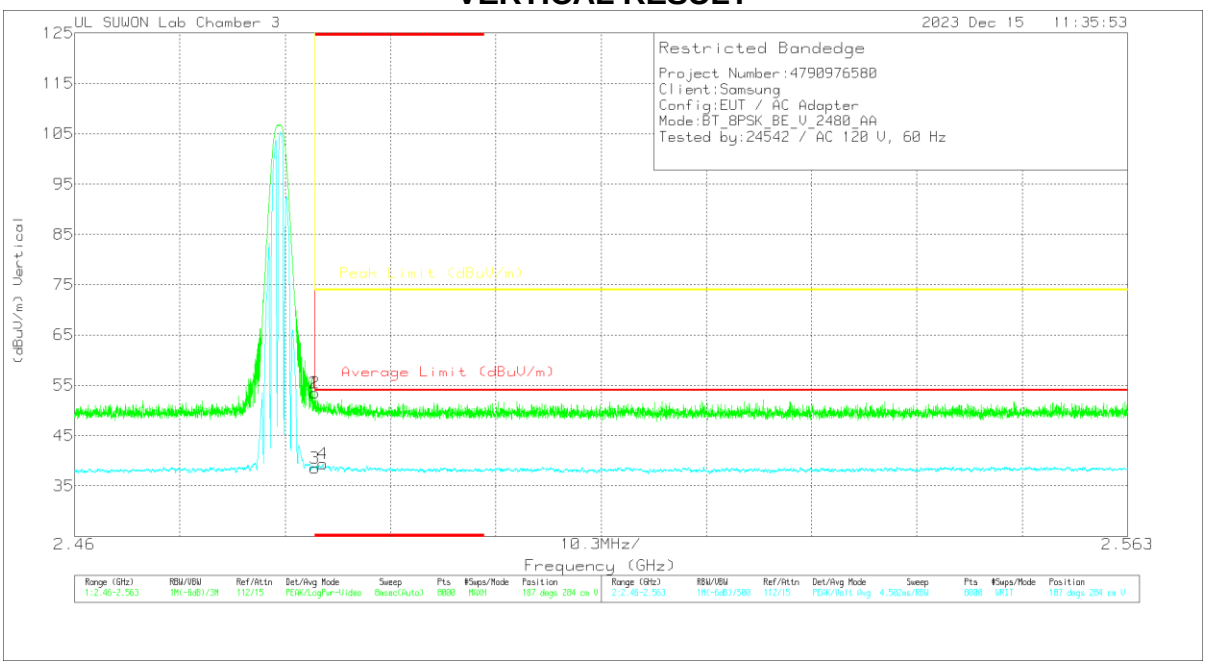


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	44.12	Pk	32.4	-24.8	51.72	-	-	74	-22.28	169	111	H
2	* 2.48354	48.23	Pk	32.4	-24.8	55.83	-	-	74	-18.17	169	111	H
3	* 2.4835	32.42	VA1T	32.4	-24.8	40.02	54	-13.98	-	-	169	111	H
4	* 2.48395	32.75	VA1T	32.4	-24.8	40.35	54	-13.65	-	-	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



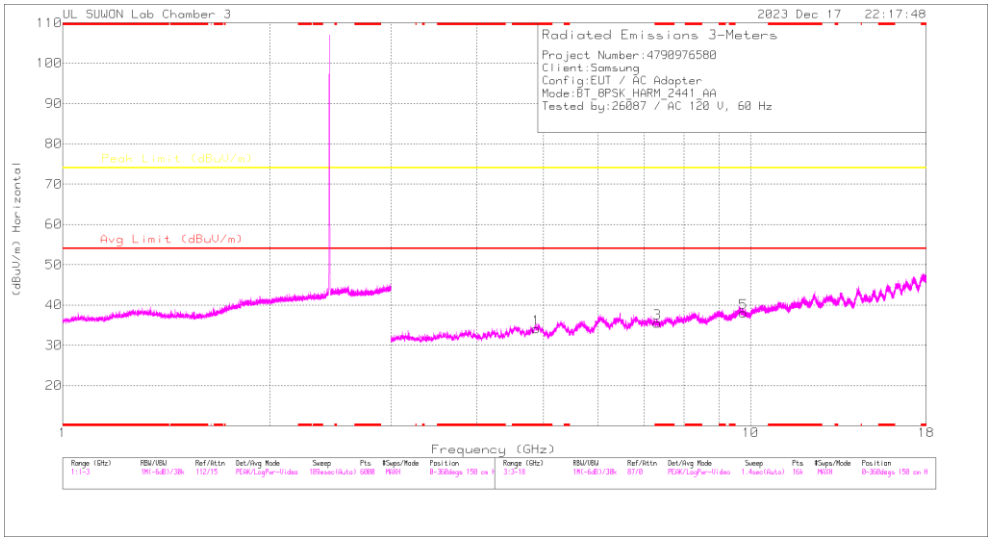
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Correction Factor(dB/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	45.88	Pk	32.4	-24.8	53.48	-	-	74	-20.52	187	284	V
2	* 2.48351	45.93	Pk	32.4	-24.8	53.53	-	-	74	-20.47	187	284	V
3	* 2.4835	30.98	VA1T	32.4	-24.8	38.58	54	-15.42	-	-	187	284	V
4	* 2.48431	31.79	VA1T	32.4	-24.8	39.39	54	-14.61	-	-	187	284	V

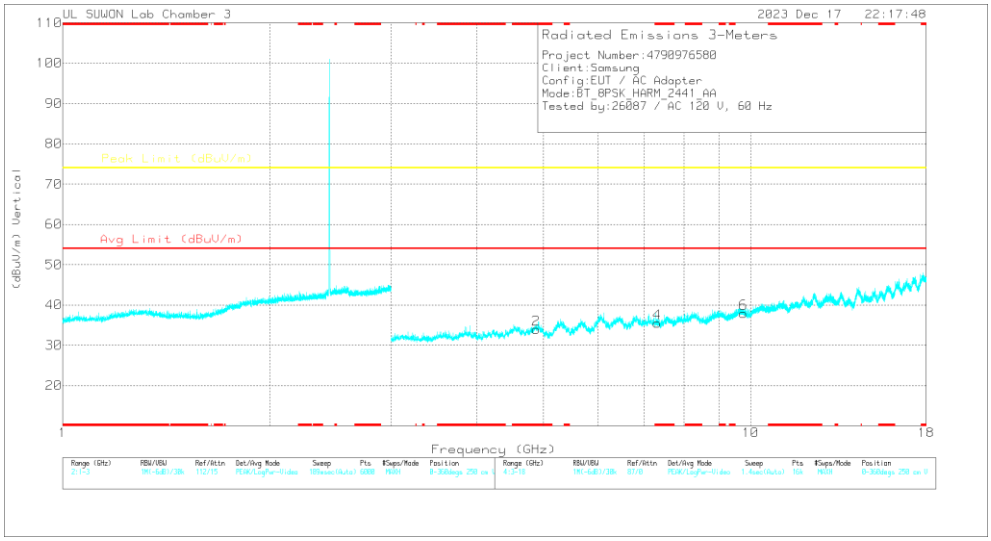
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE – DUAL MODE)

39 CHANNEL RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; 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	Antenna Correction Factor(dB/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
* 4.88017	38.47	PKFH	34.2	-29.9	42.77	-	-	74	-31.23	0	100	H
* 4.88059	38.28	PKFH	34.2	-29.9	42.58	-	-	74	-31.42	0	100	V
* 7.32337	33.24	PKFH	35.8	-25.5	43.54	-	-	74	-30.46	0	100	H
* 7.32237	33.98	PKFH	35.8	-25.5	44.28	-	-	74	-29.72	93	100	V
* 7.32307	21.71	VA1T	35.8	-25.5	32.01	54	-21.99	-	-	93	100	V
9.75864	30.78	PKFH	36.9	-21.5	46.18	-	-	74	-27.82	0	100	V
9.76168	31.2	PKFH	36.9	-21.5	46.6	-	-	74	-27.4	0	100	H

* - 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

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	ANT1	* 4.80327	38.30	PKFH	34.30	-30.10	42.50	-	-	74.00	-31.50	0	100	H
		* 4.80124	38.10	PKFH	34.30	-30.10	42.30	-	-	74.00	-31.70	0	113	V
		* 4.80372	25.60	VA1T	34.30	-30.10	29.80	54.00	-24.20	-	-	0	113	V
		7.206	33.47	PKFH	35.80	-25.90	43.37	-	-	74.00	-30.63	0	100	H
		7.209	33.60	PKFH	35.80	-25.90	43.50	-	-	74.00	-30.50	0	100	V
		9.605	31.64	PKFH	36.70	-21.70	46.64	-	-	74.00	-27.36	0	100	H
		9.613	31.33	PKFH	36.70	-21.70	46.33	-	-	74.00	-27.67	0	100	V
2441	ANT1	* 4.88706	37.92	PKFH	34.20	-29.90	42.22	-	-	74.00	-31.78	0	100	H
		* 4.88209	38.59	PKFH	34.20	-30.00	42.79	-	-	74.00	-31.21	348	100	V
		* 4.88183	26.13	VA1T	34.20	-30.00	30.33	54.00	-23.67	-	-	348	100	V
		* 7.32654	33.01	PKFH	35.80	-25.50	43.31	-	-	74.00	-30.69	0	100	H
		* 7.32207	33.14	PKFH	35.80	-25.50	43.44	-	-	74.00	-30.56	0	100	V
		9.767	30.70	PKFH	36.90	-21.50	46.10	-	-	74.00	-27.90	0	100	H
		9.761	31.58	PKFH	36.90	-21.50	46.98	-	-	74.00	-27.02	0	100	V
2480	ANT1	* 4.9634	37.86	PKFH	34.30	-30.10	42.06	-	-	74.00	-31.94	94	108	H
		* 4.96044	25.25	VA1T	34.30	-30.00	29.55	54.00	-24.45	-	-	94	108	H
		* 4.96062	38.41	PKFH	34.30	-30.00	42.71	-	-	74.00	-31.29	355	113	V
		* 4.95981	26.19	VA1T	34.30	-30.00	30.49	54.00	**-23.51**	-	-	355	113	V
		* 7.44156	32.94	PKFH	35.70	-25.20	43.44	-	-	74.00	-30.56	0	100	H
		* 7.4373	33.54	PKFH	35.70	-25.20	44.04	-	-	74.00	-29.96	0	100	V
		9.923	30.11	PKFH	37.10	-21.30	45.91	-	-	74.00	-28.09	0	100	H
		9.923	31.87	PKFH	37.10	-21.30	47.67	-	-	74.00	**-26.33**	0	100	V

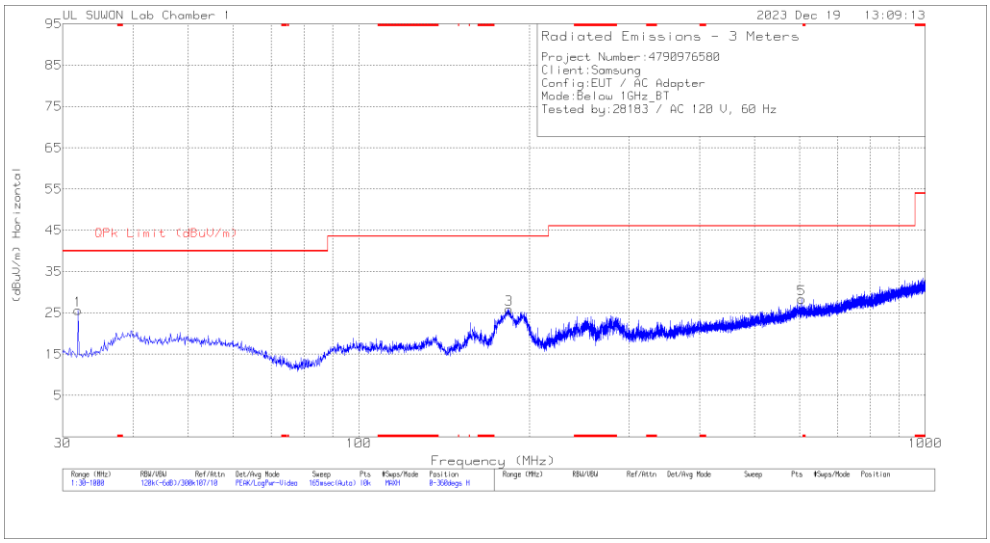
Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	ANT2	* 4.80478	37.91	PKFH	34.30	-30.10	42.11	-	-	74.00	-31.89	0	100	H
		* 4.80575	38.49	PKFH	34.30	-30.10	42.69	-	-	74.00	-31.31	0	100	V
		7.205	33.54	PKFH	35.80	-25.90	43.44	-	-	74.00	-30.56	0	100	H
		7.207	33.33	PKFH	35.80	-25.90	43.23	-	-	74.00	-30.77	0	100	V
		9.607	31.77	PKFH	36.70	-21.80	46.67	-	-	74.00	-27.33	0	100	H
		9.607	31.86	PKFH	36.70	-21.80	46.76	-	-	74.00	**-27.24**	0	100	V
2441	ANT2	* 4.88266	37.34	PKFH	34.20	-30.00	41.54	-	-	74.00	-32.46	0	100	H
		* 4.88041	38.56	PKFH	34.20	-29.90	42.86	-	-	74.00	-31.14	0	100	V
		* 7.32357	32.63	PKFH	35.80	-25.50	42.93	-	-	74.00	-31.07	0	100	H
		* 7.32401	33.04	PKFH	35.80	-25.50	43.34	-	-	74.00	-30.66	0	100	V
		9.763	30.61	PKFH	36.90	-21.50	46.01	-	-	74.00	-27.99	0	100	H
		9.765	30.28	PKFH	36.90	-21.50	45.68	-	-	74.00	-28.32	0	100	V
2480	ANT2	* 4.95981	37.31	PKFH	34.30	-30.00	41.61	-	-	74.00	-32.39	328	110	H
		* 4.96028	25.03	VA1T	34.30	-30.00	29.33	54.00	-24.67	-	-	328	110	H
		* 4.95924	37.65	PKFH	34.30	-30.00	41.95	-	-	74.00	-32.05	350	100	V
		* 4.96016	26.06	VA1T	34.30	-30.00	30.36	54.00	-23.64	-	-	350	100	V
		* 7.44081	32.99	PKFH	35.70	-25.20	43.49	-	-	74.00	-30.51	0	100	H
		* 7.43974	33.01	PKFH	35.70	-25.20	43.51	-	-	74.00	-30.49	97	100	V
		* 7.4403	20.40	VA1T	35.70	-25.20	30.90	54.00	**-23.10**	-	-	97	100	V
		9.919	29.91	PKFH	37.10	-21.40	45.61	-	-	74.00	-28.39	0	100	H
		9.919	30.31	PKFH	37.10	-21.40	46.01	-	-	74.00	-27.99	0	100	V
		9.919	30.31	PKFH	37.10	-21.40	46.01	-	-	74.00	-27.99	0	100	V

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB(1/m)]	Loss [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	DUAL	* 4.8083	37.74	PKFH	34.30	-30.00	42.04	-	-	74.00	-31.96	117	122	H
		* 4.80147	25.08	VA1T	34.30	-30.10	29.28	54.00	-24.72	-	-	117	122	H
		* 4.80119	37.79	PKFH	34.30	-30.10	41.99	-	-	74.00	-32.01	346	110	V
		* 4.80446	25.39	VA1T	34.30	-30.10	29.59	54.00	-24.41	-	-	346	110	V
		7.214	33.57	PKFH	35.80	-25.90	43.47	-	-	74.00	-30.53	0	100	H
		7.209	33.47	PKFH	35.80	-25.90	43.37	-	-	74.00	-30.63	0	100	V
		9.609	31.87	PKFH	36.70	-21.70	46.87	-	-	74.00	**-27.13**	0	100	H
		9.607	31.38	PKFH	36.70	-21.70	46.38	-	-	74.00	-27.62	0	100	V
2441	DUAL	* 4.88017	38.47	PKFH	34.20	-29.90	42.77	-	-	74.00	-31.23	0	100	H
		* 4.88059	38.28	PKFH	34.20	-29.90	42.58	-	-	74.00	-31.42	0	100	V
		* 7.32337	33.24	PKFH	35.80	-25.50	43.54	-	-	74.00	-30.46	0	100	H
		* 7.32237	33.98	PKFH	35.80	-25.50	44.28	-	-	74.00	-29.72	93	100	V
		* 7.32307	21.71	VA1T	35.80	-25.50	32.01	54.00	**-21.99**	-	-	93	100	V
		9.759	30.78	PKFH	36.90	-21.50	46.18	-	-	74.00	-27.82	0	100	V
		9.762	31.20	PKFH	36.90	-21.50	46.60	-	-	74.00	-27.40	0	100	H
2480	DUAL	* 4.9602	36.97	PKFH	34.30	-30.00	41.27	-	-	74.00	-32.73	0	100	H
		* 4.96018	37.73	PKFH	34.30	-30.00	42.03	-	-	74.00	-31.97	357	104	V
		* 4.96022	26.24	VA1T	34.30	-30.00	30.54	54.00	-23.46	-	-	357	104	V
		* 7.43987	32.37	PKFH	35.70	-25.20	42.87	-	-	74.00	-31.13	0	100	H
		* 7.44084	33.34	PKFH	35.70	-25.20	43.84	-	-	74.00	-30.16	282	111	V
		* 7.43837	20.48	VA1T	35.70	-25.20	30.98	54.00	-23.02	-	-	282	111	V
		9.920	29.71	PKFH	37.10	-21.40	45.41	-	-	74.00	-28.59	0	100	H
		9.921	29.49	PKFH	37.10	-21.30	45.29	-	-	74.00	-28.71	0	100	V

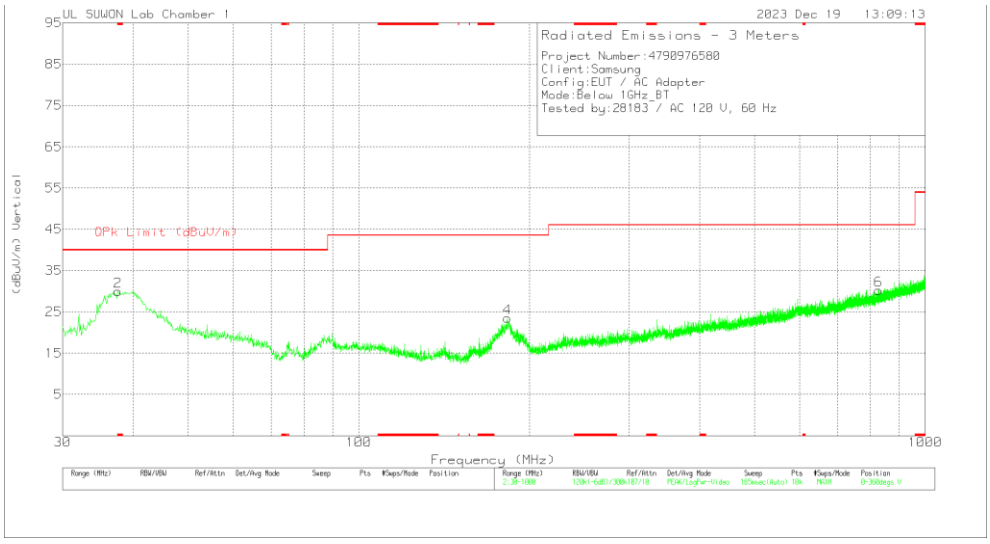
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PKFH FHSS/BT RB=100k for Frequencies<1GHz / RB=1MHz for Frequencies>1GHz, VB=3 x RB, Peak
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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/m)	Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	31.94	41.31	Pk	15.5	-31.2	0	25.61	40	-14.39	0-360	300	H
2	* 37.566	43.51	Pk	17.6	-31.1	0	30.01	40	-9.99	0-360	200	V
3	184.327	39.64	Pk	15.6	-29.4	0	25.84	43.52	-17.68	0-360	100	H
4	182.872	37.39	Pk	15.5	-29.4	0	23.49	43.52	-20.03	0-360	200	V
5	605.501	31.21	Pk	24.3	-27.2	0	28.31	46.02	-17.71	0-360	100	H
6	826.758	29.97	Pk	26.1	-25.9	0	30.17	46.02	-15.85	0-360	400	V

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

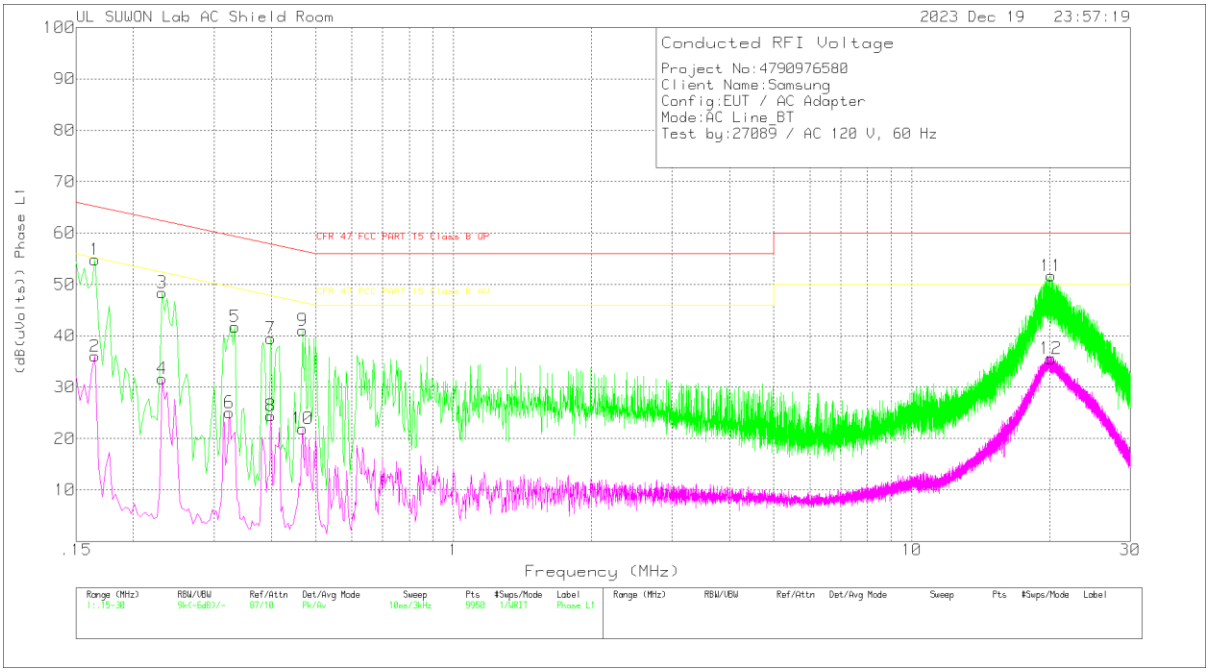
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1. AC Power Line

LINE 1 RESULTS



Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_AUTO_With EX_L1[dB]	CABLELOSS[dB]	Corrected Reading (dB(uVolts))	47 CFR FCC PART 15 Class B QP (dB(uVolts))	Margin (dB)	47 CFR FCC PART 15 Class B AV (dB(uVolts))	Margin (dB)
1	.165	45.22	Pk	9.5	.1	54.82	65.21	-10.39	-	-
2	.165	26.42	Av	9.5	.1	36.02	-	-	55.21	-19.19
3	.231	38.71	Pk	9.5	.2	48.41	62.41	-14	-	-
4	.231	21.96	Av	9.5	.2	31.66	-	-	52.41	-20.75
5	.333	32.04	Pk	9.5	.2	41.74	59.38	-17.64	-	-
6	.324	15.35	Av	9.5	.2	25.05	-	-	49.6	-24.55
7	.399	29.81	Pk	9.5	.2	39.51	57.87	-18.36	-	-
8	.399	14.75	Av	9.5	.2	24.45	-	-	47.87	-23.42
9	.468	31.38	Pk	9.5	.2	41.08	56.55	-15.47	-	-
10	.468	12.23	Av	9.5	.2	21.93	-	-	46.55	-24.62
11	20.139	41.67	Pk	9.6	.4	51.67	60	-8.33	-	-
12	20.118	25.59	Av	9.6	.4	35.59	-	-	50	-14.41

Pk - Peak detector
Av - Average detection

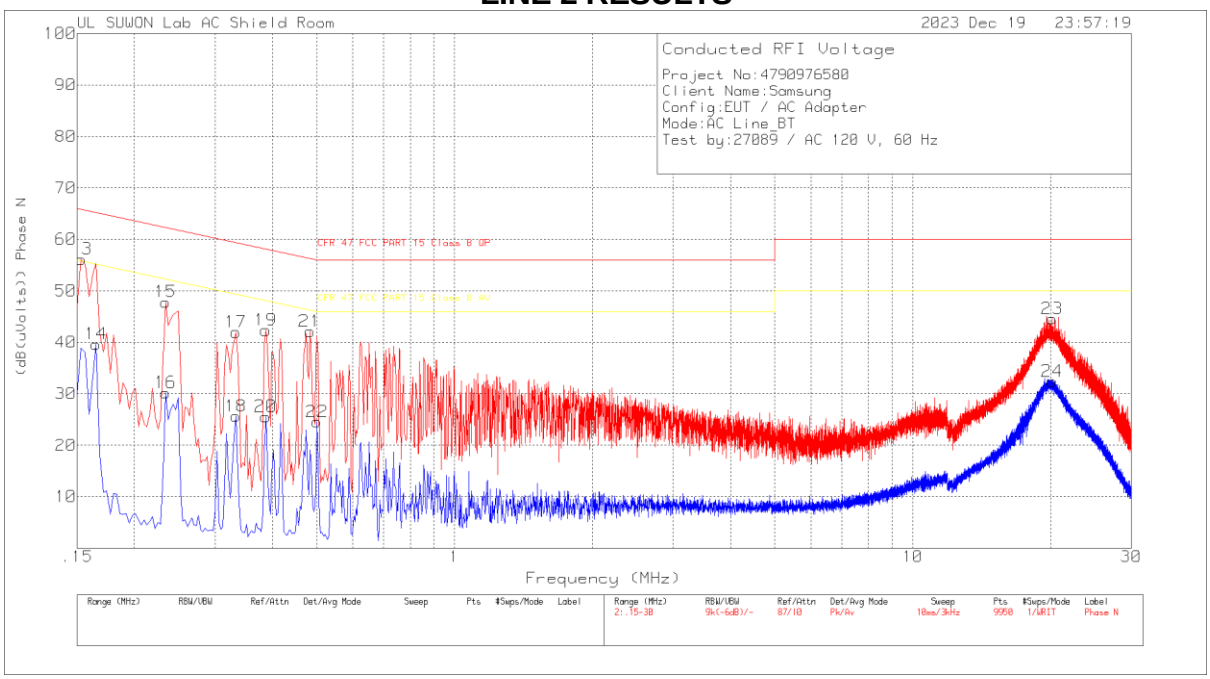
Quasi-Peak Emissions

Range 1: Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_AUTO_With EX_L1[dB]	CABLELOSS[dB]	Corrected Reading (dB(uVolts))	47 CFR FCC PART 15 Class B QP (dB(uVolts))	Margin (dB)	47 CFR FCC PART 15 Class B AV (dB(uVolts))	Margin (dB)
20.1392	31.46	Qp	9.6	.4	41.46	60	-18.54	-	-

Qp - Quasi-Peak detector

LINE 2 RESULTS



Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_AUTO_With EX_N[dB]	CABLELOSS[dB]	Corrected Reading (dB(uVolts))	47 CFR FCC PART 15 Class B QP (dB(uVolts))	Margin (dB)	47 CFR FCC PART 15 Class B AV (dB(uVolts))	Margin (dB)
13	.153	46.55	Pk	9.5	.1	56.15	65.84	-9.69	-	-
14	.165	30.04	Av	9.5	.1	39.64	-	-	55.21	-15.57
15	.234	38.13	Pk	9.5	.2	47.83	62.31	-14.48	-	-
16	.234	20.52	Av	9.5	.2	30.22	-	-	52.31	-22.09
17	.333	32.28	Pk	9.5	.2	41.98	59.38	-17.4	-	-
18	.333	15.95	Av	9.5	.2	25.65	-	-	49.38	-23.73
19	.387	32.65	Pk	9.5	.2	42.35	58.13	-15.78	-	-
20	.387	15.87	Av	9.5	.2	25.57	-	-	48.13	-22.56
21	.483	32.41	Pk	9.5	.2	42.11	56.29	-14.18	-	-
22	.501	14.72	Av	9.6	.2	24.52	-	-	46	-21.48
23	20.154	34.57	Pk	9.6	.4	44.57	60	-15.43	-	-
24	20.154	22.39	Av	9.6	.4	32.39	-	-	50	-17.61

Pk - Peak detector
Av - Average detection

Quasi-Peak Emissions

Range 2: Phase N .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_AUTO_With EX_N[dB]	CABLELOSS[dB]	Corrected Reading (dB(uVolts))	47 CFR FCC PART 15 Class B QP (dB(uVolts))	Margin (dB)	47 CFR FCC PART 15 Class B AV (dB(uVolts))	Margin (dB)
.15375	42.49	Qp	9.5	.1	52.09	65.79	-13.7	-	-

Qp - Quasi-Peak detector

END OF TEST REPORT