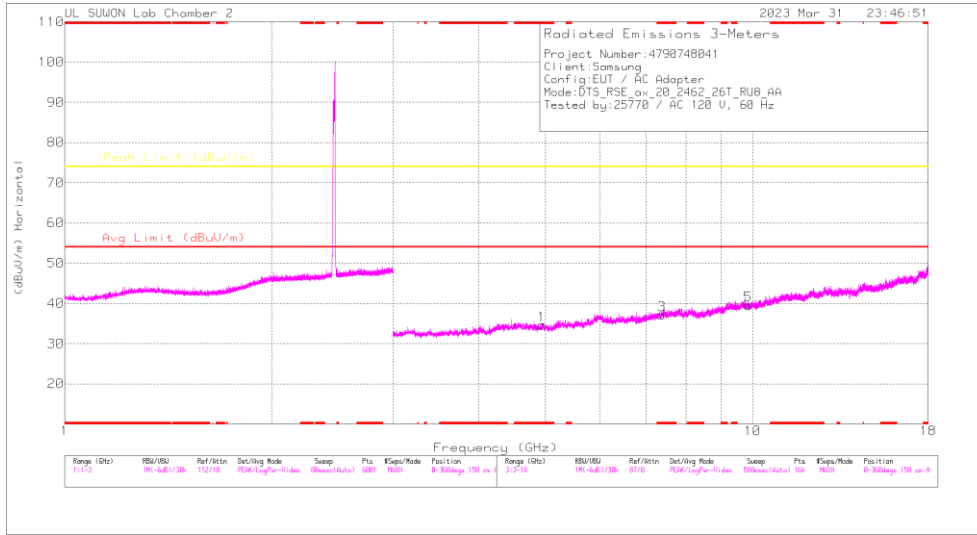
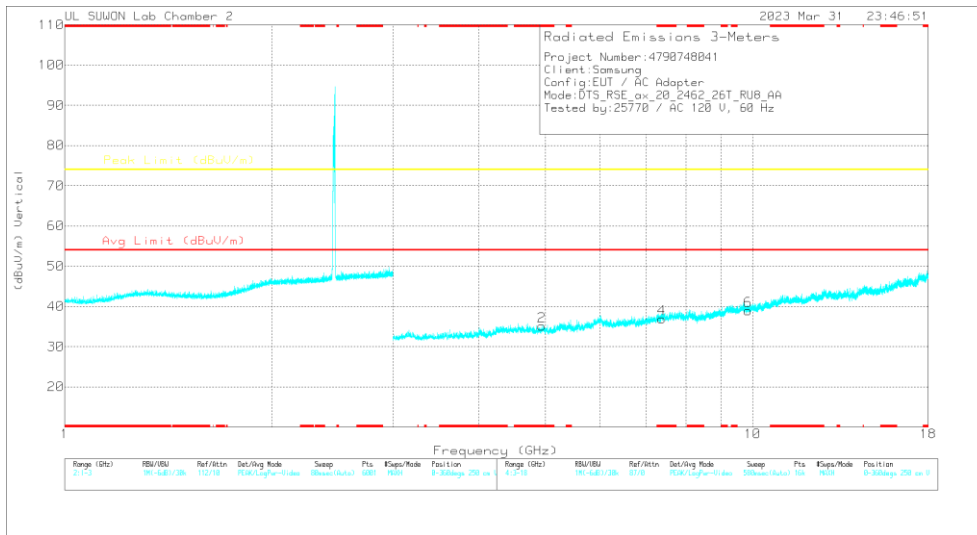


HARMONICS AND SPURIOUS EMISSIONS (WORST CASE: 11 CHANNEL, 8RU)

CH 11 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	3117_0016872 4	3GHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.93999	37.59	PK2	34	-26.3	0	45.29	-	74	-28.71	204	100	H	
* 4.94089	24.77	MAV1	34	-26.3	0	32.47	54	-21.53	-	-	204	100	H
* 4.94099	36.72	PK2	34	-26.3	0	44.42	-	74	-29.58	178	332	V	
* 4.94087	24.41	MAV1	34	-26.3	0	32.11	54	-21.89	-	-	178	332	V
* 7.36776	34.19	PK2	35.7	-23.4	0	46.49	-	74	-27.51	0	100	H	
* 7.39626	34.32	PK2	35.7	-23.2	0	46.82	-	74	-27.18	0	100	V	
9.87418	32.3	PK2	37.2	-21.2	0	48.3	-	74	-25.7	0	100	H	
9.8705	32.08	PK2	37.2	-21.2	0	48.08	-	74	-25.92	0	100	V	

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

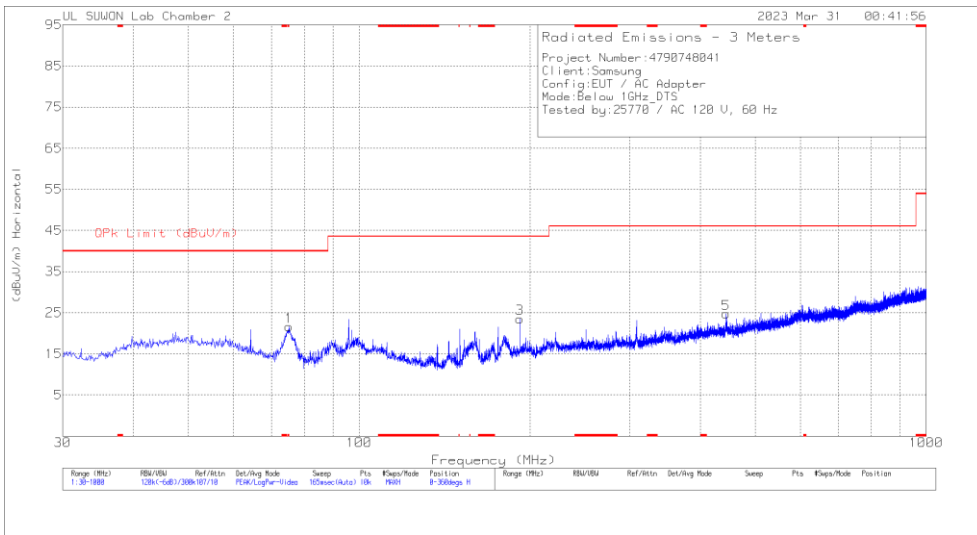
HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result dBuV/m	AV Limit dBuV/m	AV Margin [dB]	PK Limit dBuV/m	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2412 RU4	MIMO	* 4.82554	36.36	PK2	34.00	-27.10	0.00	43.26	-	-	74.00	-30.74	0	100	H
		* 4.82342	36.80	PK2	34.00	-27.10	0.00	43.70	-	-	74.00	-30.30	0	100	V
		7.227	34.82	PK2	35.70	-24.70	0.00	45.82	-	-	74.00	-28.18	0	100	H
		7.246	35.08	PK2	35.70	-24.70	0.00	46.08	-	-	74.00	-27.92	0	100	V
		9.655	32.20	PK2	37.00	-21.10	0.00	48.10	-	-	74.00	-25.90	0	100	H
		9.653	32.73	PK2	37.00	-21.10	0.00	48.63	-	-	74.00	-25.37	0	100	V
2437 RU8	MIMO	* 4.86866	36.90	PK2	34.00	-27.00	0.00	43.90	-	-	74.00	-30.10	0	100	H
		* 4.86707	36.24	PK2	34.00	-27.00	0.00	43.24	-	-	74.00	-30.76	0	100	V
		* 7.31757	34.69	PK2	35.70	-24.00	0.00	46.39	-	-	74.00	-27.61	0	100	H
		* 7.32011	34.77	PK2	35.70	-24.00	0.00	46.47	-	-	74.00	-27.53	0	100	V
		9.750	32.27	PK2	37.10	-21.00	0.00	48.37	-	-	74.00	-25.63	0	100	H
		9.742	32.49	PK2	37.10	-21.00	0.00	48.59	-	-	74.00	-25.41	0	100	V
2462 RU8	MIMO	* 4.93999	37.59	PK2	34.00	-26.30	0.00	45.29	-	-	74.00	-28.71	204	100	H
		* 4.94089	24.77	MAv1	34.00	-26.30	0.00	32.47	54.00	-21.53	-	-	204	100	H
		* 4.94099	36.72	PK2	34.00	-26.30	0.00	44.42	-	-	74.00	-29.58	178	332	V
		* 4.94087	24.41	MAv1	34.00	-26.30	0.00	32.11	54.00	-21.89	-	-	178	332	V
		* 7.36776	34.19	PK2	35.70	-23.40	0.00	46.49	-	-	74.00	-27.51	0	100	H
		* 7.39626	34.32	PK2	35.70	-23.20	0.00	46.82	-	-	74.00	-27.18	0	100	V
		9.874	32.30	PK2	37.20	-21.20	0.00	48.30	-	-	74.00	-25.70	0	100	H
		9.871	32.08	PK2	37.20	-21.20	0.00	48.08	-	-	74.00	-25.92	0	100	V

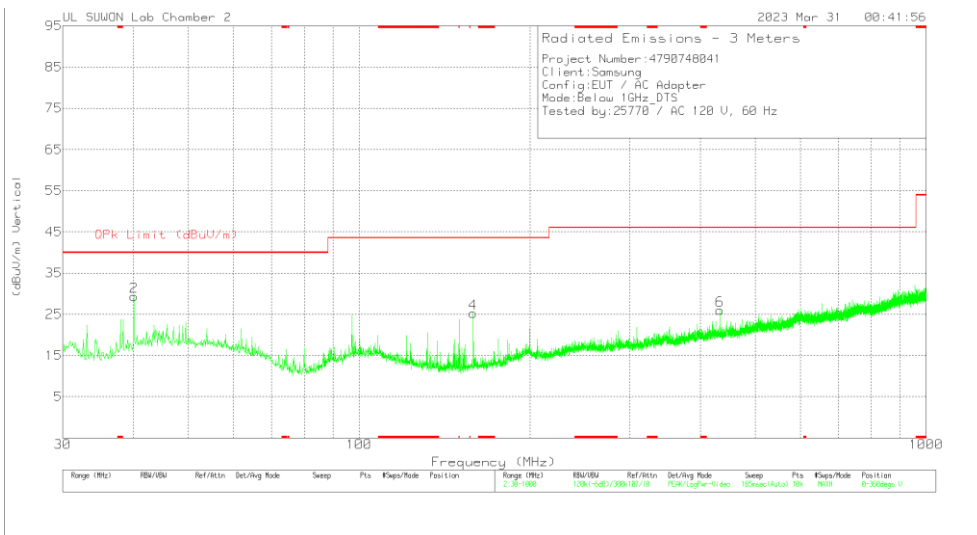
Note1. PK2 - KDB558074 Method: Maximum Peak / MAv1 - KDB558074 Option 1 Maximum RMS Average

Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

10.2. WORST CASE BELOW 1 GHZ



HORIZONTAL



VERTICAL

Below 1GHz DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below_1G(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 75.105	39.57	Pk	13.6	-31.5	0	21.67	40	-18.33	0-360	200	H
3	191.99	37.66	Pk	16.7	-30.8	0	23.56	43.52	-19.96	0-360	100	H
5	444.093	32.83	PK	21.8	-29.9	0	24.73	46.02	-21.29	0-360	100	H
2	40.088	42.38	PK	18.7	-31.7	0	29.38	40	-10.62	0-360	100	V
4	158.913	41.84	PK	14.3	-30.9	0	25.24	43.52	-18.28	0-360	100	V
6	432.356	34.22	PK	21.7	-29.9	0	26.02	46.02	-20	0-360	100	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.

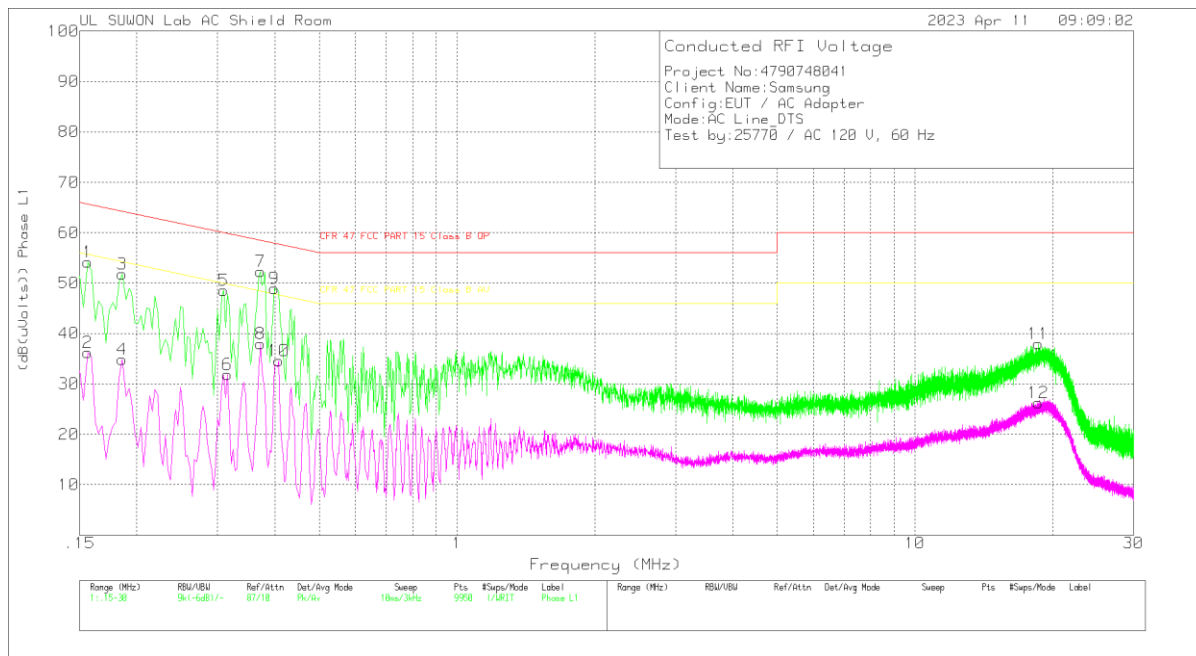
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

11.1.1. AC Power Line

LINE 1 RESULTS



Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With h EX_L1[dB]	CABLELOSS 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	.156	44.29	Pk	9.8	.1	54.19	65.67	-11.48	-	-
2	.156	26.29	Av	9.8	.1	36.19	-	-	55.67	-19.48
3	.186	41.68	Pk	9.9	.2	51.78	64.21	-12.43	-	-
4	.186	24.75	Av	9.9	.2	34.85	-	-	54.21	-19.36
5	.309	38.61	Pk	9.7	.2	48.51	60	-11.49	-	-
6	.315	21.98	Av	9.7	.2	31.88	-	-	49.84	-17.96
7	.372	42.26	Pk	9.8	.2	52.26	58.46	-6.2	-	-
8	.372	27.98	Av	9.8	.2	37.98	-	-	48.46	-10.48
9	.399	38.89	Pk	9.8	.2	48.89	57.87	-8.98	-	-
10	.408	24.63	Av	9.8	.2	34.63	-	-	47.69	-13.06
11	18.609	27.44	Pk	10.1	.4	37.94	60	-22.06	-	-
12	18.606	15.7	Av	10.1	.4	26.2	-	-	50	-23.8

Pk - Peak detector

Av - Average detection

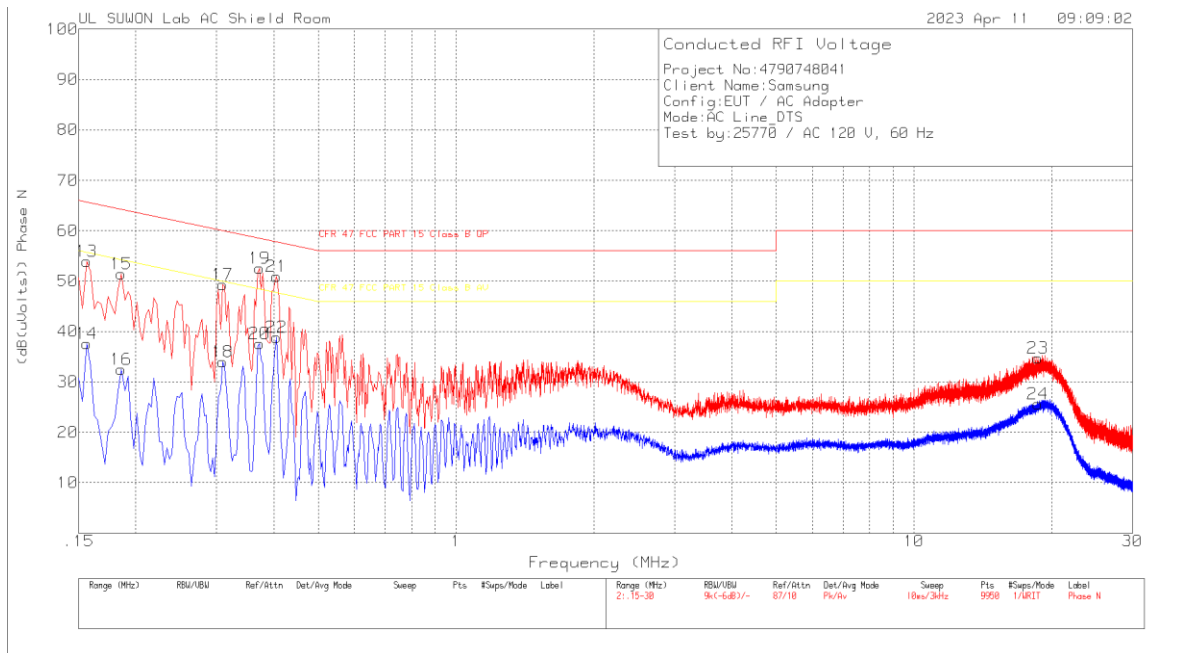
Quasi-Peak Emissions

Range 1: Phase L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	101836_With EX_L1[dB]	CABLELOSS (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)
.37275	41.01	Qp	9.8	.2	51.01	58.44	-7.43	-	-
.39975	36.76	Qp	9.8	.2	46.76	57.86	-11.1	-	-

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]	CABLELOSS (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	.156	44.02	Pk	9.8	.1	53.92	65.67	-11.75	-	-
14	.156	27.72	Av	9.8	.1	37.62	-	-	55.67	-18.05
15	.186	41.3	Pk	9.9	.2	51.4	64.21	-12.81	-	-
16	.186	22.44	Av	9.9	.2	32.54	-	-	54.21	-21.67
17	.309	39.46	Pk	9.7	.2	49.36	60	-10.64	-	-
18	.309	24.05	Av	9.7	.2	33.95	-	-	50	-16.05
19	.372	42.54	Pk	9.8	.2	52.54	58.46	-5.92	-	-
20	.372	27.65	Av	9.8	.2	37.65	-	-	48.46	-10.81
21	.405	40.89	Pk	9.8	.2	50.89	57.75	-6.86	-	-
22	.405	28.82	Av	9.8	.2	38.82	-	-	47.75	-8.93
23	18.648	24.16	Pk	10.2	.4	34.76	60	-25.24	-	-
24	18.642	14.98	Av	10.2	.4	25.58	-	-	50	-24.42

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]	CABLELOSS (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)
.37275	41.45	Qp	9.8	.2	51.45	58.44	-6.99	-	-
.40425	38.66	Qp	9.8	.2	48.66	57.77	-9.11	-	-

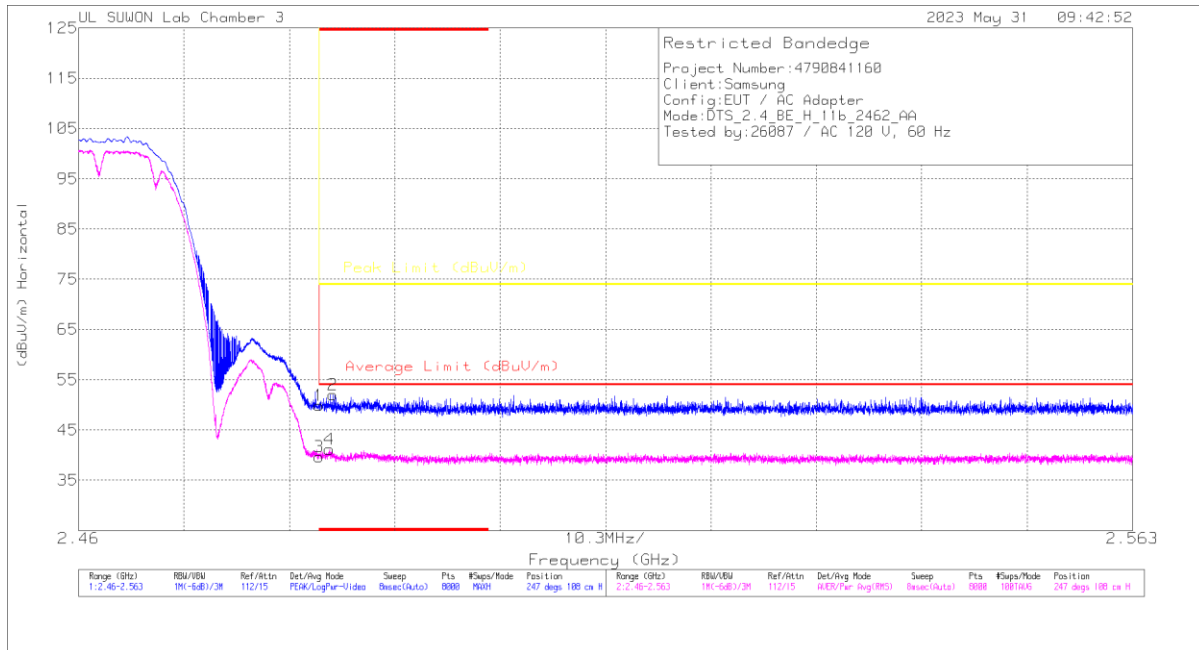
Qp - Quasi-Peak detector

12. SPOT-CHECK THEST RESULT

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE : 802.11b / 2462 MHz)

2462 MHz HORIZONTAL



Trace Markers

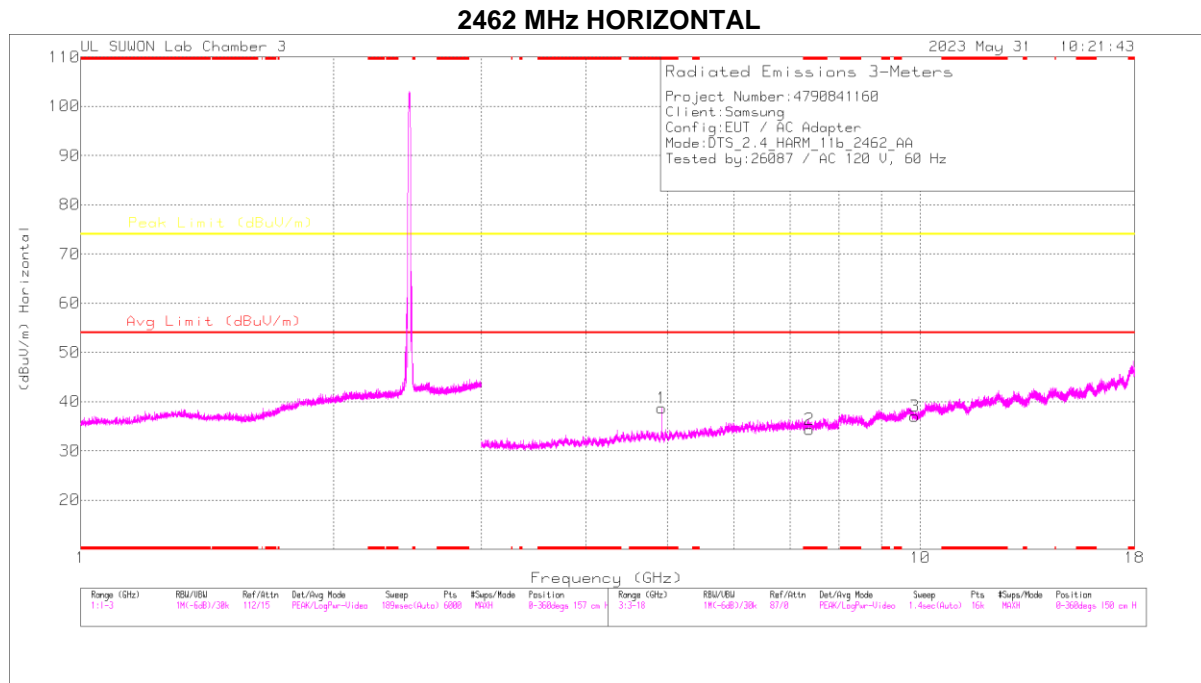
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
1	* 2.4835	42.43	Pk	32.4	-25	0	49.83	-	-	74	-24.17	247	108	H
2	* 2.4843	44.64	Pk	32.4	-25	0	52.04	-	-	74	-21.96	247	108	H
3	* 2.4835	32.3	RMS	32.4	-25	0	39.7	54	-14.3	-	-	247	108	H
4	* 2.4845	33.74	RMS	32.4	-25	0	41.14	54	-12.86	-	-	247	108	H

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

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11b / 2462 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

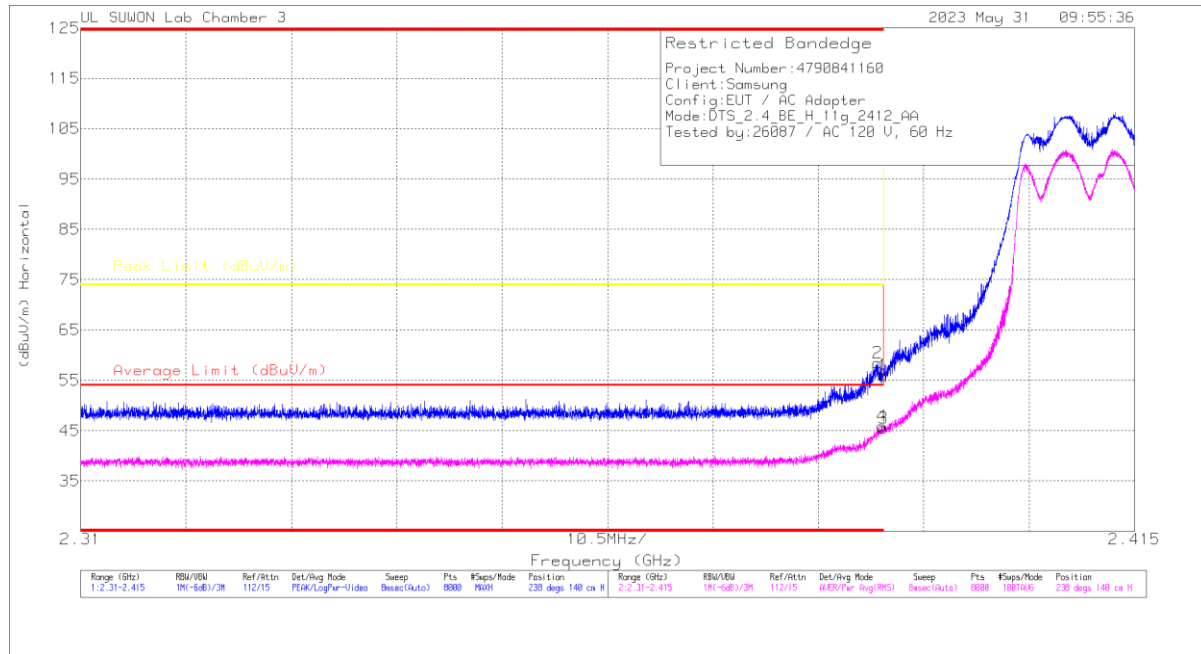
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_0021895 7	3GHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.92407	42.09	PK2	34.2	-30.9	0	45.39	-	-	74	-28.61	219	101	H
* 4.92409	35.09	MAv1	34.2	-30.9	0	38.39	54	-15.61	-	-	219	101	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK2 - KDB558074 Method: Maximum Peak
 MAv1 - KDB558074 Option 1 Maximum RMS Average

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE : 802.11g / 2412 MHz)

2412 MHz HORIZONTAL



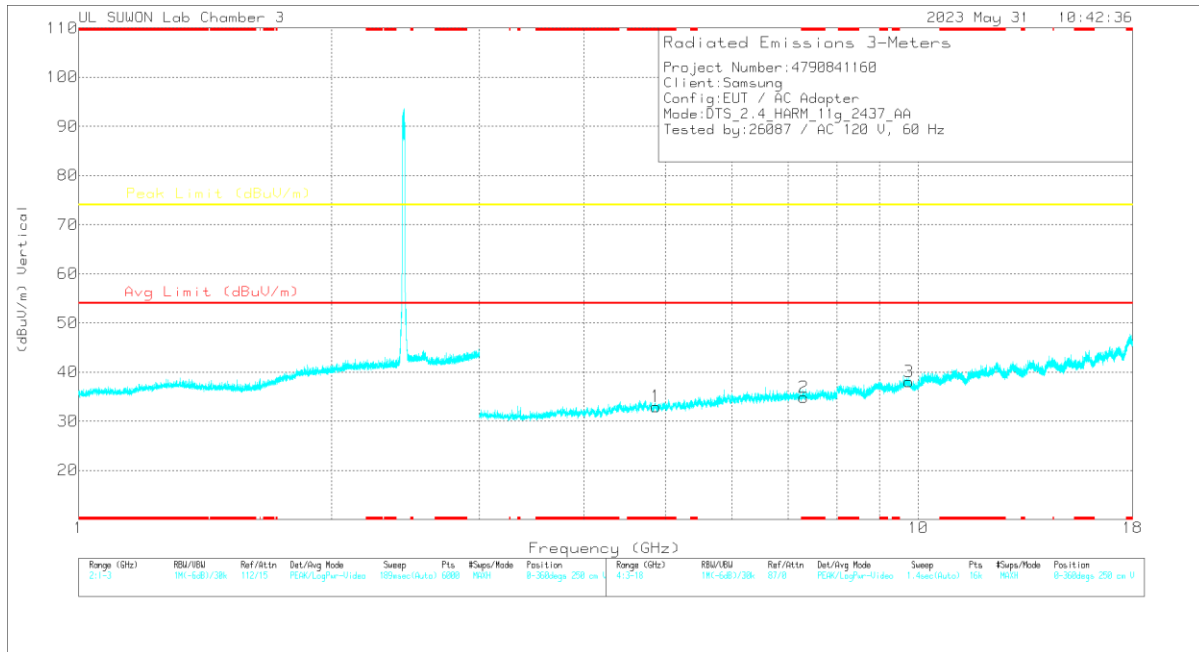
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBu/m)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBu/m)	Average Limit (dBu/m)	Margin (dB)	Peak Limit (dBu/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	48.99	PK	32.1	-25.1	0	55.99	-	-	74	-18.01	238	140	H
2	* 2.38944	51.43	PK	32.1	-25.1	0	58.43	-	-	74	-15.57	238	140	H
3	* 2.39	38.37	RMS	32.1	-25.1	-16	45.53	54	-8.47	-	-	238	140	H
4	* 2.38983	38.73	RMS	32.1	-25.1	-16	45.89	54	-8.11	-	-	238	140	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11g / 2437 MHz)

2437 MHz VERTICAL



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

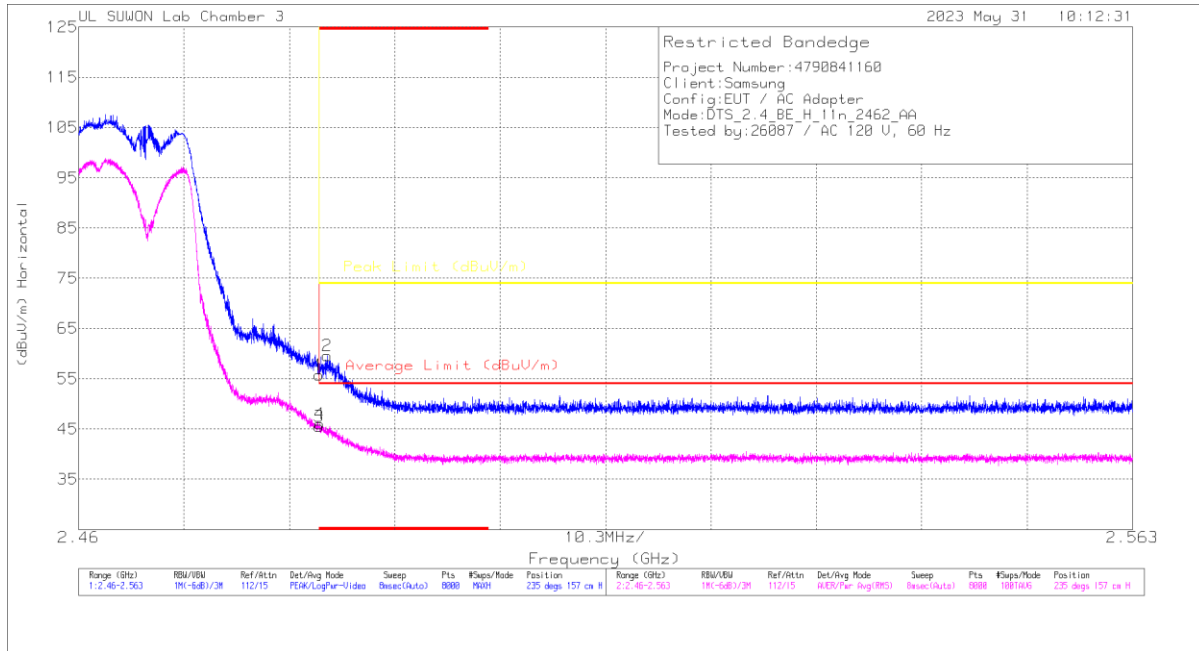
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	3GHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
9.74245	31.73	PK2	36.9	-21.2	0	47.43	-	-	74	-26.57	0	100	V

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

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE : 802.11n HT20 / 2462 MHz)

2462 MHz HORIZONTAL



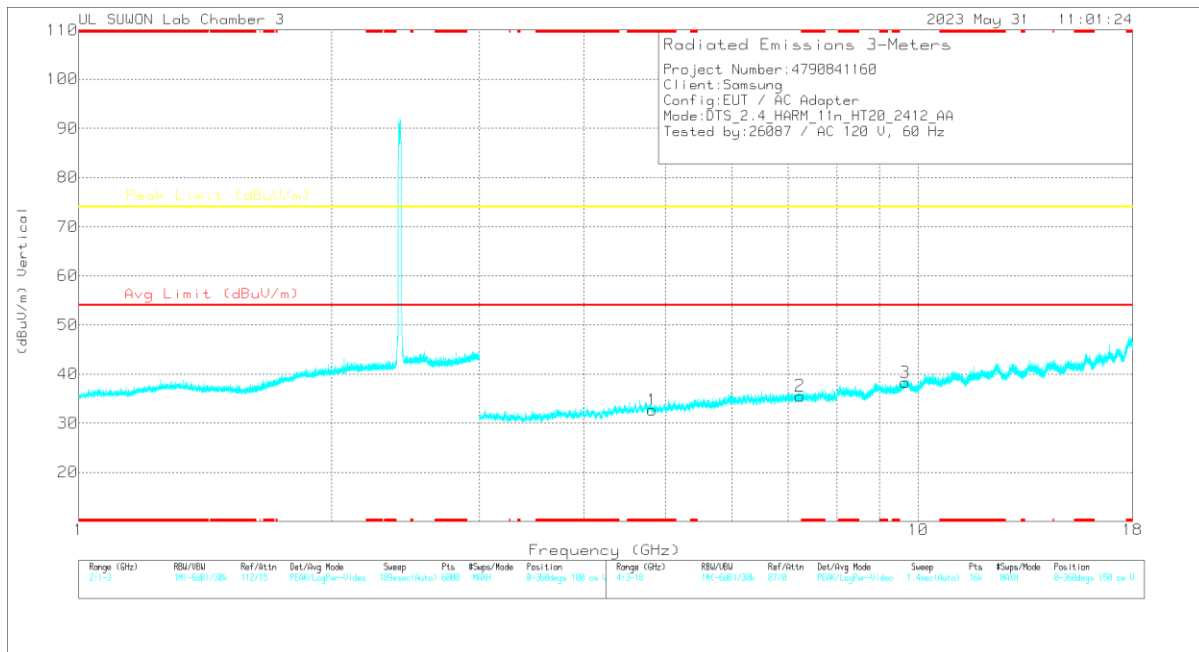
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
1	* 2.4835	48.39	Pk		-25	0	55.79	-	-	74	-18.21	235	157	H
2	* 2.4843	52.22	Pk		-25	0	59.62	-	-	74	-14.38	235	157	H
3	* 2.4835	38.15	RMS		-25	0	45.55	54	-8.45	-	-	235	157	H
4	* 2.48356	38.58	RMS		-25	0	45.98	54	-8.02	-	-	235	157	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11n HT20 / 2412 MHz)

2412 MHz VERTICAL



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

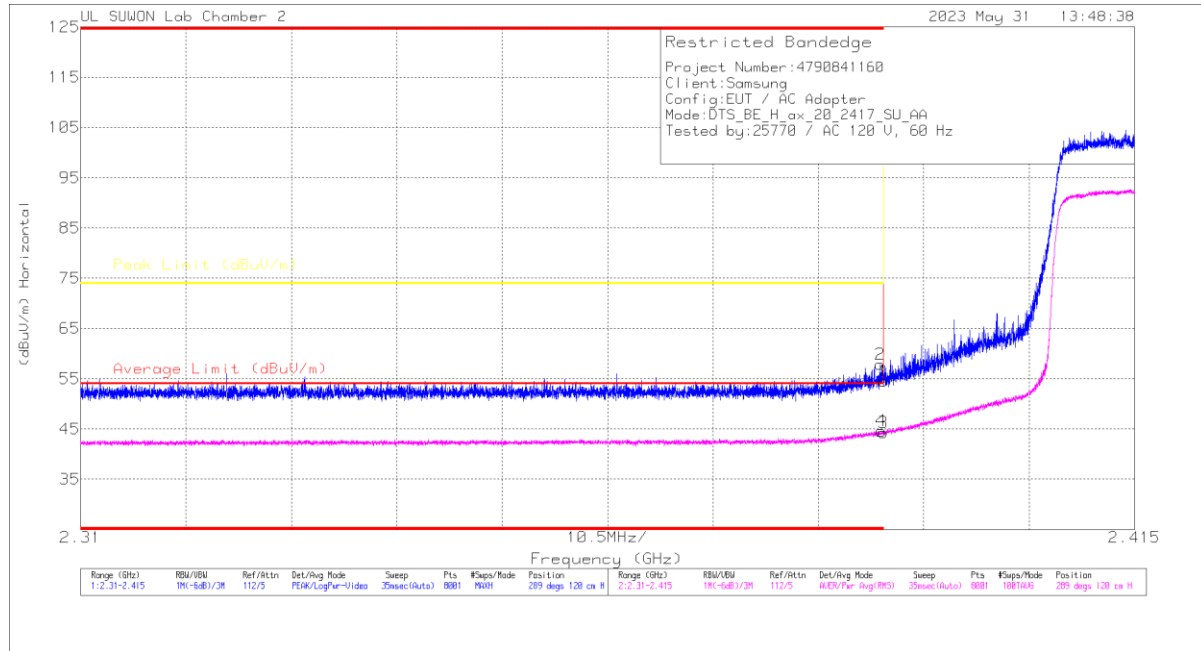
Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	3GHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
9.64478	32.58	PK2	36.8	-21.3	0	48.08	-	-	74	-25.92	0	100	V

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

2TX Antenna 1 + Antenna 2

BANDEDGE (WORST CASE : 802.11ax HE20 SU / 2417 MHz)

2417 MHz HORIZONTAL



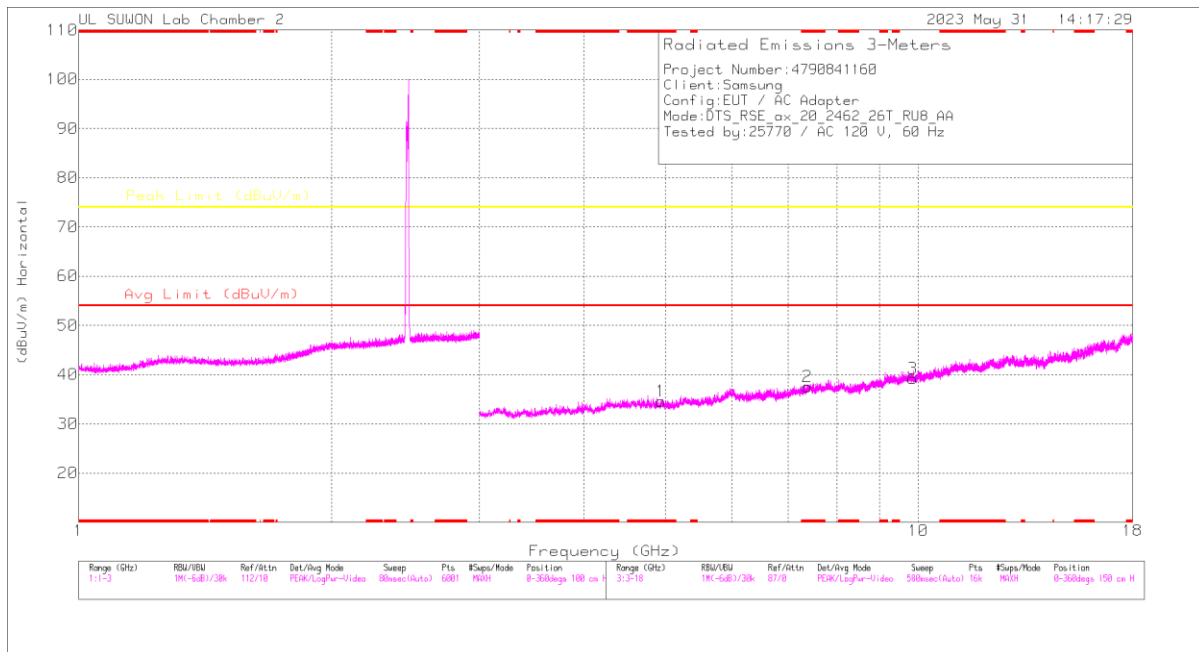
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBu)	Det	3117_00168724	10dB_ATT(dB)	DC Corr (dB)	Corrected Reading (dBu/m)	Average Limit (dBu/m)	Margin (dB)	Peak Limit (dBu/m)	PK Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
1	* 2.39	42.64	PK	31.7	-19.8	0	54.54	-	-	74	-19.46	289	120	H
2	* 2.38968	45.91	PK	31.7	-19.8	0	57.81	-	-	74	-16.19	289	120	H
3	* 2.39	32.37	RMS	31.7	-19.8	0	44.27	54	-9.73	-	-	289	120	H
4	* 2.38976	32.69	RMS	31.7	-19.8	0	44.59	54	-9.41	-	-	289	120	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 Pk - Peak detector
 RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11ax HE20 26T RU8 / 2462 MHz)

2462 MHz HORIZONTAL



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_0016872_4	3GHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.9416	36.03	PK2	34	-26.3	0	43.73	-	-	74	-30.27	323	115	H
* 4.94058	24.04	MAV1	34	-26.3	0	31.74	54	-22.26	-	-	323	115	H

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

END OF TEST REPORT