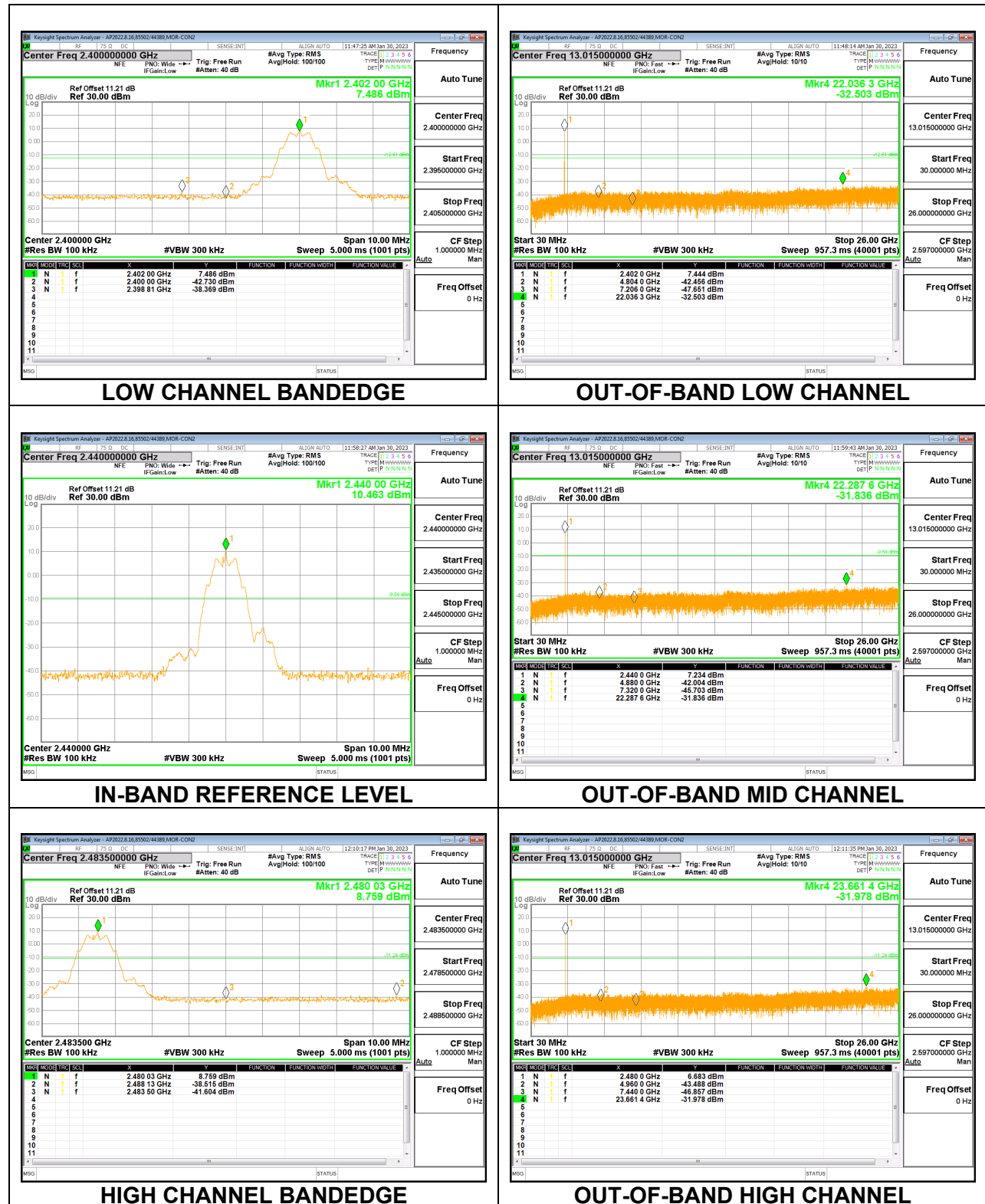
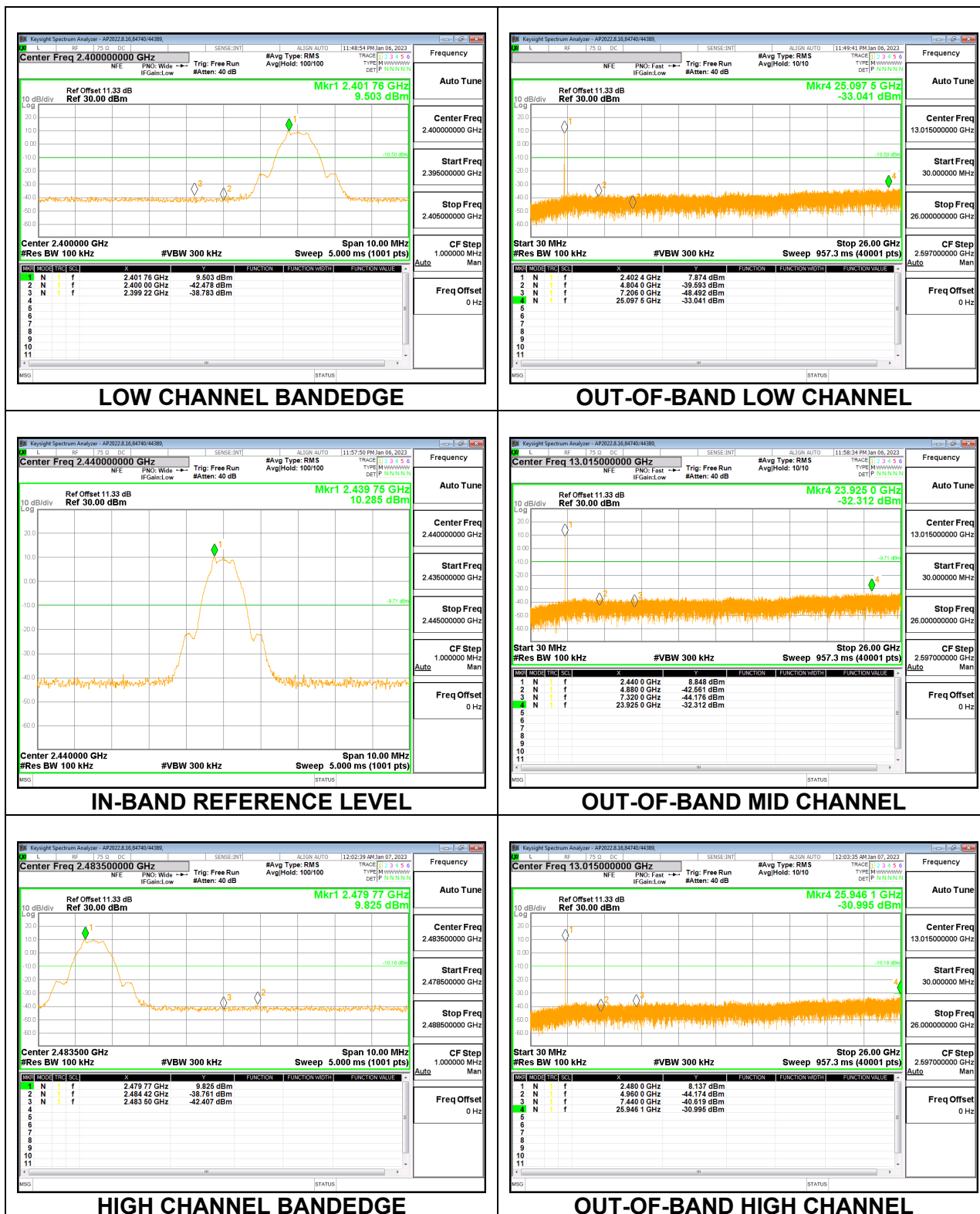


Chain 1

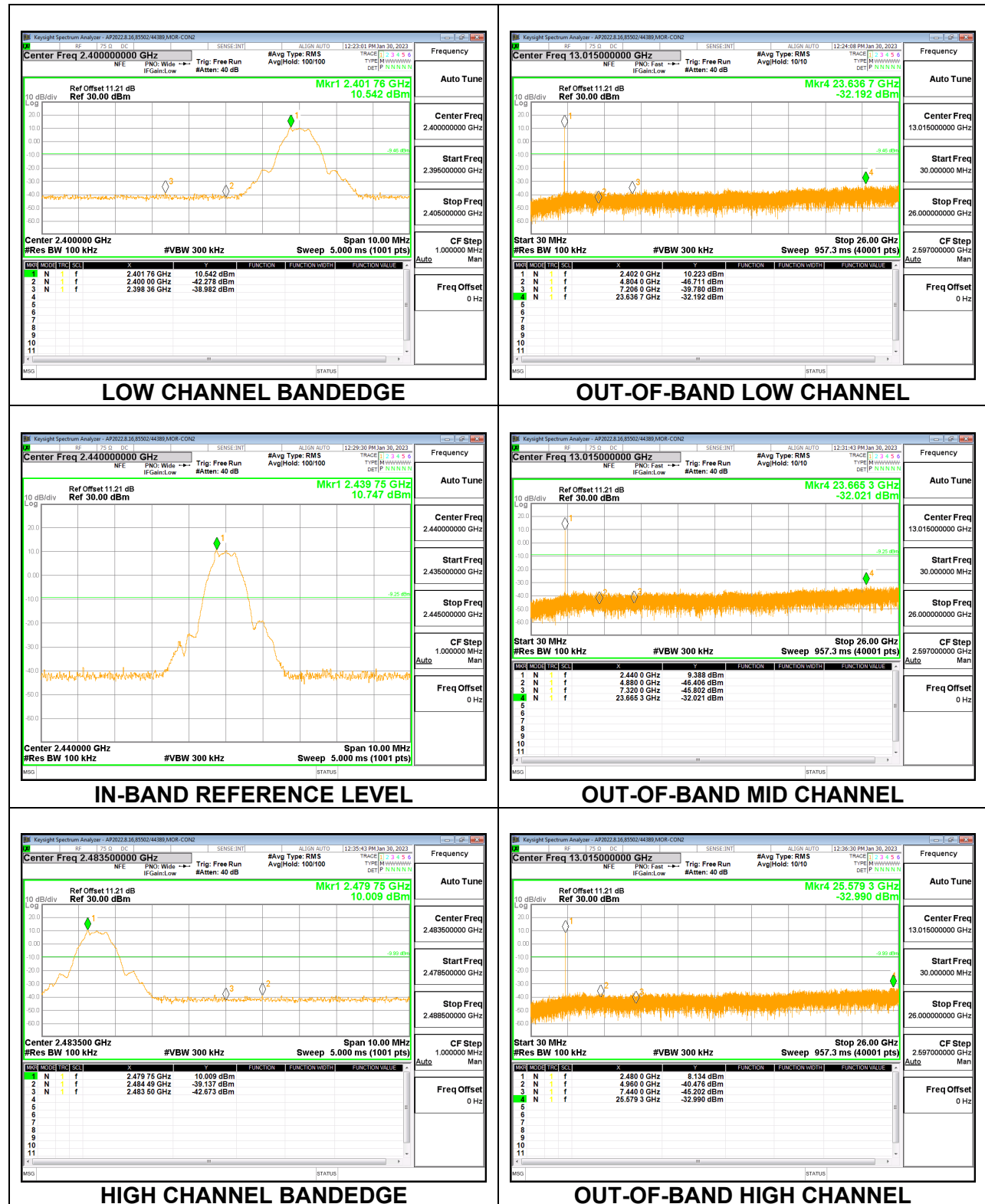


9.6.4. BLE (500Kbps)

Chain 0



Chain 1



10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. 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 in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. Peak detection is used unless otherwise noted as quasi-peak or average (9-90kHz and 110-490kHz).

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements. Linear Voltage Averaging was used.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the channel with the highest PSD was tested.

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.

3D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel).

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

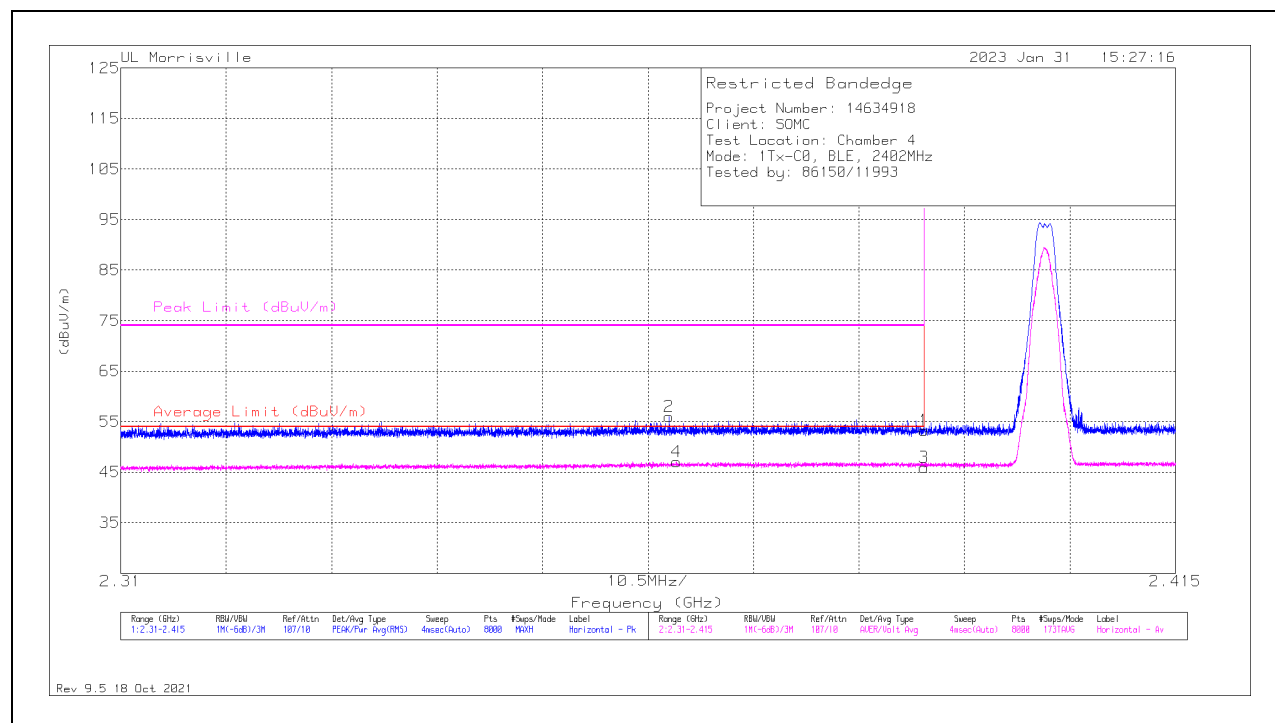
10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. BLE (2Mbps)

Chain 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	34.71	Pk	32.2	-13.6	0	53.31	-	-	74	-20.69	1	178	H
2	*** 2.36457	37.44	Pk	32.2	-13.6	0	56.04	-	-	74	-17.96	1	178	H
3	** 2.39	22.51	ADV	32.2	-13.6	4.79	45.9	54	-8.1	-	-	1	178	H
4	** 2.3653	23.7	ADV	32.2	-13.6	4.79	47.09	54	-6.91	-	-	1	178	H

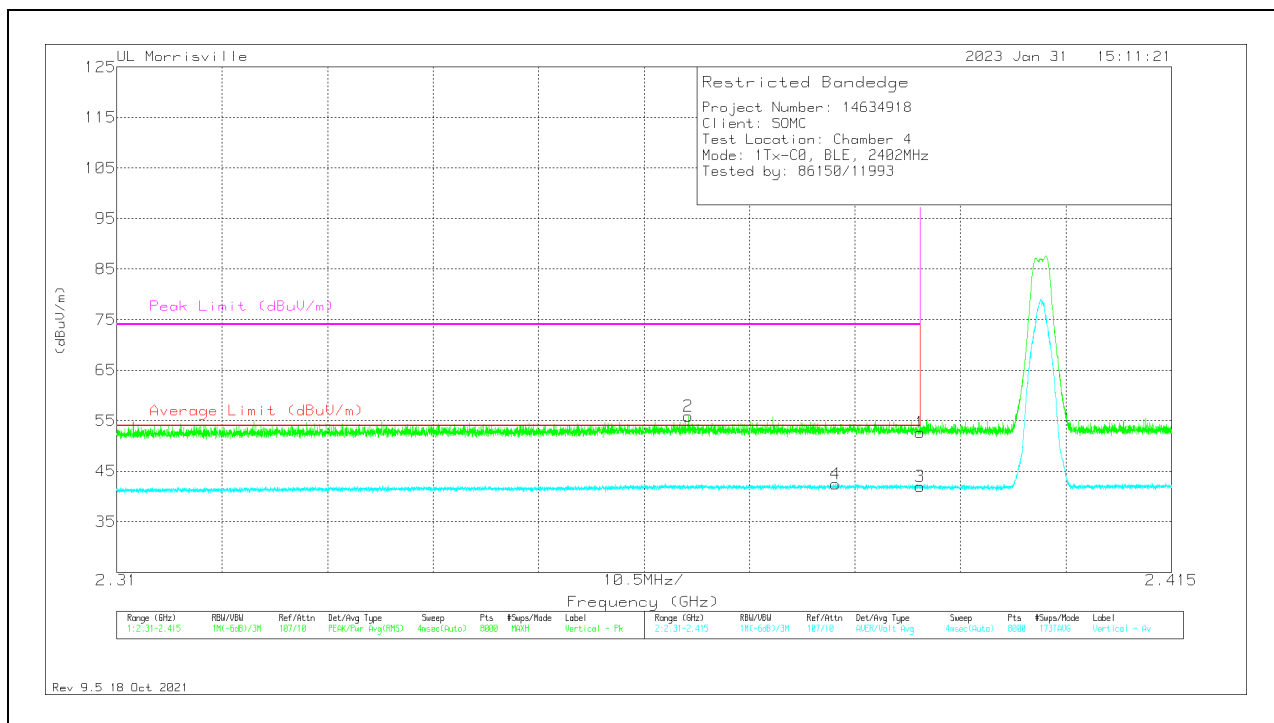
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	34.09	Pk	32.2	-13.6	0	52.69	-	-	74	-21.31	113	113	V
2	* ** 2.36692	37.25	Pk	32.2	-13.6	0	55.85	-	-	74	-18.15	113	113	V
3	* ** 2.39	18.62	ADV	32.2	-13.6	4.79	42.01	54	-11.99	-	-	113	113	V
4	* ** 2.38157	19.08	ADV	32.2	-13.6	4.79	42.47	54	-11.53	-	-	113	113	V

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

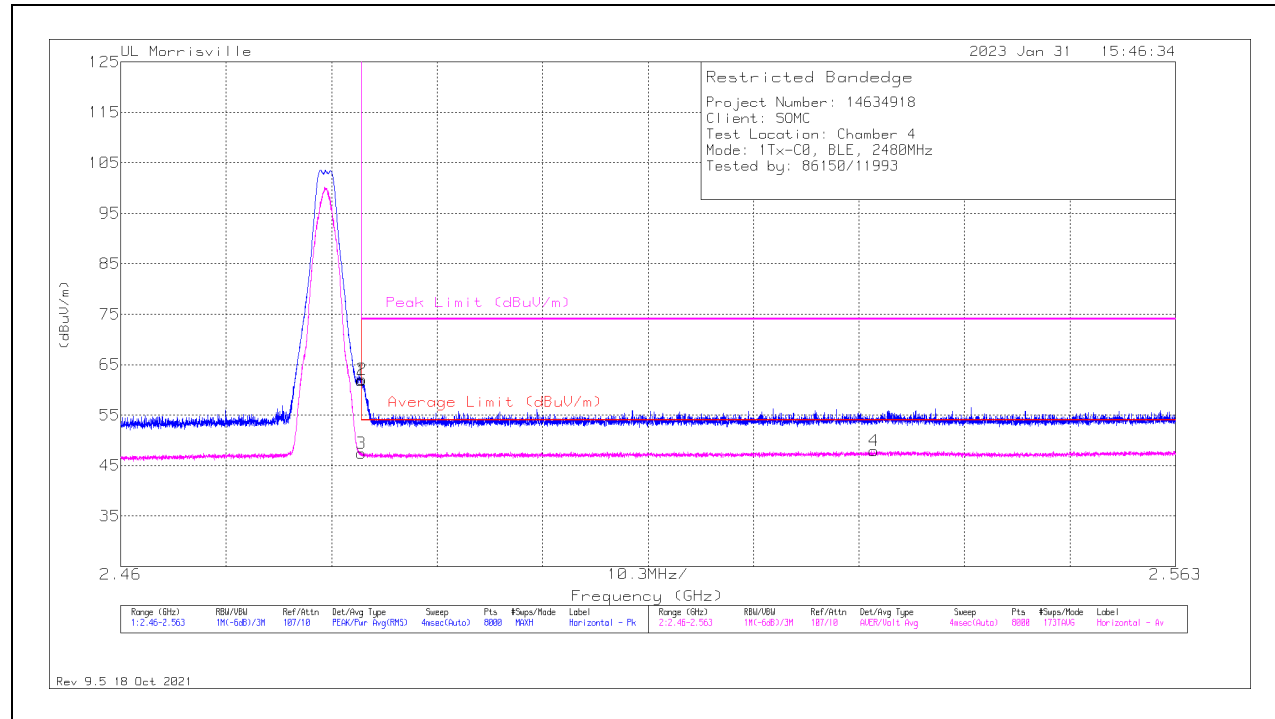
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	42.98	Pk	32.6	-13.7	0	61.88	-	-	74	-12.12	147	101	H
2	* ** 2.48355	43.16	Pk	32.6	-13.7	0	62.06	-	-	74	-11.94	147	101	H
3	* ** 2.4835	23.71	ADV	32.6	-13.7	4.79	47.4	54	-6.6	-	-	147	100	H
4	** 2.53358	23.86	ADV	32.7	-13.4	4.79	47.95	54	-6.05	-	-	147	100	H

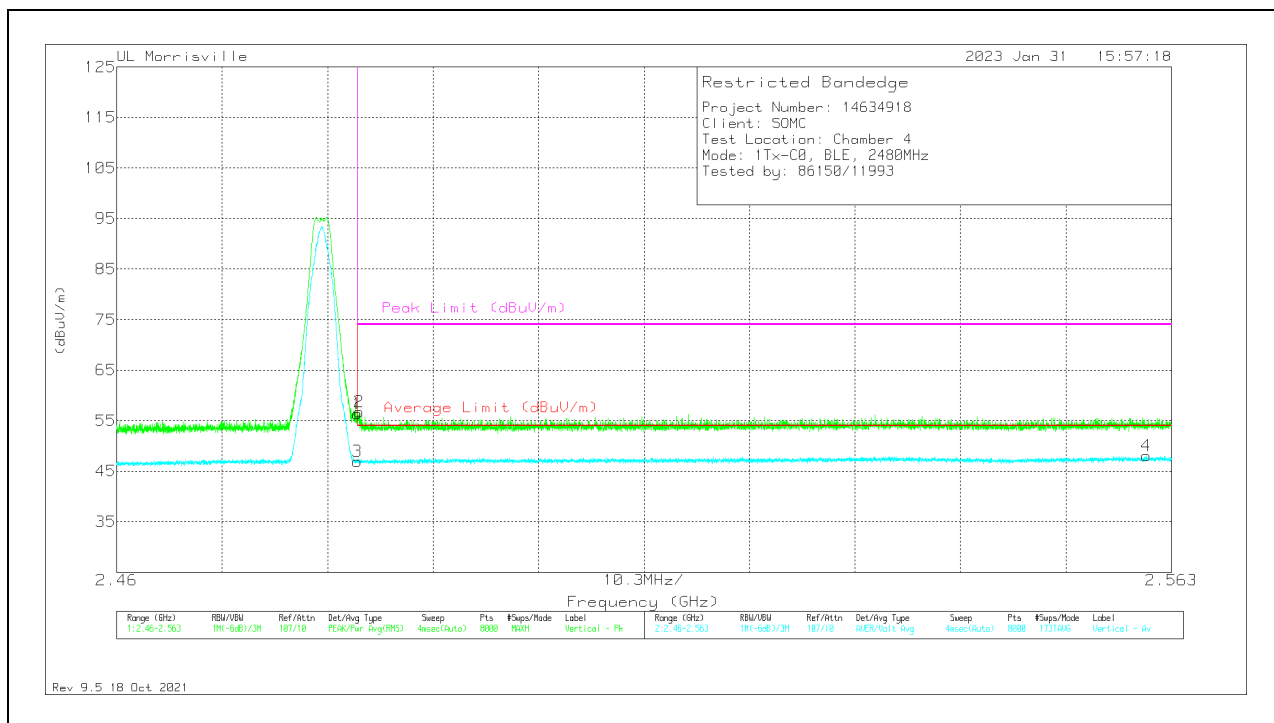
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	37.48	Pk	32.6	-13.7	0	56.38	-	-	74	-17.62	153	327	V
2	*** 2.48367	37.84	Pk	32.6	-13.7	0	56.74	-	-	74	-17.26	153	327	V
3	*** 2.4835	23.21	ADV	32.6	-13.7	4.79	46.9	54	-7.1	-	-	153	327	V
4	** 2.56053	23.86	ADV	32.7	-13.3	4.79	48.05	54	-5.95	-	-	153	327	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

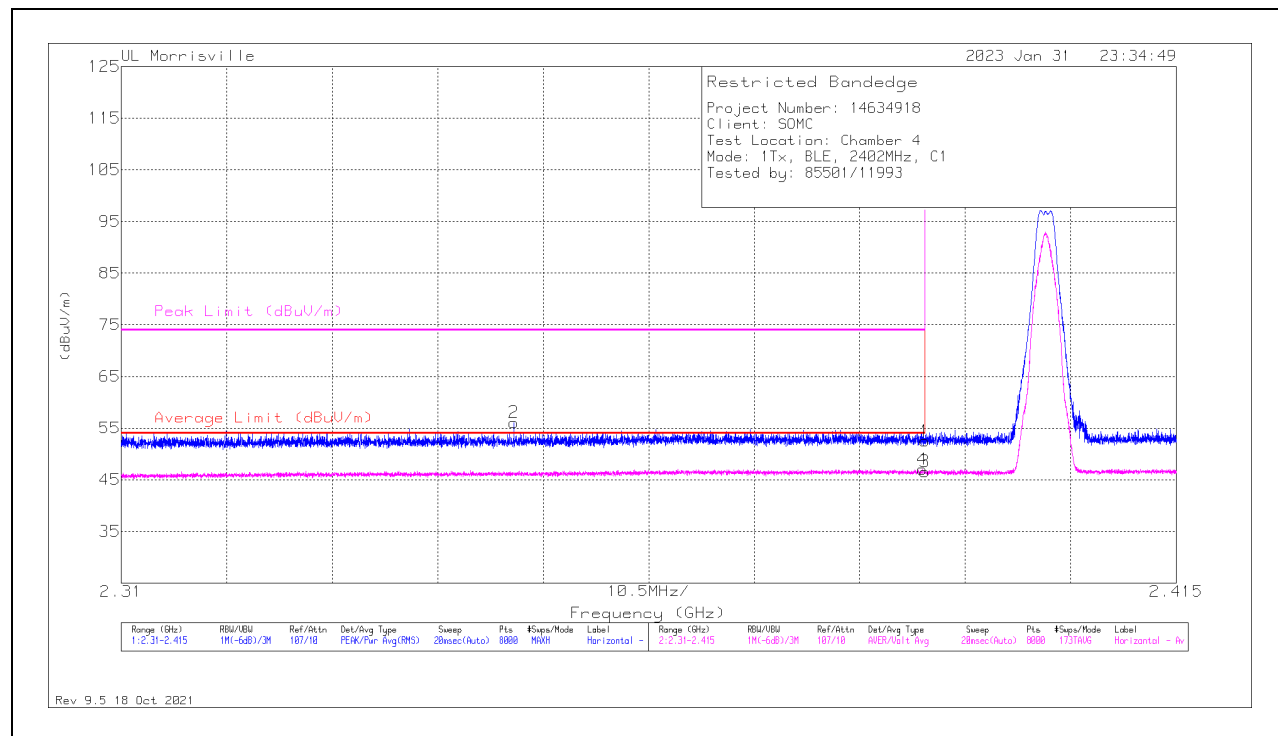
Pk - Peak detector

ADV - Linear Voltage Average

Chain 1

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	33.91	Pk	32.2	-13.6	0	52.51	-	-	74	-21.49	52	106	H
2	* ** 2.34909	37.76	Pk	32.1	-13.8	0	56.06	-	-	74	-17.94	52	106	H
3	* ** 2.39	23.17	ADV	32.2	-13.6	4.79	46.56	54	-7.44	-	-	52	106	H
4	* ** 2.38972	23.62	ADV	32.2	-13.6	4.79	47.01	54	-6.99	-	-	52	106	H

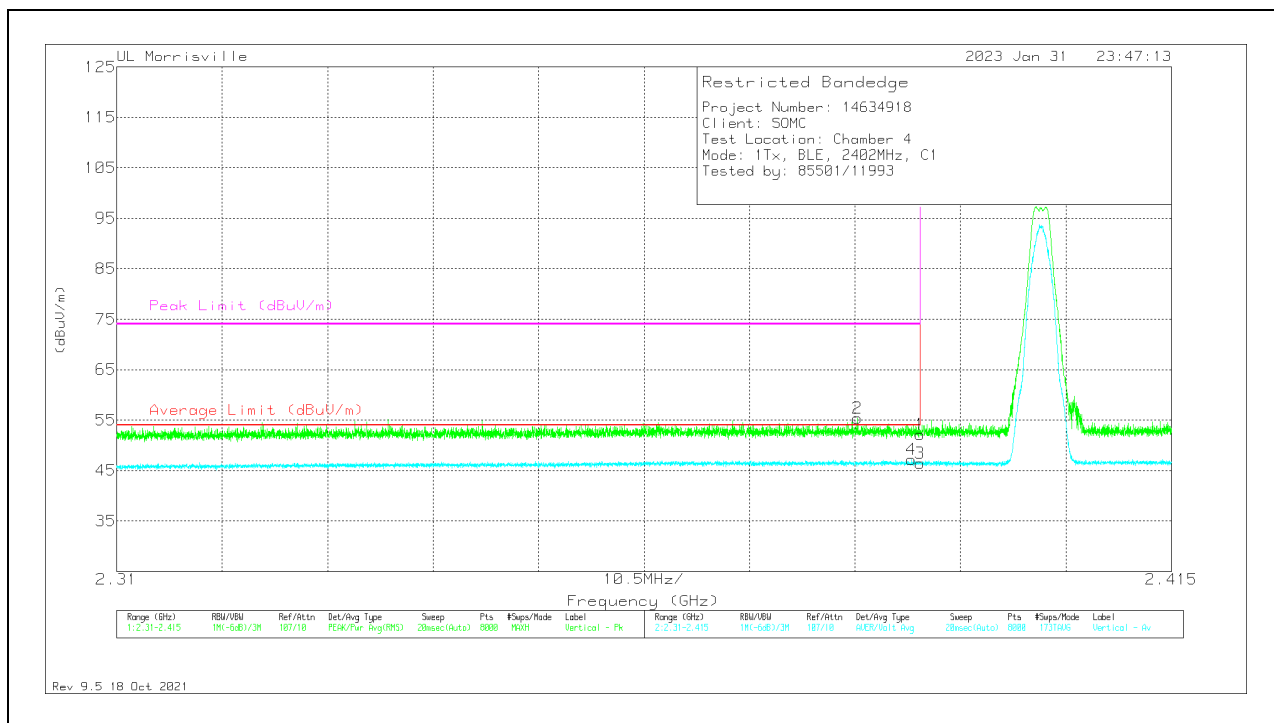
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	33.51	Pk	32.2	-13.6	0	52.11	-	-	74	-21.89	24	106	V
2	* ** 2.38376	36.73	Pk	32.2	-13.6	0	55.33	-	-	74	-18.67	24	106	V
3	* ** 2.39	23.04	ADV	32.2	-13.6	4.79	46.43	54	-7.57	-	-	24	106	V
4	* ** 2.38909	23.74	ADV	32.2	-13.6	4.79	47.13	54	-6.87	-	-	24	106	V

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

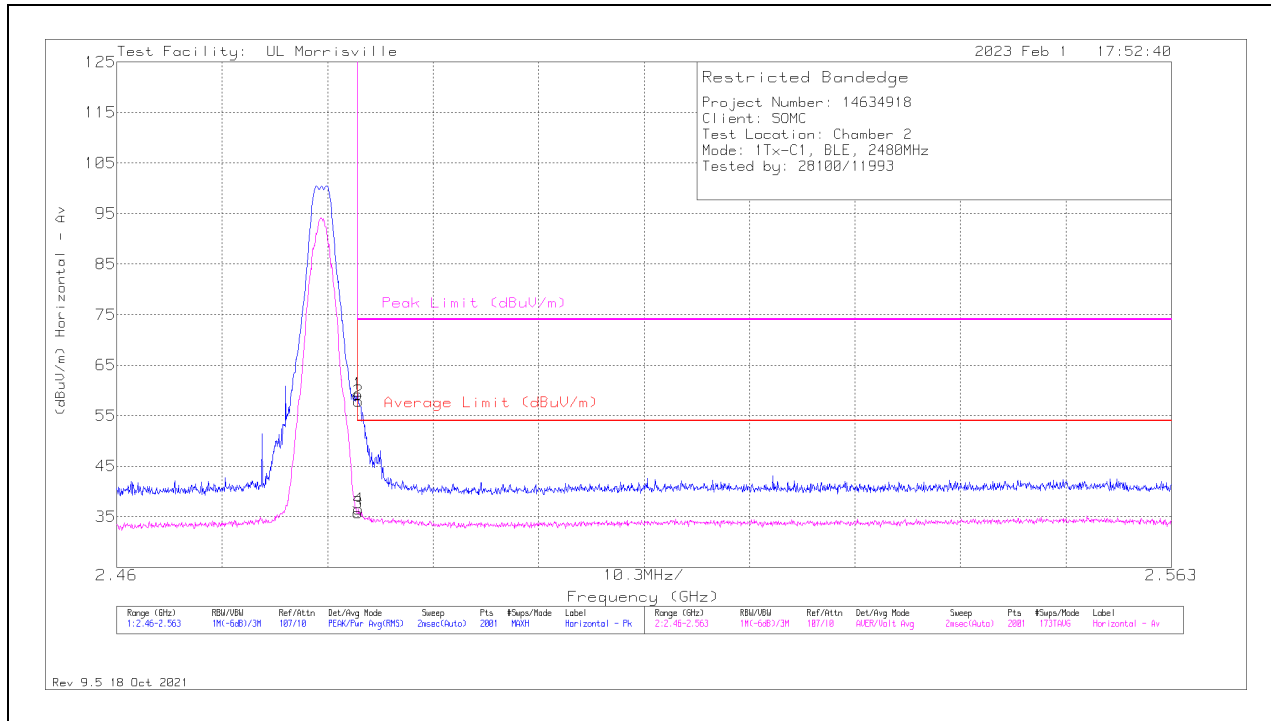
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	51.29	Pk	32.3	-24.3	0	59.29	-	-	74	-14.71	63	110	H
2	* ** 2.48364	49.86	Pk	32.3	-24.3	0	57.86	-	-	74	-16.14	63	110	H
3	* ** 2.48354	22.93	ADV	32.3	-24.3	4.79	35.72	54	-18.28	-	-	63	110	H
4	* ** 2.48364	23.72	ADV	32.3	-24.3	4.79	36.51	54	-17.49	-	-	63	110	H

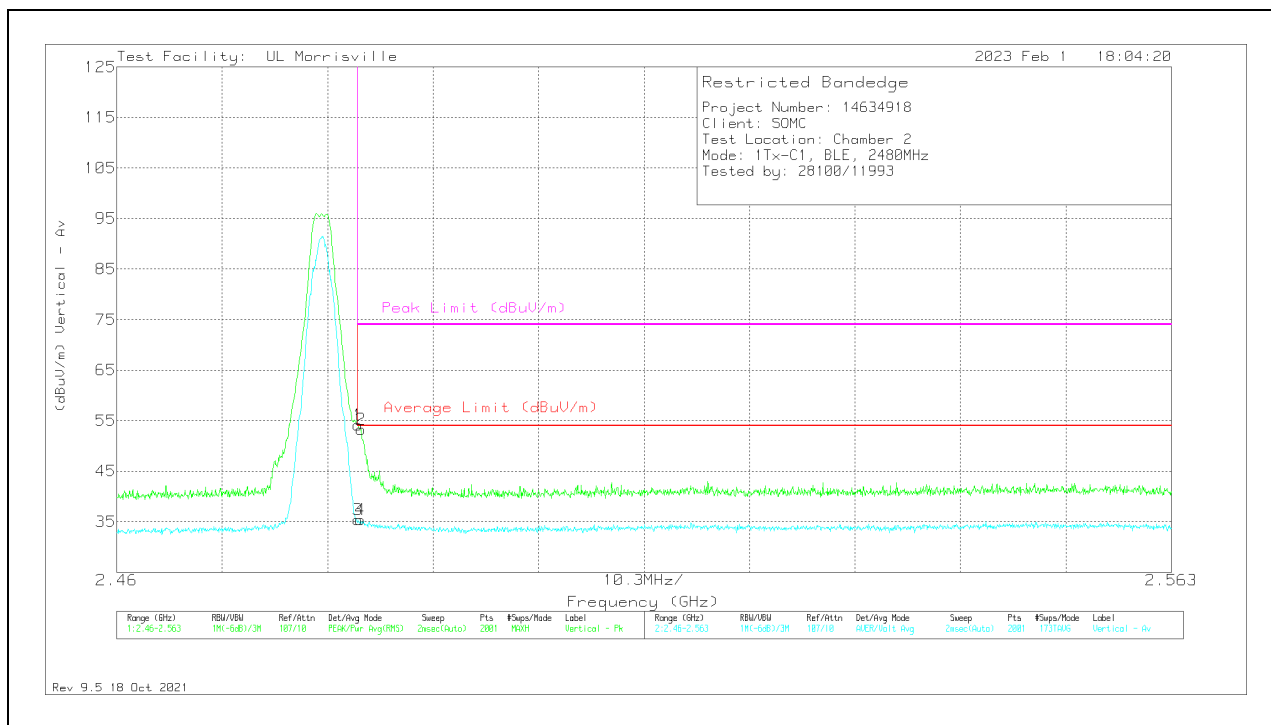
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.48354	46.14	Pk	32.3	-24.3	0	54.14	-	-	74	-19.86	19	101	V
2	*** 2.48384	45.32	Pk	32.3	-24.4	0	53.22	-	-	74	-20.78	19	101	V
3	*** 2.48354	22.56	ADV	32.3	-24.3	4.79	35.35	54	-18.65	-	-	19	101	V
4	*** 2.48379	22.65	ADV	32.3	-24.4	4.79	35.34	54	-18.66	-	-	19	101	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

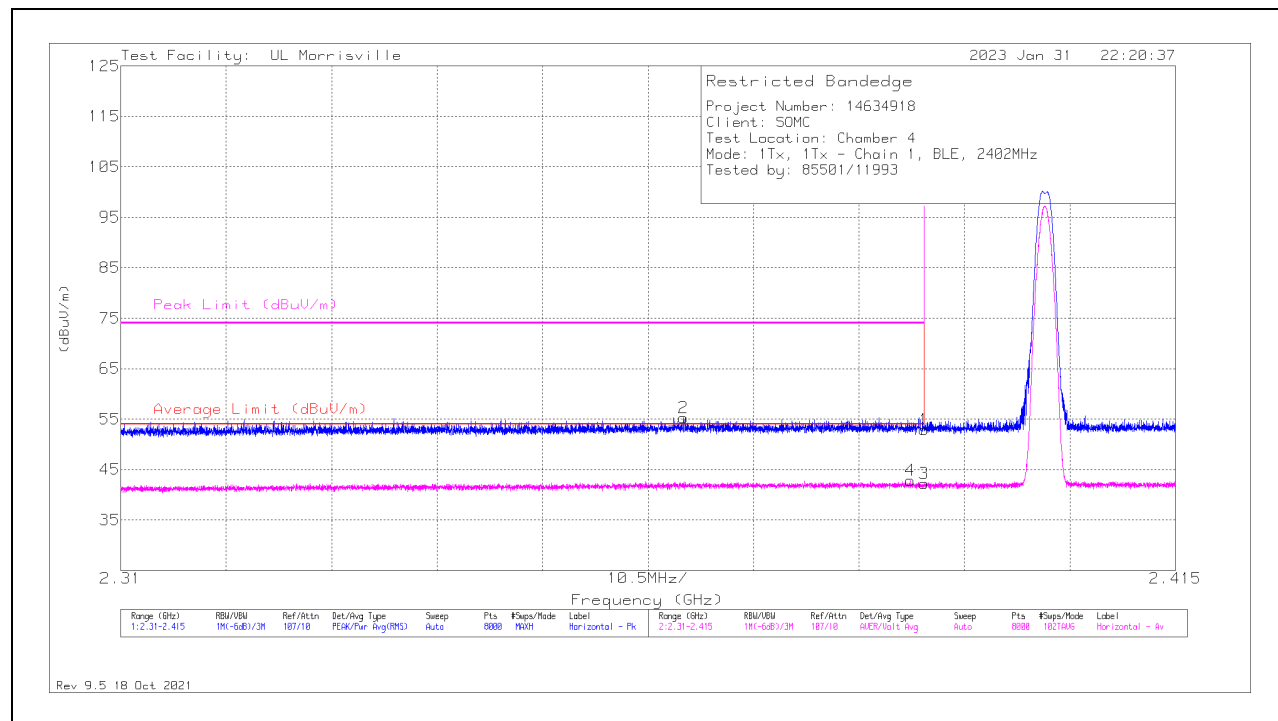
ADV - Linear Voltage Average

10.2.2. BLE (125Kbps)

Chain 1

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	34.32	Pk	32.2	-13.6	0	52.92	-	-	74	-21.08	57	120	H
2	** 2.36604	36.71	Pk	32.2	-13.6	0	55.31	-	-	74	-18.69	57	120	H
3	* ** 2.39	23.44	ADV	32.2	-13.6	.23	42.27	54	-11.73	-	-	57	120	H
4	** 2.38863	24.01	ADV	32.2	-13.6	.23	42.84	54	-11.16	-	-	57	120	H

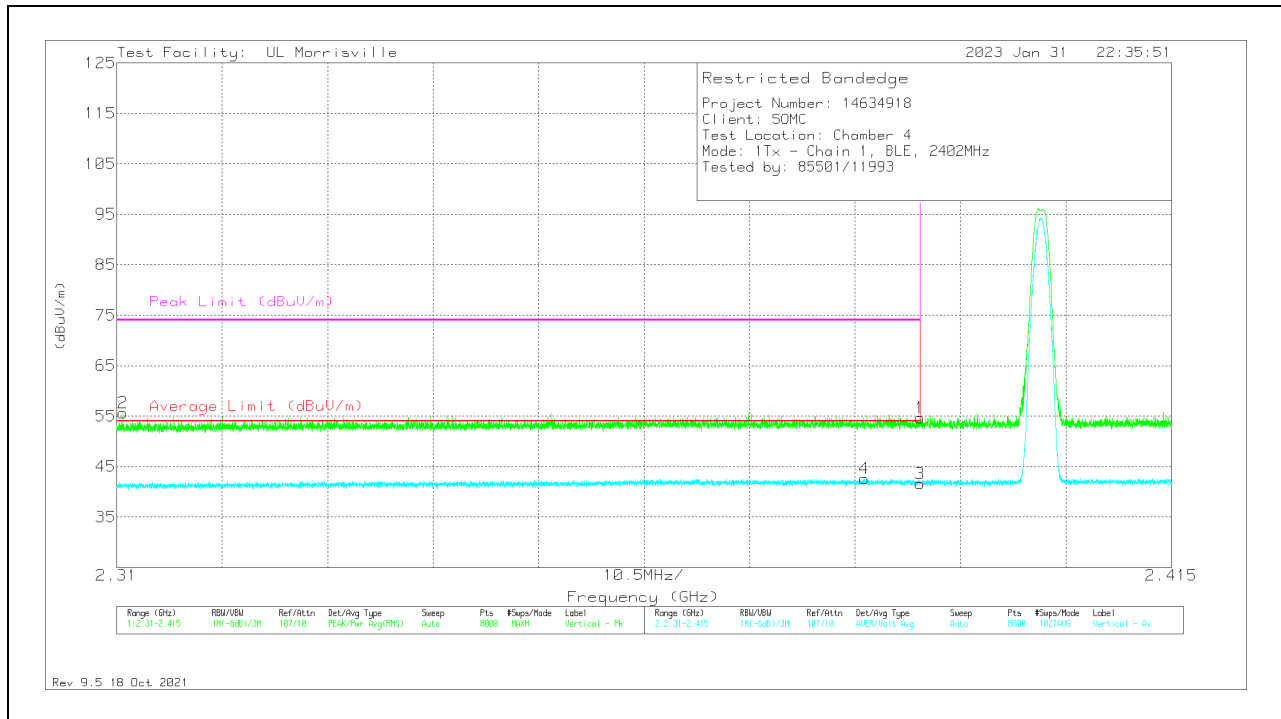
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	36.05	Pk	32.2	-13.6	0	54.65	-	-	74	-19.35	66	103	V
2	* ** 2.31063	37.47	Pk	32.1	-13.9	0	55.67	-	-	74	-18.33	66	103	V
3	* ** 2.39	22.83	ADV	32.2	-13.6	.23	41.66	54	-12.34	-	-	66	103	V
4	* ** 2.3844	23.79	ADV	32.2	-13.6	.23	42.62	54	-11.38	-	-	66	103	V

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

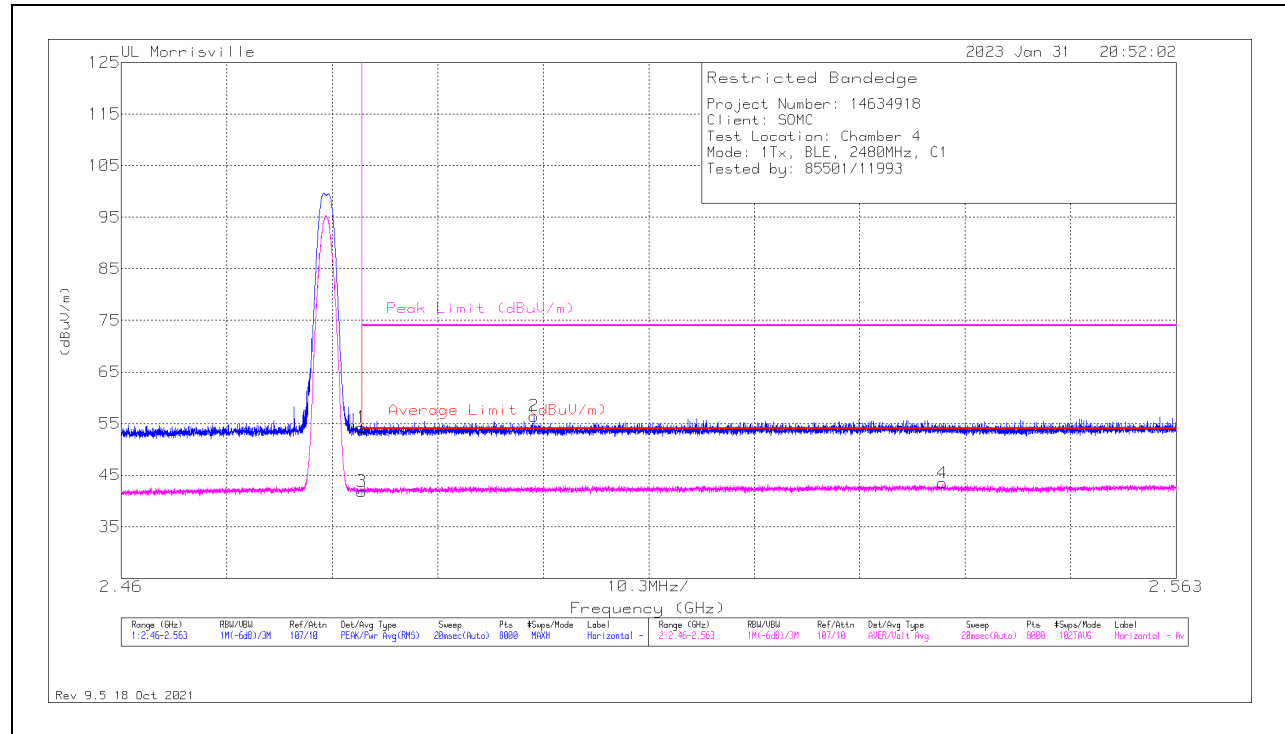
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	35.36	Pk	32.6	-13.7	0	54.26	-	-	74	-19.74	58	105	H
2	** 2.50031	37.46	Pk	32.6	-13.6	0	56.46	-	-	74	-17.54	58	105	H
3	*** 2.4835	22.7	ADV	32.6	-13.7	.23	41.83	54	-12.17	-	-	58	105	H
4	** 2.54017	23.95	ADV	32.8	-13.5	.23	43.48	54	-10.52	-	-	58	105	H

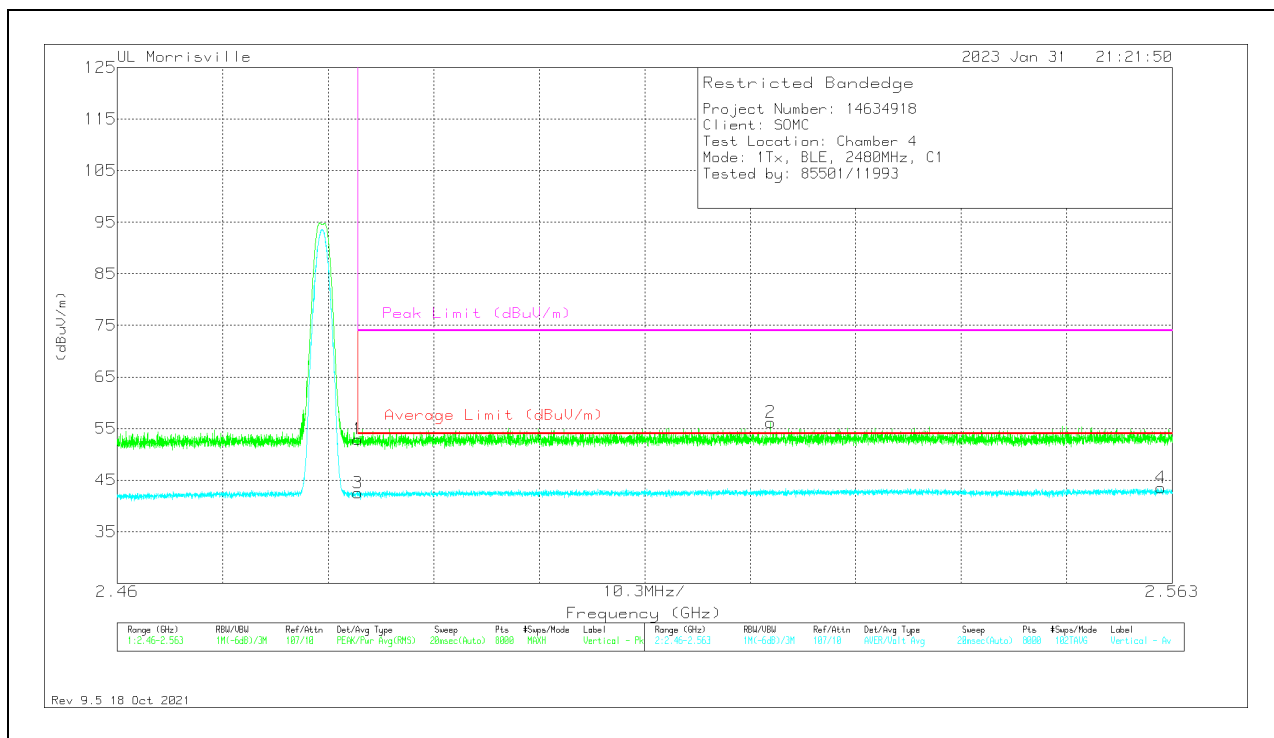
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (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	34.03	Pk	32.6	-13.7	0	52.93	-	-	74	-21.07	233	145	V
2	** 2.52381	36.99	Pk	32.7	-13.5	0	56.19	-	-	74	-17.81	233	145	V
3	*** 2.4835	23.4	ADV	32.6	-13.7	.23	42.53	54	-11.47	-	-	233	145	V
4	** 2.5619	23.91	ADV	32.7	-13.3	.23	43.54	54	-10.46	-	-	233	145	V

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

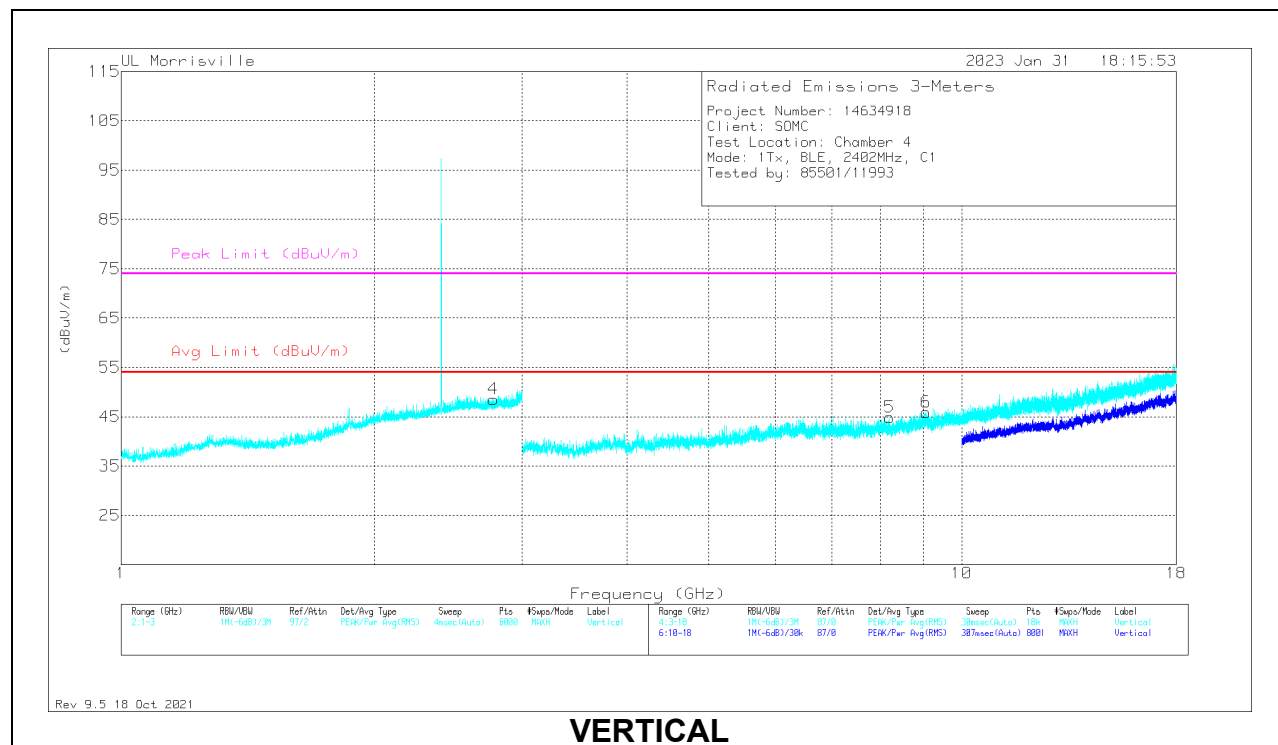
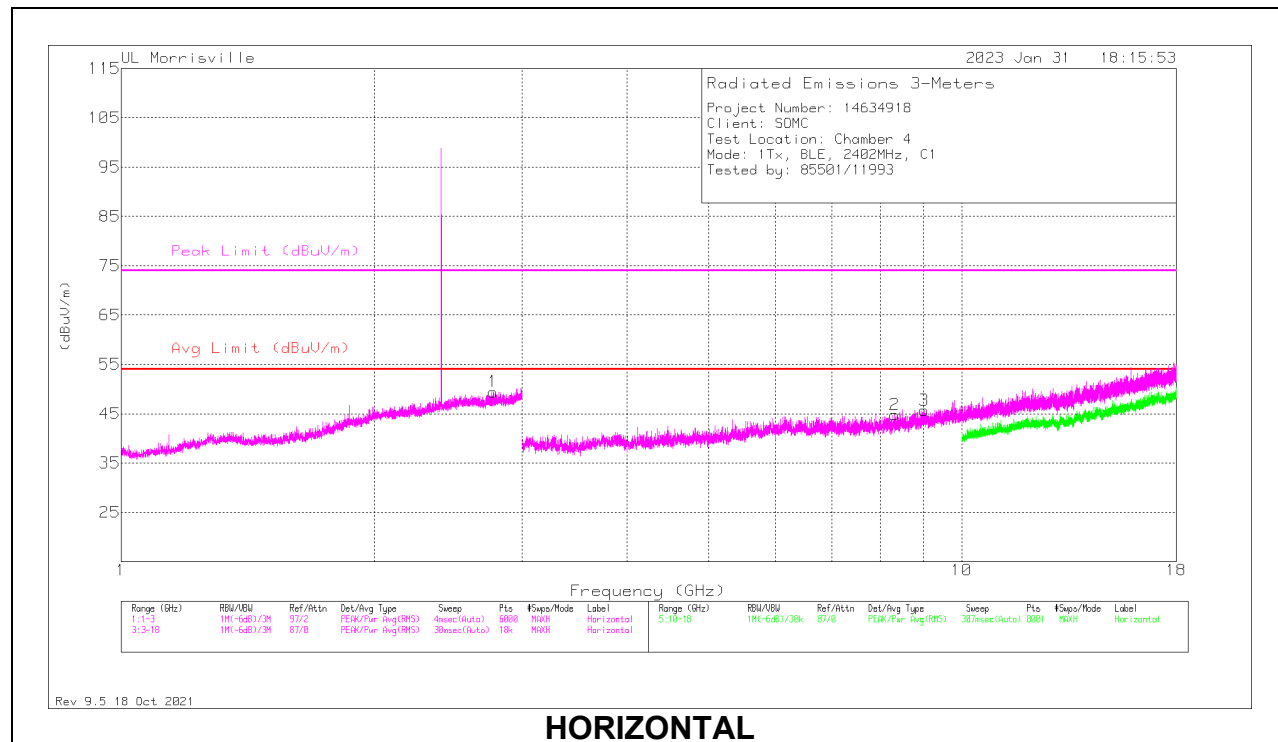
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.77078	28.69	PK2	32.5	-13.1	0	48.09	-	-	74	-25.91	355	375	H
	* ** 2.76995	15.96	ADV	32.5	-13.1	.23	35.37	54	-18.63	-	-	355	375	H
4	* ** 2.77102	28.98	PK2	32.5	-13.1	0	48.38	-	-	74	-25.62	270	352	V
	* ** 2.77279	16.05	ADV	32.5	-13.1	.23	35.46	54	-18.54	-	-	270	352	V
2	* ** 8.32113	36.3	Pk	35.7	-27.2	0	44.8	54	-9.2	74	-29.2	0-360	100	H
3	* ** 9.02284	34.49	Pk	36.1	-24.9	0	45.69	54	-8.31	74	-28.31	0-360	100	H
5	* ** 8.20446	36.47	Pk	35.7	-27.3	0	44.87	54	-9.13	74	-29.13	0-360	200	V
6	* ** 9.06867	34.99	Pk	36.1	-25.2	0	45.89	54	-8.11	74	-28.11	0-360	200	V

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

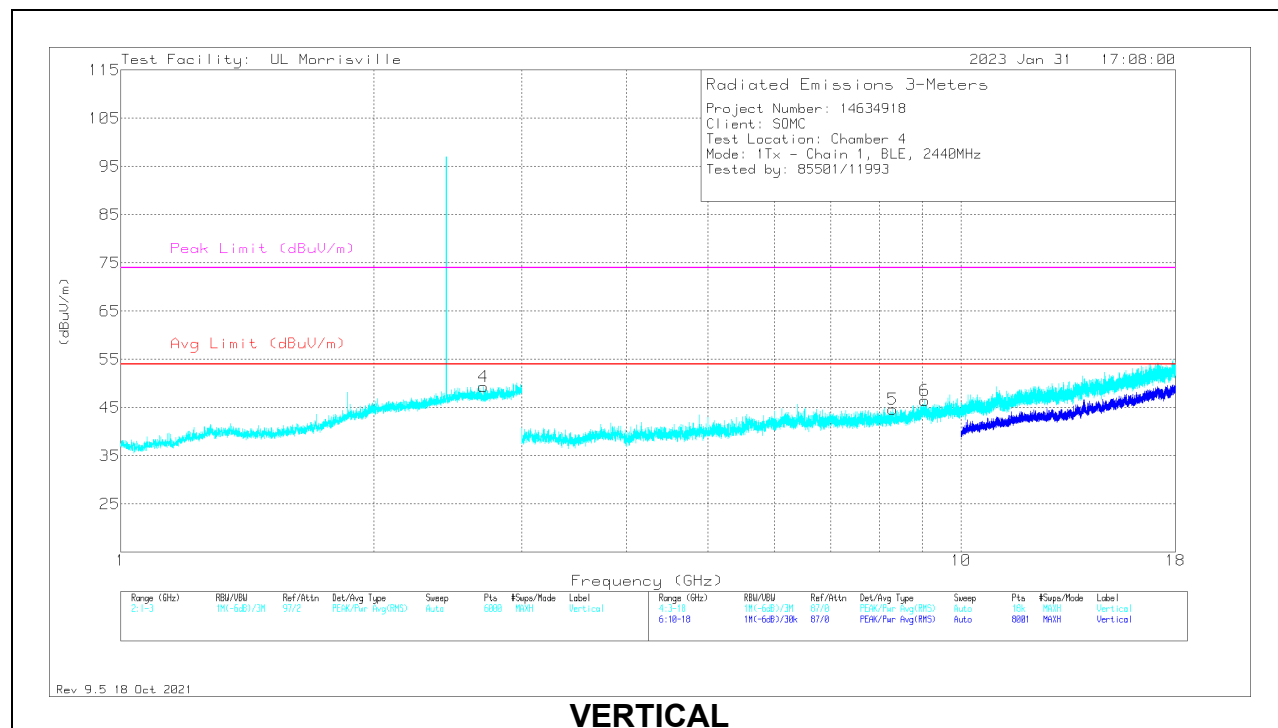
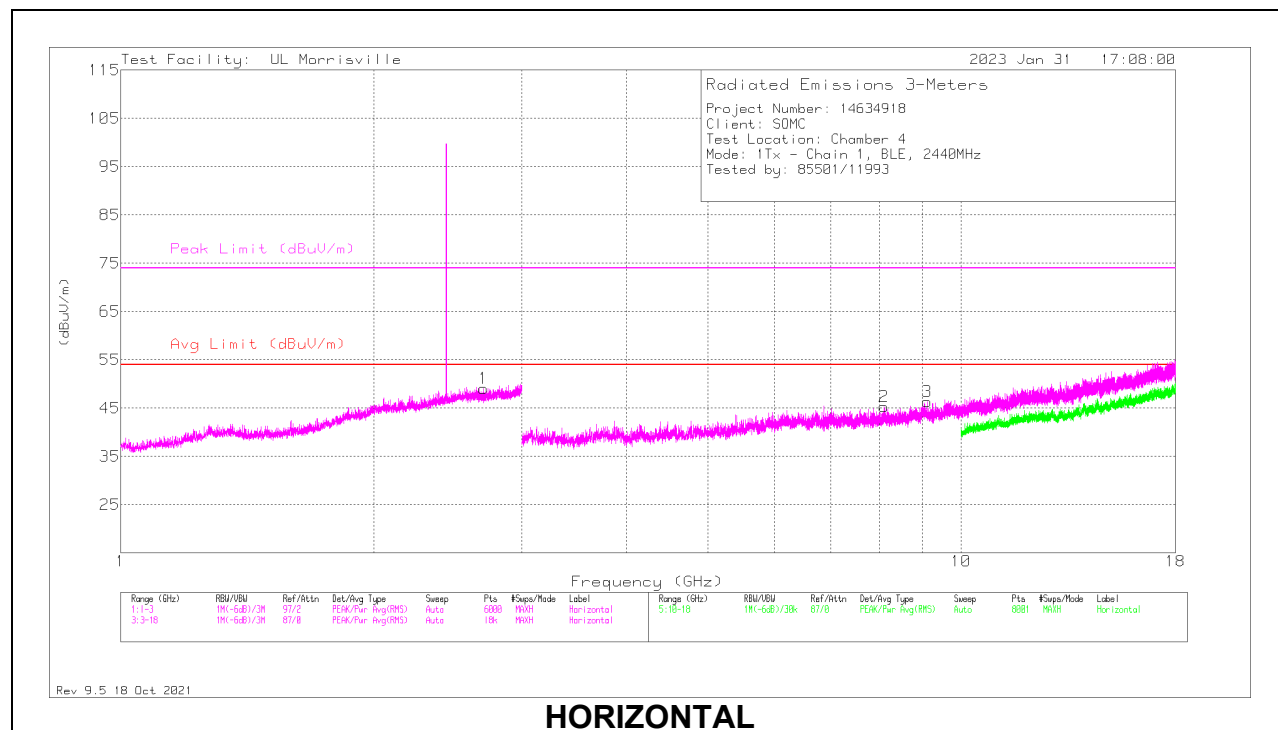
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

PK2 - Maximum Peak

ADV - Linear Voltage Average

MID CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.7	29.13	PK2	32.2	-13.2	0	48.13	-	-	74	-25.87	112	355	H
	* ** 2.69963	16.05	ADV	32.2	-13.2	.23	35.28	54	-18.72	-	-	112	355	H
4	* ** 2.70297	28.92	PK2	32.2	-13.2	0	47.92	-	-	74	-26.08	355	147	V
	* ** 2.7014	16.09	ADV	32.2	-13.2	.23	35.32	54	-18.68	-	-	355	147	V
2	* ** 8.10195	37.18	Pk	35.8	-27.7	0	45.28	54	-8.72	74	-28.72	0-360	100	H
3	* ** 9.11534	35.73	Pk	36.2	-25.6	0	46.33	54	-7.67	74	-27.67	0-360	100	H
5	* ** 8.2928	36.03	Pk	35.7	-27.1	0	44.63	54	-9.37	74	-29.37	0-360	200	V
6	* ** 9.05034	35.45	Pk	36.1	-25.1	0	46.45	54	-7.55	74	-27.55	0-360	200	V

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

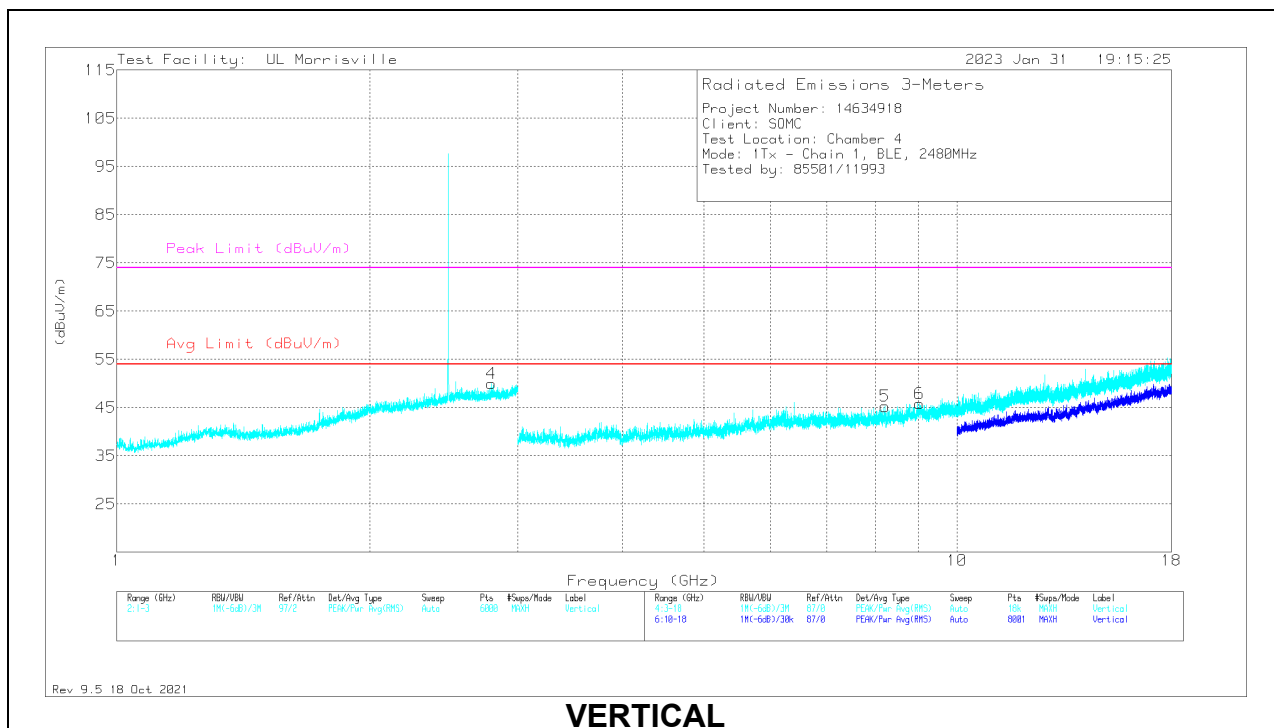
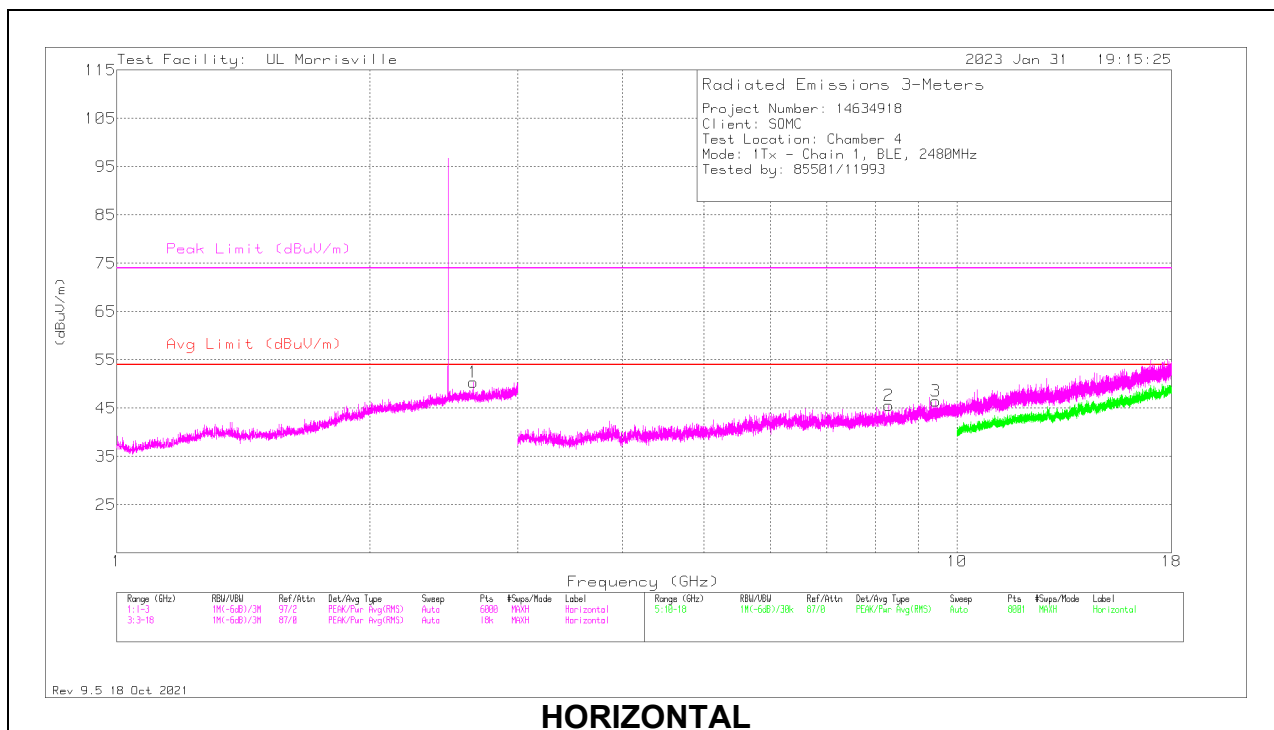
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0067 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 2.596	28.99	PK2	32.6	-13.4	0	48.19	-	-	-	-	73	292	H
	** 2.65038	16.14	ADV	32.4	-13.3	.23	35.27	-	-	-	-	73	292	H
4	*** 2.78973	28.75	PK2	32.5	-13.1	0	48.15	-	-	74	-25.85	33	398	V
	*** 2.78909	15.99	ADV	32.5	-13.1	.23	35.40	54	-18.60	-	-	33	398	V
2	*** 8.28946	36.96	Pk	35.7	-27.1	0	45.56	54	-8.44	74	-28.44	0-360	100	H
3	*** 9.43619	35.84	Pk	36.5	-25.9	0	46.44	54	-7.56	74	-27.56	0-360	100	H
5	*** 8.20612	36.85	Pk	35.7	-27.3	0	45.25	54	-8.75	74	-28.75	0-360	200	V
6	*** 9.02034	34.64	Pk	36.1	-24.9	0	45.84	54	-8.16	74	-28.16	0-360	200	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

PK2 - Maximum Peak

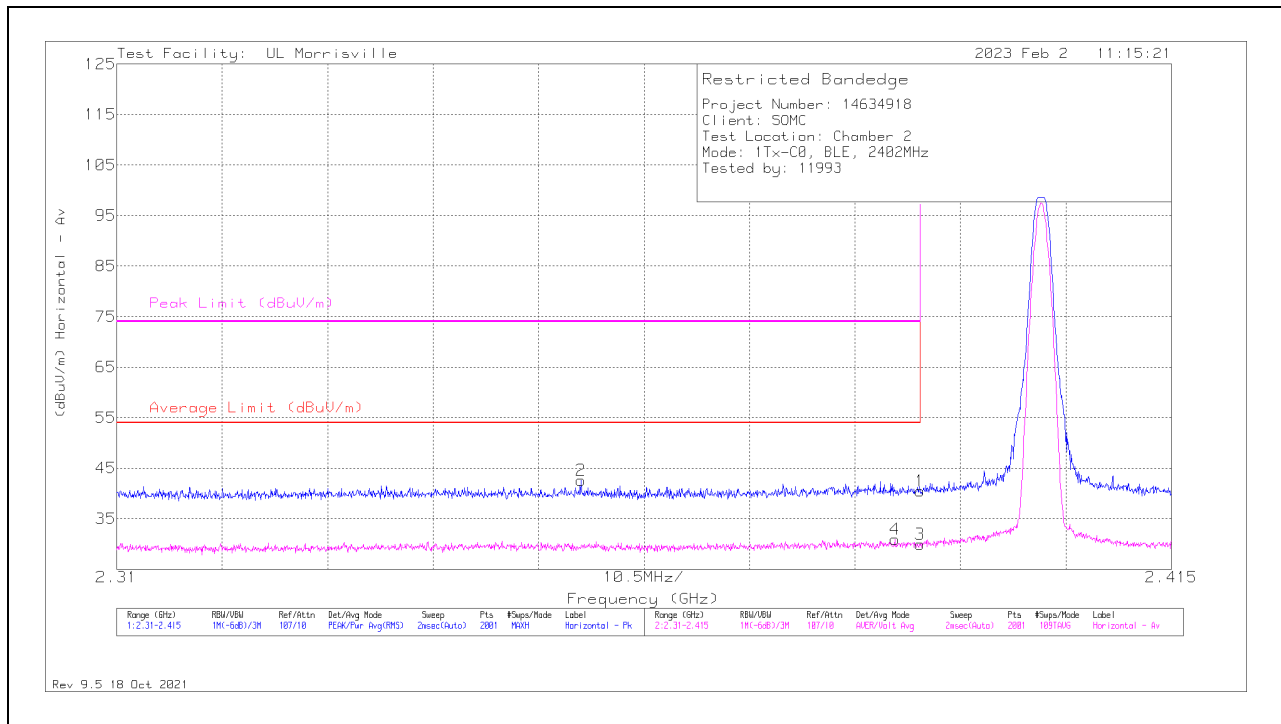
ADV - Linear Voltage Average

10.2.3. BLE (500Kbps)

Chain 0

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 2.38996	32.26	Pk	32	-23.8	0	40.46	-	-	74	-33.54	161	180	H
2	** 2.3562	34.58	Pk	31.9	-23.9	0	42.58	-	-	74	-31.42	161	180	H
3	** 2.38996	20.91	ADV	32	-23.8	.8	29.91	54	-24.09	-	-	161	180	H
4	** 2.38749	21.89	ADV	32	-23.8	.8	30.89	54	-23.11	-	-	161	180	H

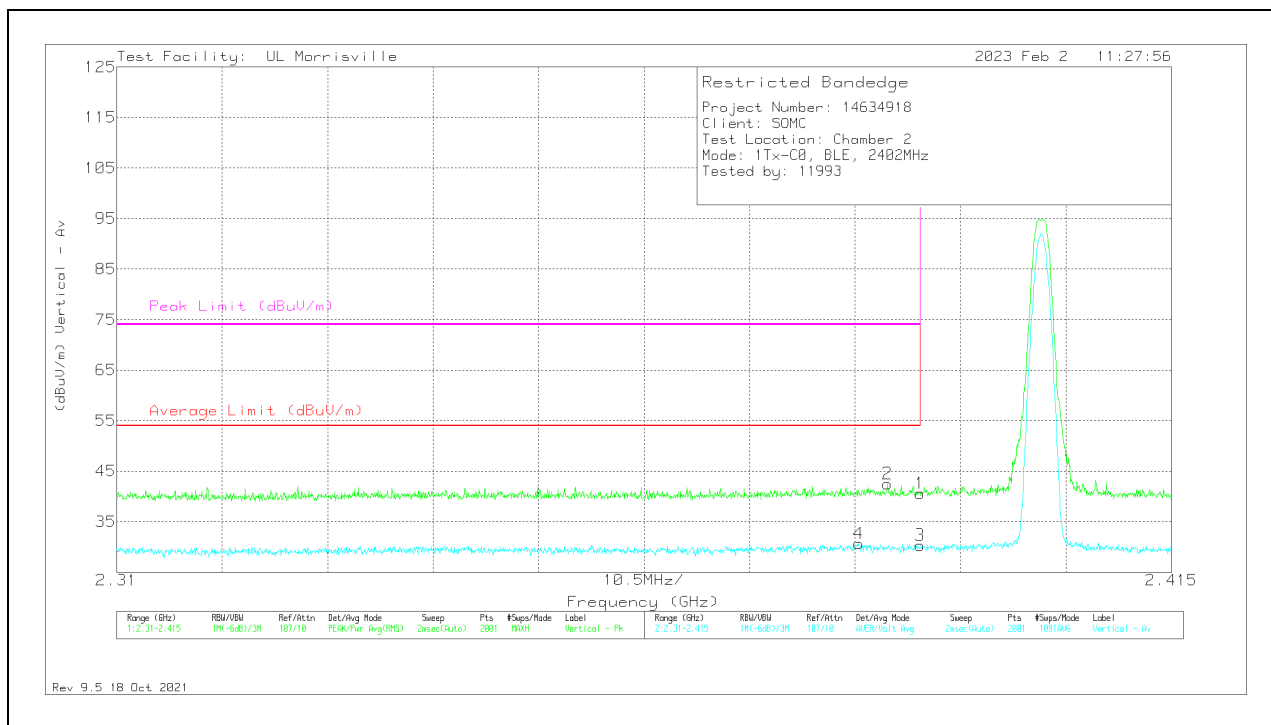
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.38996	32.37	Pk	32	-23.8	0	40.57	-	-	74	-33.43	290	207	V
2	* ** 2.38676	34.33	Pk	32	-23.8	0	42.53	-	-	74	-31.47	290	207	V
3	* ** 2.38996	21.36	ADV	32	-23.8	.8	30.36	54	-23.64	-	-	290	207	V
4	* ** 2.38387	21.52	ADV	32.1	-23.8	.8	30.62	54	-23.38	-	-	290	207	V

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

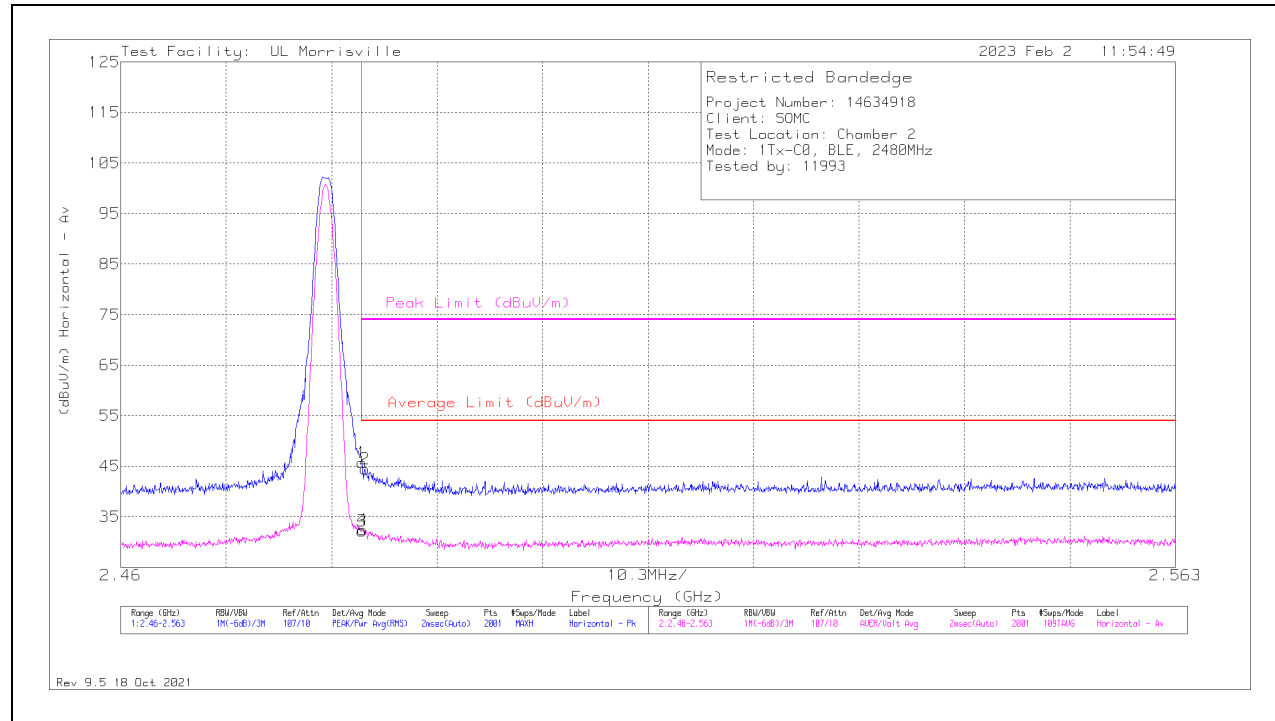
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	37.68	Pk	32.3	-24.3	0	45.68	-	-	74	-28.32	187	139	H
2	* ** 2.48384	36.61	Pk	32.3	-24.4	0	44.51	-	-	74	-29.49	187	139	H
3	* ** 2.48354	23.39	ADV	32.3	-24.3	.8	32.19	54	-21.81	-	-	187	139	H
4	* ** 2.48364	23.58	ADV	32.3	-24.3	.8	32.38	54	-21.62	-	-	187	139	H

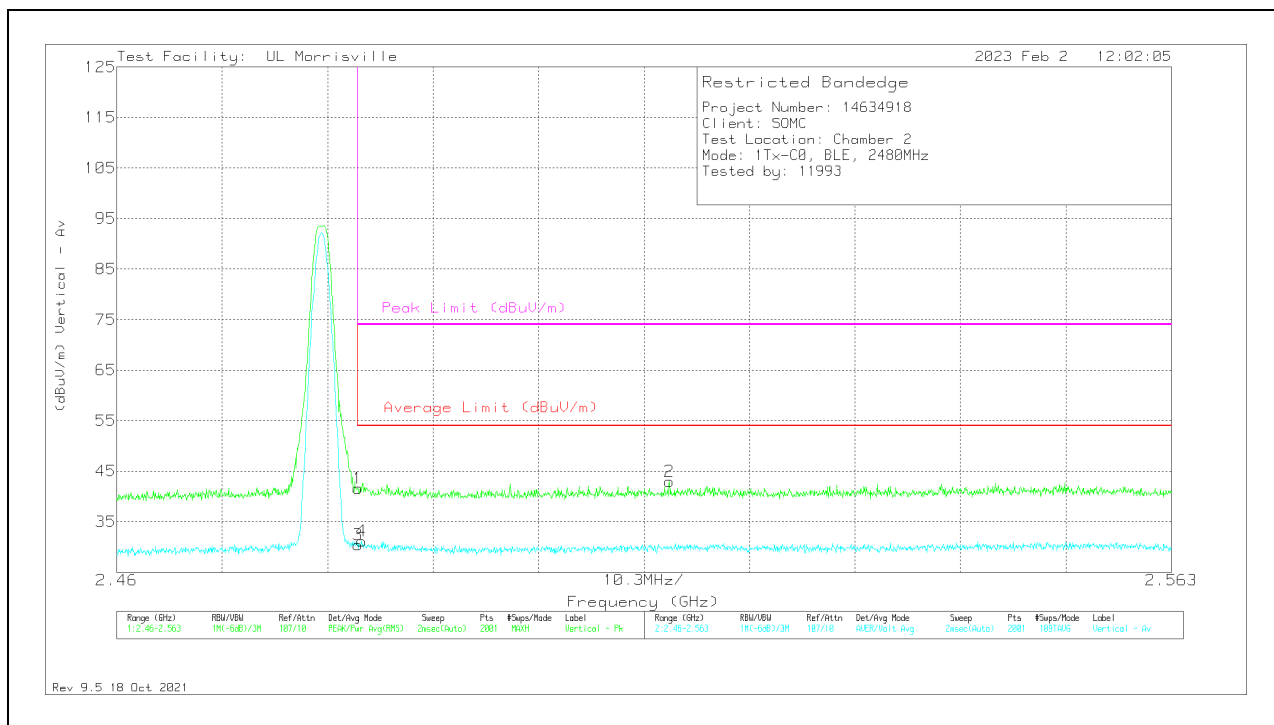
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	33.55	Pk	32.3	-24.3	0	41.55	-	-	74	-32.45	27	130	V
2	** 2.51397	34.81	Pk	32.5	-24.4	0	42.91	-	-	74	-31.09	27	130	V
3	* ** 2.48354	21.63	ADV	32.3	-24.3	.8	30.43	54	-23.57	-	-	27	130	V
4	* ** 2.4839	22.49	ADV	32.3	-24.4	.8	31.19	54	-22.81	-	-	27	130	V

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

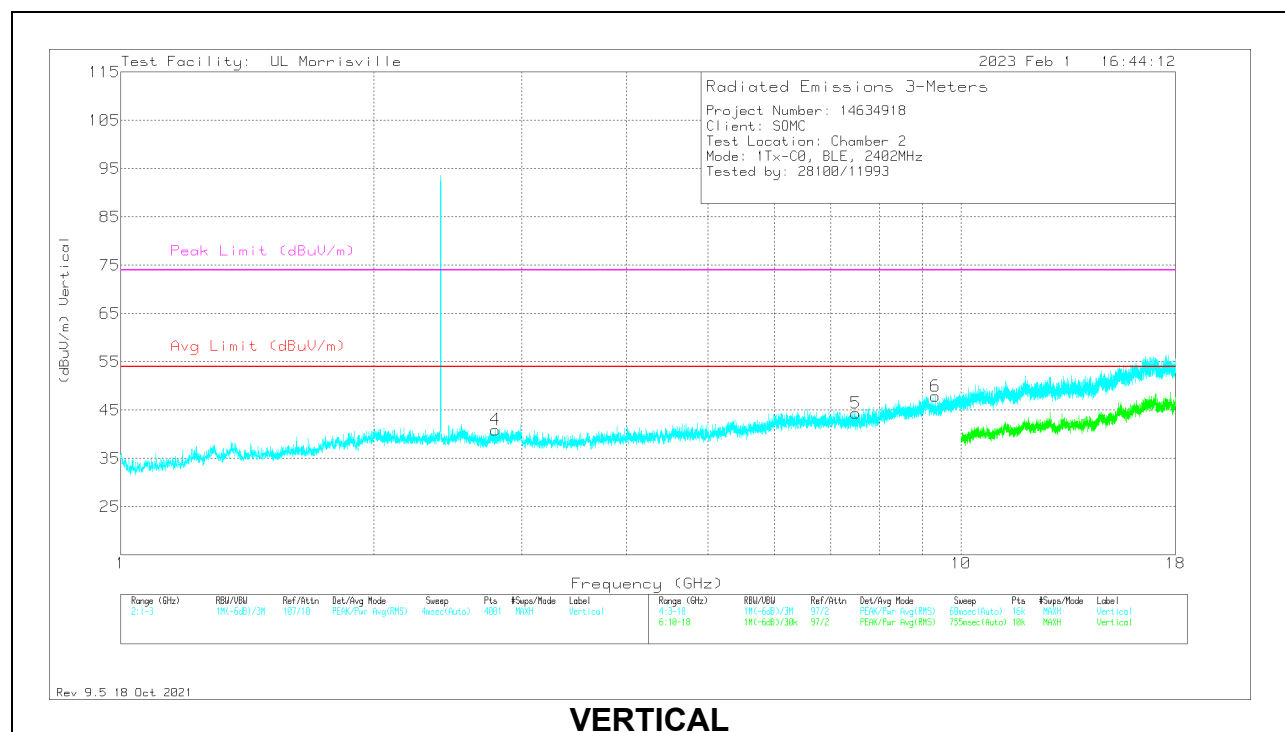
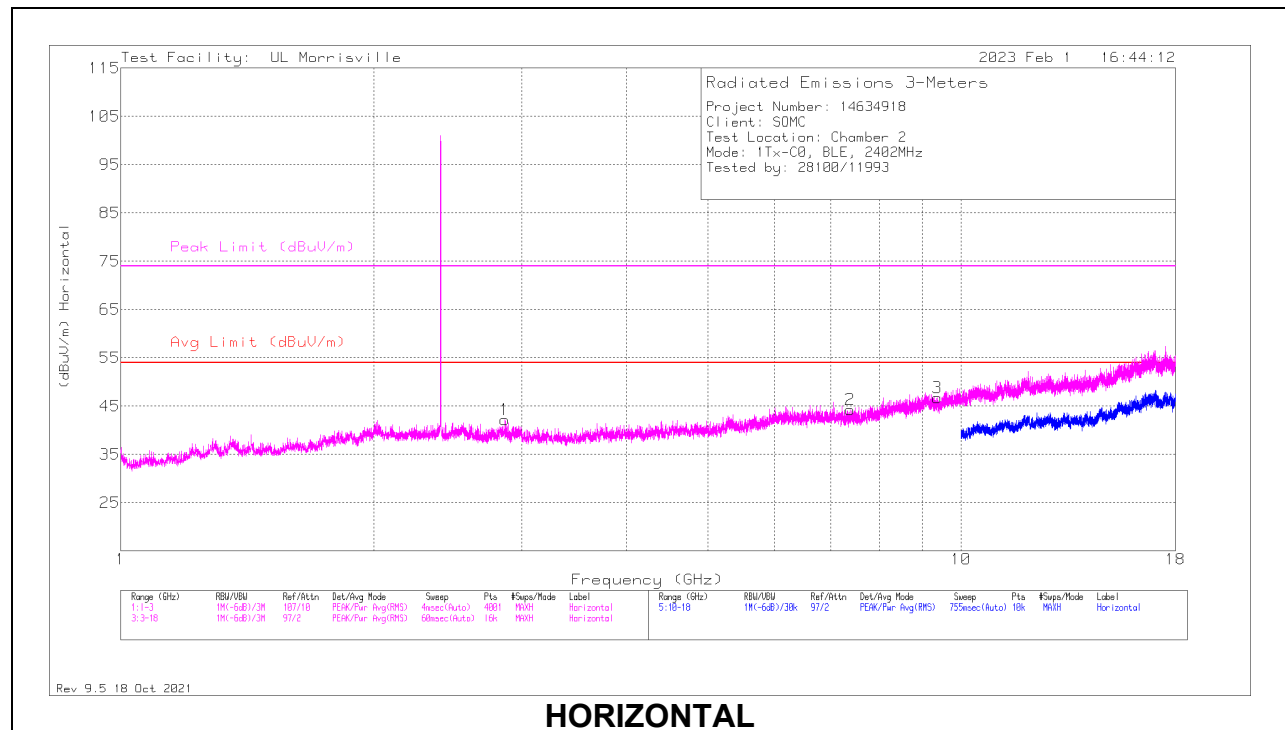
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

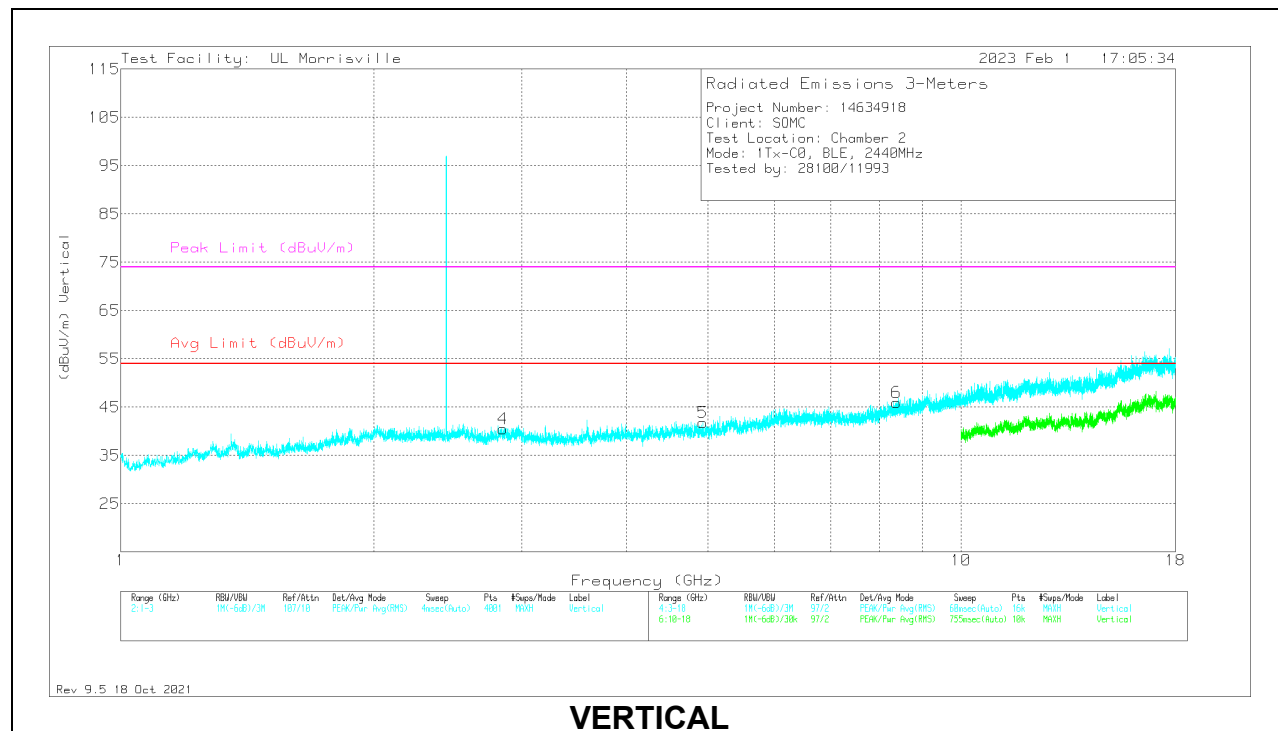
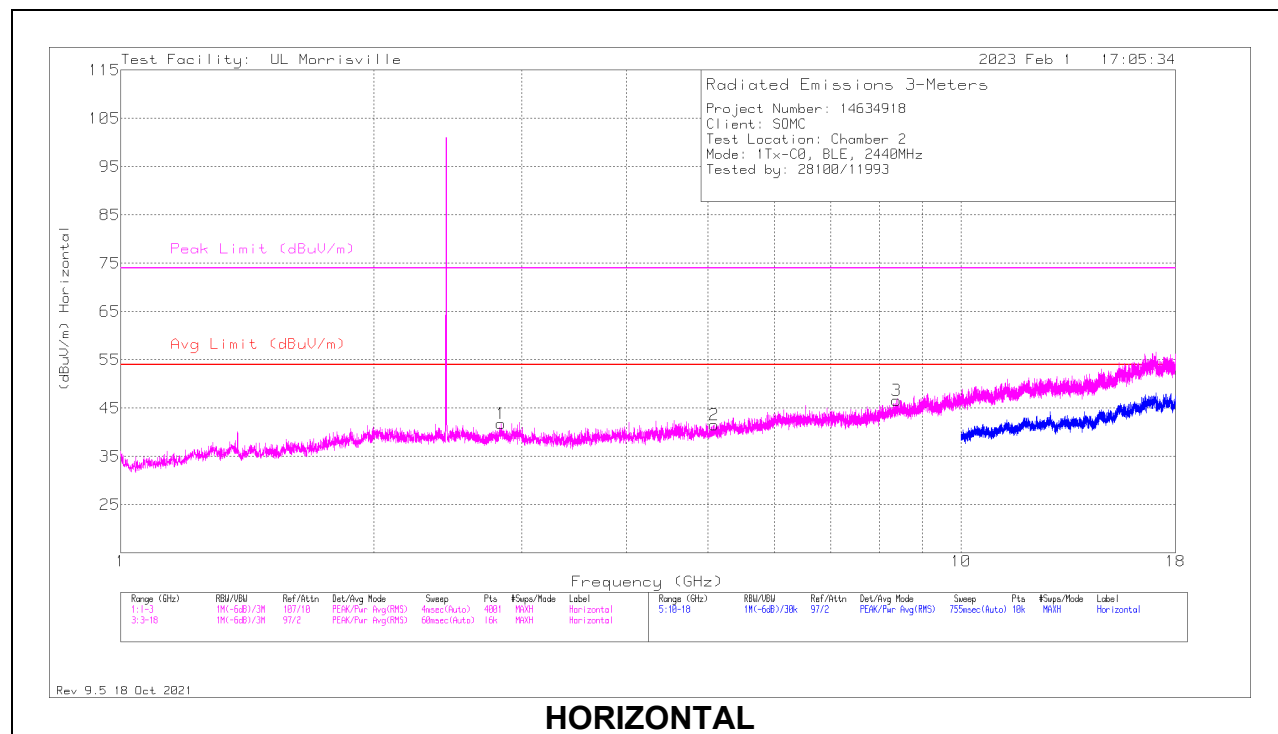
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.8675	35.58	Pk	32.4	-25.8	0	42.18	54	-11.82	74	-31.82	0-360	199	H
4	*** 2.794	34.66	Pk	32.3	-26	0	40.96	54	-13.04	74	-33.04	0-360	101	V
2	*** 7.37719	35.91	Pk	35.6	-27.2	0	44.31	54	-9.69	74	-29.69	0-360	101	H
3	*** 9.37219	35.63	Pk	36.5	-25.4	0	46.73	54	-7.27	74	-27.27	0-360	101	H
5	*** 7.49719	36.25	Pk	35.7	-27.5	0	44.45	54	-9.55	74	-29.55	0-360	101	V
6	*** 9.31969	36.95	Pk	36.4	-25.5	0	47.85	54	-6.15	74	-26.15	0-360	101	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

MID CHANNEL RESULTS



RADIATED EMISSIONS

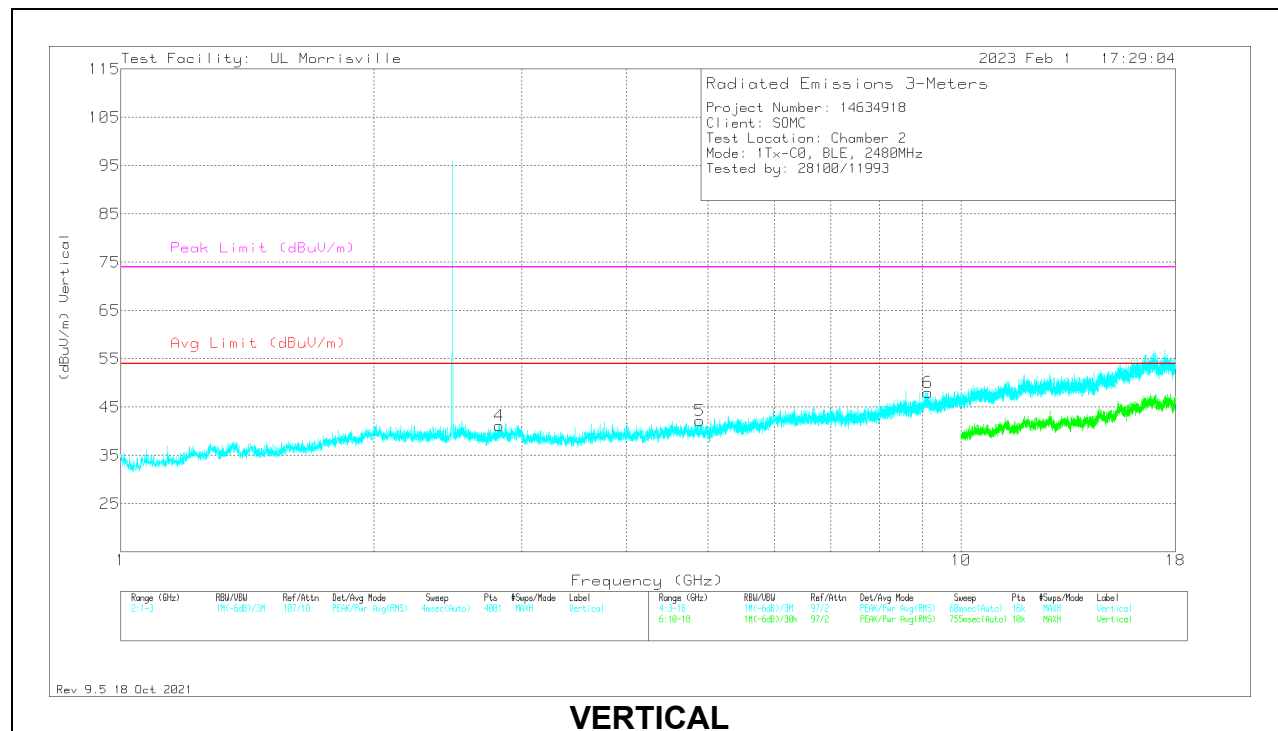
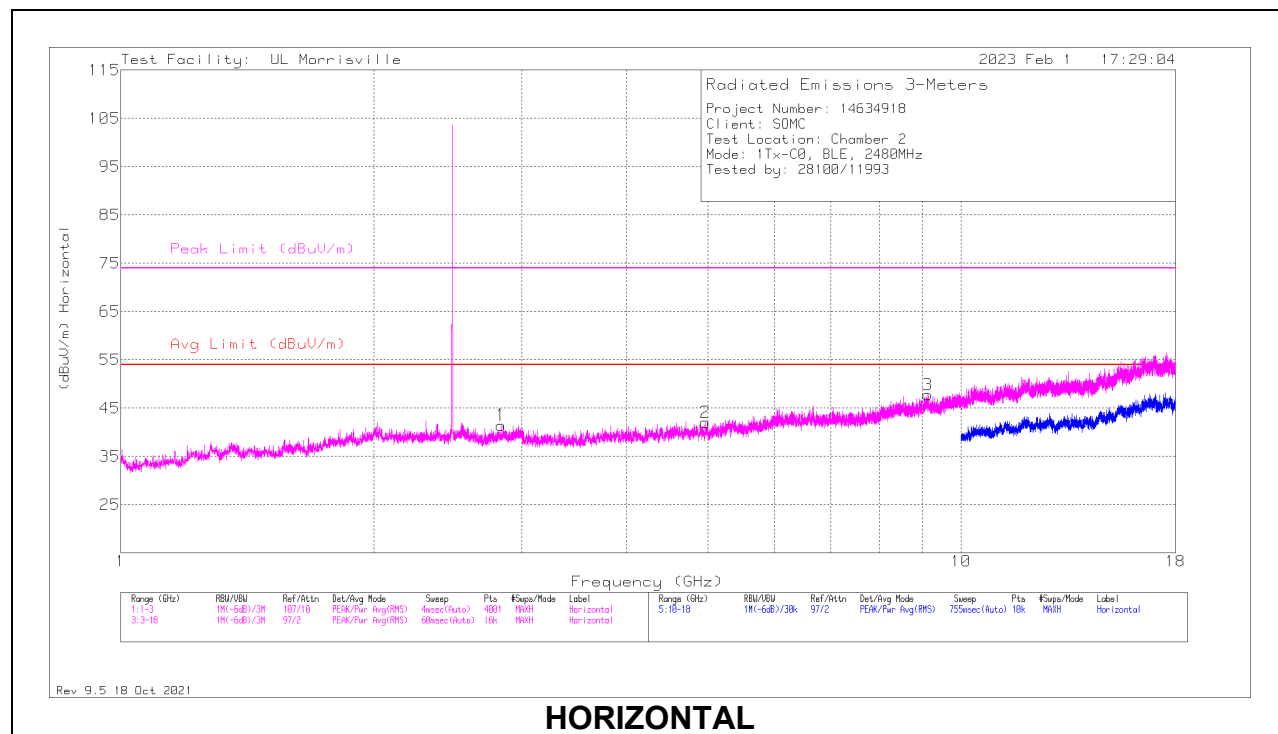
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.8335	35.29	Pk	32.3	-25.8	0	41.79	54	-12.21	74	-32.21	0-360	101	H
4	* ** 2.851	34.05	Pk	32.3	-25.8	0	40.55	54	-13.45	74	-33.45	0-360	199	V
2	* ** 5.08313	38.01	Pk	34.1	-30.6	0	41.51	54	-12.49	74	-32.49	0-360	199	H
3	* ** 8.37844	37.55	Pk	35.8	-26.7	0	46.65	54	-7.35	74	-27.35	0-360	199	H
5	* ** 4.93031	38.45	Pk	33.9	-30.5	0	41.85	54	-12.15	74	-32.15	0-360	199	V
6	* ** 8.37469	36.85	Pk	35.8	-26.7	0	45.95	54	-8.05	74	-28.05	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.8365	34.98	Pk	32.3	-25.8	0	41.48	54	-12.52	74	-32.52	0-360	200	H
4	*** 2.819	34.57	Pk	32.4	-25.8	0	41.17	54	-12.83	74	-32.83	0-360	101	V
2	*** 4.965	38.78	Pk	33.9	-30.6	0	42.08	54	-11.92	74	-31.92	0-360	199	H
3	*** 9.12656	36.82	Pk	36.2	-25.2	0	47.82	54	-6.18	74	-26.18	0-360	199	H
5	*** 4.89094	38.83	Pk	33.9	-30.5	0	42.23	54	-11.77	74	-31.77	0-360	101	V
6	*** 9.1253	37.82	PK2	36.2	-25.2	0	48.82	-	-	74	-25.18	142	141	V
	*** 9.12757	25.69	ADV	36.2	-25.1	.8	37.59	54	-16.41	-	-	142	141	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

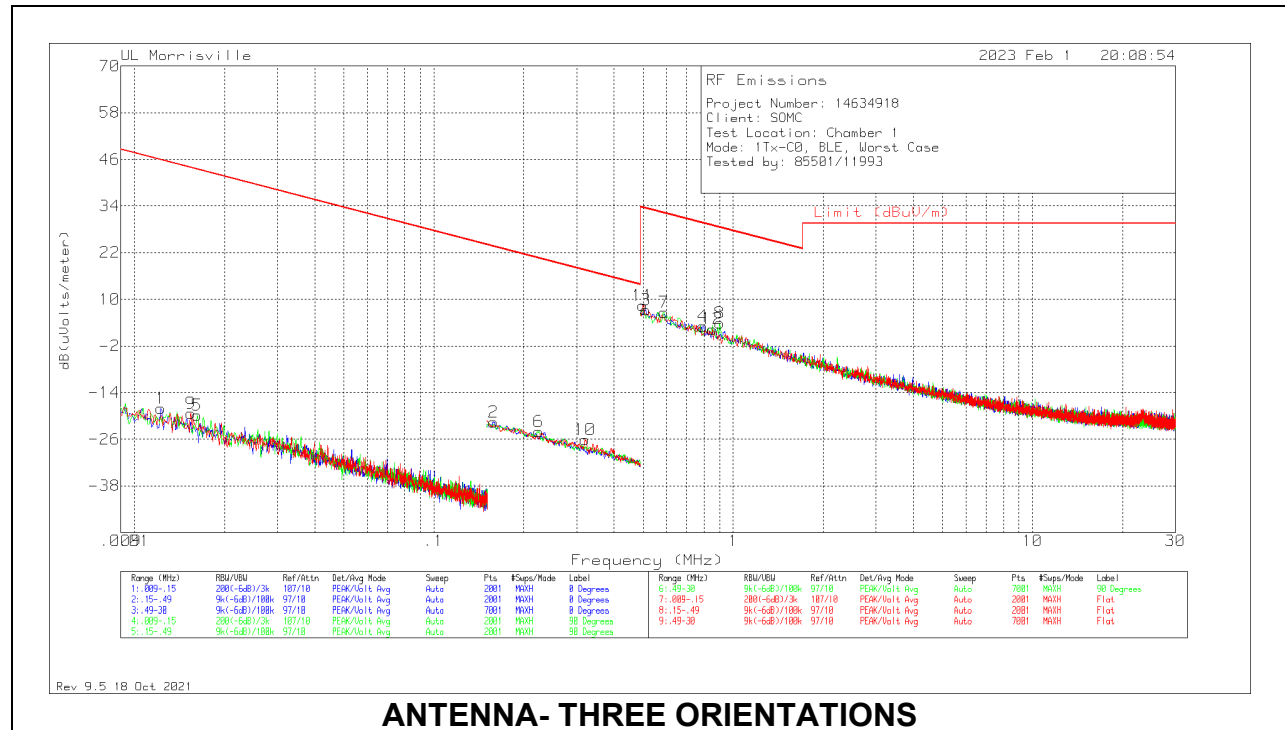
Pk - Peak detector

PK2 - Maximum Peak

ADV - Linear Voltage Average

10.3. WORST CASE BELOW 30MHZ

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION CHAIN 0)

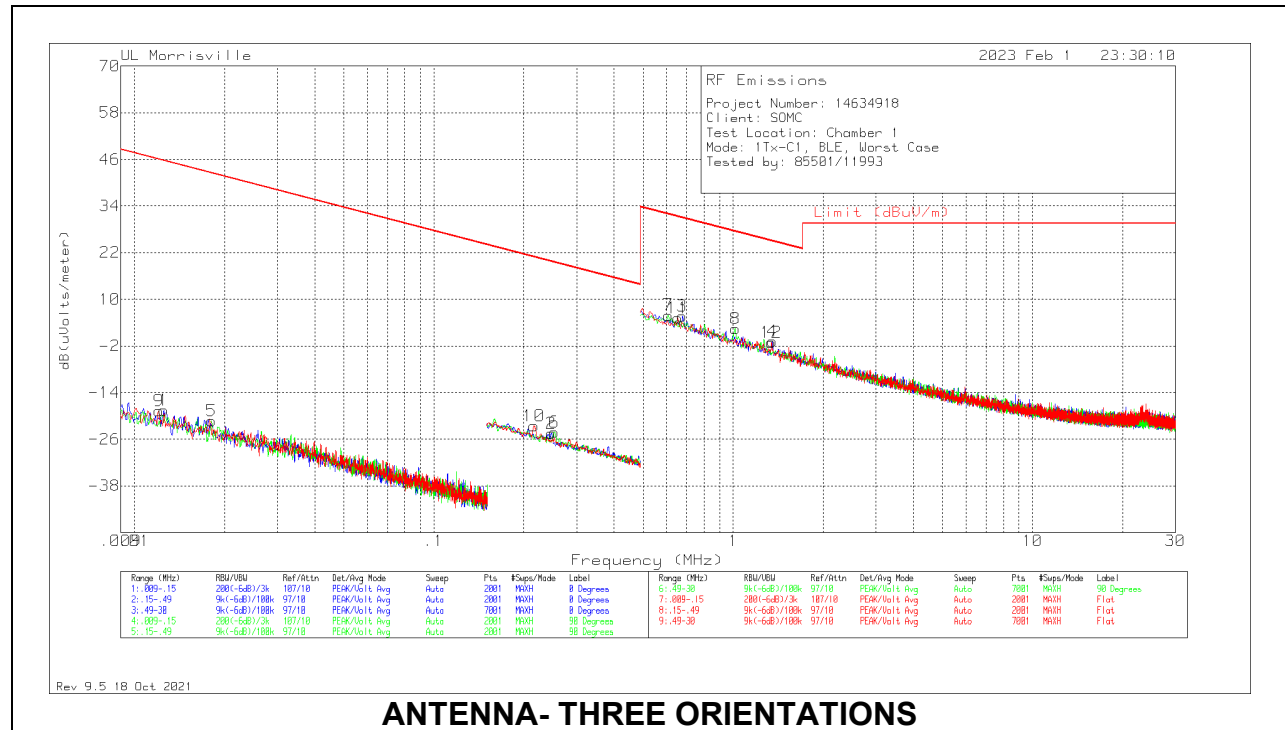


Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	QP/AV Limit (dBuV/m)	PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	.01227	43.62	Pk	18.3	.1	-80	-17.98	45.83	65.83	-63.81	0-360	0 degs
9	.01546	43.67	Pk	16.9	.1	-80	-19.33	43.82	63.82	-63.15	0-360	Flat
5	.01617	43.52	Pk	16.6	.1	-80	-19.78	43.43	63.43	-63.21	0-360	90 degs
2	.15833	46.17	Pk	12.2	.1	-80	-21.53	23.61	43.61	-45.14	0-360	0 degs
6	.22412	43.69	Pk	12.2	.1	-80	-24.01	20.59	40.59	-44.6	0-360	90 degs
10	.32068	41.59	Pk	12.2	.1	-80	-26.11	17.48	37.48	-43.59	0-360	Flat
11	.49843	36.05	Pk	12.2	.2	-40	8.45	33.65	-	-25.2	0-360	Flat
3	.51108	34.9	Pk	12.2	.2	-40	7.3	33.43	-	-26.13	0-360	0 degs
7	.58697	34.21	Pk	12.2	.2	-40	6.61	32.23	-	-25.62	0-360	90 degs
4	.79355	30.7	Pk	12.2	.2	-40	3.1	29.61	-	-26.51	0-360	0 degs
12	.85258	29.96	Pk	12.2	.2	-40	2.36	28.99	-	-26.63	0-360	Flat
8	.90317	31.56	Pk	12.2	.2	-40	3.96	28.49	-	-24.53	0-360	90 degs

Pk - Peak detector

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION CHAIN 1)



ANTENNA- THREE ORIENTATIONS

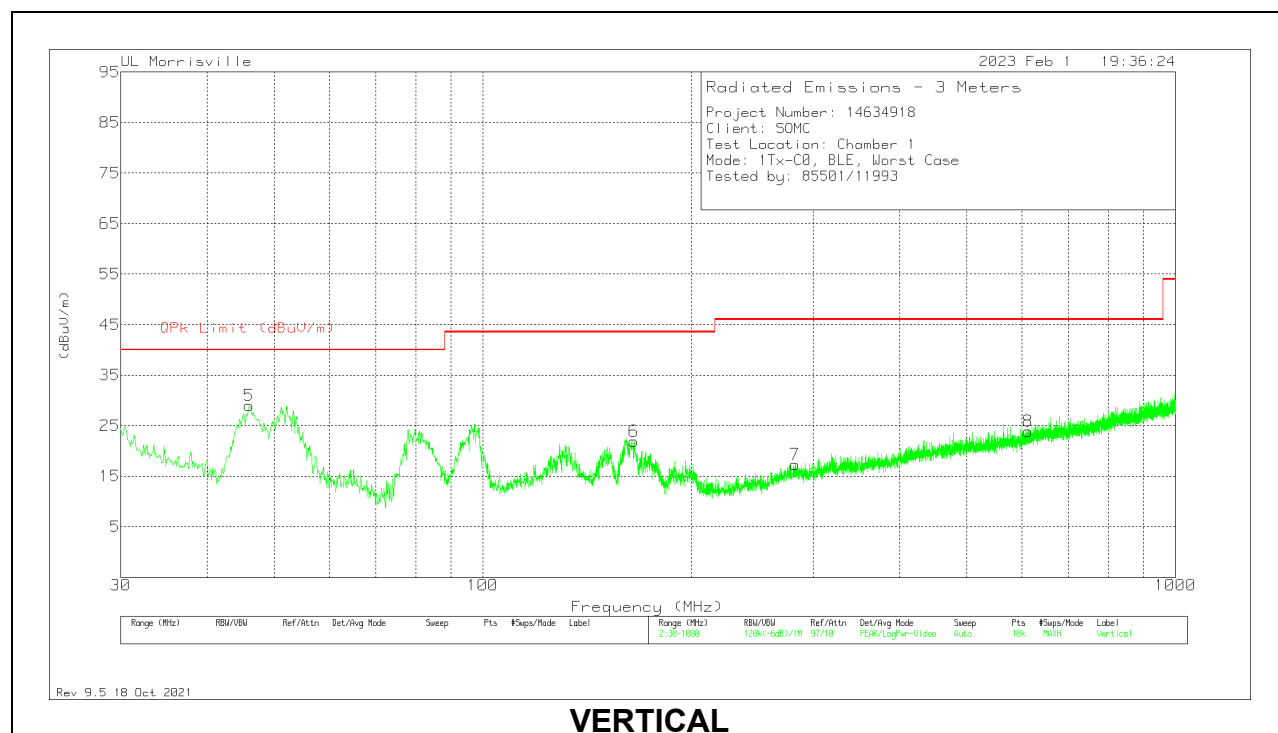
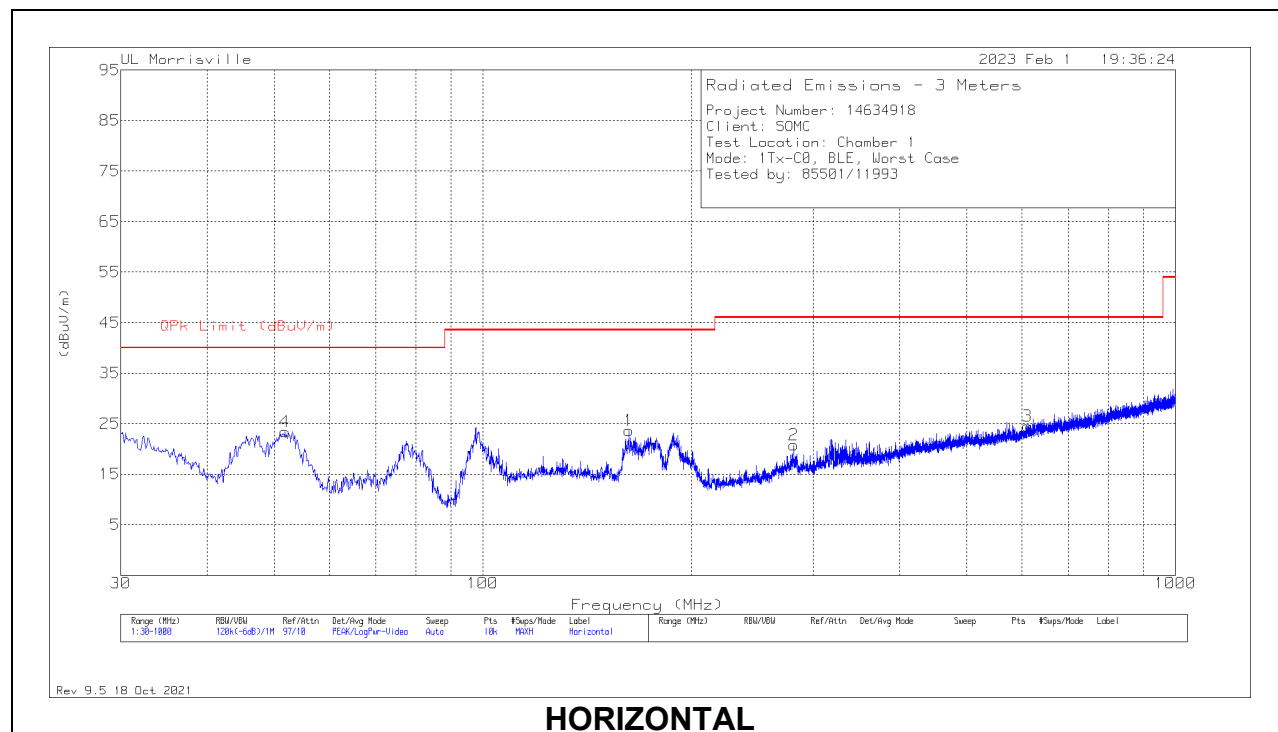
Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	QP/AV Limit (dBuV/m)	PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
9	.01205	42.86	Pk	18.4	.1	-80	-18.64	45.98	65.98	-64.62	0-360	102	Flat
1	.01255	43.13	Pk	18.2	.1	-80	-18.57	45.63	65.63	-64.2	0-360	102	0 degs
5	.01809	42.85	Pk	15.7	.1	-80	-21.35	42.46	62.46	-63.81	0-360	102	90 degs
10	.21605	45.1	Pk	12.2	.1	-80	-22.6	20.91	40.91	-43.51	0-360	102	Flat
2	.24699	43.18	Pk	12.2	.1	-80	-24.52	19.75	39.75	-44.27	0-360	102	0 degs
6	.25285	43.55	Pk	12.2	.1	-80	-24.15	19.55	39.55	-43.7	0-360	102	90 degs
7	.60805	33.51	Pk	12.2	.2	-40	5.91	31.93	-	-26.02	0-360	102	90 degs
11	.65442	32.83	Pk	12.2	.2	-40	5.23	31.29	-	-26.06	0-360	102	Flat
3	.6755	33.2	Pk	12.2	.2	-40	5.6	31.01	-	-25.41	0-360	102	0 degs
8	1.017	30	Pk	12.2	.2	-40	2.4	27.46	-	-25.06	0-360	102	90 degs
12	1.34163	26.47	Pk	12.2	.2	-40	-1.13	25.05	-	-26.18	0-360	102	Flat
4	1.35006	26.88	Pk	12.2	.2	-40	-.72	25	-	-25.72	0-360	102	0 degs

Pk - Peak detector

10.4. WORST CASE BELOW 1 GHZ

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION CHAIN 0)

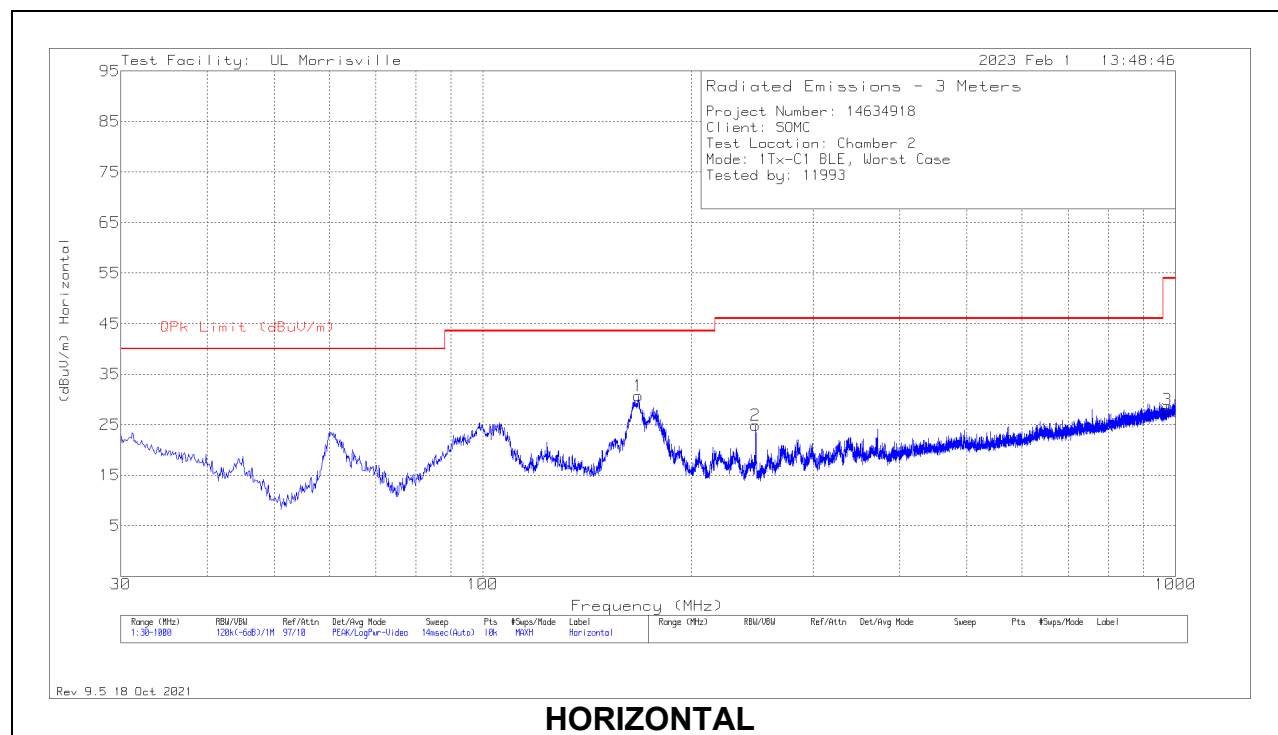


Below 1GHz Data

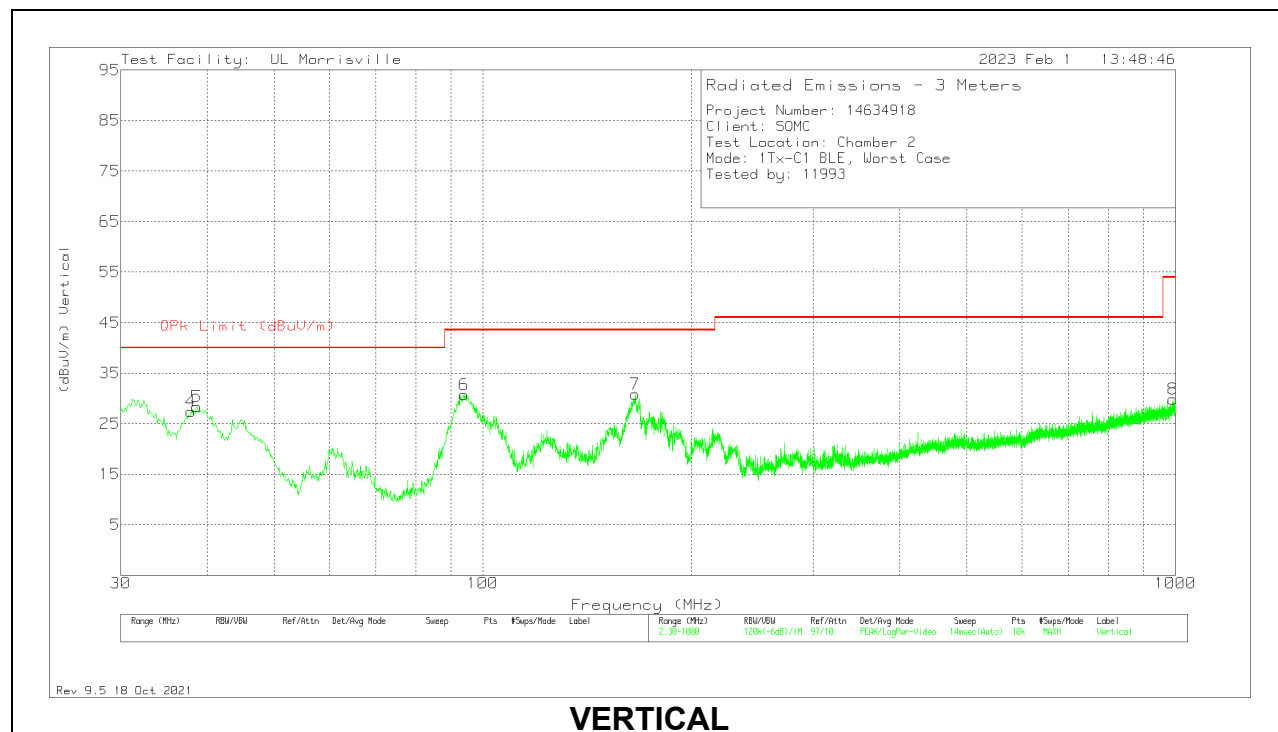
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0066 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 162.502	35.67	Pk	17.8	-29.8	23.67	43.52	-19.85	0-360	199	H
2	* 281.133	30.21	Pk	19.3	-28.7	20.81	46.02	-25.21	0-360	100	H
3	* 612	26.46	Pk	24.7	-26.7	24.46	46.02	-21.56	0-360	199	H
6	* 165.218	33.76	Pk	17.7	-29.6	21.86	43.52	-21.66	0-360	100	V
7	* 282.2	26.69	Pk	19.3	-28.7	17.29	46.02	-28.73	0-360	100	V
8	* 612.776	25.75	Pk	24.8	-26.7	23.85	46.02	-22.17	0-360	100	V
5	46.005	44.74	Pk	15.6	-31.4	28.94	40	-11.06	0-360	100	V
4	51.825	41.32	Pk	13.2	-31.1	23.42	40	-16.58	0-360	399	H

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

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION CHAIN 1)



HORIZONTAL



VERTICAL

Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0074 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* ** 247.668	36.58	Pk	17.6	-29.3	24.88	46.02	-21.14	0-360	101	H
3	* ** 973.422	23.84	Pk	28.6	-24.5	27.94	53.97	-26.03	0-360	299	H
4	* ** 37.857	37.08	Pk	21.6	-31.3	27.38	40	-12.62	0-360	101	V
7	* ** 166.091	42.5	Pk	18.2	-29.8	30.9	43.52	-12.62	0-360	101	V
8	* ** 992.531	25.13	Pk	28.9	-24.2	29.83	53.97	-24.14	0-360	299	V
5	38.633	38.65	Pk	21	-31.3	28.35	-	-	0-360	101	V
6	93.923	46.35	Pk	14.9	-30.5	30.75	-	-	0-360	101	V
1	167.546	42.54	Pk	18.1	-29.9	30.74	-	-	0-360	199	H

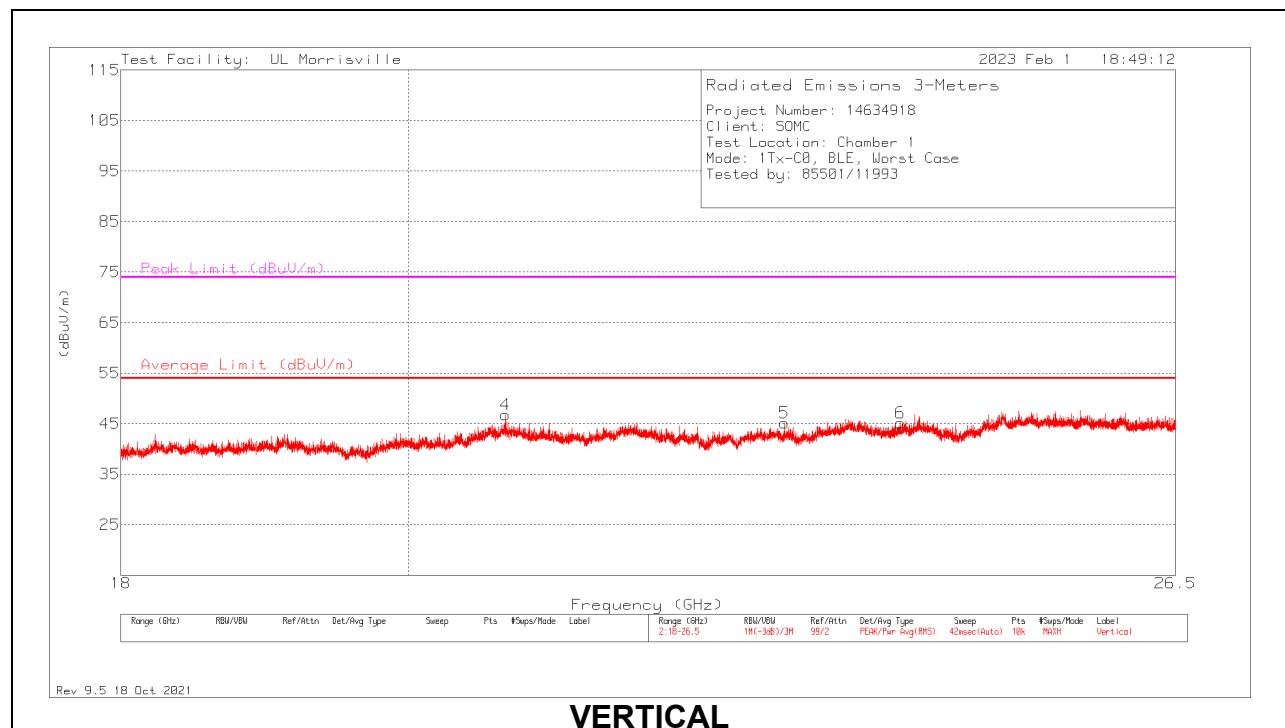
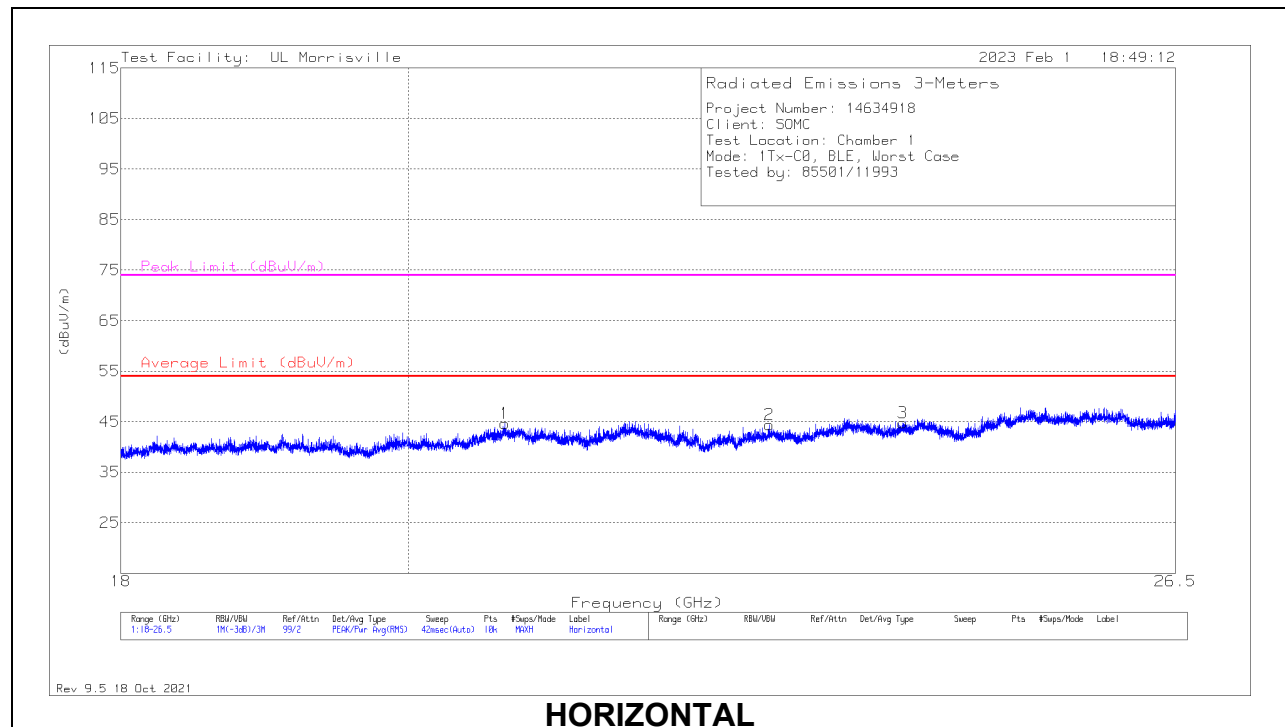
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

10.5. WORST CASE 18-26 GHZ

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION CHAIN 0)



18 – 26GHz Data

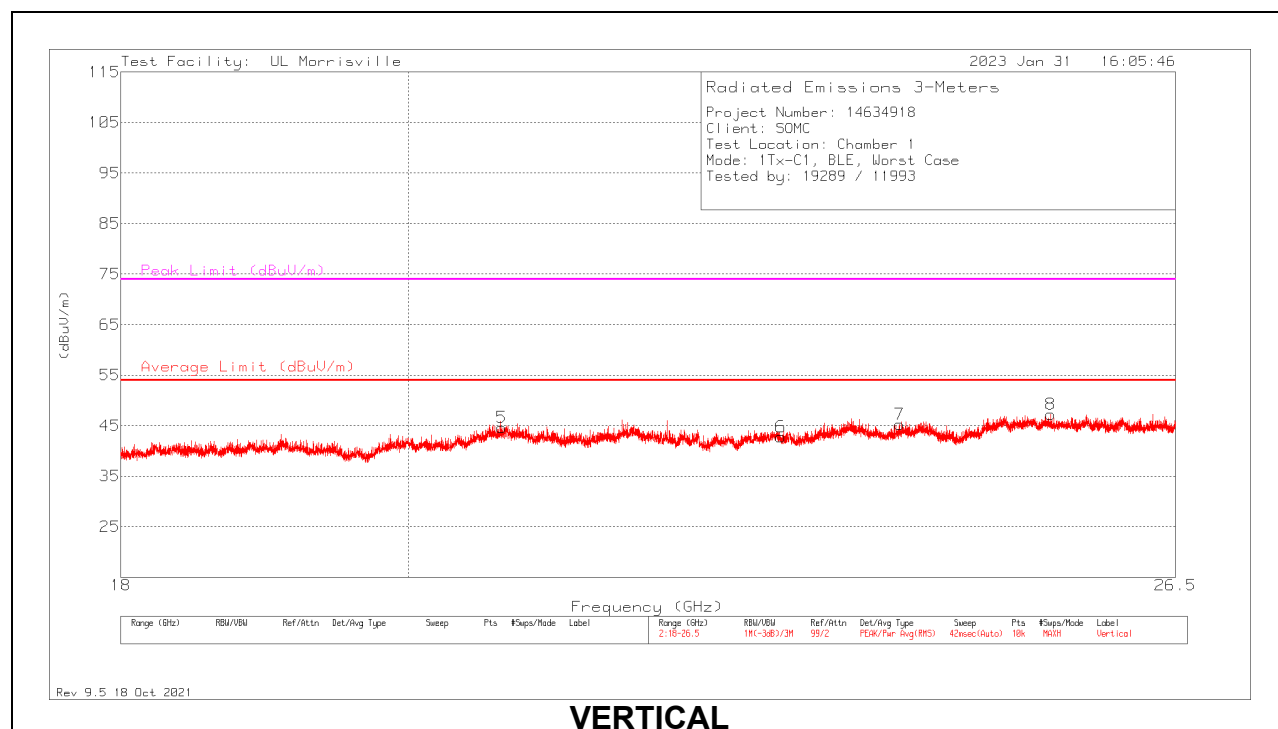
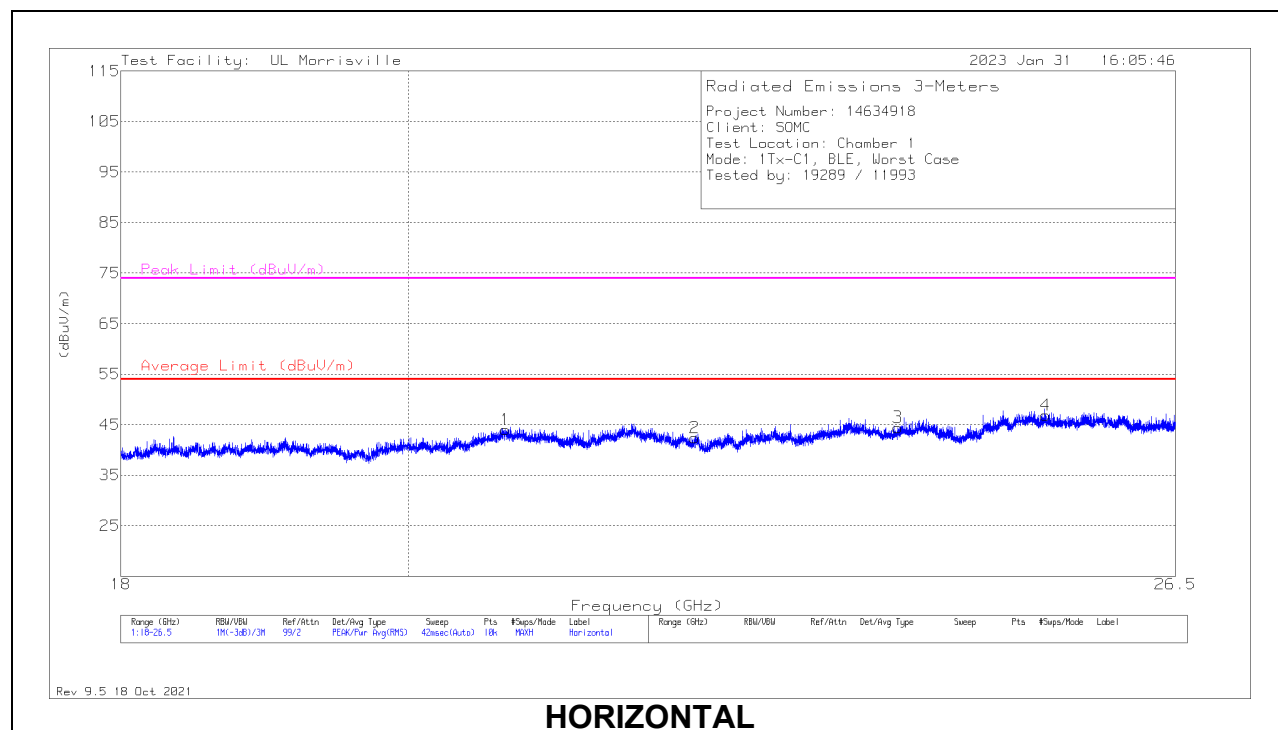
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204704 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 20.72228	49.79	Pk	34	-39.2	0	44.59	54	-9.41	74	-29.41	0-360	299	H
2	* ** 22.83262	49.33	Pk	34.4	-39.3	0	44.43	54	-9.57	74	-29.57	0-360	299	H
3	* ** 23.9766	48.38	Pk	35.1	-38.7	0	44.78	54	-9.22	74	-29.22	0-360	299	H
4	* ** 20.72823	51.8	Pk	34	-39.1	0	46.7	54	-7.3	74	-27.3	0-360	101	V
5	* ** 22.9601	49.99	Pk	34.5	-39.4	0	45.09	54	-8.91	74	-28.91	0-360	250	V
6	* ** 23.95875	48.79	Pk	35.1	-38.7	0	45.19	54	-8.81	74	-28.81	0-360	151	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

SPURIOUS EMISSIONS 18-26 GHz (WORST-CASE CONFIGURATION CHAIN 1)



18 – 26GHz Data

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204704 (dB/m)	Gain/Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 20.72823	49.17	Pk	34	-39.1	0	44.07	54	-9.93	74	-29.93	0-360	200	H
2	* ** 22.21473	47.39	Pk	34.5	-39.5	0	42.39	54	-11.61	74	-31.61	0-360	249	H
3	* ** 23.93241	47.85	Pk	35.1	-38.5	0	44.45	54	-9.55	74	-29.55	0-360	150	H
5	* ** 20.70103	49.84	Pk	34	-39.2	0	44.64	54	-9.36	74	-29.36	0-360	101	V
6	* ** 22.93036	47.79	Pk	34.5	-39.5	0	42.79	54	-11.21	74	-31.21	0-360	101	V
7	* ** 23.94941	48.79	Pk	35.1	-38.6	0	45.29	54	-8.71	74	-28.71	0-360	151	V
4	25.26762	48.57	Pk	36.1	-37.8	0	46.87	54	-7.13	74	-27.13	0-360	300	H
8	25.31692	48.65	Pk	36.2	-37.6	0	47.25	54	-6.75	74	-26.75	0-360	101	V

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

** - indicates frequency in Taiwan NCC LP0002 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.

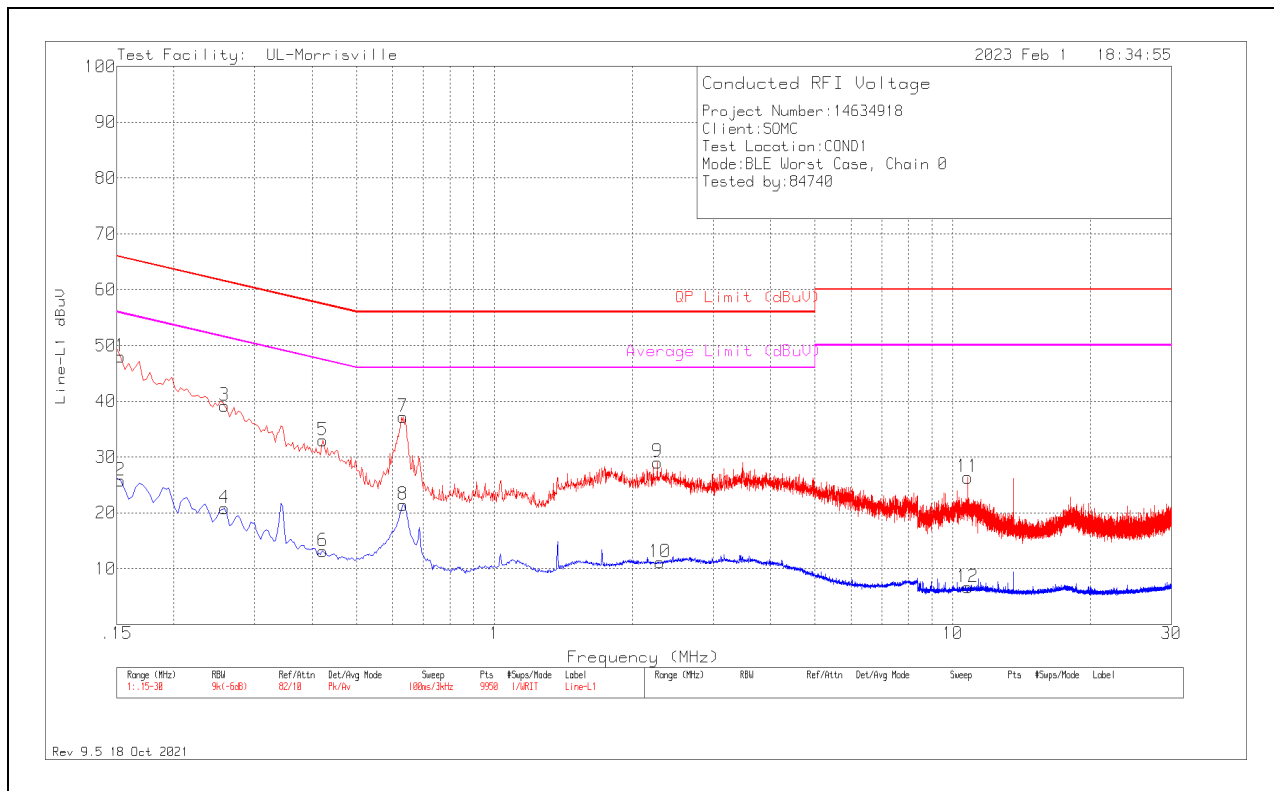
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both lines.

RESULTS

11.1.1. AC Power Line Norm – CHAIN 0

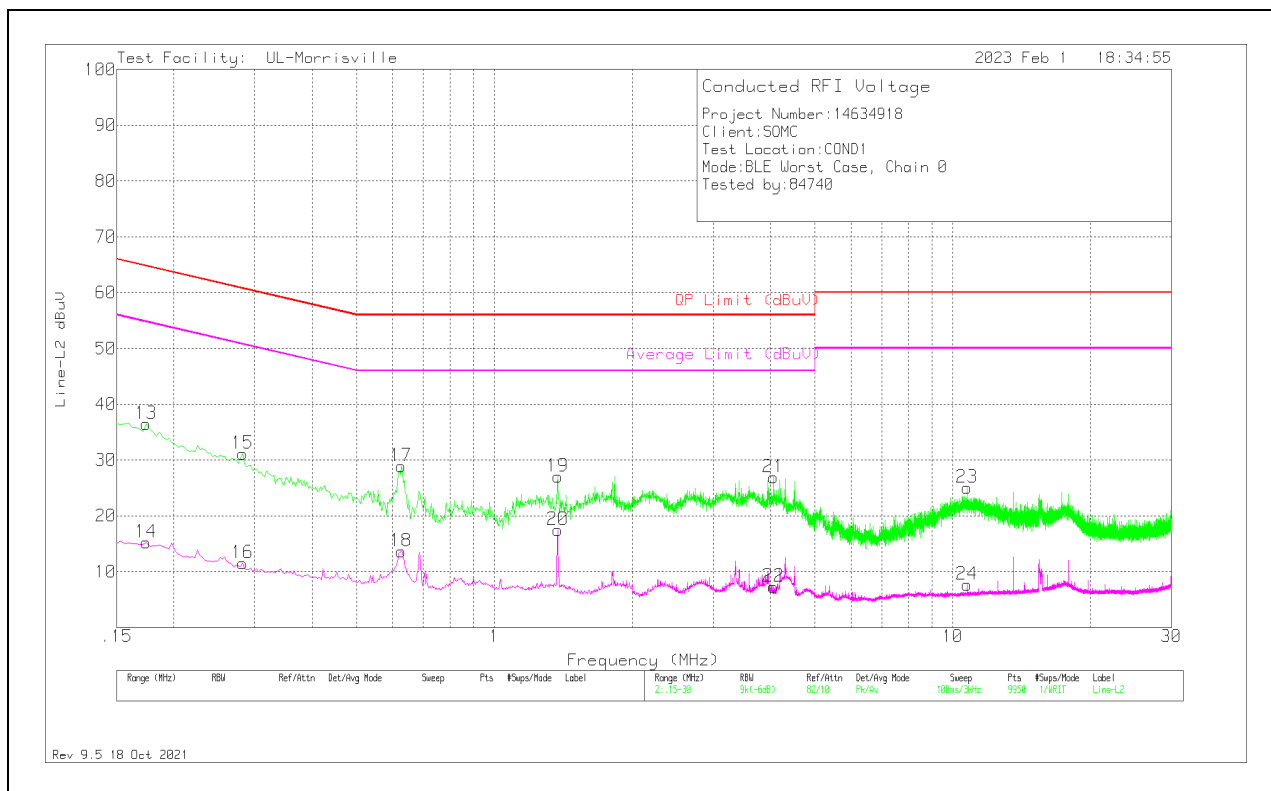
LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.153	38.01	Pk	.2	9.8	48.01	65.84	-17.83	-	-
2	.153	15.82	Av	.2	9.8	25.82	-	-	55.84	-30.02
3	.258	29.31	Pk	.1	9.8	39.21	61.5	-22.29	-	-
4	.258	10.87	Av	.1	9.8	20.77	-	-	51.5	-30.73
5	.423	23.24	Pk	0	9.8	33.04	57.39	-24.35	-	-
6	.423	3.34	Av	0	9.8	13.14	-	-	47.39	-34.25
7	.633	27.36	Pk	0	9.8	37.16	56	-18.84	-	-
8	.633	11.61	Av	0	9.8	21.41	-	-	46	-24.59
9	2.268	19.28	Pk	0	9.8	29.08	56	-26.92	-	-
10	2.295	1.36	Av	0	9.8	11.16	-	-	46	-34.84
11	10.779	16.25	Pk	.1	10	26.35	60	-33.65	-	-
12	10.776	-3.42	Av	.1	10	6.68	-	-	50	-43.32

Pk - Peak detector
Av - Average detection

LINE 2 RESULTS

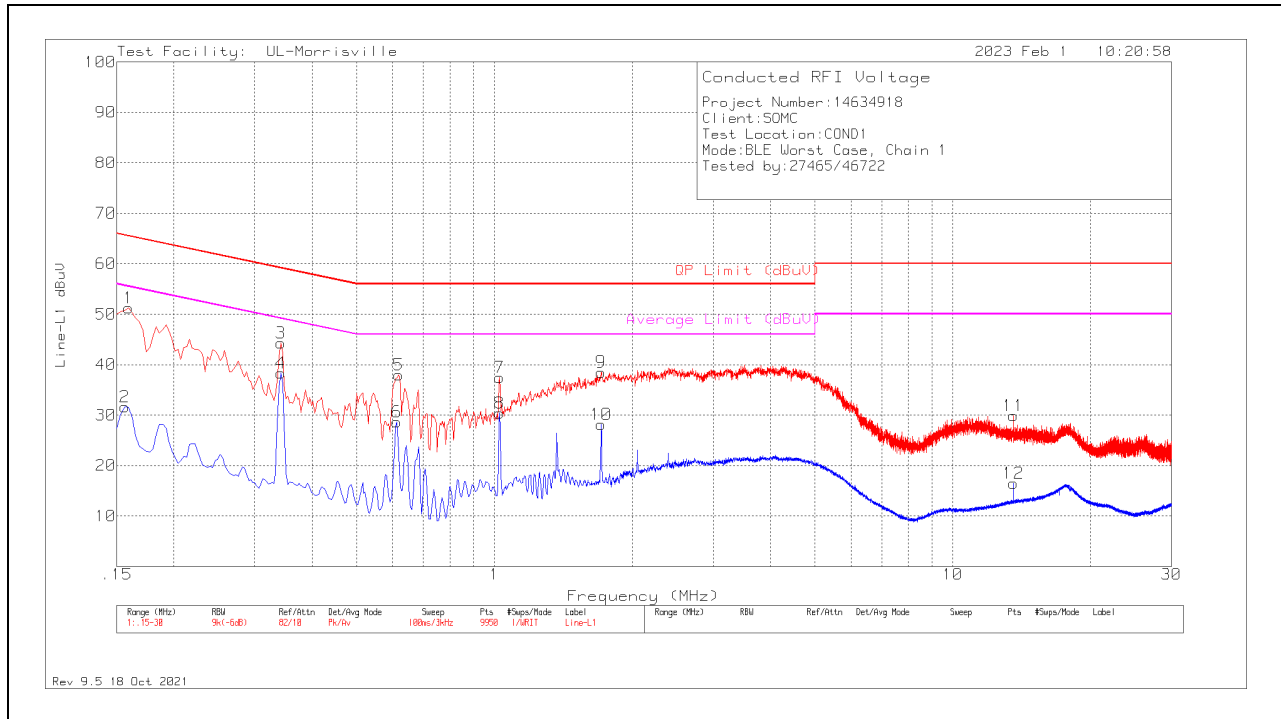


Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.174	26.49	Pk	.2	9.8	36.49	64.77	-28.28	-	-
14	.174	5.24	Av	.2	9.8	15.24	-	-	54.77	-39.53
15	.282	21.28	Pk	.1	9.8	31.18	60.76	-29.58	-	-
16	.282	1.61	Av	.1	9.8	11.51	-	-	50.76	-39.25
17	.627	19.08	Pk	0	9.8	28.88	56	-27.12	-	-
18	.627	3.86	Av	0	9.8	13.66	-	-	46	-32.34
19	1.374	17.21	Pk	0	9.8	27.01	56	-28.99	-	-
20	1.374	7.67	Av	0	9.8	17.47	-	-	46	-28.53
21	4.068	17.02	Pk	0	9.9	26.92	56	-29.08	-	-
22	4.068	-2.59	Av	0	9.9	7.31	-	-	46	-38.69
23	10.749	14.99	Pk	.1	10	25.09	60	-34.91	-	-
24	10.749	-2.46	Av	.1	10	7.64	-	-	50	-42.36

Pk - Peak detector
Av - Average detection

11.1.2. AC Power Line Norm – CHAIN 1

LINE 1 RESULTS



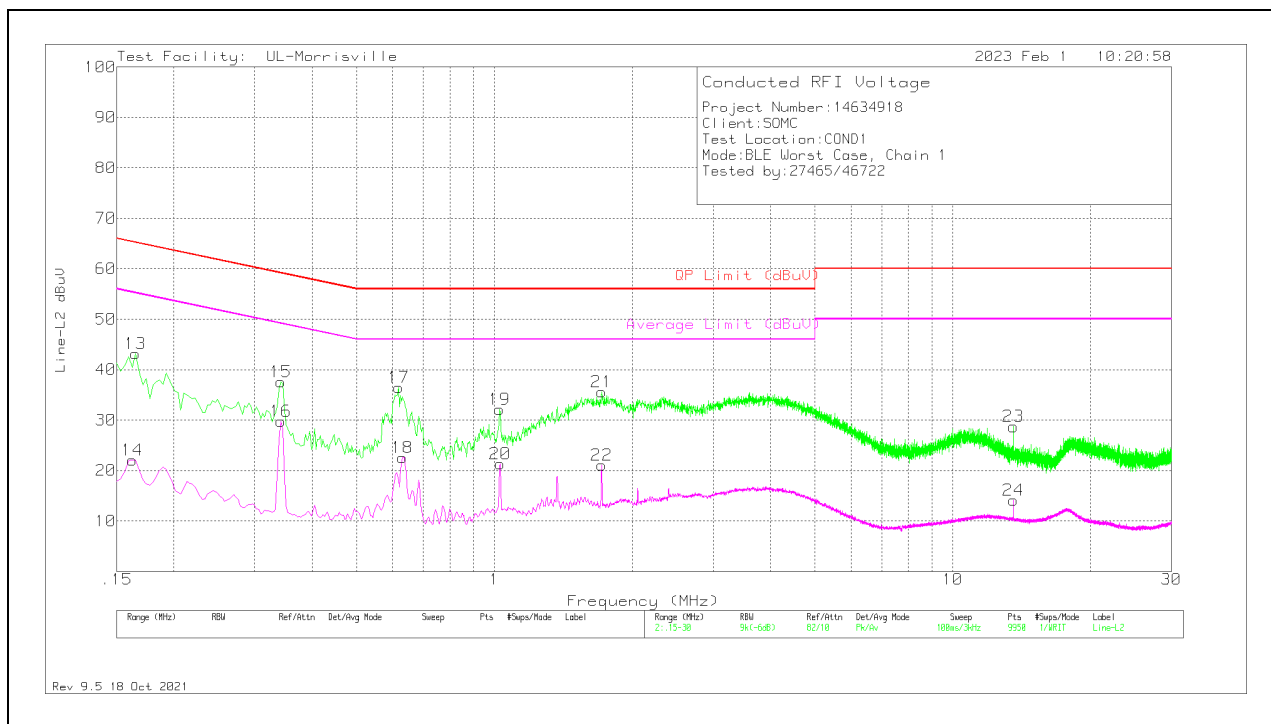
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.159	41.2	Pk	.2	9.8	51.2	65.52	-14.32	-	-
2	.156	21.59	Av	.2	9.8	31.59	-	-	55.67	-24.08
3	.342	34.44	Pk	.1	9.8	44.34	59.15	-14.81	-	-
4	.342	28.45	Av	.1	9.8	38.35	-	-	49.15	-10.8
5	.618	28.19	Pk	0	9.8	37.99	56	-18.01	-	-
6	.612	18.89	Av	0	9.8	28.69	-	-	46	-17.31
7	1.026	27.62	Pk	0	9.8	37.42	56	-18.58	-	-
8	1.026	20.6	Av	0	9.8	30.4	-	-	46	-15.6
9	1.707	28.71	Pk	0	9.8	38.51	56	-17.49	-	-
10	1.71	18.33	Av	0	9.8	28.13	-	-	46	-17.87
11	13.56	19.79	Pk	.1	10	29.89	60	-30.11	-	-
12	13.56	6.33	Av	.1	10	16.43	-	-	50	-33.57

Pk - Peak detector

Av - Average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.165	33.17	Pk	.2	9.8	43.17	65.21	-22.04	-	-
14	.162	12.12	Av	.2	9.8	22.12	-	-	55.36	-33.24
15	.342	27.64	Pk	.1	9.8	37.54	59.15	-21.61	-	-
16	.342	19.91	Av	.1	9.8	29.81	-	-	49.15	-19.34
17	.618	26.72	Pk	0	9.8	36.52	56	-19.48	-	-
18	.63	12.8	Av	0	9.8	22.6	-	-	46	-23.4
19	1.026	22.32	Pk	0	9.8	32.12	56	-23.88	-	-
20	1.029	11.52	Av	0	9.8	21.32	-	-	46	-24.68
21	1.7145	25.79	Pk	0	9.8	35.59	56	-20.41	-	-
22	1.713	11.31	Av	0	9.8	21.11	-	-	46	-24.89
23	13.563	18.61	Pk	.1	10	28.71	60	-31.29	-	-
24	13.56	4.07	Av	.1	10	14.17	-	-	50	-35.83

Pk - Peak detector

Av - Average detection

12. SETUP PHOTOS

Please refer to R14634918-EP2 for setup photos

END OF TEST REPORT