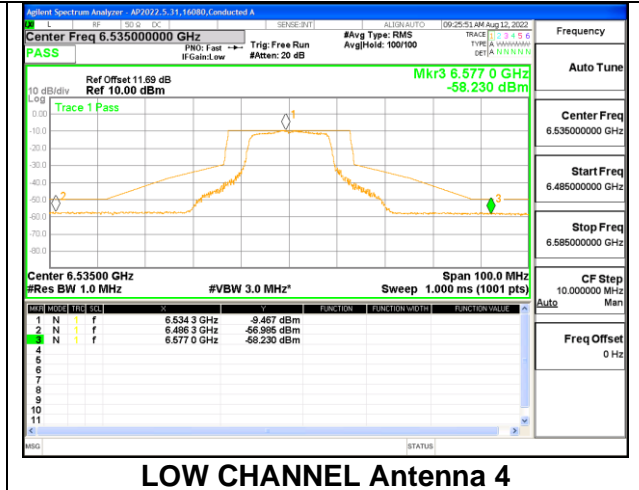
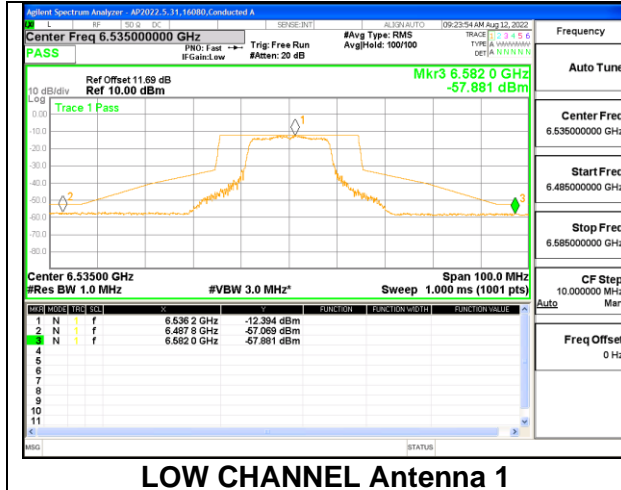


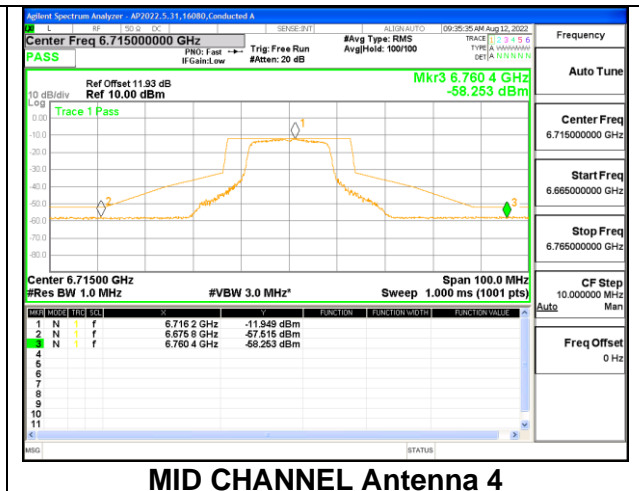
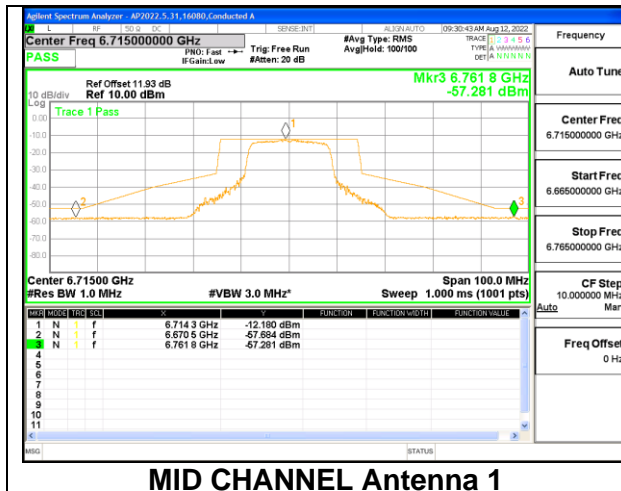
### 9.5.3. 802.11a MODE 2TX IN THE UNII-7 BAND

#### 2TX Antenna 1 + Antenna 4 CDD MODE:

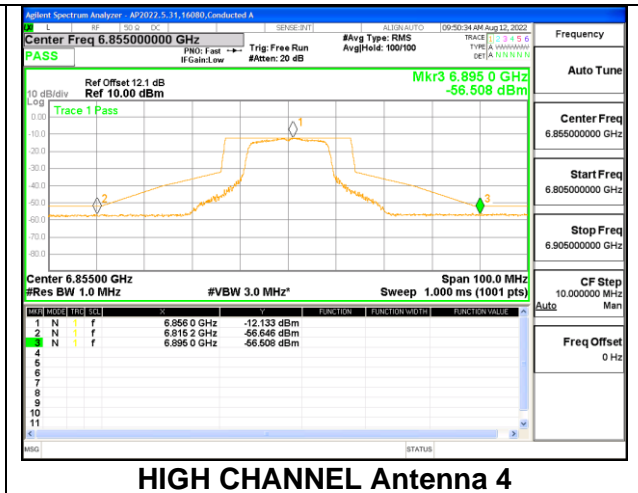
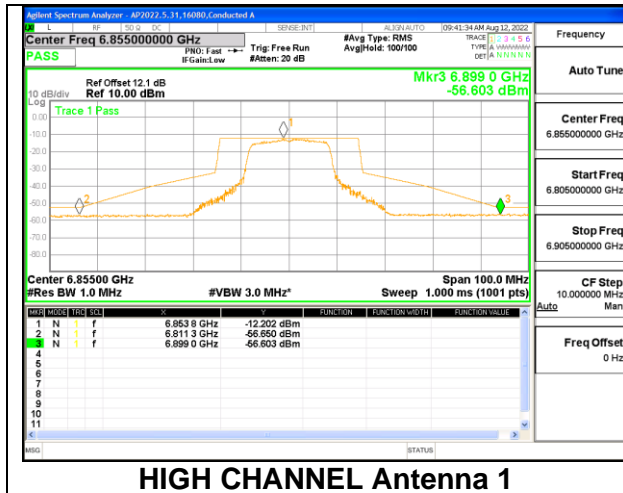
#### LOW CHANNEL



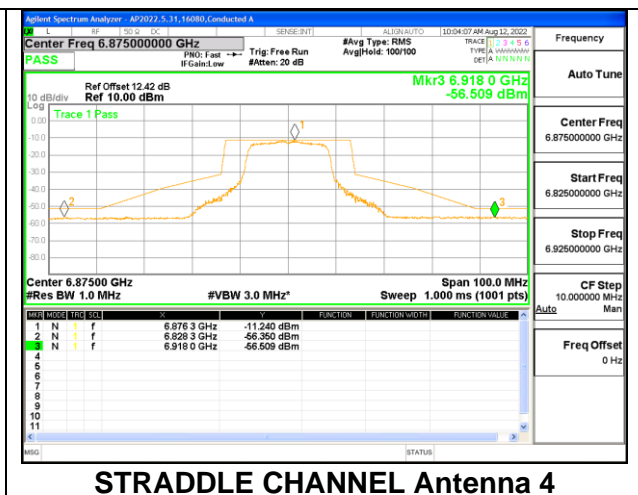
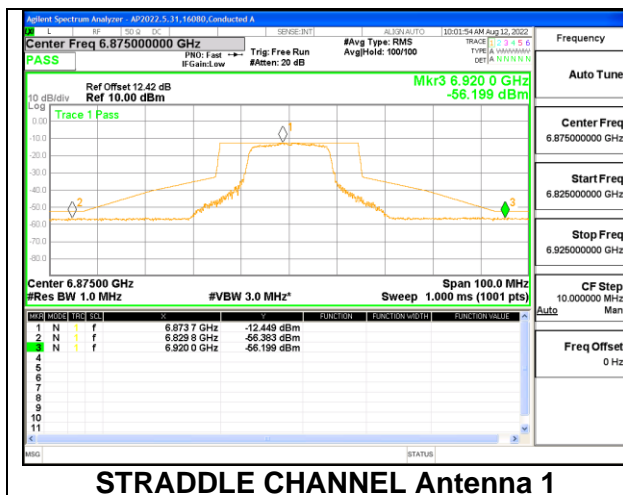
#### MID CHANNEL



### HIGH CHANNEL

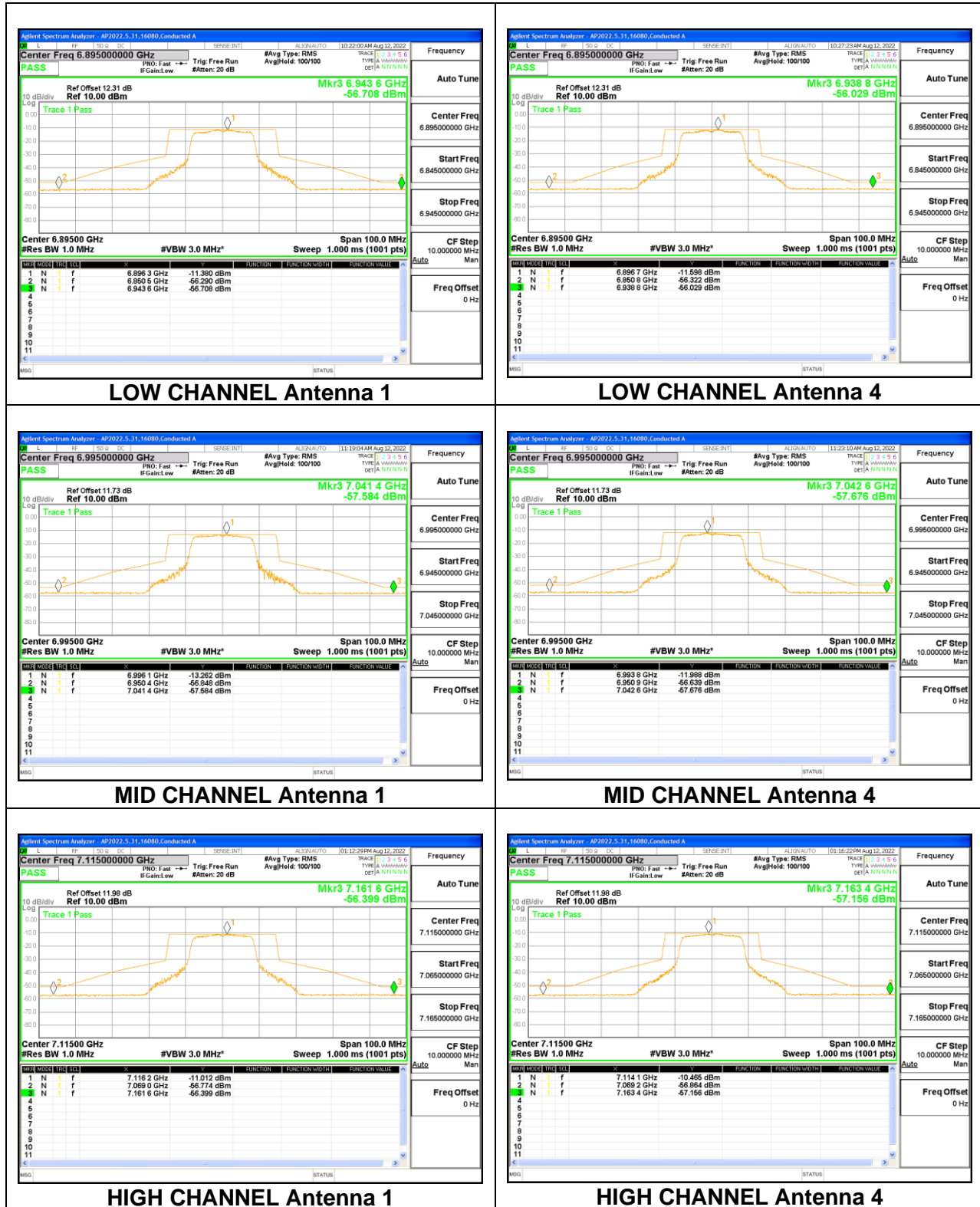


### STRADDLE CHANNEL



### 9.5.4. 802.11a MODE 2TX IN THE UNII-8 BAND

#### 2TX Antenna 1 + Antenna 4 CDD MODE:



## 10. RADIATED TEST RESULTS

### LIMITS

FCC §15.35(b)  
FCC §15.205 Restrict bands  
FCC §15.209 and FCC §15.407(b)(6) -Un-Restrict bands

RSS 248 Issue 1, section 4.7.2a

Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27dBm/MHz RMS and -7dBm/MHz Peak.

General field strength limits at frequencies above 30 MHz.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
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. Peak detection is used unless otherwise noted as quasi-peak.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz 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.

The spectrum from 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 6 GHz bands.

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.

2D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only.

Based 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.

NOTE: The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table), using the free space impedance of 377 Ohms. For example, the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to  $Y - 51.5 = Z$  dBuA/m, which has the same margin, W dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

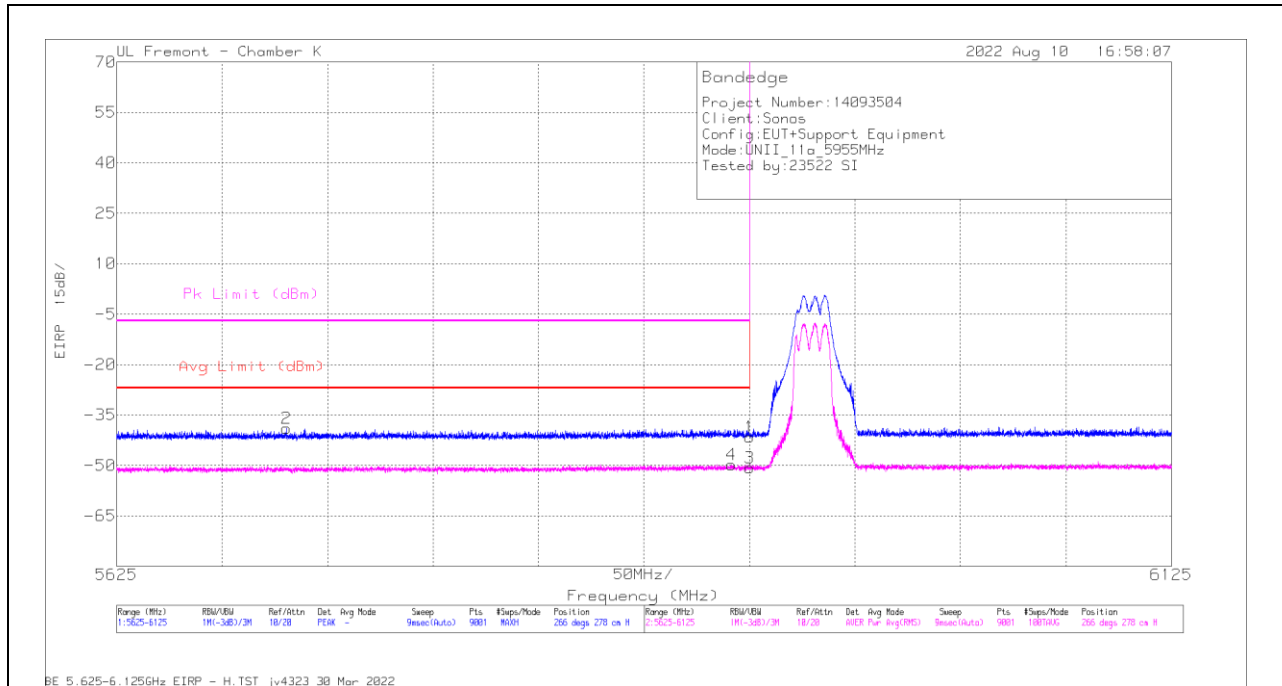
## 10.1. TRANSMITTER OUTSIDE 5.925-7.125 GHz , 1- 18GHz

### 10.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE UNII-5 BAND

**2TX Antenna 1 + Antenna 4 CDD MODE:**

**BANDEDGE (LOW CHANNEL)**

### HORIZONTAL RESULT

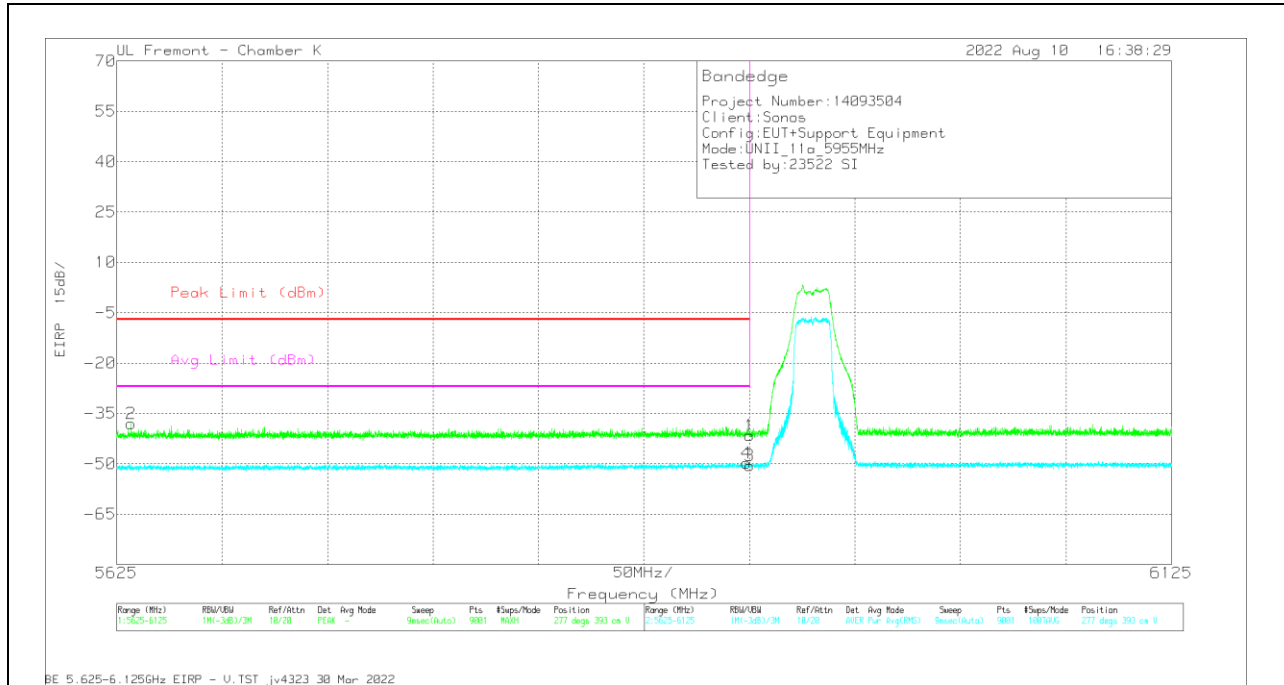


### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Avg Limit (dBm)	RMS Margin (dB)	Pk Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5925	-58.57	Pk	35.1	-29.9	11.8	0	-41.57	-	-	-7	-34.57	266	278	H
2	5705.445	-55.41	Pk	34.8	-30.1	11.8	0	-38.91	-	-	-7	-31.91	266	278	H
3	5925	-68.76	RMS	35.1	-29.9	11.8	1.07	-50.69	-27	-23.69	-	-	266	278	H
4	5916.558	-67.91	RMS	35.1	-29.8	11.8	1.07	-49.74	-27	-22.74	-	-	266	278	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULT



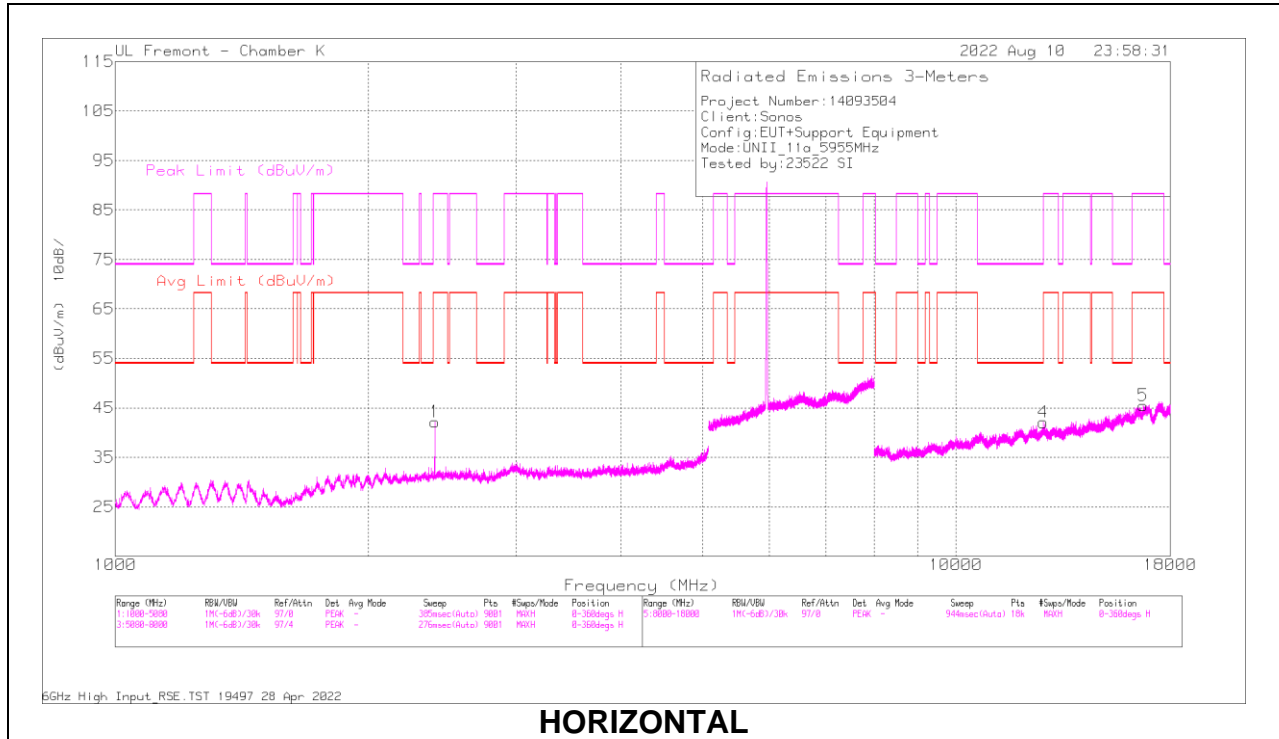
### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	80402 ACF(dB) ~ 3mH	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Avg Limit (dBm)	RMS Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5925	-58.48	Pk	35.1	-29.9	11.8	0	-41.48	-7	-34.48	-	-	277	393	V
2	5631.889	-54.38	Pk	34.8	-30.3	11.8	0	-38.08	-7	-31.08	-	-	277	393	V
3	5925	-68.57	RMS	35.1	-29.9	11.8	1.07	-50.5	-	-	-27	-23.5	277	393	V
4	5923.558	-67.96	RMS	35.1	-29.8	11.8	1.07	-49.79	-	-	-27	-22.79	277	393	V

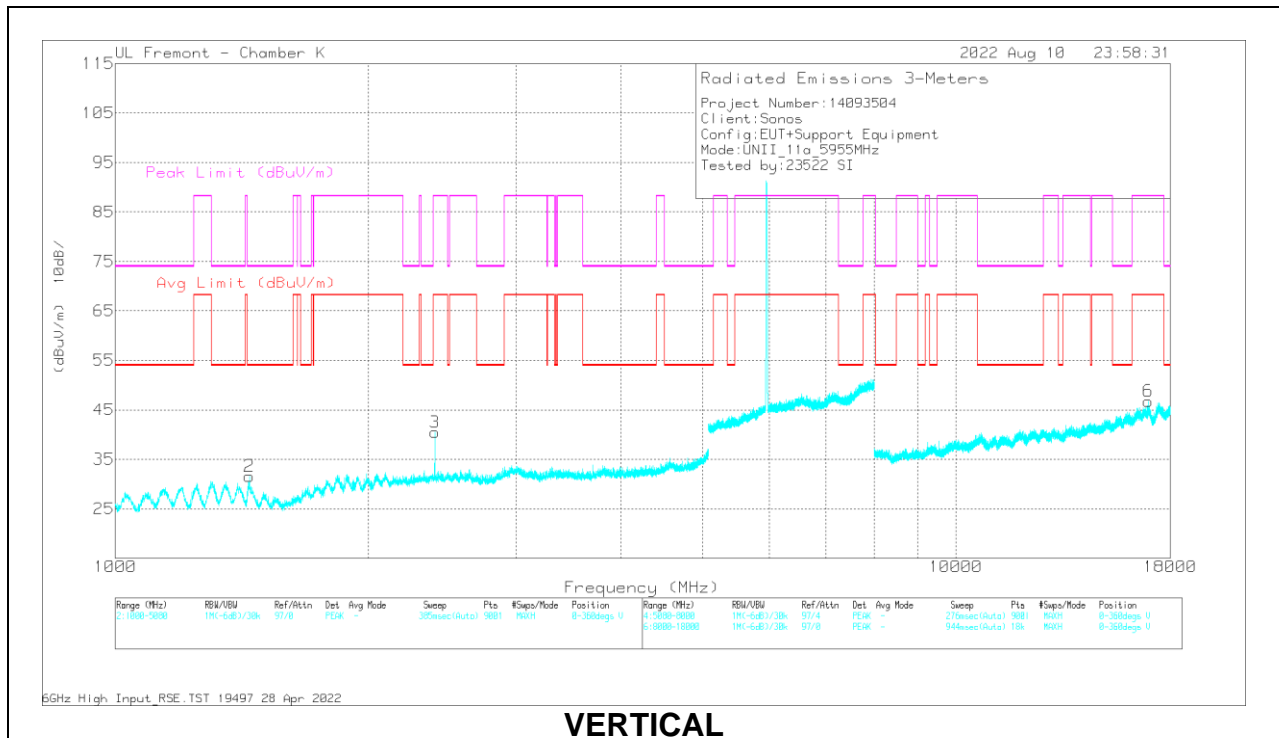
Pk - Peak detector  
 RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL



## HORIZONTAL



## VERTICAL



**RADIATED EMISSIONS**

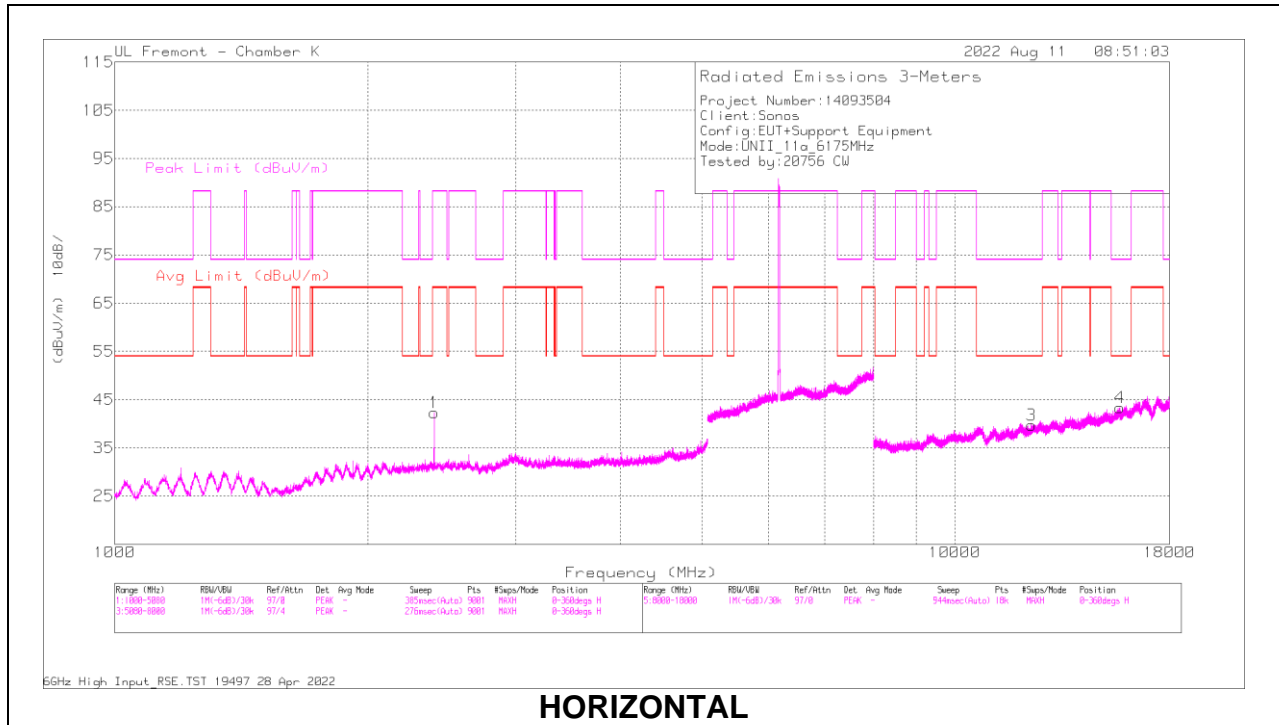
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2399.836	62.08	PK-U	32.5	-44.6	0	49.98	-	-	88.2	-38.22	355	195	H
	2400.06	54.85	ADR	32.5	-44.6	1.07	43.82	68.2	-24.38	-	-	355	195	H
2	* 1441.911	65.14	PK-U	28.1	-45.9	0	47.34	-	-	74	-26.66	9	389	V
	* 1442.279	47.92	ADR	28.1	-45.9	1.07	31.19	54	-22.81	-	-	9	389	V
3	2399.721	59.18	PK-U	32.5	-44.6	0	47.08	-	-	88.2	-41.12	219	98	V
	2400.02	51.97	ADR	32.5	-44.6	1.07	40.94	68.2	-27.26	-	-	219	98	V
4	12712.246	45.29	PK-U	39.1	-34.2	0	50.19	-	-	88.2	-38.01	253	285	H
	12710.42	33.37	ADR	39.1	-34.2	1.07	39.34	68.2	-28.86	-	-	253	285	H
5	16720.26	45.69	PK-U	42	-32.5	0	55.19	-	-	88.2	-33.01	288	360	H
	16721.327	33.75	ADR	42	-32.4	1.07	44.42	68.2	-23.78	-	-	288	360	H
6	16939.848	44.72	PK-U	42.1	-32.3	0	54.52	-	-	88.2	-33.68	76	167	V
	16939.313	33.41	ADR	42.1	-32.4	1.07	44.18	68.2	-24.02	-	-	76	167	V

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

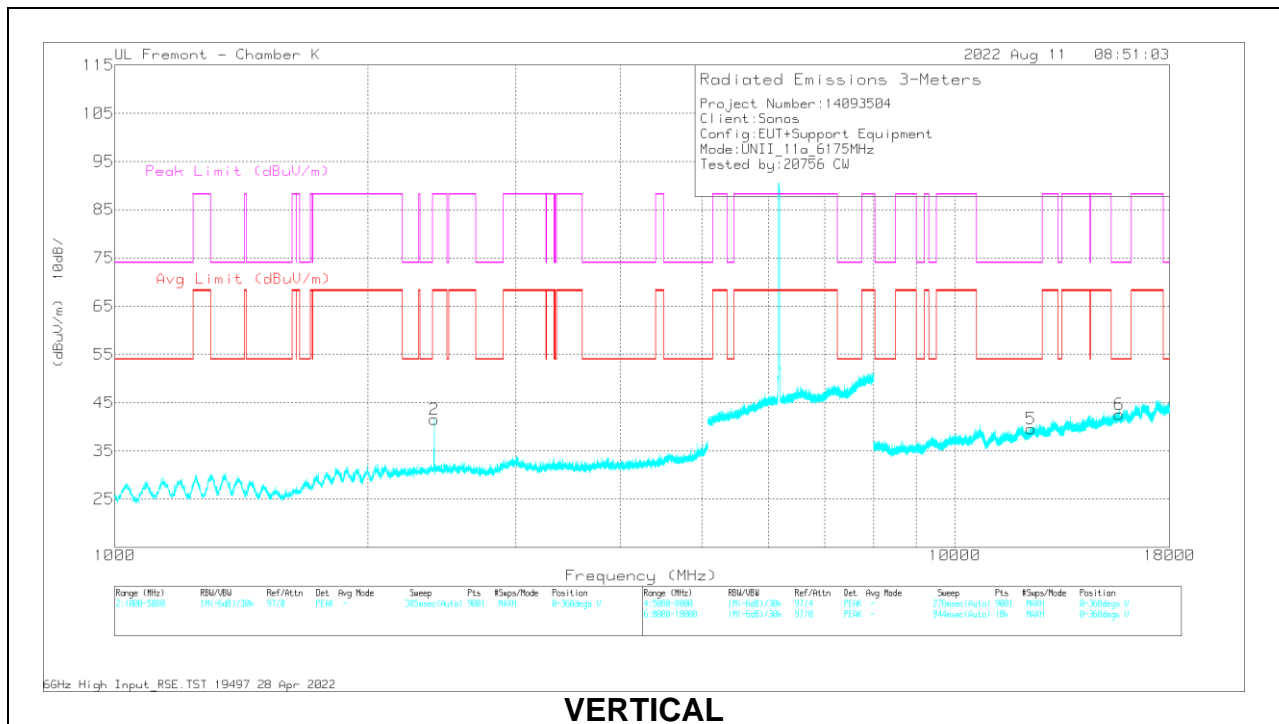
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

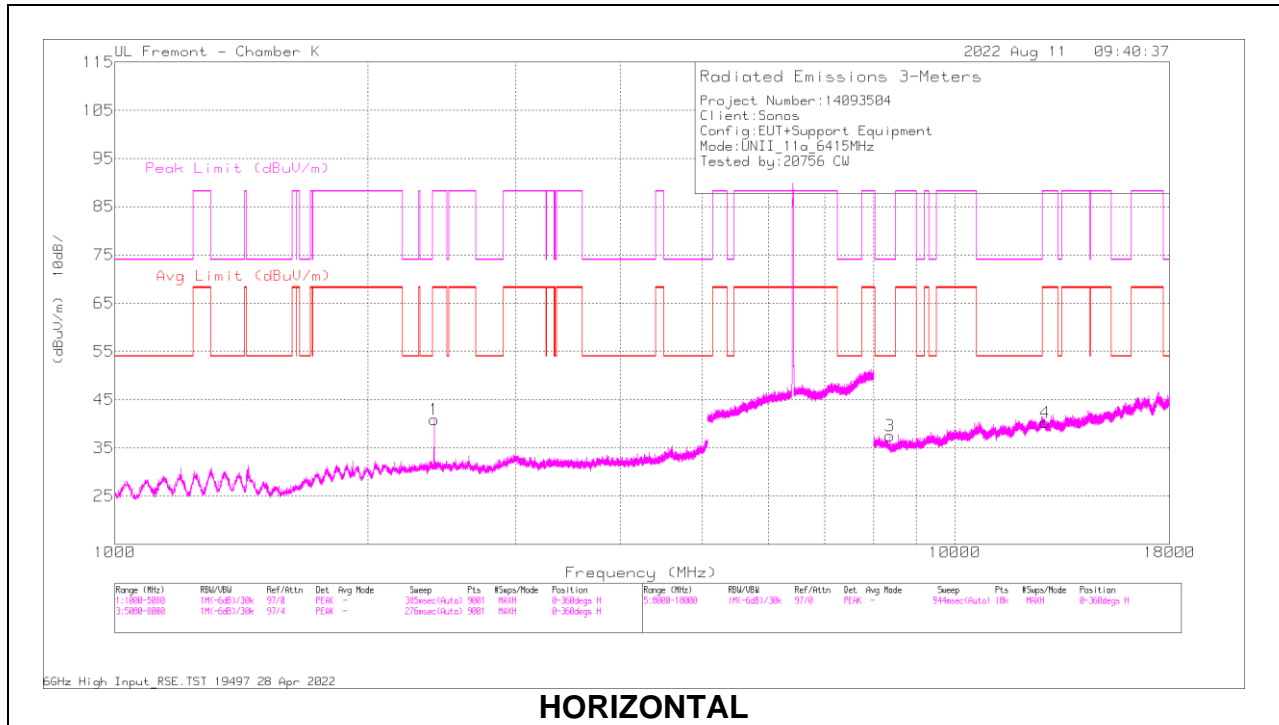
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cb/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2399.852	61.87	PK-U	32.5	-44.6	0	49.77	-	-	88.2	-38.43	283	166	H
	2400.092	54.35	ADR	32.5	-44.6	1.07	43.32	68.2	-24.88	-	-	283	166	H
2	2399.94	60.35	PK-U	32.5	-44.6	0	48.25	-	-	88.2	-39.95	13	103	V
	2400.012	52.83	ADR	32.5	-44.6	1.07	41.8	68.2	-26.4	-	-	13	103	V
3	* 12332.959	45.11	PK-U	39	-34.5	0	49.61	-	-	74	-24.39	28	216	H
	* 12334.198	33.77	ADR	39	-34.5	1.07	39.34	54	-14.66	-	-	28	216	H
4	* 15727.334	45.56	PK-U	40.6	-33.4	0	52.76	-	-	74	-21.24	314	279	H
	* 15727.247	33.86	ADR	40.6	-33.4	1.07	42.13	54	-11.87	-	-	314	279	H
5	* 12320.698	45.12	PK-U	39	-34.6	0	49.52	-	-	74	-24.48	199	169	V
	* 12321.864	33.66	ADR	39	-34.5	1.07	39.23	54	-14.77	-	-	199	169	V
6	* 15681.971	45.82	PK-U	40.6	-33.3	0	53.12	-	-	74	-20.88	123	382	V
	* 15681.627	34.07	ADR	40.6	-33.3	1.07	42.44	54	-11.56	-	-	123	382	V

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

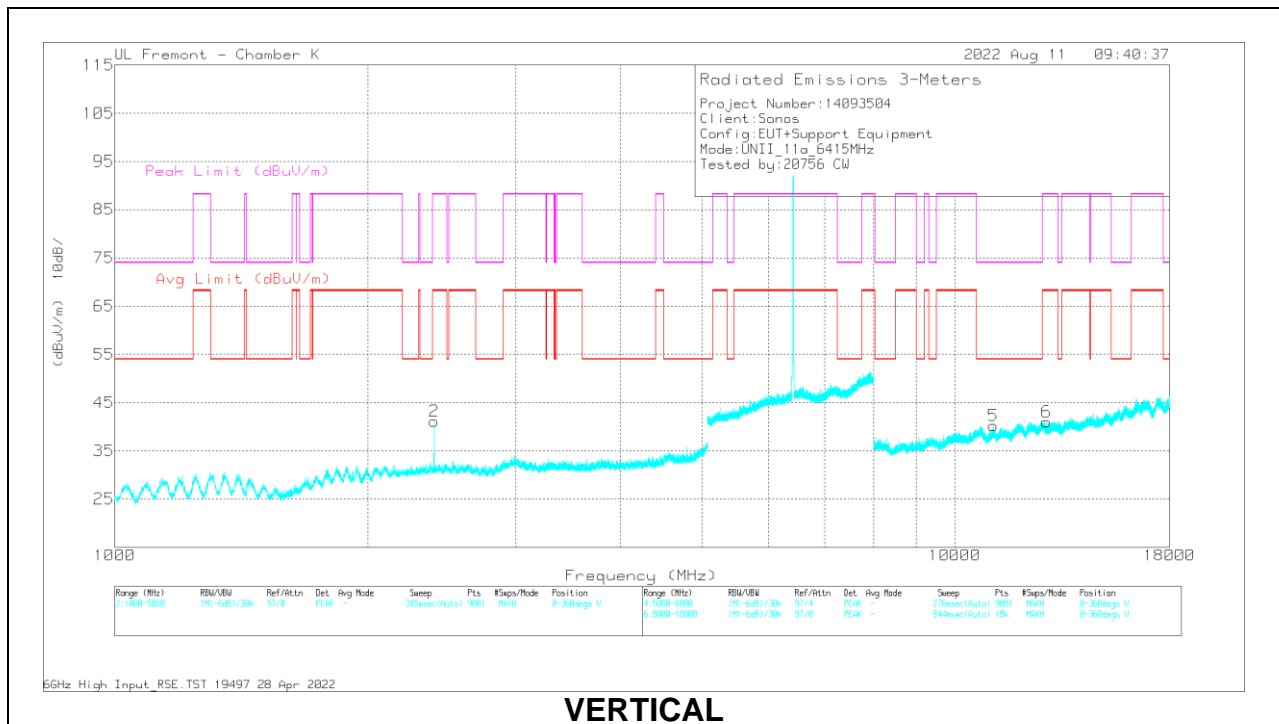
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (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	2400.256	61.49	PK-U	32.5	-44.6	0	49.39	-	-	88.2	-38.81	281	167	H
	2400.008	54.38	ADR	32.5	-44.6	1.07	43.35	68.2	-24.85	-	-	281	167	H
2	2400.272	60.21	PK-U	32.5	-44.6	0	48.11	-	-	88.2	-40.09	9	102	V
	2400.028	53.05	ADR	32.5	-44.6	1.07	42.02	68.2	-26.18	-	-	9	102	V
3	* 8375.587	46.88	PK-U	35.7	-37.3	0	45.28	-	-	74	-28.72	298	304	H
	* 8376.326	35.14	ADR	35.7	-37.3	1.07	34.61	54	-19.39	-	-	298	304	H
4	12818.566	45.23	PK-U	39.2	-34.4	0	50.03	-	-	88.2	-38.17	36	341	H
	12818.784	33.55	ADR	39.2	-34.4	1.07	39.42	68.2	-28.78	-	-	36	341	H
5	* 11118.226	46.76	PK-U	37.9	-36.1	0	48.56	-	-	74	-25.44	215	309	V
	* 11118.589	35.41	ADR	37.9	-36.1	1.07	38.28	54	-15.72	-	-	215	309	V
6	12846.968	45.07	PK-U	39.2	-34.3	0	49.97	-	-	88.2	-38.23	209	351	V
	12846.924	33.55	ADR	39.2	-34.3	1.07	39.52	68.2	-28.68	-	-	209	351	V

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

PK-U - U-NII: Maximum Peak

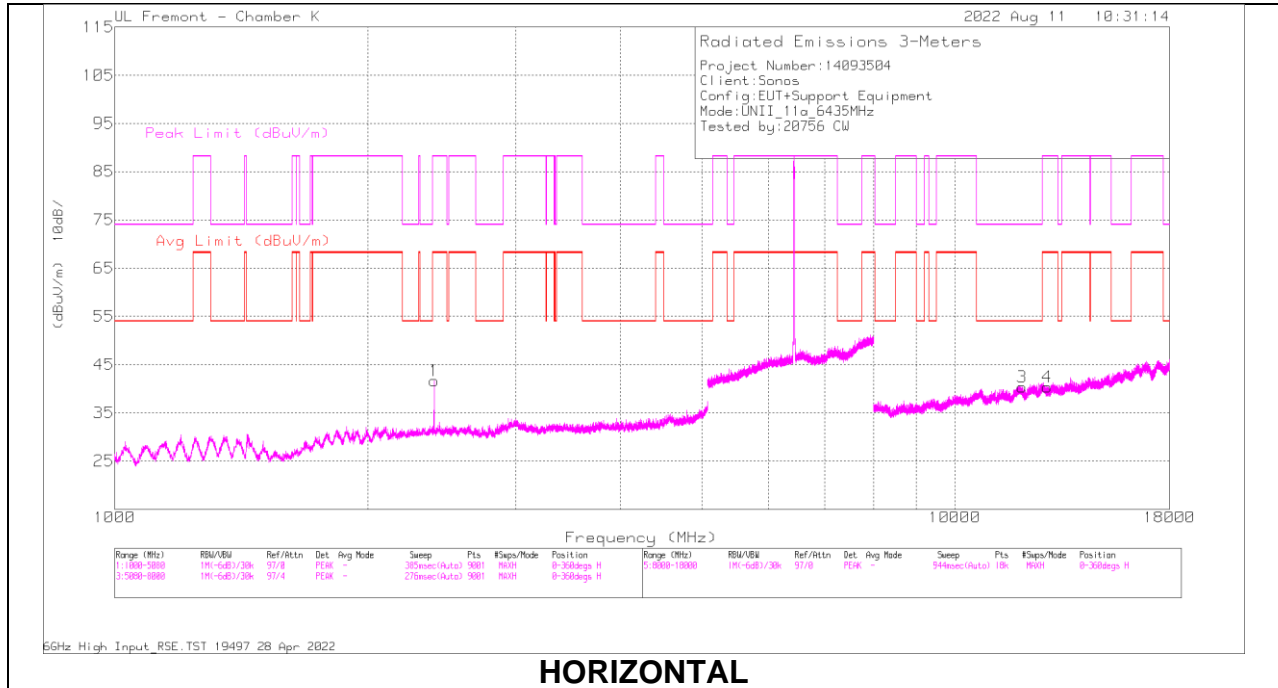
ADR - U-NII AD primary method, RMS average

### 10.1.2. TX ABOVE 1 GHz 802.11a MODE IN THE UNII-6 BAND

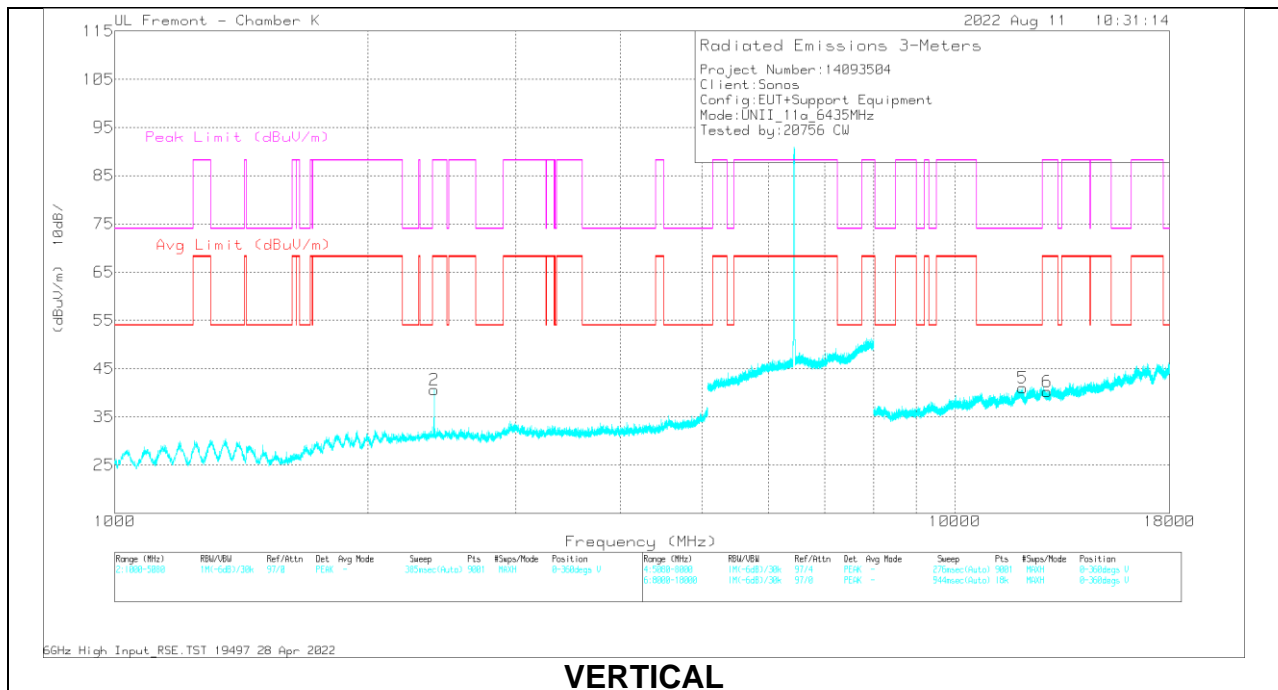
**2TX Antenna 1 + Antenna 4 CDD MODE:**

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



#### HORIZONTAL



#### VERTICAL

**RADIATED EMISSIONS**

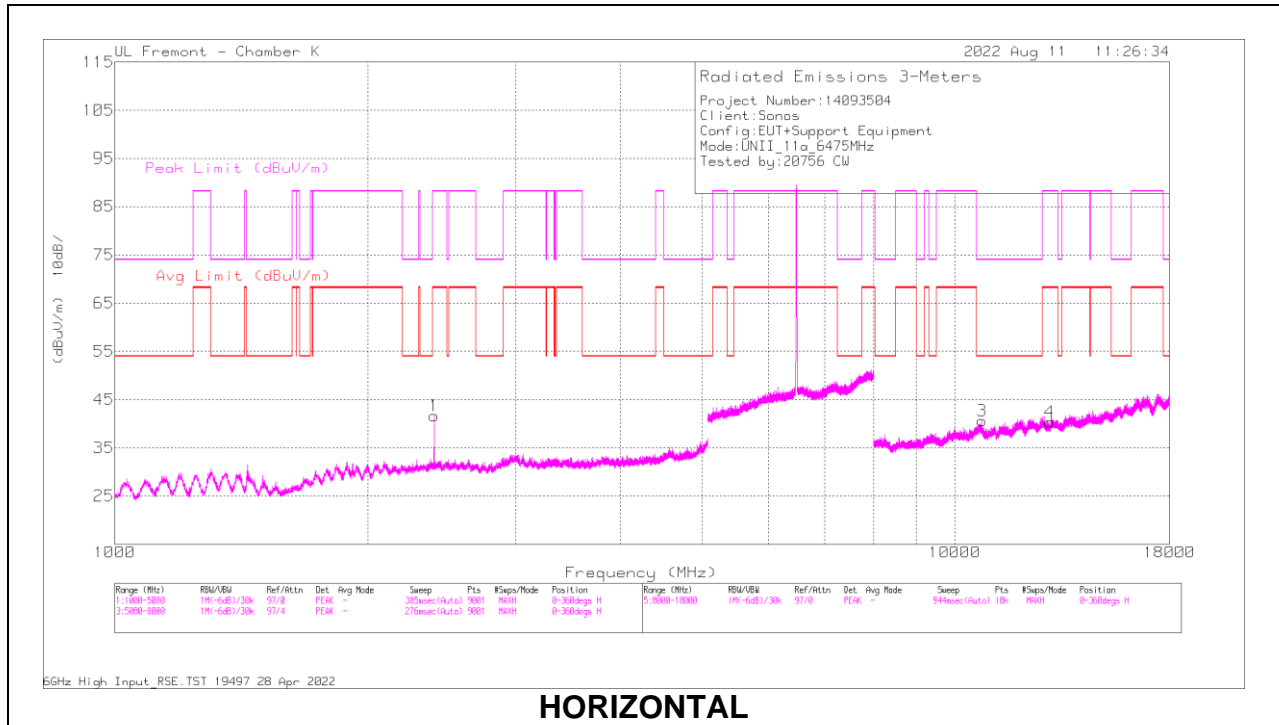
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2399.976	61.47	PK-U	32.5	-44.6	0	49.37	-	-	88.2	-38.83	286	192	H
	2399.976	54.03	ADR	32.5	-44.6	1.07	43	68.2	-25.2	-	-	286	192	H
2	2399.988	60.36	PK-U	32.5	-44.6	0	48.26	-	-	88.2	-39.94	9	102	V
	2400.02	53.07	ADR	32.5	-44.6	1.07	42.04	68.2	-26.16	-	-	9	102	V
3	* 12015.583	45.1	PK-U	38.7	-33.9	0	49.9	-	-	74	-24.1	267	202	H
	* 12019.055	33.1	ADR	38.7	-33.9	1.07	38.97	54	-15.03	-	-	267	202	H
4	12885.318	45.09	PK-U	39.2	-34.3	0	49.99	-	-	88.2	-38.21	334	279	H
	12885.115	33.38	ADR	39.2	-34.3	1.07	39.35	68.2	-28.85	-	-	334	279	H
5	* 12036.077	44.82	PK-U	38.8	-34.2	0	49.42	-	-	74	-24.58	6	368	V
	* 12036.748	33.22	ADR	38.8	-34.2	1.07	38.89	54	-15.11	-	-	6	368	V
6	12873.065	44.82	PK-U	39.2	-34.4	0	49.62	-	-	88.2	-38.58	348	364	V
	12872.952	33.33	ADR	39.2	-34.4	1.07	39.2	68.2	-29	-	-	348	364	V

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

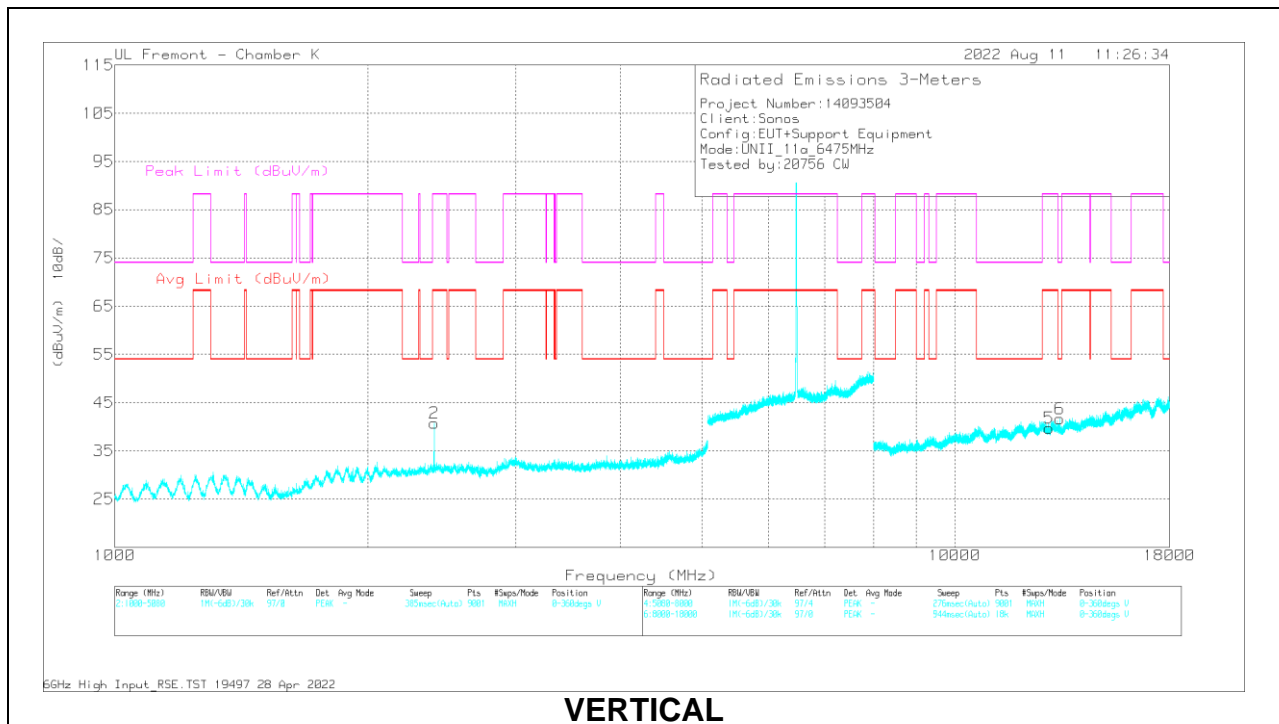
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL



**RADIATED EMISSIONS**

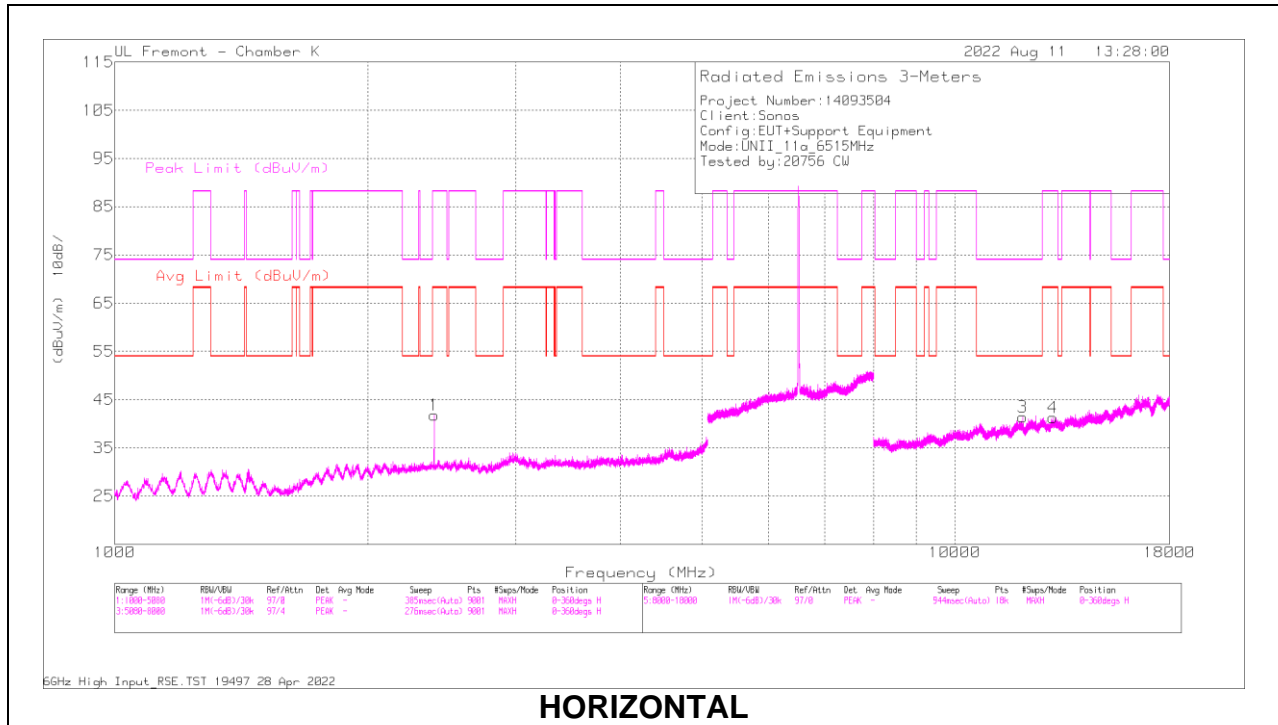
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2400.248	61.27	PK-U	32.5	-44.6	0	49.17	-	-	88.2	-39.03	285	109	H
	2400.052	53.89	ADR	32.5	-44.6	1.07	42.86	68.2	-25.34	-	-	285	109	H
2	2400.124	60.45	PK-U	32.5	-44.6	0	48.35	-	-	88.2	-39.85	11	105	V
	2400.044	53.1	ADR	32.5	-44.6	1.07	42.07	68.2	-26.13	-	-	11	105	V
3	* 10775.015	47	PK-U	37.9	-35.8	0	49.1	-	-	74	-24.9	84	373	H
	* 10775.711	35.45	ADR	37.9	-35.7	1.07	38.72	54	-15.28	-	-	84	373	H
4	12962.912	45.16	PK-U	39.1	-34.1	0	50.16	-	-	88.2	-38.04	48	321	H
	12962.697	33.58	ADR	39.1	-34.1	1.07	39.65	68.2	-28.55	-	-	48	321	H
5	12952.082	44.6	PK-U	39.1	-34.1	0	49.6	-	-	88.2	-38.6	66	203	V
	12952.361	33.39	ADR	39.1	-34.1	1.07	39.46	68.2	-28.74	-	-	66	203	V
6	* 13331	45.89	PK-U	39.1	-34.6	0	50.39	-	-	74	-23.61	321	311	V
	* 13330.863	33.83	ADR	39.1	-34.6	1.07	39.4	54	-14.6	-	-	321	311	V

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

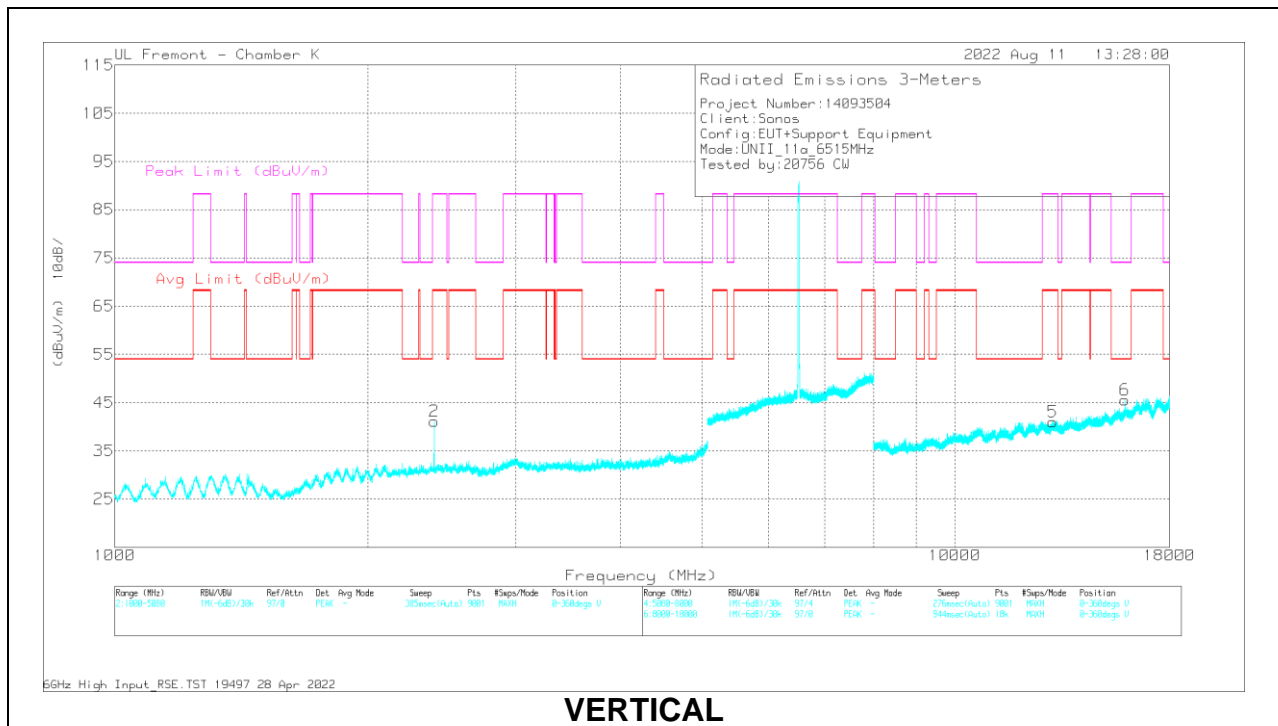
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (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	2400.264	61.77	PK-U	32.5	-44.6	0	49.67	-	-	88.2	-38.53	283	141	H
	2400.064	54.34	ADR	32.5	-44.6	1.07	43.31	68.2	-24.89	-	-	283	141	H
2	2400.076	60.23	PK-U	32.5	-44.6	0	48.13	-	-	88.2	-40.07	7	104	V
	2400.1	53.06	ADR	32.5	-44.6	1.07	42.03	68.2	-26.17	-	-	7	104	V
3	* 12048.306	44.73	PK-U	38.8	-34.1	0	49.43	-	-	74	-24.57	275	169	H
	* 12048.262	33.1	ADR	38.8	-34.1	1.07	38.87	54	-15.13	-	-	275	169	H
4	13086.243	45.71	PK-U	39	-34	0	50.71	-	-	88.2	-37.49	63	391	H
	13086.225	33.93	ADR	39	-34	1.07	40	68.2	-28.2	-	-	63	391	H
5	13070.309	45.71	PK-U	39	-34.1	0	50.61	-	-	88.2	-37.59	260	264	V
	13072.89	33.87	ADR	39	-34.1	1.07	39.84	68.2	-28.36	-	-	260	264	V
6	* 15939.759	44.39	PK-U	41	-33.2	0	52.19	-	-	74	-21.81	14	313	V
	* 15938.924	33.22	ADR	41	-33.1	1.07	42.19	54	-11.81	-	-	14	313	V

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

PK-U - U-NII: Maximum Peak

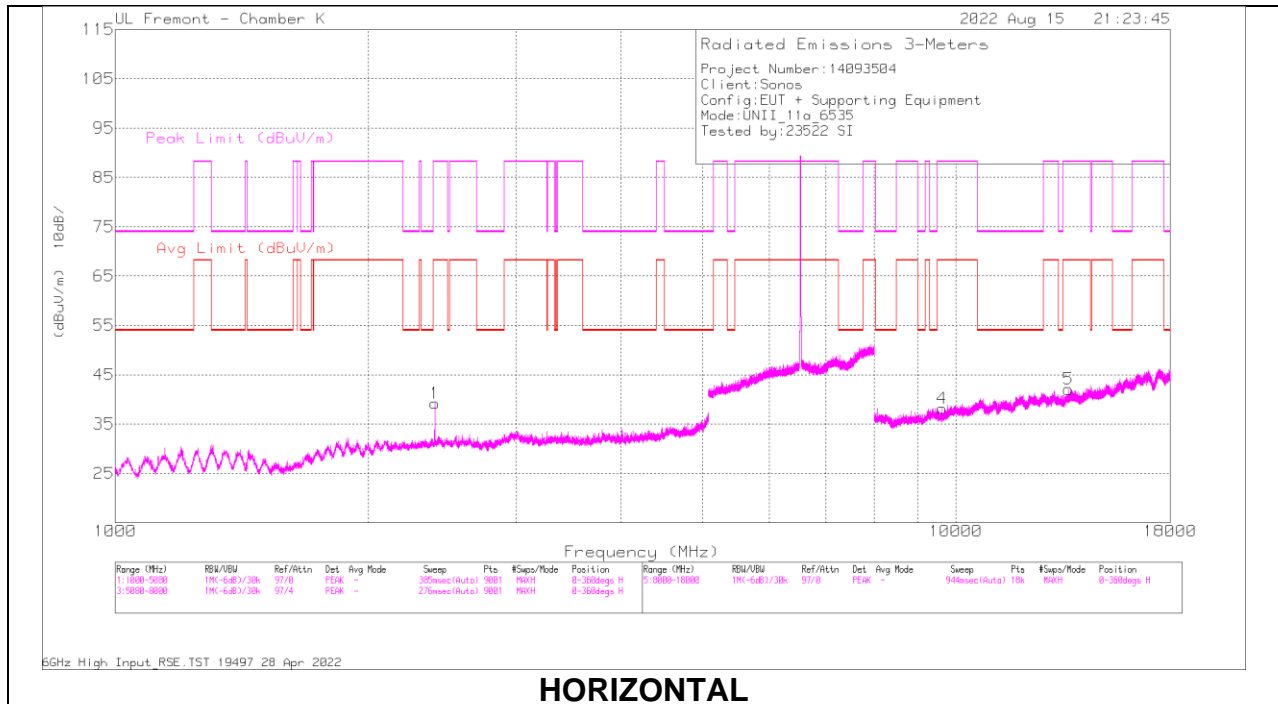
ADR - U-NII AD primary method, RMS average

### 10.1.3. TX ABOVE 1 GHz 802.11a MODE IN THE UNII-7 BAND

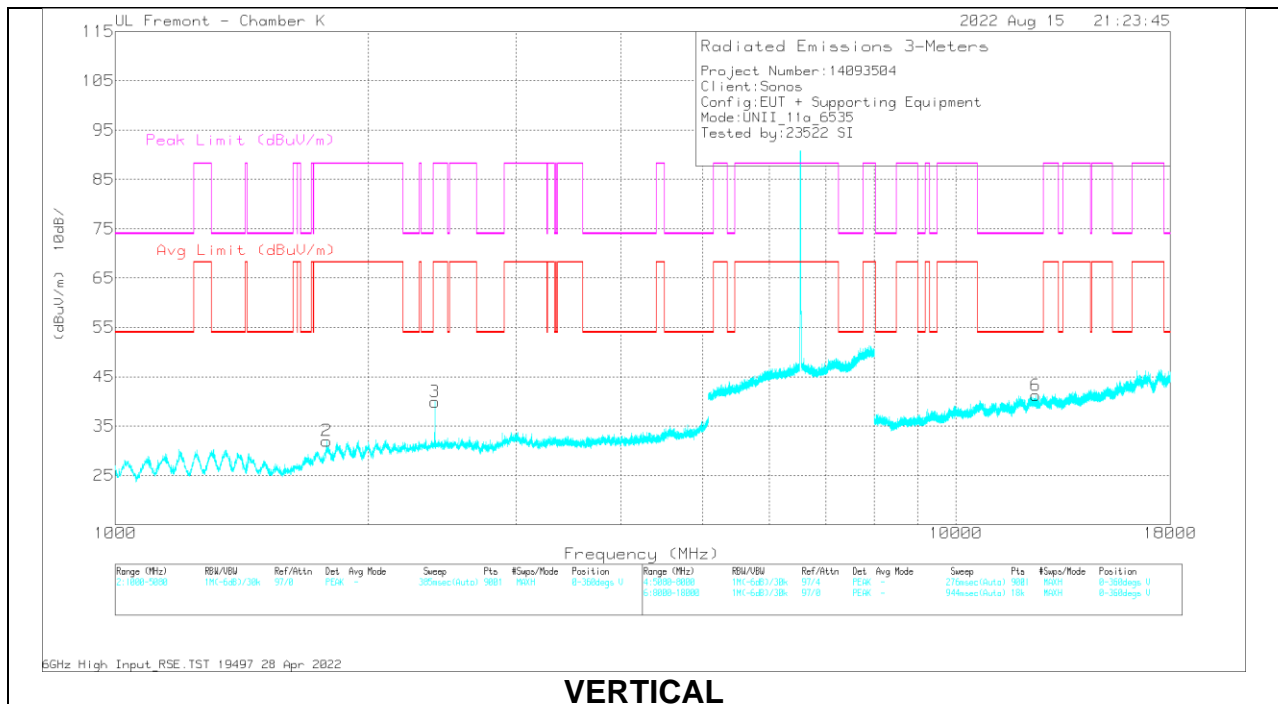
**2TX Antenna 1 + Antenna 4 CDD MODE:**

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



#### HORIZONTAL



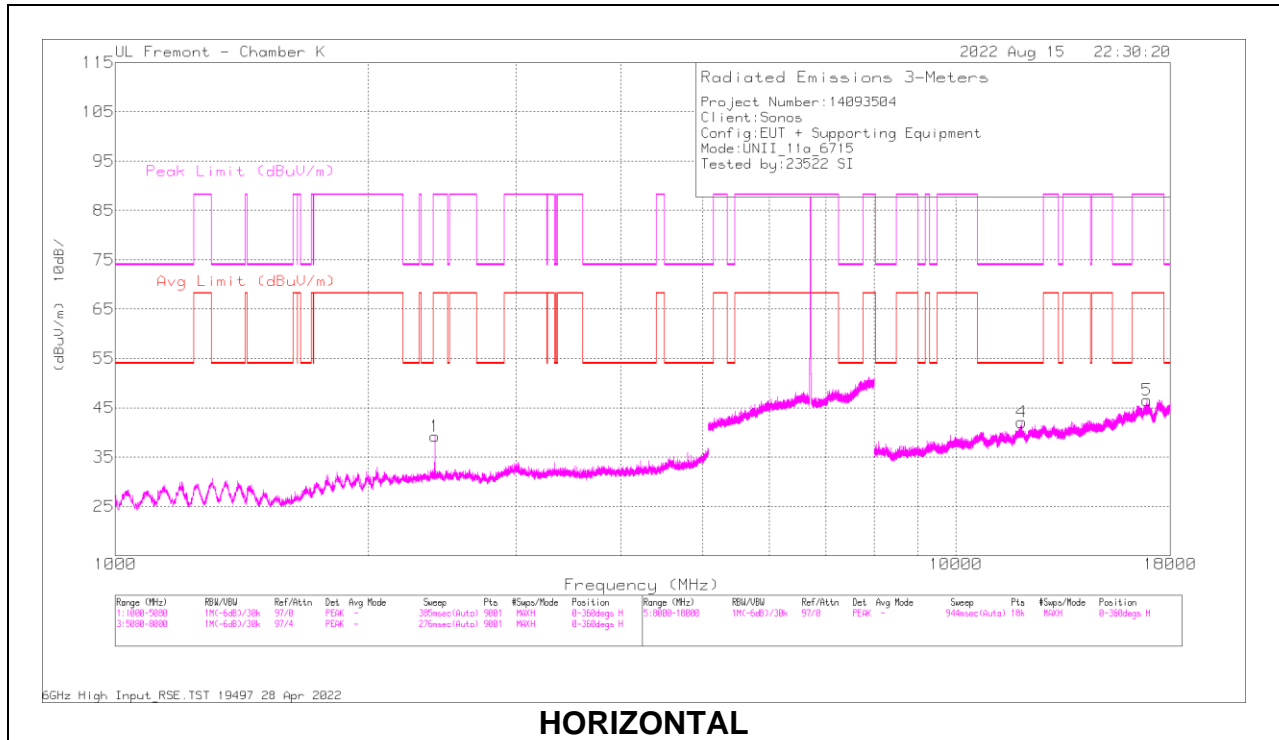
#### VERTICAL

**RADIATED EMISSIONS**

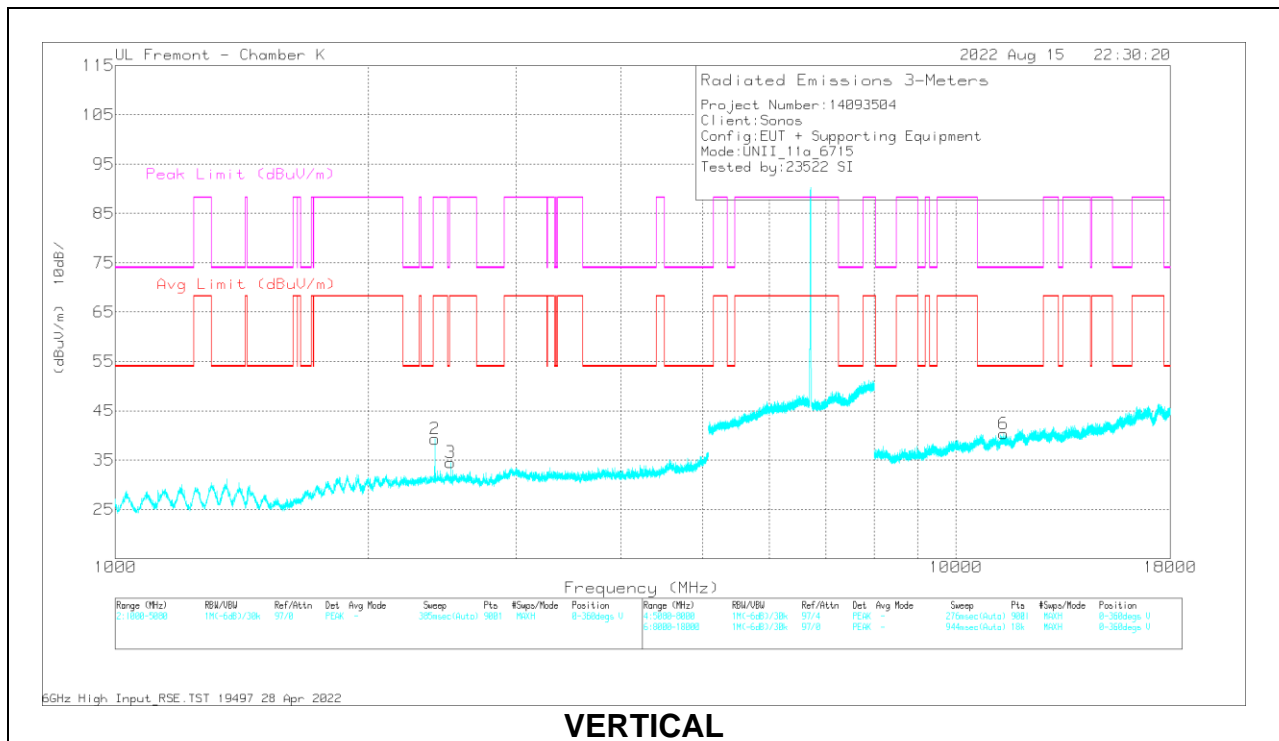
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Filtr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2400.164	58.82	PK-U	32.5	-44.6	0	46.72	-	-	88.2	-41.48	249	284	H
	2400.048	51.37	ADR	32.5	-44.6	1.07	40.34	68.2	-27.86	-	-	249	284	H
2	1782.38	56.09	PK-U	30.1	-46.1	0	40.09	-	-	88.2	-48.11	185	393	V
	1782.812	44.57	ADR	30.1	-46	1.07	29.74	68.2	-38.46	-	-	185	393	V
3	2400.148	58.24	PK-U	32.5	-44.6	0	46.14	-	-	88.2	-42.06	48	100	V
	2399.968	51.3	ADR	32.5	-44.6	1.07	40.27	68.2	-27.93	-	-	48	100	V
4	9629.918	46.21	PK-U	36.8	-36.5	0	46.51	-	-	88.2	-41.69	295	228	H
	9630.558	34.83	ADR	36.8	-36.5	1.07	36.2	68.2	-32	-	-	295	228	H
5	13609.46	45.51	PK-U	38.8	-34.3	0	50.01	-	-	88.2	-38.19	19	258	H
	13608.261	34.06	ADR	38.8	-34.3	1.07	39.63	68.2	-28.57	-	-	19	258	H
6	* 12459.627	44.89	PK-U	39	-34.2	0	49.69	-	-	74	-24.31	310	383	V
	* 12457.804	33.52	ADR	39	-34.3	1.07	39.29	54	-14.71	-	-	310	383	V

\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

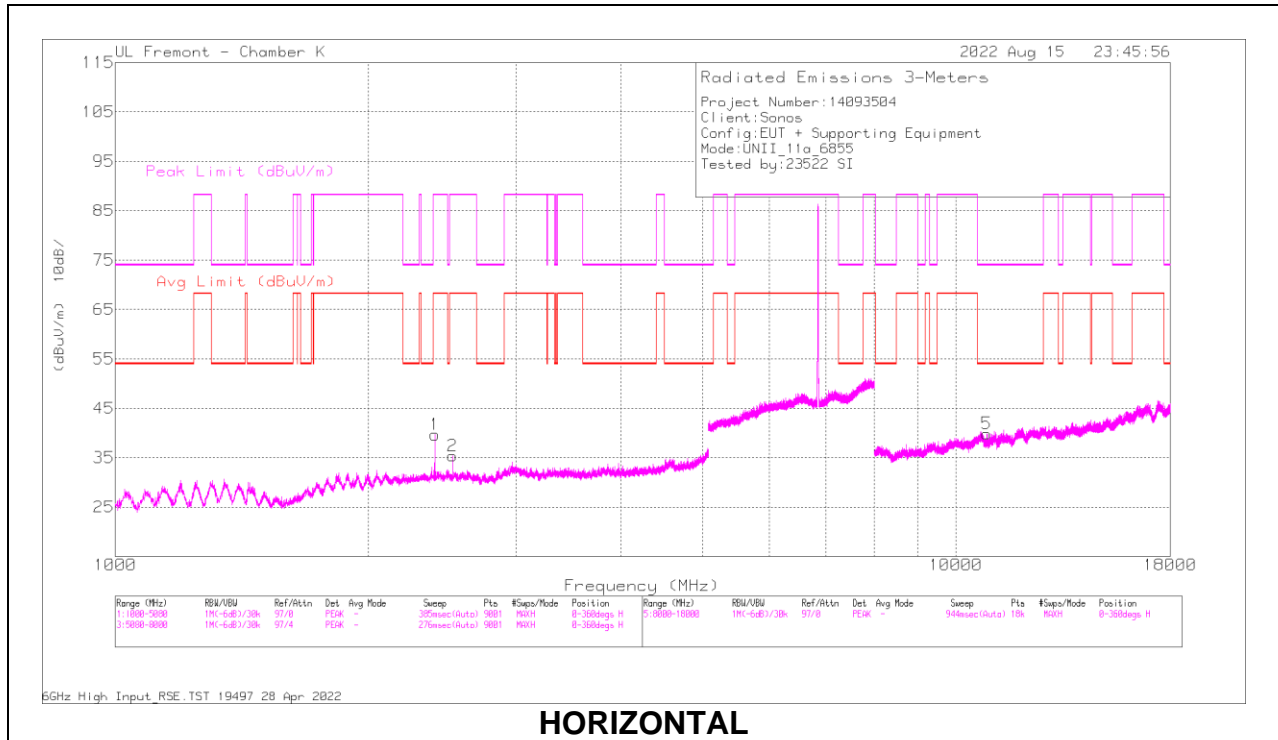
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2399.888	63.97	PK-U	32.5	-44.6	0	51.87	-	-	88.2	-36.33	249	365	H
	2400.052	53.33	ADR	32.5	-44.6	1.07	42.3	68.2	-25.9	-	-	249	365	H
2	2400.14	58.93	PK-U	32.5	-44.6	0	46.83	-	-	88.2	-41.37	48	104	V
	2400.064	51.45	ADR	32.5	-44.6	1.07	40.42	68.2	-27.78	-	-	48	104	V
3	2505.465	60.96	PK-U	32.6	-44.2	0	49.36	-	-	88.2	-38.84	279	260	V
	2506.037	41.52	ADR	32.6	-44.2	1.07	30.99	68.2	-37.21	-	-	279	260	V
4	* 11978.298	45.63	PK-U	38.7	-34.5	0	49.83	-	-	74	-24.17	80	374	H
	* 11979.545	33.82	ADR	38.7	-34.4	1.07	39.19	54	-14.81	-	-	80	374	H
5	16882.937	44.81	PK-U	42.1	-32.8	0	54.11	-	-	88.2	-34.09	116	281	H
	16880.051	33.07	ADR	42.1	-32.8	1.07	43.44	68.2	-24.76	-	-	116	281	H
6	* 11412.25	46.46	PK-U	38.2	-36	0	48.66	-	-	74	-25.34	1	174	V
	* 11411.339	34.86	ADR	38.2	-35.9	1.07	38.23	54	-15.77	-	-	1	174	V

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

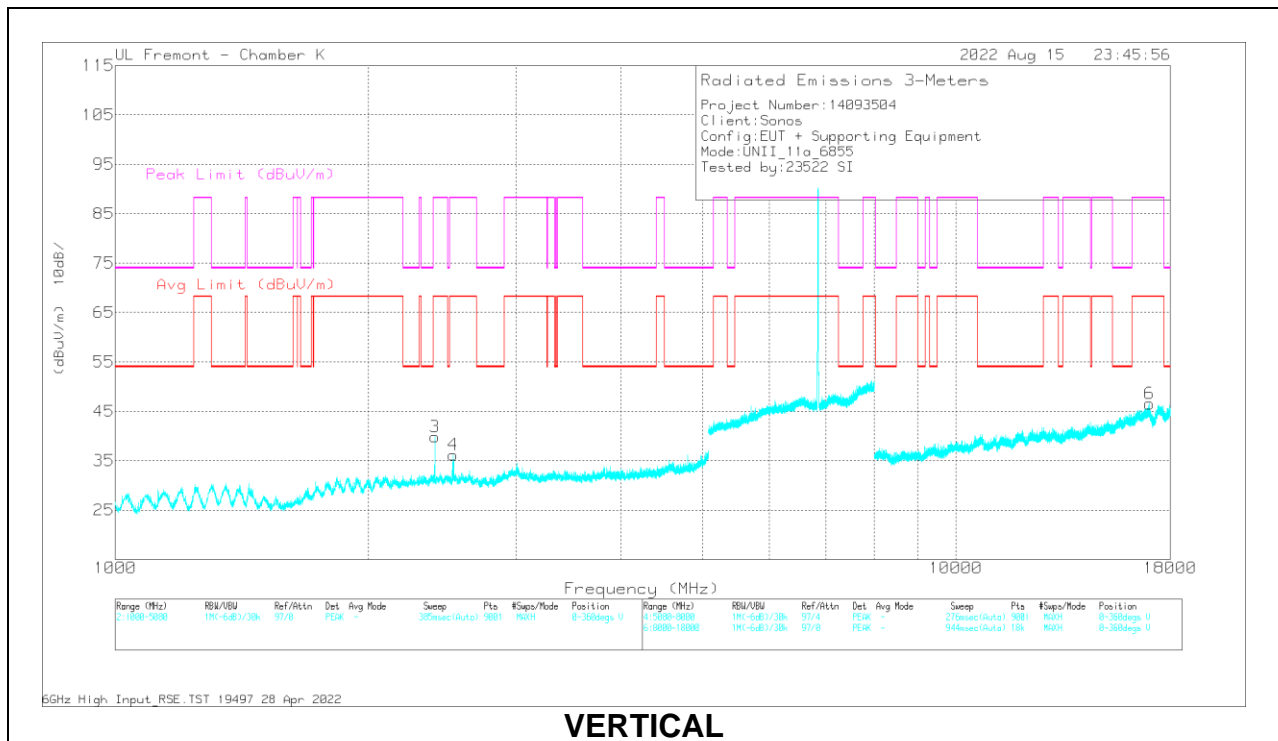
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL



**RADIATED EMISSIONS**

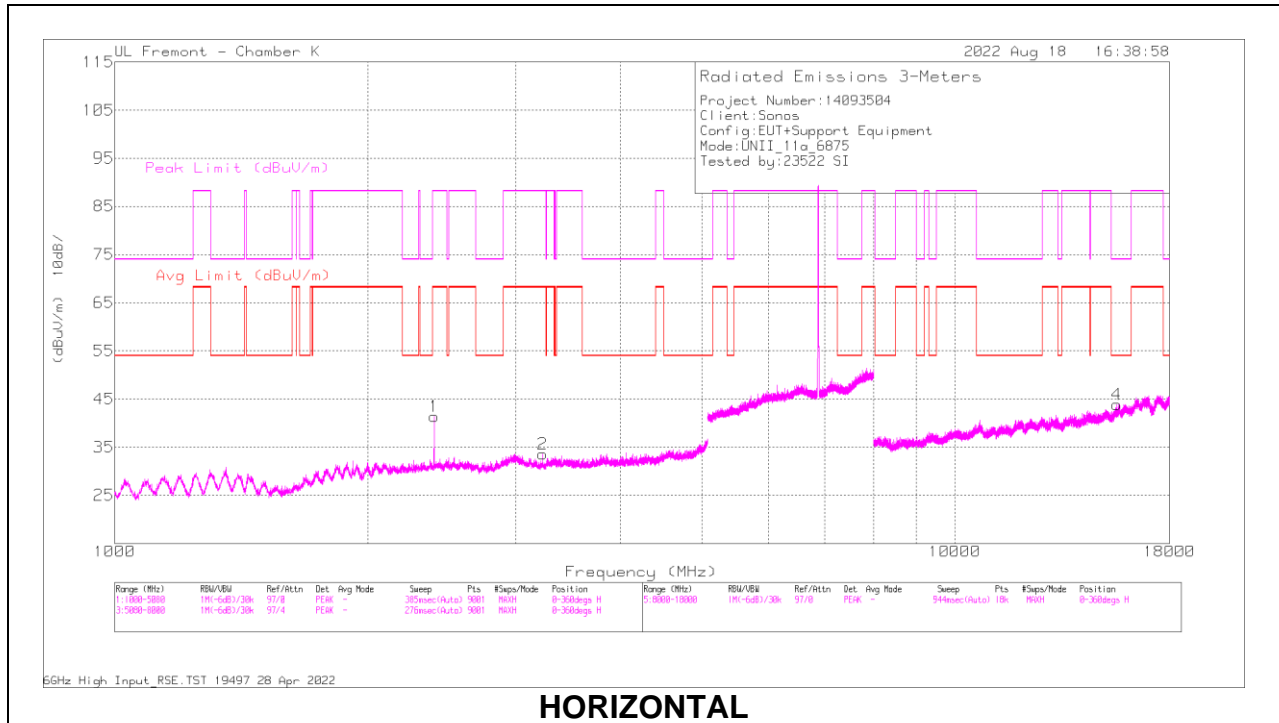
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2400.02	60.8	PK-U	32.5	-44.6	0	48.7	-	-	88.2	-39.5	248	364	H
	2400.04	53.19	ADR	32.5	-44.6	1.07	42.16	68.2	-26.04	-	-	248	364	H
2	2521.932	53.93	PK-U	32.6	-44.1	0	42.43	-	-	88.2	-45.77	282	369	H
	2518.311	41.31	ADR	32.6	-44.2	1.07	30.78	68.2	-37.42	-	-	282	369	H
3	2399.744	61.69	PK-U	32.5	-44.6	0	49.59	-	-	88.2	-38.61	53	107	V
	2400.044	51.76	ADR	32.5	-44.6	1.07	40.73	68.2	-27.47	-	-	53	107	V
4	2527.107	53.37	PK-U	32.6	-44.1	0	41.87	-	-	88.2	-46.33	203	146	V
	2525.892	41.68	ADR	32.6	-44.2	1.07	31.15	68.2	-37.05	-	-	203	146	V
5	* 10894.357	46.7	PK-U	37.9	-36.3	0	48.3	-	-	74	-25.7	81	333	H
	* 10894.996	34.99	ADR	37.9	-36.3	1.07	37.66	54	-16.34	-	-	81	333	H
6	16993.203	44.67	PK-U	42	-32.3	0	54.37	-	-	88.2	-33.83	56	336	V
	16993.726	32.88	ADR	42	-32.2	1.07	43.75	68.2	-24.45	-	-	56	336	V

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

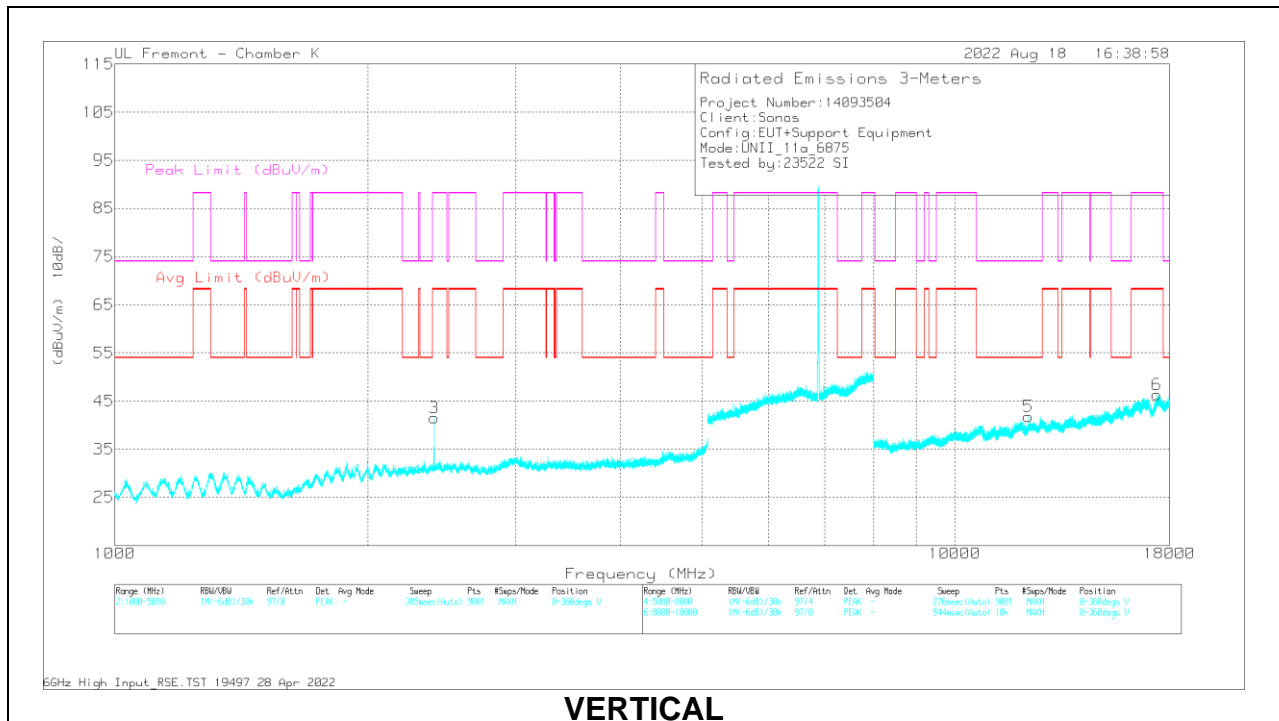
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### STRADDLE CHANNEL



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cb/Fitr (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	2400.148	60.91	PK-U	32.5	-44.6	0	48.81	-	-	88.2	-39.39	67	102	H
	2400.028	53.33	ADR	32.5	-44.6	1.07	42.3	68.2	-25.9	-	-	67	102	H
2	3230.564	51.4	PK-U	32.9	-41.9	0	42.4	-	-	88.2	-45.8	219	344	H
	3229.868	39.31	ADR	32.9	-41.9	1.07	31.38	68.2	-36.82	-	-	219	344	H
3	2399.976	61.09	PK-U	32.5	-44.6	0	48.99	-	-	88.2	-39.21	68	100	V
	2400.032	53.42	ADR	32.5	-44.6	1.07	42.39	68.2	-25.81	-	-	68	100	V
4	* 15568.888	44.32	PK-U	40.5	-33.5	0	51.32	-	-	74	-22.68	261	175	H
	* 15566.634	33.18	ADR	40.5	-33.5	1.07	41.25	54	-12.75	-	-	261	175	H
5	* 12235.91	44.59	PK-U	39	-34.5	0	49.09	-	-	74	-24.91	257	352	V
	* 12237.544	33.23	ADR	39	-34.4	1.07	38.9	54	-15.1	-	-	257	352	V
6	17387.23	43.73	PK-U	41.4	-30.6	0	54.53	-	-	88.2	-33.67	52	231	V
	17387.729	32.53	ADR	41.4	-30.6	1.07	44.4	68.2	-23.8	-	-	52	231	V

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

PK-U - U-NII: Maximum Peak

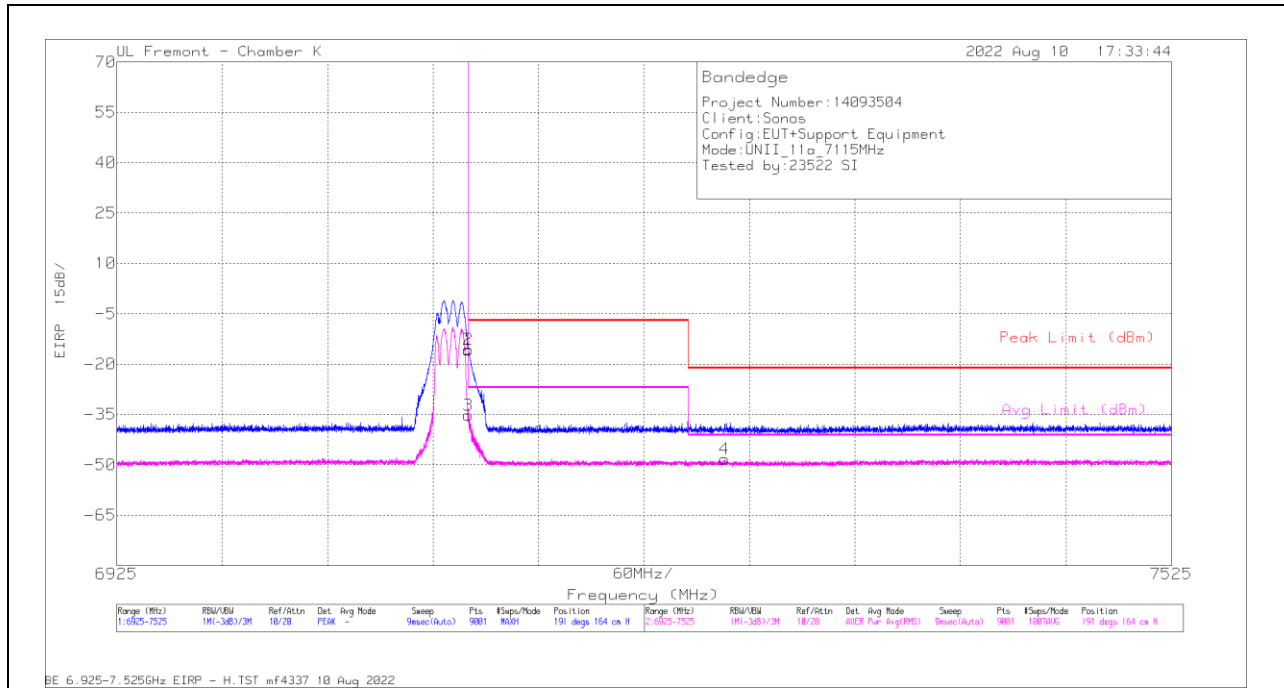
ADR - U-NII AD primary method, RMS average

### 10.1.4. TX ABOVE 1 GHz 802.11a MODE IN THE UNII-8 BAND

**2TX Antenna 1 + Antenna 4 CDD MODE:**

**BANDEDGE (HIGH CHANNEL)**

#### HORIZONTAL RESULT

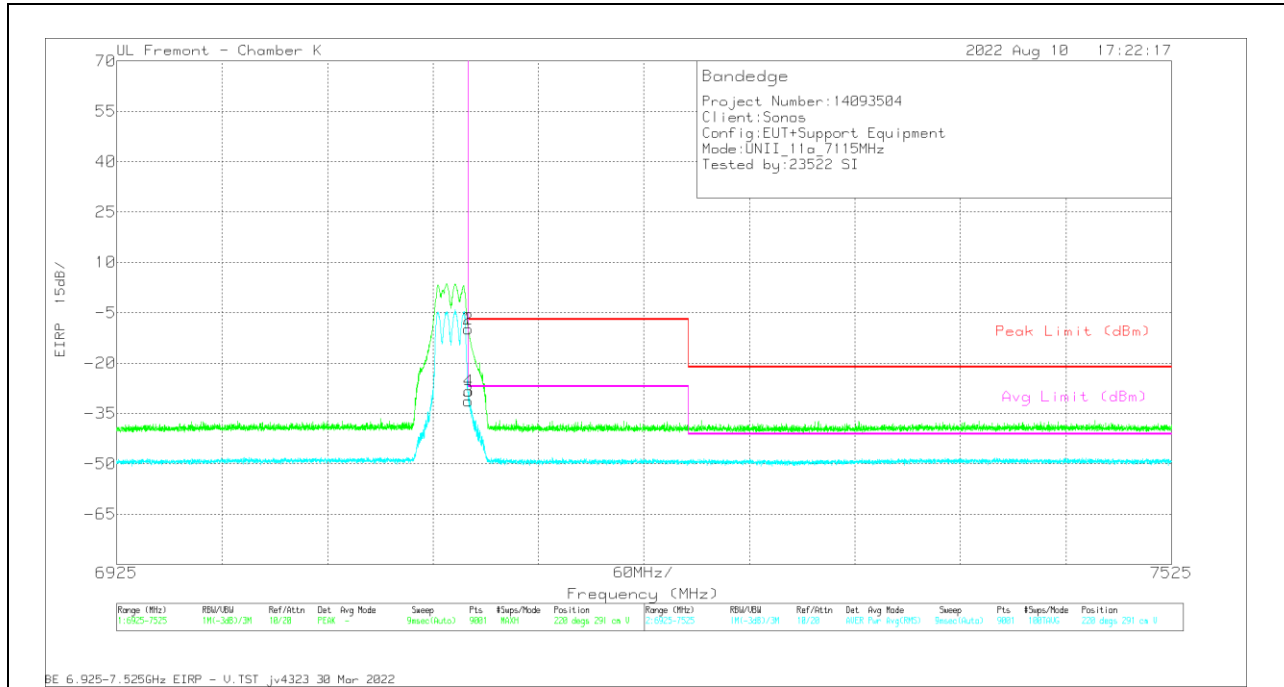


#### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Avg Limit (dBm)	RMS Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	7125	-34.79	Pk	35.9	-28.7	11.8	0	-15.79	-7	-8.79	-	-	191	164	H
2	7125.068	-34.68	Pk	35.8	-28.6	11.8	0	-15.68	-7	-8.68	-	-	191	164	H
3	7125	-55.33	RMS	35.9	-28.7	11.8	1.07	-35.26	-	-	-27	-8.26	191	164	H
4	* 7270.668	-68.4	RMS	35.8	-28.5	11.8	1.07	-48.23	-	-	-41.2	-7.03	191	164	H

PK - Peak detector  
 RMS - RMS detection

### VERTICAL RESULT



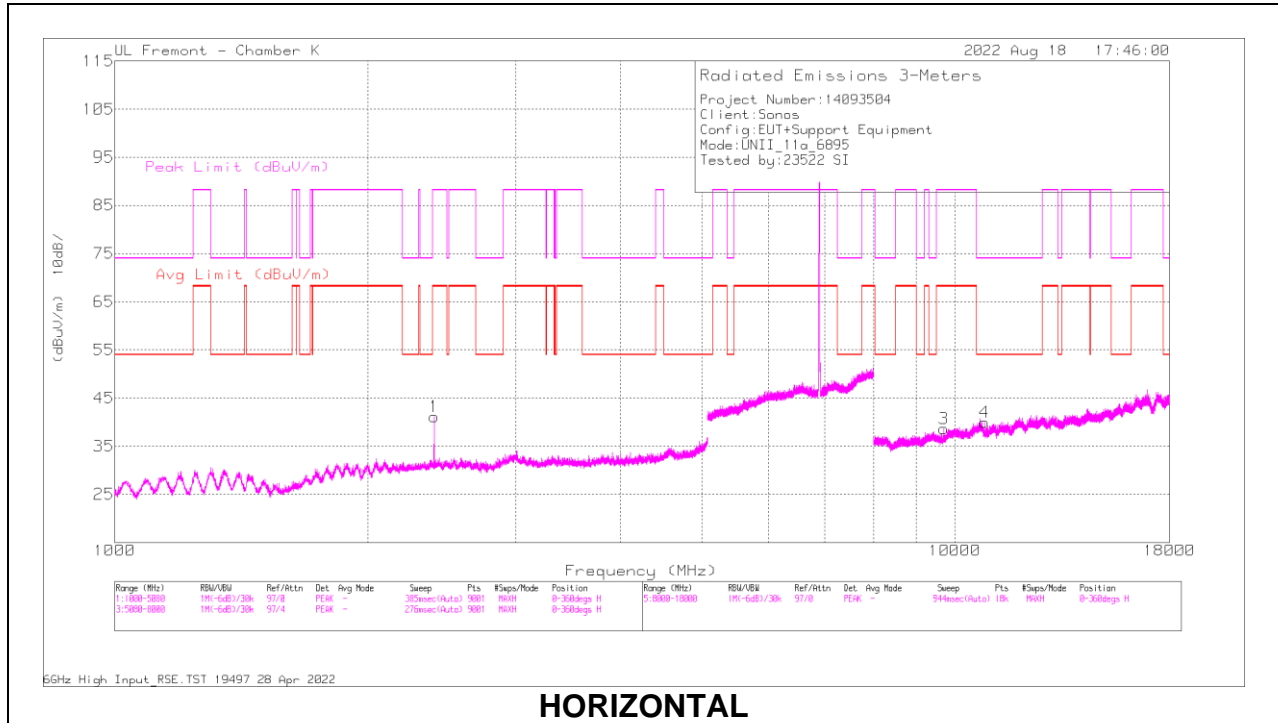
### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	80402 ACF(dB) ~ 3mH	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Avg Limit (dBm)	RMS Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	7125	-28.86	Pk	35.9	-28.7	11.8	0	-9.86	-7	-2.86	-	-	220	291	V
2	7125.001	-28.86	Pk	35.8	-28.6	11.8	0	-9.86	-7	-2.86	-	-	220	291	V
3	7125	-51.43	RMS	35.9	-28.7	11.8	1.07	-31.36	-	-	-27	-4.36	220	291	V
4	7125.401	-48.34	RMS	35.8	-28.6	11.8	1.07	-28.27	-	-	-27	-1.27	220	291	V

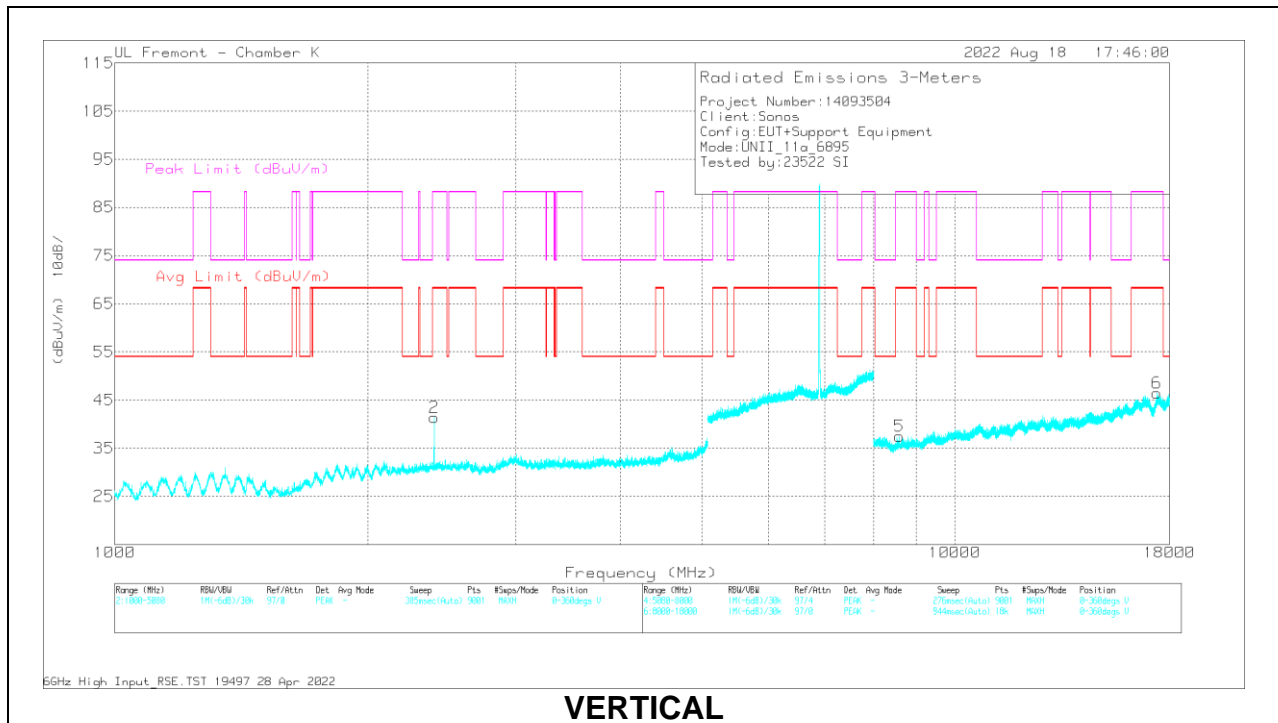
Pk - Peak detector  
 RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL



## HORIZONTAL



## VERTICAL

**RADIATED EMISSIONS**

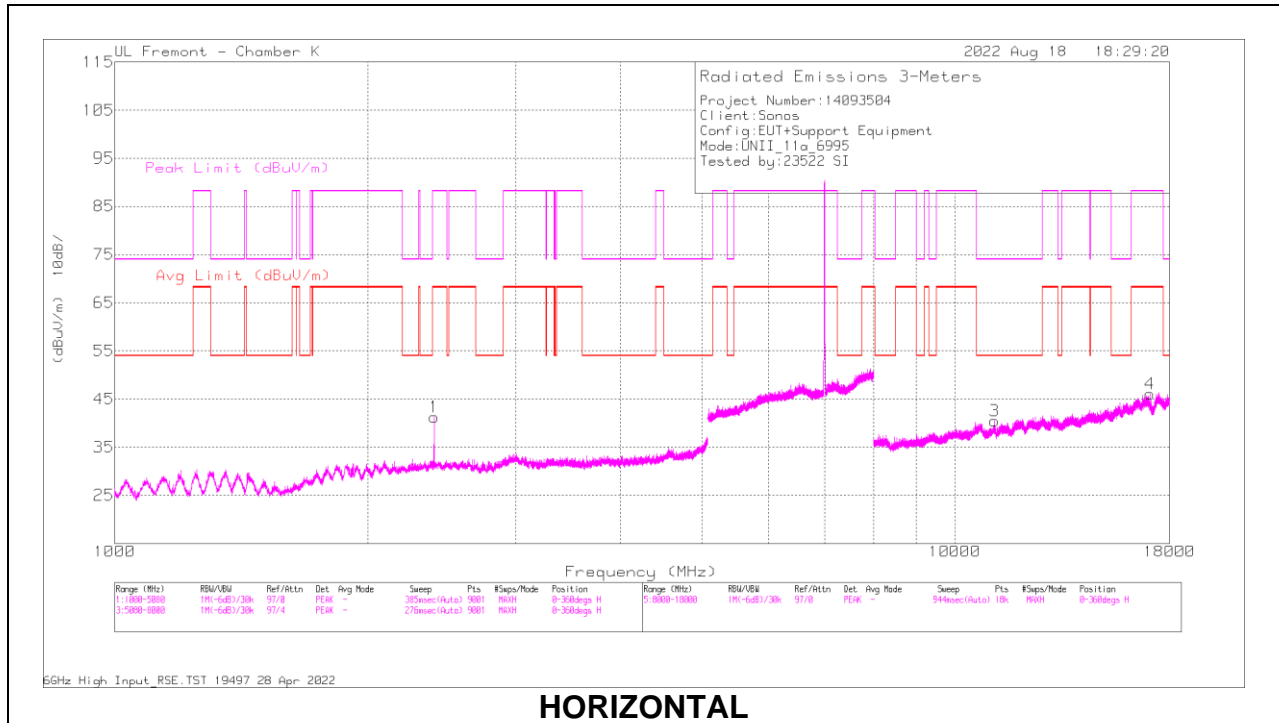
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cb/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2400.244	60.75	PK-U	32.5	-44.6	0	48.65	-	-	88.2	-39.55	67	98	H
	2400.012	53.42	ADR	32.5	-44.6	1.07	42.39	68.2	-25.81	-	-	67	98	H
2	2400.116	60.42	PK-U	32.5	-44.6	0	48.32	-	-	88.2	-39.88	66	98	V
	2400.028	53.44	ADR	32.5	-44.6	1.07	42.41	68.2	-25.79	-	-	66	98	V
3	9708.023	46.47	PK-U	37	-36.5	0	46.97	-	-	88.2	-41.23	105	237	H
	9707.58	35.14	ADR	37	-36.5	1.07	36.71	68.2	-31.49	-	-	105	237	H
4	* 10848.18	47.05	PK-U	37.9	-36.3	0	48.65	-	-	74	-25.35	177	276	H
	* 10847.873	35.06	ADR	37.9	-36.3	1.07	37.73	54	-16.27	-	-	177	276	H
5	8586.331	47.52	PK-U	35.9	-36.9	0	46.52	-	-	88.2	-41.68	66	273	V
	8588.701	35.37	ADR	35.9	-36.9	1.07	35.44	68.2	-32.76	-	-	66	273	V
6	17402.165	44.25	PK-U	41.4	-30.5	0	55.15	-	-	88.2	-33.05	122	363	V
	17403.188	32.65	ADR	41.4	-30.5	1.07	44.62	68.2	-23.58	-	-	122	363	V

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

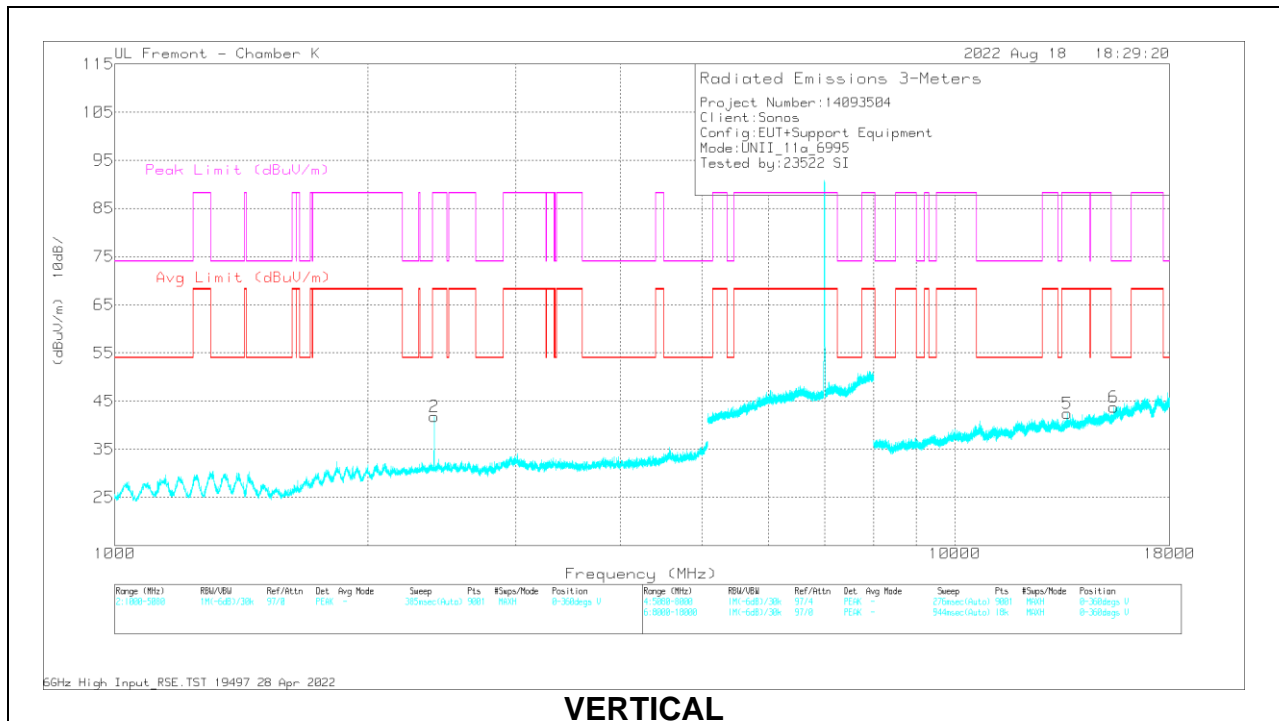
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL



**RADIATED EMISSIONS**

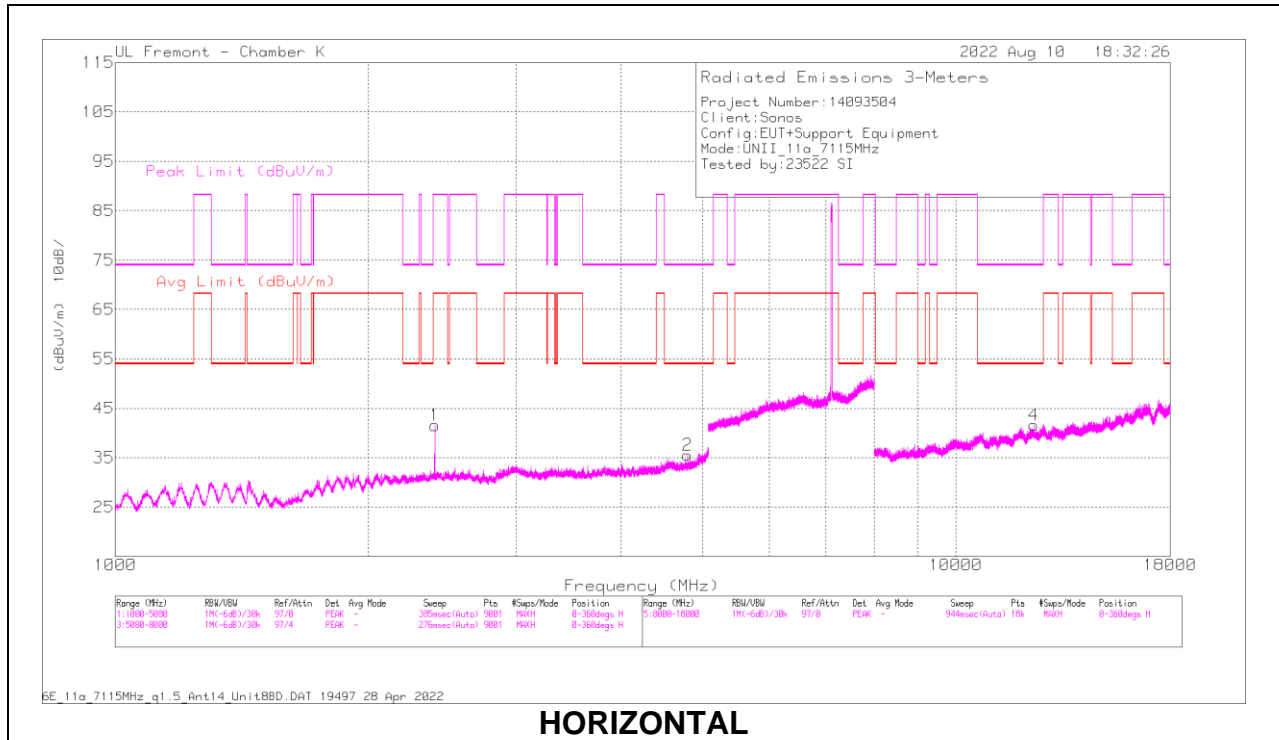
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2399.924	61.49	PK-U	32.5	-44.6	0	49.39	-	-	88.2	-38.81	67	98	H
	2400.052	53.55	ADR	32.5	-44.6	1.07	42.52	68.2	-25.68	-	-	67	98	H
2	2399.864	60.21	PK-U	32.5	-44.6	0	48.11	-	-	88.2	-40.09	63	98	V
	2400.076	52.88	ADR	32.5	-44.6	1.07	41.85	68.2	-26.35	-	-	63	98	V
3	* 11152.844	46.59	PK-U	38	-35.4	0	49.19	-	-	74	-24.81	0	234	H
	* 11152.661	35.44	ADR	38	-35.5	1.07	39.01	54	-14.99	-	-	0	234	H
4	17055.589	44.35	PK-U	41.9	-32.6	0	53.65	-	-	88.2	-34.55	7	253	H
	17055.245	33.07	ADR	41.9	-32.6	1.07	43.44	68.2	-24.76	-	-	7	253	H
5	13600.655	45.88	PK-U	38.8	-34.3	0	50.38	-	-	88.2	-37.82	156	272	V
	13597.834	34.09	ADR	38.8	-34.3	1.07	39.66	68.2	-28.54	-	-	156	272	V
6	* 15457.723	45.11	PK-U	40.3	-33.5	0	51.91	-	-	74	-22.09	178	378	V
	* 15459.25	33.24	ADR	40.3	-33.4	1.07	41.21	54	-12.79	-	-	178	378	V

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

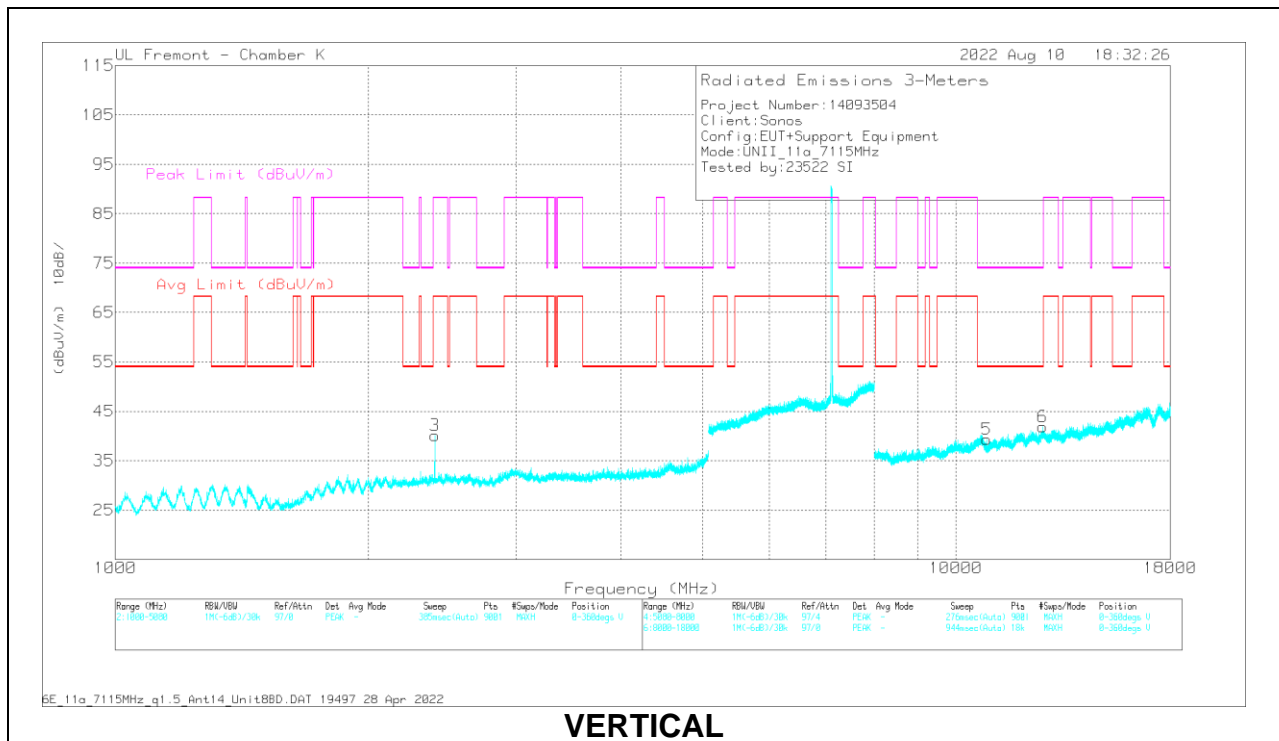
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	Amp/Cb/Fitr (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	2400.02	62.2	PK-U	32.5	-44.6	0	50.1	-	-	88.2	-38.1	354	196	H
	2400.02	54.74	ADR	32.5	-44.6	1.07	43.71	68.2	-24.49	-	-	354	196	H
2	* 4799.965	51.58	PK-U	34.1	-40.3	0	45.38	-	-	74	-28.62	319	323	H
	* 4799.981	41.18	ADR	34.1	-40.3	1.07	36.05	54	-17.95	-	-	319	323	H
3	2400.148	59.23	PK-U	32.5	-44.6	0	47.13	-	-	88.2	-41.07	217	98	V
	2400.02	51.76	ADR	32.5	-44.6	1.07	40.73	68.2	-27.47	-	-	217	98	V
4	* 12386.034	45.47	PK-U	38.9	-34.3	0	50.07	-	-	74	-23.93	97	236	H
	* 12387.236	33.87	ADR	38.9	-34.3	1.07	39.54	54	-14.46	-	-	97	236	H
5	* 10881.996	46.39	PK-U	37.9	-36.3	0	47.99	-	-	74	-26.01	30	368	V
	* 10881.772	34.94	ADR	37.9	-36.3	1.07	37.61	54	-16.39	-	-	30	368	V
6	* 12689.422	45.54	PK-U	39.1	-34.2	0	50.44	-	-	74	-23.56	161	385	V
	* 12689.494	33.65	ADR	39.1	-34.2	1.07	39.62	54	-14.38	-	-	161	385	V

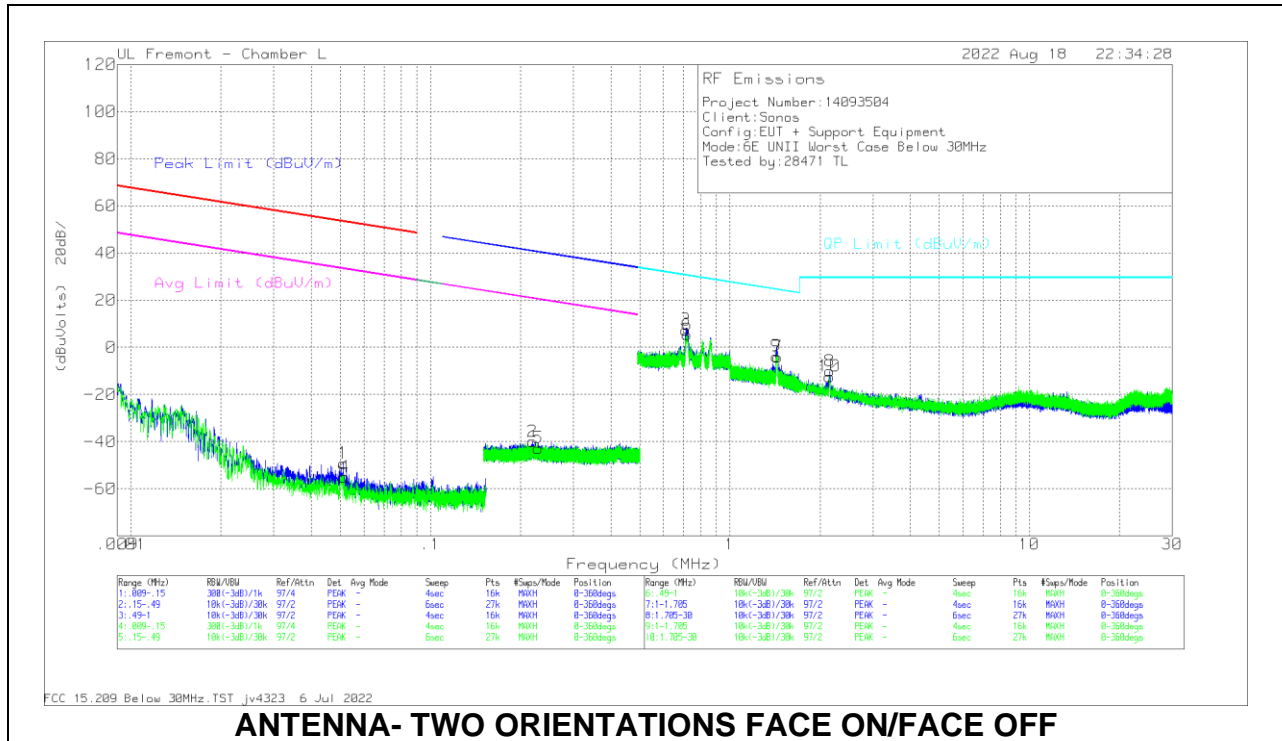
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

## 10.2. WORST CASE BELOW 30MHz

### SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)



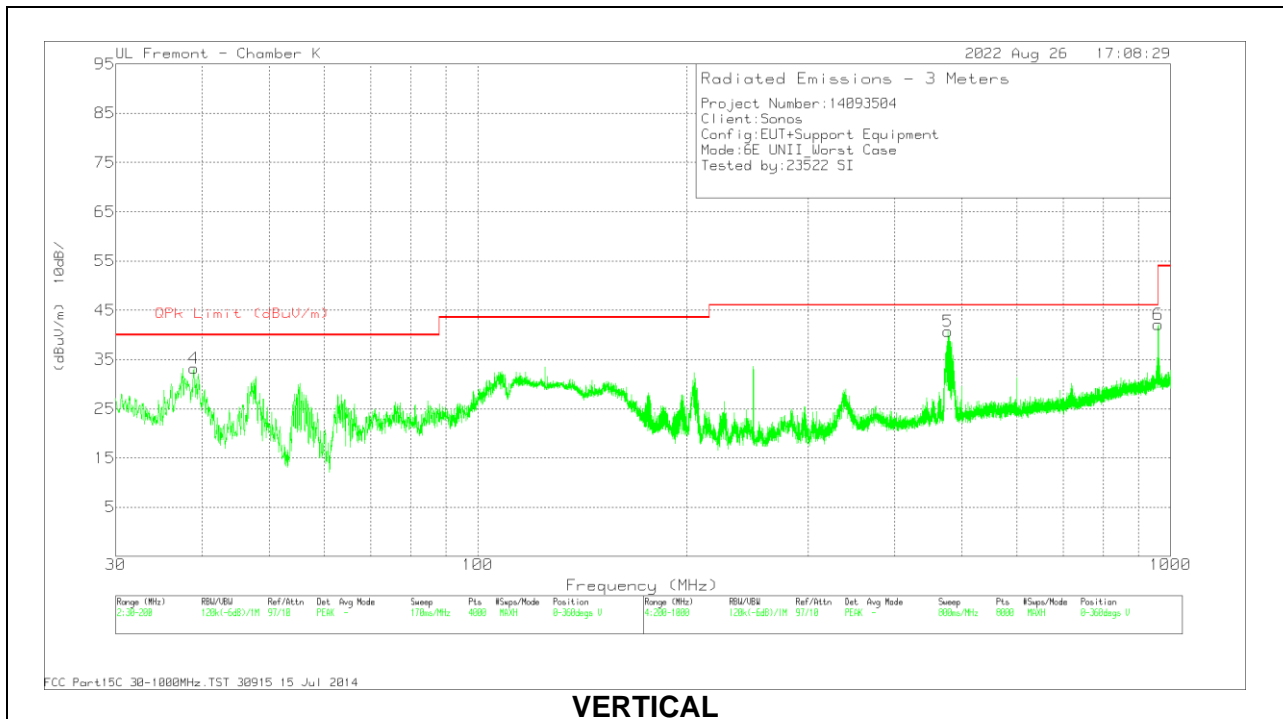
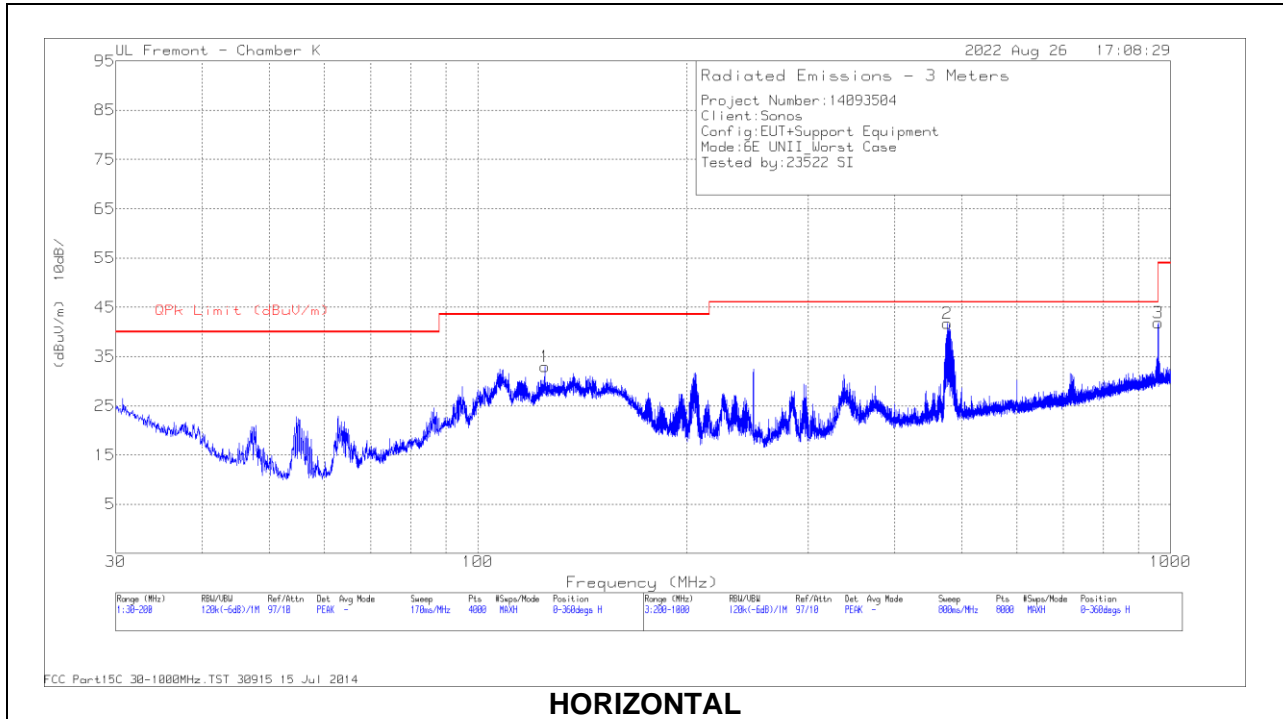
### ANTENNA- TWO ORIENTATIONS FACE ON/FACE OFF

### Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E(ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	QP Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0512	5.7	Pk	57	-31.9	-80	-49.2	53.4	-102.6	33.4	-82.6	-	-	-	-	-	-	0-360
2	.2191	15.81	Pk	56.2	-32	-80	-39.99	-	-	-	-	-	-	40.8	-80.79	20.8	-60.79	0-360
4	.0516	-.09	Pk	57	-31.9	-80	-54.99	53.33	-108.32	33.33	-88.32	-	-	-	-	-	-	0-360
5	.2289	13.04	Pk	56.2	-32	-80	-42.76	-	-	-	-	-	-	40.42	-83.18	20.42	-63.18	0-360
3	.7124	23.02	Pk	56.2	-31.9	-40	7.32	-	-	-	-	30.56	-23.24	-	-	-	-	0-360
6	.7199	21.15	Pk	56.2	-31.9	-40	5.45	-	-	-	-	30.47	-25.02	-	-	-	-	0-360
7	1.442	23.17	Pk	44.6	-31.9	-40	-4.13	-	-	-	-	24.45	-28.58	-	-	-	-	0-360
8	2.1535	20.4	Pk	41.3	-31.8	-40	-10.1	-	-	-	-	29.5	-39.6	-	-	-	-	0-360
9	1.429	23.43	Pk	44.7	-31.9	-40	-3.77	-	-	-	-	24.53	-28.3	-	-	-	-	0-360
10	2.1504	18.17	Pk	41.3	-31.8	-40	-12.33	-	-	-	-	29.5	-41.83	-	-	-	-	0-360

Pk - Peak detector

### 10.3. WORST CASE BELOW 1 GHz



**Below 1 GHz DATA**

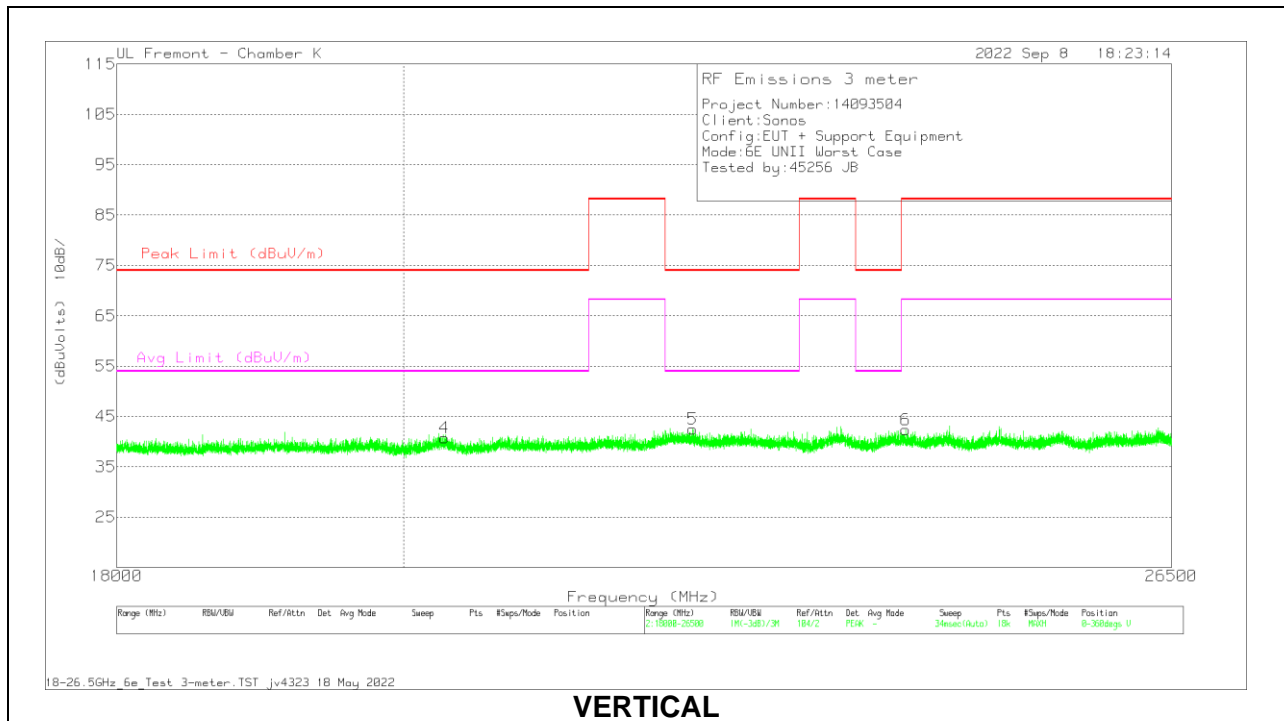
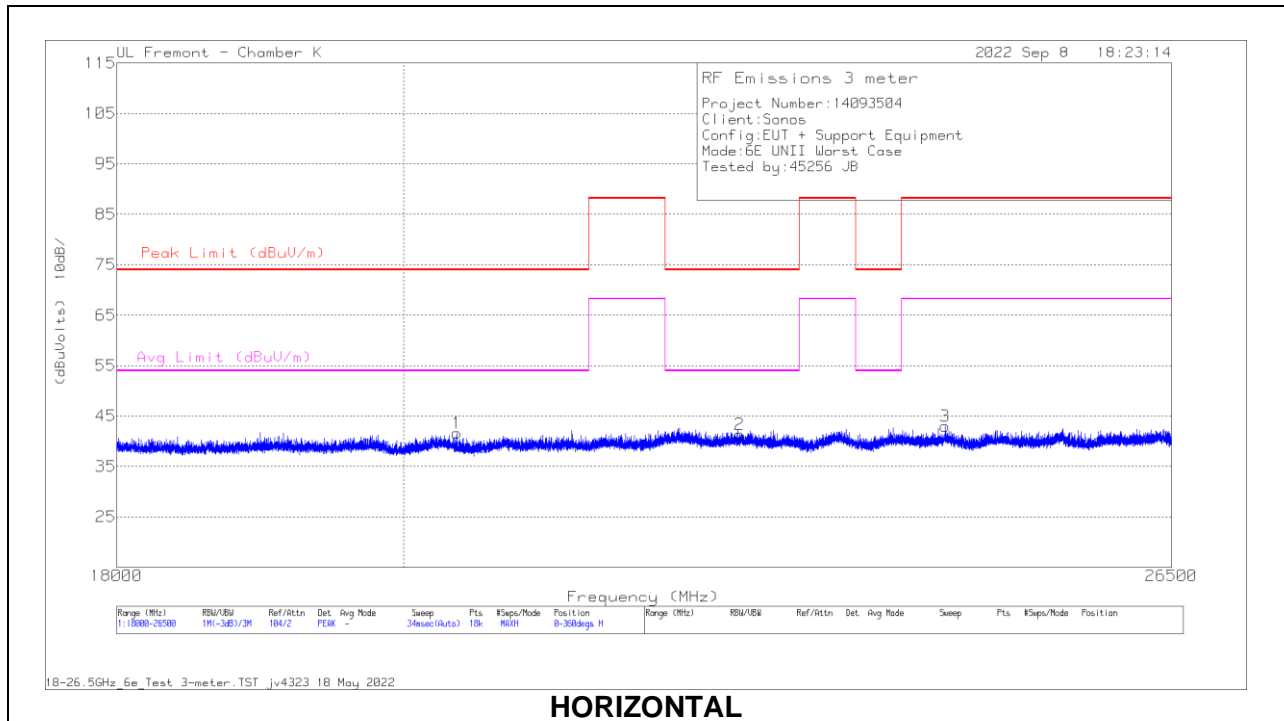
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	82258 ACF (dB)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 124.97	43.38	Pk	20.3	-30.7	32.98	43.52	-10.54	0-360	197	H
4	38.9316	39.44	Qp	21	-31.4	29.04	40	-10.96	122	105	V
2	476.815	44.68	Qp	23.8	-29.1	39.38	46.02	-6.64	92	234	H
3	* 960.099	38.75	Pk	29.4	-26.3	41.85	53.97	-12.12	0-360	100	H
5	477.155	44.55	Qp	23.8	-29.1	39.25	46.02	-6.77	28	100	V
6	* 960.099	39.07	Pk	29.4	-26.3	42.17	53.97	-11.8	0-360	98	V

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

Pk - Peak detector

Qp - Quasi-Peak detector

### 10.4. WORST CASE 18-26 GHz



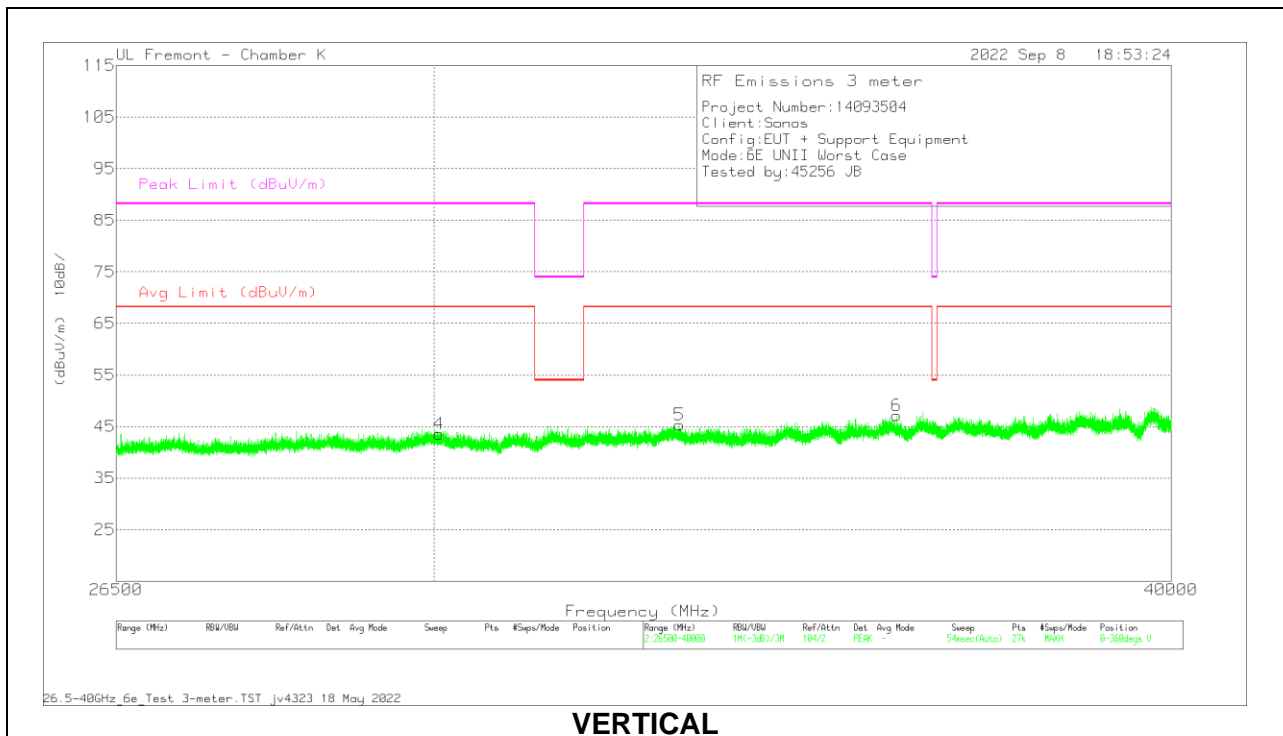
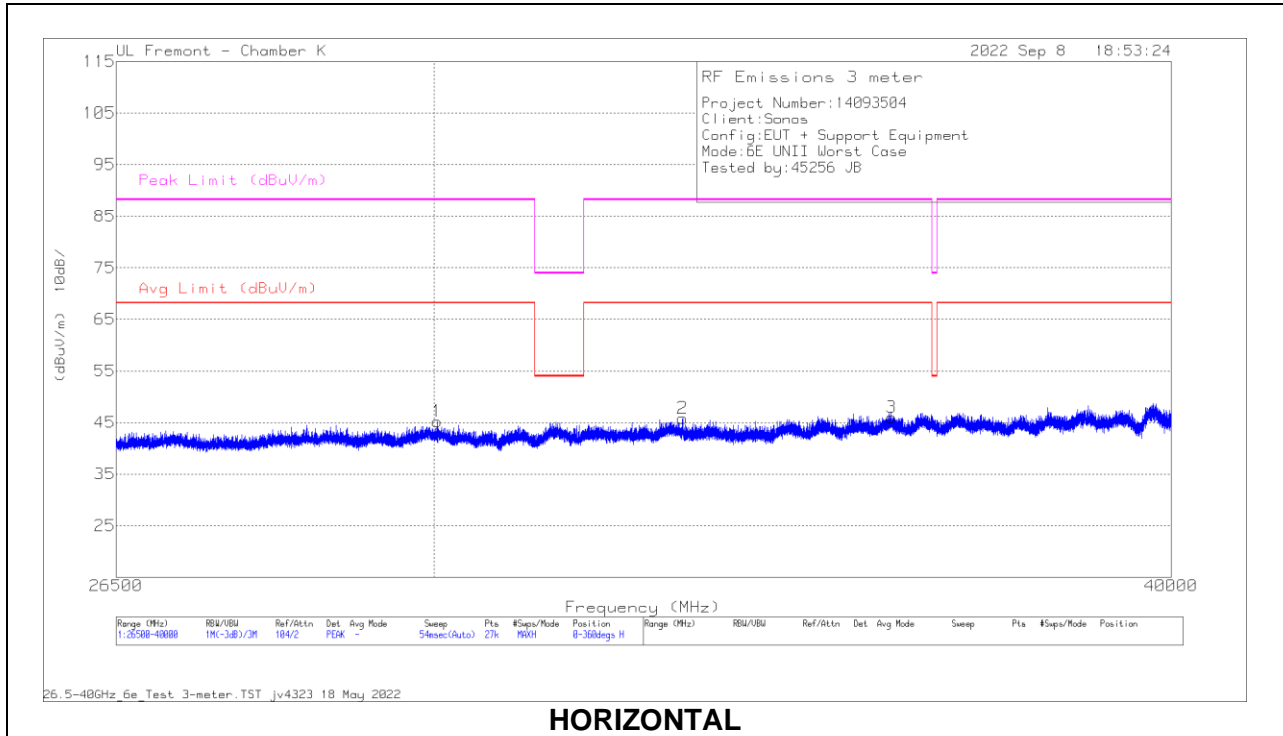
**18-26 GHz DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	81138 AF (dB/m)	215705 amp/cbl (dB)	Cables (dB)	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	PK Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 20392.277	49.88	Pk	33	-59.8	18.6	41.68	74	-32.32	54	-12.32	0-360	199	H
2	* 22618.331	49.25	Pk	33.5	-61	19.6	41.35	74	-32.65	54	-12.65	0-360	199	H
3	24391.525	49.64	Pk	33.9	-61	20.4	42.94	88.2	-45.26	68.2	-25.26	0-360	100	H
4	* 20299.249	49.15	Pk	33	-60	18.6	40.75	74	-33.25	54	-13.25	0-360	200	V
5	* 22232.998	50.29	Pk	33.6	-60.8	19.4	42.49	74	-31.51	54	-11.51	0-360	200	V
6	24037.358	49.52	Pk	33.9	-61.2	20.2	42.42	88.2	-45.78	68.2	-25.78	0-360	200	V

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



### 10.5. WORST CASE 26-40 GHz



**26-40 GHz DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	81104 AF (dB/m)	172345 amp/cbl (dB)	Cables (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30035.5	56.04	Pk	36.5	-70.2	22.9	45.24	68.2	-22.96	88.2	-42.96	0-360	200	H
2	33055.5	55.82	Pk	37.1	-71.2	24.1	45.82	68.2	-22.38	88.2	-42.38	0-360	200	H
3	35861	56.19	Pk	37.6	-73.1	25.3	45.99	68.2	-22.21	88.2	-42.21	0-360	100	H
4	30061.5	54.37	Pk	36.5	-70.2	22.9	43.57	68.2	-24.63	88.2	-44.63	0-360	200	V
5	33014	55.22	Pk	37.2	-71.2	24.1	45.32	68.2	-22.88	88.2	-42.88	0-360	200	V
6	35937	56.71	Pk	37.9	-72.9	25.4	47.11	68.2	-21.09	88.2	-41.09	0-360	200	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)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ V)	
	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.

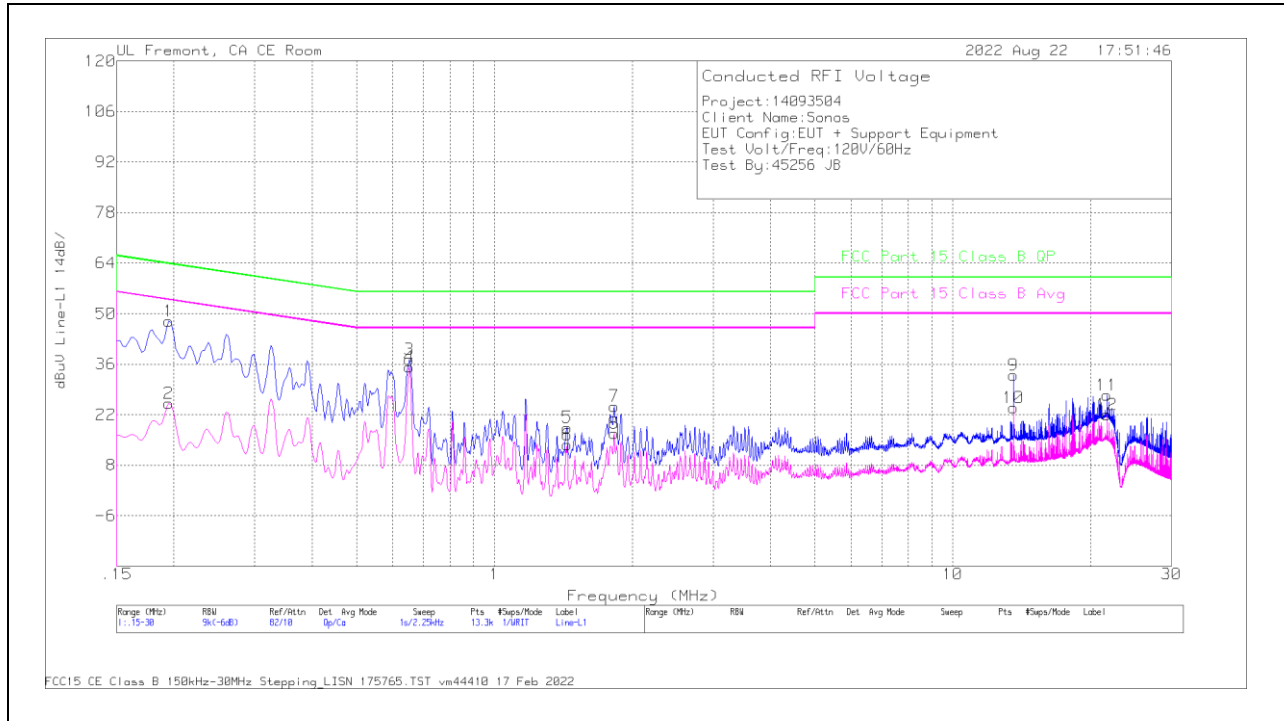
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

### RESULTS

**AC POWER LINE NORM**

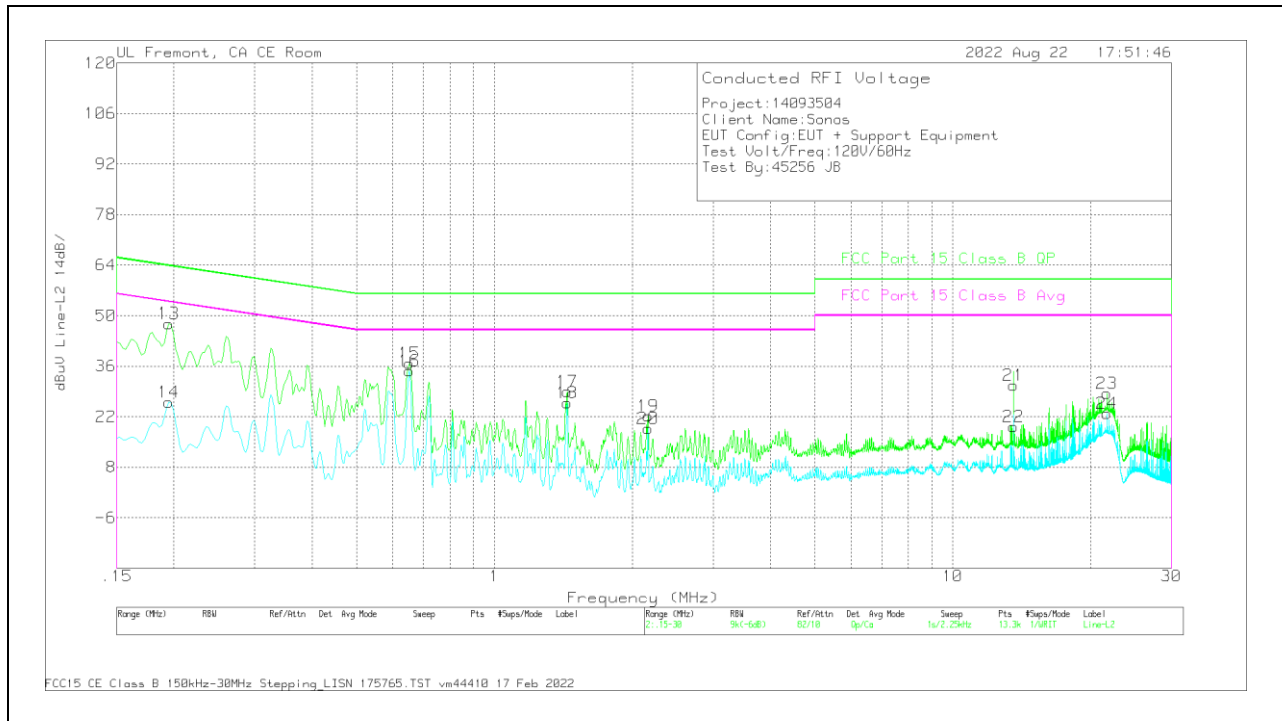
**LINE 1 RESULTS**



Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L1	C1&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	FCC Part 15 Class B QP	QP Margin (dB)	FCC Part 15 Class B Avg	Av(CISPR)M argin (dB)
2	.195	15.59	Ca	.1	0	9.4	25.09	-	-	53.82	-28.73
4	.6518	25.76	Ca	0	.1	9.3	35.16	-	-	46	-10.84
6	1.4415	4.23	Ca	0	.1	9.3	13.63	-	-	46	-32.37
8	1.824	7.38	Ca	0	.1	9.3	16.78	-	-	46	-29.22
10	13.56	14.25	Ca	.1	.2	9.3	23.85	-	-	50	-26.15
12	21.6623	12.11	Ca	.2	.3	9.4	22.01	-	-	50	-27.99
1	.195	38.46	Qp	.1	0	9.4	47.96	63.82	-15.86	-	-
3	.6518	27.97	Qp	0	.1	9.3	37.37	56	-18.63	-	-
5	1.4415	9.05	Qp	0	.1	9.3	18.45	56	-37.55	-	-
7	1.824	14.96	Qp	0	.1	9.3	24.36	56	-31.64	-	-
9	13.56	23.39	Qp	.1	.2	9.3	32.99	60	-27.01	-	-
11	21.6623	17.54	Qp	.2	.3	9.4	27.44	60	-32.56	-	-

Qp - Quasi-Peak detector  
 Ca - CISPR average detection

### LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L2	C2&C3 cable path loss	207996 Limiter with short cabl	Corrected Reading dBuV	FCC Part 15 Class B QP	QP Margin (dB)	FCC Part 15 Class B Avg	Av(CISPR)M argin (dB)
14	.195	16.58	Ca	0	0	9.4	25.98	-	-	53.82	-27.84
16	.6518	25.32	Ca	0	.1	9.3	34.72	-	-	46	-11.28
18	1.4415	16.41	Ca	0	.1	9.3	25.81	-	-	46	-20.19
20	2.1615	9.27	Ca	0	.1	9.3	18.67	-	-	46	-27.33
22	13.5645	9.63	Ca	.1	.2	9.3	19.23	-	-	50	-30.77
24	21.6623	13.02	Ca	.1	.3	9.4	22.82	-	-	50	-27.18
13	.195	38.42	Qp	0	0	9.4	47.82	63.82	-16	-	-
15	.6518	27.38	Qp	0	.1	9.3	36.78	56	-19.22	-	-
17	1.4415	19.62	Qp	0	.1	9.3	29.02	56	-26.98	-	-
19	2.1615	12.86	Qp	0	.1	9.3	22.26	56	-33.74	-	-
21	13.5645	21.07	Qp	.1	.2	9.3	30.67	60	-29.33	-	-
23	21.6623	18.62	Qp	.1	.3	9.4	28.42	60	-31.58	-	-

Qp - Quasi-Peak detector  
 Ca - CISPR average detection