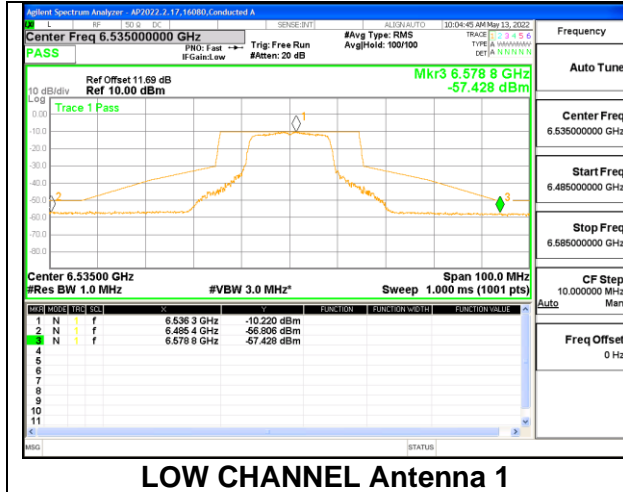


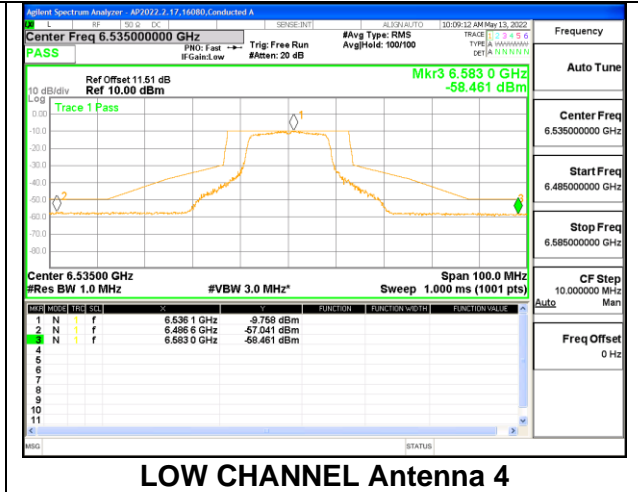
### 9.5.3. 802.11a MODE 2TX IN THE UNII-7 BAND

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

#### LOW CHANNEL

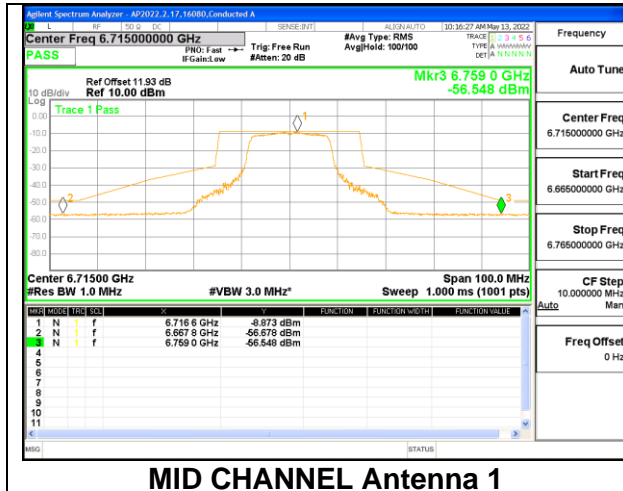


LOW CHANNEL Antenna 1

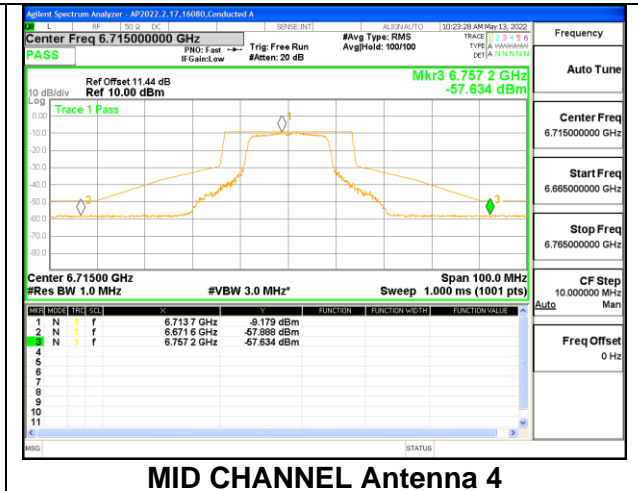


LOW CHANNEL Antenna 4

#### MID CHANNEL

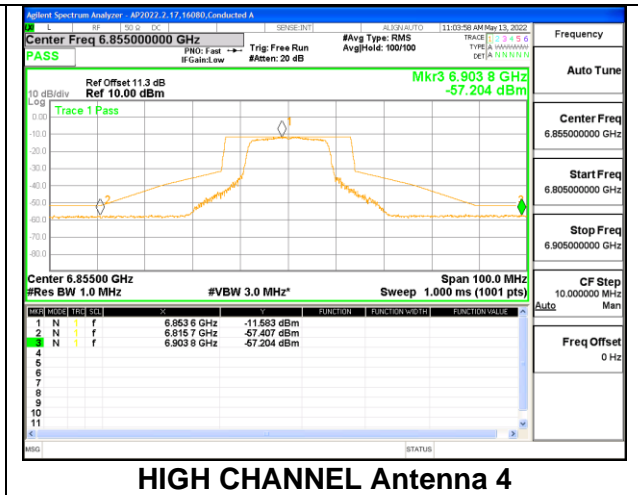
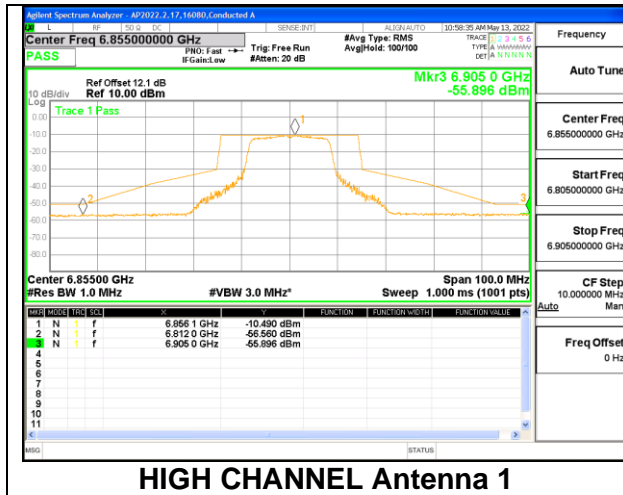


MID CHANNEL Antenna 1

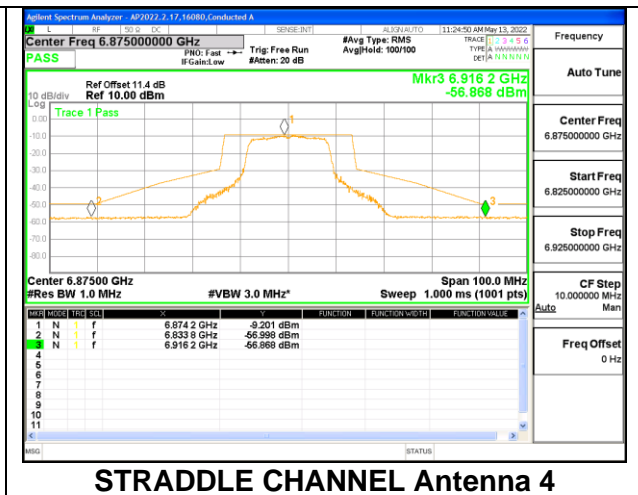
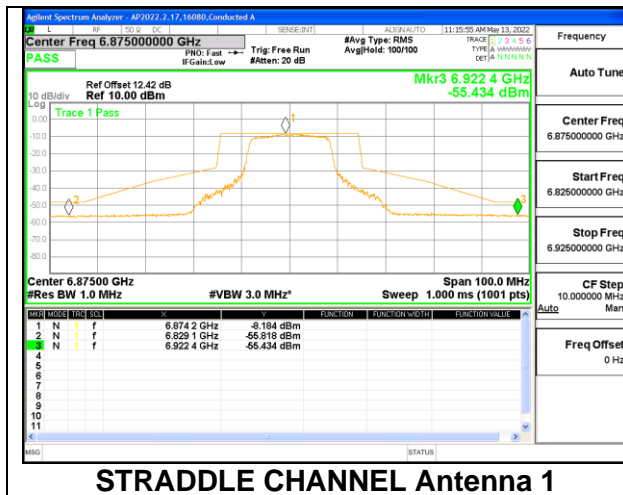


MID CHANNEL Antenna 4

### 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.

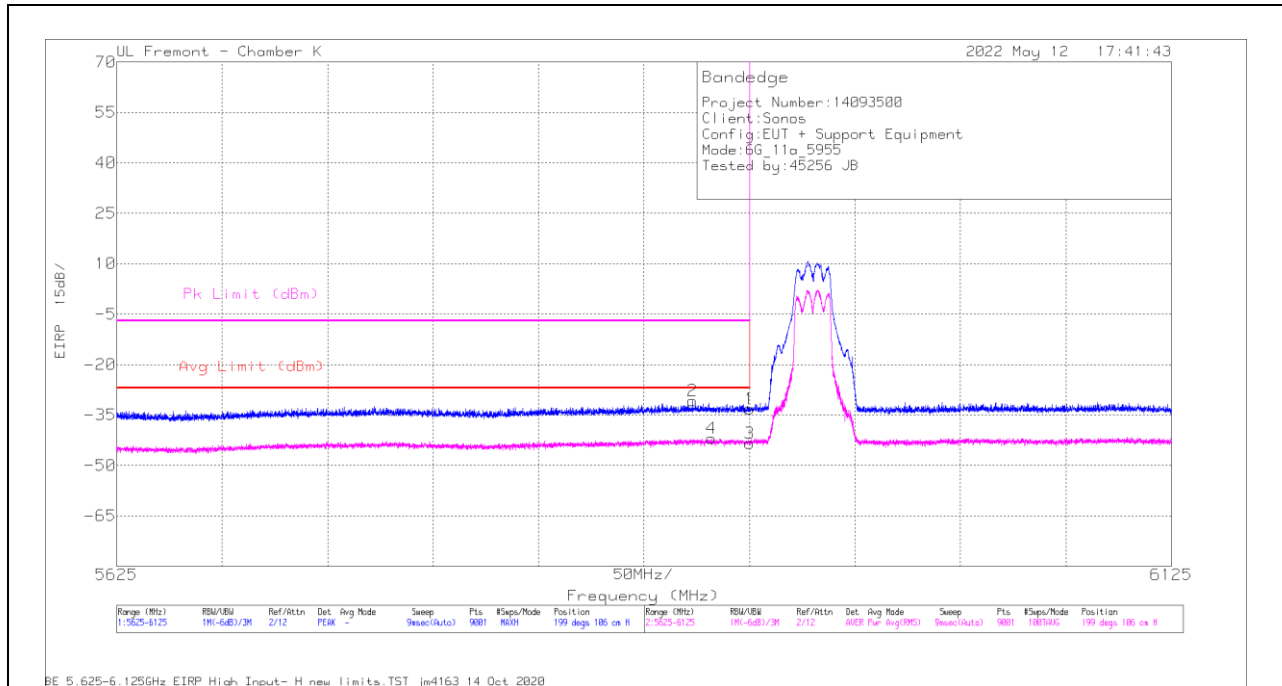
## 10.1. TRANSMITTER OUTSIDE 5.925-7.125 GHz , 1- 18GHz

### 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

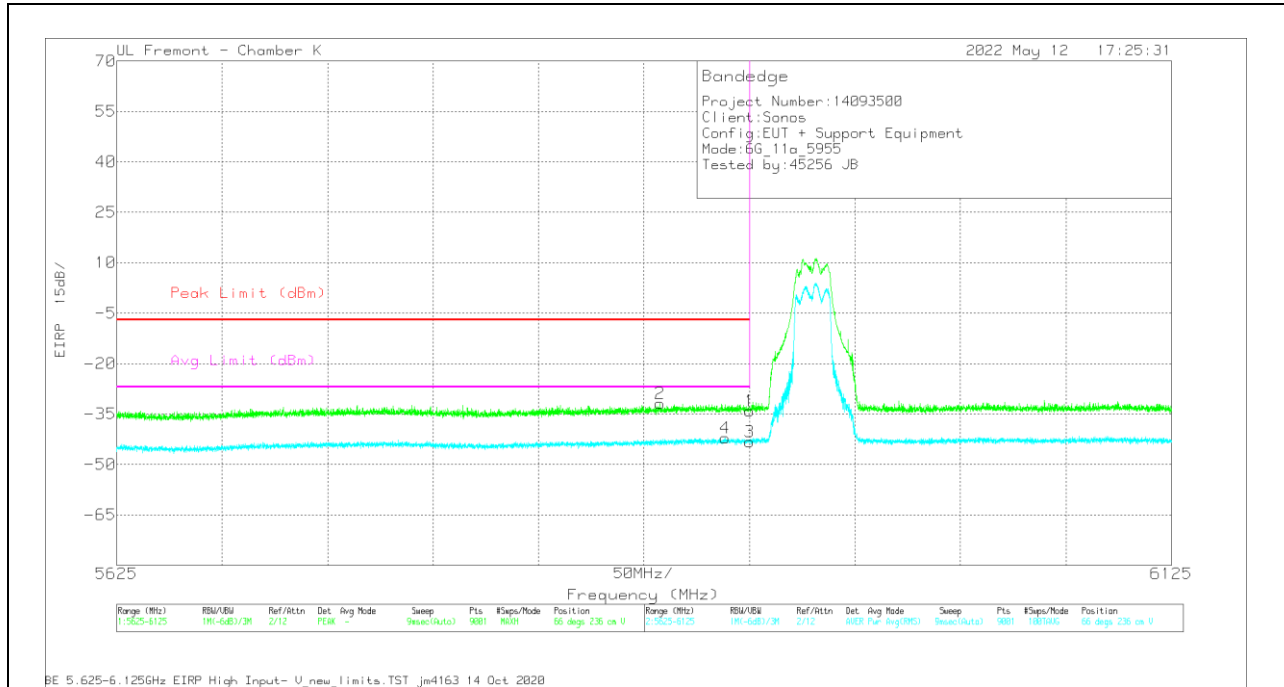


#### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF 80404 (dB/m)	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	-74.51	Pk	35.3	-5.8	11.8	0	-33.21	-	-	-7	-26.21	199	106	H
2	5898.058	-71.95	Pk	35.2	-5.8	11.8	0	-30.75	-	-	-7	-23.75	199	106	H
3	5925	-85.82	RMS	35.3	-5.8	11.8	1.03	-43.49	-27	-16.49	-	-	199	106	H
4	5906.836	-84.41	RMS	35.3	-5.7	11.8	1.03	-41.98	-27	-14.98	-	-	199	106	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULT



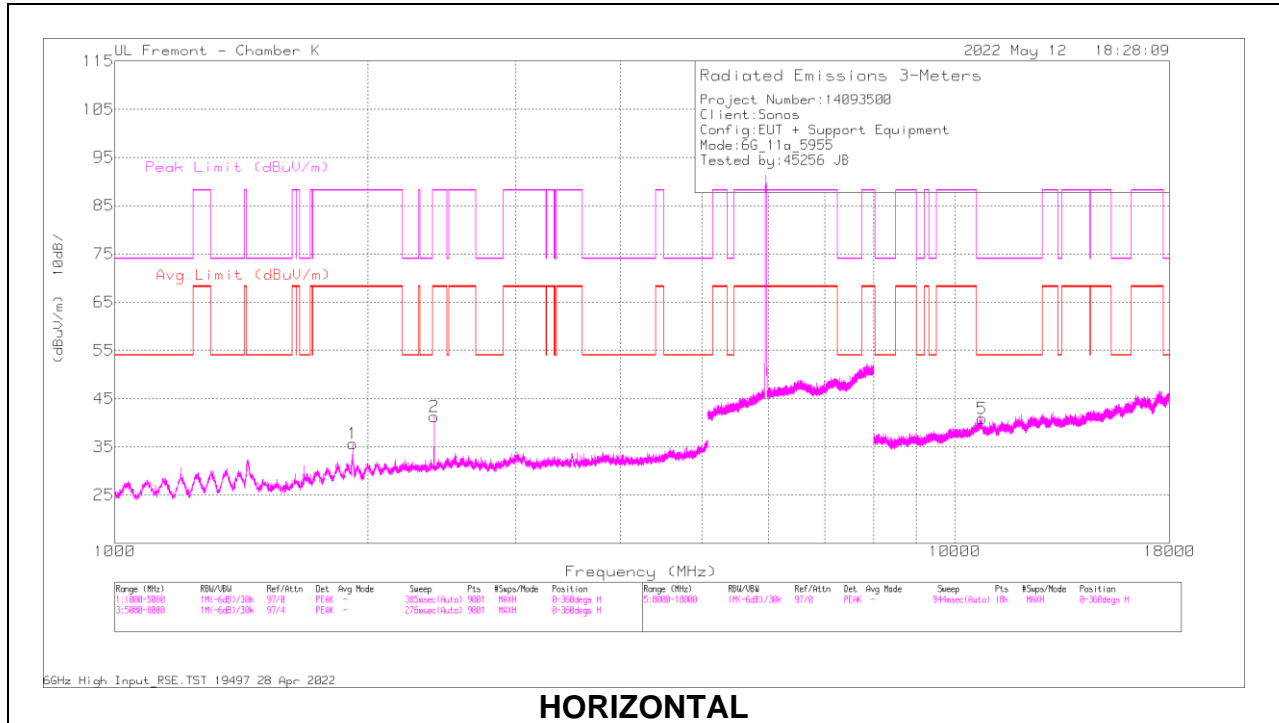
### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF 80404 (dB/m)	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	-75.31	PK	35.3	-5.8	11.8	0	-34.01	-7	-27.01	-	-	66	236	V
2	5882.669	-73.06	PK	35.2	-5.8	11.8	0	-31.86	-7	-24.86	-	-	66	236	V
3	5925	-85.55	RMS	35.3	-5.8	11.8	1.03	-43.22	-	-	-27	-16.22	66	236	V
4	5913.336	-84.57	RMS	35.3	-5.7	11.8	1.03	-42.14	-	-	-27	-15.14	66	236	V

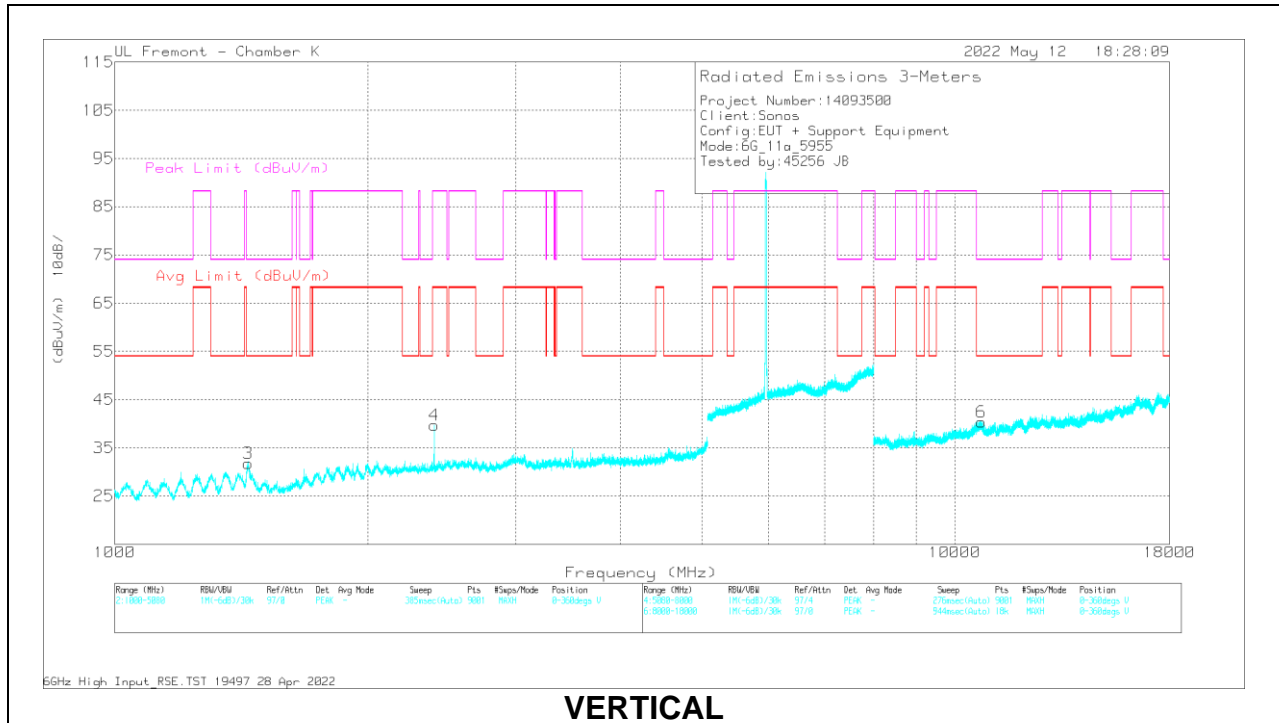
Pk - Peak detector  
 RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL



## HORIZONTAL



## VERTICAL



**RADIATED EMISSIONS**

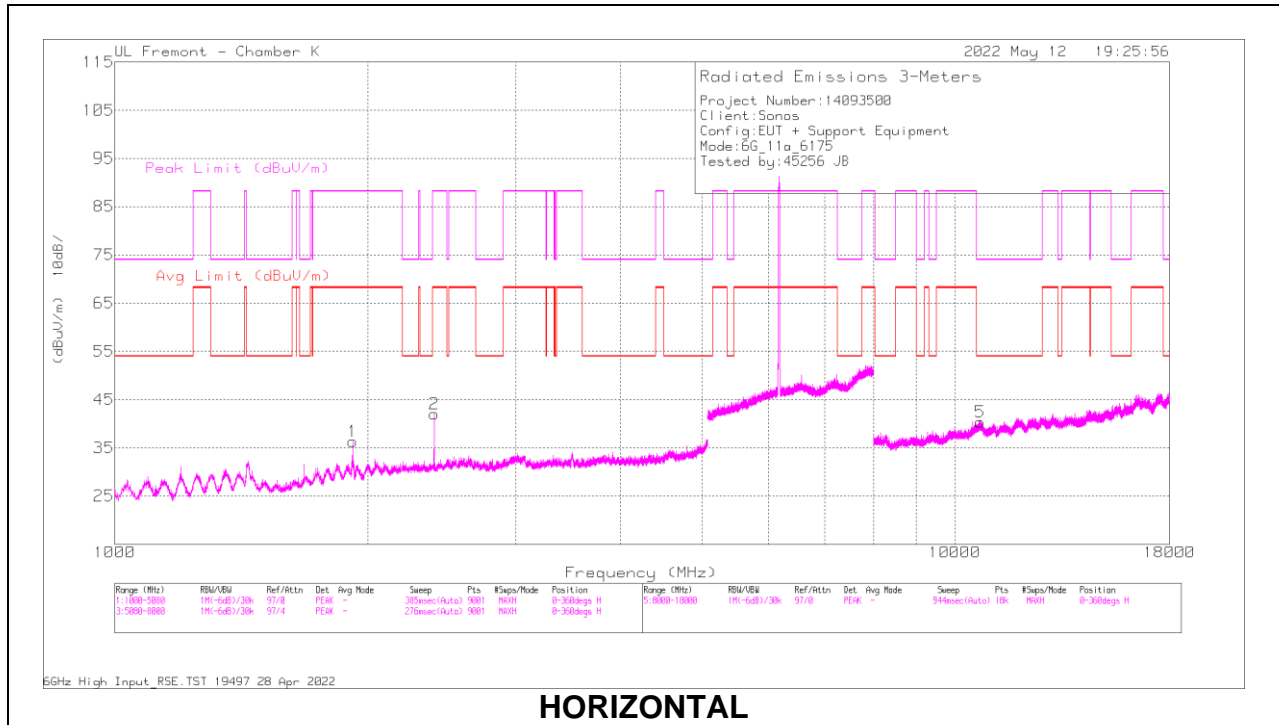
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1920.092	78.82	PK-U	31	-45	0	64.82	-	-	88.2	-23.38	218	203	H
	1920.024	49.48	ADR	31	-45	1.03	36.51	68.2	-31.69	-	-	218	203	H
2	2400.184	62.1	PK-U	32	-44.2	0	49.9	-	-	88.2	-38.3	191	298	H
	2400.028	55	ADR	32	-44.2	1.03	43.83	68.2	-24.37	-	-	191	298	H
3	* 1440.573	67.9	PK-U	29	-45.7	0	51.2	-	-	74	-22.8	230	106	V
	* 1440.409	47.74	ADR	29	-45.7	1.03	32.07	54	-21.93	-	-	230	106	V
4	2399.737	63.79	PK-U	32	-44.2	0	51.59	-	-	88.2	-36.61	112	188	V
	2400.024	49.23	ADR	32	-44.2	1.03	38.06	68.2	-30.14	-	-	112	188	V
5	* 10766.499	45.93	PK-U	38.1	-34.9	0	49.13	-	-	74	-24.87	144	182	H
	* 10767.641	34.59	ADR	38.2	-34.8	1.03	39.02	54	-14.98	-	-	144	182	H
6	* 10759.425	46.21	PK-U	38.1	-35	0	49.31	-	-	74	-24.69	111	113	V
	* 10760.172	34.56	ADR	38.1	-34.9	1.03	38.79	54	-15.21	-	-	111	113	V

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

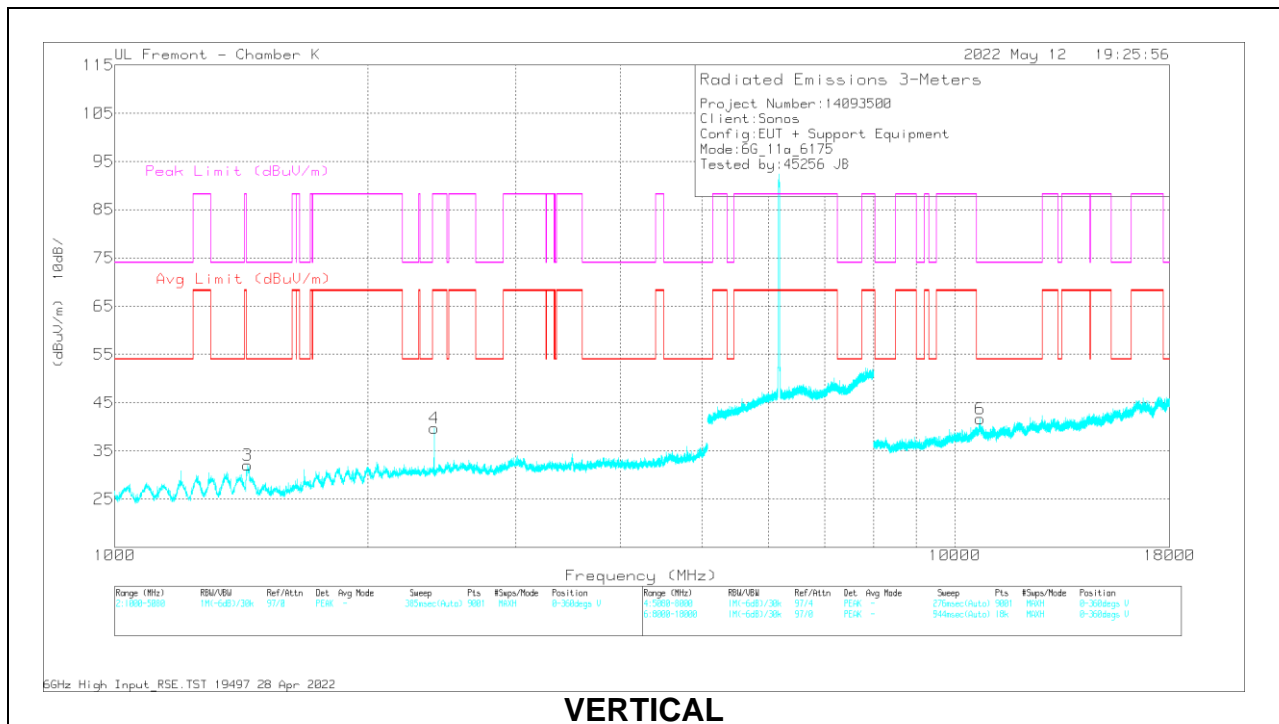
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

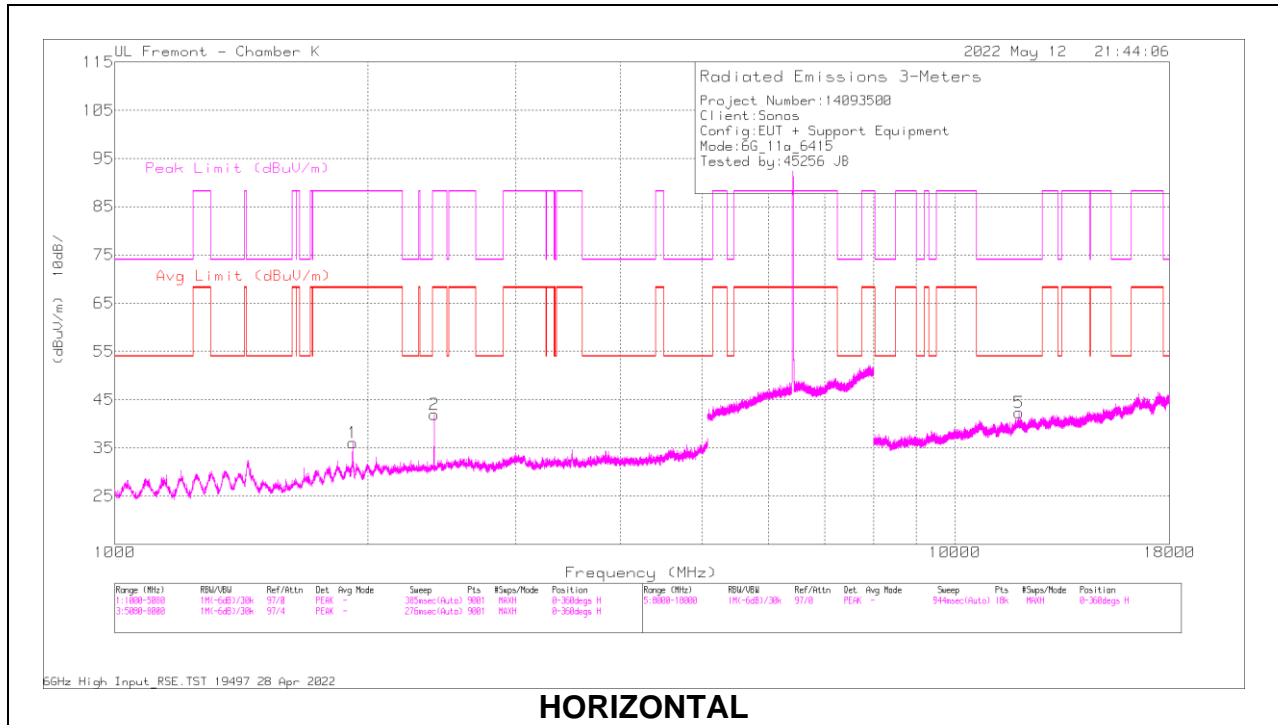
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cb/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1919.573	66.51	PK-U	31	-44.9	0	52.61	-	-	88.2	-35.59	215	204	H
	1919.964	49.62	ADR	31	-45	1.03	36.65	68.2	-31.55	-	-	215	204	H
2	2399.872	61.07	PK-U	32	-44.2	0	48.87	-	-	88.2	-39.33	187	289	H
	2400.016	53.94	ADR	32	-44.2	1.03	42.77	68.2	-25.43	-	-	187	289	H
3	* 1439.761	68.75	PK-U	29	-45.7	0	52.05	-	-	74	-21.95	152	158	V
	* 1439.869	48.57	ADR	29	-45.7	1.03	32.9	54	-21.1	-	-	152	158	V
4	2399.94	59.27	PK-U	32	-44.2	0	47.07	-	-	88.2	-41.13	6	102	V
	2400.012	51.21	ADR	32	-44.2	1.03	40.04	68.2	-28.16	-	-	6	102	V
5	* 10708.696	47.36	PK-U	38.2	-35.2	0	50.36	-	-	74	-23.64	249	370	H
	* 10709.115	35.26	ADR	38.2	-35.1	1.03	39.39	54	-14.61	-	-	249	370	H
6	* 10720.921	47.28	PK-U	38.2	-35.1	0	50.38	-	-	74	-23.62	140	256	V
	* 10721.317	35.16	ADR	38.2	-35.1	1.03	39.29	54	-14.71	-	-	140	256	V

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

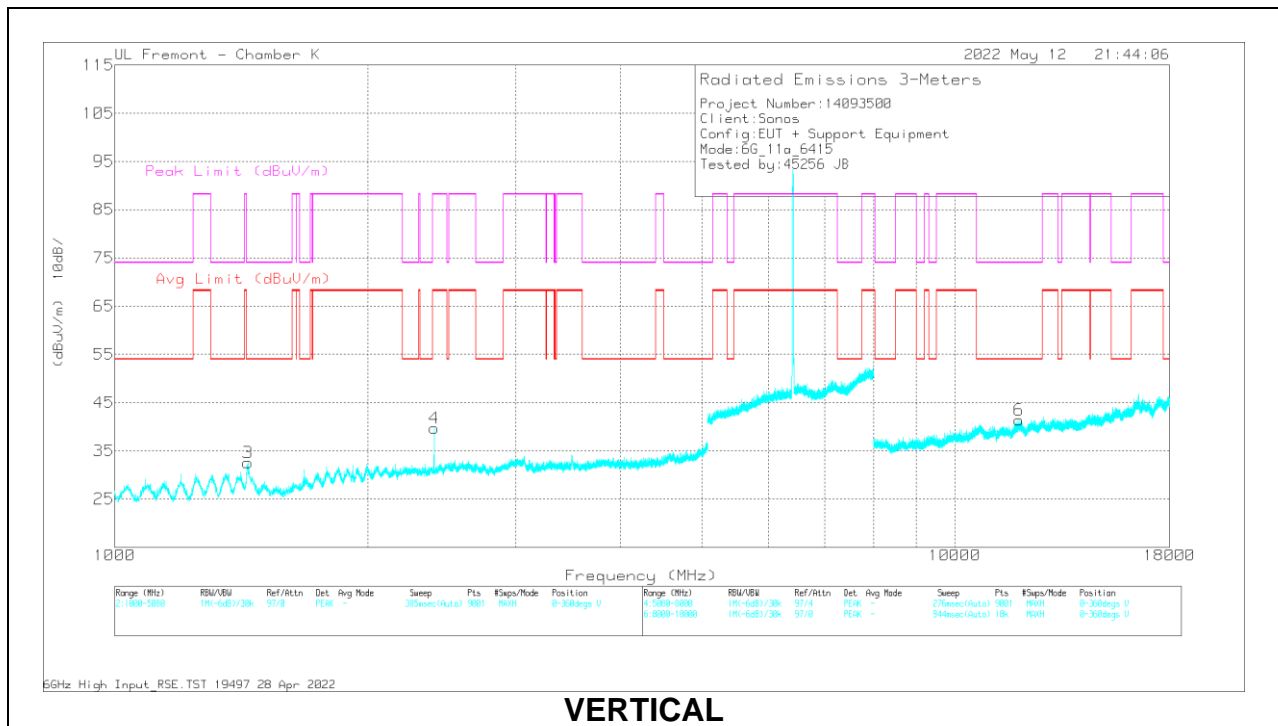
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	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	1920.975	64.83	PK-U	31	-45.1	0	50.73	-	-	88.2	-37.47	207	177	H
	1920.04	48.31	ADR	31	-45	1.03	35.34	68.2	-32.86	-	-	207	177	H
2	2400.092	57.32	PK-U	32	-44.2	0	45.12	-	-	88.2	-43.08	38	283	H
	2399.988	50.06	ADR	32	-44.2	1.03	38.89	68.2	-29.31	-	-	38	283	H
3	* 1439.769	68.39	PK-U	29	-45.7	0	51.69	-	-	74	-22.31	223	107	V
	* 1441.271	48.1	ADR	29	-45.7	1.03	32.43	54	-21.57	-	-	223	107	V
4	2399.936	58.33	PK-U	32	-44.2	0	46.13	-	-	88.2	-42.07	9	143	V
	2400.08	50.74	ADR	32	-44.2	1.03	39.57	68.2	-28.63	-	-	9	143	V
5	* 11919.745	44.73	PK-U	38.7	-33.8	0	49.63	-	-	74	-24.37	42	267	H
	* 11923.385	33.4	ADR	38.7	-33.8	1.03	39.33	54	-14.67	-	-	42	267	H
6	* 11911.899	45.75	PK-U	38.7	-33.7	0	50.75	-	-	74	-23.25	317	219	V
	* 11912.491	33.39	ADR	38.7	-33.7	1.03	39.42	54	-14.58	-	-	317	219	V

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

PK-U - U-NII: Maximum Peak

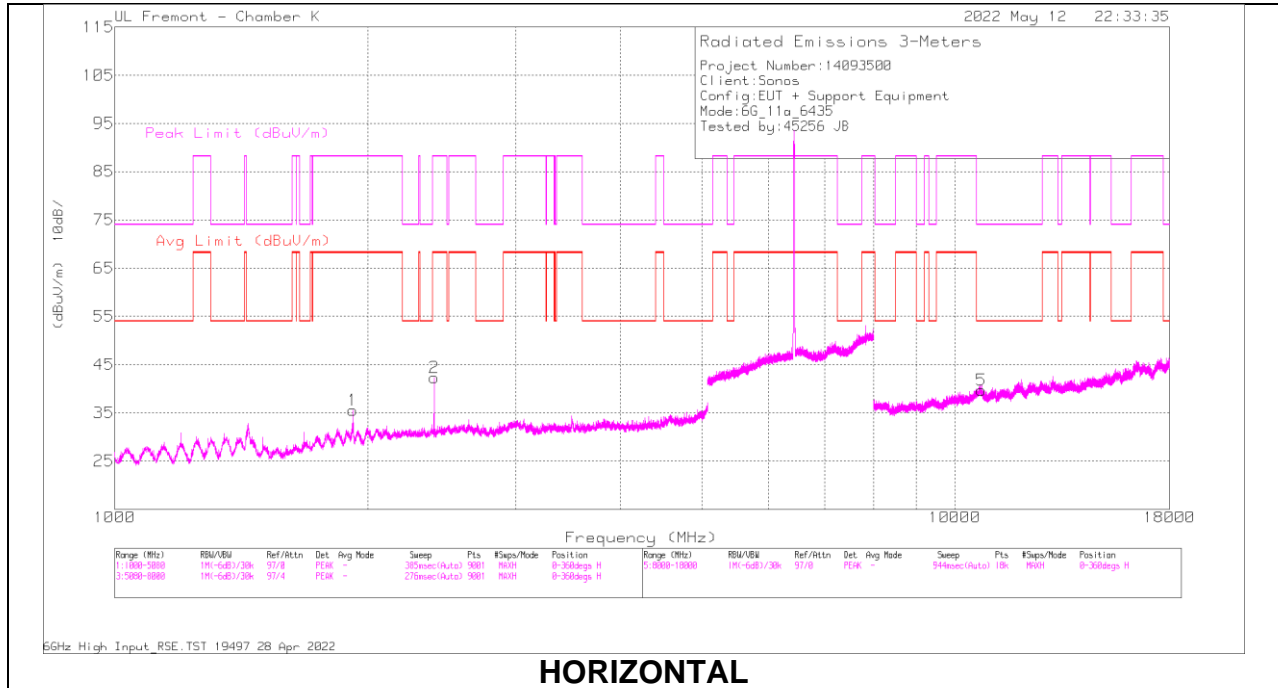
ADR - U-NII AD primary method, RMS average

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

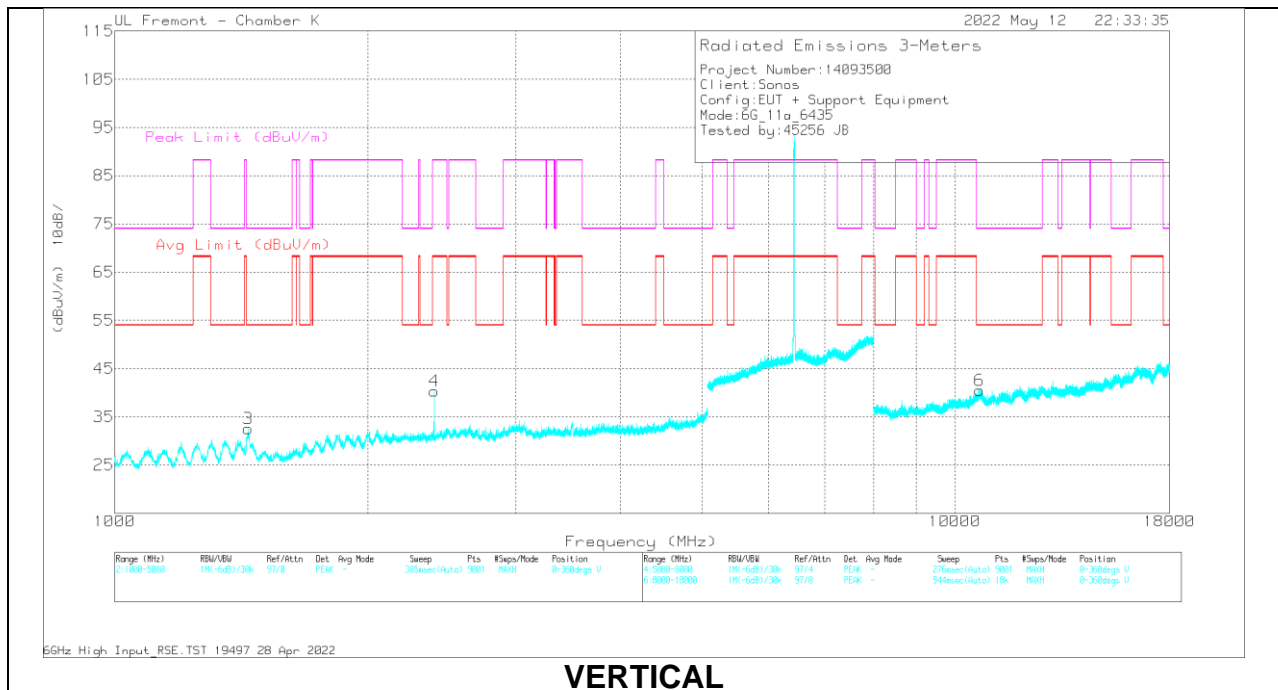
**2TX Antenna 1 + Antenna 4 CDD MODE:**

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



#### HORIZONTAL



#### VERTICAL

**RADIATED EMISSIONS**

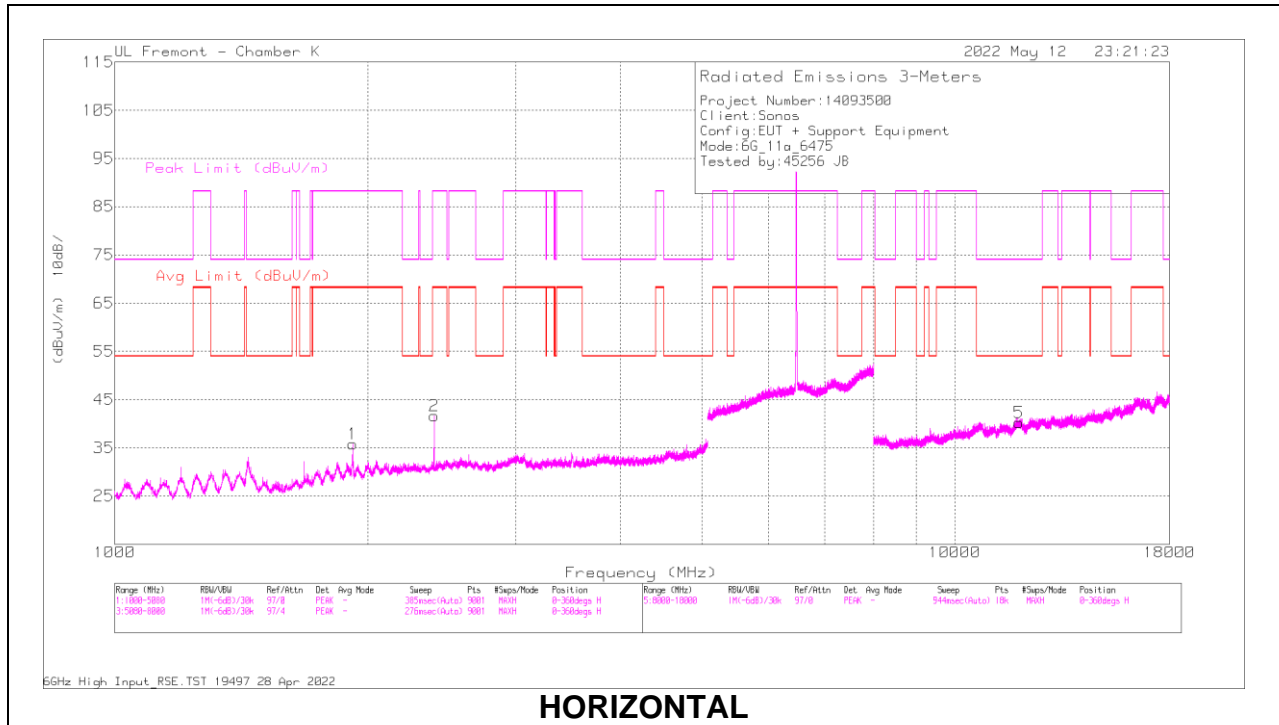
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1920.236	73.78	PK-U	31	-45	0	59.78	-	-	88.2	-28.42	212	201	H
	1919.992	49.75	ADR	31	-45	1.03	36.78	68.2	-31.42	-	-	212	201	H
2	2399.932	60.59	PK-U	32	-44.2	0	48.39	-	-	88.2	-39.81	25	248	H
	2399.996	53.1	ADR	32	-44.2	1.03	41.93	68.2	-26.27	-	-	25	248	H
3	* 1441.056	67.9	PK-U	29	-45.7	0	51.2	-	-	74	-22.8	226	116	V
	* 1441.304	47.7	ADR	29	-45.7	1.03	32.03	54	-21.97	-	-	226	116	V
4	2400.008	56.18	PK-U	32	-44.2	0	43.98	-	-	88.2	-44.22	128	318	V
	2400.072	47.69	ADR	32	-44.2	1.03	36.52	68.2	-31.68	-	-	128	318	V
5	* 10760.715	46.4	PK-U	38.1	-34.9	0	49.6	-	-	74	-24.4	355	164	H
	* 10760.791	34.57	ADR	38.1	-34.9	1.03	38.8	54	-15.2	-	-	355	164	H
6	* 10696.766	46.89	PK-U	38.2	-35.4	0	49.69	-	-	74	-24.31	144	315	V
	* 10695.899	35.79	ADR	38.2	-35.4	1.03	39.62	54	-14.38	-	-	144	315	V

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

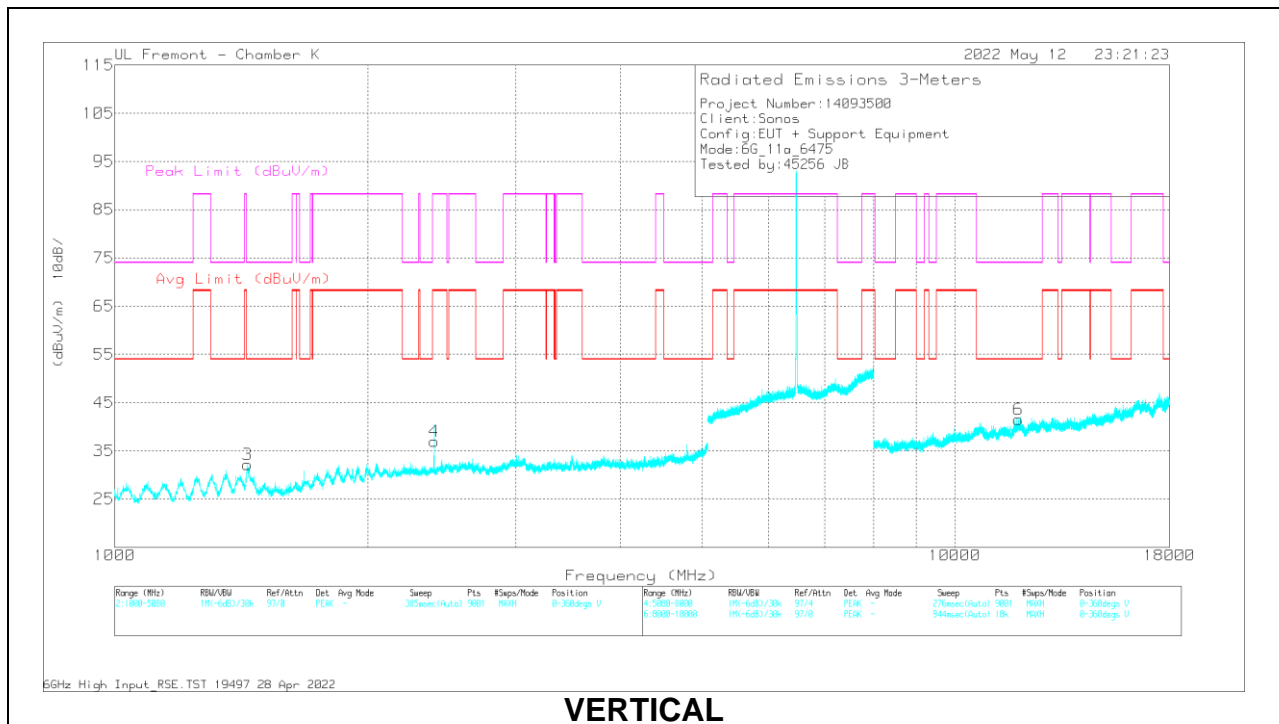
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL



**RADIATED EMISSIONS**

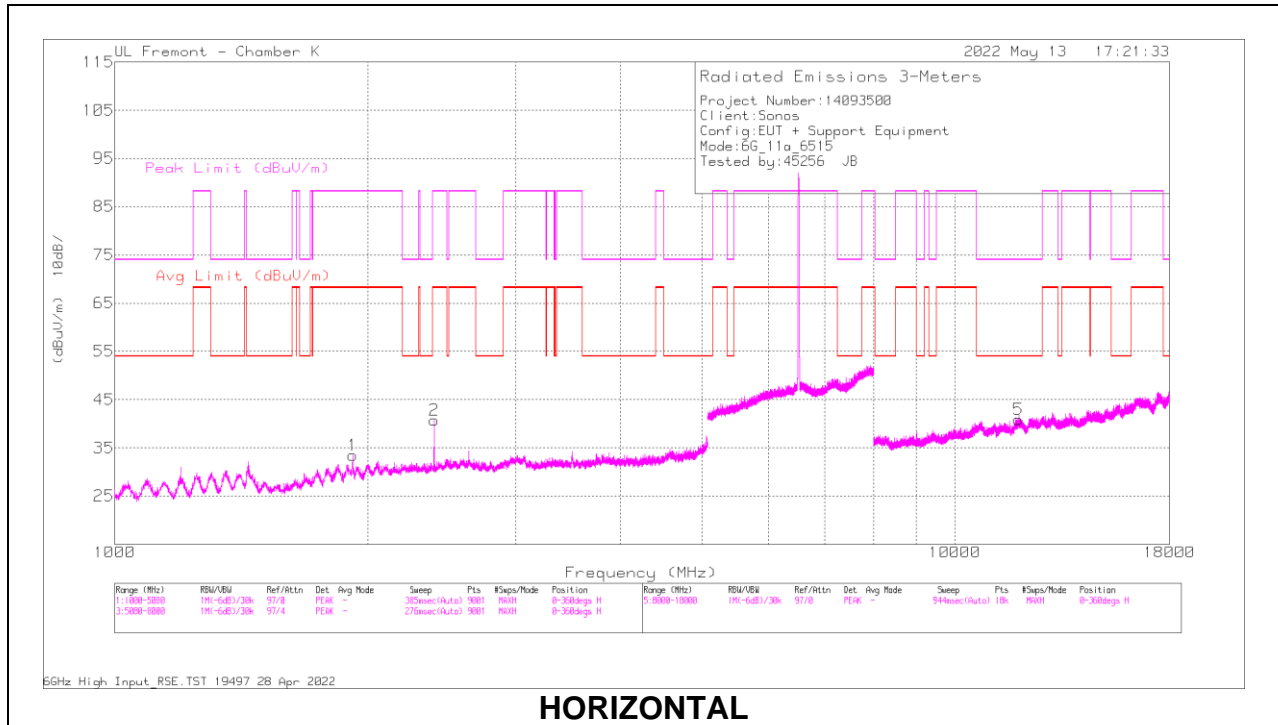
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cb/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1919.549	66.14	PK-U	31	-44.9	0	52.24	-	-	88.2	-35.96	216	204	H
	1920.044	49.62	ADR	31	-45	1.03	36.65	68.2	-31.55	-	-	216	204	H
2	2400.22	61.39	PK-U	32	-44.2	0	49.19	-	-	88.2	-39.01	35	153	H
	2400.036	53.21	ADR	32	-44.2	1.03	42.04	68.2	-26.16	-	-	35	153	H
3	* 1440.343	68.48	PK-U	29	-45.7	0	51.78	-	-	74	-22.22	214	118	V
	* 1440.694	49.36	ADR	29	-45.7	1.03	33.69	54	-20.31	-	-	214	118	V
4	2400.202	59.63	PK-U	32	-44.2	0	47.43	-	-	88.2	-40.77	8	115	V
	2400.09	51.8	ADR	32	-44.2	1.03	40.63	68.2	-27.57	-	-	8	115	V
5	* 11924.288	44.91	PK-U	38.7	-33.8	0	49.81	-	-	74	-24.19	57	282	H
	* 11923.565	33.85	ADR	38.7	-33.8	1.03	39.78	54	-14.22	-	-	57	282	H
6	* 11892.48	45.2	PK-U	38.7	-33.7	0	50.2	-	-	74	-23.8	188	296	V
	* 11892.468	33.74	ADR	38.7	-33.7	1.03	39.77	54	-14.23	-	-	188	296	V

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

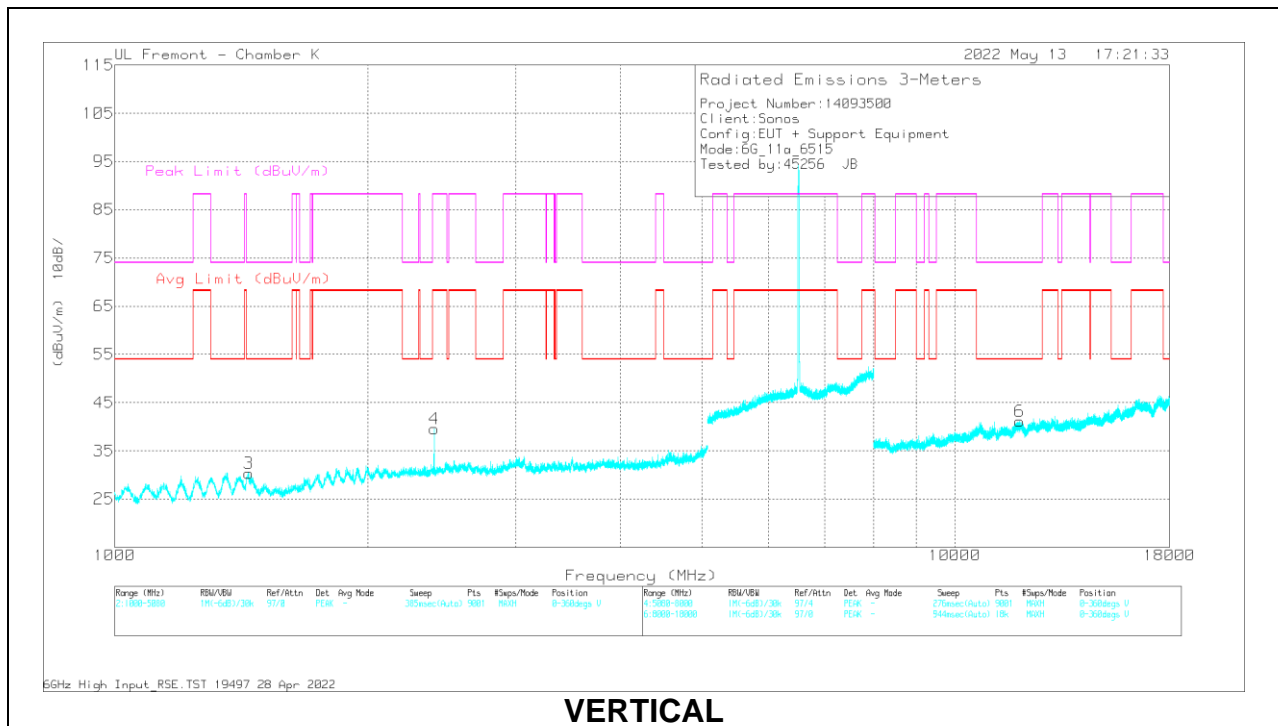
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	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	1920.936	64.15	PK-U	31	-45.1	0	50.05	-	-	88.2	-38.15	166	98	H
	1920.084	47.41	ADR	31	-45	1.03	34.44	68.2	-33.76	-	-	166	98	H
2	2400.084	60.27	PK-U	32	-44.2	0	48.07	-	-	88.2	-40.13	237	150	H
	2400.096	52.61	ADR	32	-44.2	1.03	41.44	68.2	-26.76	-	-	237	150	H
3	* 1441.49	64.56	PK-U	29	-45.6	0	47.96	-	-	74	-26.04	168	218	V
	* 1444.475	45.93	ADR	28.9	-45.6	1.03	30.26	54	-23.74	-	-	168	218	V
4	2399.956	58.81	PK-U	32	-44.2	0	46.61	-	-	88.2	-41.59	353	134	V
	2400.016	51.36	ADR	32	-44.2	1.03	40.19	68.2	-28.01	-	-	353	134	V
5	* 11901.448	44.85	PK-U	38.7	-33.7	0	49.85	-	-	74	-24.15	208	109	H
	* 11901.848	33.18	ADR	38.7	-33.7	1.03	39.21	54	-14.79	-	-	208	109	H
6	* 11943.476	44.85	PK-U	38.7	-33.4	0	50.15	-	-	74	-23.85	29	326	V
	* 11943.816	33.13	ADR	38.7	-33.4	1.03	39.46	54	-14.54	-	-	29	326	V

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

PK-U - U-NII: Maximum Peak

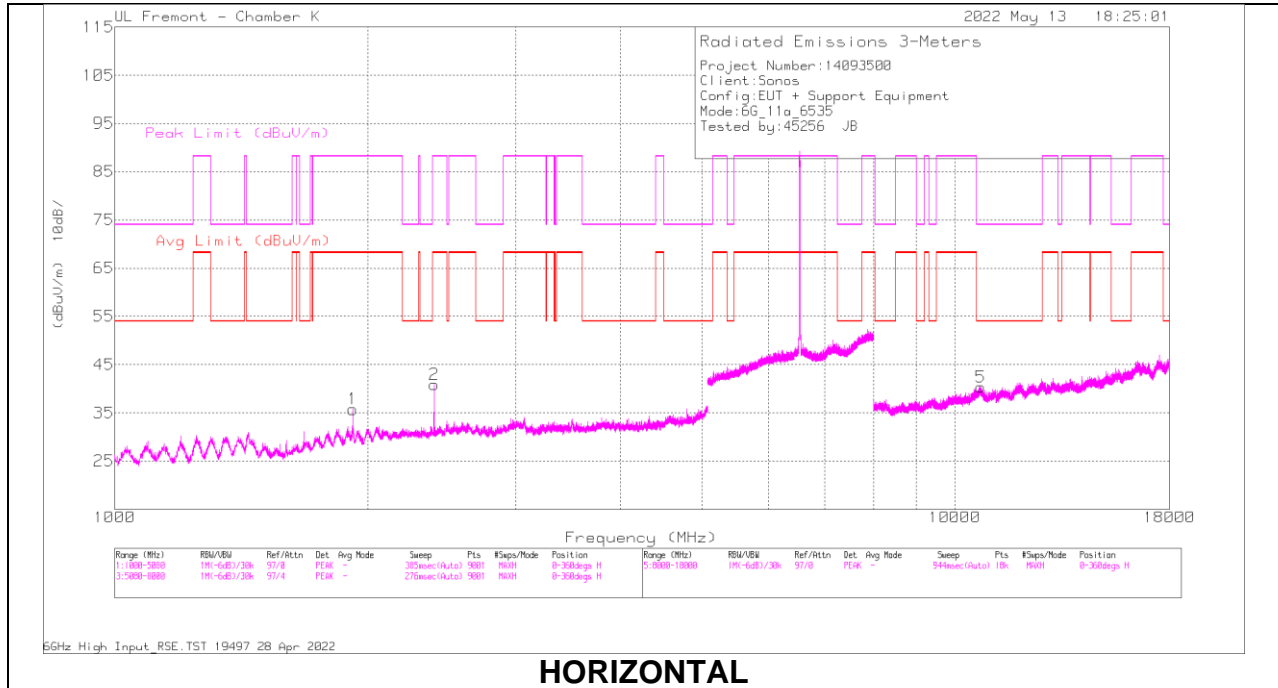
ADR - U-NII AD primary method, RMS average

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

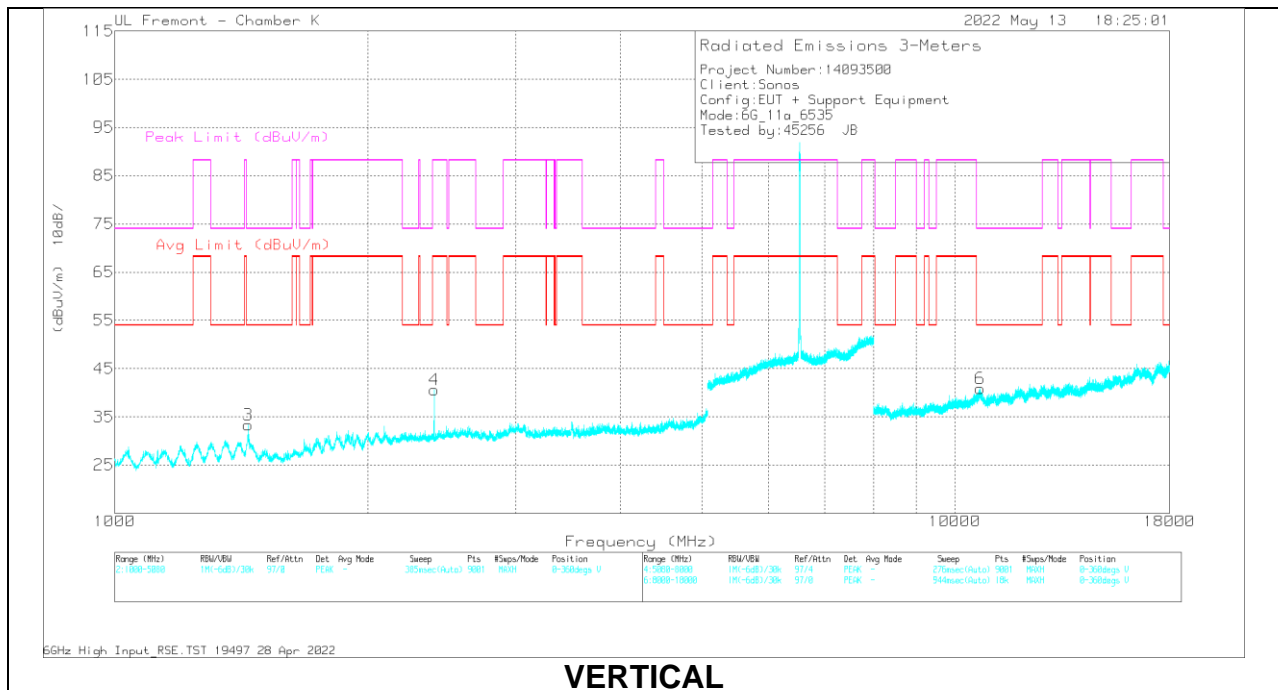
**2TX Antenna 1 + Antenna 4 CDD MODE:**

### HARMONICS AND SPURIOUS EMISSIONS

#### LOW CHANNEL



#### HORIZONTAL



#### VERTICAL

**RADIATED EMISSIONS**

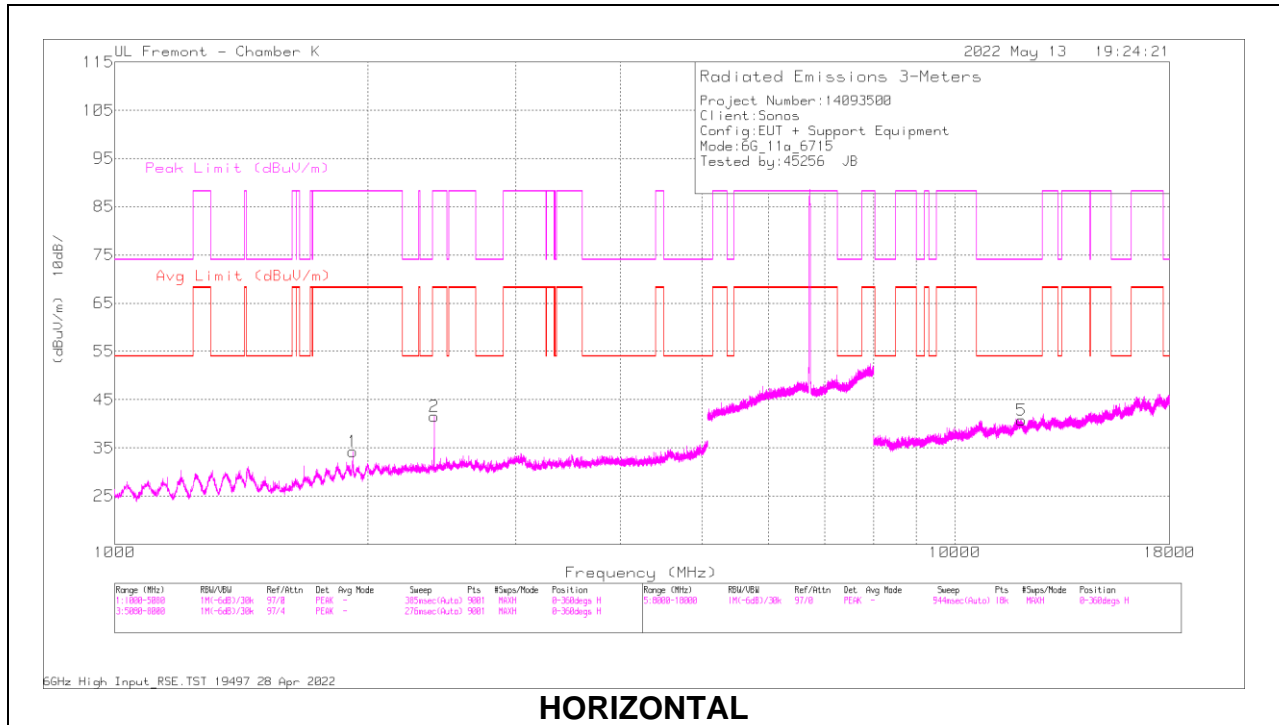
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1921.191	63.15	PK-U	31	-45.1	0	49.05	-	-	88.2	-39.15	160	102	H
	1920.076	46.94	ADR	31	-45	1.03	33.97	68.2	-34.23	-	-	160	102	H
2	2400.208	59.45	PK-U	32	-44.2	0	47.25	-	-	88.2	-40.95	9	249	H
	2400.052	51.8	ADR	32	-44.2	1.03	40.63	68.2	-27.57	-	-	9	249	H
3	* 1441.056	64.71	PK-U	29	-45.7	0	48.01	-	-	74	-25.99	6	308	V
	* 1441.268	46.11	ADR	29	-45.7	1.03	30.44	54	-23.56	-	-	6	308	V
4	2400.136	59.36	PK-U	32	-44.2	0	47.16	-	-	88.2	-41.04	351	99	V
	2400	52.3	ADR	32	-44.2	1.03	41.13	68.2	-27.07	-	-	351	99	V
5	* 10738.834	46.3	PK-U	38.2	-35.2	0	49.3	-	-	74	-24.7	199	354	H
	* 10739.681	35.01	ADR	38.2	-35.2	1.03	39.04	54	-14.96	-	-	199	354	H
6	* 10715.066	46.48	PK-U	38.1	-35.1	0	49.48	-	-	74	-24.52	54	148	V
	* 10713.2	35.01	ADR	38.1	-35.1	1.03	39.04	54	-14.96	-	-	54	148	V

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

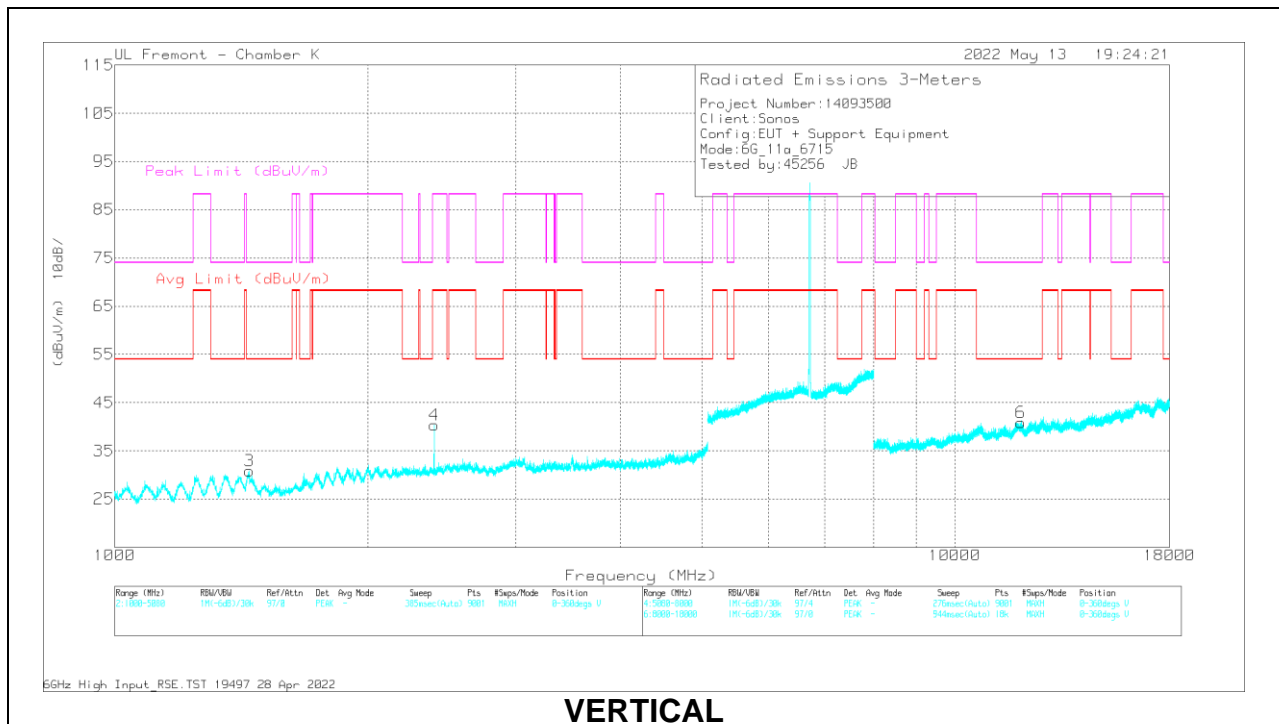
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

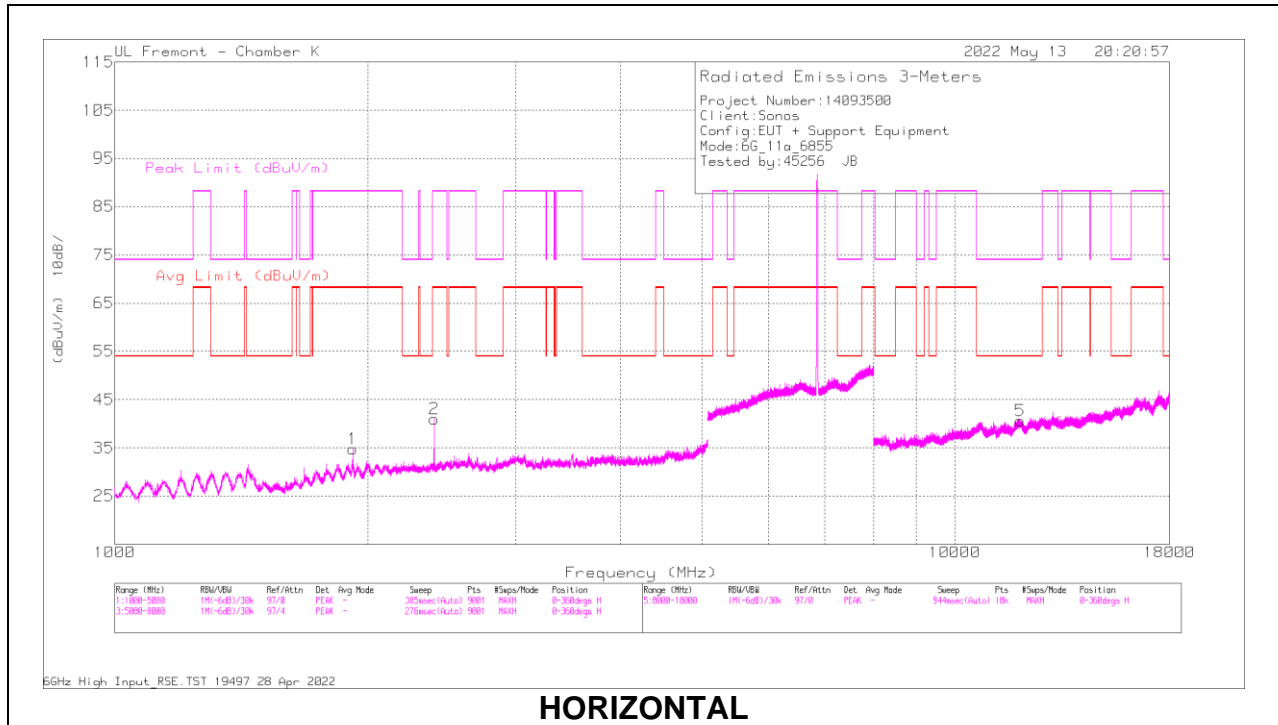
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1919.233	64.21	PK-U	31	-44.9	0	50.31	-	-	88.2	-37.89	163	156	H
	1920.12	47.91	ADR	31	-45	1.03	34.94	68.2	-33.26	-	-	163	156	H
2	2400.04	59.83	PK-U	32	-44.2	0	47.63	-	-	88.2	-40.57	333	135	H
	2400.08	52.48	ADR	32	-44.2	1.03	41.31	68.2	-26.89	-	-	333	135	H
3	* 1443.812	59.53	PK-U	29	-45.6	0	42.93	-	-	74	-31.07	4	306	V
	* 1443.96	45.97	ADR	29	-45.6	1.03	30.4	54	-23.6	-	-	4	306	V
4	2400.112	59.74	PK-U	32	-44.2	0	47.54	-	-	88.2	-40.66	1	315	V
	2400.052	51.97	ADR	32	-44.2	1.03	40.8	68.2	-27.4	-	-	1	315	V
5	* 12006.686	44.1	PK-U	38.8	-32.9	0	50	-	-	74	-24	125	227	H
	* 12003.645	32.6	ADR	38.8	-32.9	1.03	39.53	54	-14.47	-	-	125	227	H
6	* 11984.405	44.51	PK-U	38.8	-33.4	0	49.91	-	-	74	-24.09	14	360	V
	* 11986.647	32.75	ADR	38.8	-33.3	1.03	39.28	54	-14.72	-	-	14	360	V

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

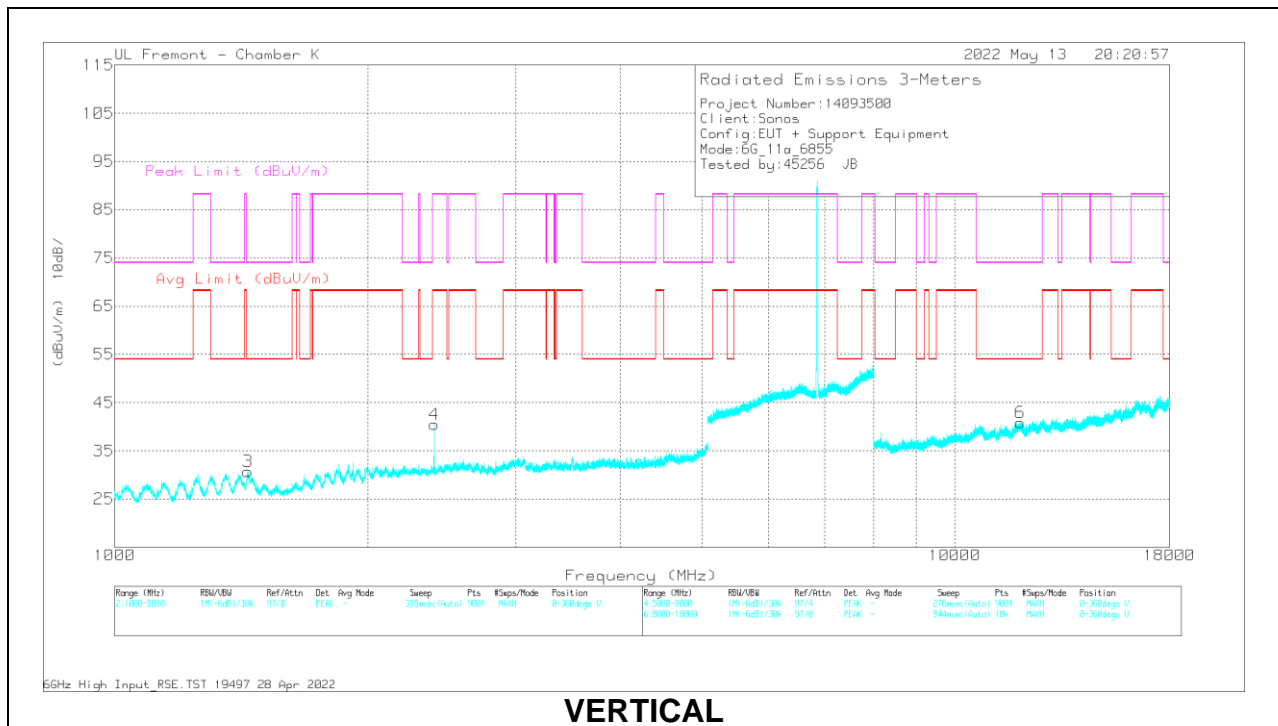
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL



**RADIATED EMISSIONS**

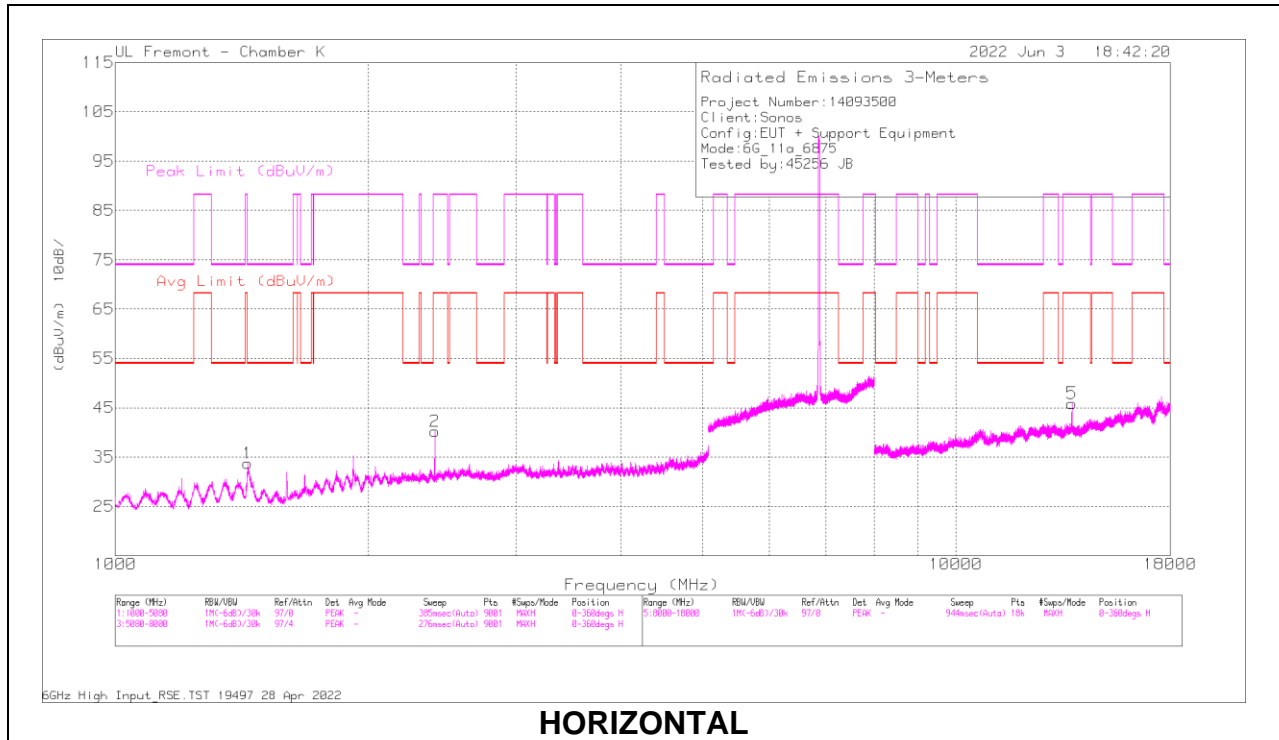
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cb/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1920.408	69.29	PK-U	31	-45	0	55.29	-	-	88.2	-32.91	166	98	H
	1920.076	47.93	ADR	31	-45	1.03	34.96	68.2	-33.24	-	-	166	98	H
2	2400.14	61.45	PK-U	32	-44.2	0	49.25	-	-	88.2	-38.95	235	204	H
	2399.988	53.98	ADR	32	-44.2	1.03	42.81	68.2	-25.39	-	-	235	204	H
3	* 1439.98	66.16	PK-U	29	-45.7	0	49.46	-	-	74	-24.54	158	214	V
	* 1440.688	46.72	ADR	29	-45.7	1.03	31.05	54	-22.95	-	-	158	214	V
4	2399.952	60.46	PK-U	32	-44.2	0	48.26	-	-	88.2	-39.94	351	343	V
	2400.044	52.5	ADR	32	-44.2	1.03	41.33	68.2	-26.87	-	-	351	343	V
5	* 11961.469	44.98	PK-U	38.7	-33.3	0	50.38	-	-	74	-23.62	129	179	H
	* 11962.16	32.99	ADR	38.8	-33.4	1.03	39.42	54	-14.58	-	-	129	179	H
6	* 11964.734	44.41	PK-U	38.8	-33.4	0	49.81	-	-	74	-24.19	306	196	V
	* 11964.726	32.92	ADR	38.8	-33.4	1.03	39.35	54	-14.65	-	-	306	196	V

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

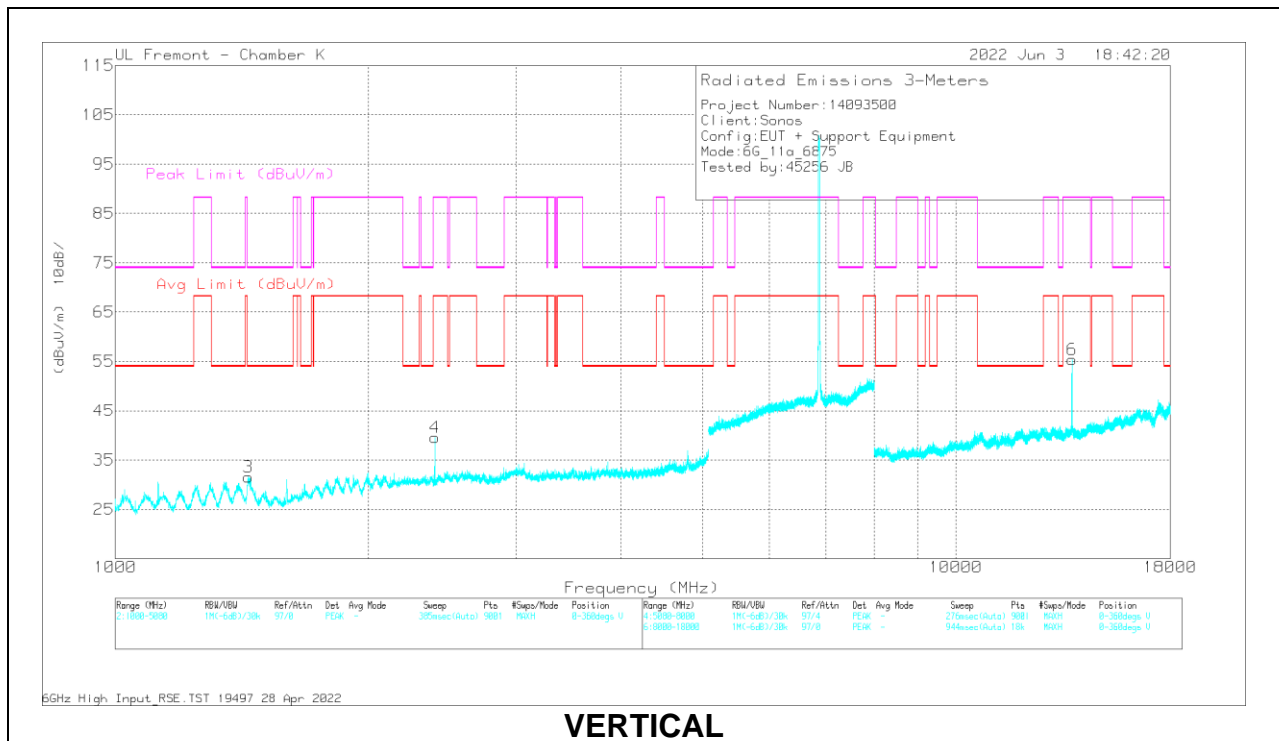
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### STRADDLE CHANNEL



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	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	* 1439.328	72.14	PK-U	29	-46	0	55.14	-	-	74	-18.86	184	205	H
	* 1440.251	50.09	ADR	29	-45.9	1.03	34.22	54	-19.78	-	-	184	205	H
2	2400.104	62.23	PK-U	32	-44.6	0	49.63	-	-	88.2	-38.57	150	235	H
	2400.048	49.73	ADR	32	-44.6	1.03	38.16	68.2	-30.04	-	-	150	235	H
3	* 1440.592	71.3	PK-U	29	-45.9	0	54.4	-	-	74	-19.6	216	108	V
	* 1440.508	49.18	ADR	29	-45.9	1.03	33.31	54	-20.69	-	-	216	108	V
4	2400.188	58.26	PK-U	32	-44.6	0	45.66	-	-	88.2	-42.54	348	296	V
	2400.008	50.72	ADR	32	-44.6	1.03	39.15	68.2	-29.05	-	-	348	296	V
5	13748.165	53	PK-U	38.6	-34.5	0	57.1	-	-	88.2	-31.1	65	212	H
	13748.593	40.06	ADR	38.6	-34.5	1.03	45.19	68.2	-23.01	-	-	65	212	H
6	13749.58	59.45	PK-U	38.6	-34.4	0	63.65	-	-	88.2	-24.55	22	180	V
	13749.468	48.01	ADR	38.6	-34.4	1.03	53.24	68.2	-14.96	-	-	22	180	V

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

PK-U - U-NII: Maximum Peak

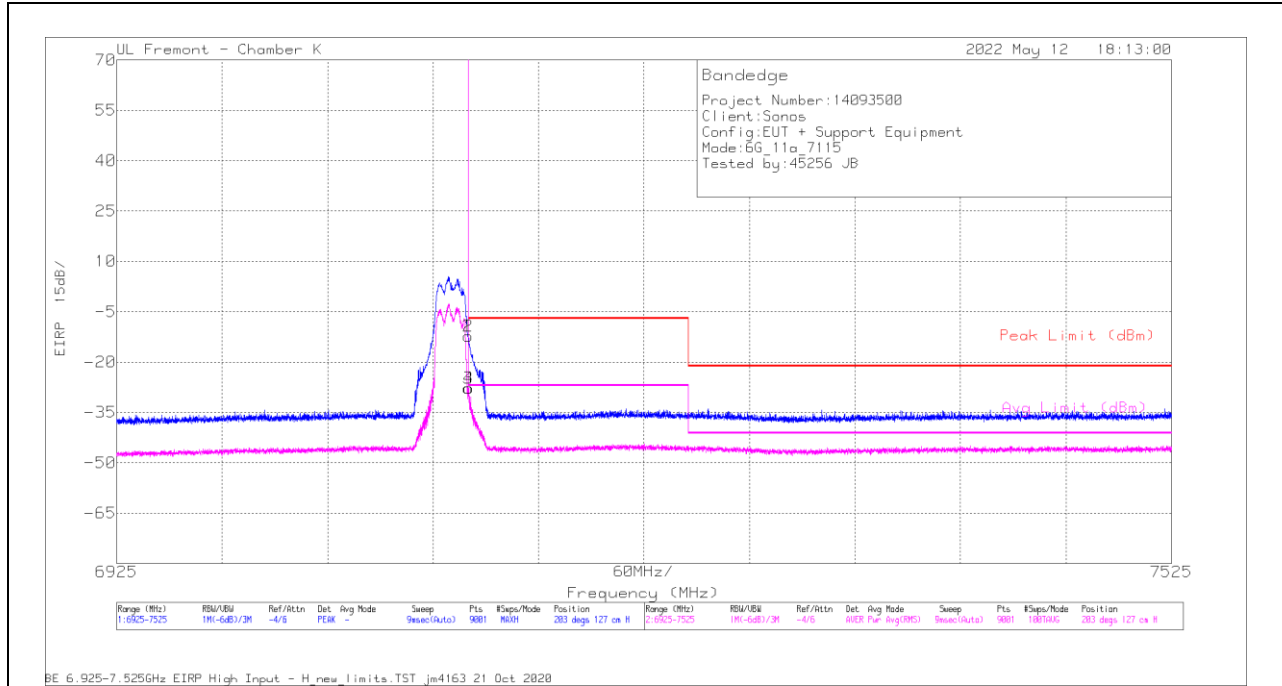
ADR - U-NII AD primary method, RMS average

### 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**

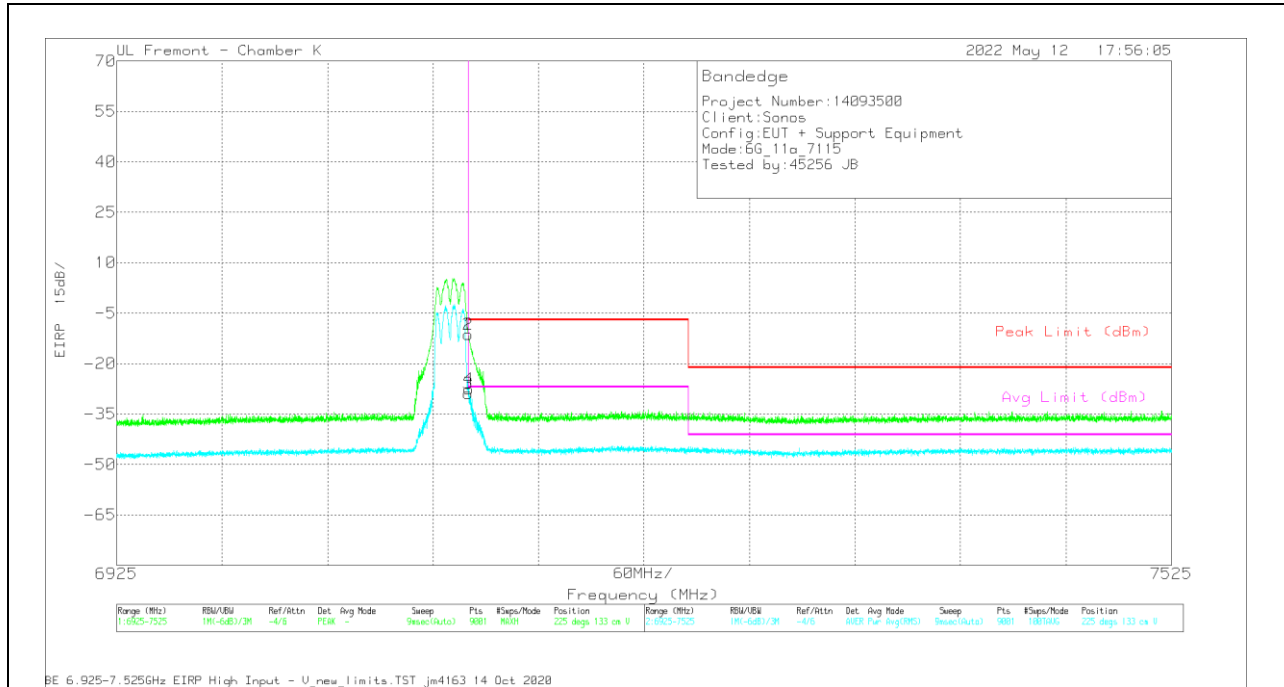


**Trace Markers**

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF 80404 (dB/m)	Amp/Cb/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	-55.61	Pk	36	-4.5	11.8	0	-12.31	-7	-5.31	-	-	203	127	H
2	7125.001	-55.6	Pk	36	-4.5	11.8	0	-12.3	-7	-5.3	-	-	203	127	H
3	7125	-72.09	RMS	36	-4.5	11.8	1.03	-27.76	-	-	-27	-76	203	127	H
4	7125.268	-72.05	RMS	36	-4.5	11.8	1.03	-27.72	-	-	-27	-72	203	127	H

Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULT



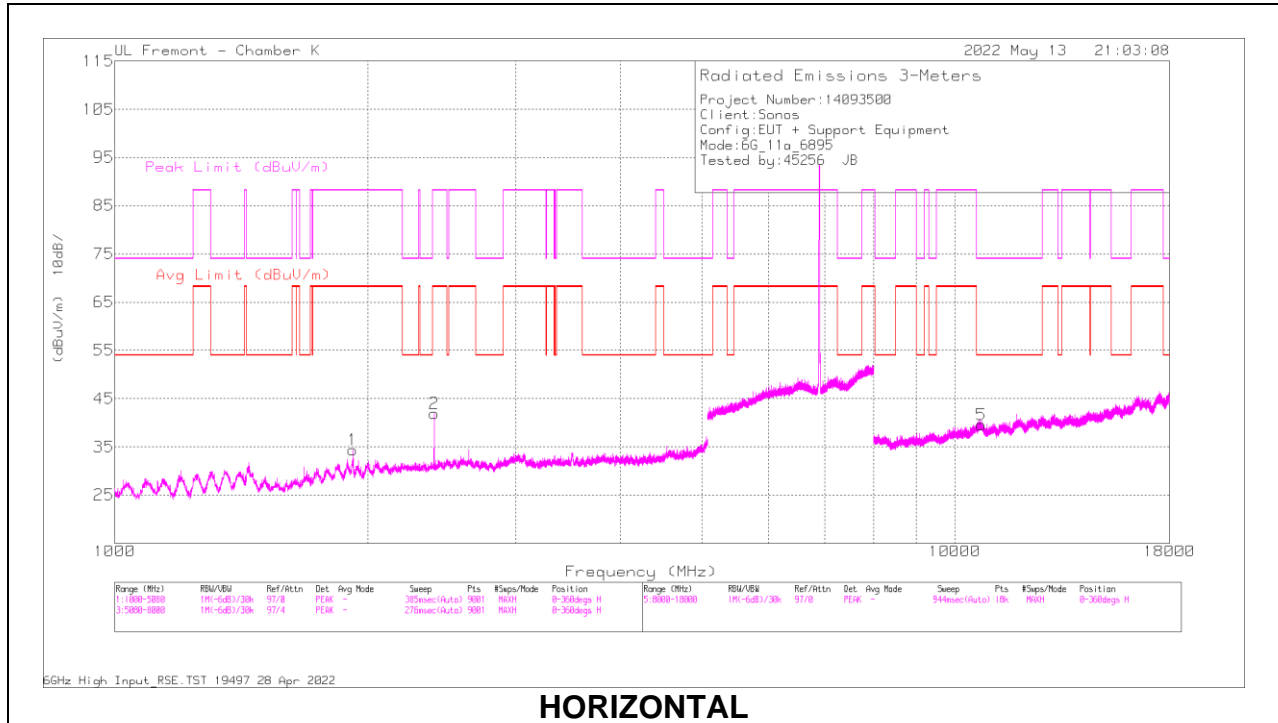
### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF 80404 (dB/m)	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	-54.56	PK	36	-4.5	11.8	0	-11.26	-7	-4.26	-	-	225	133	V
2	7125.001	-54.56	PK	36	-4.5	11.8	0	-11.26	-7	-4.26	-	-	225	133	V
3	7125	-73.19	RMS	36	-4.5	11.8	1.03	-28.86	-	-	-27	-1.86	225	133	V
4	7125.268	-71.89	RMS	36	-4.5	11.8	1.03	-27.56	-	-	-27	-56	225	133	V

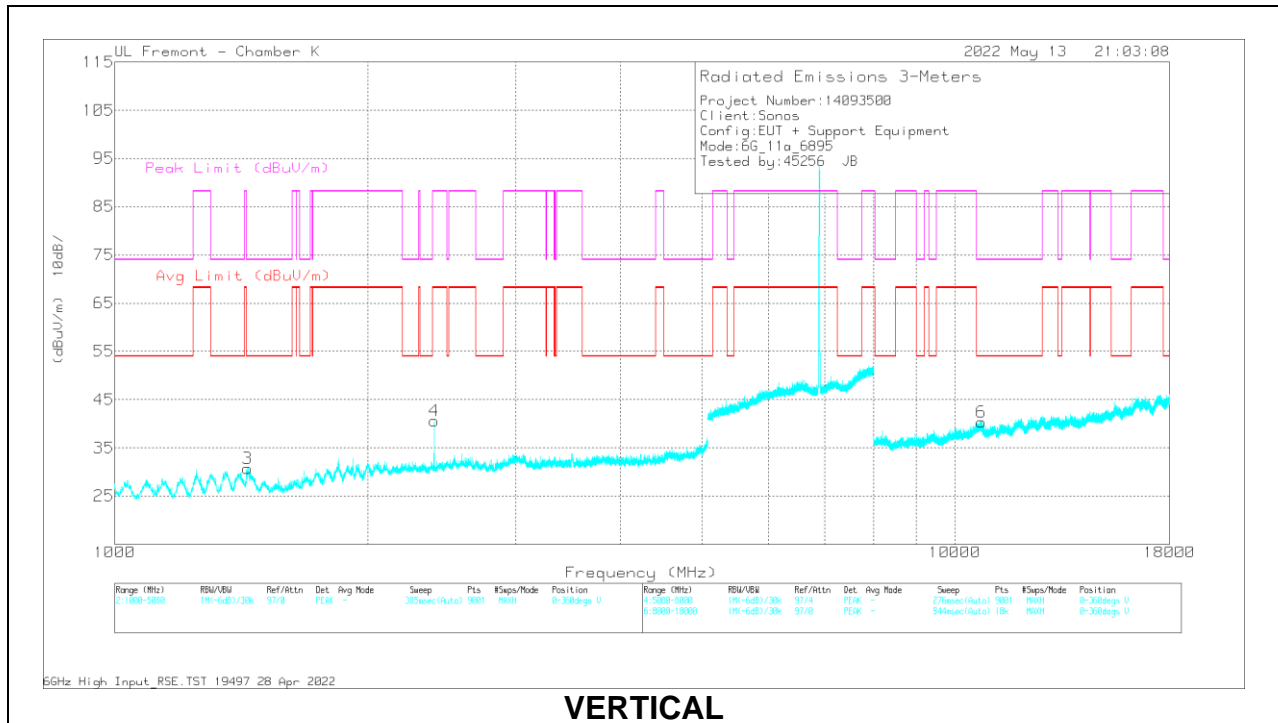
Pk - Peak detector  
 RMS - RMS detection

# HARMONICS AND SPURIOUS EMISSIONS

## LOW CHANNEL



## HORIZONTAL



## VERTICAL

**RADIATED EMISSIONS**

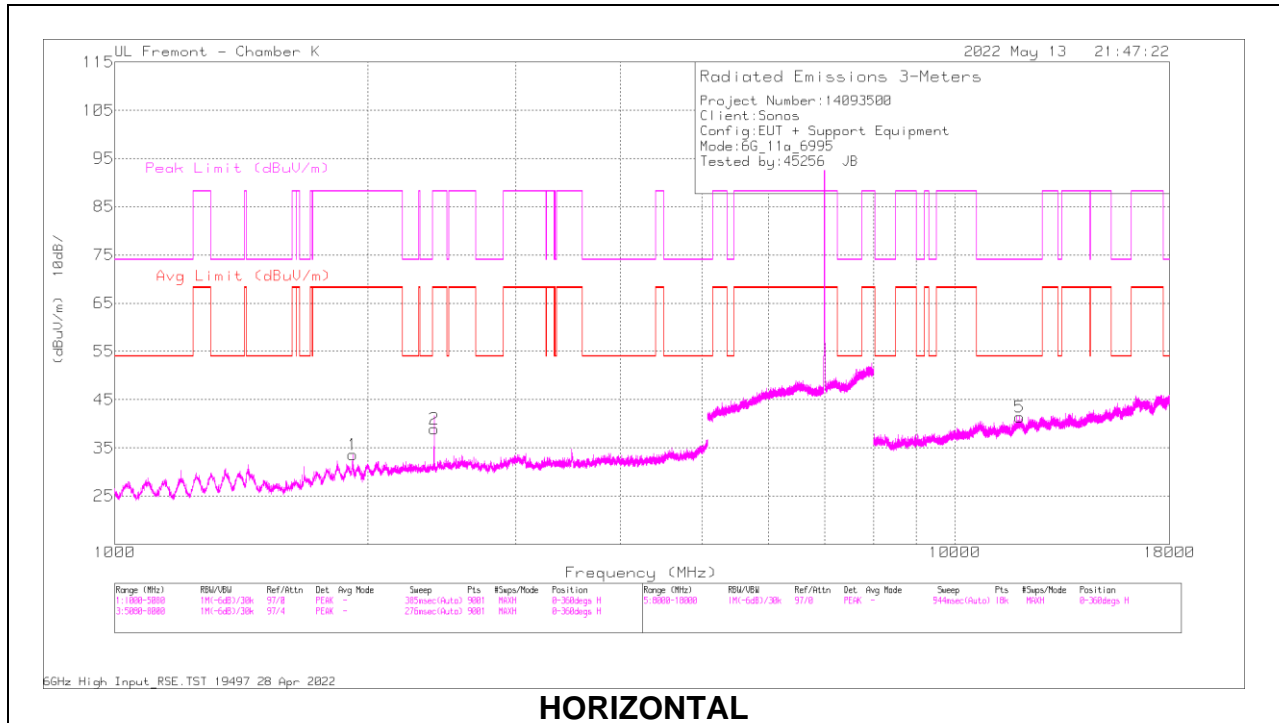
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cbl/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1920.672	64.35	PK-U	31	-45.1	0	50.25	-	-	88.2	-37.95	162	147	H
	1919.968	48.34	ADR	31	-45	1.03	35.37	68.2	-32.83	-	-	162	147	H
2	2399.94	58.67	PK-U	32	-44.2	0	46.47	-	-	88.2	-41.73	274	324	H
	2400.028	48.01	ADR	32	-44.2	1.03	36.84	68.2	-31.36	-	-	274	324	H
3	* 1440.217	65.42	PK-U	29	-45.7	0	48.72	-	-	74	-25.28	157	215	V
	* 1440.772	46.03	ADR	29	-45.7	1.03	30.36	54	-23.64	-	-	157	215	V
4	2399.856	59.08	PK-U	32	-44.2	0	46.88	-	-	88.2	-41.32	356	386	V
	2400.084	51.47	ADR	32	-44.2	1.03	40.3	68.2	-27.9	-	-	356	386	V
5	* 10745.912	47.23	PK-U	38.2	-35.2	0	50.23	-	-	74	-23.77	338	319	H
	* 10744.981	35.23	ADR	38.2	-35.3	1.03	39.16	54	-14.84	-	-	338	319	H
6	* 10748.09	46.86	PK-U	38.2	-35.2	0	49.86	-	-	74	-24.14	235	140	V
	* 10747.954	34.73	ADR	38.2	-35.2	1.03	38.76	54	-15.24	-	-	235	140	V

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

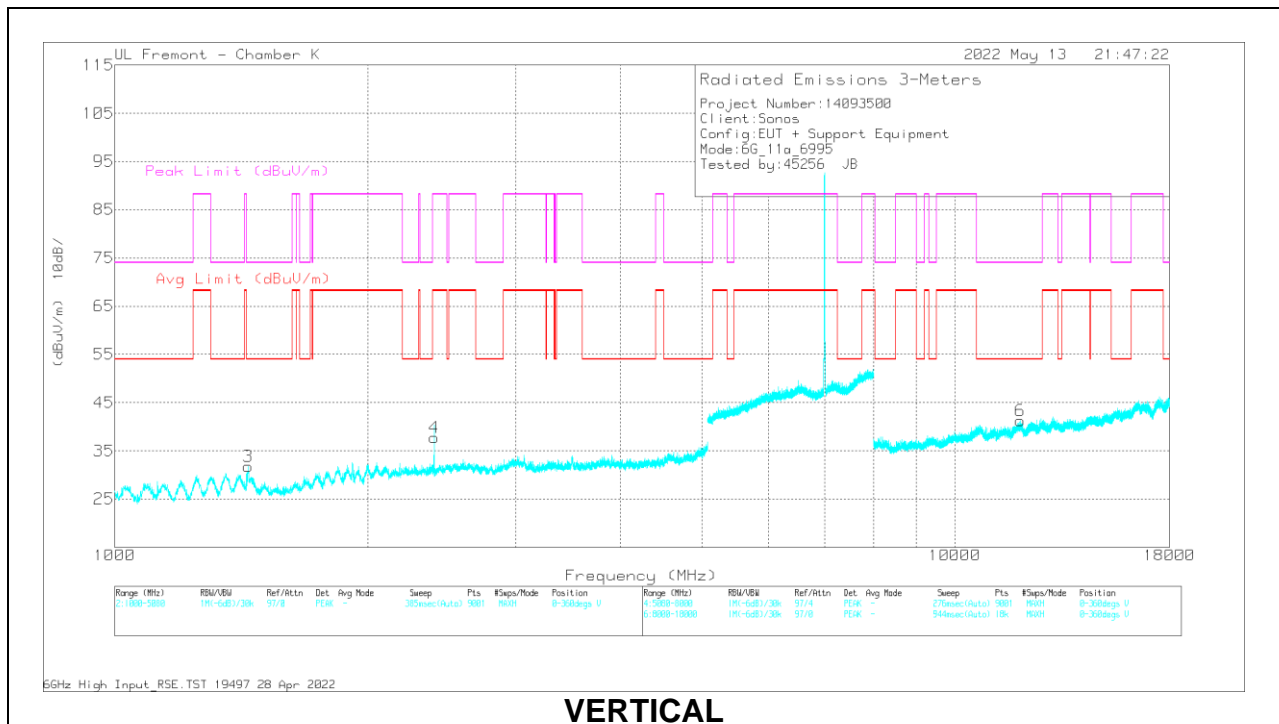
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL



### HORIZONTAL



### VERTICAL



**RADIATED EMISSIONS**

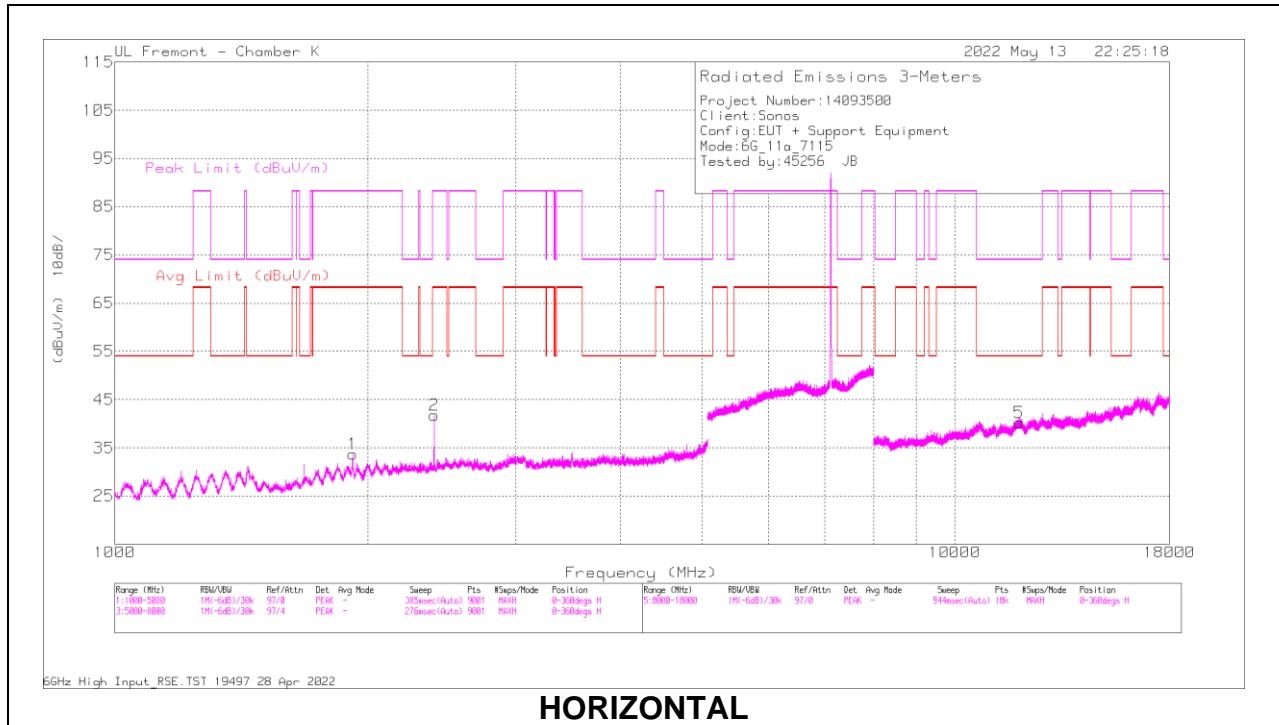
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	Amp/Cb/Fitr (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1919.553	60.76	PK-U	31	-44.9	0	46.86	-	-	88.2	-41.34	310	141	H
	1920.036	44.6	ADR	31	-45	1.03	31.63	68.2	-36.57	-	-	310	141	H
2	2399.946	70.15	PK-U	32	-44.2	0	57.95	-	-	88.2	-30.25	17	200	H
	2399.998	53.3	ADR	32	-44.2	1.03	42.13	68.2	-26.07	-	-	17	200	H
3	* 1440.567	66.21	PK-U	29	-45.7	0	49.51	-	-	74	-24.49	161	217	V
	* 1440.795	46.97	ADR	29	-45.7	1.03	31.3	54	-22.7	-	-	161	217	V
4	2399.982	57.77	PK-U	32	-44.2	0	45.57	-	-	88.2	-42.63	345	303	V
	2400.086	50.25	ADR	32	-44.2	1.03	39.08	68.2	-29.12	-	-	345	303	V
5	* 11949.922	44.23	PK-U	38.7	-33.4	0	49.53	-	-	74	-24.47	2	209	H
	* 11948.616	33.16	ADR	38.7	-33.4	1.03	39.49	54	-14.51	-	-	2	209	H
6	* 11965.613	44.62	PK-U	38.8	-33.3	0	50.12	-	-	74	-23.88	309	241	V
	* 11963.879	32.89	ADR	38.8	-33.4	1.03	39.32	54	-14.68	-	-	309	241	V

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

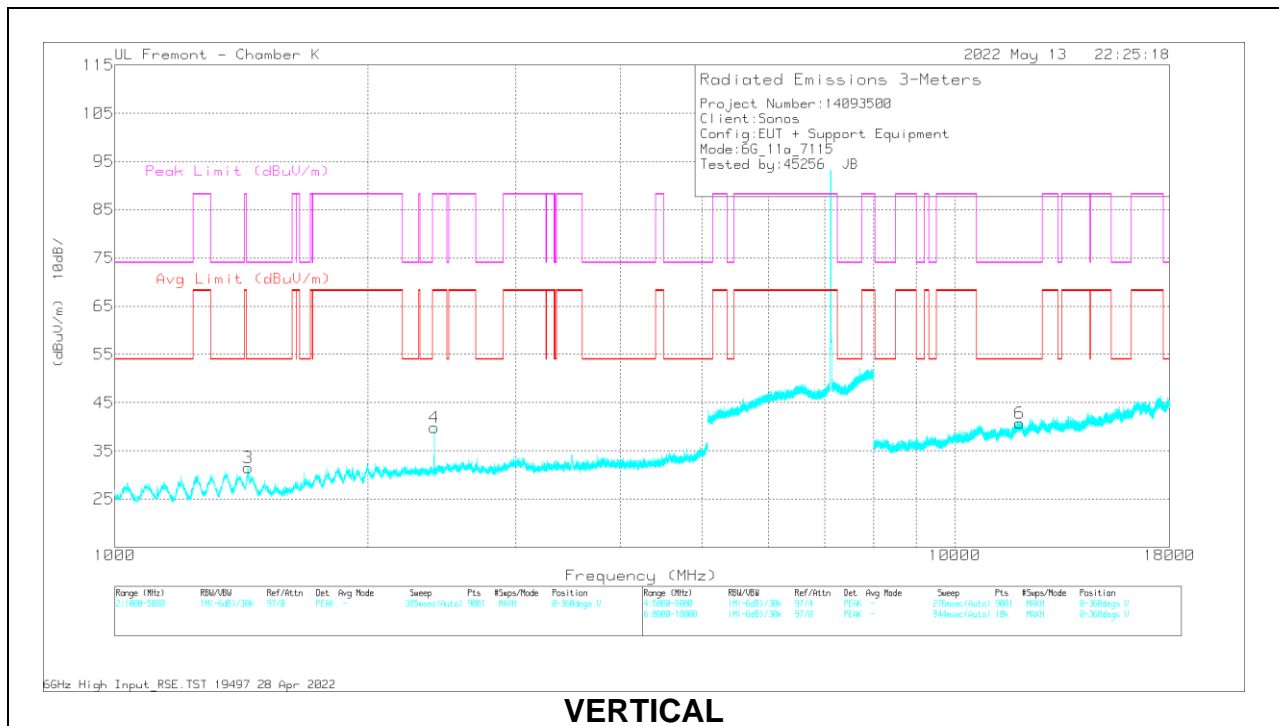
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL



### HORIZONTAL



### VERTICAL

**RADIATED EMISSIONS**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF 80404 (dB/m)	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	1920.338	63.85	PK-U	31	-45	0	49.85	-	-	88.2	-38.35	164	155	H
	1920.043	47.86	ADR	31	-45	1.03	34.89	68.2	-33.31	-	-	164	155	H
2	2399.948	60.12	PK-U	32	-44.2	0	47.92	-	-	88.2	-40.28	238	200	H
	2400.056	52.99	ADR	32	-44.2	1.03	41.82	68.2	-26.38	-	-	238	200	H
3	* 1440.944	65.14	PK-U	29	-45.7	0	48.44	-	-	74	-25.56	5	305	V
	* 1443.202	45.93	ADR	29	-45.6	1.03	30.36	54	-23.64	-	-	5	305	V
4	2399.948	59.03	PK-U	32	-44.2	0	46.83	-	-	88.2	-41.37	347	134	V
	2399.976	51.51	ADR	32	-44.2	1.03	40.34	68.2	-27.86	-	-	347	134	V
5	* 11923.789	44.97	PK-U	38.7	-33.8	0	49.87	-	-	74	-24.13	43	173	H
	* 11922.826	33.35	ADR	38.7	-33.8	1.03	39.28	54	-14.72	-	-	43	173	H
6	* 11943.948	44.46	PK-U	38.7	-33.4	0	49.76	-	-	74	-24.24	4	274	V
	* 11942.937	33.15	ADR	38.7	-33.4	1.03	39.48	54	-14.52	-	-	4	274	V

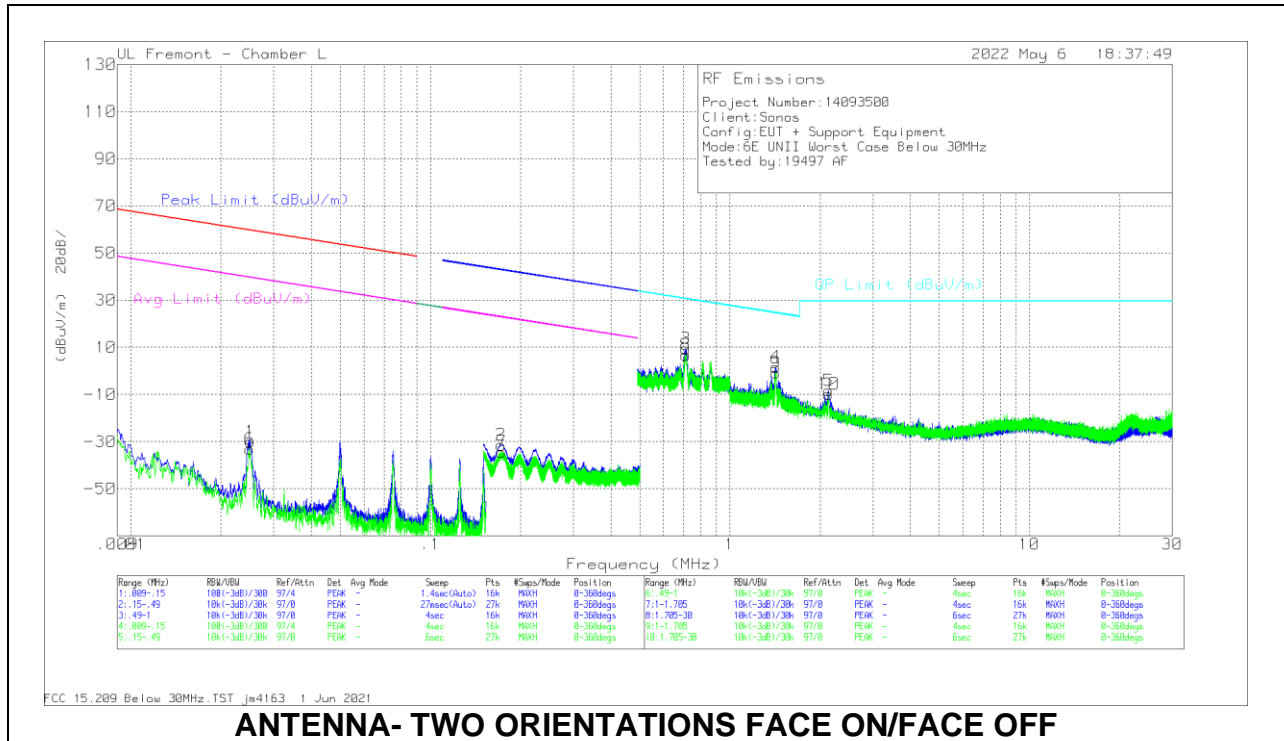
\* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

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

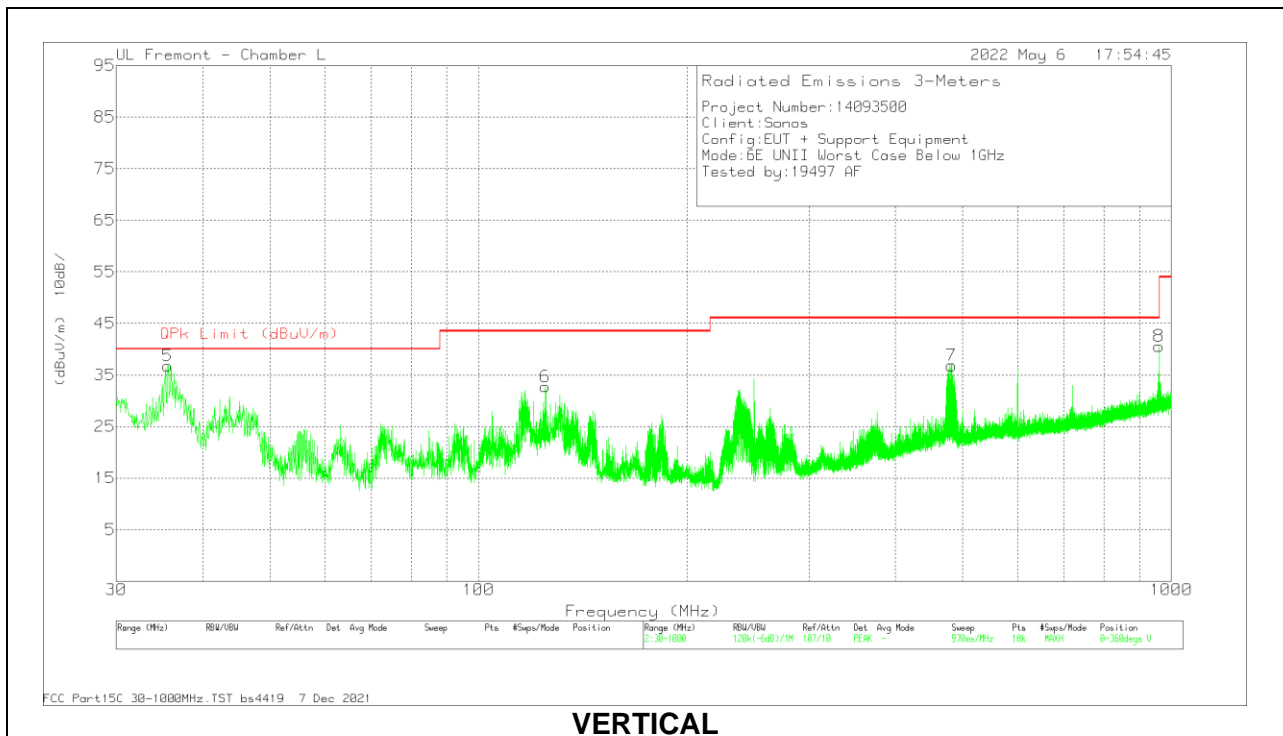
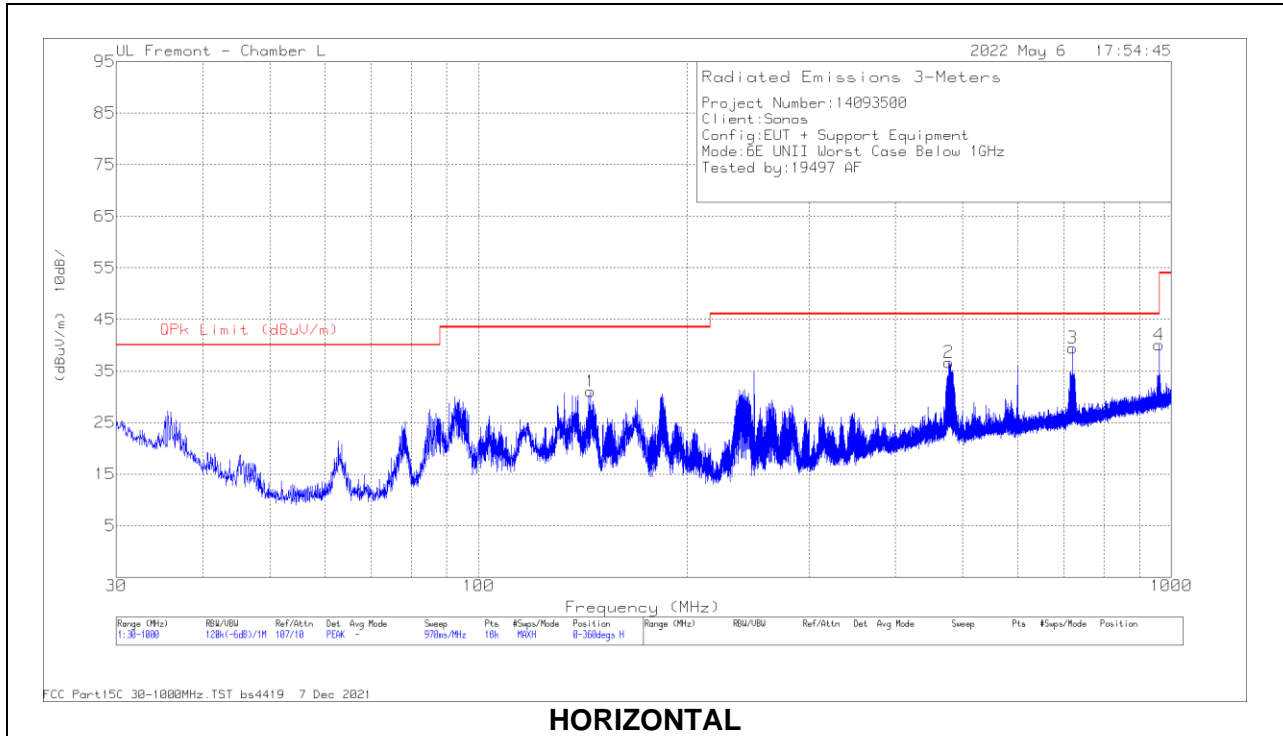
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (E ACF)	Amp/Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0251	23	Pk	58.4	-31.4	-80	-30	59.61	-89.61	39.61	-69.61	-	-	-	-	0-360
2	.1723	24.56	Pk	56	-32	-80	-31.44	-	-	-	-	42.89	-74.33	22.89	-54.33	0-360
6	.0249	19.72	Pk	58.5	-31.4	-80	-33.18	59.65	-92.83	39.65	-72.83	-	-	-	-	0-360
7	.1728	21.62	Pk	56	-32	-80	-34.38	-	-	-	-	42.87	-77.25	22.87	-57.25	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (E ACF)	Amp/Cbl (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
3	.7121	25.15	Pk	56.2	-31.9	-40	9.45	30.56	-21.11	0-360
8	.7124	22.51	Pk	56.2	-31.9	-40	6.81	30.56	-23.75	0-360
4	1.4219	29.06	Pk	44.5	-31.9	-40	1.66	24.57	-22.91	0-360
5	2.1347	22.39	Pk	41.1	-31.8	-40	-8.31	29.5	-37.81	0-360
9	1.4215	26.55	Pk	44.5	-31.9	-40	-8.5	24.57	-25.42	0-360
10	2.1368	20.87	Pk	41.1	-31.8	-40	-9.83	29.5	-39.33	0-360

Pk - Peak detector

### 10.3. WORST CASE BELOW 1 GHz



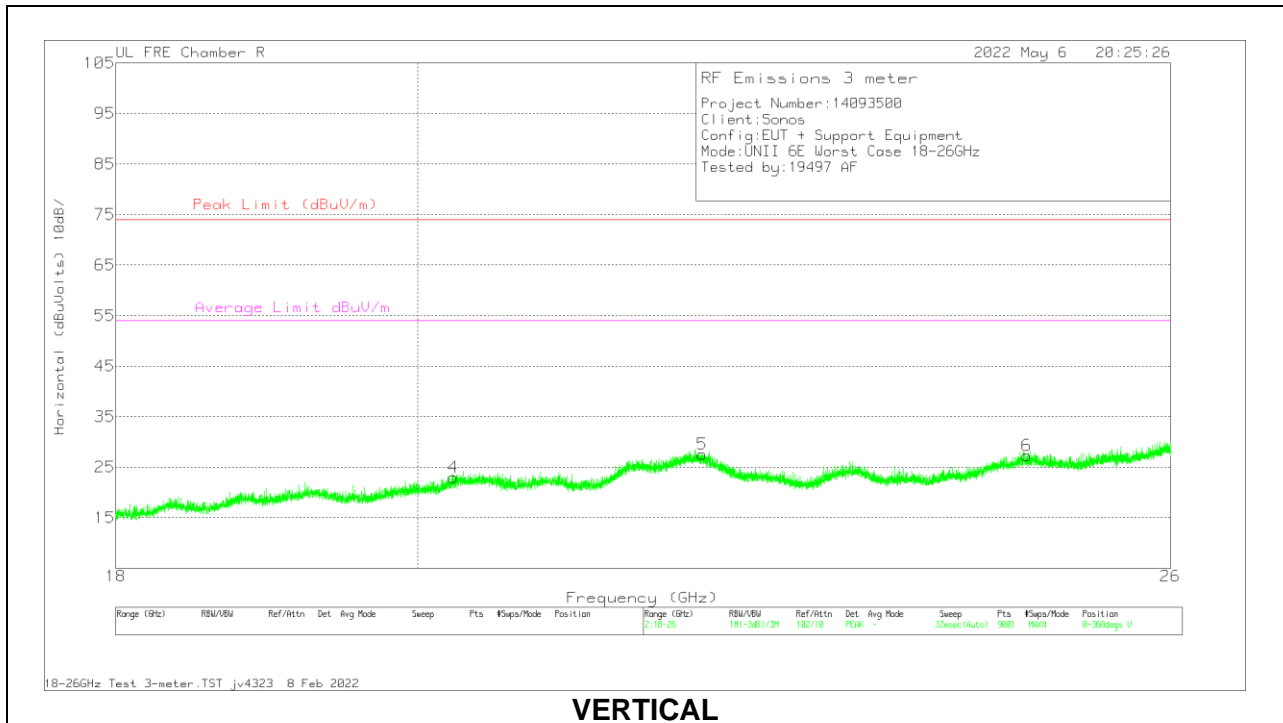
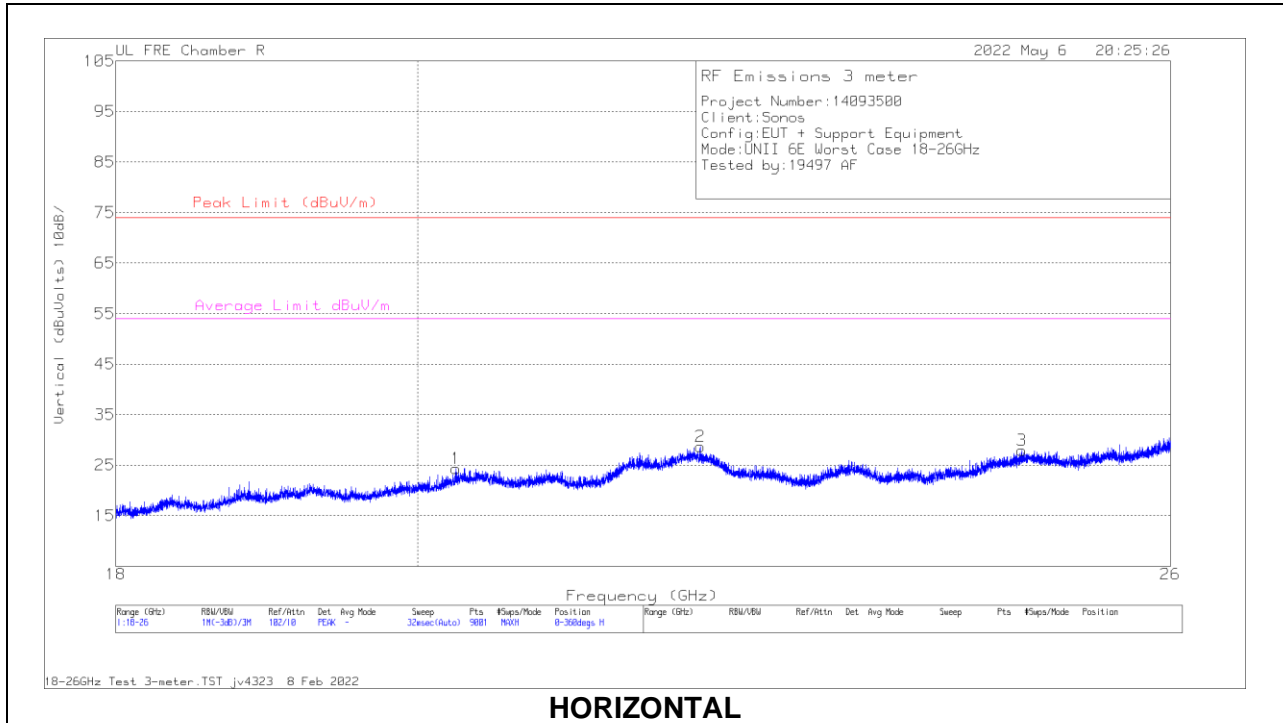
**Below 1 GHz DATA**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	171862 ACF (dB)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	145.053	42.83	Pk	18.5	-30.3	31.03	43.52	-12.49	0-360	200	H
2	477.548	41.98	Pk	23.5	-28.8	36.68	46.02	-9.34	0-360	200	H
3	719.995	41.66	Pk	26.2	-28.4	39.46	46.02	-6.56	0-360	200	H
4	960.07	38.18	Pk	28.8	-26.9	40.08	53.97	-13.89	0-360	100	H
5	35.7287	47.07	Pk	22.7	-31.3	38.47	40	-1.53	121	150	V
	35.7287	40.36	Qp	22.7	-31.3	31.76	40	-8.24	121	150	V
6	124.952	43.53	Pk	19.7	-30.5	32.73	43.52	-10.79	0-360	99	V
7	481.751	42.14	Pk	23.5	-28.8	36.84	46.02	-9.18	0-360	99	V
8	960.07	38.67	Pk	28.8	-26.9	40.57	53.97	-13.4	0-360	99	V

Pk - Peak detector

Qp - Quasi-Peak detector

### 10.4. WORST CASE 18-26 GHz



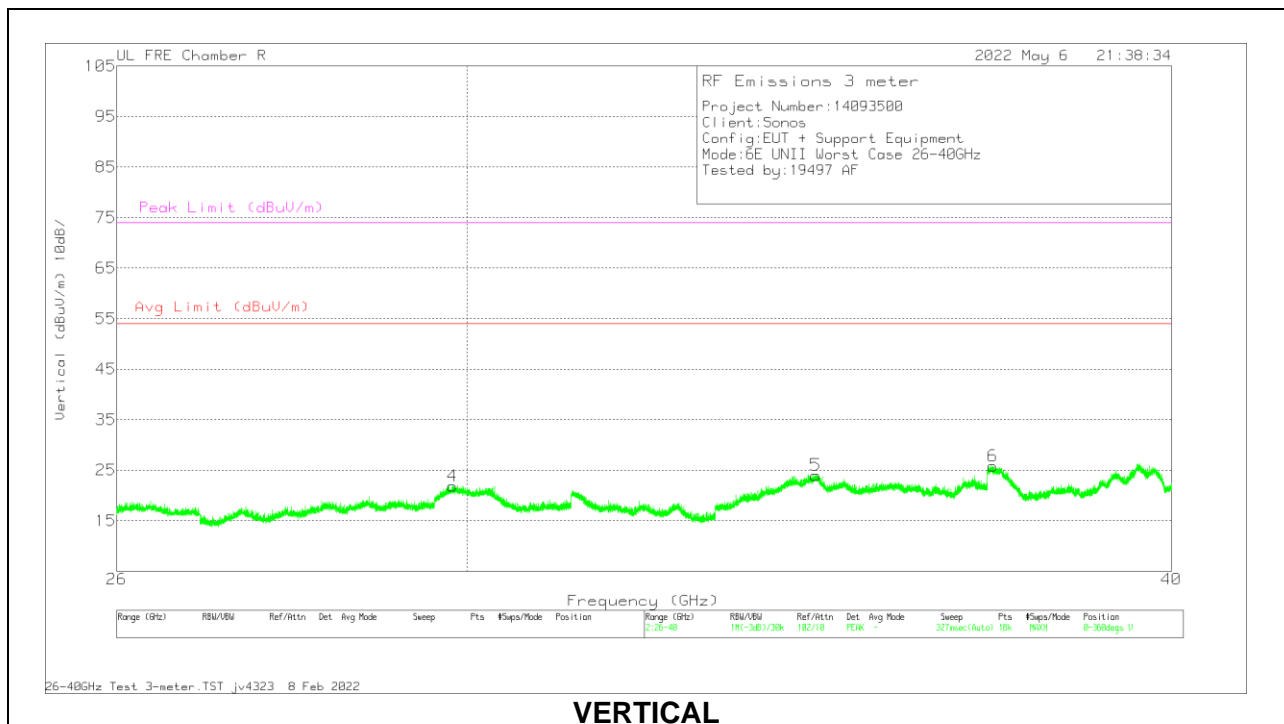
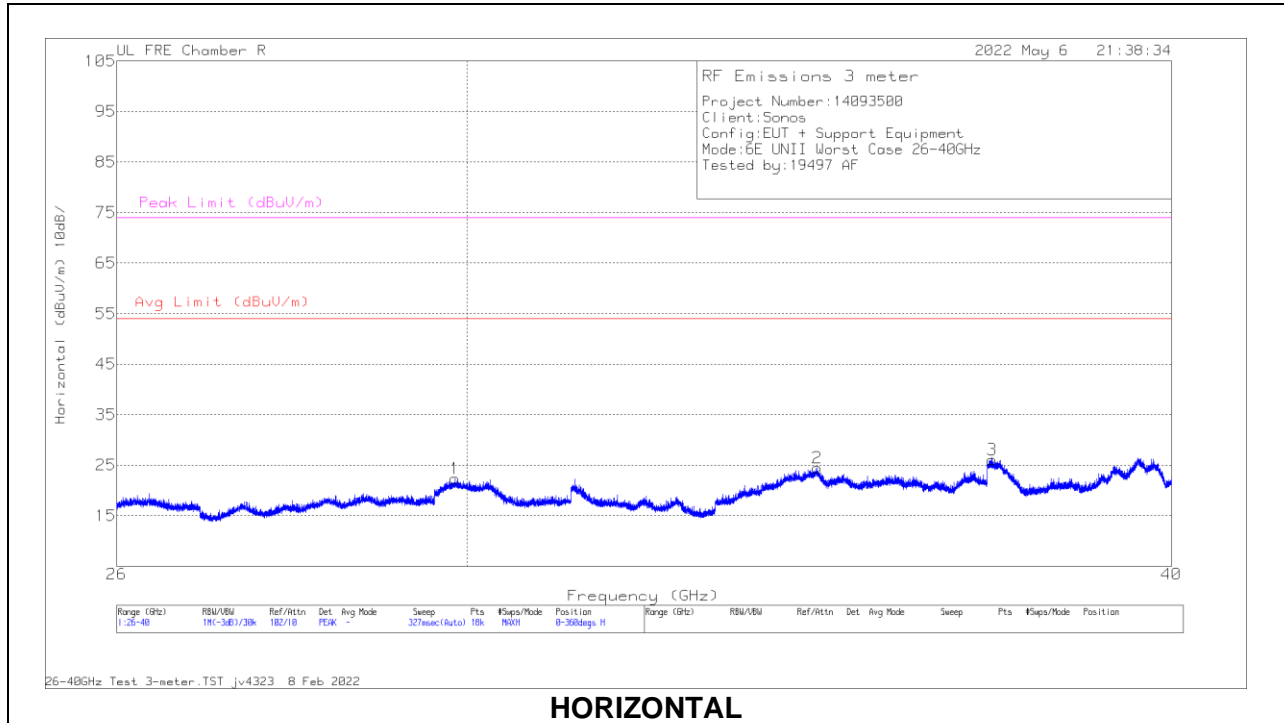
**18-26 GHz DATA**

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	172363 AF (dB/m)	171583 Amp (dB)	Cables (dB)	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	PK Margin (dB)	Average Limit dBuV/m	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 20.267556	40.19	Pk	33	-63.7	14.8	24.29	74	-49.71	54	-29.71	0-360	99	H
2	* 22.070223	44.83	Pk	33.5	-65.2	15.5	28.63	74	-45.37	54	-25.37	0-360	99	H
4	* 20.249778	39.01	Pk	32.9	-63.7	14.8	23.01	74	-50.99	54	-30.99	0-360	99	V
5	* 22.083556	43.74	Pk	33.5	-65.2	15.5	27.54	74	-46.46	54	-26.46	0-360	99	V
3	24.685334	41.3	Pk	34.5	-64.2	16.3	27.9	74	-46.1	54	-26.1	0-360	99	H
6	24.731556	40.59	Pk	34.6	-64.2	16.3	27.29	74	-46.71	54	-26.71	0-360	99	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 (GHz)	Meter Reading (dBuV)	Det	172366 AF (dB/m)	172346 Amp (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
4	29.824334	32.95	Avg	36.5	-65.7	18.1	21.85	54	-32.15	-	-	0-360	200	V
1	29.851557	33.33	Avg	36.5	-65.6	18.1	22.33	54	-31.67	-	-	0-360	100	H
5	34.591336	38.72	Avg	37.4	-71.8	19.7	24.02	54	-29.98	-	-	0-360	200	V
2	34.614669	39.15	Avg	37.4	-71.8	19.7	24.45	54	-29.55	-	-	0-360	100	H
3	37.179781	38.15	Avg	38	-70.6	20.5	26.05	54	-27.95	-	-	0-360	100	H
6	37.186781	37.88	Avg	38	-70.6	20.5	25.78	54	-28.22	-	-	0-360	200	V

Avg - Video bandwidth < Resolution bandwidth

## 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.

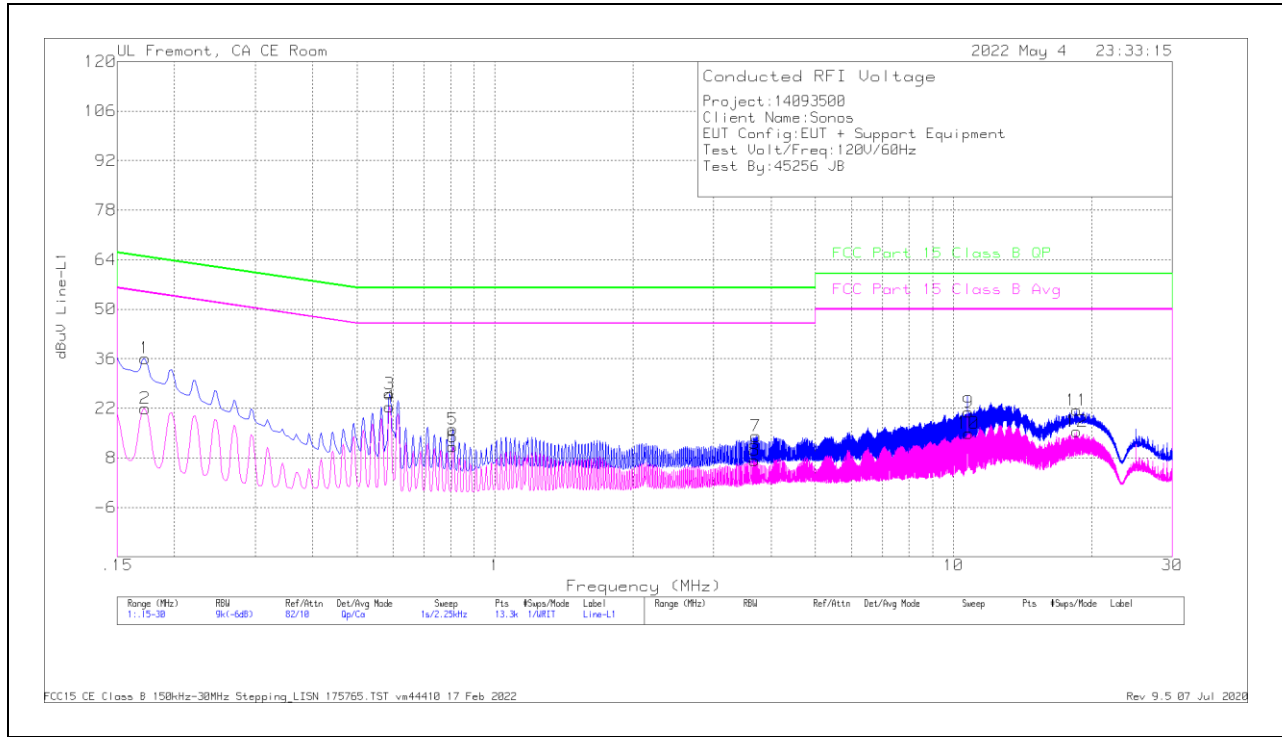
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

### RESULTS

**AC POWER LINE NORM**

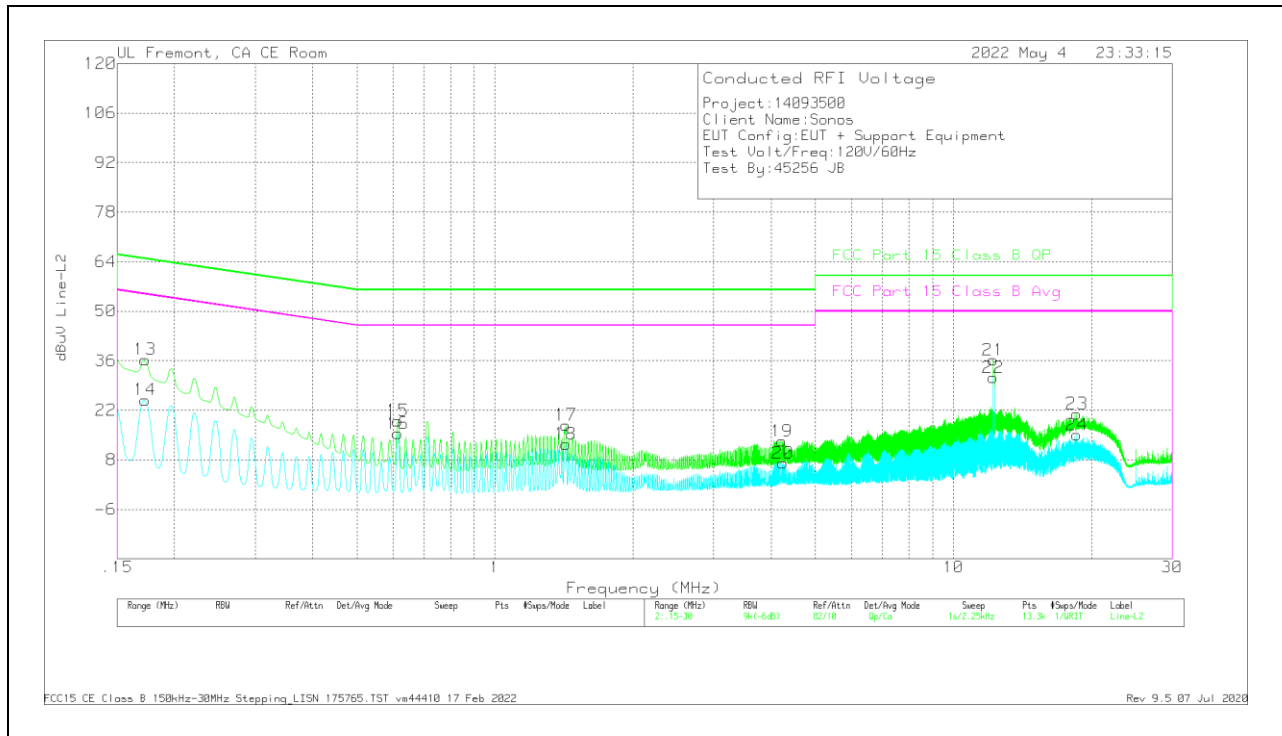
**LINE 1 RESULTS**



Range 1: Line-L1 .15 - 30MHz												
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	175765 LISN L1	C1&C3 cable	TekBox Limiter TBFL1 Model 207	Corrected Reading dBuV	FCC Part 15 Class B QP	QP Margin (dB)	FCC Part 15 Class B Avg	Av(CISPR)M argin (dB)	
2	.1725	12.43	Ca	.1	0	9.4	21.93	-	-	54.84	-32.91	
4	.58875	13.05	Ca	0	.1	9.3	22.45	-	-	46	-23.55	
6	.80925	1.71	Ca	0	.1	9.3	11.11	-	-	46	-34.89	
8	3.6825	-2.11	Ca	0	.1	9.3	7.29	-	-	46	-38.71	
10	10.77675	5.33	Ca	.1	.2	9.3	14.93	-	-	50	-35.07	
12	18.582	5.84	Ca	.1	.2	9.3	15.44	-	-	50	-34.56	
1	.1725	26.64	Qp	.1	0	9.4	36.14	64.84	-28.7	-	-	
3	.58875	16.65	Qp	0	.1	9.3	26.05	56	-29.95	-	-	
5	.80925	6.68	Qp	0	.1	9.3	16.08	56	-39.92	-	-	
7	3.70725	4.71	Qp	0	.1	9.3	14.11	56	-41.89	-	-	
9	10.7745	11.29	Qp	.1	.2	9.3	20.89	60	-39.11	-	-	
11	18.582	11.84	Qp	.1	.2	9.3	21.44	60	-38.56	-	-	

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	TekBox Limiter TBFL1 Model 207	Corrected Reading dBuV	FCC Part 15 Class B QP	QP Margin (dB)	FCC Part 15 Class B Avg	Av(CISPR)M argin (dB)
14	.1725	15.43	Ca	.1	0	9.4	24.93	-	-	54.84	-29.91
16	.6135	6.04	Ca	0	.1	9.3	15.44	-	-	46	-30.56
18	1.42575	3.03	Ca	0	.1	9.3	12.43	-	-	46	-33.57
20	4.24725	-2.35	Ca	0	.1	9.3	7.05	-	-	46	-38.95
22	12.19425	21.61	Ca	.1	.2	9.3	31.21	-	-	50	-18.79
24	18.58425	5.47	Ca	.1	.2	9.3	15.07	-	-	50	-34.93
13	.1725	26.81	Qp	.1	0	9.4	36.31	64.84	-28.53	-	-
15	.6135	9.62	Qp	0	.1	9.3	19.02	56	-36.98	-	-
17	1.428	8.4	Qp	0	.1	9.3	17.8	56	-38.2	-	-
19	4.2225	3.86	Qp	0	.1	9.3	13.26	56	-42.74	-	-
21	12.19425	26.59	Qp	.1	.2	9.3	36.19	60	-23.81	-	-
23	18.58425	11.36	Qp	.1	.2	9.3	20.96	60	-39.04	-	-

Qp - Quasi-Peak detector  
 Ca - CISPR average detection